

RESEARCH HANDBOOK ON Intellectual Property and Digital Technologies

Edited by
Tanya Aplin



RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND DIGITAL TECHNOLOGIES

RESEARCH HANDBOOKS IN INTELLECTUAL PROPERTY

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Preface

Digital technologies dominate today's society, in a manner that we could not have anticipated when the first digital computers emerged in the 1950s. Nowadays, we take for granted that personal computers, portable mobile phones, tablets, digital cameras and recording devices are ubiquitous. We do not think twice about streaming our favourite books, music and films 'on the go' through wireless communication technologies or participating in online communities in which we create and share content, or through which we buy, sell and exchange items, at the click of a button or a simple voice activation tool. We also live in a world where we collectively generate huge volumes of data, which can be mined rapidly for patterns, and from which algorithms can predict behaviour or generate new content. In short, we are in the midst of the digital revolution – and have been for some decades – and this brings with it many challenges, of which legal regulation is one.

This Handbook focuses on intellectual property law and the role that it plays in regulating digital technologies. This is because intellectual property law governs how we protect intellectual creations and technological innovations and thus is bound to be a site of contest in relation to digital technologies. While several digital developments may implicate more than one intellectual property right, this book is organised according to types of intellectual property right – Part 1: copyright and related rights, Part 2: patents and trade secrets, Part 3: trade mark law and designs – and within these divisions according to technological phenomena (software, databases, big data, user generated content, ebooks, streaming, artificial intelligence, domain names, metatags, adwords, and 3D printing). The reason for this choice is because some technologies fall primarily within one type of intellectual property right and, even where several rights are involved, different issues arise that deserve separate treatment. Part 4: competition and enforcement explores issues that cut across all these areas of technology – examining civil, criminal and technological measures that may be used to enforce intellectual property rights in a digital landscape.

The purpose of each chapter is to provide a scholarly account of the relationship between particular intellectual property rights and relevant facets of digital technology, to reflect on the normative dilemmas these relationships pose and to identify potential future challenges. Each contributor has sought to frame their discussion within an international, EU and/or US legal context and, where appropriate, that of other national jurisdictions. During the writing and publication process legislative and case developments have moved apace and contributors have done their best to incorporate these. Although digital technologies and the law applying to them may be dynamic, the chapters in this volume are designed to provide a collection of enduring reflections on the legal issues at stake.

Tanya Aplin
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PART I

COPYRIGHT AND RELATED RIGHTS

1. Software and graphical user interfaces

Noam Shemtov

1. INTRODUCTION

But for the breakthrough innovators of the 21st century, design has moved onto a much larger stage. It is where high function meets high style. And the traditional disciplines of IP – patents, trademarks and copyrights – are no longer ends unto themselves but are now viewed as component parts of a larger whole. This ‘design in the large’ is driving new business strategies and success as never before, as leading-edge companies harness the power of converging IP disciplines to deliver brands, inventions and content that differentiate not just their products in the market, but the companies themselves.¹

In the above quotation David Kappos refers to the significance of designs and, in particular, ‘designs in the large’ to the overall success of products and services. Copyright, patent, trademark and industrial design laws are used in conjunction to provide a multilayered tapestry of protection to products’ get-up or trade dress. In the case of software-based products or services, legal protection of graphical user interfaces (GUIs) is of particular significance.

During the past decade or so, software-based devices developed significant capabilities to process, manipulate, store and present data. Obviously, such capabilities would be of little benefit if users could not access and make use of them with ease. Market players in this area invest considerable resources in developing GUIs that enable users to do just that and, in so doing, render their device, their software or their service more appealing to consumers. Manufacturers often use the same GUI across a variety of devices – a ‘house style’² – so that consumers became accustomed to its ‘look and feel’ and develop loyalty to that particular brand. The substantial investment made in developing GUIs is primarily protected through intellectual property laws.

However, the implications of protecting GUIs under intellectual property laws are potentially far reaching. Take for example, the following advertisement from Corel: ‘With a familiar Ribbon-style interface, Corel® Office looks like the office software you’re used to, making it easy to get to work right away.’³ What is the most likely reason for Corel’s reproduction of Microsoft’s working environment? Is it its wish to appropriate the technical ingenuity

¹ David Kappos, ‘The New Frontier of Intellectual Property’ (*The National Law Journal*, 22 April 2013) <www.cravath.com/files/Uploads/Documents/Publications/3407702_1.pdf> accessed 23 October 2019. Mr Kappos was Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office (USPTO) from 2009 to 2013, and was Vice President for Intellectual Property for IBM.

² For example, see Apple’s GUI in its iPhone, iPod and iPad products.

³ Part of Corel’s advertising, as referred to in Microsoft’s claim against Corel, filed in the Northern District Court of California on 28/12/2015; see <https://regmedia.co.uk/2015/12/30/msft_v_corel.pdf> accessed 23 October 2019. On 13 February 2018 a jury verdict was delivered in favour of Microsoft, finding infringement by Corel in relation to two utility patents and four design patents: see Case 5:15-cv-05836-EJD Document 319 Filed 02/13/18, at <www.ipwatchdog.com/wpcontent/uploads/2018/02/05836-jury-verdict.pdf>.

embedded in this working environment? Is it about appropriating its aesthetics as it enhances the product's appeal? Or is it about Microsoft Office's GUI as an indication of origin with which Corel wishes to affiliate itself? It might very well be that the answer to all of these questions is, to an extent, affirmative. However, most likely the main reason for reproducing the Microsoft Office working environment is Microsoft's existing customer base, who might be 'locked' into that particular product, in that they are now accustomed to its particular method of operation and behaviour and are not likely to switch to another working environment easily, even if the latter is objectively preferable. In this context, it is useful to recall Judge Boudin's concurring opinion in *Lotus Dev. Corp. v Borland Int'l, Inc.*⁴ The case concerned copyright infringement in a menu command hierarchy, an element of a GUI. It addressed, inter alia, the phenomenon of consumers' 'lock in' in relation to user interfaces and the 'cost' involved in protecting a method of operation under copyright law. The problematic repercussions of protecting user interface components under the circumstances were well captured in Judge Boudin's opinion, where he observed:

But if a better spreadsheet comes along, it is hard to see why customers who have learned the Lotus menu and devised macros for it should remain captives of Lotus because of an investment in learning made by the users and not by Lotus. Lotus has already reaped a substantial reward for being first; assuming that the Borland program is now better, good reasons exist for freeing it to attract old Lotus customers: to enable the old customers to take advantage of a new advance, and to reward Borland in turn for making a better product. If Borland has not made a better product, then customers will remain with Lotus anyway.⁵

It is often the case that notwithstanding the underlying code, a major element of the commercial value of a piece of software rests with its user interface and how it appeals to software users. Issues such as the GUI's eye appeal, how intuitive it is to use and its 'user-friendliness' will be crucial to the success of a given software-driven product or service. Where that is the case, attempts to replicate such GUI aspects are to be expected. The extent to which intellectual property laws in the EU may regulate such attempts is the focus of this chapter.

The term GUI has been described by the Court of Justice of the European Union (CJEU) as an 'interaction interface which enables communication between the computer program and the user'.⁶ The term GUI will be used here in a broad sense to include both textual and graphical elements of users' screen displays. This chapter will focus its discussion on three categories of GUI elements: (1) the desktop – referring to the entire display area; (2) static components – the items appearing on the display area, such as pointers, icons and menus; and (3) animated effects or motion features, such as the gene effect on the Mac operating system. Additionally, this chapter will address the impact made by GUIs on the user in a broader sense, referring to the 'look and feel' of software which is generated by these three GUI categories.

The analysis below is conducted under four distinct branches of intellectual property law: copyright, patents, design law and trade dress protection (to the extent that such protection is

⁴ (1st Cir. 1995) 49 F.3d 807, 815.

⁵ *ibid* para 78.

⁶ Case C-393/09 *Bezpečnostní Softwarová Asociace – Svaz Softwarové Ochrany v Ministerstvo Kultury* [2011] FSR 18 ('BSA') para 40.

available under trade mark law). When examining the protectability of GUIs under EU law,⁷ it should be borne in mind that often GUIs are both aesthetic and functional. As we shall see, this duality poses specific challenges to the intellectual property law framework.

2. THE PROTECTABILITY OF GUIs UNDER COPYRIGHT LAW

While it is hardly arguable these days that software's underlying code, including the part responsible for the GUI, is protectable under copyright law, the protectability of software's visual aspects under copyright law is somewhat more contentious. Moreover, copyright eligibility for software's overall 'look and feel', often generated by the GUI, which in turn constitutes its user experience, is not straightforward. As we shall see, such assessment is highly fact sensitive and must factor in considerations that may vary extensively between one set of factual circumstances and another.

2.1 Background Statutory Framework

At first glance the statutory framework that governs copyright protectability of various aspects of computer programs is clearly identifiable as the Software Directive.⁸ Thus, Recital 7 of the Software Directive provides:

For the purpose of this Directive, the term 'computer program' shall include programs in any form, including those which are incorporated into hardware. This term also includes preparatory design work leading to the development of a computer program provided that the nature of the preparatory work is such that a computer program can result from it at a later stage.

However, in *BSA*,⁹ the CJEU concluded that the protectability of GUIs in their non-code form is not governed by the Software Directive but rather by the Information Society Directive.¹⁰ Of particular relevance to the present context was the first question referred by the regional Court of Prague, which essentially enquired whether Article 1 of the Software Directive should be 'interpreted as meaning that, for the purposes of the copyright protection of a computer program as a work under that directive, the phrase "the expression in any form of a computer program" also includes the graphic user interface of the computer programme or part thereof?'¹¹

The CJEU's reply was negative. It maintained that the objective of the Software Directive is to afford 'expression in any form of a computer program which permits reproduction in different computer languages, such as the source code and the object code'.¹² This being

⁷ In the case of patent law, I refer to the European Patent Convention 1973 (EPC) and the jurisprudence developed by the European Patent Office (EPO); this legal framework is applicable throughout the EU.

⁸ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.

⁹ *Bezpečnostní* (n 6).

¹⁰ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.

¹¹ *Bezpečnostní* (n 6) para 21.

¹² *Bezpečnostní* (n 6) para 35.

so, it followed that as ‘the [GUI] does not enable the reproduction of the computer program itself, but merely constitutes one element of that program by means of which users make use of the features of that program’,¹³ it did not constitute a ‘computer program’ within the meaning of the Software Directive. This, of course, does not mean that GUIs or parts thereof are not eligible for copyright protection per se, but merely provides that such protection is not afforded under the Software Directive. Hence, the CJEU explained that just like any other authorial work, a GUI or components thereof might qualify as a protectable subject matter under the Information Society Directive. It stressed, however, that ‘where the expression of those components is dictated by their technical function, the criterion of originality is not met, since the different methods of implementing an idea are so limited that the idea and the expression become indissociable’.¹⁴ Hence, the court stipulated that when assessing copyright eligibility of GUIs or components thereof, one should examine whether the form in which such components are expressed is dictated by functional considerations. Where this is the case, the GUI at issue, or components thereof, will be considered as not meeting the originality criterion and thus not eligible for copyright protection. This raises the question: When is a component ‘dictated’ by functional considerations? Is it about the motivation behind a given design choice? Is about the number of available alternatives? It appears that the CJEU favours the latter interpretation, essentially referring to a merger-like consideration according to which there are either no available alternatives or the number of such alternatives is highly limited.

The *BSA* ruling should not be taken as implying that the Software Directive has no role to play in determining protectability of GUIs or elements thereof under copyright law. In this context, Recital 20 of the Information Society Directive should be borne in mind. It states:

This Directive is based on principles and rules already laid down in the Directives currently in force in this area, in particular [Directive 91/250], and it develops those principles and rules and places them in the context of the information society. The provisions of this Directive should be without prejudice to the provisions of those Directives, unless otherwise provided in this Directive.

It follows that when interpreting and applying the provisions of the Information Society Directive, it might be necessary to use as an interpretative tool the rules and principles established under the Software Directive.

2.2 Eligibility

The starting point for establishing the criteria for copyright protection under the Information Society Directive is the CJEU decision in *Infopaq*.¹⁵ Notwithstanding the fact that the Directive does not explicitly stipulate a general eligibility criterion, and in particular does not seek to define a unified originality threshold, the CJEU found that such a threshold could in fact be discerned by reading the Directive rather broadly; hence, a harmonised EU originality threshold was identified as the ‘author’s own intellectual creation’. The court arrived at this conclusion by drawing support from the fact that this threshold has been explicitly stipulated in

¹³ *Bezpečnostní* (n 6) para 41.

¹⁴ *Bezpečnostní* (n 6) para 49.

¹⁵ Case C-5/08 *Infopaq International A/S v Danske Dagblades Forening* [2010] FSR 20.

other Directives, such as the Software Directive and the Database Directive,¹⁶ on the principles of which the Information Society Directive was based. According to the court, this effectively means that the same originality standard should be applied across the board, whether or not the subject matter at issue relates to computer programs or databases, including in instances where the copyright-eligible subject matter is governed by the Information Society Directive.¹⁷ A significant part of the criticism levelled against the creation of a unified originality criterion without any explicit basis in the Information Society Directive originated from the UK, which had traditionally adhered to the ‘skill, labour and judgement’ test for evaluating originality. *Infopaq* implied, and indeed the Opinion of the Advocate General in *Football Dataco* confirmed, that the skill, labour and judgement criterion constituted a lower, more easily met, threshold in comparison with the EU threshold of ‘author’s own intellectual creation’.¹⁸

Consequently, the present legal position provides that (1) the protectability of GUIs as a copyright work is governed by the Information Society Directive; (2) the originality threshold under the said Directive means the author’s own intellectual creation; and (3) GUI elements dictated by their technical function are not ‘original’ within the meaning of the Information Society Directive. While the exclusion of elements dictated by technical function may appear to be clear, this requires further elaboration.

The CJEU referred to the nature of this harmonised originality test in several rulings, each dealing with a different subject matter, varying from football matches to photographs to databases. Hence, in *Painer* the court stated that: ‘an intellectual creation is an author’s own if it reflects the author’s personality’.¹⁹ It explained: ‘[t]hat is the case if the author was able to express his creative abilities in the production of the work by making free and creative choices’.²⁰ It is by making these choices that the author stamps the created work with his ‘personal touch’.²¹ The same reference to the author’s ‘personal touch’ by virtue of his free and creative choices was made in *Football Dataco*: ‘that criterion of originality is satisfied when, through the selection or arrangement of the data which it contains, its author expresses his creative ability in an original manner by making free and creative choices’.²² The CJEU stressed: ‘[b]y contrast, that criterion is not satisfied when the setting up of the database is dictated by technical considerations, rules or constraints which leave *no room for creative freedom*’ (emphasis added).²³ The same test was also used by the court in a case relating to software, where the particular subject matter was, like GUIs, thought to be protectable under the Information

¹⁶ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.

¹⁷ The CJEU decision in *Infopaq* was heavily criticised, inter alia, on the grounds that the court effectively engaged in lawmaking rather than simply interpreting the Directive: see, for example, L. Bently ‘Harmonisation by Stealth: Copyright and the ECJ’ Presentation at 20th Annual Intellectual Property Law & Policy Conference (April 2012) available at <http://fordhamipconference.com/wp-content/uploads/2010/08/Bently_Harmonization.pdf> accessed 23 October 2019; S. Vousden, ‘Infopaq and the Europeanisation of Copyright Law’ (2010) 1 WIPOJ 197; E. Rosati, ‘Originality in a Work, or a Work of Originality: The Effects of the Infopaq Decision’ [2011] 33 EIPR 746.

¹⁸ See Case C-604/10 *Football Dataco Ltd, and others v Yahoo! UK Ltd and others* [2012] 2 CMLR 24, Opinion of AG Mengozzi, para AG37.

¹⁹ C-145/10 *Eva-Maria Painer v Standard Verlags GmbH* [2011] ECDR 297, para 88.

²⁰ *ibid* para 89.

²¹ *ibid* para 92.

²² *Football Dataco* (n 18) para 38.

²³ *Football Dataco* (n 18) para 39.

Society Directive rather than the Software Directive. Hence, on the issue of whether and to what extent items such as keywords, syntax and commands constituted ‘intellectual creation’, the CJEU in *SAS* maintained that ‘[i]t is only through the choice, sequence and combination of those words, figures or mathematical concepts that the author may express his creativity in an original manner and achieve a result, namely the user manual for the computer program, which is an intellectual creation’.²⁴ Finally, explicitly referring to originality in GUIs, the court in *BSA* provided that ‘the national court must take account, inter alia, of the specific arrangement or configuration of all the components which form part of the graphic user interface in order to determine which meet the criterion of originality. In that regard, that criterion cannot be met by components of the graphic user interface which are differentiated only by their technical function’.²⁵

Thus, according to the CJEU, the concept of ‘the author’s own intellectual creation’ indicates the following: (1) a laborious, time and cost intensive, yet mechanical creation process will not suffice; (2) in order to be considered ‘intellectual’ rather than a mechanical creation, the authorial process should involve ‘free and creative’ choices; hence, not only must intellectual creation involve a degree of freedom of choice, but such free choices must also be creative. At first glance the requirement for ‘creativity’ appears to add little to the concept of freedom of choice. Could a choice that was not wholly dictated by external considerations, such as functionality, and in that sense ‘free’ not be considered as ‘creative’ within copyright law’s context? After all, it is trite law that no qualitative filter should be used when assessing originality. If this is so, what is the difference between mere ‘free choice’ and both ‘free and creative’ choice? Some commentators appear to hold the view that ‘to choose is not equivalent to create’.²⁶ In order to illustrate such difference, Waisman gives one Argentine judgment as an example, in which it was concluded that the expression ‘jeans for men and women between two and twelve years old’ could not be considered original.²⁷ She contends that it is difficult to argue that this phrase does not result from its author’s free choice, or that the author had no alternatives to convey the same message. It is suggested that the actual basis for the Argentine decision may have been the mundane and commonplace nature of the said phrase; in this sense it may be described as a noncreative choice by the author. In GUI context it adds very little, as it suggests that mundane and commonplace designs, whether for desktops, outlays or individual items, will not meet the required originality threshold.

The above discussion supports a number of inferences. First, and most importantly, the expressive nature of the GUI is not outweighed by its utilitarian objective. Hence, unlike the Court of Appeals for the First Circuit in *Lotus*,²⁸ and similar to the Court of Appeal for the Federal Circuit in *Oracle v Google*,²⁹ the CJEU does not maintain that once a functional objective of a subject matter or part thereof has been clearly identified, the inquiry as to copyright eligibility should be terminated and the said item should be tagged as noncopyrightable under the idea–expression dichotomy. Rather, what should be determined is whether the manner in

²⁴ Case C-406/10 *SAS Institute v World Programming* [2012] 3 CMLR 4, para 67.

²⁵ *Bezpečnostní* (n 6) para 48.

²⁶ See, for example, Alain Strowel, *Droit d’Auteur et Copyright – Divergentes et convergentes. Etude de droit comparé* (Bruylant Bruxelles LGDJ Paris 1993), 406.

²⁷ Augustin Waisman, ‘Revisiting Originality’ [2009] EIPR 370, 375.

²⁸ *Lotus* (n 4).

²⁹ *Oracle Am. Inc. v Google Inc.* (2014) 750 F.3d 1339 (Fed. Cir.).

which the said utilitarian item was expressed was dictated by functionality without there being a reasonable number of alternatives to express that item. Where there are such alternatives, copyright protection may be afforded, subject to a showing that the chosen form of expression resulted from the exercise of free and creative choices. In this context it should be borne in mind that even where functional constraints do not dictate the chosen form of expression and some free choice is exercised, the originality threshold nevertheless may not be met where such choices are commonplace.

Although the relevant passage in the *BSA* decision focuses on selection and configuration of all the components of a GUI,³⁰ it is submitted that the same rules should equally apply to individual GUI components. Hence, although it may be more burdensome to successfully establish that an individual component resulted from free and creative exercise of choice, it is perfectly possible to do so under suitable circumstances. This holds in relation to both static and animated GUI components. Not all instances where there is some freedom of choice in coming up with a certain GUI design automatically result in ‘intellectual creation’; such free choice must also be ‘creative’, as in originating from the author rather than being commonplace. In this context, it must be borne in mind that a ‘creative’ element in a decision to make a certain GUI function available in a particular instance of user–software interaction is not taken into account when assessing originality; rather, it is more likely to reside on the ‘idea’ side of the idea–expression divide. It is only the ‘creative’ element that goes into the decision to express such a function in a particular way in a GUI that could render the component representing this function copyright-eligible. Hence, a certain artwork representing an icon may be considered as copyright-eligible due to the fact that its configuration and design was neither dictated by functional considerations nor commonplace or mundane. The same principle would apply to pointers, although for obvious reasons it is less likely that many would successfully meet this requirement. When considering menus, an approach similar to that taken in relation to compilations could be followed; namely, whether the selection and arrangement of items in the said menu reflects the author’s free and creative choices. As mentioned, the fact that an item is designed primarily in order to achieve a functional utilitarian objective should not render it non-eligible to copyright protection.

Finally, when referring to the overall ‘look and feel’ of a GUI, it may be useful to break this down into its constituent parts: (1) look and (2) feel.³¹ The discussion above mainly relates to the various aspects of the ‘look’ element. Turning to the ‘feel’ factor, its eligibility for copyright protection may be more contentious. Speaking of the ‘feel’ factor of a GUI usually relates to the interactions enabled by such GUI, for example, the manner in which functions are selected and performed. Such issues are essentially one facet of a larger software functionality debate. This debate is discussed in detail in Chapter 2.

2.3 Scope of Protection

Once it has been established that a given GUI or components thereof are eligible for copyright protection, the next question might be: under which circumstances may copyright infringement in relation to the said GUI take place?

³⁰ *Bezpečnostní* (n 6) para 48.

³¹ In juridical contexts, this term originates from US jurisprudence; to the best of this author’s knowledge, it has not yet been employed by the CJEU.

The decision of the CJEU in *Infopaq* suggests that, in essence, the infringement question under the Information Society Directive is conceptually related to the eligibility assessment. The court stated:

the reproduction of an extract of a protected work which, like those at issue in the main proceedings . . . is such as to constitute reproduction in part within the meaning of Article 2 of Directive 2001/29, if that extract contains an element of the work which, as such, expresses the author's own intellectual creation; it is for the national court to make this determination.³²

Therefore, when determining whether the part taken is sufficient to constitute copyright infringement, the court must assess whether such part reflects the author's own intellectual creation. In order to do so, the court must evaluate whether the part taken meets the eligibility criteria discussed above.

Unlike the position under US law, where *prima facie* infringement may still be excused under the fair use defence, EU copyright law does not provide for a similar overarching judicial mechanism. In the GUI context, which is primarily intended to enable interaction between software and its users, Judge Boudin's statement should be borne in mind. In *Lotus* the court held the menu command hierarchy at issue ineligible for copyright protection on the basis of its functional nature. This approach was heavily criticised by the Court of Appeals for the Federal Circuit in *Oracle v Google*, which contended that the functional nature of the subject matter at issue should not per se impact its eligibility for copyright protection; rather, courts should focus on the manner in which the author chooses to express such subject matter. Where the chosen form of expression was not dictated by functionality, the court should find in favour of copyright eligibility, notwithstanding any functional objective. The court in *Oracle* therefore overturned the lower court's decision and found Oracle APIs to be eligible for copyright protection. The court, however, stressed that Google's argument regarding commercial interoperability, although irrelevant for the eligibility inquiry, was clearly relevant for any fair use inquiry.³³ In fact, on 26 May 2016 a jury found in favour of Google on that basis. This decision, however, was overturned on its facts by the Court of Appeals for the Federal Circuit on 27 March 2018. The court reversed the jury's verdict and found that Google's use of Java's APIs in order to create the Android operating system was not fair use. The court was not convinced by Google's argument regarding commercial interoperability in this context.³⁴

Whether one favours the approach taken in *Lotus* or the one in *Oracle v Google*, it is suggested that neither approach may be open to an EU member state court when confronted with a scenario similar to the one described by Judge Boudin in *Lotus*. As mentioned earlier, the CJEU appears to have opted against the *Lotus* approach by focusing on the free and creative choices available to the author at the point of creation, rather than on the nature of the subject

³² *Infopaq* (n 15) para 48.

³³ The court stated: 'while we have concluded that it was error for the trial court to focus unduly on the functional aspects of the packages, and on Google's competitive desire to achieve commercial "interoperability" when deciding whether Oracle's API packages are entitled to copyright protection, we expressly noted that these factors may be relevant to a fair use analysis' (*Oracle* (n 29) 1364).

³⁴ When it implemented its Android operating system Google wrote its own Java. However, in order to enable developers that are accustomed to Java to write their programs for the Android operating system, Google used the same names, organization and functionalities of Java APIs. Therefore, one of the questions in this case was whether the need to have commercial interoperability between Google and the Java developers community weighed in favour of fair use.

matter. But the approach endorsed by the *Oracle v Google* court is not open to an EU court simply because the Information Society Directive does not contain anything that remotely resembles the US fair use defence.³⁵ Hence, pro-interoperability arguments similar to those made by Google have no place within the present EU copyright framework. If at all, such concerns may potentially be accommodated by EU competition law in a case of refusal to licence.³⁶

2.4 Summation

In conclusion, it appears that GUIs or components thereof are eligible for copyright protection as long as they result from the exercise of free and creative choices made by the author. Essentially, this means that such choices should not be mundane or commonplace, and should not be dictated by technical function in the sense of having either no alternative designs or a very limited number of designs capable of performing the sought after function. It is suggested that in the majority of cases involving GUI designs, choices made in expressing such designs are not likely to be considered as dictated by technical function *stricto sensu*. In this context it should be stressed that the fact that a GUI or component thereof is designed to serve a functional objective of itself is of little consequence. Moreover, the fact that it is designed to serve a technical objective does not compromise its scope of protection, and the need to replicate such GUI or component thereof in order to make a certain software-based product or service more accessible to its potential user community in a manner similar to *Lotus* cannot be accommodated favourably under the EU's copyright regime.³⁷

The position under EU law is somewhat unsatisfactory. It is submitted that the technical function of a given subject matter should play a role in determining its protectability under copyright law, even where such function did not dictate the form in which the said subject matter was originally expressed. Thus, even if a GUI designer had multiple choices at the point of time of designing a GUI, it may nevertheless be the case that due to the popularity of the said GUI, which was obviously gained after it was created, it had become functional in the sense of the user community's familiarity with it and their likely reluctance to migrate to a competing, different looking GUI design. Where this is so, there might be convincing reasons for allowing a competitor to emulate the key elements of the appearance of such GUI in order to enter the market and offer viable alternatives. Referring the competitor in such instances to competition law misses the point; it is the public policy considerations that stand at the heart of copyright law that may justify suspension of our general rules on protectability in the case of a design that is judged to be functional at the point of time in which the alleged infringement takes place.

³⁵ Notwithstanding the fact that in reversing the Jury's verdict, the court of appeal in *Oracle* concluded that Google's use did not amount to fair use under the circumstances of the case.

³⁶ The successful application of Article 102 of the Treaty on the Functioning of the European Union under such circumstances is likely to be in the rarest of cases, as was the case with the decision in Case T-201/04 *Microsoft Corp v Commission* [2007] 5 CMLR 11.

³⁷ *Lotus* (n 4).

3. PATENTING ELEMENTS OF GRAPHICAL USER INTERFACES

Patent eligibility of software-implemented inventions in general is discussed in detail in Chapter 13. The discussion below focuses on patent protection for GUIs.

3.1 Legislative Framework

Article 52 of the European Patent Convention (EPC) defines what constitutes patentable subject matter under the convention. It reads:

- (1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.
- (2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:
 - (a) discoveries, scientific theories and mathematical methods;
 - (b) aesthetic creations;
 - (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
 - (d) presentations of information.
- (3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.

In essence, in order to obtain patent protection, the subject matter of the application must constitute an invention, involve novelty and inventive step and be capable of industrial application.³⁸ While the requirements of industrial application and novelty must be complied with, they do not generally call upon special considerations in relation to GUI-related inventions and therefore will not be discussed in detail.

Articles 52(2) and (3) provide that a patent application that relates, inter alia, to schemes, rules and methods for performing mental acts, for playing games or doing business, for ‘presentation of information’ or a ‘computer program’ *as such* should be refused on the grounds of not being an ‘invention’ within the meaning of the EPC. Although in the past Article 52 used to be the main filter for excluding non-patentable subject matter in the case of computer implemented inventions at the EPO, this is no longer the case. In a series of decisions, the EPO gradually abandoned its earlier approach in favour of what is sometimes referred as the ‘whole content’ approach or ‘any hardware’ approach.³⁹ According to this approach, an application is not likely to fall foul of Article 52 as long as the claimed subject matter as a whole manifests a technical character. Such technical character will be manifested for the purpose of Article 52 whenever the subject matter is claimed in relation to a piece of hardware such as a computer rather than in abstract. This, however, does not mean that any computer-related application drafted in such a manner is likely to overcome the obstacle of the excluded areas identified in

³⁸ Exceptions to patentability under Article 53 are of less relevance to the present discussion.

³⁹ On case law development of the EPO in relation to computer implemented inventions see N. Shemtov, ‘The Characteristics of Technical Character and the Ongoing Saga in the EPO and the English Courts’ (2009) 4 JIPLP 506; it is noteworthy that English courts still follow the earlier ‘technical contribution’ approach and filter out ineligible computer-related applications on the basis Article 52.

Article 52. Thus, the excluded list under Article 52 still plays a vital role in evaluating computer implemented inventions, but the focus has now shifted to Article 56, which concerns the requirement of inventive step.⁴⁰ Hence, the excluded subject matter hurdle has essentially been moved from the eligibility enquiry stage to the patentability examination stage.

Only features that manifest technical character are taken into consideration when assessing an invention for novelty and inventive step. Thus, where the features distinguishing the invention at issue from the state of the art are considered non-technical and hence not taken into consideration, such invention is not likely to meet the requirements of Article 56, as it is likely to be obvious to the person skilled at the art. For example, where the distinguishing features are classified as being wholly within the field of ‘presentation of information’, they will be considered as nontechnical and therefore as being part of the state of the art for the purpose of assessing inventive step. Obviously, when what sets the invention apart from the state of the art, as a legal fiction, is considered part of the state of the art, and there is nothing ‘technical’ left in the application to differentiate the invention from the state of the art in a nonobvious manner, an inventive step assessment is likely to conclude that the invention at issue does not involve an inventive step.

3.2 GUIs and Technical Character

Ultimately, an inventive step assessment in the present context hinges on the determination of what does and does not constitute a technical effect or technical character. There is no clear general definition of what constitutes a technical effect, either in the EPC, in the Implementing Regulations,⁴¹ or in the jurisprudence of the Boards of Appeal. A good guide is a series of individual decisions of the Boards of Appeal where technicality was established; as previously mentioned, the list of exclusions under Article 52 may also be useful in this context.

The jurisprudence of the EPO on which aspects of GUI may or may not have a technical effect, and therefore not be automatically considered as part of the state of the art, is fairly mixed, although the direction of travel appears to be fairly consistent in the past few years; a stricter approach and a fairly narrow definition to the concept of technical effect are emerging as dominant in the EPO case law in relation to GUI. The Guidelines for Examination appear to define what constitutes the excluded ‘Presentation of Information’ category within the meaning of Article 52(2)(d), so that both the cognitive content and the manner in which the information is presented are likely to be considered as excluded aspects, while the technical means used to generate such presentation are not so excluded.⁴² However, the Guidelines may be oversimplifying the present legal position. It is submitted that although the manner in which the information is presented may not be considered as having a technical effect simply because it is claimed that it reduces the cognitive burden on the user, a technical effect may neverthe-

⁴⁰ The list of noninventions under Article 52 may still play a role under the eligibility enquiry where the application as a whole does not manifest a technical character. However, as mentioned, the vast majority of cases involving computer implemented inventions manage to overcome this hurdle by drafting the application in manner involving technical hardware (cf. industrial application).

⁴¹ Implementing Regulations to the Convention on the Grant of European Patents of 5 October 1973, as adopted by decision of the Administrative Council of the European Patent Organisation of 7 December 2006 and as last amended by decision of the Administrative Council of the European Patent Organisation of 14 October 2015.

⁴² Guidelines for Examination, G-II, 3.7.

less be constituted by establishing, for example, that the claimed manner of presentation has a certain objectively verified physiological effect on the user. This is so since while the former is essentially subjective and may vary from one user to another, the latter could in principle be objectively verified and hence fit better into the definition of technical character. The shift in the Boards of Appeal's view on what constitutes technical effect and technical character in the context of GUI may be demonstrated by a brief examination of a number of key decisions on this point.

3.2.1 Technical effect in lowering cognitive burden – the previous position

The decision of the Technical Board of Appeal in T333/95 serves as a starting point for examining the more lenient approach taken at the EPO towards the concept of technical effect in relation to GUIs. The application at stake concerned 'a method of creating an animation by moving a graphics object around a graphical display under control of a pointing device', where the graphic object was a cursor. This graphic object was found by the Board to have a technical character since it decreased 'both the necessary mental and physical effort of the operator, since the direct movement of the graphics object, obviously, does not need the concentration necessary when the operation must be performed by means of a normal cursor'.⁴³

The same relaxed approach towards the concept of technical effect was also applied in instances of applications directed to textual menus in GUIs. In T49/04 the Technical Board expressed an expansive view on what may constitute a technical character in GUI context. It stressed that 'a feature which relates to the manner how the "cognitive content", such as images, is conveyed to the user can very well be considered as contributing to a technical solution to a technical problem. This would in particular be the case when . . . this particular manner of conveying the information enables the user to perform their task more efficiently'.⁴⁴

In the same vein, the Technical Board in T928/03 concluded, inter alia, that a graphical marker in a user interface of a video football game, where the marker suggests the orientation of another prospective team player to which a player currently controlled by a user passes a ball, solved a problem that contributed to the technical function of the display.⁴⁵

Following the above decisions, the EPO revised its Guidelines for Examiners, reflecting a lenient approach to technical effect. The 2012 Guidelines for Examiners suggested that although in most cases features relating to GUIs may not have a technical effect, this was not always the case. This was especially so where such features

are combined with interaction steps or means or when they concern technical information (e.g. internal machine states), the examiner must check whether they are necessary for achieving a particular technical effect, for example by enhancing the precision of an input device or by *lowering the cognitive burden* of a user when performing certain computer interactions. The technical effect achieved might be a more efficient man-machine interface.⁴⁶ (Emphasis added)

Essentially, the Guidelines suggested that having a GUI that was more intuitive and user friendly, hence having the effect of 'lowering the cognitive burden' of the user, might be sufficient to constitute a technical effect.

⁴³ Case T333/95 *Interactive animation/I.B.M.* ECLI:EP:BA:1997 Reasons 5.

⁴⁴ Case T49/04 *Text Processor/WALKER* ECLI:EP:BA:2005 Reasons 4.6.3.

⁴⁵ Case T 0928/03 *Video game/KONAMI* ECLI:EP:BA:2006.

⁴⁶ Guideline G-II 3.7.1, in the 2012 Guidelines for Examination.

3.2.2 The present position – distinguishing between what and how information is presented

The Boards of Appeal's change of heart regarding the EPO's readiness to consider 'lowering of cognitive burden' as constituting a technical effect could be traced to T1143/06, where it was stated that 'a feature which relates to the manner how cognitive content is conveyed to the user on a screen normally does not contribute to a technical solution to a technical problem. An exception would be if the manner of presentation can be shown to have a credible technical effect'.⁴⁷ Subsequently, the Technical Board in T1741/08 explicitly concluded that the lowering of the cognitive burden as a result of choices as to what or how to present information was not sufficient to generate a technical effect.⁴⁸ The Guidelines were thereafter amended and the specific example of technical effect in the case of lowering the cognitive burden was removed.⁴⁹ In addition, the new version of the Guidelines stipulated that the colour, size and shape of items on the screen do not usually amount to a technical aspect of a GUI.

Recently, in T1802/13, the Technical Board further elaborated on this issue and clarified that the aforementioned restrictive approach represents the present legal status quo.⁵⁰ In this case the Board was faced with an appeal against a decision of the Examining Division to refuse an application, inter alia, on the grounds of lack of patentable subject matter as it concerned presentation of information as such. The application at issue related to a method of analysing brain tissue maps while engaging in disease analysis. In this decision the Technical Board was required to assess whether the feature by which 'a map is displayed in which the electrode leadwire and the predicted volume of activation are superimposed on the patient-specific atlas of the brain tissue'⁵¹ constituted a presentation of information as such. The appellant argued that the said feature had the effect of lowering the cognitive burden of the user, which resulted in a more efficient man-machine interface, and that the objective problem to be solved by the said feature was the 'provision of an improved system that provides a more efficient method of selecting the electrode parameters for DBS'.⁵² The Board rejected both contentions. It maintained that it was now the established jurisprudence of the Boards of Appeal that lowering the cognitive burden of a user per se could not in principle be considered as a technical effect. It also contended that it was mere speculation that the claimed feature credibly brought about the technical effect of accurately predicting the electrodes' properties and providing that information to the surgeon in an efficient manner. Rather, the Board concluded that the said feature merely amounted to presenting cognitive content that addressed solely the user's mental process. It thus appears that in order to conclude that a technical effect was involved, it was required to show a causal link between the presented brain tissue maps and the selection of electrode parameters for the deep brain stimulation procedure. However, the claimed feature in the application at stake merely assisted the user in selecting the relevant parameters, hence lowering the user's cognitive burden, but did not amount to an objective causal link between the map and the selected parameters. According to the Board, in order to establish the latter

⁴⁷ See Reasons 5.4 of this decision.

⁴⁸ Case T 1741/08 *GUI layout/SAP* ECLI:EP:BA:2012.

⁴⁹ Guideline G-II 3.7.1, in the 2013 Guidelines for Examination.

⁵⁰ Case T1802/13 *Brain stimulation/CLEVELAND* ECLI:EP:BA:2016.

⁵¹ *ibid* Reasons 2.1.3.

⁵² *ibid* Reasons 2.1.6.

and hence manifest technical effect, the information presented should be objectively provided by the claimed method, without being dependent on human discretion and skills.

3.2.3 Summation

In conclusion, features of GUIs may manifest the requisite technical character in exceptional cases only. For example, where the information provided in a GUI context credibly, causally and objectively assists the user, rather than merely contributing to the user's mental process. Also, where enhanced usability may be established by reference to, *inter alia*, objectively verifiable physiological considerations rather than mere claims of subjective intuitiveness, technical character may be acknowledged.⁵³

It is submitted that the present position leaves a lot to be desired. While it is acknowledged that 'reduction' of cognitive burden is not easy to establish as a psychological effect that takes place within the user's mind, it does not necessarily follow that where it is established in a convincing manner before the Board it should not be recognised as a qualifying technical effect. As mentioned elsewhere in this chapter, designing a GUI in a manner that makes it more intuitive in comparison to the state of the art enables the user to interact with the product or service at issue more efficiently, and as a result increases the usability of such product or service, which in turn could be central to commercial success. It is submitted that enhancing usability due to a successfully intuitive GUI design should in principle be open to patent protection. Hence, rather than entirely excluding from patentability such effect on a product's usability, it would have been preferable if the Boards could have come up with guidelines as to the manner in which one may objectively, as opposed to subjectively, demonstrate a reduction in the user's cognitive burden and the consequent improvement in the product's usability.

4. PROTECTING GUIs UNDER EU TRADE MARK LAW

In principle, all aspects of GUIs – the overall layout, individual static components and transitional or animated features – could be registered as trade marks under EU trade mark law. The elements of the GUI in respect of which protection is sought should be depicted in the application, and a broken line border may be used to represent a display screen (or portion thereof). There are, however, three absolute grounds for refusal that should be borne in mind in particular in this context, as they may pose a challenge to a party seeking to register GUIs or features thereof as a trade mark; these are discussed below. Once registered, such trade marks could be enforced in respect of infringing uses, as well as being used as a basis for opposition to applications for registration of conflicting marks under the general rules governing scope of protection and relative ground for refusal. Hence, the discussion below will focus on absolute ground for refusal, rather than on relative grounds for refusal or infringement.

4.1 Devoid of Any Distinctive Character

The EU IPO Boards of Appeal case law appears to suggest that the main obstacle to registering elements of GUIs as a trade mark is the requirement that a trade mark should not be devoid

⁵³ Case T1375/11 *SPIEL- UND/ODER UNTERHALTUNGSGERAT* ECLI:EP:BA:2016.

of any distinctive character.⁵⁴ A mark devoid of any distinctive character is considered, in particular, as one which does not enable the relevant public ‘to repeat the experience of a purchase, if it proves to be positive, or to avoid it, if it proves to be negative, on the occasion of a subsequent acquisition of the goods or services concerned’.⁵⁵ It appears that in order to be successfully registered, an element of a GUI needs to be unusual, striking and memorable in relation to the goods in question, standing out from other marks in the same sector; under such circumstances, it may be viewed by the average consumer as indicating origin.

For example, in one instance the subject matter of Microsoft Corporation’s application consisted of ‘representation of two transparent regions in the shape of a bar having a curved end’ along the upper and lower right position of the computer screen.⁵⁶ The Board found that this did not represent a characteristic notably different from those commonly found in similar products. According to the Board, in the software sector, in which consumers are used to seeing a wide variety of designs, it would be unlikely that the average consumer would be able to perceive a mere variation in the design of the upper and lower bar on a computer screen as an indication of the software’s commercial origin. Hence, the Board concluded that the mark applied for was not capable of leaving a lasting impression on the target public as an indication of commercial origin.

In the same vein and on a similar basis, the Board of Appeal refused another application of Microsoft, this time relating to the overall layout of a GUI.⁵⁷ The mark applied for consisted of two columns of rectangular tiles, with certain text and images applied to these tiles. The Board found that most mobile devices represent rectangular icons symbolising their content on the screen. The arrangement of these rectangles was a purely functional feature on the device and its operating system, and was not perceived as an indication of origin by an average consumer.

Twitter’s application for a GUI-based device mark, comprising four images (left arrow, two mutually chasing arrows, five pointed star and ellipsis) was similarly refused as being devoid of any distinctive character. The EU IPO maintained that the sequence of images did not possess any aspect that would render it memorable. The Board was not convinced by the appellant’s argument, according to which there was a certain degree of originality in the symbols contained in the sign. It held that the graphical representation of the symbols was not of such a nature as to hold the consumers’ attention. Furthermore, according to the Board, consumers were likely to perceive the graphical stylisation as a mere carrier of the symbols and not mentally register the moderate figurativeness as an element imparting a sufficiently high degree of distinctiveness on them.

Apple’s application for registering its well-known ‘Contacts’ icon, consisting of a personal organiser in the form of an address book where the content can be displayed in alphabetically ordered folders, did not fare better and was found to be devoid of any distinctive character, inter alia, in relation to mobile devices, even though it has been accepted as being inherently distinctive in a number of countries including Australia, New Zealand, the US, Canada, China and Japan.⁵⁸ In reaching its decision the Board referred to examples of similar icons available

⁵⁴ Directive (EU) 2015/2436 of the European Parliament and of the Council of 16 December 2015 to approximate the laws of the Member States relating to trade marks (Trade Marks Directive), art 4(1)(b).

⁵⁵ See Case T-79/00 *EWE-Zentral v OHIM (LITE)* ECLI:EU:T:2002:42, para 26.

⁵⁶ Decision of the 2nd Board of Appeal of 11 April 2006, Case R 64/2006-2.

⁵⁷ Decision of the 5th Board of Appeal of 7 November 2014, Case R 253/2014-5.

⁵⁸ Decision of the 5th Board of Appeal of 25 January 2016, Case R 1616/2015-5.

on the market, and concluded that the overall impression of each one of these symbols was that of an icon for storing contact information and the like, and not of a fanciful trade mark. The Board held that in the same vein, the average consumer would not *prima facie* perceive the mark applied for as an indicator of trade origin but simply as a software application icon with a specific purpose (storing and managing one's contacts). The applicant's arguments regarding acquired distinctiveness were also rejected.⁵⁹ The Board stressed that although there was no doubt that the applicant has been hugely successful with its products such as the iPhone and iPad and that many millions of people have been exposed to the mark applied for both in Europe and worldwide, the evidence provided did not contain any information as how the average consumer perceives the mark applied for in isolation. It is difficult to envisage the type of evidence that would have sufficed in this context, as Apple is not likely to rely on the mark applied for 'in isolation' as an indication of origin.⁶⁰

It appears that the Boards may be applying the acquired distinctiveness criteria in a particularly stringent manner when related to GUI components. While it is correct that Apple never used the mark applied for in isolation, it should be sufficient to show for the purpose of acquired distinctiveness that the relevant public recognises the mark as originating from Apple. For example, in *Nestle* the CJEU was asked by the referring court: 'May the distinctive character of a mark referred to in Article 3(3) of [the Directive] and Article 7(3) of [the regulation] be acquired following or in consequence of the use of that mark as part of or in conjunction with another mark?'⁶¹ The Court's response was clear:

such identification, and thus acquisition of distinctive character, may be as a result both of the use, as part of a registered trade mark, of a component thereof and of the use of a separate mark in conjunction with a registered trade mark. In both cases it is sufficient that, in consequence of such use, the relevant class of persons actually perceive the product or service, designated exclusively by the mark applied for, as originating from a given undertaking.⁶²

Hence, the CJEU in *Nestle* made it clear that the fact that a mark is not used independently by an applicant was of little consequence when deciding on acquired distinctiveness. What was of importance was the relevant public's recognition of the mark applied for as originating from a specific undertaking. The same rationale was subsequently applied by the CJEU in *Colloseum*,⁶³ in relation to the definition of genuine use.⁶⁴ Applying this rationale to the Apple

⁵⁹ CTMR, art 7(3); according to the CJEU, when deciding on whether a mark has become distinctive through use, account must be taken of factors such as, *inter alia*: the market share held by the mark; how intensive, geographically widespread and longstanding use of the mark has been; the amount invested by the undertaking in promoting the mark; the proportion of the relevant class of persons who, because of the mark, identify goods as originating from a particular undertaking; and statements from chambers of commerce and industry or other trade and professional associations. If, on the basis of those factors, the relevant class of persons, or at least a significant proportion thereof, identify goods as originating from a particular undertaking because of the trade mark (see Joined Cases C-108/97 and C-109/97 *Windsurfing Chiemsee Productions v Boots* [2000] Ch 523; Case C-299/99 *Philips v Remington* [2003] RPC 2; Case T-396/02 *Storck v OHIM* ECLI:EU:T:2004:329; Case C-24/05P *Storck v OHIM* ECLI:EU:C:2006:421).

⁶⁰ Consumer surveys may be the only option in that respect.

⁶¹ Case C-353/03 *Société des produits Nestlé SA v Mars UK Ltd* [2005] ECR I-6135, para 17.

⁶² *ibid* para 30.

⁶³ C-12/12 *Colloseum Holding AG v Levi Strauss & Co* EU:C:2013:253 [2013] ETMR 34.

⁶⁴ Under the then applicable Article 9(1)(b) of Regulation No 40/94.

context, it appears that Apple may have adduced sufficient evidence to establish such public recognition. The Board's restrictive application of the acquired distinctiveness criteria in this case may hint to its overall lack of enthusiasm regarding registrability of GUIs or components thereof. There may be sound policy considerations against registration of marks that were only ever used in conjunction with other registered marks, where the applicant would never dream of using such marks in isolation as a designation of origin. However, as long the *Nestle* approach prevails, it makes little sense to mark out GUIs or components thereof and have them facing a tougher registrability hurdle in relation to establishing acquired distinctiveness.

The examples discussed above should not lead one to conclude that GUIs or elements thereof do not stand a viable chance of being registered. Ultimately, each instance depends on its own individual facts, and where the EU IPO is convinced that there is sufficient degree of inherent or acquired distinctiveness, the application may be accepted.⁶⁵

4.2 Shapes or Other Characteristics Which Are Necessary to Obtain a Technical Result, or Give Substantial Value to the Goods

Until recently, the exclusions from registration under Article 4(e) of the Trade Marks Directive applied to three dimensional shapes only and therefore were not likely to be applicable to the elements in GUIs. It was only in the revised version of the Trade Marks Directive that passed on 16 December 2015 that the said limitation was removed, and Article 4(1)(e) now refers to 'the shape, or another characteristic of goods'. It is thus clear that the revised version of Article 4(e) is potentially applicable both to two and three dimensional features of a product.

Article 4(1)(e)(ii) provides that signs which consist exclusively of the shape, or another characteristic, of goods which is necessary to obtain a technical result shall not be registered. Although the above provision is new and there is no decision on its scope at present, there is ample guidance from the CJEU on what constitutes 'necessary to obtain a technical result' in relation to three dimensional shapes. Subject to the necessary changes, these principles could equally apply to 'another characteristic of the goods', including two dimensional features in GUIs.

In *Philips v Remington*,⁶⁶ the CJEU concluded that where the essential characteristics of the shape of a product are attributable solely to a technical objective, registration is precluded even if other shapes can achieve the same technical result. Subsequently, the CJEU in *Lego* elaborated on the manner in which such assessment should be carried out and maintained that the expression 'essential characteristics' must be understood as referring to the most important elements of the sign.⁶⁷ Once the essential characteristics have been identified, the court should decide whether such characteristics perform the technical function of the product concerned; alternative configurations achieving the same function equally well are of little relevance. It is the objective and function of those essential characteristics that is decisive. The identification of those essential characteristics must be carried out on a case by case basis. Supporting evidence such as patents or statements by the designer will be given considerable weight in

⁶⁵ For example, Apple has several figurative EUTM registrations for GUIs; inter alia, it registered individual application icons as well as the homepage layouts of the iPad (009265588, registered on 19/04/2011 in classes 9, 16, 18, 28, 35, 37, 38, 41, 42), as well as the homepage layout for the Apple Watch (013728555), registered 14/09/2015 in classes 9, 10, 14, 28).

⁶⁶ Case C-299/99 *Philips v Remington* [2003] RPC 2.

⁶⁷ Case C-48/09 P *Lego Juris A/S v OHIM, Mega Brands Inc* [2010] ETMR 63, para 69.

uncovering such objective. It should be noted that the assessment under Article 4(e) should be carried out independently of the distinctiveness enquiry discussed above. Hence, even where the shape or other characteristic is perceived by the public as emanating from a specific trade origin, registration should still be refused where it is found that its essential characteristics are attributable to obtaining a technical result. In such circumstances, a third party that appropriates such characteristics may be enjoined under domestic unfair competition; EU trade mark law, however, will not be engaged.

It is noteworthy that the CJEU did not endorse the alternative shapes or characteristics approach. Unlike the eligibility filter for copyright law, where alternative forms of expression were held to indicate subject matter that was not dictated by functionality, the CJEU broadened the scope of the exception in the case of trade marks so that even where alternatives achieving the same function were available, a subject matter could still be precluded from registration on a functionality basis where its essential characteristics were attributable to obtaining a technical result.

Although it is correct to describe many GUI features as functional in the sense of being designed to achieve a utilitarian objective, they are not likely to fall foul of Article 4(e)(ii). The reason is that the function of such features will rarely be attributable to the relevant text or image in relation to which registration is sought. Hence, the essential characteristics are not likely to be classified as ‘necessary’ in order to achieve the technical result that the said feature aims to facilitate. For example, let us take Apple’s ‘Contacts’ icon mentioned above, in respect of which Apple failed to establish a sufficient level of distinctive character. Leaving aside the question of distinctiveness, is it likely to contravene Article 4(e)(ii)? After identifying the essential characteristics, most of which relate to the manner in which the human silhouette and the address book images are depicted therein, a court would turn to determining whether these are necessary to obtain a technical result. The answer to such query should be negative. While some elements of GUIs may be essential for obtaining a technical objective, such as Apple’s ‘pinch to zoom’ or ‘genie dock’ functions, they are not likely to be the subject of a trade mark application and, if at all, may rather be the subject of a patent application. It is submitted that the majority of such features are likely to easily clear the hurdle of Article 4(e)(ii).

The closest EU equivalent to the US aesthetic functionality doctrine is found in Article 4(1)(e)(iii). In its present version this provision states that a sign that consists exclusively of the shape or another characteristic which gives substantial value to the goods is precluded from registration. This provision is aimed at precluding the registration of signs consisting of features that have substantial aesthetic appeal. Some GUI elements, such as icons or animated features, are clearly aesthetic and may have considerable eye appeal. Where that is the case, are such elements likely to fall foul of Article 4(e)(iii)?

Bang & Olufsen provides some guidance as to the manner in which the assessment under this provision is to be carried out.⁶⁸ In this case the General Court of the European Union (EGC) found that the design of hi-fi speakers, the shape of which Bang & Olufsen sought to register as a trade mark, was very important for consumers’ choice, even though consumers may have taken other characteristics of the goods at issue into account as well when making their purchasing decision. It was also shown that the design was an essential element of Bang & Olufsen’s branding, increasing the speaker’s appeal and, hence, its value to consumers.

⁶⁸ Case T-508/08 *Bang & Olufsen A/S v OHIM* [2011] ECR II-6975.

Distributors' promotional literature emphasised the aesthetic characteristics of the shape, which was perceived according to the EGC as a kind of pure, slender, timeless sculpture for music reproduction, thus constituting an important selling point. Relying on the evidence described above, the EGC concluded that the speakers' shape added substantial value and was therefore barred from registration as a trade mark.

As in the case of Article 4(e)(ii), it is unlikely that most GUI-based marks will contravene Article 4(e)(iii). Is a highly aesthetic icon or animated feature, for example, likely to add substantial value to a mobile device within the meaning of the EGC's analysis in *Bang & Olufsen*? What about the overall layout of a GUI? It is submitted that in both instances the answer is likely to be negative. Although intuitive and visually appealing GUIs are overall important to the success of a GUI-based product, signs consisting of features thereof, evaluated individually under Article 4(e)(iii), are unlikely to be found to add substantial value to the device in which they are embedded. As regards the overall screen layout, while its intuitiveness could indeed add considerably to the value of a GUI-controlled device, it is the user-friendliness of such a GUI that is likely to do so rather than its aestheticism.

Finally, it should be noted that the exclusions under Articles 4(e) (ii) and (iii) apply to shapes and other characteristics of 'goods'. Hence, where the registration of signs consisting of GUI features is sought in respect of services, as may be the case in relation to a software-based service provided over a network, Articles 4(e) (ii) and (iii) are not engaged regardless of any technical result achieved or substantial value added as a result of using the mark applied for.

4.3 Summation

We have seen that the most formidable hurdle for registering elements of GUIs as trade marks is the one facing applicants in general when attempting to register elements of their product's trade dress: the requirement of distinctiveness. The CJEU case law suggests that only in the minority of cases trade dress would be found to be inherently distinctive.⁶⁹ Boards of Appeal decisions on registrability of GUIs suggest the same. Strangely, it also appears that when establishing acquired distinctiveness, widespread exposure of the public to the GUI at issue and significant commercial success of the product in which it is embedded would not suffice, as the Boards may require to see evidence on how the public perceives the mark applied for in isolation. This may be difficult to establish where the GUI component at issue is always used in conjunction with other registered trade marks, as the case may often be.

However, where a GUI or elements thereof are found to possess some distinctive character, whether inherent or acquired, it appears that the absolute grounds for refusal criteria should not necessarily prove more challenging in the case of GUIs than in the more general case.

⁶⁹ On three dimensional shapes, see Case C-24/05 P *Storck v OHIM* ECLI:EU:C:2006:421, para 24 (stating 'Average consumers are not in the habit of making assumptions about the origin of products on the basis of their shape . . . only a mark which departs significantly from the norm or customs of the sector . . . is not devoid of any distinctive character').

5. GUIS AND INDUSTRIAL DESIGN RIGHTS

The EU offers two parallel systems for protection of industrial designs: registered and unregistered design regimes.⁷⁰ The substantive eligibility requirements relating to the merits of the designs at stake are essentially the same; there are nevertheless significant differences between the two regimes pertaining to issues such as scope of protection, term of protection, disclosure requirements and more.⁷¹

A software proprietor could either seek to protect his GUI or elements thereof before he commercialises it, and obtain a registered community design (RCD), or he could proceed to commercialise it directly and rely on an unregistered community design right (UCD), as long as such design was first made available to the public in the EU. Since its scope of protection is significantly stronger and its term of protection is significantly longer, there is clear benefit in having a GUI or part thereof registered with the EUIPO.⁷² It should be noted that once a GUI, icon or feature thereof relating to one product, such as a smartphone, is registered, it is also protected against use by a third party in another product such as the display on a smart TV. In this sense, the RCD regime is clearly advantageous compared with trade marks. The discussion below will focus on the EU RCD regime.

5.1 Eligibility

An application for RCD in relation to icons and GUI should ideally refer to Class 14, Sub-class 04 of the Lucarno Classification.⁷³ A brief examination of the EUIPO database shows that there are multiple RCD registrations for GUIs or elements thereof.⁷⁴ Although there is no substantive ‘ex ante’ examination of RCD applications as there is in the case of trade marks, it is nevertheless indicative of the readiness of the EU RCD regime to accommodate subject matters consisting of GUIs or elements thereof. In fact, the EU is not unique in this respect,

⁷⁰ Henceforth the discussion below refers to Council Regulation (EC) No 6/2002 of 12 December 2001 on Community designs (consolidated version) (hereinafter CDR).

⁷¹ ‘Designs in the European Union’ (*European Union Intellectual Property Office*) <<https://euipo.europa.eu/ohimportal/en/designs-in-the-european-union>> accessed 23 October 2019.

⁷² For example, while UCD protects against copying, RCD protects against use, whether or not resulting from copyright; while the UCD term of protection is three years, RCD can potentially last for 25 years.

⁷³ ‘LOCARNO Internet Publication Help’ (*WIPO*) <www.wipo.int/classifications/locarno/locpub/en/fr/help/> accessed 23 October 2019; Class 14: Recording, communication, or information retrieval equipment; Subclass 04: Screen Displays and icons. Computer screen displays, graphic interfaces, interfaces for display screen, screen displays, screen graphics, graphical interfaces, graphic representations for user interfaces, user interfaces.

⁷⁴ For illustrative examples representing various types of GUI features registrations, see the following registered designs: 004418630-0001; 004422152-0001; 001062939-0001; 001062939-0002; 004139491-0001 to 004139491-0006; 004411379-0001 to 004411379-0002; 003556257-0001; 002664771-0003; 001228480-0001 to 001228480-0003; 003407527-0005 and 003407527-0007; 002153080-0020 and 002153080-0021; 001359830-0001 to 001359830-0004; 002601435-0001; 002705848-0006; 000600184-0008; 001100598-0009; 000754098-0001.

as most jurisdictions worldwide offer industrial design or design patent protection in such instances.⁷⁵

The definition of a design eligible for registration under the CDR is fairly broad: ‘the appearance of whole or part of product resulting from features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product and/or its ornamentation.’⁷⁶ A product is defined as: ‘any industrial or handicraft item including parts to be assembled into complex product, packaging, get-up, graphic symbols,⁷⁷ and typographical typefaces, but excluding computer programs’.⁷⁸ Although computer programs are explicitly excluded from protection, GUIs, webpage designs and icons may constitute a ‘product’ and could therefore be protected as an industrial design.⁷⁹ In this context it should also be noted that a GUI or feature thereof can be registered independently from the product that incorporates it.

In order to be protected as a RCD, a design must be novel and have an individual character.⁸⁰ Essentially, these substantive requirements do not pose an additional difficulty in the context of GUIs and therefore do not merit special consideration in the present context. In order to satisfy the novelty requirement, it must be shown that an identical design has not been made available to the public prior to the priority date.⁸¹ The individual character requirement will be satisfied where the overall impression it produces on the informed user differs from the overall impression of an earlier design made available to the public.⁸²

As in the case of trade mark law, the RCD regime also includes an exclusion relating to technical function. Article 8(1) CDR provides: ‘A Community design shall not subsist in features of appearance of a product which are solely dictated by its technical function’. Recital 10 explains: ‘Technological innovation should not be hampered by granting design protection to features dictated solely by a technical function. It is understood that this does not entail that a design must have an aesthetic quality.’ The rationale for this exclusion is also similar to that underlying the functionality exclusion in trade mark law: features that are solely dictated by a technical function should be evaluated and, where suitable, protected under patent law rather than the laxer standards of RCD; otherwise, such protection may have considerable anticompetitive repercussions.⁸³

⁷⁵ See countries’ Replies to the Questionnaire on Industrial Design Protection for GUIs, Icon and Typeface/Type Font Designs: ‘Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications’ (WIPO) <www.wipo.int/edocs/mdocs/geoind/en/sct_36/sct_36_2_rev_2.pdf> accessed 23 October 2019.

⁷⁶ CDR, art 3(a).

⁷⁷ The protectability of typeface is relevant in the GUI context, since a particular type of typeface may constitute part of the look and feel of a GUI; for example, see RCD 000130299-0001.

⁷⁸ CDR, art 3(b).

⁷⁹ See David Stone, *European Union Design Law: A Practitioner’s Guide* (OUP 2012), para 4.76; for example, see RCD 930367-0002 registered for an icon for a portion of a display screen.

⁸⁰ CDR, art 4(a).

⁸¹ CDR, art 5.

⁸² CDR, art 6.

⁸³ Uma Suthersanen, *Design Law: European Union and United States* (2nd edn, Sweet & Maxwell 2010) 101.

5.1.1 Features dictated solely by technical function

Until recently, there was no uniformity across the EU in relation to the manner in which a court is to determine whether a design feature is ‘dictated solely by a technical function’ under Article 8(1) CDR. Two main tests have been used for this purpose.

According to the ‘multiplicity of forms’ test, the exception under Article 8(1) is engaged only if the technical function at issue cannot be achieved by any other configuration; if the designer has a choice between two or more configurations, the appearance of the product is not solely dictated by its technical function. One of the main criticisms made in relation to this approach is that where only a limited number of configurations are possible, an applicant might gain a monopoly over a function by registering them all, effectively foreclosing the use of the technical function at issue to all competitors.

The ‘multiplicity of forms’ approach is fairly lax when it comes to engaging Article 8(1). It is sufficient for one alternative configuration achieving the same function to be identified for the technical function exclusion not to apply. In the case of GUIs, it is difficult to conceive scenarios where there would be no alternatives to a given design or configuration. If this was to prove the prevailing approach to the application of Article 8(1), it would follow that the technical function exception would hardly make any difference in the case of GUIs and that occasions where GUI features would be caught by the technical function exclusion would be extremely rare. This test has been endorsed in some early EUIPO decisions, by some national courts – including the German, French, Spanish, and Swedish ones – and by the Advocate General in the trade mark case *Philips v Remington*.⁸⁴ However, the ‘multiplicity of forms’ approach has been recently rejected by the CJEU.⁸⁵ In *Doceram* the CJEU first determined that the availability of alternative designs is of little relevance to the application of Article 8(1). According to the court, the latter provision

excludes from the protection conferred . . . a case in which the need to fulfil a technical function of the product concerned is the only factor determining the choice by the designer of a feature of appearance of that product, while considerations of another nature, in particular those related to its visual aspect, have not played a role in the choice of that feature.⁸⁶

Moving on to consider the method for assessing the conditions of Article 8(1), the CJEU stipulated that all the objective circumstances of the case must be taken into account by the court in making the said assessment under Article 8(1). Importantly, such assessment does not require that the perception of the ‘objective observer’ should be taken into account. The court stated that:

such an assessment must be made, in particular, having regard to the design at issue, the objective circumstances indicative of the reasons which dictated the choice of features of appearance of the product concerned, or information on its use or the existence of alternative designs which fulfil the same technical function, provided that those circumstances, data, or information as to the existence of alternative designs are supported by reliable evidence.⁸⁷

⁸⁴ Stone (n 79) para 6.11.

⁸⁵ Case C-395/16 *Doceram v CeramTec* EU:C:2018:172, [2018] ECDR 13.

⁸⁶ *ibid* para 26.

⁸⁷ *ibid* para 37.

Hence, by reference to objective circumstances, rather than attempting to determine the subjective state of mind of the designer, a court should establish whether there was any factor other than technical function, such as aesthetic appeal, leading to the choices made by the designer. Where that is not the case, the design at issue contravenes Article 8(1).

5.2 Summation

In the context of GUIs, the *Doceram* approach is likely to lead to the exclusion under Article 8(1) being triggered more often than in the case of the ‘multiplicity of forms’ approach. For example, an innovative design feature of a GUI that is motivated by efficiency of use considerations with a view to rendering the interaction between user and device more intuitive may contravene Article 8(1), unless other considerations leading to the design choices made could be objectively identified. In comparison, under the multiplicity of forms approach such design or configuration could be compatible with Article 8(1) as long as there is at least one more design alternative capable of achieving the same technical objective, which in the case of GUI is almost always likely to be the case. Interestingly, we have seen that in the case of GUIs, designs that have the effect of ‘lowering the cognitive burden’ of the user, although of great value, are not likely to be patentable under the present jurisprudence at the EPO as they are not considered to have a technical effect. However, this ‘lowering of cognitive burden’ and the efficiency considerations related to it may prove sufficient to render a given design ‘technical’ and hence be excluded under Article 8(1) for RCD purposes. This may lead to a situation where innovative designs that enhance the intuitiveness of GUI-controlled devices or services are left unrewarded under our IP regime; such designs may be considered as lacking in technicality under our patent regime and therefore unpatentable, while at the same time being considered as dictated solely by a technical function under our RCD regime and hence excluded from protection under Article 8(1).

6. CONCLUSIONS

We have seen that GUIs or features thereof that are authentically pleasing may be protected under copyright law, the EU industrial designs regime and, possibly, trade marks law.⁸⁸ Similarly, GUIs or features thereof that are sufficiently unique and recognisable may be protected under trade marks law, as long as they are not devoid of distinctive character. Essentially, as in the context of trade dress in general, that means that acquired distinctiveness will almost always need to be established.

However, it appears that one of the most sought after types of GUI is falling between two stools when it comes to IP protection. As mentioned at the beginning of this chapter, GUIs that speed and simplify the operation of and interaction with GUI-controlled products or services, enhancing the efficiency of such interaction between user and software, have a considerable impact on the commercial success of the device or service at issue and are therefore highly desirable. Notwithstanding, protection of such GUIs or features thereof under the EU’s IP framework is somewhat lacking. While admittedly such designs or configurations might

⁸⁸ Regarding trade mark law, such aesthetic appeal must not add substantial value to the goods.

be protected under copyright law in relation to the exact form of expression chosen by the developer, as the functionality of such design does not render it ineligible under copyright law as long as alternative forms of expression may achieve the same objective, such protection may prove rather ‘thin’ and may fail to protect against appropriation of the efficiency enhancing element of such innovative designs. Turning to EU’s industrial designs and trade mark regimes, such efficiency enhancing properties, which mark out the said designs from the ‘state of the art’, might actually render the said GUIs ineligible for protection as they may contravene the functionality exclusion under both regimes. At this point an observer may comment that such a state of affairs is desirable and that efficiency enhancing properties resulting in more intuitive and speedy operation of technical devices should be protectable under patent law. However, we have seen that this is not the case under the present jurisprudence of the EPO, where the ‘lowering of cognitive burden’, resulting in more efficient and speedy interaction between user and GUI-controlled product or service, does not constitute a ‘per se’ technical effect unless some objectively verifiable physiological effect could be demonstrated.

In light of the above, and in order to improve the likelihood that successful intuitive and efficiency enhancing designs will gain protection as either trade marks, or, even more so, registered designs, it is advisable that any GUI development process may not be guided solely by functional considerations and that other considerations, such as aesthetic appeal, also play a role in that process. Where that is the case, such designs are not likely to fall foul of the functionality exclusion under both aforementioned regimes. Keeping a paper trail of the design process which demonstrates that indeed considerations other than functional ones played a role in the design process may prove vital in gaining such protection.

2. Copyright in software: functionality

Richard Arnold¹

1. INTRODUCTION

Now that it is almost universally accepted that computer software should be protected as a copyright work, and specifically as a species of literary work, it is easy to forget that in the early days of computer software this was a controversial proposition,² and that many argued for other forms of protection – in particular, either patent protection,³ or a *sui generis* form of protection.⁴ There were various reasons for this, but one of the key considerations was that software is almost always created in order to perform a particular function or set of functions. The most basic function of software, of course, is to manipulate data. Given input data, software produces output data. Moreover, software is deterministic: a given input will always result in a given output.⁵ Through data manipulation, a host of more sophisticated functions can be performed. Unlike the kinds of works that had traditionally been protected by copyright, software is usually not created to be an object of aesthetic pleasure or instruction in its own right.⁶ Once it was decided to protect software by copyright, and in particular to treat computer programs as literary works,⁷ it was inevitable that questions would arise as to the extent to which copyright in a computer program afforded protection for the functionality of the program. This issue became entwined with two more general and longstanding issues in copyright law: first, the idea/expression dichotomy, and second, infringement through nonliteral copying. In addition, it came to be appreciated that the functional character of software meant that there was a need for exceptions tailored to that characteristic, and in particular exceptions to permit (i) error correction, (ii) the making of backup copies and (iii) the decompilation (conversion of machine-readable object code back into human-readable source code) of an existing program in order to achieve interoperability of a new program with it.

¹ I am grateful to Estelle Derclaye, Noam Shemtov and the editor for comments on earlier drafts.

² See for example Gerald Dworkin, 'The Nature of Computer Programs' in Lahore *et al*, *Information Technology: The Challenge of Copyright* (Sweet & Maxwell 1984) 89–113.

³ See for example Donald Chisum, 'The Patentability of Algorithms' (1986) 47 U Pitt L Rev 969. Patent protection for software-related inventions is considered in Chapter 13 of this volume.

⁴ See for example Pamela Samuelson, 'CONTU Revisited: The Case Against Copyright Protection for Computer Programs in Machine-Readable Form' (1984) Duke LJ 663; Pamela Samuelson *et al*, 'A Manifesto Concerning the Legal Protection of Computer Programs' (1994) 94 Colum L Rev 2308. See also the WIPO Model Provision on the Protection of Computer Software, WIPO Publication 814(E) (1978).

⁵ This proposition has been complicated by the advent of expert systems and other forms of artificial intelligence, which have the ability to learn over time, but nevertheless in principle remains true.

⁶ In that respect, as some of the early critics argued, there is a similarity between software and other kinds of works which are created for industrial purposes, such as engineering drawings. Many legal systems have dealt with protection of the latter by assimilating them with designs.

⁷ Following the precedent created by treating works such as telegraphic codes as literary works (see *D.P. Anderson & Co Ltd v The Lieber Code Co* [1917] 2 KB 469).

Although the history is important, this chapter will concentrate on the current law. The chapter begins by outlining the relevant international, European Union and United Kingdom legislation before turning to consider decompilation in a little, and functionality in rather more, detail.⁸ The related questions of the protection of user interfaces and databases are considered elsewhere in this volume.

2. RELEVANT LEGISLATION

2.1 International Treaties

2.1.1 The Berne Convention

The International Convention for the Protection of Literary and Artistic Works signed at Berne on 9 September 1886 (Paris Act of 1971 as amended in 1979) ('the Berne Convention')⁹ does not contain any provisions specific to computer software. The breadth of the definition of 'literary and artistic works' in art 2(1) has subsequently enabled computer programs to be accommodated within it, however. Similarly, the breadth of the reproduction right in art 9(1) has enabled one of the key ways in which computer software copyright can be infringed, namely temporary storage in the random access memory of a computer, to be accommodated.¹⁰ Finally, the openended provision for exceptions subject to satisfaction of the 'three step test' in art 9(2) has enabled the making of suitable exceptions to copyright protection, such as decompilation for the purpose of interoperability.

2.1.2 TRIPS

The Agreement on Trade-related Aspects of Intellectual Property Rights (commonly known as 'TRIPS') which forms Annex 1C to the Agreement establishing the World Trade Organisation signed in Morocco on 15 April 1994 was the first international instrument specifically to address the copyright protection of computer programs.¹¹ Art 10(1) provides that '[c]omputer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971)'. As a counterweight to this,¹² art 9(2) provides that '[c]opyright protection shall extend to expressions and not to ideas, procedures, methods of operation or math-

⁸ Neither error correction nor making backup copies will be discussed in detail, as these exceptions are fairly straightforward and uncontroversial. Moreover, the latter is now largely redundant given that most software is now copied and supplied online rather than using corruptible physical media, although it still has some relevance for archiving (such as to comply with regulatory requirements) and for disaster recovery.

⁹ See generally Sam Ricketson and Jane Ginsburg, *International Copyright and Neighbouring Rights: The Berne Convention and Beyond* (2nd edn, OUP 2006).

¹⁰ It has been argued, however, that copyright should not extend to copies in RAM: see Jessica Litman, 'Fetishizing Copies' in Ruth Okediji (ed), *Copyright Law in an Age of Limitations and Exceptions* (CUP 2017) 107–31.

¹¹ Daniel Gervais, *The TRIPS Agreement: Drafting History and Analysis* (4th edn, Sweet & Maxwell 2012) 260–62; Carlos Correa, *Trade Related Aspects of Intellectual Property Rights: A Commentary on the TRIPS Agreement* (OUP 2007) 123–25.

¹² Gervais (n 11) 252–54; Correa (n 11) 119–23.

ematical concepts as such'. This provision was inspired by s 102(b) of the US Copyright Act.¹³ As we will see, it has come to be important when considering the protection of functionality.

2.1.3 The WIPO Copyright Treaty

The World Intellectual Property Organisation Copyright Treaty agreed in Geneva on 20 December 1996 ('the WCT') incorporated the advances agreed in TRIPS into a copyright-specific treaty.¹⁴ Art 4 provides that '[c]omputer programs are protected as literary works within the meaning of Article 2 of the Berne Convention. Such protection applies... whatever may be the mode or form of their expression'.¹⁵ Art 2 provides that '[c]opyright protection extends to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such'.

2.2 European Union Directives

2.2.1 The Software Directive

Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs ('the Software Directive') was the first harmonising directive in the field of copyright and related rights adopted by what is now the European Union, although it has been followed by many others. The original directive was subsequently replaced by a codified (that is, consolidated) version, European Parliament and Council Directive 2009/24/EC of 23 April 2009, following certain amendments by other directives.¹⁶ For present purposes, the Software Directive has five main aspects. First, art 1(1) requires Member States to protect computer programs, including their preparatory design material, as literary works within the meaning of the Berne Convention, while art 1(2) provides that protection under the Directive 'shall apply to the expression in any form of a computer program' and that '[i]deas and principles which underlie any element of a computer program, including those which underlie its interfaces, are not protected by copyright under this Directive'. Recital (11) adds that '[i]n accordance with this principle of copyright, to the extent that logic, algorithms and programming languages comprise ideas and principles, those ideas and principles are not protected under this Directive'. Second, art 4(1) provides that the rights of the copyright owner shall include the right to do or to authorise:

¹³ Section 102(b) provides: 'In no case does copyright for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.'

¹⁴ Jörg Reinbothe and Silke von Lewinski, *The WIPO Treaties on Copyright* (2nd edn, OUP 2015) 73–76, 91–96.

¹⁵ An agreed statement concerning the interpretation of art 4 declares that the scope of protection for computer programs under art 4 'read with Article 2, is consistent with Article 2 of the Berne Convention and on a par with the relevant provisions of the TRIPS Agreement'.

¹⁶ See generally Lionel Bently and Yin Harn Lee, 'Computer Program Directive' in Thomas Drier and Bernt Hugenholtz (eds), *Concise European Copyright Law* (2nd edn, Wolters Kluwer 2016) 237–73; Walter Blocher and Michel Walter, 'Computer Program Directive' in Michael Walter and Silke von Lewinski (eds), *European Copyright Law: A Commentary* (OUP 2010) 81–248; Marie-Christine Janssens, 'The Software Directive' in Irini Stamatoudi and Paul Torremans (eds), *EU Copyright Law: A Commentary* (Edward Elgar 2014); Jon Bing, 'Copyright Protection of Computer Programs' in Estelle Derclaye (ed), *Research Handbook on the Future of EU Copyright* (Edward Elgar 2009) 401–26.

- (a) the permanent or temporary reproduction of a computer program by any means and in any form, in part or in whole; in so far as loading, displaying, running, transmission or storage of the computer program necessitate such reproduction, such acts shall be subject to authorization by the rightholder;
- (b) the translation, adaptation, arrangement and any other alteration of a computer program and the reproduction of the results thereof, without prejudice to the rights of the person who alters the program.

Third, arts 5 and 6 require Member States to provide four exceptions to the restricted acts specified in art 4: (i) acts which are necessary for the use of the program by a lawful acquirer of the program in accordance with its intended purpose, and in particular error correction (art 5(1)); (ii) the making of necessary backup copies by a lawful user of the program (art 5(2));¹⁷ (iii) observation, study and testing of the functioning of the program by a lawful user in order to determine the ideas and principles which underlie it (art 5(3)); and (iv) decompilation for the purpose of interoperability (art 6). The latter two exceptions are considered below. Fourth, art 8 (formerly art 9(1)) provides that the second, third and fourth exceptions cannot be contracted out of (art 5(1) is explicit that it may be overridden by ‘specific contractual provisions’). Fifth, art 8 also provides that the Directive is ‘without prejudice to any other legal provisions such as those concerning patent rights’. This evidently allows for cumulative protection of programs by copyright and patents, although art 1 should minimise the extent of the overlap.¹⁸

2.2.2 Other directives

Although other directives which have subsequently been adopted by the EU potentially impinge on the copyright protection of software in various ways, in general they do not detract from the provisions of the Software Directive. In particular, art 1(2)(a) of European Parliament and Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (‘the Information Society Directive’) specifically provides that it does not affect the Software Directive. This has led the Court of Justice of the European Union to treat the Software Directive as a *lex specialis* with respect to the Information Society Directive, at least for some purposes.¹⁹ Nevertheless, the protection available to literary and artistic works under the Information Society Directive is indirectly relevant, because computer software is often either accompanied by such works (for example, user manuals) or records such works (for example, graphical works forming part of a user interface). This is illustrated by the *SAS v WPL* case discussed below.

¹⁷ Art 5(2) does not extend to providing a backup copy, made where the original medium has been damaged or destroyed, to a new acquirer of a copy of a program accompanied by an unlimited user licence: Case C-166/15 *Ranks v Finanšu un ekonomisko noziegumu izmeklēšanas prokuratūra* EU:C:2016:762 [2017] Bus LR 290.

¹⁸ On overlapping protection see generally Estelle Derclaye and Matthias Leistner, *Intellectual Property Overlaps: A European Perspective* (Hart 2011). Absent patent protection, software may be protectable as a trade secret.

¹⁹ Case C-128/11 *UsedSoft GmbH v Oracle International Corp* EU:C:2012:408 [2013] Bus LR 911 [51].

2.3 United Kingdom Legislation

The Copyright, Designs and Patents Act 1988 was amended pursuant to section 2(2) of the European Communities Act 1972 by the Copyright (Computer Programs) Regulations 1992 to implement the Software Directive.²⁰ In particular, s 3(1) implements art 1(1), s 16(1) implements art 4(1), (a) and (b), s 50A implements art 5(2), s 50B implements art 6, s 50BA implements art 5(3), s 50C implements art 5(1) and s 296A implements art 8. For the most part, the drafting of the statute faithfully follows that of the Directive.²¹ Both for that reason, and having regard to the *Marleasing* principle of interpretation of national legislation which is intended to give effect to EU law,²² attention is usually focused on the provisions of the Directive.

3. CATEGORIES OF INFRINGEMENT OF COPYRIGHT IN COMPUTER SOFTWARE

Cases of infringement of copyright in computer software may be roughly divided into the following categories: (i) cases involving the literal copying of source and/or object code; (ii) cases involving decompilation of object code; (iii) cases involving the nonliteral copying of source and/or object code, which may be further divided into (a) cases involving copying of the ‘structure, sequence and organisation’²³ of the program and (b) cases involving the copying of the ‘look and feel’ of the program from the user’s perspective; and (iv) cases involving copying purely of the functionality of the program. It should be emphasised that these are not hard and fast divisions; on the contrary, there is some degree of overlap between them. Nevertheless, it is suggested that the division has some use as an analytical tool, not least because it represents a progression from the closest degree of copying to steadily more distant forms of copying.

3.1 Literal Copying

The first category includes cases of outright piracy, cases of use of software contrary to contractual terms and cases of authorial reuse of code where the copyright is owned by another

²⁰ SI 1992/3233.

²¹ Note, however, that the 1988 Act does not explicitly implement art 1(2) of the Directive (the same is true of art 1(3), which provides that a computer program is only eligible for protection if it is ‘the author’s own intellectual creation’).

²² Case C-106/89 *Marleasing SA v La Comercial Internacional de Alimentación SA* [1990] ECR I-4135 [8]; Joined Cases C-397/01 to C-403/01 *Pfeiffer v Deutsches Rotes Kreuz, Kreisverband Waldshut eV* [2004] ECR I-8835 [113]–[117]. This is a strong duty of interpretation. For a distillation of the relevant jurisprudence with regard to this duty, see *Vodafone 2 v Revenue and Customers Commissioners (No 2)* [2009] EWCA Civ 446, [2009] STC 1480 [37]–[38] (Sir Andrew Morritt C). The European Union (Withdrawal) Act 2018 provides that, after Brexit, UK legislation which implements EU directives will remain in effect and that pre-Brexit CJEU judgments will have the force of Supreme Court decisions. Thus it does not appear that this approach to interpretation will change significantly in the near future.

²³ This expression derives from the now discredited decision of the Court of Appeals for the Third Circuit in *Whelan Associates v Jaslow Dental Laboratory* 797 Fd 122 (1986). It is nevertheless a convenient label for the nearest equivalent in the software context to the plot of a novel provided that it is borne in mind that the two things are actually rather different.

(for example, the author's former employer). As noted above, the need of lawful users of programs to correct errors in the programs and to make backup copies of programs in case the copies they were using became corrupted led to the introduction of exceptions to allow this, in the latter case even where it was not permitted under the terms of their contract.²⁴ The second category involves a form of copying that is akin to automated translation: in one sense there is no literal copying, but in another sense the copying is exact. As discussed below, sometimes the creators of a new program need to do this to ascertain how to make the new program interoperable with an old one. The third category consists of cases where there has been no literal copying of any of the code, and yet more has been copied than just the functionality of the program. Most of these cases have involved copying of the 'look and feel' of the program. Such cases are considered in Chapter 1 of this volume in the context of user interfaces.²⁵ Although cases involving copying the 'structure, sequence and organisation' of a program are rarer, a prominent example mentioned below concerns application program interfaces (APIs). The fourth category is where there is no copying of the code at all, even at the level of 'structure, sequence and organisation' or 'look and feel', but replication of what the code does in terms of inputs and outputs. Although the third category of case raises the issues of the idea/expression dichotomy and of nonliteral copying, these issues become particularly acute when one comes to the fourth category and will therefore be considered in that context.

3.2 Decompilation

Because computer programs are functional, there is often a desire on the part of the creator of a new program to ensure that the new program is 'interoperable' with an existing program, that is, to ensure that the two can function together, and in particular to ensure that data can be exchanged between them. Moreover, this will often be in the interests of users of both programs. Still further, in an increasingly interconnected world, it is in the public interest more generally, because it promotes innovation and efficiency. The difficulty is that the creator of the new program will typically not have access to the source code of the existing program, but only to the object code. Without access to the source code of the existing program, it can be very difficult to understand precisely how it works, and specifically how, and in what format, it receives and outputs data. In order to understand this, it may be necessary for the creator of the new program to 'decompile' the object code of the existing program so as to convert it back into source code. But, in the absence of an exception, this would infringe the reproduction right, and in particular art 4(1)(b). Art 6 requires Member States to provide such an exception, but the provision is a narrow one.²⁶

²⁴ It may be questioned why contractual override of the error correction exception should be permitted. A lawful acquirer of the program will usually have acquired it from the copyright owner or its licensee, and thus stand in contractual relationship with the latter. Thus the exception can easily be overridden by a standard-form contract that in practice the user has little chance of negotiating. The effect of this is to require the user to obtain a maintenance contract from the copyright owner or licensee (or take the risk of having to abandon use of the program if a bug is encountered) rather than being able to fix bugs itself (if the user has the technical capacity to do so).

²⁵ See also Noam Shemtov, *Beyond the Code: Protection of Non-Textual Features of Software* (OUP 2017) ch 7.

²⁶ It should be noted that, when the UK implemented art 6 by amending the 1988 Act to insert s 50B, provision was also made in s 29(4) excluding the exception for fair dealing for the purposes of research

The exception only applies if each of four conditions set out in art 6(1) applies. First, the decompilation must be ‘indispensable to obtain the information necessary to achieve the interoperability of an independently created program’ with the existing program. This is a stringent requirement, which obviously will not be met if the third condition is not satisfied, but may not be met even if it is. Second, the decompilation must be carried out by someone who has ‘a right to use a copy of’ the existing program (or a contractor acting on their behalf). This is a potential obstacle if licensed copies are not easily accessed, although art 8 does at least provide that the exception cannot be overridden by contractual provisions in the licence agreement. Third, the information necessary to achieve interoperability must have ‘not previously been readily available’. Quite what counts as ‘readily’ available for this purpose is not entirely clear. Is it enough, for example, to post the information on an obscure website? What if the copyright owner charges for the provision of the information? Lastly, the decompilation must be ‘confined to the parts of the [existing] program which are necessary to achieve interoperability’. The difficulty with this is that the decompiler may well not know in advance precisely which parts he needs to decompile.²⁷

Furthermore, the reach of the exception is limited by art 6(2). It does not permit the information obtained through decompilation to be used ‘for goals other than to achieve the interoperability of the [new] computer program’²⁸ or to be given to others or to be used ‘for the development, production or marketing of a computer program substantially similar in its expression, or for any other act which infringes copyright’.

Finally, art 6(3) stipulates that art 6 ‘may not be interpreted in such a way as to allow its application to be used in a manner which unreasonably prejudices the right holder’s legitimate interests or conflicts with a normal exploitation of the computer program’. This imports the Berne three step test directly into the Directive, and does so in a manner which appears from the reference to interpretation to be directed to national courts and not merely to the legislatures of the Member States.²⁹ The effect of this is somewhat obscure, but it may require courts to take into account considerations akin to those which arise when addressing questions of fair dealing or fair use.³⁰

or private study to decompilation. This was evidently done to ensure that persons who carry out decompilation cannot circumvent the limitations in art 6 by relying on fair dealing. Similarly, s 29(4A) excludes fair dealing in relation to observation, study and testing, which are thus solely covered by s 50BA implementing art 5(3). By contrast, in the USA there have been a number of cases in which decompilation and other acts carried out in order to achieve interoperability have been held to constitute fair use: see in particular *Atari Games Corp v Nintendo of America Inc* 975 F 2d 832 (Fed Cir 1992), *Sega Enterprises Ltd v Accolade Inc* 977 F 2d 1510 (9th Cir 1992) and *Sony Computer Entertainment Inc v Connectix Corp* 203 F 3d (9th Cir 2000) *cert denied*. See Shemtov (n 25) ch 3.

²⁷ See Shemtov (n 25) 100.

²⁸ Nevertheless the Grand Chamber of the Court of First Instance held in Case T-201/04 *Microsoft Corp v Commission of the European Communities* [2007] ECR II-3601 [225]–[226] that interoperability within the Software Directive extended to ‘two-way’ interoperability and was not confined to ‘one-way’ interoperability.

²⁹ cf art 5(5) of the Information Society Directive, discussed in Richard Arnold and Eleonora Rosati, ‘Are National Courts the Addressees of the InfoSoc Three-Step Test?’ [2015] *JiPLP* 741.

³⁰ cf *England and Wales Cricket Board Ltd v Tixdaq Ltd* [2016] EWHC 575 (Ch), [2016] *Bus LR* 641.

It is striking that, despite these uncertainties, thus far there has been no reported decision of any UK court on this exception. Nor has it been considered by the CJEU. The reasons for this are a matter for a speculation, but it may indicate that the exception is not much relied on.³¹

3.3 Functionality

The leading case in the EU on the extent to which copyright can protect functionality is *SAS Institute Inc v World Programming Ltd*.³² This case was tried by the High Court of England and Wales, Chancery Division, which referred questions to the CJEU for a preliminary ruling (*'SAS v WPL I'*).³³ Following the judgment of the CJEU (*'SAS v WPL CJEU'*),³⁴ the case returned to the High Court for final judgment (*'SAS v WPL II'*).³⁵ There was then an appeal to the Court of Appeal (*'SAS v WPL CA'*).³⁶ It is important to appreciate that the claims made in this case went beyond claims for infringement of copyright in computer programs through the creation of software with the same functionality, but extended to claims for infringement of copyright in user manuals and claims for both breach of contract and infringement of copyright through contravention of licence conditions.

3.3.1 Previous English cases

In order fully to understand *SAS v WPL*, it needs to be seen against the backdrop provided by a series of earlier English copyright cases concerning computer programs in which the idea/expression dichotomy and nonliteral copying had been considered. It is not necessary for present purposes to provide a survey of English cases on copyright in computer programs.³⁷ It

³¹ If so, this might be because of the limitations in art 6 and/or because decompilation is not always technically straightforward: see Shemtov (n 25) 97.

³² For commentary, see in particular Pamela Samuelson, Thomas Vinje and William Cornish, 'Does Copyright Protection under the EU Software Directive Extend to Computer Program Behaviour, Languages and Interfaces?' [2012] EIPR 158; Pamela Samuelson, 'The Past, Present and Future of Software Copyright: Interoperability Rules in the European Union and United States' [2012] EIPR 229; Daniel Gervais and Estelle Derclaye, 'The Scope of Computer Programs after SAS: Are We Closer to Answers?' [2012] EIPR 565. Note that there was a parallel case in the US, in which SAS obtained summary judgment for breach of contract and WPL obtained summary judgment dismissing SAS's claim for copyright infringement: *SAS Institute Inc v World Programming Ltd* 64 F Supp 3d 755 (EDNC 2014). A jury subsequently awarded SAS compensatory damages of US\$26,376,635 for breach of contract, fraudulent inducement and violation of the North Carolina Unfair and Deceptive Trade Practices Act (UDTPA). Under the UDTPA the damages award was trebled. WPL's appeal against the breach of contract claim was dismissed and SAS's copyright claim was held to be moot: *SAS Institute Inc v World Programming Ltd* 874 F 3d 370 (4th Cir 2017) *cert denied* 1 October 2018. An attempt by SAS to enforce the compensatory damages award for fraudulent inducement in the UK recently failed inter alia on the ground that the judgment was contrary to public policy because it conflicted with the Software Directive for the reasons given in the English case: *SAS Institute Inc v World Programming Ltd* [2018] EWHC 3452 (Comm) [2019] FSR 30.

³³ [2010] EWHC 1829 (Ch), [2011] RPC 1.

³⁴ Case C-406/10 [EU:C:2012:259], [2013] Bus LR 941.

³⁵ [2013] EWHC 69 (Ch), [2013] RPC 17.

³⁶ [2013] EWCA Civ 1482, [2014] RPC 8. The Supreme Court refused SAS permission to appeal on 9 July 2014.

³⁷ The early cases are discussed in Henry Carr and Richard Arnold, *Computer Software: Legal Protection in the United Kingdom* (2nd edn, Sweet & Maxwell 1992) chs 4 and 5. See also Stanley Lai, *The Copyright Protection of Computer Software in the United Kingdom* (Hart 2000).

suffices to highlight the following points. First, although the principle that copyright protected the expression of ideas rather than ideas themselves was one which had long been recognised in English law, it was a principle which lacked any statutory foundation prior to TRIPS art 9(2) and WCT art 2 becoming part of English law via EU law. Secondly, it had long been recognised in English law that copyright in various classes of works could be infringed by nonliteral copying. The pertinence of these principles to claims about computer programs was highlighted by the two cases which preceded *SAS v WPL: Navitaire Inc v easyJet Airline Co Ltd*,³⁸ and *Nova Productions Ltd v Mazooma Games Ltd*.³⁹

Navitaire v easyJet was the first substantial decision on the copyright protection of computer software in the UK on facts occurring after the implementation of the Software Directive. The claimant, Navitaire, was the developer of an airline reservation system called OpenRes. The first defendant, easyJet, was an airline. easyJet was a licensee of OpenRes and its staff were accustomed to using it. Much of OpenRes had what would now be regarded as a very old-fashioned ‘green screen’ user interface. This involved users typing in commands using a set of command codes such as A for an availability query, in many cases together with appropriate data (such as departure date, city pair, return date, fare class, etc) in a defined syntax. The results of executing the commands would then be somewhat crudely displayed on VT100 screens, which were character-based terminals, either as individual screen displays or as longer reports. In addition, part of OpenRes had a more modern graphical user interface (or GUI) enabling users to control the system by clicking on icons. easyJet commissioned the second defendant, BulletProof, to develop a replacement system called eRes that had the same user interfaces as OpenRes. In short, what easyJet wanted, and BulletProof supplied, was a ‘drop-in’ replacement for OpenRes which was largely identical from the user’s perspective (although very different in its underlying operation).

So far as is relevant for present purposes, Navitaire advanced three main claims. First, Navitaire contended that the defendants had infringed the copyright which subsisted in the commands as copyright works distinct from the source code of OpenRes by copying a substantial proportion of the commands. This claim was put in three different ways: copyright subsisted in each command (meaning the code letter or letters, any associated syntax and any associated symbols recognised by that syntax such as brackets, slashes, etc) as a copyright work in its own right; in the alternative, copyright subsisted in so-called complex commands (essentially, those which did have an associated syntax); and in the further alternative, copyright subsisted in the set of commands as a compilation. Second, Navitaire contended that the defendants had infringed the copyright which subsisted in a number of individual screen displays and reports as copyright works distinct from the source code of OpenRes by copying those displays and reports. As indicated above, this claim concerned two different types of screen displays, namely VT100 screen displays and reports and GUI screen displays. Third, Navitaire contended that the defendants had infringed the copyright in the source code of OpenRes by copying what Navitaire and its expert witness described prior to trial as the ‘business logic’ of OpenRes, although at trial counsel for Navitaire preferred to describe this claim as one of ‘non-textual copying’ analogous to copying the plot of a novel. Save for the claim in relation to the GUI screens, Pumfrey J dismissed each of these claims. In the case of the first claim, he held that the commands were not literary works or a compilation, and that in any

³⁸ [2004] EWHC 1725 (Ch), [2006] RPC 3.

³⁹ [2007] EWCA Civ 219, [2007] Bus LR 1032.

event they constituted a computer language which was not protectable by virtue of art 1(2) and recital (11) of the Software Directive. In the case of the claim in respect of the VT100 screen displays, he held that they were not protectable by virtue of art 1(2) of the Software Directive since they were interfaces (whereas the GUI screens were protectable since they were artistic works). In the case of the third claim, he held that it was not an infringement of the copyright in a computer program to copy its functionality.

In *Nova v Mazooma*, the claimant was the developer of a video game called Pocket Money which simulated a game of pool. The defendants developed two video games called Jackpot Pool and Trick Shot which also simulated pool games and which the claimant alleged infringed its copyrights. The claims were dismissed by both Kitchin J (as he then was) and the Court of Appeal. A remarkable feature of the case was that, although there were certain similarities between the defendants' games and the claimant's game at a high level of generality, at a more detailed level they were very different. In the Court of Appeal the claimant advanced two main claims. The first was that the sequence of the frames (that is, the images displayed to the user) of its game was an artistic work. It was common ground that the individual frames were artistic works and that there had been no frame for frame reproduction by the defendants. The Court of Appeal held that there was no separate copyright in the sequence of frames, and that in any event Kitchin J had rightly held that the defendants had not reproduced a substantial part of the claimant's work. The second claim was that the defendants had infringed the copyright in two literary works, namely the claimant's designer's design notes and the source code of the claimant's game itself. The Court of Appeal held that Kitchin J had rightly rejected this claim on two distinct, but related, bases. The first was that the similarities between the defendants' programs and the claimant's works were so general as to amount to ideas, rather than part of the expression of the claimant's works, and thus the defendants had not reproduced a substantial part of those works. The second was that, applying the principles set out by Pumfrey J in *Navitaire*, nothing which was protectable by copyright in computer software had been copied.

3.3.2 The facts in *SAS v WPL*

The claimant, SAS Institute Inc ('SAS Institute'), was a developer of analytical software known as SAS (referred to in the proceedings as 'the SAS System'). The SAS System was an integrated set of programs which enabled users to carry out a wide range of data processing and analysis tasks, and in particular statistical analysis. The core component of the SAS System was Base SAS, which enabled users to write and run application programs (also known as 'scripts') to manipulate data. Such applications were written in a language known as the SAS Language. The functionality of Base SAS could be extended by the use of additional components, including three which were relevant to these proceedings called SAS/ACCESS, SAS/GRAPH and SAS/STAT (the four components being collectively referred to as 'the SAS Components'). The SAS System had been developed over a period of 35 years.

Over the years, SAS Institute's customers had written, or had had written on their behalf, thousands of application programs in the SAS Language. These ranged from short and simple programs to large and complex programs which involved many years of effort to create. Prior to the events giving rise to the dispute, SAS Institute's customers had no alternative to continuing to license use of the necessary components in the SAS System in order to be able to run their existing SAS Language application programs, as well as to create new ones. While there were many other suppliers of analytical software which competed with SAS Institute,

a customer who wanted to change over to another supplier's software would be faced with rewriting its existing application programs in a different language.

The defendant, World Programming Ltd ('WPL'), perceived that there would be a market demand for alternative software which would be able to execute application programs written in the SAS Language. WPL therefore created a product called World Programming System or WPS to do this. In developing WPS, WPL sought to emulate much of the functionality of the SAS Components as closely as possible in the sense that, subject to only a few minor exceptions, it tried to ensure that the same inputs would produce the same outputs. This was so as to ensure that WPL's customers' application programs executed in the same manner when run on WPS as on the SAS Components. There was no suggestion that in doing so WPL had had access to the source code of the SAS Components or that WPL had copied any of the text of the source code of the SAS Components or that WPL had copied any of the structure, sequence or organisation of the source code of the SAS Components. WPL had, however, studied both the operation of a version of the SAS System known as the Learning Edition (a process sometimes known as 'black-box testing') and manuals for the SAS System published by SAS Institute ('the SAS Manuals'). SAS Institute contended that WPL had both committed a series of infringements of copyright and acted in breach of contract in creating WPS and its accompanying documentation.

SAS Institute's principal claims were as follows:

- (1) a claim that WPL copied the SAS Manuals when creating WPS and thereby infringed the copyright in the SAS Manuals;
- (2) a claim that, by copying the SAS Manuals when creating WPS, WPL indirectly copied the programs comprising the SAS Components and thereby infringed the copyright in the SAS Components;
- (3) a claim that WPL used the Learning Edition in contravention of the terms of its licences, because each copy of the Learning Edition was used by multiple WPL employees and because it was used for 'production' purposes, and thereby both acted in breach of the relevant contracts and infringed the copyright in the Learning Edition;
- (4) a claim that WPL infringed the copyright in the SAS Manuals in creating its own documentation, namely a manual ('the WPS Manual') and some 'quick reference' guides ('the WPS Guides').

A particular aspect of the first and second claims concerned the reproduction in WPS of SAS data file formats such as one called SAS7DBAT.

3.3.3 *SAS v WPL I*

In *SAS v WPL I*, the High Court made detailed findings of fact and reviewed the law before drawing conclusions which may be summarised as follows.⁴⁰ First, although the court was not persuaded that Pumfrey J was wrong to conclude in *Navitaire* that, on the true interpretation of art 1(2) of the Software Directive, copyright in computer programs did not protect programming languages or interfaces or the functions of programs from being copied without decompiling the object code, the law was not *acte clair* and so this was a question on which guidance from the CJEU was required. Second, on the assumption that Pumfrey J's interpretation was

⁴⁰ *SAS v WPL I* (n 32) [332].

correct, WPL had not infringed SAS Institute's copyrights in the SAS Components by producing WPS. Third, the court considered that the reasoning which supported Pumfrey J's interpretation of Article 1(2) of the Software Directive also applied to art 2(a) of the Information Society Directive, but again this was a question on which guidance from the CJEU was required. Fourth, on the assumption that art 2(a) of the Information Society Directive was to be interpreted in the same manner as art 1(2) of the Software Directive, WPL had not infringed SAS Institute's copyright in the SAS Manuals by producing or testing WPS. Fifth, WPL's use of the SAS Learning Edition fell outside the scope of the terms of the relevant licences. Sixth, the interpretation of art 5(3) of the Software Directive was another question on which guidance from the CJEU was required. Seventh, on the interpretation of art 5(3) which the court favoured, WPL's use of the Learning Edition was within art 5(3), and to the extent that the licence terms prevented this they were null and void, with the result that none of WPL's acts complained of was a breach of contract or an infringement of copyright except perhaps one. Eighth, WPL had infringed the copyrights in the SAS Manuals by substantially reproducing them in the WPL Manual. Last, WPL had not infringed the copyrights in the SAS Manuals by producing the WPS Guides.

Accordingly, a series of nine questions were referred to the CJEU. Questions 1–5 concerned the interpretation of art 1(2) of the Software Directive, questions 6–7 concerned the interpretation of art 5(3) of the Software Directive and questions 8–9 concerned the interpretation of art 2(a) of the Information Society Directive.⁴¹

3.3.4 *SAS v WPL CJEU*

The Grand Chamber of the CJEU ruled as follows in answer to questions 1–5, 6–7 and 8–9 respectively:

1. Art 1(2) of [the Software Directive] must be interpreted as meaning that neither the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of that directive.
2. Art 5(3) of [the Software Directive] must be interpreted as meaning that a person who has obtained a copy of a computer program under a licence is entitled, without the authorisation of the owner of the copyright, to observe, study or test the functioning of that program so as to determine the ideas and principles which underlie any element of the program, in the case where that person carries out acts covered by that licence and acts of loading and running necessary for the use of the computer program, and on condition that that person does not infringe the exclusive rights of the owner of the copyright in that program.
3. Art 2(a) of [the Information Society Directive] must be interpreted as meaning that the reproduction, in a computer program or a user manual for that program, of certain elements described in the user manual for another computer program protected by copyright is capable of constituting an infringement of the copyright in the latter manual if — this being a matter for the national court to ascertain — that reproduction constitutes the expression of the intellectual creation of the author of the user manual for the computer program protected by copyright.

⁴¹ It should be noted that although question 1 included reference to decompilation for completeness, as the CJEU correctly recorded (n 34) [44], WPL did not carry out any decompilation, which explains why there was no question directed to the interpretation of art 6.

3.3.5 *SAS v WPL II*

In *SAS v WPL II*, the High Court applied the ruling of the CJEU in *SAS v WPL CJEU* to the facts found in *SAS v WPL I* and concluded in summary as follows.

In relation to SAS's claim that WPS infringed the copyrights in the SAS Components, the CJEU's first ruling in answer to questions 1–5 amounted to an endorsement of Pumfrey J's interpretation of art 1(2) of the Software Directive in *Navitaire*. In short, copyright in a computer program did not protect either the programming language in which it was written or its interfaces (specifically, its data file formats) or its functionality from being copied. Although WPS reproduced elements of the SAS Language, that did not constitute an infringement of the copyrights in the SAS Components because the SAS Language was a programming language. Although WPS was able to read and write files in SAS7BDAT data file format, that did not constitute an infringement of the copyrights in the SAS Components for two reasons: first, that data file format was an interface and therefore unprotected by the copyrights in the SAS Components; second, there was no evidence that WPS reproduced any part of the SAS source code in that respect. Accordingly, this claim was dismissed. It should be noted that SAS tried to circumvent these conclusions by arguing that copyright subsisted in the SAS Language and the SAS data formats, but it was held that it was too late for SAS to advance such claims. The provisional view was expressed that a programming language such as the SAS Language was not a work and doubt was expressed as to whether a data file format was a work.⁴²

In relation to SAS's claim that WPS infringed the copyrights in the SAS Manuals, the CJEU's third ruling in answer to questions 8 and 9 confirmed that the reproduction of a manual was capable of constituting an infringement of the copyright in the manual if the reproduction constituted the expression of the intellectual creation of the authors of the manual. The CJEU had also clarified, however, that the keywords, syntax, commands and combination of commands, options, defaults and iterations described in the manual did not in isolation constitute intellectual creations. In other words, they were ideas, procedures, methods of operation or mathematical concepts. Taking that into account, WPL had not reproduced the expression of the intellectual creation of the authors of the SAS Manuals. Although SAS argued that WPL had reproduced compilations of (i) formulae, (ii) keywords, (iii) default values, (iv) comments and (v) optimisations from the SAS Manuals, the authors of the SAS Manuals had not created such compilations; the authors of the SAS System had. Accordingly, this claim was dismissed.

In relation to SAS's claims in respect of WPL's use of the Learning Edition, neither the CJEU's second ruling in answer to questions 6 and 7, nor its reasoning, were clear. The court appeared to read a condition into art 5(3) in the light of recital (18) which was to be interpreted in the same way as art 6(2)(c). That indicated that WPL did not lose the protection of art 5(3) due to the fact that it performed acts which fell outside the scope of the licence. Accordingly, this claim was dismissed.

In relation to SAS's claim that the WPS Manual infringed the copyrights in the SAS Manuals, the conclusion in *SAS v WPL I* that there had been limited infringement was maintained.

⁴² *SAS v WPL II* (n 35) [33] and [39].

3.3.6 *SAS v WPL CA*

SAS Institute appealed to the Court of Appeal against the dismissal of its claims that WPS infringed the copyrights in the SAS Manuals and its claims in relation to the use made by WPL of the Learning Edition and against the partial dismissal of its claim that the WPS Manual infringed the copyrights in the SAS Manuals. It did not appeal against the dismissal of its claim that WPS infringed the copyrights in the SAS Components.

In relation to SAS Institute's claim that WPS infringed the copyrights in the SAS Manuals, the Court of Appeal held that the functionality of a computer program did not count as a form of expression of an intellectual creation, but rather fell on the ideas side of the line, whether one was considering the Software Directive or the Information Society Directive. Accordingly, what WPL had copied was not capable of protection by copyright, regardless of whether the copyright relied upon was the copyright in the computer programs or the copyright in the manuals describing the operation of those programs. The Court of Appeal considered that it was irrelevant whether the program was written first or the manual. (On the other hand, the Court of Appeal also considered that it did not detract from SAS's claim that the SAS System had grown by accretion without any overall design.)

In relation to SAS Institute's claim that the WPS Manual infringed the copyrights in the SAS Manuals, the Court of Appeal held that this fell with the first claim insofar as it concerned the descriptions of the underlying functionality of the program. Linguistic reproduction of the terms of the SAS Manuals was a different matter, however. As the Court of Appeal noted, WPL had not appealed against the High Court's conclusion that in limited respects WPL had copied the text of the SAS Manuals and thereby infringed the copyrights in them.

Turning to SAS Institute's claims in relation to the Learning Edition, the Court of Appeal disagreed with the court below as to whether WPL had acted in breach of the licence conditions as a result of the Learning Edition being used by multiple employees and not just the individual employee who had acquired each copy. This is a point of contractual interpretation of the particular licence which is of no wider significance. The Court of Appeal assumed, without deciding, that the court below was correct to hold that WPL had acted in breach of the licence conditions by using the Learning Edition for purpose of studying its operation in order to produce competitive software. On that assumption, the Court of Appeal upheld the conclusion that what WPL had done was protected by art 5(3) of the Software Directive and that the contractual restriction was avoided by art 8 (formerly art 9(1)). In this regard, the Court of Appeal held that the CJEU had distinguished in its judgment between *acts* permitted by the licence and the *purpose* for which those acts were carried out. Once a licensee was entitled to perform acts for any purpose specified in the licence, art 5(3) permitted the licensee to perform those acts for other purposes falling within art 5(3).

4. WHERE DOES *SAS v WPL* LEAVE THE LAW?

The upshot of *SAS v WPL* is that the law is now clear in some respects, but remains unclear in others.

First, it is now clear that the idea/expression dichotomy as embodied in art 9(2) of TRIPS and art 2 of the WCT is a general principle of European copyright law. Not only is the dichotomy explicit in art 1(2) of the Software Directive, but also, as the Court of Appeal empha-

sised,⁴³ the CJEU has interpreted art 2(a) of the Information Society Directive in what amounts to the same manner. Although, as the Court of Appeal rightly pointed out, the same approach underlies a number of earlier CJEU judgments,⁴⁴ *SAS v WPL* confirms it. It follows that copyright protection does not extend to ‘ideas, procedures, methods of operation or mathematical concepts as such’ regardless of the nature of the copyright work.

Second, it is equally clear that the copyright in a computer program does not protect either the functionality of the program or the programming language or the format of the data files. Furthermore, as the Court of Appeal also emphasised, it is clear that it is not possible to obtain indirect protection for the functionality of the program by relying upon the copyright in a user manual describing that functionality. As Lewison LJ put it when dealing with SAS Institute’s first claim,⁴⁵ ‘[t]he functionality of a computer program . . . falls on the ideas side of the line. It falls on that side of the line whether one is considering the Software Directive or the Information Society Directive . . . In short, what WPL took [from the SAS Manuals] was not capable of protection by copyright.’ The same must go for the programming language and the data file formats.

Third, however, the CJEU held that it was possible that copyright subsisted in the SAS Language and the data file formats as literary works under the Information Society Directive, rather than as computer programs under the Software Directive, ‘if they are their author’s own intellectual creation’.⁴⁶ This conclusion did not assist SAS Institute, because SAS Institute had not previously pleaded reliance upon the SAS Language or data file formats as copyright works in their own right, and it was held in *SAS v WPL II* that it was too late for it to do so.⁴⁷ But if these claims had been pleaded in time, they would have raised some difficult questions. First, can a programming language be a literary work within the meaning of art 2(1) of the Berne Convention at all? Although the CJEU appears to have considered that this might be the case, the High Court expressed the provisional view that it was not, any more than a human language or a scientific theory was a literary work.⁴⁸ The Court of Appeal did not consider this question. Second, even if a programming language was capable of being a literary work, would that extend to one that had evolved organically over time? In the Court of Appeal Lewison LJ disapproved the proposition that ‘something that has grown by accretion should, for that reason alone, be deprived of copyright protection’.⁴⁹ It is clearly no objection to the subsistence of copyright in a conventional literary work that there have been a number of different editions of the work or that later editions have been created by different authors or combinations of authors to earlier editions. Equally, there is no reason why successive versions of a computer program (such as those created following the open source model) should

⁴³ *SAS v WPL CA* (n 36) [49]–[52], [57]–[59], [63], [69] and [74]–[76].

⁴⁴ Notably Case C-5/08 *Infopaq International A/S v Danske Dagblades Forening* [2009] ECR I-6569; Case C-393/09 *Bezpečnostní softwarová asociace – Svaz softwarové ochrany v Ministerstvo kultury* [2010] ECR I-13971; Joined Cases C-403/08 and C-429/09 *Football Association Premier League Ltd v QC Leisure Ltd* [2011] ECR I-9083; Case C-145/10 *Painer v Standard Verlags GmbH* [2011] ECR I-12533; Case C-604/10 *Football Dataco Ltd v Yahoo! UK Ltd* [EU:C:2012:848], [2012] Bus LR 1753.

⁴⁵ *SAS v WPL CA* (n 36) [74].

⁴⁶ *SAS v WPL CJEU* (n 34) [45].

⁴⁷ *SAS v WPL II* (n 35) [26], [37]. Note that there was no appeal to the Court of Appeal on these points.

⁴⁸ *SAS v WPL II* (n 35) [33]–[34].

⁴⁹ *SAS v WPL CA* (n 36) [80].

be treated differently in this respect. If, on the other hand, additions are made to a work over time in some cases because customers ask for them and in other cases because competitors introduce them, then it is less easy either to identify the authors of the resulting work or to say that it is their intellectual creation. The difficulty is compounded if copyright is claimed in the work as a compilation, since art 10(2) of TRIPS and art 5 of the WIPO Copyright Treaty tell us that only compilations ‘which by reason of the selection or arrangement of their contents constitute intellectual creations’ attract copyright.⁵⁰ Similar questions arise in relation to data file formats, but in the case of data file formats questions are also likely to arise in relation to fixation and whether the format is an intellectual creation even if it does not evolve over time.⁵¹

Fourth, the extent to which programming interfaces other than data file formats are protectable remains to be settled. The only programming interfaces which were in issue in *SAS v WPL* were data file formats, and hence no questions were referred to the CJEU concerning other kinds of programming interfaces, such as APIs. It would seem that the approach which the CJEU adopted to data file formats is equally applicable at least to APIs which are functional in the sense that they are essential to achieving interoperability, but this may not be the case for all APIs, or at least not wholly the case.⁵² APIs may be partly functional in the sense that they are essential for interoperability, but partly nonfunctional in that they enable things to be done which go beyond mere interoperability. What if, for example, an API not merely allows the relevant data to be interchanged, but allows the protected program to present that data to the user in a particular userfriendly way? This may depend on what makes the presentation userfriendly: is it because it enables the data to be accessed efficiently or because the presentation is aesthetically pleasing? The former scenario is more likely than the latter to lead to the conclusion that the API is unprotectable. Even if the API’s only real function is enable data to be interchanged, however, it may not be necessary to copy the whole API to achieve interoperability.⁵³

Fifth, the extent to which user interfaces are protectable also remains to be settled. Given that almost all user interfaces are now GUIs, Pumfrey J’s decision in *Navitaire* that text-based user interfaces were unprotectable is probably only of historic interest. Nevertheless, it seems unlikely in the light of *SAS v WPL* that they are protectable under the Software Directive. Furthermore, in the light of the CJEU’s decision in *Infopaq International A/S v Danske Dagblades Forening* that ‘words as such . . . do not constitute elements covered by’ copyright protection,⁵⁴ it also seems unlikely that commands consisting effectively of single invented ‘words’ can qualify for protection under the Information Society Directive. At the other end of the spectrum, it seems to be generally accepted that graphical works recorded in computer software attract copyright as artistic works in the normal way even if those graphical works form part of a GUI.⁵⁵ In *Bezpečnostní softwarová asociace – Svat softwarové ochrany v Ministerstvo kultury* the CJEU held that, when considering whether a GUI was its author’s

⁵⁰ See also art 3(1) of European Parliament and Council Directive 96/9/EC of 11 March 1996 on the legal protection of databases, which makes the same provision with respect to databases.

⁵¹ *SAS v WPL II* (n 35) [39]–[41].

⁵² Samuelson, Vinje and Cornish (n 32); Samuelson (n 32). See further below.

⁵³ In *Oracle v Google*, cited below, Google copied the structure, sequence and organisation and the declaring code, but not the implementing code, of 37 Java API packages.

⁵⁴ *Infopaq* (n 44) [46].

⁵⁵ See in particular Case C-355/12 *Nintendo Co Ltd v PC Box Srl* [EU:C:2014:25], [2014] ECDR 6 [23].

own intellectual creation so as to satisfy the criterion for originality under the Information Society Directive, ‘that criterion cannot be met by components of the [GUI] which are differentiated only by their technical function’.⁵⁶ The Court of Appeal in *SAS v WPL CA* interpreted this as meaning that the criterion of originality is not met ‘if expression is dictated by technical function’.⁵⁷ Even assuming that this is the correct reading of the CJEU’s decision, there is considerable room for debate as to the correct test for deciding whether something is ‘dictated by’ function, and in particular whether it can be dictated by function if there are alternative possibilities which fulfil the same function, as can be seen from both trade mark law and designs law (where that question has been answered in the negative).⁵⁸ This issue is considered further in Chapter 1 of this volume.

Sixth, there remains a slight degree of uncertainty as to the scope and effect of art 5(3) of the Software Directive. There are two aspects to this. First, as Lewison LJ put it,⁵⁹

the court distinguished between *acts* permitted by the licence, and the *purpose* for which those permitted acts were carried out. Once you have crossed the threshold of being entitled to perform acts for any purpose specified in the licence, art 5(3) permits you to perform those same acts for a purpose that falls within art 5(3).

This suggests that the beneficiary of art 5(3) can only perform acts which he is licensed to perform, but at least on one reading of its judgment the CJEU went further and held that the beneficiary can also carry out unlicensed ‘acts of loading and running necessary for the use of the program’.⁶⁰ This might be significant if a copyright owner tried to avoid the effect of art 5(3) by limiting the scope of the licensed acts, which argues in favour of the broader reading of the judgment. Second, a point which was not discussed by the Court of Appeal is that the CJEU read into art 5(3) from the eighteenth recital (now recital [14]) a condition that the beneficiary does not infringe the copyright in the computer program. As discussed by the High Court,⁶¹ the CJEU appears to have interpreted this condition as having the same effect as art 6(2)(c), that is to say, as prohibiting the use of the information gained through studying the program to develop another program which is substantially similar in its expression. This is not necessarily problematic provided that ‘substantially similar in its expression’ is not interpreted too broadly.

Finally, a more general issue which remains relatively undeveloped in European law is precisely how and where to draw the line between the unprotectable functions of a computer program and its protectable expression in less clearcut cases than *SAS v WPL*. As demonstrated by the recent decision of the Court of Appeals for the Federal Circuit concerning APIs in

⁵⁶ *Bezpečnostní* (n 44) [48].

⁵⁷ *SAS v WPL CA* (n 36) [33].

⁵⁸ Case C-299/99 *Koninklijke Philips Electronics NV v Remington Consumer Products Ltd* [2002] ECR I-5475; Case C-48/09 *Lego Juris A/S v Office for Harmonisation in the Internal Market (Trade Marks and Designs)* [2010] I-8403; Case C-215/14 *Société des Produits Nestlé SA v Cadbury UK Ltd* [EU:C:2015:604]; Case C-30/15 P *Simba Toys GmbH & Co KG v European Union Intellectual Property Office* [EU:C:2016:849] (trade marks). Case C-395/16 *DOCERAM GmbH v CeramTec GmbH* [EU:C:2018:172] (designs).

⁵⁹ *SAS v WPL CA* (n 36) [101].

⁶⁰ *SAS v WPL CJEU* (n 34) [58]–[59].

⁶¹ *SAS v WPL II* (n 35) [72].

Oracle America Inc v Google Inc,⁶² and subsequent academic criticisms of that decision,⁶³ even in jurisdictions with a more developed jurisprudence there is considerable room for debate on these questions. For the reasons explained in relation to the fourth issue above, the resolution of such questions is inevitably somewhat fact dependent; but it is also dependent on how expansive a view the court takes of the scope of copyright protection. Furthermore, as has often been pointed out in the literature, it is easier for courts to hold that copyright protection should not be too rigorously excluded on functionality grounds in systems that provide for exceptions, such as the US fair use exception, which safeguard users' rights in other ways.⁶⁴

⁶² 750 F 3d 1339 (Fed Cir 2014) *cert denied* 135 S Ct 2887 (2015).

⁶³ See for example Wendy Gordon, 'How *Oracle* Erred: The Use/Explanation Doctrine and The Future of Computer Copyright' in Okediji (n 10) 375–428; Pamela Samuelson, 'Functionality and Expression in Computer Programs: Refining the Tests for Software Copyright Infringement' (2017) 31 Berkeley Tech LJ 1215; Peter Menell, 'Rise of the API Copyright Dead? An Updated Epitaph for Copyright Protection of Network and Functional Features of Computer Software' (2018) 31 Harvard JL & Tech 303.

⁶⁴ Although the CAFC denied fair use: *Oracle America Inc v Google Inc* 750 F 3d 1376 (Fed Cir 2018). The fair use issue, although not the CAFC judgment, is discussed in Pamela Samuelson and Clark Asay, 'Saving Software's Fair Use Future' (2018) 31 Harvard JL & Tech 536.

3. Copyright and gaming

Yin Harn Lee

1. INTRODUCTION

Videogames are now an important part of the economic and cultural landscape within the UK specifically and Europe more generally. Contemporary videogames are complex, multimedia artefacts that operate within sophisticated technological frameworks; because of this, it seems reasonable to expect that they should become objects of interest to scholars of intellectual property law, and to copyright scholars in particular. With a few exceptions, however, the copyright issues raised by videogames have yet to be the focus of sustained legal enquiry from scholars working in the field of UK and European copyright law.

Videogames are considered to some extent in Irini Stamatoudi's and Tanya Aplin's respective monographs on copyright and multimedia.¹ However, both authors situate videogames within the broader category of multimedia works, treating them as an example – and something of a *sui generis* one, at that – of multimedia more generally, rather than as a distinct class of creations in their own right.² This is also the case with several articles on copyright and multimedia that were published around the same period.³ While a number of important judicial decisions have recently arisen from cases involving videogames, the focus of the academic commentary surrounding them has remained very much on the general principle at issue in each case – such as the doctrine of exhaustion, or the standards applicable to technological protection measures – rather than its particular implications for the videogame industry or for videogames as a medium.⁴

At the same time, there are also indications of a growing appetite for legal scholarship concerning videogames. Recent years have witnessed the publication of an extensive, multijurisdictional study by the World Intellectual Property Organization ('WIPO') on the legal status of videogames in the copyright laws of its Member States;⁵ the completion of an interdisciplinary project on videogames, transmedia and the law funded by Research Councils UK ('RCUK');⁶

¹ Irini A Stamatoudi, *Copyright and Multimedia Products: A Comparative Analysis* (Cambridge University Press 2002); Tanya Aplin, *Copyright Law in the Digital Society* (Hart Publishing 2005).

² Stamatoudi (n 1) 166–85; Aplin (n 1) 205–08, 218–22.

³ See Michael D Scott and James L Talbott, 'Interactive Multimedia: What Is It, Why Is It Important and What Does One Need to Know About It?' (1993) 15 EIPR 284; Stephan Beutler, 'The Protection of Multimedia Products Through the European Community's Directive on the Legal Protection of Databases' (1996) 7 Ent LR 317; Tanya Aplin, 'Not in Our Galaxy: Why "Film" Won't Rescue Multimedia' (1999) 21 EIPR 633; Cristina Cifuentes and Anne Fitzgerald, 'Copyright Protection for Digital Multimedia Works' (1999) 10 Ent LR 23.

⁴ See discussion below.

⁵ Andy Ramos et al, *The Legal Status of Video Games: Comparative Analysis in National Approaches* (World Intellectual Property Organization 2013).

⁶ This project forms part of the work carried out by the RCUK-funded Centre for Copyright and New Business Models in the Creative Economy ('CREATe'). The academics involved are Daithí Mac Síthigh, Keith M Johnston and Tom Phillips.

the launch of *More than Just a Game*, Queen Mary University of London's annual conference on interactive entertainment and intellectual property law; and the founding of the *Interactive Entertainment Law Review*, published by Edward Elgar. In this context, it should be noted that some valuable exploratory work on the legal issues surrounding videogames has been carried out by Daithí Mac Síthigh as part of the RCUK funded project referred to above. This has been published as an article in the *European Journal of Law and Technology*,⁷ and also as a chapter in the *Research Handbook on Intellectual Property in Media and Entertainment*, an earlier volume in the same series as the present collection.⁸ Similar work has also been carried out by Greg Lastowka, writing in the context of US copyright law.⁹

Building upon this earlier work, the aim of this chapter is to highlight those areas of copyright law that are of the greatest significance for scholars with an interest in videogames, to provide an overview of the existing literature within these areas and to suggest avenues for further research. While many of the issues under discussion – including digital exhaustion, technological protection measures and user-generated content – are of relevance to copyright law generally, they each raise a unique set of considerations when placed in the specific context of videogames.

The discussion will take place primarily in the context of UK and European copyright law, with references to international copyright law and the national laws of other jurisdictions where relevant. Notwithstanding the UK's impending withdrawal from the EU, it is expected that European copyright law will continue to be of relevance to the UK in the short to medium term.¹⁰ In any event, the uncertainty surrounding the UK's future position vis-à-vis the EU is far too great for any predictions as to potential legal divergences to be usefully made. Because the focus of this chapter is on the copyright issues raised by videogames, the myriad other interesting – and equally important – challenges presented by videogames for other fields of law will not be further discussed here, except where they shed light on the copyright issues in question.¹¹

2. VIDEOGAMES AS COPYRIGHT SUBJECT MATTER

Although videogames have been commercially available since the early 1970s, the question of whether a videogame is capable of being protected by copyright as an entire work is one that remains unresolved as a matter of UK copyright law. In the few cases involving videogames,

⁷ Daithí Mac Síthigh, 'Multiplayer Games: Tax, Copyright, Consumers and the Video Game Industries' (2014) 5 EJLT <<http://ejlt.org/article/view/324>> accessed 11 October 2019.

⁸ Daithí Mac Síthigh, 'The Game's the Thing: Property, Priorities and Perceptions in the Video Game Industries' in Megan Richardson and Sam Ricketson (eds), *Research Handbook on Intellectual Property in Media and Entertainment* (Edward Elgar 2017).

⁹ Greg Lastowka, 'Copyright Law and Video Games: A Brief History of an Interactive Medium' in Matthew David and Debra Halbert (eds), *SAGE Handbook of Intellectual Property* (SAGE Publications 2015).

¹⁰ For the most significant changes, see the Intellectual Property (Copyright and Related Rights) (Amendment) (EU Exit) Regulations 2019.

¹¹ These include the rights of players to 'property' acquired in virtual worlds, the consumer rights issues raised by 'free-to-play' videogames featuring in-game microtransactions, the use of celebrity likenesses in videogames and so forth.

the UK courts have had little difficulty acknowledging that each of the individual components that make up a videogame is, in principle, capable of being protected by copyright as a separate work, provided that it meets the requirements for such protection. Thus, the underlying computer program would be protected as a literary work, the individual graphics as artistic works, and so forth.¹² Problems have arisen, however, where copyright protection is sought for the videogame as a whole. This is due in part to the UK's 'closed list' approach to defining the subject matter protected by copyright,¹³ under which copyright subsists only in certain statutorily enumerated categories of works,¹⁴ and in part to the absence of a statutory subject matter category that is an intuitive fit for videogames. Under the copyright laws of several European Member States, the audiovisual display generated by a videogame is protected either as an audiovisual work,¹⁵ or as a cinematographic work.¹⁶ This is also the position in the US, where such displays are protected as audiovisual works.¹⁷ However, the UK's closed list of protected subject matter does not recognize 'audiovisual work' or 'cinematographic work' as a separate category; its closest equivalents are the categories of 'film' and 'dramatic work'.

The term 'film' is statutorily defined as 'a recording on any medium from which a moving image may by any means be produced'.¹⁸ On the face of it, this broad definition appears capable of accommodating the audiovisual displays generated by videogames. While there has been no decision directly on this point by the UK courts, it should be noted that courts in South Africa,¹⁹ as well as in Australia,²⁰ have held such audiovisual displays to be 'cinematograph films' within the meaning of their respective copyright statutes. It should be noted, however, that the statutory category of 'film' refers not to the audiovisual work embodied in a particular recording, but only to the recording itself. Because of this, any film copyright subsisting in a videogame would be infringed only where the recording of the display itself had been copied, and not where the incidents shown in the display had been recreated independently.²¹ Film copyright is therefore of limited value to rightholders, especially in the cases of so-called game cloning discussed below.

¹² *Nova Productions Ltd v Mazooma Games Ltd* [2006] EWHC 24 (Ch), [2006] RPC 14; [2007] EWCA Civ 219, [2007] RPC 25.

¹³ See Tanya Aplin, 'Subject Matter' in Estelle Derclaye (ed), *Research Handbook on the Future of EU Copyright* (Edward Elgar 2009), ch 3.

¹⁴ Copyright, Designs and Patents Act 1988 ('CDPA'), s 1(1).

¹⁵ *Nintendo v Horolec* (Brussels Court of First Instance, 12 December 1995). See also Ramos et al (n 5) 14–15 (Belgium), 51 (Italy), 78–79 (Spain) and 85–86 (Sweden).

¹⁶ *Société Atari v Valadon* (French Court of Cassation, 7 March 1986); *Société Williams Electronics v Presotto et Société Jeutel* (French Court of Cassation, 7 March 1986); *Super Mario III* (Hamburg Regional Higher Court of Appeal, 12 October 1989); *Amiga Club* (Cologne Regional Higher Court of Appeal, 18 October 1991). See, however, F Willem Grosheide, Herwin Roerdink and Karianne Thomas, 'Intellectual Property Protection for Video Games: A View from the European Union' (2014) 9 JICLT 1, 10–11.

¹⁷ *Atari, Inc v Amusement World, Inc* 547 F Supp 222 (D Md 1981).

¹⁸ CDPA, s 5B(1).

¹⁹ *Nintendo Co Ltd v Golden China TV Game Centre* (1993) 28 IPR 313.

²⁰ *Sega Enterprises Ltd v Galaxy Electronics Pte Ltd* 69 FCR 268; 75 FCR 8.

²¹ *Norowzian v Arks Ltd (No 1)* [1998] FSR 394 (Ch) 398–99. See also Aplin (n 3) 637–38; Richard Arnold, 'Joy: A Reply' [2001] 11 IPQ 10, 11; Pascal Kamina, *Film Copyright in the European Union* (2nd edn, Cambridge University Press 2016) 33–34.

The argument that a videogame might be protected as a dramatic work was attempted in *Nova Productions Ltd v Mazooma Games Ltd* ('Nova Productions').²² This, if successful, would have given the audiovisual display of a videogame much 'thicker' protection than that afforded by film copyright. However, this possibility was rejected at first instance by Kitchin J (as he then was), on the basis that the videogame did not demonstrate 'sufficient unity to be capable of performance' as a dramatic work.²³ This was because the particular sequence of images shown on the screen would inevitably vary each time the videogame was played. This aspect of Kitchin J's decision was not further argued on appeal. It therefore remains the most recent judicial pronouncement on the protection of videogames as entire works under UK copyright law.

Since the decision in *Nova Productions* was handed down, however, a number of developments have occurred that cast doubt on whether the position taken in that case remains tenable. The first set of developments relates to the jurisprudence of the CJEU. Through a series of judgments beginning with *Infopaq International A/S v Danske Dagblades Forening* ('*Infopaq*')²⁴ and culminating most recently in *Levola Hengelo BV v Smilde Foods BV* ('*Levola Hengelo*'),²⁵ the CJEU has articulated a harmonized European concept of the copyright 'work' that is potentially much broader in scope than that encompassed by the UK's statutory subject matter categories, at least as traditionally understood.²⁶ In *Levola Hengelo*, the CJEU first clarified that the concept of the copyright 'work' must be given an autonomous and uniform interpretation throughout the European Union. It then held that, for a subject matter to be classifiable as a 'work', it must be an expression of the author's own intellectual creation.

Of particular relevance in the context of videogames is *Nintendo Co Ltd v PC Box Srl* ('*Nintendo v PC Box*'),²⁷ where the CJEU referred to a videogame as an 'entire work' comprising not only a computer program but also graphic and sound elements. Because of this, it was held capable of being protected by copyright under the regime established by the Information Society Directive, which requires Member States to confer certain exclusive rights over 'works' in general.²⁸ If this is taken as an indication that European copyright law does protect videogames as entire works, it may mean that the UK's 'dramatic work' category will now have to be reinterpreted so as to confer the same level and type of protection.²⁹ In addition, there is also academic commentary,³⁰ as well as recent case law,³¹ which suggests that the

²² [2006] EWHC 24 (Ch), [2006] RPC 14; [2007] EWCA Civ 219, [2007] RPC 25.

²³ For the case laying down the 'sufficient unity' requirement, see *Green v Broadcasting Corporation of New Zealand* [1989] RPC 700 (PC) 702.

²⁴ Case C-5/08, [2009] ECR I-6569.

²⁵ Case C-310/17.

²⁶ See Jonathan Griffiths, '*Infopaq*, BSA and the "Europeanisation" of United Kingdom Copyright Law' (2011) 16 MALR 59, 66–68; Mireille van Eechoud, 'Along the Road to Uniformity: Diverse Readings of the Court of Justice Judgments on Copyright Work' (2012) 3 JIPITEC 60, 70–71.

²⁷ Case C-355/12, EU:C:2014:25.

²⁸ Information Society Directive, arts 2 to 4.

²⁹ It has also been suggested, more radically, that the UK may have to dispense with its closed categories of statutory subject matter altogether: see van Eechoud (n 26) 71; William Cornish, David Llewelyn and Tanya Aplin, *Intellectual Property: Patents, Copyright, Trademarks & Allied Rights* (8th edn, Sweet & Maxwell 2013), [11-04].

³⁰ Kamina (n 21) 78–79.

³¹ *Banner Universal Motion Pictures Ltd v Endemol Shine Group Ltd* [2017] EWHC 2600 (Ch), [2018] ECDR 3 [44]–[45]. See also *Ukulele Orchestra of Great Britain v Clausen* [2015] EWHC 1772 (IPEC), [2015] ETMR 40 [104].

requirement of ‘sufficient unity’ applicable to dramatic works under UK copyright law is not one that demands absolute uniformity, as was implied by the judgment of Kitchin J in *Nova Productions*. Instead, it is capable of tolerating a certain degree of variation between each performance, provided that there is a baseline degree of consistency which ensures that the work remains recognizable as the same work.

These developments mean that there is considerable scope for future research into the status of videogames as copyright subject matter. This is not to say that no previous work on the issue has ever been done. In their respective monographs, both Stamatoudi and Aplin make the case that multimedia works – a term that, as explained previously, includes videogames – should be protected by copyright, and put forward the possibility of creating a new subject matter category capable of accommodating them.³² Similar arguments have been advanced in my own earlier article on the protection of the gameplay element of videogames.³³ However, much of this literature was published prior to the decisions in *Infopaq* and *BSA*, and well before the implications of the CJEU’s harmonizing jurisprudence became apparent. The only piece recent enough to take account of the CJEU’s decision in *Nintendo v PC Box* is an article on game cloning by Susan Corbett, in which she advocates for legislative amendments that would extend copyright protection to all creative works rather than confining it to a closed list of statutory subject matter categories.³⁴ Current developments within both the judicial and academic spheres suggest a growing consensus that videogames ought, in principle, to be protected as copyright works: the main challenge for future researchers thus lies in determining how such protection can best be effected within the relevant legislative framework. In the context of UK copyright law, for instance, would videogames as copyright subject matter be best accommodated through the reinterpretation of the ‘dramatic work’ category, the introduction of a new subject matter category such as ‘audiovisual works’ or the outright replacement of the current ‘closed list’ approach with an ‘open list’ system? In addition to doctrinal questions, there is also scope for a comprehensive enquiry into the impact of this apparent gap in protection for the videogame industry.

The categorization of videogames as copyright subject matter is not a self-contained issue, but has a direct bearing on many of the other copyright issues surrounding videogames, as the discussion below will show.³⁵ This makes further research into the area even more imperative.

3. GAME CLONING

The term ‘game cloning’ refers to the controversial practice whereby a competitor seeks to capitalize on a videogame’s success by replicating its overall design, and in particular the gameplay experience provided by it, while carefully refraining from any direct copying of its underlying computer program or its graphics. While cases involving game cloning had been

³² Stamatoudi (n 1) 211–69; Aplin (n 1) 204–54.

³³ Yin Harn Lee, ‘Play Again? Revisiting the Case for Copyright Protection of Gameplay in Videogames’ (2012) 34 EIPR 865, 872–73.

³⁴ Susan Corbett, ‘Videogames and Their Clones: How Copyright Law Might Address the Problem’ (2016) 32 CLSR 615, 622.

³⁵ See in particular the discussion on game cloning, digital exhaustion and technological protection measures.

litigated before the US courts as early as the 1980s,³⁶ the issue has acquired greater contemporary significance due to a number of high-profile incidents in the mobile gaming sphere.³⁷ Mobile platforms favour the development of smaller scale, easy-to-play videogames that are structured around a fairly limited set of game mechanics; this relative simplicity makes their design more susceptible to replication by competitors. This is exacerbated by the lower costs and shorter development-to-distribution periods that are characteristic of mobile game development.³⁸

Under UK copyright law, rightholders whose videogames have been ‘cloned’ by their competitors are perceived as having very little in the way of legal recourse.³⁹ This is due in part to the difficulties surrounding the categorization of videogames as copyright subject matter, as described in the previous section. Because videogames are not – at present – protected as dramatic works, no claim of copyright infringement can be made on the basis of similarities in behaviour and movement that are observable in the audiovisual displays of both the original videogame and its ‘clone’ during play. While the computer program implementing a videogame will almost certainly be protected by copyright as a literary work, it is well established that such protection does not extend to its functionality.⁴⁰ This is illustrated by *Nova Productions* itself, where one of the claimant’s contentions was that the defendants had infringed the copyright in the computer program underlying its videogame by writing their own computer programs for their own videogames in such a way as to replicate certain functions of the claimant’s computer program. This was rejected both at first instance and on appeal, on the basis that the functionality of a computer program was an idea rather than part of its expression.

Even if rightholders could identify a protected subject matter capable of encompassing videogame game design and mechanics, they would still face the additional challenge of demonstrating that these elements had been copied by their competitors at a level of specificity going beyond the taking of a mere idea – a challenge that the claimants in *Nova Productions* were unable to overcome. The difficulty of this is highlighted by the US case law on videogame clones. As noted previously, under US copyright law, it is well established that the screen display generated by a videogame during play is protected as an ‘audiovisual work’.

³⁶ *Atari, Inc v Amusement World, Inc* 547 F Supp 222 (D Md 1981); *Atari, Inc v North American Philips Consumer Electronics Corp* 672 F 2d 607 (7th Cir 1982); *Data East USA, Inc v Epyx, Inc* 862 F 2d 204 (9th Cir 1988). In these cases, the videogame ‘clones’ were also described as ‘knock-off games’: see Steven G McKnight, ‘Substantial Similarity Between Video Games: An Old Copyright Problem in a New Medium’ (1983) 36 Vand L Rev 1277, 1296.

³⁷ For examples, see S Parkin, ‘Clone Wars: Is Plagiarism Killing Creativity in the Games Industry?’ (*The Guardian*, 23 December 2011) <www.theguardian.com/technology/gamesblog/2011/dec/21/clone-wars-games-industry-plagiarism> accessed 11 October 2019; Leigh Alexander, ‘Threes, Clones and Cornflakes: A View on “Casual Games”’ (*Gamasutra*, 31 March 2014) <www.gamasutra.com/view/news/214122/Threes_clones_and_cornflakes_A_view_on_casual_games.php> accessed 11 October 2019.

³⁸ Nicholas M Lampros, ‘Leveling Pains: Clone Gaming and the Changing Dynamics of an Industry’ (2013) 28 Berkeley Tech LJ 743, 746–51; Drew S Dean, ‘Hitting Reset: Devising a New Video Game Copyright Regime’ (2016) 164 U Pa L Rev 1239, 1243–48.

³⁹ Parkin (n 37); Mac Sithigh (n 8) 353–54.

⁴⁰ *Navitaire Inc v EasyJet Airline Co Ltd (No 3)* [2004] EWHC 1725 (Ch), [2006] RPC 3; Case C-406/10 *SAS Institute Inc v World Programming Ltd* EU:C:2012:259. See the discussion in Chapter 2 of this volume.

Notwithstanding this, where cases involving videogame clones are concerned, the predominant trend has been for the courts to rule in favour of defendant ‘cloners’.⁴¹ In these decisions, the idea/expression dichotomy and the related US copyright doctrine of merger,⁴² as well as that of *scènes à faire*,⁴³ have played a pivotal role: findings of non-infringement have tended to be made on the basis that the elements said to be copied by the defendant fell too much on the ‘idea’ side of the idea/expression divide.

It is also true, however, that the US courts are beginning to show greater willingness to find copyright infringement where game cloning is concerned, at least at the level of the District Courts. In the cases of *Tetris Holding, LLC v Xio Interactive, Inc*⁴⁴ and *Spry Fox LLC v LOLApps Inc*,⁴⁵ both the New Jersey and the Washington District Courts were prepared to frame the idea underlying the original videogames in broad and general terms, enabling them to characterize key elements of each videogame’s design and game mechanics as a particular expression of that broad idea. This allowed a finding of infringement to be made where a comparison of the audiovisual aspects of the original videogame and its alleged clone showed that these elements had been copied to a substantial degree.

These decisions have led to a recent flurry of commentary from US-based researchers, focusing in particular on how and where the line between the legitimate borrowing of a game idea and the infringing appropriation of its detailed design and mechanics ought to be drawn.⁴⁶ With a few exceptions, however, the issue of game cloning has yet to be discussed in detail within the context of UK or European copyright law. Even the few pieces that exist have tended to focus on the prior question of the categorization of videogames as copyright subject matter, rather than where the balance between under- and overprotection of videogame design and mechanics should be struck.⁴⁷ This is understandable, given the uncertain status of videogames under UK and European copyright law, but it does mean that other aspects of game cloning remain underexplored. There is therefore much scope for further research in this area.

A recent empirical study by Tom Phillips, one of the researchers involved in the RCUK funded project on videogames, transmedia and the law mentioned above, highlights additional avenues for future enquiry.⁴⁸ Phillips’ findings reveal that, although the practice of game cloning is a clear concern for developers in the mobile gaming sphere, many of them are nevertheless

⁴¹ For commentary, see Christopher Lunsford, ‘Drawing a Line Between Idea and Expression in Videogame Copyright: The Evolution of Substantial Similarity for Videogame Clones’ (2013) 18 *Intell Prop L Bull* 87, 105–11; Dean (n 38) 1258–64.

⁴² Under the merger doctrine, a form of expression that is so closely tied to the idea being expressed that it can be said the two have ‘merged’ will not be protected: *Kay Berry, Inc v Taylor Gifts, Inc* 421 F 3d 199 (3rd Cir 2005) 209. On the applicability of the same concept under UK and European copyright law, see respectively *IBCOS Computers Ltd v Barclays Mercantile Highland Finance Ltd* [1994] FSR 275 (Ch) 291; Case C-393/09 *Bezpečnostní softwarová asociace – Svaz softwarové ochrany v Ministerstvo kultury* EU:C:2010:816, paras 49–50.

⁴³ Under the doctrine of *scènes à faire*, stock features of a literary or artistic genre are not protected by copyright: *Hoehling v Universal City Studios, Inc* 618 F 2d 972 (2nd Cir 1980) 979.

⁴⁴ 863 F Supp 2d 394 (DNJ 2012).

⁴⁵ 2012 WL 5290158 (WD Wash 2012).

⁴⁶ Brian Casillas, ‘Attack of the Clones: Copyright Protection for Video Game Developers’ 33 *Loy LA Ent L Rev* 137, 152–65; Lampros (n 38) 764–67; Lunsford (n 41) 111–16; Dean (n 38) 1264–69.

⁴⁷ Corbett (n 34); Lee (n 33).

⁴⁸ Tom Phillips, ‘“Don’t Clone My Indie Game, Bro”: Informal Cultures of Videogame Regulation in the Independent Sector’ (2015) 24 *Cultural Trends* 143.

resistant to the idea that an appropriate remedy might be found in copyright law. This is motivated primarily by concerns that the overprotection of game design and game mechanics might have the effect of stifling creativity. Where developers do choose to take action, they prefer to rely on informal, community-based methods of enforcement, such as circulating comparative screenshots through social media channels in order to ‘name and shame’ competitors who are perceived to have behaved unscrupulously. There is therefore scope for further exploration into the adequacy and efficacy of these informal regulatory processes, as well as the problems presented by a model of self- and co-regulation that is premised upon an imperfectly articulated, community-based understanding of the limits of permissible imitation. If legal solutions to the problem of game cloning are thought necessary, the concerns raised by videogame developers relating to overprotection will need to be taken into account in crafting them.

4. SECOND-HAND SALES

Videogames have traditionally been sold as physical products. Cartridges and floppy disks were the dominant media formats during the 1970s and 1980s, while the 1990s and early 2000s witnessed a shift to CD-ROMs. In the present day, videogames continue to be sold in the form of DVDs and Blu-ray discs. The primary market for videogames has long existed alongside a thriving secondary market. Major videogame retailers such as Game in the UK and GameStop in the US allow customers to ‘trade in’ second-hand copies of videogames in exchange for either cash or instore credit. These ‘used’ copies are then offered for sale by the retailer at a price lower than that of a new copy of the same videogame. While this practice has long attracted objections from videogame firms, who receive no share of the revenue from the secondary market, they have had little recourse under copyright law. The principle of exhaustion means that once a copy of a work has been put on the market with the rightholder’s consent, the rightholder is no longer entitled to control the further distribution of that copy; instead the purchaser is free to resell it without first seeking authorization from the rightholder.

In recent years, the debate surrounding second-hand sales of videogames has shifted from brick and mortar retailers to online marketplaces. Sales of videogames through digital distribution platforms have now displaced a significant proportion of traditional physical sales. Because of this, debate has arisen as to whether players who have purchased videogames through these digital channels are entitled to resell their ‘used’ copies – an activity not currently enabled by any of the major videogame distribution platforms. Under copyright law, the resale and transfer of a digital copy of a work untethered from any physical carrier is much less straightforward than the resale of a physical copy, as it also implicates the reproduction right. This, unlike the distribution right, is not limited by the principle of exhaustion.⁴⁹

Would-be videogame resellers were given some cause for optimism by the decision of the CJEU in *UsedSoft GmbH v Oracle International Corp* (‘*UsedSoft*’).⁵⁰ In this case, the CJEU held that the principle of exhaustion applied equally to downloaded copies of software that had been purchased through digital distribution channels as to copies that were fixed in tangible carriers. Accordingly, purchasers were entitled to resell their ‘used’ digital copies without the authorization of the rightholder, and the downloading of a copy of the software by a subse-

⁴⁹ See Robin Fry, ‘Reselling Software Licences’ (2015) 26 *Comps & Law* 19, 19.

⁵⁰ Case C-128/11, EU:C:2012:407.

quent purchaser consequent upon such a transaction would not constitute an infringement of the rightholder's reproduction right.⁵¹ Some legal commentators sounded a cautionary note against the assumption that the same reasoning would be equally applicable to the resale of other types of digital content, pointing out that the decision in *UsedSoft* had been based solely on the provisions of the Software Directive, while other types of works are governed by the Information Society Directive.⁵² However, most videogame news outlets had no such reservations: they took *UsedSoft* to mean that European customers would henceforth be free to resell their digital copies of videogames, and reported the decision as a victory for the ordinary player and a blow to rent-seeking videogame firms.⁵³

This celebration appears premature in light of the CJEU's jurisprudence post-*UsedSoft*. In *Nintendo v PC Box*, as explained previously, the CJEU described videogames as complex multimedia creations that could not be reduced to the computer code through which they were implemented; accordingly, they were held to fall within the regime established by the Information Society Directive, rather than the Software Directive. This casts doubt on whether *UsedSoft* is applicable to videogames at all – or, indeed, to any type of work other than 'pure' computer programs consisting solely of textual code with no or very minimal graphical and sound elements. It should also be noted that, in post-*UsedSoft* cases concerning the scope of the distribution right provided under the Information Society Directive, the CJEU has referred consistently to recital 28 of the Information Society Directive and the Agreed Statement concerning articles 6 and 7 of the WIPO Copyright Treaty 1996, both of which frame the distribution right – and, by implication, the principle of exhaustion – with express reference to tangible copies of works.⁵⁴ This is in direct contrast with its approach in *UsedSoft*, where it pointed to several provisions of the Software Directive that appeared to draw no distinction between tangible and intangible copies of computer programs.

While there is now a growing body of academic commentary on the issue of 'digital exhaustion'⁵⁵ generally, a number of questions arise in the specific context of videogames that are worthy of further enquiry. There is, for instance, much scope for an examination of the

⁵¹ This was subject to the condition that the reseller had taken steps to render their copy of the computer program unusable at the time of resale.

⁵² See Andrew Nicholson, 'Old Habits Die Hard? *UsedSoft v Oracle*' (2013) 10 SCRIPTed 398, 402–04.

⁵³ See Jason Schreier, 'European Court Says You Should Be Able to Re-Sell Your Digital Games' (*Kotaku*, 3 July 2012) <<https://kotaku.com/5923280/european-court-says-you-should-be-able-to-re-sell-your-digital-games>> accessed 11 October 2019; John Walker, 'Crikey: EU Rules You Can Resell Downloaded Games' (*Rock Paper Shotgun*, 3 July 2012) <www.rockpapershotgun.com/2012/07/03/crikey-eu-rules-you-can-resell-downloaded-games/> accessed 11 October 2019; Wesley Yin-Poole, 'EU Rules Publishers Cannot Stop You Reselling Your Downloaded Games' (*Eurogamer*, 3 July 2012) <www.eurogamer.net/articles/2012-07-03-eu-rules-publishers-cannot-stop-you-reselling-your-downloaded-games> accessed 11 October 2019. See also *UFC-Que Choisir v Valve Corp* (Paris Court of First Instance, 17 September 2019).

⁵⁴ Case C-419/13 *Art & Allposters International BV v Stichting Pictoright* EU:C:2015:27; Case C-174/15 *Vereniging Openbare Bibliotheken v Stichting Leenrecht* EU:C:2016/856. For an overview of post-*UsedSoft* decisions by both the CJEU and national courts that cast doubt on its wider applicability, see Maša Savič, 'The Legality of Resale of Digital Content after *UsedSoft* in Subsequent German and CJEU Case Law' (2015) 37 EIPR 414, 416–23; Reto M Hilty, '"Exhaustion" in the Digital Age' in Irene Calboli and Edward Lee (eds), *Research Handbook on Intellectual Property Exhaustion and Parallel Imports* (Edward Elgar 2016), 74–76.

⁵⁵ See the discussion in Chapter 25 of this volume.

interaction between the principle of exhaustion and the technological models that have been adopted by major videogame distribution platforms. At present, none of these platforms allow customers to transfer ‘used’ copies of videogames to other customers, and customers are also contractually prohibited from granting third parties access to the user accounts to which their videogame purchases are linked. Even if the principle of exhaustion were held to be applicable to digital copies of videogames, therefore, there would still be no practical way for resellers to transfer their ‘used’ copies to subsequent purchasers. The issue has been considered in a few cases by the national courts in Germany, which have consistently refused to compel operators of videogame distribution platforms to implement measures for accommodating lawful resales.⁵⁶ To date, however, the only published piece to deal with these decisions in any detail is an article by Maša Savič, and even then, the article approaches the question of digital exhaustion generally rather than focusing on the role of digital distribution platforms.⁵⁷

Another issue deserving of further research is the practice of ‘key reselling’. Some videogame distribution platforms – particularly those that are not affiliated with a major videogame publisher – operate by supplying each purchaser with a unique product key that enables them to download their chosen videogame from a separate hosting platform, rather than giving them direct access to a digital copy. Key reselling websites take advantage of this facility by purchasing product keys from a range of third party vendors, particularly those located in jurisdictions where videogames tend to be priced at a lower rate, and then offering them for sale at prices lower than those set by authorized digital retailers. Because these product keys have not been acquired through authorized channels, key resellers have no way of verifying the provenance of a particular key. Purchasers thus bear the risk, for instance, that their product keys may be revoked if they were initially obtained through fraudulent means, or may simply have become invalid. Notwithstanding these risks, the cheaper prices offered by key reselling websites make them an attractive alternative for many videogame players. The ‘grey market’ in videogame product keys has now become a target for the industry’s ire. In 2014, a major videogame publisher successfully brought an action for copyright infringement before the Regional Court of Berlin against a key reselling website.⁵⁸ At present, however, the legal commentary on key reselling is confined to a handful of practice-oriented publications,⁵⁹ and the issue has attracted very little academic attention. From a copyright perspective, the actions of key resellers could potentially expose them to liability for infringement of the right to make works available to the public, or for authorizing or contributing to the unlawful downloading of videogames by their customers. However, this has yet to be fully mapped out, and the applicability of the principle of exhaustion to the practice of key reselling has yet to be considered.⁶⁰ All of these present a number of potentially fruitful avenues for future research.

⁵⁶ See *Half-Life 2* (German Federal Court of Justice, 11 February 2011); *Valve* (Berlin District Court, 21 January 2014).

⁵⁷ Savič (n 54).

⁵⁸ Konstantin Ewald, ‘German Court: Key Selling Infringes Copyright’ (*Gamasutra*, 3 October 2014) <www.gamasutra.com/blogs/KonstantinEwald/20141003/227027/German_Court_Key_Selling_infringes_Copyright.php> accessed 11 October 2019.

⁵⁹ Ewald (n 58); Konstantin Ewald and Felix Hilgert, ‘Key Selling: Why Video Games Are Not Simply Software’ (*Osborne Clark*, 30 August 2016) <www.osborneclarke.com/insights/key-selling-why-video-games-are-not-simply-software/> accessed 11 October 2019.

⁶⁰ For a consideration of the principle of exhaustion from the perspectives of both videogame right-holders and key resellers, see Paul Kilduff-Taylor, ‘The Key Masters: Reselling and the Games Industry’

5. TECHNOLOGICAL PROTECTION MEASURES ('TPMS')

Since the early days of commercial videogame development, the videogame industry has employed a range of technological measures to prevent unauthorized third parties from gaining access to their produces, while videogame players have sought, just as assiduously, to circumvent them.⁶¹ This has remained a constant in the present day: although the measures used by the industry have grown in sophistication over time, so too have the tools available to technologically proficient players. The videogames industry has maintained that the use of TPMs is necessary to prevent the unauthorized reproduction of videogames on a mass scale, and to ensure that their availability is confined to legitimate users. Videogame players, for their part, have asserted that the TPMs used by the industry often go further than is necessary for preventing infringement. In particular, TPMs are said to interfere with players' enjoyment of the videogame itself, to the point of rendering the videogame inoperative in some cases; to restrict players' ability to deal with their lawfully purchased copies of videogames; and to limit the uses to which players' gaming devices may be put.⁶²

At the European level, the circumvention of TPMs that are applied to copyright works is regulated by two separate regimes, which are established by the Software Directive and the Information Society Directive respectively. The anti-circumvention provisions of the Software Directive deal with TPMs that are applied solely to computer programs,⁶³ while the corresponding provisions of the Information Society Directive deal with TPMs that are applied to all other types of works.⁶⁴ This distinction is also reflected in the copyright legislation of the UK.⁶⁵ As Mac Sithigh has pointed out, the threshold for an actionable circumvention of a TPM established by the Information Society Directive is significantly lower than that required by the Software Directive.⁶⁶ For instance, the anti-circumvention provisions of the Software Directive are expressed to apply only to means whose 'sole intended purpose' is to facilitate the circumvention of a TPM, while the Information Society Directive merely requires the means in question to have been 'primarily designed' for the purpose of circumvention. Where possible, therefore, the videogame industry has sought to rely on the anti-circumvention provisions originating from the Information Society Directive as the basis for any legal action, rather than on the regime established by the Software Directive. By and large, they have been permitted to do so in actions before the UK courts, and have secured a number of favourable decisions on that basis.

Both in the UK and elsewhere, much of the existing jurisprudence relating to TPMs has been developed through a series of actions brought by the manufacturers of gaming consoles against the producers and vendors of so-called mod chips – electronic devices that can be

(*Gamasutra*, 25 September 2015) <www.gamasutra.com/blogs/PaulKilduffTaylor/20150925/254656/The_Key_Masters_Reselling_and_the_Games_Industry.php> accessed 11 October 2019.

⁶¹ See William Cornish, *Intellectual Property: Omnipresent, Distracting, Irrelevant?* (Oxford University Press 2004), 54 (noting, in the context of TPMs generally, that '[e]very locked door seemed to produce a hacker with a jemmy').

⁶² See Mac Sithigh (n 8) 358–59.

⁶³ Software Directive, art 7(1)(c).

⁶⁴ Information Society Directive, art 6.

⁶⁵ CDPA, ss 296 and 296ZA. The legislation also provides for criminal sanctions in some cases involving nonsoftware works: CDPA, s 296ZB.

⁶⁶ Mac Sithigh (n 8) 350.

used to modify or disable the technological restrictions built into gaming consoles by their manufacturers.⁶⁷ These restrictions prevent consoles from being used in conjunction with videogames other than those that have been developed under licence from the relevant manufacturers. Consoles to which these restrictions are applied become incapable of playing not only infringing copies of videogames, but also copies lawfully imported from other jurisdictions,⁶⁸ videogames created by third party developers who are not affiliated with the console manufacturer in question and personal back-up copies of lawfully purchased videogames.⁶⁹

The UK courts have taken an approach that is remarkably favourable to rightholders in cases involving mod chips. David Booton and Angus MacCulloch note that, in these cases, the courts have been willing to proceed on the basis of rightholders' assertions that videogames do comprise works other than computer programs, without requiring them to specify the particular work or works to which the TPMs are said to be applied.⁷⁰ This has enabled rightholders to take advantage of the lower thresholds established by the Information Society Directive, rather than the more stringent requirements of the Software Directive. It also stands in stark contrast to courts' strict insistence on the identification of an appropriate subject matter category in cases such as *Nova Productions*. This relaxed approach is also evident in the courts' willingness to assume, without much in the way of analysis, that the playing of an unauthorized copy of a videogame necessarily involves the copying of a substantial part of a protected work.⁷¹ This has significantly reduced the burden on rightholders to establish that the TPMs employed are 'effective' in the sense that they are capable of preventing and restricting acts of infringement, rather than merely discouraging or hindering them.⁷²

Because of this, legal commentators have been critical of this line of case law, and particularly of the very limited weight given by the UK courts to the potentially non-infringing uses to which mod chips might be put. Brian Esler has gone so far as to suggest that these strenuous efforts at preventing the distribution of mod chips are motivated less by the need to ensure strong protection for copyright works and more by console manufacturers' desire to maintain their regional marketing strategies, under which a scheme of differential pricing based on the geographical location of customers is employed.⁷³ Booton and MacCulloch make a similar

⁶⁷ *Sony Computer Entertainment Inc v Owen* [2002] EWHC 45 (Ch), [2002] ECDR 27; *Sony Computer Entertainment Inc v Ball* [2004] EWHC 1738 (Ch), [2005] FSR 9; *R v Gilham* [2009] EWCA Crim 2293, [2010] ECDR 5; *Nintendo Company Ltd v Playables Ltd* [2010] EWHC 1932 (Ch), [2010] FSR 36. See also *Sony Computer Entertainment v Stevens* [2002] FCA 906; [2003] FCAFC 157; [2005] HCA 58; *Sony Computer Entertainment America, Inc v GameMasters* 87 F Supp 2d 976 (ND Cal, 1999); *Sony Computer Entertainment America, Inc v Divineo, Inc* 457 F Supp 2d 957 (ND Cal 2006).

⁶⁸ CDPA, s 22 (permitting importation even of infringing copies for 'private and domestic use'). For the proposition that the use of such an imported copy might constitute infringement, see *Sony Computer Entertainment Inc v Owen* [2002] EWHC 45 (Ch), [2002] ECDR 27 [18]–[19]. cf Angus MacCulloch, 'Game Over: The "Region Lock" in Videogames' (2005) 27 EIPR 176, 179–81.

⁶⁹ CDPA, s 50A (implementing Software Directive, art 5(2)).

⁷⁰ David Booton and Angus MacCulloch, 'Liability for the Circumvention of Technological Protection Measures Applied to Videogames: Lessons from the United Kingdom's Experience' [2012] 3 JBL 165, 173–79. See also Tom Guthrie, 'Do Mod Chips Infringe Copyright? Some Answers (and More Questions) from the Alto Adige' (2006) 1 JIPLP 780, 783–85.

⁷¹ Booton and MacCulloch (n 70) 179–85. See also MacCulloch (n 68) 179.

⁷² Booton and MacCulloch (n 70) 185–88. On the requirement that TPMs be 'effective', see CDPA, s 296ZF (implementing Information Society Directive, art 6(3)).

⁷³ Brian Esler, 'Judas or Messiah? The Implications of the Mod Chip Cases for Copyright in an Electronic Age' (2003) 1 Hert LJ 1, 2–4. See also Barry Ip and Gabriel Jacobs, 'Territorial Lockout: An International Issue in the Videogames Industry' (2004) 16 European Business Review 511.

point, suggesting that the TPMs placed on gaming consoles are aimed primarily at the preservation of the prevailing business model for console manufacturers, who are heavily dependent on licensing revenue from videogame firms.⁷⁴

These criticisms have now gained additional significance following the decision of the CJEU in *Nintendo v PC Box*, several aspects of which have already been discussed in the preceding sections. Here, the CJEU, having held that videogames were protected by copyright under the regime established by the Information Society Directive, went on to apply the anti-circumvention provisions laid down by the same Directive.⁷⁵ This is consistent with the approach taken by the UK courts to date. The CJEU differed from the UK courts, however, in holding that the legal protection afforded by TPMs must be consistent with the principle of proportionality, and should not prohibit devices or activities with a commercially significant purpose or use other than infringement. In doing so, it identified a number of factors that were relevant to this assessment, including the relative cost of different types of TPMs, the technological and practical aspects of their implementation, a comparison of their effectiveness and the actual uses made by third parties of the circumvention devices at issue.

The decision in *Nintendo v PC Box* thus opens up room for a thorough re-examination of the non-infringing purposes to which circumvention devices might be put, as well as the actual uses made of such devices in practice. The existing legal literature provides a good starting point from which this analysis could be carried out. The CJEU's emphasis on proportionality also leaves room for a range of other considerations, such as objections relating to the overly disruptive nature of certain TPMs. One example of this is the SecuROM system that was popular with videogame developers during the late 2000s, which was said to cause frequent computer crashes, instabilities in system performance and potential security loopholes. Another is the so-called always-on DRM favoured by several contemporary videogame publishers, which requires players to maintain a constant internet connection to a central server during play. These examples also highlight the need for academic discourse to move beyond mod chips and the technological restrictions built into gaming consoles, and to take into account other forms of TPMs that are commonly employed by the videogame industry.

The questions raised by TPMs also have a bearing on the issues that are discussed elsewhere in this chapter, particularly second-hand videogame sales and the preservation of videogames. Should the principle of exhaustion be held applicable to digital copies of videogames, for instance, to what extent would the videogame industry be required to ensure that the TPMs used by it do not prevent the transfer of copies between players? Where videogame preservation is concerned, to what extent should cultural institutions be permitted to engage in acts of circumvention in order to create copies of videogames that are no longer available on the market? While the implications of *Nintendo v PC Box* are beginning to be explored, much of the commentary available at this stage is focused on its significance for the protection of TPMs generally.⁷⁶ There is therefore much further work left to be done.

⁷⁴ Booton and MacCulloch (n 70) 170–73.

⁷⁵ For a critique, see Tito Rendas, 'Lex Specialis(sima): Videogames and Technological Protection Measures in EU Copyright Law' (2015) 37 EIPR 39.

⁷⁶ Martina Gillen, 'DRM and Modchips: Time for the Court of Justice to Do the "Right" Thing' (2014) 11 *SCRIPT-ed* 229; Gemma Minero, 'Videogames, Consoles and Technological Measures: The *Nintendo v PC Box* and *9Net* Case' (2014) 36 EIPR 335; Marcella Favale, 'A Wii Too Stretched? The ECJ Extends to Game Consoles the Protection of DRM – on Tough Conditions' (2015) 37 EIPR 101.

6. VIDEOGAME PRESERVATION

Over the past decade, the long-term archiving and preservation of videogames has become an issue of interest to institutions and scholars in the cultural heritage sector, scholars of interactive media and information science and certain sectors of the videogame industry itself.⁷⁷ The typical lifespan of any given copy of a videogame is limited both by the gradual degradation of the physical media on which it is stored – colloquially known as ‘bit rot’ – and the obsolescence of the hardware and software platforms necessary for its operation.⁷⁸ This is compounded by the volatile nature of the physical media in which videogames are stored: magnetic storage media such as hard drives, floppy disks and magnetic tape are extremely susceptible to degradation, and even optical media such as CD-ROMs and DVDs will eventually become unreadable due to the physical and chemical deterioration of the disc surface. A further exacerbating factor is the business model upon which much of the videogame industry is structured. Within the industry, marketing strategies are built almost exclusively around the ‘newest’, ‘latest’ and ‘most current’ releases, at the expense of older titles.⁷⁹ As a consequence, it is not unusual for even popular videogames to fall out of commercial circulation once a certain period of time has elapsed. Bearing in mind the cultural impact and significance of videogames as well as their continuing influence on other forms of entertainment, communication and even entertainment, the rate at which such obsolescence and deterioration is taking place makes the task of videogame preservation an even more urgent one.

At present, the most effective strategies that have been identified for the long-term preservation for videogames involve the use of ‘emulators’ and the creation of ‘ROM files’ or ‘ISO files’ from existing copies of videogames.⁸⁰ Emulators, which may take the form of either hardware or software, allow users to run videogames on platforms other than those for which they were originally designed.⁸¹ ROM files and ISO files, meanwhile, are digital files containing data extracted from a physical copy of a videogame. ROM files contain data extracted from the Read-Only Memory chips – from which the acronym is derived – of videogame cartridges and arcade system boards,⁸² while ISO files contain data extracted from optical storage discs. An emulator program installed in a contemporary personal computer may, when used in conjunction with the appropriate ROM file, make it capable of executing a videogame originally housed in a 1970s arcade machine, or one designed for a 1980s handheld gaming console, and so forth. A wide range of emulator programs and videogame ROM and ISO files can now be

⁷⁷ See James Conley et al, ‘Use of a Game Over: Emulation and the Video Game Industry, a White Paper’ (2004) 2 Nw J Tech & Intell Prop 261; Henry Lowood et al, ‘Before It’s Too Late: A Digital Game Preservation White Paper’ (2009) 1 American Journal of Play 139; Jerome McDonough et al, *Preserving Virtual Worlds: Final Report* (University of Illinois 2010); James Newman, ‘Illegal Deposit: Game Preservation and/as Software Piracy’ (2012) 19 Convergence 45.

⁷⁸ Lowood et al (n 77) 140–44.

⁷⁹ James Newman, ‘Save the Videogame! The National Videogame Archive: Preservation, Supersession and Obsolescence’ (2009) 12 M/C Journal <<http://journal.media-culture.org.au/index.php/mcjournal/article/view/167/0>> accessed 11 October 2019.

⁸⁰ Lowood et al (n 77) 140–47; Mark Guttenbrunner, Christoph Becker and Andreas Rauber, ‘Keeping the Game Alive: Evaluating Strategies for the Preservation of Console Video Games’ (2010) 1 IJDC 64, 66–67; McDonough et al (n 77) 53.

⁸¹ Conley et al (n 77) 264.

⁸² Benjamin Farrand, ‘Emulation Is the Most Sincere Form of Flattery: Retro Videogames, ROM Distribution and Copyright’ (2012) 14 IDP 5, 7.

found online. The bulk of these have been created – in the case of emulators – or collected and compiled – in the case of ROM and ISO files – by videogame enthusiasts. They are generally disseminated free of charge, but without the authorization of the relevant rightholders. Both emulators and ROM and ISO files raise a number of issues under copyright law.

A programmer seeking to create a functional emulator will need to engage in the reverse engineering of the operating system on which it is based. In particular, it will generally be necessary for the programmer to decompile at least some of its program code in order to gain a fuller understanding of its operation.⁸³ While there is currently no UK or European case law that deals specifically with the issues raised by the creation and use of emulators, several such cases have been litigated before the US courts.⁸⁴ By and large, the US courts have tended to find in favour of the defendants, on the basis that acts of reverse engineering and decompilation that are carried out for the purpose of gaining access to the unprotected functions and ideas embodied in a computer program amount to fair use, in circumstances where there is no alternative means of gaining such access. In one of the very few articles to discuss the implications of emulators in the context of European copyright law, Benjamin Farrand has suggested that the same conclusion might be reached under article 6 of the Software Directive, which permits a lawful user of a computer program to decompile it where this is indispensable for obtaining the information necessary for achieving the interoperability of an independently created computer program with other programs.⁸⁵ However, this proposition has yet to be tested before the CJEU. Even if the creation of an emulator were held not to constitute an act of infringement in itself, there remains the possibility that it could give rise to liability on some sort of contributory basis, as the availability of emulators might be argued to contribute materially to the creation and use of unauthorized ROM and ISO files by players. This is an issue that has yet to be litigated in either the US or Europe.⁸⁶

The creation of a ROM file or ISO file, meanwhile, involves the wholesale duplication of all the works that make up the videogame concerned. This constitutes an infringing act of reproduction if carried out without the prior authorization of the rightholder.⁸⁷ To date, no case involving videogame ROM or ISO files has been decided under UK or European copyright law, and there is also a paucity of case law from the US on this issue. Under the European copyright regime, there is no clear exception permitting the creation of ROM or ISO files for the purposes of preservation. It is true that the Information Society Directive permits Member States to legislate for exceptions and limitations relating to ‘specific acts of reproduction . . . not for direct or indirect economic or commercial advantage’ that are carried out by cultural institutions such as libraries, museums and archives.⁸⁸ At the national level, however, this

⁸³ Conley et al (n 77) 273–75; McDonough et al (n 77) 53–57; Henrike Maier, ‘Games as Cultural Heritage: Copyright Challenges for Preserving (Orphan) Video Games in the EU’ (2015) 6 JIPITEC 120, 125.

⁸⁴ *Sega Enterprises Ltd v Accolade, Inc* 977 F 2d 1510 (9th Cir 1992); *Sony Computer Entertainment, Inc v Connectix Corporation* 203 F 3d 596 (9th Cir 1999). See also *Sony Computer Entertainment America, Inc v Bleem, LLC* 214 F 3d 1022 (9th Cir 2000).

⁸⁵ Farrand (n 82) 11–12.

⁸⁶ See however *Atari, Inc v JS & A Group* 597 F Supp 5 (ND Ill 1983) (preliminary injunction granted against manufacturer of device for the duplication of data stored in videogame cartridges, on the ground of contributory copyright infringement).

⁸⁷ Farrand (n 82) 7–9.

⁸⁸ Information Society Directive, art 5(2)(c).

has not necessarily been implemented in ways that allow preservation copies of videogames to be made, or at least made easily. The UK copyright legislation, for instance, does contain a provision permitting a library, archive or museum to make a preservation copy of an item; however, this is confined to cases where the item in question forms part of the institution's permanent collection and the purchase of a replacement copy is not 'reasonably practicable'.⁸⁹ This precludes actors other than the cultural institutions specified from carrying out preservation projects of their own, and also precludes cultural institutions from taking advantage of the ROM and ISO collections that have been made available online by videogame enthusiasts. Further complications arise where TPMs are involved: in order to create a functional ROM or ISO file from a videogame to which a TPM has been applied, it will generally be necessary engage in an act of circumvention.⁹⁰ However, the lawfulness of such circumvention for the purposes of videogame preservation – and, as discussed previously, the lawfulness of such circumvention in the context of videogames generally – remains an unsettled issue.

To date, the issue of videogame preservation has attracted limited attention from legal scholars. Other than the Farrand article referred to above, the only literature to deal with the issue in the European legal context is an article by Henrike Maier, which focuses on the specific challenge of videogame preservation in cases where the relevant rightholders are unidentifiable or untraceable.⁹¹ While a few more pieces by US-based commentators have emerged, these are also few and far between, and the analysis tends to be predicated upon concepts that are specific to US copyright law, such as the fair use doctrine, that have no direct counterpart within UK or European copyright law.⁹² In terms of potential solutions for addressing the copyright issues raised by videogame preservation, most of these commentators favour the voluntary adoption of non-commercial licensing schemes by videogame firms, particularly for videogames that are no longer available on the market.⁹³ Other possibilities, including legislative reform, have yet to be explored in any significant depth.

7. USER-GENERATED CONTENT

Videogames have long been the basis for user-generated content of all kinds.⁹⁴ The production of this user-generated content has increased exponentially over the last few decades, due to the ready availability of high-speed internet access, the greater sophistication of the digital tools

⁸⁹ CDPA, s 42.

⁹⁰ McDonough et al (n 77) 6; Maier (n 83) 125.

⁹¹ Maier (n 83). On the concept of 'abandonware', namely software products that are no longer commercially available but remain within the term of copyright protection, see generally Dennis WK Khong, 'Orphan Works, Abandonware and the Missing Market for Copyrighted Goods' (2007) 15 IJLIT 54.

⁹² Brian Flood, 'Emulating the Classic Video Games: Protecting Copyright on the Internet' (2000) Syracuse L & Tech J 2; Jeffrey S Libby, 'The Best Games in Life Are Free: Videogame Emulation in a Copyrighted World' 36 Suffolk U L Rev 843; Jetro Dean Lord IV, 'Would You Like to Play Again? Saving Classic Video Games from Virtual Extinction through Statutory Licensing' (2006) 35 Sw U L Rev 405.

⁹³ Conley et al (n 77) 276–80; Farrand (n 82) 14–15; Maier (n 83) 127. See also Newman (n 77) 50 (describing this as a 'common trope'). For another proposal, see Lord (n 92) 423–29 (statutory licensing scheme).

⁹⁴ While there is no universally applicable definition of 'user-generated content' as yet, one key characteristic is the existence of a certain minimum level of creative effort, and another that it is

available to the average user and the growth of online platforms through which such content can be disseminated. Forms of user-generated content that are closely associated with the medium of videogames include modifications – known as ‘mods’ for short – namely software customisations that are capable of altering the content of an existing videogame when installed; machinima, or cinematic productions that are created through the in-game manipulation of the characters, objects and environments found in a videogame; and ‘Let’s Play’ videos, which document a particular playthrough of a videogame and are typically accompanied by commentary from the player. Related to Let’s Play videos is the increasingly popular practice of videogame live streaming, which involves the live broadcast of a videogame playthrough to an online audience. These exist alongside more traditional forms of user-generated content such as fan fiction and fan art.

By its very nature, such user-generated content is necessarily based on one or more protected works. This raises obvious questions as to the extent to which and the circumstances under which the production of such content will amount to copyright infringement. Questions also arise as to the precise status of this user-generated content: for instance, to what extent are these creations protected under copyright law, and to whom do any intellectual property rights subsisting in them belong?⁹⁵ Some forms of user-generated content also give rise to moral rights concerns:⁹⁶ where a player has created a machinima film whose message runs completely counter to that conveyed by the videogame which forms its basis, would the creators of the videogame be entitled to a remedy for the infringement of their moral right of integrity?⁹⁷

These issues are complicated by a number of additional considerations. The first of these relates to the end-user licence agreements (‘EULAs’) that players are typically required to consent to in order to proceed with the installation of their videogames. These EULAs often contain stipulations as to the types of user-generated content that players are permitted to create, the tools they are allowed to use, the conditions under which the content in question may be disseminated and so forth. In some cases, these stipulations may well be more restrictive of players’ creative freedom than copyright law itself, and therefore have the potential to disrupt the careful balance struck by copyright law between the interests of rightholders and those of users.⁹⁸

Also relevant is the fact that the much of this user-generated content is at least tolerated – and in many cases, actively encouraged – by videogame firms, for reasons going beyond the altruistic. Within the industry, for example, it is acknowledged that the availability of mods increases the profitability of the underlying videogame over time.⁹⁹ It is for this reason that

created outside of professional routines and practices: Sacha Wunsch-Vincent and Graham Vickery, *Participative Web: User-Generated Content* (OECD 2006), 8–9.

⁹⁵ See Lastowka (n 9) 509–12.

⁹⁶ CDPA, ss 77 to 84.

⁹⁷ On the moral rights implications of videogame mods, see Michela Fiorido, ‘Moral Rights and Mods: Protecting Integrity Rights in Video Games’ (2013) 46 UBC L Rev 739.

⁹⁸ These include, for instance, terms prohibiting players from reusing the themes and ideas behind a videogame and terms purporting to exclude the application of existing copyright exceptions and limitations.

⁹⁹ Wagner James Au, ‘Triumph of the Mod’ (*Salon*, 16 April 2002) <www.salon.com/2002/04/16/modding/> accessed 11 October 2019; David Kushner, ‘The Mod Squad’ (*Popular Science*, 2 July 2002) <www.popsci.com/gear-gadgets/article/2002-07/mod-squad> accessed 11 October 2019. This is consistent with the findings of game studies scholars: Hector Postigo, ‘From Pong to Planet Quake: Post-Industrial Transitions from Leisure to Work’ (2003) 6 *Information, Communication & Society*

many videogames now contain features that enable the creation of mods, and some videogame firms have even been known to cite the availability of mods as a key selling point for their products.¹⁰⁰ A significant number of videogame firms have gone so far as to include within their EULAs terms that require players to grant them broad licences – or even outright assignments – permitting them to exploit any user-generated content that may be created. The high levels of creativity and effort invested by players in the production of user generated content, taken together with the obvious value of such content to videogame firms and the one-sided nature of many EULAs, raise concerns relating to the imbalance of power between videogame firms and players.

The challenges presented by user-generated content in general have been discussed to some extent by commentators in the context of the UK and European copyright regimes, sometimes under the rubric of ‘remixes’, ‘mashups’ or ‘transformative works’. However, much of this commentary continues to revolve around the potential liability of the intermediaries that provide access to such content, rather than the questions identified above.¹⁰¹ Some of the literature does focus on the suitability of the existing copyright exceptions and limitations for dealing with user-generated content; again, however, the analysis tends to be framed around user-generated content as a general concept.¹⁰² There has been virtually no discussion of the forms of user-generated content that are associated specifically with videogames, particularly one that takes due account of the conditions under which such content created as well as the complex relationships between the players who produce it and the videogame firms that seek to take advantage of it. A somewhat more extensive body of literature has emerged from the US, some of which does focus on mods, machinima, Let’s Play videos and other forms of videogame-related content.¹⁰³ As with the US-based commentary dealing with videogame

593, 596; Julian Kücklich, ‘Precarious Playbour: Modders and the Digital Games Industry’ (2005) 5 *Fibreculture Journal* <<http://five.fibreculturejournal.org/fcj-025-precarious-playbour-modders-and-the-digital-games-industry/>> accessed 11 October 2019; Renyi Hong, ‘Game Modding, Prosumerism and Neoliberal Labor Practices’ (2013) 7 *International Journal of Communication* 984, 987.

¹⁰⁰ See Olli Sotamaa, ‘On Modder Labour, Commodification of Play, and Mod Competitions’ (2007) 12 *First Monday* <<http://firstmonday.org/article/view/2006/1881>> accessed 11 October 2019.

¹⁰¹ See Carlisle George and Jackie Scerri, ‘Web 2.0 and User-Generated Content: Legal Challenges in the New Frontier’ (2007) 2 *JILT* <https://warwick.ac.uk/fac/soc/law/elj/jilt/2007_2/george_scerri/> accessed 11 October 2019; Steve Holmes and Paul Ganley, ‘User-Generated Content and the Law’ (2007) 2 *JIPLP* 338; Dawn Osborne, ‘User Generated Content (UGC): Trade Mark and Copyright Infringement Issues’ (2008) 3 *JIPLP* 555.

¹⁰² See Maxime Lambrecht and Julien Cabay, ‘Remix Prohibited: How Rigid EU Copyright Laws Inhibit Creativity’ (2015) 10 *JIPLP* 359; Daniel Inguanez, ‘Considerations on the Modernization of EU Copyright: Where Is the User?’ (2017) 12 *JIPLP* 660.

¹⁰³ See Zvi Rosen, ‘Mod, Man and Law: A Reexamination of the Law of Computer Game Modifications’ (2004) 4 *Chi-Kent J Intell Prop* 196; John Baldrica, ‘Mod as Heck: Frameworks for Examining Ownership Rights in User-Contributed Content to Videogames’ (2007) 8 *Minn JL Sci & Tech* 681; Matthew Brett Freedman, ‘Machinima and Copyright Law’ (2005) 13 *J Intell Prop L* 235; Christopher Reid, ‘Fair Game: The Application of Fair Use Doctrine to Machinima’ (2009) 19 *Fordham Intell Prop Media & Ent LJ* 831; Shigeru Matsui, ‘Does It Have to Be a Copyright Infringement? Live Game Streaming and Copyright’ (2016) 24 *Tex Intell Prop LJ* 215; Sebastian C Mejia, ‘Fair Play: Copyright Issues and Fair Use in YouTube “Let’s Plays” and Videogame Livestreams’ (2015) 7 *Intell Prop Brief* 1; Ivan O Taylor Jr, ‘Video Games, Fair Use and the Internet: The Plight of the Let’s Play’ (2015) *U Ill JL Tech & Pol’y* 247. For a Canadian perspective, see Graham Reynolds, ‘All the Game’s a Stage: Machinima and Copyright in Canada’ (2010) 13 *JWIP* 729.

preservation, however, much of this analysis is based on concepts that are unique to US copyright law – in particular the doctrine of fair use and the concept of derivative works – and that have no direct UK or European counterpart. For these reasons, this is a particularly rich area for future research.

8. CONCLUSION

As this chapter has shown, videogames give rise to a wide range of issues under copyright law. First of all, the question of whether videogames can be protected as entire works under UK and European copyright law remains unresolved. While the little precedent that currently exists indicates that it may not be possible for videogames to be accommodated within the UK's statutory subject matter categories, there have been developments within both European and UK copyright law that are capable of supporting a shift in the opposite direction. The unresolved questions surrounding the categorization of videogames as copyright subject matter also have a bearing on the issue of game cloning, as do the difficulties of distinguishing between protected expression and unprotected ideas where game design and game mechanics are concerned. Because videogames are multimedia artefacts comprising both computer programs and works such as graphics and sounds, it is unclear whether the principle of exhaustion would apply to digital copies. This has implications for purchasers' ability to resell copies of videogames obtained through digital distribution channels. In the context of TPMs, recent developments at the European level indicate that the pro-rightholder approach hitherto taken by the UK courts may need to be revisited, with much greater weight given to the non-infringing uses to which circumvention devices might be put than has previously been the case. The issue of videogame preservation, meanwhile, highlights some of the conflicts inherent within copyright law: the extensive rights and relatively limited exceptions that offer strong protection to rightholders may also prevent cultural institutions and videogame enthusiasts from engaging in videogame preservation projects. The forms of user-generated content that are typically created for videogames also give rise to a wide array of questions, both doctrinal and otherwise. As all of these issues are closely bound up with European copyright law, researchers working primarily in the context of UK copyright law face the additional challenge of mapping out developments that are likely to occur in the wake of the UK's imminent withdrawal from the EU.

While there is existing literature on some of these issues, the approach taken has tended to be fairly general. To date, there is still little scholarship on the unique challenges that arise when these issues are placed in the context of videogames, particularly scholarship that takes due account of the technological, economic and sociological realities within which the videogame industry and player communities operate. These are therefore topics deserving of further attention.

4. Databases and copyright protection

Mark Davison

1. INTRODUCTION

In many ways, copyright law as it applies to databases is relatively straightforward. For example, there appears to be general acceptance of the relevant test for subsistence of copyright in a database at international, regional and domestic levels. Yet the application of that test is itself the subject of controversy from time to time, as too are different approaches to exceptions to the rights of owners of copyright in databases. In addition, the interrelationship of copyright on the one hand and contractual rights and obligations on the other is an ongoing issue, especially in the context of relatively recent technological protection measures that support both copyright and contractual restrictions on unauthorised access to and use of databases.

This chapter will address the following issues: (i) the test for subsistence of copyright in a database, with reference to international treaties, regional agreements and domestic legislation with a particular focus on EU and US case law; (ii) the nature of the rights accorded to owners of copyright in databases; and (iii) exceptions to the rights of owners of databases. The chapter will then offer conclusions regarding the implications of the differences between major jurisdictions in their treatment of these issues, and comments about possible future developments, including tentative proposals for a new data producer's right.

2. THE TEST FOR SUBSISTENCE OF COPYRIGHT IN DATABASES

2.1 The International Position

The position under the Berne Convention ('Berne') has been in place for a very long time, as set out in Article 2(5), which reads as follows:

Collections of literary or artistic works such as encyclopaedias and anthologies which, by reason of the selection and arrangement of their contents, constitute intellectual creations shall be protected as such, without prejudice to the copyright in each of the works forming part of such collections.¹

A few points about the wording of that provision are worthy of note. The material that is to be selected and arranged is a collection of literary or artistic *works* rather than simply data which, in itself, may not be eligible for copyright protection. The word 'database' almost certainly was not in existence at the time the provision was adopted, as the word is defined by reference

¹ Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979), art 2(5).

to computers.² In addition, the reference to ‘selection *and* arrangement’ may suggest that both qualities are required in order to confer copyright protection, although that is not necessarily the case.³ Whichever interpretation is applicable, it is likely in most circumstances that the arrangement will be a key part of making the compilation an intellectual creation.

In any event, Berne is not easily enforceable and creates an international norm about minimum standards for copyright protection for some collections of works rather than an enforceable rule. Unsurprisingly, there was some divergence between domestic jurisdictions about what constituted an ‘intellectual creation’ with different tests being adopted particularly in different European civil law countries.⁴ Common law countries oscillated in their approach to protection, with debates about protecting sweat of the brow extending into the late twentieth and early twenty-first centuries, as demonstrated by the *Feist* decision in the US,⁵ and *IceTV v Nine Network* in Australia.⁶ Such protection exceeded what was required by Berne.

No case regarding Berne has ever been brought before the International Court of Justice. However, the incorporation of key articles of Berne into the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) increased their importance and enforceability due to the application of the World Trade Organization dispute processes. In addition, TRIPS added additional copyright protection over and above the provisions of Berne that were incorporated into TRIPS.

Unsurprisingly, by the time that TRIPS was formulated in 1994, in an increasingly digitalized world that by now used the term ‘database’ – especially in the context of data that was available via computers – those interpretive issues in Article 2(5) of Berne had been addressed and a slightly more generous form of protection for compilations of data was incorporated into Article 10(2) of TRIPS, which is set out below.

Computer Programs and Compilations of Data

- ...
(2) Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself.⁷

Article 10(2) refers to compilations of *data or other material* rather than collections of works. The data or material may or may not have its own independent copyright protection and need not even constitute a work in the copyright sense. Despite the heading of Article 10 referring to ‘computer programs’ and Article 10(1), Article 10(2) is technology neutral about the form in which the data is stored by referring to ‘machine readable or other form’ and makes it clear

² *The New Shorter Oxford English Dictionary* (4th edn, Clarendon Press 1993) defines databases as ‘an organized store of data for computer processing’.

³ A similar difficulty exists in the wording of the ICANN Uniform Dispute Resolution Policy relating to domain names with a reference to a domain name being ‘registered and being used in bad faith’. See *Telstra v Nuclear Marshmallows* Case No D2000-0003 WIPO Mediation and Arbitration Centre.

⁴ Mark Davison, *The Legal Protection of Databases* (Cambridge University Press 2003) 16–21.

⁵ *Feist Publications Inc v Rural Telephone Service Co* 499 US 340 (1991).

⁶ *IceTV Pty Ltd v Nine Network* [2009] HCA 14; [2009] 239 CLR 348.

⁷ Agreement on Trade Related Aspects of Intellectual Property Rights, Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization (signed in Marrakesh, Morocco on 15 April 1994), art 10.

that either selection *or* arrangement of the contents may constitute the act which creates the relevant intellectual creation that receives copyright protection.

In any event, Article 10 of TRIPS is all but precisely duplicated in Article 5 of the World Copyright Treaty ('WCT'), which reads:

Compilations of Data (Databases)

Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation.⁸

The main relevance of the duplication of the protection provided by Article 10(2) of TRIPS is that the WCT also provides for new rights, namely the right of communication including the right to make works available to the public, and forms of indirect protection of copyright material such as a right to prevent circumvention of technological protection measures. In the same way that TRIPS is a 'Berne plus' treaty, the WCT is, in effect, a TRIPS 'plus' treaty, insofar as it duplicates the test of subsistence of copyright in a database and then confers additional protection. This point is discussed in more detail below in relation to the nature of the protection conferred by copyright on databases.

The WCT, like Berne, is administered by WIPO and, in itself, has the same limitations in relation to its enforcement, although those nations that have ratified it have complied with it. On the other hand, the number of ratifying countries is still relatively low.⁹

However, like Berne provisions that have been incorporated into TRIPS and that have thereby become more easily enforced, the WCT obligations have been and are being incorporated into other trade and investment agreements that do have more effective enforcement processes.¹⁰ These enforcement processes may include Investor State Dispute Settlement ('ISDS') provisions that permit individual investors to initiate disputes to arbitration that make claims to one of the countries that is a party to the treaty.

In addition, the intellectual property aspects of such agreements are not negotiated independently of other parts of those agreements. Granting concessions in relation to the protection of intellectual property is a bargaining chip to be won or given in return for other concessions in other areas of trade and investment.

An example of the intended use of such agreements to ensure the implementation of the WCT is Article 18.7 of the Trans Pacific Partnership Agreement,¹¹ which was ultimately unsuccessful due to the opposition of the newly elected President Trump. It is unlikely that Article 18.7 was the reason for his objection to the agreement and, if the agreement had come into effect, each member of it would have been obliged to ratify and implement the WCT if it had not done so already.

⁸ WIPO Copyright Treaty 1996, art 5.

⁹ There were 103 contracting parties as at October 2019. See <www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=16> accessed 22 October 2019.

¹⁰ See for example Australia–United States Free Trade Agreement (2005) 17.1.4 requiring accession to the WCT and the Dispute Settlement Procedures in Chapter 20.

¹¹ Trans Pacific Partnership Agreement was concluded in October 2015. Article 18.7 reads in part: 'International Agreements 1. Each Party affirms that it has ratified or acceded to the following agreements: ... (e) WCT.' The Agreement also contains ISDS provisions in Chapter 9.

2.2 The Regional Position

At the regional level in the European Union, the copyright protection for databases is prescribed by Article 3 of the Database Directive of 1996, which reads as follows.

Object of protection

1. In accordance with this Directive, databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation shall be protected as such by copyright. No other criteria shall be applied to determine their eligibility for that protection.
2. The copyright protection of databases provided for by this Directive shall not extend to their contents and shall be without prejudice to any rights subsisting in those contents themselves.¹²

While Article 3 duplicates both the relevant TRIPS and WCT provisions in the main, it goes slightly further by making it clear that the test of subsistence of copyright is not a minimum test that permits more generous copyright protection. Unlike TRIPS and the WCT, the criterion of an intellectual creation, created by reason of selection or arrangement of the contents of the database, is an exhaustive test for copyright subsistence. The point is made quite clearly both within the wording of Article 3(1) itself and in recitals 15 and 16 of the Directive:

Whereas the criteria used to determine whether a database should be protected by copyright should be defined to the fact that the selection or the arrangement of the contents of the database is the author's own intellectual creation; whereas such protection should cover the structure of the database; Whereas no criterion other than originality in the sense of the author's intellectual creation should be applied to determine the eligibility of the database for copyright protection, and in particular no aesthetic or qualitative criteria should be applied.

There are at least two clear consequences of the Database Directive's approach to copyright protection for databases in the European Union. The first is that any argument that copyright protection might extend to sweat of the brow is eliminated. The second is that the EU case law interpreting the Directive has made it clear that intellectual activity and investment involved in the creation of data or other material that is then entered into the database is not protected. It is only the selection or arrangement of preexisting data that can constitute the relevant intellectual creation that may be protected by copyright.

The clearest recent example of these principles, and particularly the latter principle, is the decision in *Football DataCo*.¹³ The case related to football fixtures for the English and Scottish football leagues. The creation of those fixtures involved the exercise of both labour and considerable skill. The skill required was to create a fixture list while complying with several requirements for the fixtures. As well as the requirement that each team play each other team once at home and once away, a number of other requirements needed to be met. These included limiting the number of consecutive home or away matches, providing a roughly equal number of home and away matches during the course of the season and ensuring that roughly half of midweek matches be at home and roughly half be away. It appears that one of the objectives of the fixture was to ensure that throughout the season, no team would be at a particular

¹² Directive 96/9/EC of 11 March 1996 on the legal protection of databases [1996] OJ No L77.

¹³ Case C-604/10 *Football DataCo v Yahoo! UK Ltd* EU:C:2012:115, [2013] FSR 1.

advantage or disadvantage as a consequence of their fixtures. Multiple other factors needed to be considered, including playing obligations in other competitions, availability of grounds and consultations with relevant authorities.

However, the Court of Justice ruling repudiated the first instance decision of the national court, which had focused on the skill and labour in creating the fixture rather than the selection or arrangement of the fixture. None of the labour or skill involved in the creation of fixtures was relevant to whether copyright subsisted in the fixture list. It was only labour and skill directed to and expressing originality in the selection or arrangement of that data that was relevant to the subsistence of copyright.¹⁴ Originality in this context goes beyond the proposition that the fixture list emanates from the author and is not copied from elsewhere. It also requires some intellectual creativity in relation to selection and arrangement. This approach is the consequence of the wording of Article 3(1) in the context of recitals 15 and 16 of the Database Directive.

In addition, the decision clarified the proposition that member states within the EU could not have their own, different standards for subsistence of copyright in databases. 'Article 3(1) of the directive precludes national legislation which grants databases as defined in Article 1(2) of that directive copyright protection under conditions which are different to that for originality laid down in article 3(1) of that Directive.'¹⁵ Such an approach also precludes any possibility of a sweat of the brow test for subsistence of copyright in databases.¹⁶

A consequence of this approach to copyright in databases under the Database Directive is to harmonise the application of both the *sui generis* database right and copyright in the context of protection or lack of protection of any investment, whether qualitatively or quantitatively determined, in the creation of data. The substantial investment required to acquire database rights must be directed to the creation of the database, not the creation of the data to be contained in the database.¹⁷

This approach has particular implications for the absence of protection for what is sometimes referred to as 'synthetic' information¹⁸ – information such as a football fixture that is created as opposed to preexisting information that is then collected, selected and arranged into a database for the purposes of users of the database accessing it or parts of it at a future time. While there may be some difficulties in differentiating between different types of data in that context, such an approach does limit some of the potential anticompetitive effects of conferring a privilege of exclusive use of some information on one owner by excluding all others from using that information, as otherwise there is no means of obtaining the synthetic information other than via the authorisation of its creator.¹⁹ It also differentiates the *sui generis* database right from sweat of the brow copyright, which clearly does protect the labour involved in creating data.

¹⁴ *ibid* [41].

¹⁵ *Ibid* [50].

¹⁶ It may be the case that, technically, UK courts could diverge from the Court of Justice ruling once the UK's withdrawal from the EU is finalised.

¹⁷ Case C-203/02 *British Horse Racing Board Ltd v William Hill Organization Ltd*, EU:C:2004:695, [2005] RPC 13.

¹⁸ See for example Bernt Hugenholtz 'Abuse of Database Right' in F L  v  que and H Shelanski (eds) *Antitrust, Patents and Copyright: EU and US Perspectives* (Edward Elgar 2005), pp. 203–219.

¹⁹ See for example *RTE v Commission of the European Communities*, European Court of Justice, 6 April 1995, 1 C.E.C. 400 (Magill's case). The case related to UK copyright in television listings prior to the Database Directive and the antitrust law implications of refusing permission to reproduce the listings.

2.3 Subsistence of Copyright in Databases Outside the EU

The position outside the EU has been relatively clear for some time. The US position was determined in the now seminal decision of *Feist*.²⁰ Mere labour or sweat of the brow in creating a copyright work, whether a database or not, is insufficient. There must be an element of creativity in the selection or arrangement of the material. The selection and arrangement of a telephone directory has no element of creativity and consequently no copyright subsisted in it. A telephone directory, by its very nature, involves a 'selection' of every subscriber and the 'arrangement' is alphabetical to aid ease of searching. The individual facts, a subscriber's name and the telephone number of that subscriber do not constitute a copyright work in themselves and so they do not have copyright protection either.

This approach of the US Supreme Court was strongly influenced by the US Constitutional provision empowering Congress to make laws: 'To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.'²¹ Protecting facts or data per se compiled in a mechanistic, albeit labour-intensive, manner is inconsistent with the availability of those facts or data to all for the purpose of progressing science or useful arts.

Some databases will have copyright protection provided there is a minimal spark of creativity in their selection or arrangement. Those works with a minimal element of creativity have a correspondingly 'thin' copyright protection, an issue that operates most commonly in the context of determining whether the copyright has been infringed.²² Consequently, 'Notwithstanding a valid copyright, a subsequent compiler remains free to use the facts contained in another's publication to aid in preparing a competing work, so long as the competing work does not feature the same selection and arrangement'.²³ Hence, a slavish reproduction of the entirety of a database would infringe copyright even if the database has only a minimal or thin copyright due to its minimal creativity in selection or arrangement. On the other hand, reproduction of many of the facts or data in the database will not, of itself, lead to a finding of infringement of the copyright in selection or arrangement.

The position in Canada is slightly different but it is not entirely clear how different. In *Tele-Direct (Publications) Inc. v American Business Information Inc.*,²⁴ the Federal Court of Appeal appeared to adopt the same standard as that enunciated in *Feist*.²⁵ However, in the later case of *CCH Canadian Ltd v Law Society of Upper Canada*, the Supreme Court of Canada suggested a standard somewhere between sweat of the brow and that of a requirement of creativity:

²⁰ *Feist Publications Inc v Rural Telephone Service Co* 499 US 340 (1991).

²¹ The Constitution of the United States 1787 Art. 1(8).

²² J Ginsburg, 'No "Sweat"? Copyright and Other Protection of Works of Information after *Feist v Rural Telephone*' (1992) 92 Colum L Rev 338, 349.

²³ *Feist Publications Inc v Rural Telephone Service Co* 499 US 340 (1991), 346.

²⁴ (1997) CanLII 6378 (FCA); 76 C.P.R. (3d) 296 (F.C.A.).

²⁵ See for example *CCH Canadian Ltd v Law Society of Upper Canada* [2004] SCC 13; [2004] 1 SCR 339, [15] where the Canadian Supreme Court stated that 'Other courts have required that a work must be creative to be "original" and thus protected by copyright. See, for example, *Feist Publications Inc. v Rural Telephone Service Co.*, 499 U.S. 340 (1991); *Tele-Direct (Publications) Inc. v American Business Information, Inc.*, [1998] 2 F.C. 22 (C.A.).'

16 What is required to attract copyright protection in the expression of an idea is an exercise of skill and judgment. By skill, I mean the use of one's knowledge, developed aptitude or practised ability in producing the work. By judgment, I mean the use of one's capacity for discernment or ability to form an opinion or evaluation by comparing different possible options in producing the work. This exercise of skill and judgment will necessarily involve intellectual effort. The exercise of skill and judgment required to produce the work must not be so trivial that it could be characterized as a purely mechanical exercise.

25 For these reasons, I conclude that an 'original' work under the Copyright Act is one that originates from an author and is not copied from another work. That alone, however, is not sufficient to find that something is original. In addition, an original work must be the product of an author's exercise of skill and judgment. The exercise of skill and judgment required to produce the work must not be so trivial that it could be characterized as a purely mechanical exercise. While creative works will by definition be 'original' and covered by copyright, creativity is not required to make a work 'original'.²⁶

Whether, as a matter of practicality, there is any major difference between the exercise of skill and judgment on the one hand and a spark of creativity in selection and arrangement of data on the other is arguable. However, it would seem that the Canadian test would likely include the skill and judgment involved in creating data.

The position in Australia took an even more tortured path to what is arguably now an even stricter approach to copyright in databases after a period of time in which sweat of the brow was clearly sufficient to claim subsistence of copyright. In the Full Federal Court decision in *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd*,²⁷ the court ruled that copyright did subsist in a telephone directory on the basis of the extent of labour exerted in creating the directory. The High Court of Australia's subsequent refusal to give leave to appeal from that decision sent a very clear message that the sweat of the brow standard applied in Australia. So, too, did the decision, in *Seven Network (Operations) Ltd v Media Entertainment and Arts Alliance*,²⁸ that copyright subsisted in a list of employees and their work telephone numbers, which suggested that not only did sweat of the brow or industrious collection of information constitute originality for copyright purposes, but not a great deal of sweat or industriousness was needed to achieve that outcome.

Yet, a few short years later, the High Court of Australia effectively overturned the reasoning in the decision in *Desktop Marketing* in *Ice TV v Nine Network*.²⁹ The latter decision related to the copying of the time and programme title information in Nine Network's television programme guide by the provider of an electronic programme guide. The alleged infringing electronic programme guide was provided to subscribers to a service of the defendant used by consumers for the purposes of arranging the recording of free to air television programmes in order to watch them at a later, more convenient time and the related purpose of avoiding watching commercials in the programme.

The decision effectively took the same approach to the skill and labour involved in creating information as that taken in the CJEU *Dataco* ruling discussed above. The judgments acknowledged that there was considerable skill and labour involved in making programming decisions but 'the critical question is whether skill and labour was directed to the particular

²⁶ *CCH Canadian Ltd v Law Society of Upper Canada* [2004] SCC 13; [2004] 1 SCR 339, [16], [25].

²⁷ [2002] FCAFC 112; [2002] 119 FCR 491.

²⁸ [2004] FCA 637; [2004] 148 FCR 145.

²⁹ *IceTV Pty Ltd v Nine Network Australian Pty Ltd* [2009] HCA 14; (2009) 239 CLR 458.

form of expression of the time and title information, including its chronological arrangement'.³⁰ At least one joint judgment of the High Court adopted a fact/expression merger doctrine when it said that:

in assessing the quality of the time and title information . . . baldly stated matters of fact or intention are inseparable from and co-extensive with their expression. If the facts be divorced from the other elements constituting the complaint in suit, . . . then it is difficult to treat the IceGuide as the reproduction of a substantial part of the Weekly Schedule in the qualitative sense required by the case law.³¹

This change in approach by the High Court was then subsequently confirmed in later decisions of the Federal Court at first instance,³² and the Full Federal Court concerning protection of telephone directories.³³ Claiming protection for a database via copyright was made even more complex by the requirement that the person claiming ownership of the copyright provide evidence of who the author or authors of the database is or are and evidence of a chain of ownership leading to the current claimant.

3. SUBSTANTIVE RIGHTS

Some of the important developments in relation to database protection have flowed not so much from the law about the subsistence of copyright in any particular database but more in relation to the rights conferred on an owner of any copyright that is found to subsist in a particular database. While the traditional right of reproduction applies in many circumstances, the additional right of communication to the public was introduced via the WCT, which has been discussed above. Article 8 of the WCT reads as follows:

Right of Communication to the Public

Without prejudice to the provisions of Articles 11(1)(ii), 11bis(1)(i) and (ii), 11ter(1)(ii), 14(1)(ii) and 14bis(1) of the Berne Convention, authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access these works from a place and at a time individually chosen by them.³⁴

This new right was obviously a response to the rise of the use of the internet to communicate material either by sending it directly to users or simply making it available to be accessed at a time of the user's choosing. Perhaps more importantly, the new right is joined with preexisting rights such as that of reproduction under the Berne Convention, the tests for subsistence of copyright in compilations adopted in both TRIPS and the WCT and a further right to prevent circumvention of effective technological protection measures. Article 11 of the WCT reads as follows:

³⁰ *ibid* [54].

³¹ *ibid* [170].

³² *Telstra Corporation Ltd v Phone Directories Co Pty Ltd* [2010] FCA 44; (2010) 264 ALR 617.

³³ *Telstra Corporation Ltd v Phone Directories Co Pty Ltd* [2010] FCAFC 149; [2010] 194 FCR 142.

³⁴ WIPO Copyright Treaty 1996, art 8.

Obligations concerning Technological Measures

Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.³⁵

The right to protection from circumvention of technological protection measures has the effect of preventing unauthorised access to databases and thus heightening the importance of contracts between database owners and users. Those who are not in a contractual relationship with the database owner are prevented from accessing it by technological protection measures. Those who are in a contractual relationship may be restricted in their capacity to further distribute, that is, to communicate or make available to the public, all or part of the contents of the database by the specific obligations contained in that contractual relationship. Contravention of those contractual restrictions by so communicating the contents of the database would be a breach of not only the contract but also the right of communication to the public.

In the context of the EU Database Directive, the relevant rights of an owner of copyright in a database are set out in Article 5 of the Directive:

Restricted acts

In respect of the expression of the database which is protectable by copyright, the author of a database shall have the exclusive right to carry out or to authorize:

- (a) temporary or permanent reproduction by any means and in any form, in whole or in part;
- (b) translation, adaptation, arrangement and any other alteration;
- (c) any form of distribution to the public of the database or of copies thereof. The first sale in the Community of a copy of the database by the rightholder or with his consent shall exhaust the right to control resale of that copy within the Community;
- (d) any communication, display or performance to the public;
- (e) any reproduction, distribution, communication, display or performance to the public of the results of the acts referred to in (b).³⁶

The rights are comprehensive and deal with databases in both electronic form and hard copy. Given the comprehensive nature of those rights, a key issue then becomes the nature of the exceptions to those rights, which is discussed in the next section.

4. EXCEPTIONS

In order fully to appreciate the protection of databases via copyright one needs an understanding of the application of any exceptions to infringement. As with both the test of subsistence and the rights conferred, exceptions are controlled to some extent by international law although, in the context of databases, that control is quite general in nature. The most relevant provision is Article 9 of Berne, which also has its analogues in TRIPS and the WCT:

It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works [literary and artistic works] in certain special cases, provided that such reproduction does not

³⁵ WIPO Copyright Treaty 1996, art 11.

³⁶ Directive 96/9/EC of 11 March 1996 on the legal protection of databases [1996] OJ No L77, art 5. The right to communicate to the public under EU law predated the WCT.

conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.³⁷

The three step test relating to ‘certain special cases’, ‘normal exploitation’ and ‘unreasonable prejudice of legitimate interests’ has been the subject of extensive discussion elsewhere.³⁸ Nevertheless, some specific references to its application to databases is warranted here.

There are three general matters to be considered regarding exceptions to copyright in databases. Two relate to the nature of the exceptions. They relate to the question of whether exceptions should be quite specific and spelled out in some detail – in other words, rule-based exceptions – or whether the exceptions should be contained within a more general standard that is to be applied by courts in the context of any particular dispute before a court.³⁹ The exceptions contained within the Database Directive are examples of the former and the US defence of fair use is the primary example of the latter.

The third general matter is the issue of the relationship between exceptions and contractual restrictions. Considerable debate has raged and continues to rage as to whether contractual restrictions can or should override statutory exceptions to copyright.⁴⁰

4.1 The EU Position

The specific exceptions listed in the Database Directive are as follows:

Exceptions to restricted acts

The performance by the lawful user of a database or of a copy thereof of any of the acts listed in Article 5 which is necessary for the purposes of access to the contents of the databases and normal use of the contents by the lawful user shall not require the authorization of the author of the database. Where the lawful user is authorized to use only part of the database, this provision shall apply only to that part.⁴¹

Article 6(1) clearly addresses some limits on the use of contractual provisions to override exceptions or to inappropriately attempt to expand the rights conferred on the owner of copyright in a database. Perhaps somewhat counterintuitively, but consistent with legal principle, one consequence of this provision is that a database that does not qualify for copyright protection is not subject to this corresponding restriction on contract law. Hence, in the *Ryanair* case,⁴² the European Court of Justice found:

³⁷ Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979), art 9(2). See also TRIPS, art 13 and WCT, art 10.

³⁸ Sam Ricketson and Jane Ginsburg, *International Copyright and Neighbouring Rights: The Berne Convention and Beyond* (Oxford University Press 2006); Martin Senftleben, *Copyright, Limitations and the Three-Step Test: An Analysis of the Three-Step Test in International and EC Copyright Law* (Kluwer Law International 2004).

³⁹ For a discussion of standards and rules in the context of copyright exceptions see E Hudson, ‘Implementing Fair Use in Copyright Law: Lessons from Australia’ (2013) 25 IPJ 201, 211–13.

⁴⁰ For example, see L Guibault, *Copyright Limitations and Contracts – An Analysis of the Contractual Overridability of Limitation on Copyright* (Kluwer 2002).

⁴¹ Directive 96/9/EC of 11 March 1996 on the legal protection of databases [1996] OJ No L77, art 6(1).

⁴² Case C-30/14 *Ryanair Ltd v PR Aviation BV* EU:C:2015:10, [2015] ECDR 13.

it is clear from the purpose and structure of Directive 96/9 that Articles 6(1), 8 and 15 thereof, which establish mandatory rights for lawful users of databases, are not applicable to a database which is not protected either by copyright or by the *sui generis* right under that directive, so that it does not prevent the adoption of contractual clauses concerning the conditions of use of such a database.⁴³

The case concerned Ryanair's database of its airfares with details of flights and the price of each. Such a selection and arrangement of data did not qualify for either copyright protection or *sui generis* database protection. Ryanair made its fee structure publicly available via its website but it did so in return for those accessing the website contractually agreeing not to use the data in various ways not authorised by Ryanair. Those uses included uses in any website comparing airline prices.

The exceptions in Article 6(2) of the Database Directive are very specific ones, while Article 6(3) permits more open-ended exceptions provided they comply with the three step test. However, in the EU context, the tendency is to provide for relatively specific exceptions.⁴⁴ Articles 6(2) and (3) read as follows:

2. Member States shall have the option of providing for limitations on the rights set out in Article 5 in the following cases:
 - (a) in the case of reproduction for private purposes of a non-electronic database;
 - (b) where there is use for the sole purpose of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;
 - (c) where there is use for the purposes of public security or for the purposes of an administrative or judicial procedure;
 - (d) where other exceptions to copyright which are traditionally authorized under national law are involved, without prejudice to points (a), (b) and (c).
3. In accordance with the Berne Convention for the protection of Literary and Artistic Works, this Article may not be interpreted in such a way as to allow its application to be used in a manner which unreasonably prejudices the right holder's legitimate interests or conflicts with normal exploitation of the database.

Unsurprisingly, the rule-based approach involves a considerable element of time delay as the processes of legislatures in the European Union necessarily take longer to enact new legislation in response to advances in technology than innovators take to create those advances in technology. One important and relatively recent example of that process is the proposed introduction into EU law of a text and data mining (TDM) exception. The exception – which has already been introduced in some form in some EU countries,⁴⁵ pursuant to Article 6(3) of the Database Directive – has been proposed and discussed in various EU reports relating to the digital single EU market.

⁴³ *ibid* [39].

⁴⁴ See Bernt Hugenholtz and Martin Senftleben, *Fair Use in Europe: In Search of Flexibilities* (November 14, 2011). Available at SSRN: <<https://ssrn.com/abstract=1959554>> or <<http://dx.doi.org/10.2139/ssrn.1959554>> accessed 22 October 2019 for a more detailed discussion of the issue and the possibility of greater flexibility of exceptions within EU copyright law.

⁴⁵ For example Copyright Designs and Patents Act 1988 (UK), s 29A, although arguably that exception is narrower than what has been proposed by the European Union.

The proposed exception has been the subject of considerable discussion in the EU, including a ‘Study on the legal framework of text and data mining’,⁴⁶ a European Parliament resolution of 19 January 2016 on ‘Towards a Digital Single Market Act’⁴⁷ which contains a proposed TDM exception and several opinions or draft opinions on that proposal from the European Committee of the Regions,⁴⁸ the Committee on the Internal Market and Consumer Protection for the Committee on Legal Affairs (in February 2017)⁴⁹ and the opinion of the European Economic and Social Committee (in January 2017).⁵⁰ Other organisations have also provided input into the suggested defence, such as Liber, the association of European Research Libraries, in its ‘LIBER Statement on the Digital Single Market Strategy for Europe’.⁵¹

Unsurprisingly, there is some difference of opinion as to the appropriate scope of the exception. Those differences of opinion include issues as to whether the exception should only apply to TDM for noncommercial purposes or whether it should include researchers and businesses that operate for profit, partly because differentiating between for profit and not for profit research organisations is difficult and the boundaries between them are too blurred for the criterion to be effectively determined or policed. There is also disagreement as to whether the defence should override contractual arrangements to the contrary. There is even some discussion as to what the relevant exception should be titled, with one suggestion that it should refer to ‘data analysis’ rather than to ‘data mining’.⁵² As indicated in the Liber Statement, one of the reasons for proposing the exception is that ‘A number of European TDM-based research projects have already outsourced their content mining to the United States’.⁵³ The rationale given is similar to the one for introducing the Database Directive some years earlier, namely that investment in databases would move to the United States. This has now been resolved with the adoption of Directive 2019/790 on Copyright in the Digital Single Market and, in particular, Article 3, which obligates Member States to provide for an exception to “reproduction and extractions made by research organisations and cultural heritage institutions...for the purposes of scientific research, text and data mining of works or other subject matter to which they have lawful access.”⁵⁴

⁴⁶ Jean-Paul Triaille and Jerome de Meeus d’Argenteuil, *Study on the Legal Framework of Text and Data Mining (TDM)* (2014).

⁴⁷ European Parliament Resolution of 19 January 2016 on Towards a Digital Single Market Act 2015/2147 (INI).

⁴⁸ Opinion of the European Committee of the Regions – Copyright in the Digital Single Market SEDEC- VI-019 (2017).

⁴⁹ Opinion of the Committee on the Internal Market and Consumer Protection for the Committee on Legal Affairs 2016/0280 (COD).

⁵⁰ Opinion of the European Economic and Social Committee INT 804.

⁵¹ LIBER Statement on the Digital Single Market Strategy for Europe <<http://libereurope.eu/wp-content/uploads/2015/05/LIBER-Statement-on-the-Digital-Single-Market-Strategy-for-Europe1.pdf>> accessed 22 October 2019.

⁵² Jean-Paul Triaille and Jerome de Meeus d’Argenteuil, *Study on the Legal Framework of Text and Data Mining (TDM)* (2014).

⁵³ LIBER Statement on the Digital Single Market Strategy for Europe <<http://libereurope.eu/wp-content/uploads/2015/05/LIBER-Statement-on-the-Digital-Single-Market-Strategy-for-Europe1.pdf>> accessed 22 October 2019.

⁵⁴ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (Text with EEA relevance.) OJ L 130, 17.5.2019, p. 92–125.

4.2 The US Position

In contrast to the position in the EU, there is less discussion in Congress and within US government departments regarding legal protection of databases and exceptions to that legal protection. The US Congress long ago abandoned attempts to introduce *sui generis* protection for database owners.⁵⁵ When it comes to exceptions, the situation is controlled primarily by the fair use exception. One example of its application in the context of databases is the decision in *AV ex rel Venderhyve v iParadigms LLC*.⁵⁶

The case related to the commonly used Turnitin software used by many tertiary institutions to check for plagiarised work being submitted by students as part of their assessment. The software trawls through a database of work previously submitted by students in multiple institutions and compares it with work submitted by other students in the particular subject in question. If there are significant similarities between any two works, a report is generated for the individual teacher to consider any plagiarism issue.

The particular issue in this case related to alleged infringement of individual copyright works contained within Turnitin's database of multiple works by students. So, in that sense, the decision did not directly deal with copyright in a database as opposed to copyright in individual copyright works in the database. However, the manner of applying the four part fair use standard was instructive and useful in terms of comparing it with the EU's rule-based approach to various exceptions. For example, the fact that Turnitin's use of the copyright work was obviously commercially based was not in itself determinative or indeed highly relevant, as the use of the works was considered transformative. The transformative use was the use of the work for an 'entirely different function and purpose than [that of] the original works'.⁵⁷ In addition, while the entirety of the works was used, that use did not take advantage of the 'expressive content' of the works.⁵⁸ In addition, the use in question did not disrupt the market for the works.⁵⁹ The comparison with the text and data mining exception is relatively obvious and the debate within the EU regards whether that exception should be restricted to noncommercial uses.

5. COMMENTARY AND CONCLUSION

The above discussion needs some summary and some contemplation of what may happen in the future in the context of legal protection of databases. A few points can be made by way of summary of the current position.

First, sweat of the brow copyright seems to have been all but eliminated, with the last vestiges of it spurned by the European Court of Justice in multiple decisions, as well as by the High Court of Australia. Even the sweat or skill in creating data that is then incorporated into

⁵⁵ See Mark Davison, *Database Protection: Lessons from Europe, Congress, and WIPO*, 57 Cas. W. Res. L. Rev. 829 (2007) Available at: <<http://scholarlycommons.law.case.edu/caselrev/vol57/iss4/9>> accessed 22 October 2019.

⁵⁶ *A.V. v iParadigms LLC* 562 F. 3d 630 (4th Cir 2009) affirming the first instance decision 544 F. Supp 2d 473 (2008).

⁵⁷ *ibid* 639.

⁵⁸ *ibid* 642.

⁵⁹ *ibid* 642–43.

a database is not protected under either copyright or the *sui generis* database protection scheme of the EU's Database Directive. Coupled with the longstanding US position in *Feist*, this pull-back in the level of recognition of subsistence of copyright is one of the few areas of copyright law where there has been a reduction in the nature or scope of protection via copyright.

Second, there appears to be no significant appetite for any major plurilateral or multilateral alteration of that position. The attempts early in the twenty-first century to increase protection for databases via a WIPO treaty for *sui generis* rights based on the EU's Database Directive have certainly come to an end and there are no foreseeable circumstances in which those attempts will be renewed with any likely effect. Consequently, in the international space, the 'action' is in the context of increasing the number of countries that are signatories to TRIPS and the WCT and ensuring compliance with those treaties. The major issue here may well relate to the extent of protection from the circumvention of technological protection measures. The details of that protection have played out and will continue to play out at a domestic level and in the context of plurilateral treaties. In addition, the real level of protection provided by copyright in that context will be the level of protection provided by the combination of contract and the protection from circumvention of technological protection measures. The extent to which copyright exceptions will permit the overriding of contractual provisions which attempt to prevent that conduct which would normally be permitted by those exceptions is and will probably remain an area of complexity, confusion and differentiation between the laws of different jurisdictions.

Third, there is ongoing development of exceptions to legal protection of databases. As is the case with all works protected by copyright, these exceptions may take the form of specific exceptions with particular application to the type of work in question – in this case, databases, or general exceptions that may affect protection of and access to information in databases. An example of the former is the EU's text and data mining exception. An example of the latter is the US fair use exception and the ongoing debate about the appropriateness of such a general exception. The debate surrounding those two types of exceptions involves the usual discussion about the differences between rules and standards and the advantages and disadvantages of both. Within that debate, a couple of points could be made about the pros and cons of the two different approaches. The first is that the rate of technological change in relation to the use of data, and massive amounts of data, has changed very rapidly and is likely to continue to do so. In such an environment, the argument for standards to be considered and applied by reference to the particular facts in issue, rather than by a rule-based approach that may well amount to an endless game of catch due to the lag time between necessarily slow legislative responses and fast technological change, would seem to be a strong one. This point is telling when one observes the intricate and time consuming processes of the EU in arriving at ultimate decisions concerning any issue, including exceptions. The TDM exception has been seriously considered for nearly four years by multiple committees and groups within and outside the EU. In contrast, a similar 'exception' has already been considered and actually applied by courts in the United States. If any particular court decision is considered too egregious, legislative action could be taken to correct that outcome.

The second point relates to the argument that one of the broad objections to fair use has included the proposition that the justification for the exception is unclear because it requires determining specific goals of copyright when those goals are, at least to a considerable extent,

unspecified.⁶⁰ Even if that argument is accepted, it is difficult to see how there is any argument other than a utilitarian one at work in the context of intellectual property laws and databases. I hasten to add that the reference here is to intellectual property laws rather than laws generally such as those relating to privacy and its protection. In the context of databases and intellectual property laws that would provide a right to exclude others from accessing and using a database while retaining an exclusive privilege for the database owner to determine the rules of access and use, it is difficult to see that there should be other justifications, such as ‘personhood’ theories, at work. Hence, those academics who have argued that there should be and can be some compartmentalization of fair use by identifying different categories of copyright works and relying on those differences as part of any fair use analysis would seem to have a strong point in the context of databases.⁶¹

Fourth, there has been a hint of a suggestion of greater protection for owners of data in some of the EU’s documentation proposing a data producer’s right, although it appears that the EU has now abandoned the idea. The possibility was raised in a European Commission report entitled ‘Building a European data economy’ and supported by a Staff Working Paper.⁶² It appeared to be a proposal that would ‘plug the gap’ in protection of databases created by the limitation of copyright protection for databases to the intellectual creation in the selection and arrangement of data and the limitation of the *sui generis* rights under the Database Directive to protection of the investment in creating the database itself, rather than creating or obtaining the data for the database.

It is not entirely clear what the new proposed right would have been or how it would have fit with the proposals for a TDM exception. It was described as possibly involving ‘a right in rem’ including the right to ‘assign the exclusive right to utilise certain data, including the right to licence its usage’.⁶³ An apparent alternative to the right in rem approach would be to conceive the right as ‘a set of purely defensive rights . . . by giving at least the defensive elements of an in rem right, i.e. the capacity for the *de facto* data holder to sue third parties in case of illicit misappropriation of data’.⁶⁴

Yet the person in possession of the data would still have civil law remedies such as ‘the right to injunctions preventing further use of data by third parties’, ‘[t]he right to have products built on the basis of misappropriated data excluded from market commercialisation’ and ‘[t]he possibility to claim damages for unauthorised use of data’.⁶⁵

How that later concept of protection of a *de facto* possession, as opposed to ownership,⁶⁶ would have differed from any other form of intellectual property is difficult to understand.

⁶⁰ See for example Jonathan Gingerich ‘AV Ex rel Vanderhye v iPradigms, LLCa: Electronic Databases and the Compartmentalization of Fair Use’ (2010) 50 IDEA – The Intellectual Property Law Review 345.

⁶¹ See the discussion of some of these views by Gingerich, *ibid* 353–57.

⁶² Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions ‘Building a European data economy’ COM/2017/09 final and Commission Staff Working Document on the free flow of data and emerging issues of the European data economy. Accompanying the document ‘Building a European data economy’ SWD/2017/02 final.

⁶³ Commission Staff Working Document on the free flow of data and emerging issues of the European data economy. Accompanying the document Building a European data economy SWD/2017/02 final.

⁶⁴ *ibid* 34.

⁶⁵ *ibid*.

⁶⁶ *ibid*.

The nature of the rights conferred by intellectual property are negative in nature. They provide a right to exclude others from using the property in question. The freedom of the owner to use the subject matter in question predates and continues after the creation of any right to exclude others.

In any event, there are fundamental problems with the general approach of demanding laws that engage in ‘gap plugging’. The main one is usually that the demand is a rent seeking exercise claiming some market failure but without any real proof of the actual failure. Others include the difficulties associated with defining the nature and scope of any new rights in either legislation or case law interpreting the legislation. Both difficulties were manifested in the EU’s adoption, application and interpretation of its Database Directive. The claim was made that the lack of *sui generis* protection and the limits of copyright protection meant that investment in database creation was occurring and would continue to occur in the United States at a faster rate than in the EU. There is no evidence that introduction and transposition of the Database Directive has made any significant difference to the levels of investment within the EU. Nor did the sky fall on investment in databases in the United States despite the EU’s position and the US rejection of numerous proposals for *sui generis* protection to ‘fill the gap’ created by a *Feist* standard of copyright protection.

Instead, the transaction costs in the EU associated with the creation of a new right have been incurred without any apparent benefit – but the transaction costs of reverting to the previous position are also prohibitive. To put it more simply, there has been a significant increase in the exclusive rights of database owners without any general benefit to offset it. Given the nature of databases, there is no obvious justification for those rights on other than utilitarian grounds. The second difficulty with the Database Directive was and to some extent remains the difficulty involved in its interpretation and application, with extensive, protracted litigation required in order to deal with issues such as the relevance of investment in collecting or creating data in determining the scope of rights of database owners. The EU’s own initial review of its Database Directive is a cautionary tale about the need for a conservative approach to the creation of new rights in data.⁶⁷

The second, recently released evaluation of the Database Directive essentially confirms the findings of the first evaluation. In particular, the Executive Summary of the second Evaluation Report states that ‘the *sui generis* right continues to have no proven impact on the overall production of databases in Europe, nor on the competitiveness of the EU database industry’.⁶⁸ The more normative proposition it posits is that ‘[t]he limited scope of protection ensures *an appropriate balance* between rights and interests of database makers and users’ lacks substantive content’.⁶⁹ The word ‘appropriate’ refers to a conclusion, not a reasoned argument, unless the criteria of appropriateness are defined and defended and the methodology for measuring the criteria are also outlined.

In that context, the suggestion to create a data producer’s right would seem to be a triumph of hope for rent seekers over observation of the lack of potential benefits for society at large.

⁶⁷ DG Internal Market and Services Working Paper First evaluation of Directive 96/9/EC on the legal protection of databases (2005).

⁶⁸ Commission Staff Working Document *Executive Summary of the Evaluation of Directive 96/9EC on the legal protection of databases* SWD (2018) 146 final.

⁶⁹ Commission Staff Working Document *Executive Summary of the Evaluation of Directive 96/9EC on the legal protection of databases* SWD (2018) 146 final at 1. Emphasis supplied.

It appears that the issue has been dropped from the EU's agenda, at least for the time being. It is to be earnestly hoped that the suggestion will not be pursued further unless the most extraordinary care is taken in demonstrating the need for it.⁷⁰ Such extraordinary care would need to extend to care as to the justification for the new rights, the scope of those new rights and exceptions to them. Above all, doing nothing should be the default position.

Finally, one of the potential issues for a very distant future relates to Brexit and its potential legal implications in this area of law and perhaps more generally. Detailed and formal consideration of this is under way.⁷¹ Exploration of those details is beyond the scope of this chapter.

The commentary here is more speculative but is based on historical experience of the role of English case law in the common law world, or at least those jurisdictions of the common law world that are still part of the British Commonwealth. A brief explanation of some aspects of that history is necessary first, in order to make the point.

It used to be the case that Commonwealth nations allowed appeals from their highest courts to the Privy Council. Some still do. Consequently, decisions of the Privy Council and what was the Appellate Committee of the House of Lords were usually regarded as binding on the courts of those Commonwealth nations. In relation to a number of Commonwealth countries, that hierarchy of court decisions in the precedent system of the common law was disrupted by a number of factors. First, rights of appeal to the Privy Council were either removed or, prior to that, made only an alternative to a right of appeal to the highest court in the relevant nation. Eventually, its decisions became persuasive only and the decisions of other superior courts in other countries, such as those of the Supreme Court of the United States, were increasingly considered. However, since many decisions of UK courts had already been followed by domestic courts, they remained as either binding or highly influential precedents; many still do. Second, the United Kingdom's entry into the EU resulted in dramatic changes to its legislative arrangements and its intellectual property laws, in particular as it transposed various EU directives relating to intellectual property. As those directives were necessarily influenced by the general approaches to and concepts of intellectual property in other European nations, the result was that UK law quickly diverged from that of Commonwealth countries. This divergence was further heightened by the requirement that UK courts apply the decisions of the European Court of Justice as to the interpretation of various directives.

In some respects, the divergence by Commonwealth countries from UK intellectual property law was swift due to the legislative changes in the UK; in other respects, it was slow due to the common law precedent system and the ongoing influence of many seminal UK intellectual property decisions. That slow disentanglement of the intellectual property laws of the UK and other common law countries may be very, very slowly reversed. On a number of occasions, there has been what may be described as judicial resistance to European Court of Justice interpretations of EU intellectual property directives. The legal culture of judicial independence – especially among those appointed from the Bar, which is intensely individualistic

⁷⁰ For other views on the issue see Herbert Zech, 'A Legal Framework for a Data Economy in the European Digital Single Market: Rights to Use Data' (2016) *JIPLP* 460; Herbert Zech, 'Information as Property' (2015) *JIPITEC* 192; and, arguing against such a right, Wolfgang Kerber, 'A New (Intellectual) Property Right for Non-Personal Data? An Economic Analysis' (2016) *GRUR Int* 989 <<https://ssrn.com/abstract=2858171>> accessed 22 October 2019.

⁷¹ See for example <<https://publications.parliament.uk/pa/ld201719/ldselect/ldcom/130/13002.htm>> accessed 22 October 2019.

by nature – combined with the CJEU ceasing to be the highest court of appeal may well lead to divergence between European court approaches to intellectual property and the approaches of the UK courts. For example, it is not out of the question that in the fullness of time, independent UK judicial perspectives on issues such as the protection of investment in the creation of data that is incorporated into databases may be revived.

In turn, those decisions may be influential in other Commonwealth countries, although not binding. That process may not ever occur, and even if it does it will be slow and, for long periods of time, imperceptible. However, the general tendency of Brexit would be likely to result in some divergence from European intellectual property norms in due course, and possibly a reversion to some previous perspectives on intellectual property. In addition, common law decisions in Commonwealth countries may come to influence UK decisions. How, when and whether such a situation will arise is impossible to predict with any certainty, but it is clear that such a situation has become a possibility and is consistent with the historical relationship between UK case law and that of other Commonwealth countries. In the context of databases, some of the disputes that have been resolved in the context of European approaches may eventually be revisited in copyright disputes with fewer constraints imposed by EU copyright law.

5. Database producer protection: between rights and liabilities

Tatiana Eleni Synodinou

1. INTRODUCTION

Data is the oxygen in the information ecosystem and the currency in the information economy. In our increasingly data-centred society, databases serve multiple purposes. They are treasurable repositories of information and a valuable source of knowledge, along with being precious information tools (tools enabling us to search for, process and retrieve information). Databases offer a harmonious and userfriendly synthesis of a main body of content (works, data or other materials) with a variety of tools and other means of arranging, presenting and searching their corpus of contents. In these terms, the database, as an organized set of information and information retrieval tools, is the most popular functional instrument of knowledge in our time.

In 1996, the EU, aiming to offer effective legal protection for these complex information assets, introduced the Database Directive.¹ The aims of the Directive were to remove existing differences in the legal protection of databases by harmonizing the rules that applied to copyright protection, to safeguard the investment made by database makers and to ensure that users' legitimate interests in accessing the information compiled in databases were secured.² In this context, the Directive established a system of dual protection for databases, whereby the original structure and/or selection of the contents of a database (the database's structure) is protected by classic copyright law,³ while the content of the database (the database's 'corpus') is protected by a special *sui generis* right. This dichotomy was justified by the need to protect the totality of the value of databases, since unilateral protection of the original structure or the selection of the database's contents by means of copyright, based on the model of protection of anthologies and compilations in international copyright law,⁴ did not appear capable of pro-

¹ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases [1996] OJ L 77, 20–28.

² First Evaluation of Directive 96/9/EC on the legal protection of databases (2005), Brussels. Available at: <https://ec.europa.eu/info/sites/info/files/evaluation_report_legal_protection_databases_december_2005_en.pdf>.

³ For the protection of databases by copyright law, see Mark Davison, 'Databases and Copyright Protection' in T. Aplin (ed), *Research Handbook on Intellectual Property and Digital Technologies* (Edward Elgar 2019) ch 4.

⁴ See Article 2(5) of the Berne Convention for the Protection of Literary and Artistic Works 1886 (latest revision, Paris 1971), Article 10(3) of the Agreement on Trade-Related Aspects of Intellectual Property Rights, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 UNTS 299, 33 ILM. 1197 (1994), Article 5 of the WIPO Copyright Treaty 1996. For a critical analysis on whether the Berne provision covers only compilations of works or also compilations of other data, see Henri Desbois, *Le droit d'auteur en France* (3ème éd., Dalloz, 1978) n° 29; Jérôme Huet, 'La modification du droit sous l'influence de l'informatique – Aspects de droit privé' (1983) JCP 3095.

protecting databases from parasitic harmful acts of third parties, especially in view of the inability, in many instances, to establish the originality of the database's structure.

The *sui generis* right is broadly constructed as follows in Article 7 of the Directive:

1. Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.
2. For the purposes of this Chapter: (a) 'extraction' shall mean the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form; (b) 're-utilization' shall mean any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission.

The new *sui generis* right was far from anodyne. Being a complete novelty for the majority of EU Member States – with the exception of the special regimes governing protection of compilations of facts which existed in the Scandinavian countries, on one hand,⁵ and in the Netherlands, on the other⁶ – it was seen as a source of perplexity by national legislators and judges. Even more significantly, the new right, whose aim is to protect database makers against misappropriation of the results of financial and professional investments made in obtaining and gathering the database's contents,⁷ was perceived as a threat to the free flow of information, since it carried the risk of creating information monopolies and as a result could potentially hamper the free use of information and the operation of competition in information highways.⁸ Indeed, even though the regime ostensibly enabled the free, and even commercial, use of insubstantial parts of the database contents by a lawful user of the database,⁹ the inherent difficulty in determining what constitutes a 'substantial part in a qualitative way' could lead to situations where one piece or a few pieces of information are appropriated and 'locked' in the database, if the database is the only source of this information or if it is extremely difficult or costly to find the information from other sources. In addition, the protection conferred by the new exclusive property right could be perpetual, since the 15-year initial term of protection is renewable if substantial new investment is made in the database, with no affiliated requirement that the public ultimately acquire ownership of the object of protection at the end of a specified

⁵ Gunnar WG Karnell, 'The Nordic Catalogue Rule' in Egbert J Dommering and P Bernt Hugenholtz (eds), *Protecting Works of Fact* (Information Law Series I, Kluwer Law and Taxation Publishers 1991) 67.

⁶ P Bernt Hugenholtz, 'Protection of Compilations of Facts in Germany and the Netherlands' in Egbert J Dommering and P Bernt Hugenholtz (eds), *Protecting Works of Fact* (Information Law Series I, Kluwer Law and Taxation Publishers 1991) 59.

⁷ Recital 39 of the Directive.

⁸ Jerome H Reichman and Pamela Samuelson, 'Intellectual Property Rights in Data?' (1997) 50 *Vanderbilt L Rev* 51; Nathalie Mallet-Poujol, 'Appropriation de l'information: l'éternelle chimère' (1997) *Dalloz* 330; Bernard Edelman, 'Les bases de données ou le triomphe des droits voisins' (2000) *Dalloz* 89; Pierre Sirinelli, 'Le droit d'auteur à l'aube du 3ème millénaire' (2000) 1 *JCP* 15; Michel Vivant, 'L'irrésistible ascension des propriétés intellectuelles?' in *Mélanges Christian Mouly* (Paris: Litec 1998) 445.

⁹ Extraction and reutilisation are prohibited only when they relate to a substantial part of the database's contents, evaluated qualitatively and/or quantitatively.

period.¹⁰ Furthermore, the *sui generis* mechanism is not accompanied by calibrating tools, such as the idea/expression dichotomy in copyright law, which distinguishes protected aggregated data from unprotected individual data.¹¹ Conversely, apart from the risk of overprotection, which was generally pinpointed in relation to sole-source databases,¹² one of the challenges of database protection has been to avoid underprotection for these valuable information assets, since database makers would lose the incentive to invest in the database market if there was insufficient protection, because of the danger of free riding.¹³

The polemics surrounding the introduction of EU database protection, and especially of the *sui generis* right, were strongly related to the vague and innovative conceptual edifice of database *sui generis* protection. The new right appeared to be a powerful legal instrument of unidentified nature and consisted of a series of novel, abstract and untested legal concepts: a database, substantial quantitative and qualitative investment, a substantial part of the contents of the database evaluated quantitatively or qualitatively, extraction, reutilization and lawful user. The conceptual weaknesses of the right were also noted in the First Evaluation Report on the Database Directive, which was issued by the EU Commission in 2005.¹⁴ Furthermore, the unproven economic impact of database protection on the EU database production sector triggered discussion of radical policy options, such as repealing the Database Directive or withdrawing the *sui generis* right.¹⁵ Nonetheless, the debate remained only theoretical, since not even less drastic changes, such as an amendment of the most controversial provisions of the Directive, materialized. This is partly due to the corrective role of the CJEU, which clarified and restricted the scope of application of the *sui generis* right in a series of influential judgments in 2004.

Twenty-three years after the introduction of EU database protection, the *sui generis* right remains a legal riddle, whose full potential has not yet been revealed. Given the ambiguities that exist in relation to the application of the *sui generis* right to the online environment, in May 2017 the European Commission launched a public consultation on the impact and application of the Database Directive. The aim of the consultation was to assess, in the ongoing *ex post* evaluation undertaken by the Commission, whether the Directive still fulfils its policy goals and is fit for purpose in a digital, data-driven economy. The Evaluation Report pinpoints several controversies and inefficiencies of the database *sui generis* regime, but it does not clearly either support or reject its abolition.¹⁶ Furthermore, the Study in support of the evaluation of Directive 96/9/EC mentions that several amendments should be seriously considered, such as granting *sui generis* protection upon registration so the right is only given to those motivated by protection (with benefits for third parties in terms of notice and deposit), expanding exceptions in Article 8(1) to parallel copyright (and database copyright exceptions

¹⁰ Reichman and Samuelson (n 8) 85–95.

¹¹ P Bernt Hugenholtz, ‘Abuse of Database Right, Sole-Source Information Banks under the EU Database Directive’ in François Lévêque and Howard Shelanski (eds), *Antitrust, Patents and Copyright: EU and US Perspectives* (Edward Elgar 2005) 203–19.

¹² Hugenholtz (n 11).

¹³ Estelle Derclaye, *The Legal Protection of Databases: A Comparative Analysis* (Edward Elgar 2008) 3.

¹⁴ First evaluation of Directive 96/9/EC on the legal protection of databases (2005) OJ L 77, 20–28.

¹⁵ First evaluation of Directive 96/9/EC on the legal protection of databases (2005).

¹⁶ Evaluation of Directive 96/9/EC on the legal protection of databases, Brussels, 25.4.2018 SWD (2018) 146 final.

should be expanded to parallel regular copyright) and subjecting sole-source databases to compulsory licensing.¹⁷

This chapter will provide a critical analysis of the main legal questions in relation to database *sui generis* protection as a means of regulating the exploitation and dissemination of information assets in the digital economy and discuss how this regime interacts with other means or layers of database protection, namely protection by means of contract law and unfair competition law.

2. THE DATABASE PROTECTION PROVIDED BY THE DATABASE DIRECTIVE

The database protection regime established by the Directive is far from being a sectoral and marginal legal instrument of protection for immaterial goods. The broad definition of the concept of a database is a key element of EU database protection, which enables the widespread application of the Directive to various information products and services. In this context, the EU database regime has the potential broadly to apply to systems performing a function of ‘storage’ and ‘processing’ of information and, as a result, to regulate the information market within the EU.

According to this definition, ‘database’ means a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means. Both the national courts of EU Member States and the CJEU have opted for a wide scope for the concept of a database, unencumbered by considerations of a formal, technical or material nature.¹⁸ In this context, dictionaries, encyclopaedias, anthologies, maps,¹⁹ football and horse racing fixture lists, telephone directories,²⁰ business directories,²¹ collections of law and case law,²² multimedia, newspapers, magazines, websites,²³

¹⁷ Study in support of the evaluation of Directive 96/9/EC on the legal protection of databases (2018) Final Report.

¹⁸ See Case C-444/02 *Fixtures Marketing Ltd v Organismos prognostikon agonon podosfairou AE (OPAP)*, EU:C:2004:697, para 20-32; Case C-30/14 *Ryanair Ltd v PR Aviation BV*, EU:C:2015:10, para 33.

¹⁹ Case C-490/14 *Freistaat Bayern v Verlag Esterbauer GmbH*, ECLI:EU:C:2015:735.

²⁰ *Lectiel v France Télécom*, 30 September 2008, CA Paris, 1st Ch., Section A. Available at <www.legalis.net>. The judgment was confirmed by the French Supreme Court (Cour de Cassation, Chambre commerciale, financière et économique), 23 March 2010, (2010) 225 RIDA 373. Available at <www.courdecassation.fr> or <www.legifrance.gouv.fr>.

²¹ Case 40b 251/01 ‘*www.baukompass.at*’, Austrian Supreme Court (Oberste Gerichtshof, OGH), 27 November 2001 (2002) GRUR Int 940.

²² Case C-545/07 *Apis-Hristovich EOOD v Lakorda AD*, ECLI:EU:C:2009:132.

²³ Case ‘*Newsbooster.com*’, 16 July 2002 District Court (Byret) Copenhagen. See: Database right case-law collection. Available at <www.ivir.nl/nl/database-right-case-law-collection/>; *TAC UP v JTMM*, 27 April 2010, CA Lyon, 8th ch. civ., Available at <www.legifrance.gouv.fr>; *Pressimmo On Ligne v Yakaz*, 12 novembre 2015, Cour de cassation, Chambre civile 1. Available at <www.legalis.net>; *Factory Eleven v International Consumer Services Sweden AB (ICSS)*, 26 juin 2014, Tribunal de grande instance de Paris, 3ème chambre 4ème section. Available at <www.legalis.net>.

catalogues of hyperlinks,²⁴ charts, search engines, pamphlets,²⁵ tables and compilations and search engines fall within the scope of the definition.

In the *OPAP* case, the CJEU clarified that the term ‘collection’ does not presuppose a ‘large number’ of data, works or other materials.²⁶ The requirement of a systematic or methodical structure of the database simply excludes the application of the Directive to haphazard masses of data, and it does not aim to impose very strict conditions in relation to the organization of the database. In this context, the evaluation of the existence of a structural organization of the contents should be made flexibly,²⁷ so that a large majority of these collections fall within the scope of the Directive.

The touchstone of the definition of a database is the ‘independence’ of its contents. This independence shall not be conceived literally as the material or physical ‘individuality’ of the data, but through use of a teleological approach. ‘Independent’ works, data and other materials are those which are separable from one another without their informative, literary, artistic, musical or other value being affected.²⁸ Ultimately, these will be the elements that have an independent informative value and are capable of functioning as self-contained information units. In purely economic terms, the use of the prerequisite of data ‘independence’ potentially means that the independent subelements of the database could be the object of a separate commercial exploitation.²⁹

The informative value of the materials shall be evaluated autonomously for each item or for a collection of items, in the sense that the added informative value resulting from insertion of the material into the database is not taken into consideration. Indeed, as the CJEU noted in *Freistaat Bayern v Verlag Esterbauer GmbH*:³⁰

Whilst the value of material from a collection will tend to increase by being arranged in it, its being extracted from that collection will tend to result in a corresponding decline in value but will not affect its classification as an ‘independent material’ within the meaning of Article 1(2) of Directive 96/9, provided that that material retains autonomous informative value.

In that case, the CJEU was invited to elucidate whether geographical data extracted from an analogue topographic map in order that a third party may produce and market another map retains, after extraction, sufficient informative value so as to be held to be ‘independent materials’ of a ‘database’ within the meaning of the definition of a database in the Database

²⁴ Case ‘C-Villas’ 10 July 2001 (Austrian Supreme Court (Oberste Gerichtshof). See: Database right case-law collection. Available at: <www.ivir.nl/database-right-case-law-collection/> accessed 20 October 2019.

²⁵ *UNMS v Belpharma Communication*, 16 March 1999, District Court Brussels (Rechtbank van eerste aanleg). See Database right case-law collection, at: <www.ivir.nl/database-right-case-law-collection/> accessed 20 October 2019.

²⁶ Case C-444/02 (n 18) para 24.

²⁷ J Worthy and E Weightman, ‘Exploiting Commercial Information: A Legal Status Report’ (1996) 2 CLSR 97; Estelle Derclaye, ‘Do Sections 3 and 3A of the CDPA Violate the Database Directive? A Closer Look at the Definition of a Database in the U.K. and Its Compatibility with European Law’ [2002] 10 EIPR 468.

²⁸ Case C-444/02 (n 18) para 29.

²⁹ Loïc Panhaleux, ‘Droit d’auteur et données numérisées’ (2000) 1 Expertises 25. See also Philippe Gaudrat, ‘Droit des nouvelles technologies’ (1998) 51(3) RTDcom 603.

³⁰ Case C-490/14 *Freistaat Bayern v Verlag Esterbauer GmbH*, ECLI:EU:C:2015:735, para 25.

Directive. As the Court affirms, it is irrelevant whether the separable pieces of geographical information in the map significantly or completely lose their informative value once they have been extracted from the database. What matters is the value of those pieces of information to the users of subproducts of the initial database made by third parties. The evaluation of the informative value of the materials should be flexible and take into consideration the collective informative value of the pieces of information which have been reused. Accordingly, the Court asserts that not only an individual piece of information but also a combination of pieces of information can constitute ‘independent material’ within the meaning of Article 1(2) of Directive 96/9. Therefore, a combination of pieces of information can have an autonomous informative value, since these combined data convey relevant information to the customers of the third party who has selectively extracted them. In order to reach this conclusion, the Court interprets the concept of ‘informative value’ liberally by disconnecting it from common value standards, such as the purpose, the principal intended use or the use that would be made by a typical user of a collection, such as a topographic map. The Court justifies this conceptual laxity by referring to the various purposes of a topographic map and to the difficulties involved in determining a principal intended use or typical user of a collection such as a map. It also stresses that the application of such a criterion for the assessment of the autonomous informative value of the materials making up a collection would run counter to the intention of the EU legislature to give broad scope to the definition of the term ‘database’.³¹

For the Court in *Freistaat*, it is sufficient that the subsequent reuse of the data has a certain independent commercial value, and that the independence of the data is linked to the potential for autonomous exploitation after their extraction from the ‘database’ and not to an intrinsic informative value of the materials, as had been previously implied in the *OPAP* case, where the CJEU pinpointed that the materials needed to be separable from one another without the value of their contents being affected. Since the criterion of independence is evaluated subjectively (the utility/value of the data for the specific third party who has appropriated them, and its clients) and not objectively (the utility/value of the data for a typical user of the database), it is highly possible that independence will be established almost automatically if the data is reused in a new data context. This flexible approach perceives the term ‘database’ as a wideranging conceptual matrix with the potential to include every structured aggregation of data which might be extracted and reused with a certain utility. It is therefore unlikely that *sui generis* protection will not be enforced on the grounds of lack of independence of the database’s contents, but the main test for establishing infringement of the *sui generis* right will be that of whether a substantial, quantitative or qualitative part of the contents of the database has been extracted or reused without authorization.

2.1 The Original Ambiguity and the Calls for Public Domain Protection

2.1.1 At the origin of the hybrid system of protection

The Directive opted for a segmented approach which is built on a combination of two distinct property-based regimes of protection (copyright law and *sui generis* right), instead of promoting a holistic regime for the protection of the information good represented by the database as

³¹ C-490/14 (n 30) para 26.

a whole (structure and contents) on the grounds either of the property or the liability model of protection.

It is noteworthy that during the elaboration of the Directive, a significant shift took place in relation to the nature and the form of the *sui generis* right.³² Indeed, the database *sui generis* right was significantly inspired by the logic and aims of unfair competition law and the law punishing parasitic behaviour,³³ but finally adopted the solid legal shape of a new intellectual property right, and specifically that of a new neighbouring right. In this respect, the *sui generis* right relates not only to the manufacture of a parasitic competing product but also to any user who, through their acts, causes significant detriment, evaluated either qualitatively or quantitatively, to the investment made by the database maker.³⁴ It is constructed as a transferable exclusive right protecting an investment which has been incorporated into a database *ex ante* and not *a posteriori*.³⁵ Furthermore, in contrast to an act of unfair competition, the *sui generis* right does not presuppose proving a breach of the law, damage caused and a causal link in order to be enforced, and no competitive relationship between the database maker and the party which infringes the right has to be established.

The path finally adopted by the EU has ended up providing strong property protection, in contrast to the minimalist approach of the first proposals, which brought the *sui generis* regime closer to a regime of unfair competition. On the other hand, in the US – where, post-*Feist*,³⁶ the discussion on the effective protection of databases was intensified after the introduction of the EU database regime³⁷ – initial proposals favoured a maximalist proprietary approach, while later proposals embraced a less strong protection mechanism based on the tort of misappropriation. Indeed, as Davison notes, the starting point for proposals for the legal protection of databases in the US was the finishing point for the EU, and the finishing point of US proposals is similar to the EU's starting point.³⁸ Since the US finally abandoned the idea of introducing *sui generis* protection for databases,³⁹ databases are protected in the US by classic legal means, mainly the common law tort of misappropriation and contract law. Legal (such as trade secret protection, trespass to chattels or computer trespass based on the Computer

³² Jens L Gaster, 'La protection juridique des bases de données dans l'Union Européenne' (1996) 4 *Revue du Marché Unique Européen*, 68–70.

³³ In the initial Proposal for a Council Directive on the legal protection of databases. (Doc) COM (1992) 24 final, the right was defined as the right to prohibit the unfair extraction of the contents of the database. See Doc COM (92), 24 final, J.O.C.E., n° C 156, 23-6-1992.

³⁴ Recital 42 of the Directive.

³⁵ Jens L Gaster, 'The EU Council of Ministers' Common Position concerning the Legal Protection of Databases: A First Comment' [1995] 6 *Ent LR* 258–59.

³⁶ *Feist Publications Inc v Rural Telephone Service Co* 499 US 340 (1991).

³⁷ For the post-*Feist* 'intellectual effort' standard in Canada, see *Tele-Direct (Publications) Inc. v American Business Information, Inc.* 119981 2 FC 22 and *CCH Canadian Ltd. v Law Society of Upper Canada*, [2004] 1 SCR 339. For the standard in Australia, see *Telstra Corp. Ltd. v Desktop Mktg. Sys. Pty. Ltd* (2001) 181 ALR 134 (Austl.), appeal dismissed, *Desktop Mktg. Sys. Pty. Ltd. v Telstra Corp. Ltd* (2002) 119 FCR 491 and *IceTV Pty. Ltd. v Nine Network Australia Pty. Ltd* (2009) 239 CLR 458. For an analysis, see Bryce Clayton Newell, *Discounting the Sweat of the Brow: Converging International Standards for Electronic Database Protection* (2011) 15 *Intell Prop L Bull* 122.

³⁸ Mark Davison, *The Legal Protection of Databases* (CUP 2003) 213.

³⁹ Mark Davison, 'Database Protection: Lessons from Europe, Congress, and WIPO' (2007) 57 *Cas W Res L Rev*, 829. Available at <<http://scholarlycommons.law.case.edu/caselrev/vol57/iss4/9>> accessed 20 October 2019.

Fraud and Abuse Act⁴⁰) or nonlegal solutions (encryption) could also apply, depending on the circumstances. From a strictly legal point of view, as protection of the ‘sweat of the brow’ is no longer possible after *Feist*,⁴¹ the existing legal tools for protecting databases cannot provide concrete and effective protection. This is due to the principle of privity of contract,⁴² as well as the restrictive conditions for the application of the tort of misappropriation (protection of ‘hot news’, thus of only time sensitive information; requirement of direct competition between the plaintiff and the defendant).⁴³ Nonetheless, there is no empirical evidence that the lack of *sui generis* protection in the US has had a negative impact on the US database industry or that the EU has gained a competitive advantage in the global database industry thanks to the *sui generis* right.⁴⁴

The issue of the legal qualification of the *sui generis* right is not purely a doctrinal question, but also has concrete consequences for the protection of foreign database makers in the EU.⁴⁵ According to Article 11 of the Directive, database *sui generis* protection is not granted to non-European database makers. Since the right is unique, it can be granted to non-EU database producers under the requirement of reciprocity.⁴⁶ Indeed, the right can be extended to nationals or residents of third countries on the basis of special agreements which can be concluded by the Council, only if such third countries offer comparable protection to databases produced by nationals of a Member State or persons who have their habitual residence in the territory of the European Union.⁴⁷ Even though it has been argued that the rules of national treatment of the Paris Convention for the Protection of Industrial Property would apply if the right is conceived as a rule of unfair competition or as a form of industrial property,⁴⁸ such a teleological interpretation could not be easily sustained without mutating the legal form of the *sui generis* right, such as it was finally adopted. In this context, it is a matter of policy whether the *sui generis* right should remain the sole privilege of EU database makers or whether the rule of Article 11 should be amended to extend the right to non-Europeans, for example US database makers, since, as observed by the Economic and Social Committee of the Council in its Opinion on the First Draft of the Proposal for a Directive on the Legal Protection of Databases, no significant harm would flow from providing protection for databases from other countries.⁴⁹ In any case,

⁴⁰ See Jonathan Band and Brandon Butler, ‘Overlapping Forms of Protection for Databases’ in Neil Wilkhof and Shamnad Basheer (eds), *Overlapping Intellectual Property Rights* (OUP 2012) 203, 204.

⁴¹ Nevertheless, even after *Feist* the level of creativity which is required is quite low. See Clayton Newell (n 37) 115.

⁴² Derclaye (n 13) 235.

⁴³ Davison (n 38) 189; Derclaye (n 13) 232.

⁴⁴ First evaluation of Directive 96/9/EC on the legal protection of databases, *ibid*.

⁴⁵ P Bernt Hugenholtz, ‘Something Completely Different: Europe’s Sui Generis Database Right’ in Susy Frankel and Daniel Gervais (eds), *The Internet and the Emerging Importance of New Forms of Intellectual Property* (Wolters Kluwer 2016) 219.

⁴⁶ W Matthew Wayman, ‘International Database Protection: A Multilateral Treaty Solution to the United States’ Dilemma (1997) 37 Santa Clara L Rev 427. Available at: <<http://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1483&context=lawreview>> accessed 20 October 2019.

⁴⁷ Recital 56 of the Directive.

⁴⁸ Hugenholtz (n 45), with references to Herman Cohen Jehoram, ‘Ontwerp EG-richtlijn databanken’ (1992) 5 IER 133; William R Cornish, ‘1996 European Community Directive on Database Protection’ (1996) 21 Colum VLA J L & Arts 1 10.

⁴⁹ Davison (n 38) 63.

nonqualifying foreign producers may continue to invoke the residual domestic copyright and unfair competition laws, where available.⁵⁰

The influence of unfair competition law objectives has also been evident during the application of the *sui generis* mechanism by the CJEU. The Court has clearly and steadily affirmed, in a series of cases, the proprietary nature and scope of *sui generis* protection;⁵¹ in the *Innoweb* ruling, which will be analysed in section 2.3, it has injected reasoning based on unfair competition law by introducing certain additional criteria when addressing the question of the reutilization of database contents by dedicated meta search engines.⁵²

The nuanced approach of the CJEU, underlining either the proprietary nature or the unfair competition law objectives of the *sui generis* right, adds flexibility in the application of the *sui generis* regime. It enables the Court to apply respectfully either a firmer or a looser degree of protection when additionally requiring proof of ‘abnormal’ behaviour by the party who extracts and/or reuses the database content. As a result, even if typologically it is classified as a new intellectual property right or a neighbouring right, the *sui generis* right in substance appears to be a legal amalgam, with the proportion of its components varying according to the context and the specific qualities of the information market where it is called on to apply.

2.1.2 The core components of *sui generis* protection

The foundation stone of the *sui generis* regime is the concept of ‘substantial investment’. The database right is conferred on database makers who can demonstrate that they have made quantitatively or qualitatively substantial investment in obtaining, verifying or presenting the contents of the database.⁵³ The concept of investment is not defined in the Directive. According to Recital 7, ‘the making of databases requires the investment of considerable human, technical and financial resources’, while Recital 40 states that such investment may consist in the deployment of financial resources and/or the expending of time, effort and energy. The concept is broad enough and, by definition, encompasses the Anglo-Saxon copyright notion of ‘sweat of the brow’.⁵⁴

Sui generis protection is divided into two distinct economic rights, each with a broad scope, granting protection respectively against the extraction and the reutilization of a substantial part of the database’s contents. Article 7(2) of the Directive defines these rights as follows:

⁵⁰ JH Reichman, ‘Mondialisation et propriété intellectuelle, Database Protection in a Global Economy’ (2002) 2/3 *Revue Internationale du droit économique* 466.

⁵¹ See the four seminal cases issued on 9 November 2004: Case C-46/02 *Fixtures Marketing Ltd v Oy Veikkaus Ab*, ECLI:EU:C:2004:694; *The British Horseracing Board Ltd and others v The William Hill Organization Ltd*, ECLI:EU:C:2004:695; Case C-444/02 *Fixtures Marketing Ltd v OPAP*, ECLI:EU:C:2004:697; Case C-338/02 *Fixtures Marketing Ltd v Svenska Spel AB*, ECLI:EU:C:2004:696. See also Case C-304/07 *Directmedia Publishing GmbH v Albert Ludwigs Universität*, ECLI:EU:C:2008:552.

⁵² Tatiana Synodinou, ‘Database *Sui Generis* Right and Meta Search Engines: What’s New and What Next?’ [2014] 12 *EIPR* 755.

⁵³ Article 7(1) of the Directive.

⁵⁴ Jens L Gaster, ‘La protection juridique des bases de données dans l’Union européenne’ 4 *Revue du Marché unique et de l’Union européenne* (1996), 55–70; Neeta Thakur, ‘Database Protection in the European Union and the United States: The European Database Directive as an Optimum Global Model’ (2001) 1 *IPQ* 100; Mark Schneider, ‘Foreign and International Law: b) International Law and Treaties: the European Union Database Directive’ (1998) 13 *Berkeley Tech Law J* 558.

‘extraction’ shall mean the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form; (b) ‘re-utilization’ shall mean any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission. The first sale of a copy of a database within the Community by the rightholder or with his consent shall exhaust the right to control resale of that copy within the Community.

The concept of extraction includes reproduction of the database’s contents, but it is broader, since it also includes any transfer of the database’s contents to another medium even without duplication, such as the removal of the contents. The concept of reutilization is a wideranging one, and it includes any act of public dissemination of the database’s contents by any means and in any form. Therefore, the notion of reutilization embraces acts which in copyright law could fall within a range of rights, namely distribution, communication to the public and rental rights.⁵⁵

Nonetheless, the courts have not interpreted the concept of unauthorized appropriation so broadly as to also cover appropriation which does not take place through acts of physical transfer, that is, reproduction and removal of the contents, such as appropriation of the investment which is related to the database’s content through deep linking. Indeed, it could be argued that the annexation of the content, which is indicated by the deep link to the information asset (website) of the linker, disturbs the proprietary exclusive relationship of the database maker with the content incorporating the substantial investments made by him, when the linker, by bypassing the home page of the initial information source, presents this content as part of his own information asset. While this dynamic interpretation, which focuses on the concept of appropriation instead of on technicalities, is in line with the aim of a broad scope of protection for databases, it pushes the scope of the right too far, since it could result in infringement of the right even in cases of ‘attachment’ via linking of the content to noncompeting information products. This is compatible neither with the way the internet works nor with the CJEU’s stance in relation to copyright infringement by linking. Indeed, since the seminal *Svensson* ruling,⁵⁶ which implied the digital ‘exhaustion’ of the making available right when internet users linked to copyright protected matter available on the internet,⁵⁷ the infringing nature of linking activities has had to be evaluated in the light of a bundle of additional interdependent factors, such as the criterion of the ‘new public’ and the profit-making activity of the linker.⁵⁸

The philosophy of EU database protection is based on the artificial segmentation of the ‘database’ in the database’s conceptual and organizational structure, and the database’s contents. Therefore, database copyright and *sui generis* protections are established as two completely distinct legal mechanisms of protection, which apply in parallel. Indeed, the two forms of protection appear on the face of it to have a different subject matter, are governed by different criteria, have a different subject of the right (the right holder), are subject to different

⁵⁵ Davison (n 38) 89; Derclaye (n 13) 106.

⁵⁶ Case C-466/12 *Nils Svensson and Others v Retriever Sverige AB* ECLI:EU:C:2014:76.

⁵⁷ ALAI Report and Opinion on a Berne-Compatible Reconciliation of Hyperlinking and the Communication to the Public Right on the Internet. Available at <www.alai.org/en/assets/files/resolutions/201503-hyperlinkingreport-and-opinion-2.pdf>. See also P Bernt Hugenholtz and Sam C van Velze, ‘Communication to a New Public? Three Reasons Why EU Copyright Law Can Do Without a “New Public”’ (2016) 47 IIC 797–816.

⁵⁸ Tatiana Synodinou, ‘Decoding the Kodi Box: To Link or not to Link?’ [2017] 12 EIPR 733.

exceptions and do not have the same term of protection. Overlaps, however, are still possible. The two forms of protection can coincide if *sui generis* protection is awarded on the grounds of a 'qualitative substantial investment'. Indeed, the contribution of creative, human intellectual effort and energy in the presentation of the database's contents could trigger both copyright protection for the structure of the database and *sui generis* protection for the database's contents.⁵⁹

The *sui generis* right is subject to certain nonmandatory exceptions for the benefit of the lawful users of databases: extraction for private purposes of the contents of a nonelectronic database; extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the noncommercial purpose to be achieved; and extraction and/or reutilization for the purposes of public security or an administrative or judicial procedure.⁶⁰ Furthermore, the Directive, in line with the Software Directive, reserves some rights for lawful users. Accordingly, the maker of a database may not prevent a lawful user of the database from extracting and/or reutilizing insubstantial parts of its contents, evaluated qualitatively and/or quantitatively, for any purposes whatsoever.⁶¹ Any contrary contractual provision shall be null and void.⁶²

The emergence of the concept of lawful user and the declaration of certain exceptions as mandatory has introduced a new perception of the delimitation of copyright and *sui generis* proprietary protection. Indeed, the introduction of mandatory exceptions that cannot be overridden by contractual terms marks the advent of a more robust and active approach to exceptions and brings closer the 'legal prerogatives' safeguarded by the exceptions to the legal nature of 'rights'. The term 'lawful user' is not defined by EU legislation. The identification of a separate entity, the 'lawful user', as the person who can exercise the freedoms provided by copyright and *sui generis* right exceptions – instead of, indistinctively, the public – appears unorthodox from a classic continental author's rights approach, where the concept of the user is nonexistent.⁶³ It is, however, in line with the particular nature of databases and of software as functional information products whose terms of use are primarily regulated by contracts and licences. Indeed, the legal terminology is strongly influenced by the contractual structure, which presupposes at least two distinct contracting parties, and accordingly the abstract notion of the public is replaced by the more specific concept of a particular entity (the 'lawful user') who has the right to use the information product.

The modelling of the term 'lawful user' on the legal prototype of contractual relationships shall not, however, result in a restrictive interpretation of the concept of 'lawful use', which would cover only the case of use on contractual grounds. Indeed, while it is clear that the term covers uses which are justified by a contractual right to use the database regardless of the qualification of the contract (purchase, rent, donation, and so on⁶⁴), it has been debated whether

⁵⁹ Estelle Derclaye, 'The Database Directive' in Irini Stamatoudi and Paul Torremans, *EU Copyright Law* (Edward Elgar 2014) para 9.36, 322; Davison (n 38) 84.

⁶⁰ Article 9 of the Directive.

⁶¹ Article 8 of the Directive.

⁶² Article 15 of the Directive.

⁶³ Tatiana Synodinou, 'The Lawful User and a Balancing of Interests in European Copyright Law' (2010) 41(7) IIC 823.

⁶⁴ See Report from the Commission to the Council, the European Parliament and the Economic and Social Committee on the implementation and effects of Directive 91/250/EEC on the legal protection of computer programs COM (2000) 0199 final, para 5. According to the Report, a lawful user is not only

the concept of ‘lawful use’ also includes any use which is not prohibited by law, such as any person who has the right to use a database based on copyright and *sui generis* right exceptions, on the grounds of exhaustion of the distribution right or in the event of acquisition of a copy of a database by succession.⁶⁵ In the *UsedSoft* case,⁶⁶ the CJEU embraced a broad approach to the concept of ‘lawful acquirer’⁶⁷ as contained in the Software Directive:⁶⁸ it asserted that a lawful acquirer is not only an acquirer who is authorized, under a licence agreement concluded directly with the copyright holder, to use a computer program, but also a second acquirer of the licence, as well as any subsequent acquirer, who will be able to rely on exhaustion of the distribution right and hence be regarded as lawful acquirers of a copy of a computer program.⁶⁹

The broad scope of the economic rights of the database maker in principle cover text and data mining activities, that is, automated computational analysis of information held in digital form. Indeed, provided that the corpus of the data analysed falls within the broad definition of a database because the contents are ‘arranged in a systematic or methodical way’ and are ‘individually accessible’, the process of data analysis, depending on the circumstances, may include acts of reproduction and adaptation of the data which fall within the scope of the concept of ‘extraction’. Nonetheless, depending on the technology used, it could happen that the software reproduces only a small number of elements of the database, which together do not amount to a substantial part of the database’s contents, or it is possible that no permanent or temporary ‘transfer’ of data may occur when the software just crawls through the data and does not copy them. In such cases, no infringement of the *sui generis* right will take place. Furthermore, it is highly unlikely that the output of the analysis will entail the reutilization of the database’s contents since the output will consist of a new independent information product, which is probably composed of statistics, new relationships and new patterns, so that the contents of the database will as such arguably not be reutilized/communicated to the public in any recognizable manner.⁷⁰ In this context, two new exceptions to the database maker’s right to prevent the unauthorized extraction of the database’s contents is provided in the Directive on copyright in the Digital Single Market.⁷¹ The exception of Article 3 of the new Directive shall cover extractions and/or re-utilizations made by research organisations and cultural heritage institutions in order to carry out text and data mining of works or other subject matter to which they have lawful access. Furthermore, Article 4 establishes a more general exception to the *sui generis* right of the database maker for reproductions and extractions of lawfully accessible works and other subject matter for the purposes of text and data mining, on condition that the

a purchaser, licensee or renter, but also a person authorized to use a computer program on behalf of one of the above.

⁶⁵ See Synodinou (n 63) 829–31.

⁶⁶ Case C-128/11 *UsedSoft GmbH v Oracle International Corp.* ECLI:EU:C:2012:407.

⁶⁷ Justine Pila and Paul Torremans, *European Intellectual Property Law* (OUP 2016) 517.

⁶⁸ The terms ‘lawful user’ and ‘lawful acquirer’ which appear respectively in the Database and the Software Directive should be regarded as identical from a legal point of view.

⁶⁹ Case C-128/11 (n 66) 82, 88 of the judgment.

⁷⁰ Jean Paul Triaille, Jérôme de Meeûs d’Argenteuil and Amélie de Francquen, ‘Study on the Legal Framework of Text and Data Mining (TDM)’ (2014) 37–40. Available at <<https://op.europa.eu/en/publication-detail/-/publication/074ddf78-01e9-4a1d-9895-65290705e2a5/language-en>> accessed 20 October 2019.

⁷¹ Articles 3 and 4 of the Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, OJ L 130, 17.5.2019, p. 92–125.

use of works and other subject matter has not been expressly reserved by their rightholders in an appropriate manner, such as machine-readable means in the case of content made publicly available online. These new exceptions aim to create the right fit for new models and perspectives of data analysis in the digital age, aiming to enhancing researcher efficiency, process and quality and to develop new knowledge.⁷²

This will lead to a corrective contraction of database *sui generis* protection, which has often been denounced as excessively strong and potentially dangerous for the free flow of information and the unimpeded development of scientific research and progress.⁷³ Furthermore, the EU database *sui generis* protection did not finally provide for a regime of compulsory licences for sole-source data situations (where the content of the database can be found only in the database and cannot be collected independently from other sources).⁷⁴ While this entails the risk of creation of information monopolies, this risk has been significantly minimized after the CJEU's activist teleological delimitation of the object of the *sui generis* protection in a series of landmark decisions in 2004.

2.2 The Jurisprudential Reaction: The 2004 Evolution

In 2004, the database *sui generis* regime was analysed and interpreted by the CJEU for the first time in response to four preliminary rulings. All the cases concerned unauthorized extraction and reutilization of the contents of lists of sporting events (football matches in the three so-called Fixtures Marketing Cases, and horse races in the fourth 'William Hill' case). The Court clarified the basic concepts of the *sui generis* regime and, more substantially, 'reshaped' this regime by strictly defining its scope of application. In this context, the CJEU's interpretative findings could be seen as a judicial revolution which brought significant changes in the conception and application of the database *sui generis* right.

2.2.1 The affirmation and clarification of database *sui generis* protection

The CJEU has opted for a broad interpretation of these rights and held that the terms 'extraction' and 'reutilization' must be interpreted as referring to any unauthorized act of appropriation and distribution to the public of the contents of a database, in whole or in part. Additionally, the Court asserted that indirect taking of data may also constitute an infringement of the *sui generis* right by rejecting the argument that extraction and reutilization imply having direct access to the database concerned. Therefore, even if the data are extracted from a copy of the database or from another source and not via the original database, infringement may still occur. This is in line with the conception of the *sui generis* right as a proprietary one, which empowers the database maker to prohibit any act of appropriation of the substantial investment made by him in relation to the collection, verification and presentation of the

⁷² Diane McDonald and Ursula Kelly, 'Report on Value and Benefits of Text Mining' (*Jisc*, 2012, last updated 7 June 2017) <www.jisc.ac.uk/reports/value-and-benefits-of-text-mining> accessed 20 October 2019.

⁷³ Nathalie Mallet-Poujol, 'Appropriation de l'information: l'éternelle chimère' *Dalloz* (1997) (chr), 330; Bernard Edelman, 'Les bases de données ou le triomphe des droits voisins' *Dalloz* (2000) (chr) 89; Pierre Sirinelli, 'Le droit d'auteur à l'aube du 3ème millénaire' (2000) 1 *JCP éd.* G 15; Michel Vivant, 'An 2000: L'information appropriée?' in *Mélanges Burst* (Litec 1997) 651.

⁷⁴ Matthias Leistner, 'The Protection of Databases' in Estelle Derclaye (ed), *Research Handbook on the Future of EU Copyright* (Edward Elgar 2009) 429.

database's contents. This approach has also been affirmed in later case law. In the case of *Directmedia Publishing GmbH v Albert Ludwigs Universitat Freiburg*, the Court reaffirmed the proprietary nature of the *sui generis* protection when accepting that infringement may occur even without any 'physical' copying of the contents, such as making handwritten copies after consulting the database.⁷⁵

Furthermore, the Court clarified the concept of 'substantial' and 'insubstantial' parts of the database's contents. The evaluation of whether a part of the database's contents is quantitatively substantial is unambiguous, since it is based on an objective comparison of the quantity of the parts of the content which have been extracted and/or reused with the quantity of the entire contents of the database. On the other hand, the evaluation of what constitutes a 'substantial part of the contents qualitatively' entailed the risk of legal uncertainty, due to the possibility of diverging subjective approaches. In this context, in some cases the substantial nature of the extracted part was evaluated by national courts on the basis of the intrinsic informative value of the extracted data,⁷⁶ while in other cases the importance of the extracted data for the infringer was taken into account.⁷⁷ The CJEU rejected these approaches by defining the concept of a 'substantial part, evaluated qualitatively' on the basis of the investment linked to that part of the content which has been extracted and/or reused. As the Court noted, the expression 'substantial part, evaluated qualitatively' refers to the scale of the investment in the obtaining, verification or presentation of the database's contents which have been extracted and/or reused. A quantitatively negligible part of the contents of a database may in fact represent, in terms of obtaining, verification or presentation, a significant human, technical or financial investment.⁷⁸ Since the existence of the *sui generis* right does not give rise to the creation of a new right in the works, data or materials themselves, the intrinsic value of the materials affected by the act of extraction and/or reutilization does not constitute a relevant criterion for the purpose of assessing whether the part at issue is substantial.⁷⁹

Consequently, the existence of a 'substantial investment' serves a dual role: it is the prerequisite for the granting of a *sui generis* right, but also a determining factor in assessing infringement of the right, since it has been recognized by the CJEU as the criterion for determining what constitutes a 'substantial part, evaluated qualitatively' of the database contents.

⁷⁵ C-304/07 ECLI:EU:C: 2008:552.

⁷⁶ In a French case, the daily extraction of job announcements by a web site and their reutilisation by a search engine dedicated to job announcements was considered to be an infringement of the *sui generis* right, even if the data which were extracted and reused constituted a small part of the content of every announcement. The extracted parts were considered to be substantial in a qualitative way because they were thought crucial for every announcement. See *Cadremploi v Keljob, Colt Télécommunications France*, 5 septembre 2001 TGI Paris (3ème ch., 1ère section), legalis.net, n° 3 septembre 2001, 85.

⁷⁷ In the first case in the UK concerning the database right, the judge in the first instance ruled that there had been infringement of the *sui generis* right because there was extraction of the most significant and recent information, while at the same time this information was deemed to be important for the infringer. See *British Horseracing Board Ltd v William Hill Organization Ltd* [2001] RPC 31. The importance of the extracted information for the infringer was also taken into consideration in the decision of the District Court of Nanterre in *S.A. P.R. Line v S.A. Communication et Sales, S.A.R.L. Newinvest*, 16 mai 2000 Trib.com. Nanterre (7e ch.), 2000, *Gaz.Pal* 2 jur., 1991.

⁷⁸ Para 71.

⁷⁹ Para 72.

2.2.2 The ‘correction’ of the database *sui generis* regime: has the *sui generis* right had its shell removed?

One of the most important questions referred to the Court was the definition of the concept of ‘obtaining’ the database contents. Indeed, defendants had argued that an investment in creating the database contents may not be qualified as an investment in ‘obtaining’ the contents. This argument is relevant to the so-called spinoff doctrine, which has been supported by certain commentators and judgments of national courts. According to this doctrine, *sui generis* database protection must be granted exclusively for the protection of an investment directly dedicated to production of the database as the database producer’s main activity. On the other hand, *sui generis* protection should not be granted to databases which are mere byproducts of the database producer’s main activity, which is something other than the making of the database.⁸⁰ The CJEU based its interpretation on the distinction between ‘creation’ and ‘obtaining’ of the database contents. Therefore, the expression ‘investment in the obtaining of the contents’ of a database must be understood to refer to the resources used to seek out existing independent materials and collect them in the database, and it does not cover the resources used for the creation of materials which make up the contents of a database.

The Court justified this exclusion by placing emphasis on the purpose of the *sui generis* regime, which is to promote the establishment of storage and processing systems for existing information and not the creation of materials capable of being collected subsequently in a database. By applying this teleological interpretation, the Court significantly narrowed the scope of application of the database right. The CJEU’s analysis, which is based on a reformulation of the protectable subject matter of the *sui generis* right, is an internal solution to the problem of monopolies of information in sole-source data situations,⁸¹ and consequently functions as a preventive means of regulating free competition in the database market. Using the CJEU’s interpretative stance, the *sui generis* right will be particularly problematic for databases which are the only source of the information they include. If the database contents have been created by the database maker, the database right protection cannot be asserted unless there is proof that substantial investments have been made in other phases of the production of the database, such as in either the verification or presentation of the contents. Additionally, in the *Football Dataco* case,⁸² the CJEU made it clear that content which has been generated only with the investment of ‘sweat of the brow’ and without being the ‘author’s own intellectual creation’,⁸³ thus in the absence of free and creative choices made by the author, cannot be protected by copyright law. Therefore, despite the dichotomy between copyright and *sui generis* protection in the Directive, the CJEU has adopted a unitary conception of the scope of ‘database protection’, according to which EU database protection shall concern only the phase in which the data are collected, verified and presented, and that ‘sweat of the brow’ which has been invested in the preliminary phase of creating the data does not count for the purposes of awarding either

⁸⁰ For an analysis of the spin-off doctrine, see Estelle Derclaye, ‘Databases Sui Generis Right: Should We Adopt the Spin Off Theory?’ [2004] EIPR 402.

⁸¹ Leistner (n 74) 434–35.

⁸² C-604/10 *Football Dataco and Others* ECLI:EU:C:2012:115.

⁸³ For the concept of ‘the author’s own intellectual creation’, see Tatiana Synodinou, ‘The Foundations of the Concept of Work in European Copyright Law’ in Tatiana Synodinou (ed), *Codification of European Copyright Law, Challenges and Perspectives* (Kluwer Law International 2012) 93.

copyright or *sui generis* protection.⁸⁴ In this context, the CJEU seems to have favoured a partial ‘negative reflex’ effect,⁸⁵ so that an intellectual effort (‘sweat of the brow’) that is excluded from the *sui generis* protection is also excluded from protection under database copyright law. It is noteworthy that the Evaluation Report of 2018 concludes that the exclusion of the investments related to the creation of the database’s content from the *sui generis* protection should also apply to machine generated databases (for example, data automatically produced by Internet of Things devices).⁸⁶

While this clarification provides a remedy to the problem of information monopolies in sole-source data situations, the distinction between ‘creation’ and ‘obtaining, presenting and verifying the data’ might prove difficult to make.⁸⁷ Courts, however, proved to be pragmatic when applying the distinction. In the UK Court of Appeal decision in *Football Data Co Ltd v Sportradar GmbH*,⁸⁸ the Court applied the creation/obtaining distinction in a way that makes this less of an obstacle. For the Court, the insertion into a database of various statistics provided via phone calls from analysts attending football matches did not count as an investment in relation to the creation of the data, since goals are facts of a live event and not data which are controlled and created by the database maker.

Certainly, there are cases where the creation and presentation and/or verification of the data take place at the same time or with only a short lapse of time between these stages and the use of means requiring substantial quantitative and/or qualitative investment. In these cases, it would be problematic to distinguish at exactly which stage (creation or presentation or verification of the contents) the investment was made. As Davison notes, the experience with ‘sweat of the brow’ case law is that common law courts have taken a global approach to the issue of whether a sufficient investment was made for the awarding of copyright protection, since they have had great difficulty in distinguishing between different forms of investment in creating, obtaining, verifying and presenting information.⁸⁹ Consequently, database producers who generate the data are motivated to seek protection via technological measures and/or through contractual restrictions over the use of data.

2.3 The *Sui Generis* Right Today: The Example of Meta Search Engines

The internet is composed of an incredible variety of thematic information communities. Specialized social networks are created around a specific topic (meetings, gaming platforms,

⁸⁴ Tatiana Synodinou, ‘Databases: Sui Generis Protection and Copyright Protection’ (2011). Available at <<http://copyrightblog.kluweriplaw.com>> accessed 20 October 2019.

⁸⁵ As Grosheide notices, one of the main questions related to the dual protection of databases by copyright law and by other protection regimes, such as by the EU *sui generis* right or unfair competition, is the possibility of concurring applicability of two or more regimes in the sense that an intellectual effort that is excluded from protection under one regime is also excluded from protection under some or all other regime(s) (so-called ‘negative reflex’ effect). See F Willem Grosheide, ‘Sui Generis Protection for Databases the European Way: An Analysis’ (2000) 4 Int’l Intell Prop L & Pol’y 68.

⁸⁶ Evaluation Report, 47.

⁸⁷ Davison (n 39) 840; Tanya Aplin, ‘The ECJ Elucidates the Database Right’ (2005) IPQ 204; Mark Davison and P. Bernt Hugenholtz, ‘Football Fixtures, Horseraces and Spin Offs: The ECJ Domesticates the Database Right’ [2005] EIPR 113; Estelle Derclaye, ‘The Court of Justice Interprets the Database Sui Generis Right for the First Time’ (2005) 30 E L Rev 420.

⁸⁸ *Football Data Co Ltd v Sportradar GmbH* [2013] EWCA Civ 27, [2013] FSR 30.

⁸⁹ Davison (n 39) 842.

car selling, scoring of movies and TV shows, job ads, and so on). The temptation to unify these various forms of information on one platform would be great. From the user's point of view, it makes sense to globalize the search and to avoid the inconvenience of multiple searches on various platforms on the same topic. In this context, thematic search engines play a substantive role in the modern internet landscape, especially in relation to the retrieval and communication of small ads. They fill a gap in the needs of information searches on the internet, since it is very difficult for generic search engines to provide an updated search of the entire Web. Even the largest major search engines index only a small proportion of static webpages and do not search the Web's backend databases, which are estimated to be 500 times larger than the static web.⁹⁰ Meta search engines can undoubtedly enhance internet research, both by allowing the searching of pages that cannot be searched by major search engines and by providing a higher quality research experience, by virtue of offering targeted search results. Dedicated search engines use the means provided by databases which conduct searches in order to provide targeted information to their users. They create a so-called virtual database, since they do not use their own web crawlers. Instead, they take a user request, submit it to several other search engines and databases conducting a combined search and then compile the results into a homogeneous format.⁹¹ Thus, for example, using price comparators (a popular kind of dedicated search engine) results in a repeated and sometimes substantial extraction from databases belonging to others.

However, each information platform represents a different society and an independent intangible asset, whose value needs to be protected on the grounds of the principles of fair competition. Database *sui generis* protection plays precisely this role, by regulating the functioning of meta search engines. Specifically, the question of the application of the database *sui generis* right to meta search engines was raised before the CJEU in the *Innoweb* case. The CJEU was called upon to analyse whether a metasearch engine (the 'GasPedaal' site) which is dedicated to car sales infringes the database *sui generis* right over a website which provides access to an online collection of car ads. In the view of the CJEU, the activity of GasPedaal is not limited to simply indicating to the end user databases providing information on a particular subject, but is akin to the manufacture of a parasitic competing product. It also provides any end user with a means of searching all the data in a protected database, and accordingly provides access to the entire contents of this database by a means other than that intended by the database maker, and by combining duplications into one item. As a result, when researching data, the end user no longer needs to go to the website of the database concerned, or to its homepage or its search form. Consequently, the database maker faces the risk of losing significant amounts of revenue and, in particular, the income from advertising on his website, which should have enabled him to redeem the cost of the investment made in the production of the database.

The Court's stance in relation to dedicated meta search engine appears *prima facie* to be catastrophic for these innovative meta search tools, since it seems to outlaw them.⁹² Nevertheless,

⁹⁰ Robert Steele, 'Techniques for Specialized Search Engines' (2001). Available at <<http://searchlores.jan0sch.de/library/techniques-for-specialized-search.pdf>> accessed 20 October 2019.

⁹¹ Perttu Virtanen, 'Innoweb v Wegener: CJEU, Sui Generis Database Right and Making Available to the Public – The War against the Machines' (2014) 5(2) EJLT 1.

⁹² Etienne Wery, 'Les méta moteurs de recherche sont-ils illégaux?' (2014). Available at <www.droit-technologie.org/actualite-1641/les-meta-moteurs-de-recherche-sont-ils-illegaux.htm> accessed 20 October 2019; Virtanen (n 91).

the ruling does not apply to all metasearch engines, but only to dedicated search engines which operate in a specific way. The latter will have to change their business models if they wish to avoid having to apply for licences in order to screenscrape the databases of other search engines.⁹³ Three cumulative criteria have to be met for infringement of the *sui generis* right to occur. Specifically, the dedicated search engine is infringing the database right when: (i) it provides the end user with a search form which essentially offers the same range of functionality as the search form on the database site; (ii) it ‘translates’ queries from end users into the search engine for the database site ‘in real time’, so that all the information on that database is searched through; and (iii) it presents the results to the end user using the format of its website, grouping duplications together into a single block item but in an order that reflects criteria comparable to those used by the search engine of the database site concerned for presenting results. While the second condition might seem commonplace for the majority of meta search engines, which do not have their own databases but use the databases of other search engines, the first and third criteria delineate more strictly the essence of the prohibited activity. There is reutilization that falls within the scope of the database *sui generis* right when the dedicated metasearch engine provides a search form similar to that of the databases it searched through and presents the results in an order that reflects criteria comparable to those used by the search engine of the database that is searched through. Consequently, database infringement will occur only as regards meta search engines which compete directly with the databases they search through in the market. The latter, by using the content and the search tools of the databases they search through, offer through their own portal to their users an end product which is the same as that offered by the databases searched through (same order, same content).⁹⁴

By asserting the application of the *sui generis* right, the CJEU has opened the door to a process of bargaining between the operators of meta search engines and the database makers, in respect of licensing the former to search through these databases. In this context, database makers will be able to redeem part of the investments made in obtaining, checking and presenting their databases via the licence fee, while the terms of the licence or possible refusals to grant a licence will be subject to the application of competition law. The Court’s reasoning, however, does not take into account all the dimensions of the complex search engines’ information ecosystem. Indeed, dedicated meta search engines do not necessarily harm the investments made for the production of databases; on the contrary they may also be beneficial, since they help users to locate the relevant services. As Virtanen notes, ‘both general and dedicated search engines, including meta search facilities, can be a mixed curse or blessing and their impact eventually depends on many factual circumstances tied to the individual case’.⁹⁵ So, the CJEU, without taking into consideration a broader cost/benefit analysis, appears to imply that a harm to the substantial investment made for the production of the database shall be presumed if specific criteria are fulfilled.

⁹³ Martin Husovec, ‘The End of Meta Search Engines in Europe?’ (2014). Available at SSRN <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2411917> accessed 20 October 2019; DeBrauw Blackstone Westbrook, ‘ECJ Ruling on Metasearch Engines Strengthens Position of Database Right Holders’ (2014). Available at <www.debrauw.com/newsletter/ecj-ruling-meta-search-engines-strengthen-position-database-right-holders/> accessed 20 October 2019.

⁹⁴ Para 47 of the judgment.

⁹⁵ Virtanen (2014), *ibid.*

3. DATABASE PROTECTION OUTSIDE THE SCOPE OF THE DIRECTIVE

3.1 Contract Law and Online Databases

Protection by contractual agreement can provide an extra layer of protection for databases in addition to the *sui generis* right.⁹⁶ A contract can be used as a means to enhance or even to extend *sui generis* protection and to prohibit or control uses which would be available through legislation. Contractual terms can be used in order to extend the 15-year term of protection to any period beyond, to broaden the protectable subject matter or to restrict any user freedoms provided by the exceptions to the *sui generis* right.⁹⁷ The contract can also be used to privately construct a monopoly over the database or to resurrect the database *sui generis* right. These provisions will normally be enforced in accordance with the parties' promises and expectations. On the other hand, the enforcement of contractual terms which broaden or strengthen the database right without limitation could influence the fragile balance between the database maker's interests and legitimate users' interests or public policy goals echoed in the EU database protection regime. This is highly relevant in the digital services environment, where, unlike in the analogue world, the relationship between the 'buyer' (user) and 'seller' (database maker) persists after the initial transaction, providing restrictive conditions of use that have no source in database law.⁹⁸

The Database Directive has clearly opted for a modest delineation of the scope of contractual freedom in relation to databases by providing that any contractual provision contravening the right of the lawful user of the database to extract and/or reutilize insubstantial parts of its contents, evaluated qualitatively and/or quantitatively, for any purposes whatsoever,⁹⁹ shall be considered null and void. *A contrario*, all the exceptions to the database right are not safeguarded *vis à vis* contractual restrictions and can be overridden contractually. Furthermore, the *ius cogens* of Article 8 can be applied only in relation to the database *sui generis* right and not when the database is protected by other means, such as by contract. This has been affirmed in the *Ryanair* case,¹⁰⁰ where the CJEU was called on to decide whether the restrictive contractual clauses imposed by Ryanair (use of the information on the Ryanair website for private and noncommercial purposes only, and prohibition of screen scraping) constituted a violation of Article 15 of the Database Directive.

Consequently, the maker of a database which is not protected by the Database Directive is not obliged to safeguard a minimum level of free use of database contents for database users, such as the right for a lawful user to extract and reuse an insubstantial part of the database's contents for any reason. In this way, paradoxically, contractual protection appears stronger than the proprietary *sui generis* right, since in principle it is not subject to any limitations other

⁹⁶ According to Article 13 of the Directive, the EU database protection regime shall be without prejudice to provisions concerning, inter alia, the law of contract. See Derclaye (n 13) 174.

⁹⁷ James GH Griffin, 'The Interface between Copyright and Contract: Suggestions for the Future' (2011) 2 EJLT. Available at: <<http://ejlt.org/article/view/23/110>> accessed 20 October 2019.

⁹⁸ Martin Kretschmer, 'Copyright and Contract Law: Regulating Creator Contracts: The State of the Art and the Research Agenda' (2010) Intell Prp L 141. Available at <<http://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?article=1101&context=jipl>> accessed 20 October 2019.

⁹⁹ Articles 15 and 8 of the Directive.

¹⁰⁰ Case C-30/14 *Ryanair Ltd v PR Aviation BV* ECLI:EU:C:2015:10.

than from those deriving from classic contract law principles and consumer law. This paradox was also pinpointed in the Study in support of the evaluation of Directive 96/9/EC on the legal protection of databases, where the introduction of a rule reversing the CJEU *Ryanair* ruling was proposed, so that exceptions apply to lawful users whatever contracts may say and include a user right for databases which do not fall within the definition of a database.¹⁰¹

Nonetheless, the protection of the *sui generis* right is not equivalent to contractual protection. There are significant qualitative differences between the two forms of protection. The contractual method of delimiting the use of information has its own inherent limits. Even though it is possible for the database maker to transfer contractual obligations to subsequent users of the database by forcing his counterpart to impose the same clauses when concluding contracts with third parties, it is not possible to directly enforce these contractual terms against subsequent database users. In contrast to intellectual property rights which act *erga omnes*, contracts result in obligations *in personam*. The axiom of privity of contracts precludes enforcement of the contract against third parties.¹⁰² Even though in some jurisdictions, such as the UK and the USA, breaches of this principle can sporadically be found where it has been established in law,¹⁰³ or accepted by certain court decisions,¹⁰⁴ that an individual who succeeds to another's interest may be bound by restrictions in or limitations on the other's interest where the successor was or should have been aware of the restrictions beforehand,¹⁰⁵ it is highly uncertain whether a successor's liability could be established as regards personal property,¹⁰⁶ where a filing or registration system is absent. Furthermore, even though the right secured by the contract appears equivalent, its enforcement may be less effective.¹⁰⁷ Indeed, the main remedy available for breach of contract is an action for damages. Equitable relief, such as injunctions and specific performance, is granted rarely, depending on the circumstances of the case.¹⁰⁸ Besides, database protection by contract can only be truly effective against persons who do not have a contractual right to access the database if it is accompanied by technological measures to control access to the database, which must also be legally safeguarded against their circumvention, because if anyone can gain access without obtaining a contractual right

¹⁰¹ *ibid* para 141.

¹⁰² Estelle Derclaye, 'An Economic Analysis of the Contractual Protection of Databases' (2005) 2 *J Tech L & Pol'y* 247–71.

¹⁰³ See section 90 of the UK Copyright Designs and Patents Act 1988 as regards copyright voluntary licenses: 'A licence granted by a copyright owner is binding on every successor in title to his interest in the copyright, except a purchaser in good faith for valuable consideration and without notice (actual or constructive) of the licence or a person deriving title from such a purchaser; and references in this Part to doing anything with, or without, the licence of the copyright owner shall be construed accordingly.'

¹⁰⁴ *Murphy v Christian Press Ass'n Publishing Co.* 56 N.Y.S. 597 (NY App. Div. 1899); *Capitol Records, Inc. v Mercury Records Corp.*, 221 F.2d 657, 662–63 (2d Cir. 1955).

¹⁰⁵ Glynn Lunney, 'Protecting Digital Works: Copyright or Contract' (1999) *Tul J Tech & Intell Prop* 1. Available at <<http://scholarship.law.tamu.edu/facscholar/494>> accessed 20 October 2019.

¹⁰⁶ For UK see *Barker v Sfikney* [1919] 1 KB 121 (CA) (for copyright assignments). See also Robert P Merges, 'The End of Friction? Property Rights and Contract in the "Newtonian" World of On-line Commerce' (1997) 12 *High Tech LJ* 115, 120–21.

¹⁰⁷ Jane C. Ginsburg, 'Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad' (1997) 66 *U Cin L Rev* 151–76, 167.

¹⁰⁸ Sharon K Sandeen, 'The Third Party Problem: Assessing the Protection of Information through Tort Law' in R Brauneis (ed), *Intellectual Property Protection of Fact-Based Works* (Edward Elgar 2009) 287.

there is little or no incentive to enter into a contract in order to have access to the database.¹⁰⁹ In this context, it is doubtful whether contractual protection would be an ideal candidate to replace the *sui generis* right. On the contrary, *sui generis* protection could even balance public and private concerns more carefully,¹¹⁰ by establishing exceptions which are safeguarded as mandatory lawful users' rights and, potentially, the imposition of compulsory licences in the case of sole-source databases.

The legal uncertainty prevailing in relation to contractual protection of databases in the US and in other jurisdictions where a special *sui generis* protection is absent, such as in Australia and Canada,¹¹¹ could be used as a counterargument to such an approach. Indeed, the EU database *sui generis* right, despite its inherent ambiguities and its unproven economic impact, has managed to establish a sound and concrete legal instrument for the protection of databases in Europe.¹¹² It has created an approximation of the various legal solutions present in the EU Member States. As a result, the EU protection of databases is based on commonly interpreted and applied criteria and concepts. On the other hand, contractual protection ends up in a tailor-made regime whose scope depends on the specific contractual terms. In this context, no harmonized or common solutions appear. Contractual protection of databases in the US is also subject to the intricacies of the preemption or non-preemption debate. The question of preemption of contractual agreements by the provisions of copyright law is raised in relation to contracts which disturb the copyright balance crystallized in copyright legislation by extending the monopoly awarded by copyright law, such as contracts which prohibit the use of facts and ideas or prohibit uses which could be covered by fair use. It is argued that because copyright law is part of the federal law and contract law is mostly a creation of the states, these contracts are preempted by the Copyright Act. In the leading *ProCD v Zidenberg* case,¹¹³ it was firmly held that contractual protection is not equivalent to copyright protection and, therefore, is not preempted by copyright law. This approach is based on contractual freedom, individual autonomy and the privity of contractual obligations, which exist *in personam* and do not create exclusive rights *erga omnes*. Nonetheless, serious concerns have been raised in relation to the categorical and absolute nature of this finding.¹¹⁴ The question is not only a theoretical enterprise, because in some cases the courts have reached opposite findings by affirming the possibility of partial contract preemption.¹¹⁵ According to this more nuanced approach (which is called the 'extra element approach'), contractual terms will be preempted when the contract regulates an activity that is an exclusive right, such as reproduction or distribution. In other words, if the contractual promise amounts only to a promise to refrain from infringing an exclusive right (such as reproducing or making the work available to the public),

¹⁰⁹ Davison (n 38) 41.

¹¹⁰ Ginsburg (n 107) 176.

¹¹¹ See CD Freedman, 'Should Canada Enact a New Sui Generis Database Right' (2002) 13 Fordham Intell Prop Media & Ent LJ 35, 102.

¹¹² B Hugenholtz, 'Data Property: Unwelcome Guest in the House of IP', Kluwer Copyright Blog (25 August 2017) <<http://copyrightblog.kluweriplaw.com/2017/08/25/data-producers-right-unwelcome-guest-house-ip/>> accessed 20 October 2019.

¹¹³ *ProCD, Inc. v Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996).

¹¹⁴ David Nimmer et al, 'The Metamorphosis of Contract into Expand' (1999) 87 Cal L Rev 17, 19; Joel Rothstein Wolfson, 'Comment, Contract and Copyright Are Not at War: A Reply to "The Metamorphosis of Contract into Expand"' (1999) 87 Cal L Rev 79.

¹¹⁵ See, for example, *Wrench LLC v Taco Bell Corp.*, 256 F.3d 446 (6th Cir. 2001).

then the contract claim is preempted. On the other hand, no preemption will occur if the contract includes not merely promises to refrain from infringing copyright, but also additional promises to pay for the use of a work or to refrain from using the work in a way that copyright legislation would otherwise allow.¹¹⁶ The discussion is complex and is certainly far from being closed. In light of the above, it is clear that the enforcement of the contractual obligation will be finally decided on the basis of the specific contractual terms. In Europe, where the preemption or non-preemption dilemma is absent, the situation is not much clearer, since the question of whether copyright exceptions are mandatory and prevail over contractual agreements is not harmonized at European level,¹¹⁷ and it is often not settled even in the national legislation of the Member States. In this context, even after the CJEU's findings in *Ryanair*, *sui generis* database protection appears a safer and more compact legal instrument than pure contractual protection.

Furthermore, the lack of a common core of binding EU and international principles in contract law renders contractual protection less attractive than the *sui generis* right. Even though the prospect of the adoption of a WIPO treaty on the legal protection of databases was finally abandoned, the Database Directive managed to establish a specific property-type regime which is applicable at least in Europe. This regime has also been extended with bilateral agreements abroad.¹¹⁸ Consequently, the true question is not whether contractual protection is equivalent or superior to database protection, but whether the mandatory rights of the lawful user of databases should be increased and expanded. The question is related to the broader issue of whether and, in the positive, which rules of EU copyright law are imperative over contractual agreements. Apart from the hotly debated question of which copyright and database right exceptions shall be mandatory, the question also arises in relation to other rules, such as the principle of exhaustion of the distribution right and the term of protection. For example, should it be permissible to extend contractually the term of the copyright or the database maker's protection? Conversely, would it be possible contractually to agree that copyright database protection will be shorter than 15 years or is the term of protection *ius cogens* and an essential element of the harmonization of database protection, which cannot be altered contractually? A detailed analysis of these issues is certainly beyond the scope of this chapter.

In brief, while the question of the imperative nature of exceptions should be dealt with by means of legislation (thus, by expressly stipulating which of the exceptions to database copyright and to *sui generis* right come into the category of lawful users' rights), the mandatory nature of the principle of exhaustion and of the fixed term of protection might be founded on a systematic interpretation of those rules in the light of EU law. Indeed, it is clear that

¹¹⁶ Christina Bohannon, 'Copyright Preemption of Contracts' (2008) 67 Md L Rev 642. Available at <<http://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=3326&context=mlr>> accessed 20 October 2019.

¹¹⁷ See for example in UK CDPA 1988, s 28(1) where it is possible that acts which are covered by fair dealing are prohibited by contract: '[the provisions] relate only to the question of infringement of copyright and do not affect any other right or obligation restricting the doing of any of the specified acts'. On the contrary, in Belgium all copyright exceptions are mandatory (see article 11 of the Law of 31 August 1998).

¹¹⁸ As stated in the Submission from the European Community and its Member States on the Legal protection of databases (22 November 2002), 'more than 27 other countries' associated with the European Community apply the database *sui generis* regime as well. See <www.wipo.int/edocs/mdocs/copyright/en/sccr_8/sccr_8_8.pdf>.

overriding the principle of exhaustion is contrary both to the principle of the free movement of goods, as established in the EC Treaty, and to the case law of the CJEU, as well as to the exclusiveness of the right of ownership over the tangible copy of the work or the database owned by the user,¹¹⁹ which is safeguarded both by the Constitution of Member States, by the Charter of Fundamental Rights of the EU and by the ECHR. As regards overriding the term of protection of the *sui generis* right, the question is whether the effect sought by the EU legislator was to firmly impose a uniform term of protection for the whole of Europe, as it did for copyright. Indeed, the 70 year term of protection established by the Copyright Term Directive is a rule of minimum and maximum harmonization, in the sense that Member States are not allowed to provide for a shorter or longer term of protection.¹²⁰ In this context, overriding this firmly fixed term by enabling the contractual agreement to take precedence on the grounds of general principles of private law, such as individual autonomy, could be seen as incompatible with EU copyright law's full harmonization objectives. The question is complex because it is linked to the broader issue of the position of EU law in the domestic legal orders of Member States. Furthermore, it is not clear whether the 15-year term of protection provided by the *sui generis* right should also be considered as a rule of both minimum and maximum harmonization. In any case, the critical question presents some similarities with the controversy over the US preemption debate. Is contractual protection which provides for a shorter or longer term of protection than copyright or *sui generis* right contrary to EU law? Given the qualitative difference between contractual protection and copyright protection, if the longer or shorter term of protection is enforced only by means of contractual remedies, the argument that the EU law's copyright term of protection is altered cannot stand.

3.2 Unfair Competition and *Sui Generis* Right: A Mutually Complementary or Antagonistic Relationship?

Another critical issue that has to be addressed as regards the relationship between the *sui generis* right and unfair competition law, apart from its inherent organic connection with the principles of parasitic competition, is the question whether unfair competition protection can complement the protection granted by the *sui generis* right. In other words, is it possible to cumulate *sui generis* protection and unfair competition claims in relation to the same infringement? According to Article 13 of the Database Directive, the Directive shall be without prejudice to provisions concerning the provisions, *inter alia*, of the law of unfair competition. So, the Database Directive does not impose the general preemption of the *sui generis* right over unfair competition law claims.

Nonetheless, the issue is much more complex. The question – which is part of the general discussion on whether unfair competition law can serve as a basis for reparation if no IP infringement takes place – is not settled at either EU or national level. Even though using unfair competition law to fill the gaps that exist in intellectual property law is common in many EU Member States' jurisdictions, it is also argued that the area between intellectual

¹¹⁹ Derclaye (n 13) 186–87.

¹²⁰ Annette Kur and Thomas Dreier, *European Intellectual Property Law: Texts, Cases and Materials* (Edward Elgar 2013) 262; Michel Walter, 'Term Directive' in Michel Walter and Silke von Lewinski (eds), *European Copyright Law, A Commentary* (OUP 2010) 507.

property rights should not be perceived as a ‘gap’ but rather as a free space which should not be restricted by unfair competition law.¹²¹

As regards the database *sui generis* right, if it is perceived as a harmonized form of action of unfair competition in the specific domain of databases, it could be claimed that this right, as a *lex specialis*, preempts unfair competition law claims in relation to databases. Nonetheless, this presupposes that the *sui generis* right and the unfair competition claim have exactly the same object and scope of protection, as well as the same objective. If, on the other hand, acts of unfair competition are distinct from *sui generis* infringement acts, then unfair competition law protection is not preempted by the *sui generis* right and the unfair competition claim can complement the database right claim.¹²² In the case of a parasitic act which consists of the slavish imitation of a database, the mere reproduction of the database’s contents is the element constituting the unfairness of the behaviour and, accordingly, the legal protection has an effect similar to the effect of the *sui generis* right, since the database producer is vested with a right to prohibit the reproduction and reutilization of the contents as such.¹²³ In this context, while it is debated whether parasitism is a distinct act, other unfair behaviours – such as creating a risk of confusion or misleading advertisement – could generally be perceived as distinct acts.¹²⁴ This approach is consistent with the idea that IP rights are legally created monopolies which should be treated as exceptions to the principle of free competition. As a result, it will not be possible to bypass the fragile balance achieved between protection of the investment and freedom of business and commerce by reconstructing these monopolies by means of unfair competition law claims. Such a restrictive approach in relation to IP protection could even justify more rigidity in relation to the scope of protection of information assets, such as databases, where the object of protection is an investment in relation to simple information which, as such, is not protected by copyright law.

Given the lack of a common core of unfair competition law in the EU, it is not easy to define with any degree of precision how the database *sui generis* right will interact with unfair competition law claims. It is clear that the accumulation of unfair competition law claims for parasitic acts shall not result in double reparation. Therefore, if protection is awarded on the grounds of the *sui generis* right, it should not be possible to provide additional reparation, unless a distinct form of harm is caused by an additional unfair behaviour (such as creating a risk of confusion). On the other hand, unfair competition claims for parasitic acts shall complement *sui generis* protection if there are no grounds for affirming the infringement of the database right, such as when the criterion of a substantial investment is not met.¹²⁵ The question of whether unfair competition law can serve as a basis for protection after the expiration of the term of

¹²¹ Ansgar Ohly, ‘Free Access, Including Freedom to Imitate, as a Legal Principle – A Forgotten Concept?’ in Annette Kur and Vytautas Mizaras, *The Structure of Intellectual Property Law: Can One Size Fit All?* (Edward Elgar 2011) 97–98.

¹²² Derclaye (n 13) 159.

¹²³ Ohly (n 121) 113.

¹²⁴ Derclaye (n 13) 160.

¹²⁵ See the French case *Pressimmo On Ligne v Yakaz* where both the Court of Appeal and the Cour de Cassation have not rejected the application of the unfair competition law for parasitic acts claim, even though the database maker has not proven the existence of substantial investment and although the defendant has raised the argument that is not possible to reconstitute an IP monopoly via the means of unfair competition. See *Pressimmo On Ligne v Yakaz*, 12 novembre 2015, Cour de cassation, Chambre civile 1.

protection of the *sui generis* right is much more controversial. On the one hand, if protection by unfair competition law is categorically excluded for databases where protection of the *sui generis* right has expired, the database maker who has been protected by the *sui generis* right would paradoxically be in a more disadvantageous position than the database maker who was never protected, because no substantial investment has been proved. Furthermore, denying the protection of unfair competition after the expiry of the *sui generis* right paradoxically renders unfair competition law protection for parasitic acts more attractive than *sui generis* protection, since the former is not subject to any specific term of protection. On the other hand, if such a protection is permitted, the fine balance between intellectual protection and freedom of competition which has been established in the EU *sui generis* protection might be bypassed and reversed, especially when the basis of the claim is not consumer confusion or deception as to the source of the database, but imitation via slavish copying and parasitism. Indeed, unfair competition law for parasitic acts could very effectively enable the rightowner's monopoly to be preserved beyond the time limits established by law, to the detriment of those who could legitimately think that the acts committed did not need to be authorized.¹²⁶ In any case, especially as regards the *sui generis* protection as it stands today, the possibility of renewal of the 15 year term of protection makes the debate more theoretical than practical, since *sui generis* protection can potentially be perpetual if new substantial investments are made. As this could lead to everlasting protection, it is not certain how the concept of 'new substantial investment' will be interpreted by national courts and possibly by the CJEU, because thus far the issue has not been discussed in case law due to the short time that has elapsed since enactment of the Directive.

Furthermore, apart from affirming the use of unfair competition law claims as a complementary legal tool, the relationship between unfair competition law and *sui generis* protection could be seen as potentially antagonistic. Indeed, the ambiguities and the unconfirmed economic effect of the database *sui generis* right could be used as a basis for arguing in favour of directing the EU database protection to return to its initial unfair competition law source. This could be effected by the policy option of replacing the *sui generis* proprietary right by a more flexible and tailored protection, by means of a specific action of unfair competition for the protection of databases. In this context, the US precedent could again be used as an example. Even though the significant disparities and ambiguities in relation to the exact content and scope of the US tort of misappropriation do not promote legal predictability and certainty,¹²⁷ the US database industry is still flourishing. This approach would also respond to the concerns expressed in relation to the unjustifiably long, strong and potentially monopolistic effect of the *sui generis* right in relation to factual content-based information assets.

Nonetheless, opting for such a policy choice in the EU could only be seen as an unnecessary regression. The *sui generis* right has certainly reached its age of maturity and despite the initial controversies, its scope of application is clearer and more delineated now than it was in the past. Instead of replacing the *sui generis* right with a new legal experiment, a more balanced

¹²⁶ Pascale Tréfigny, 'Action en contrefaçon et action en concurrence déloyale, L'évolution de la jurisprudence la plus récente face au parasitisme' in C Geiger and C Rod (eds), *Le droit de la propriété intellectuelle dans un monde globalisé, Mélanges en honneur du Professeur Joanna Schmidt-Szalewski* (LexisNexis 2014) 351.

¹²⁷ For an analysis of the American tort of misappropriation see Davison (n 38) 171–89. See also Derclaye (n 13) 225–33.

form of protection, which respects both the interests of database makers and users, could be achieved by taking some corrective measures. First, the exceptions to the *sui generis* right should be reinforced by adding new exceptions, such as for criticism and news reporting,¹²⁸ and by transforming all exceptions into mandatory lawful users' rights. This would also presuppose a definition of the concept of 'lawful user'. Furthermore, by dealing directly with the problem of free competition in the case of sole-source databases, the internal solution of the 2004 cases should be consolidated in the legislation. In this context, a regime of compulsory licences for sole-source database makers would be established.¹²⁹ Besides, given the CJEU's stance in the *Innoweb* case, it appears that the Court will not hesitate to interpret the *sui generis* regime flexibly – in a way comparable to the logic of unfair competition law – by bringing to the fore the concept of protection of the investment, which is the common foundation of both the *sui generis* right and the protection of databases against parasitic acts.

4. CONCLUDING REMARKS

In 1996 a strange guest joined the copyright family. The guest, who had no name and no identity, provoked a great deal of passionate discussion. Seen either as a friend and ally or as an intruder and inside enemy, the guest stayed on and gradually became part of the family. Even though the guest is still surrounded by controversies and has not yet revealed all his secrets, he is now more familiar than in the past and some of his flagrant 'bad' qualities have been remedied. The first cycle of life of the *sui generis* right, which is now 23 years old, is behind us. The right, which is intended to apply to the perpetually changing universe of the information society and economy, also has to be constantly adapted in order to keep up with the frenetic pace of technological change and new requirements of balancing conflicting interests. As we enter the second cycle of the life of the *sui generis* right, the hybrid uncertain nature of the right and the vagueness of its conceptual foundation – which have been viewed in the past only as weaknesses – could enable the CJEU to reconstruct and reformulate *sui generis* protection in order to respond to new needs and priorities in the information market. At the same time, a number of corrective changes made by the EU legislator could restore the balances that were lost when the right was first introduced. Since the *sui generis* right is an EU novelty, its adaptation can be undertaken without the constraints imposed by international copyright law and the controversies surrounding classic copyright law evolutions.

¹²⁸ Estelle Derclaye, 'Database Rights: Success or Failure? The Chequered yet Exciting Journey of Database Protection in Europe' in Christophe Geiger (ed), *Constructing European Intellectual Property, Achievements and New Perspectives* (Edward Elgar 2013) 342.

¹²⁹ See in favour of such an approach Derclaye (n 128); Davison (n 38) 279.

6. Big data and data appropriation in the EU

Alain Strowel

1. INTRODUCTION: (BIG) DATA AS A NEW RESOURCE AND PROPERTY AS AN INSTITUTION FOR ORGANISING THE USE OF RESOURCES

Data are,¹ nowadays, widely considered as the most valuable currency of the digital economy,² commonly described in terms of a ‘new oil’ that must be properly extracted, refined, transported, stored – with the risk of leaks – and then valued, sold and used. But the analogy might be misleading, as data are nonrivalrous goods,³ and the amount of data is virtually infinite.⁴ Also, not all data have value, or the same value, and their value often rapidly drops if the data are outdated (while oil has a well-defined value on the world markets, even if it can fluctuate over time). More importantly, the value of data largely depends on who ‘owns’ the data and what the ‘owner’ can make out of the data. Data constitute a much more volatile, and much less tradable, asset than oil. That said, data have become a valuable resource – ‘a driver of growth and change’ which has ‘created new infrastructure, new businesses, new monopolies, new politics^[5] and – crucially – new economics’.⁶ In this, the oil analogy has some merit.

Big Data can be defined as ‘the information asset characterised by such a high volume, velocity and variety to require specific technology and analytical methods for its transformation into value’.⁷ The classical three V’s of Big Data – high volume of data, high variety of

¹ This chapter will use the term ‘data’ in the plural, but it is increasingly used in the singular form and treated as a mass noun. This linguistic development brings ‘data’ closer to the word and concept of ‘information’, which takes a singular verb. See the remark by Rob Kitchin, *The Data Revolution: Big Data, Open Data, Data Infrastructures & Their Consequences* (1st edn, Sage 2014) 14.

² See the cover of the 6 May 2017 issue of *The Economist*, the lead article ‘The World’s Most Valuable Resource Is No Longer Oil, but Data’ (2017) 423 *The Economist* 7, and the inside article ‘Fuel of the Future – Data Is Giving Rise to a New Economy’ (2017) 423 *The Economist* 14.

³ Goods are rivalrous when their use by someone reduces someone else’s possibility to benefit from the same goods. With data or information, several persons can jointly enjoy them without interfering with one another’s usage.

⁴ See the reply to *The Economist* by Amol Rajan, ‘Data Is Not the New Oil’ (*BBC News*, 9 October 2017) <www.bbc.com/news/entertainment-arts-41559076> accessed 14 October 2019. Because of the super-abundance of data, this author prefers to compare data with sunlight.

⁵ See Evgeny Morozov, *Le mirage numérique. Pour une politique du Big Data* (Pascale Haas tr, Les Prairies ordinaires 2015) and other quite critical comments by the same author on the digital future promised by Silicon Valley: *To Save Everything, Click Here: Technology, Solutionism, and the Urge to Fix Problems that Don’t Exist* (Allen Lane 2013).

⁶ ‘Fuel of the Future – Data Is Giving Rise to a New Economy’ (n 2). See below under 3.2 for discussion of the measures needed for the development of the European Data Economy.

⁷ Andrea De Mauro, Marco Greco and Michele Grimaldi, ‘A Formal Definition of Big Data Based on Its Essential Features’ (2016) 65 *Libr Rev* 122. See Kitchin (n 1) 15: in that author’s words, it refers to ‘vast quantities of dynamic, varied digital data that are easily conjoined, shared and distributed across ICT networks, and analysed by a new generation of data analytics designed to cope with data abundance’.

data and high velocity of data generation and transmission – do not automatically translate into (high) value. The whole challenge of a Big Data approach is to find value in the data deluge, and this requires the identification of patterns, regularities and correlations.⁸ In general, the bigger the data, the better the results and predictions. The value of data is thus not located in the data itself, but results from the uses of data and the exact timing of their use. The velocity aspect is central to many Big Data applications. This shows the increasing importance of real time data.⁹

With the development of Big Data analysis for serving personalised services to consumers or for objectives such as predictive maintenance (see section 2.2), the renewed value chain around data has led to new demands of protection from the consumers or from the producers of data and equipment. This could increase the level of data appropriation and data dominance. Small and medium sized enterprises, decisionmakers and the public in general are increasingly concerned about the possible anticompetitive effects of the dominant position of a few companies. This concern is particularly strong when the powerful data aggregators are foreign entities – the spectre of the US data giants returns to haunt digital policies in Europe, whether rightly or wrongly.

At the same time, other forces are driving the discussion on data appropriation. For instance, in Europe there are strong pressures in favour of the free flow of data, not only to complete the internal market for data (the fifth economic freedom under EU law), but also to develop new policies based on public or Open Data.

The present contribution aims to review the existing property rights related to (big) data. By property right, I mean the ‘institutions for organizing the use of resources in society’.¹⁰ There is no such thing as a property on data (what can be called ‘data ownership’), but several existing property rights organise the use of data and allow for data appropriation (for a definition, see section 2.2). This is the case with rights classified as intellectual property rights (copyright and database right), but also with the increasingly property-like protections of personal data and of confidential data (see sections 3.3 and 2.4).

In the European Union in particular, quite a lot of laws (perhaps too many?) affect the use of data. In addition, there are ongoing discussions about reshaping some existing controls pertaining to data (see for example the debate about the scope of the text and data mining exception under copyright law briefly presented in section 2.1.1). There are thus many legal developments affecting the organisation of data use and access in Europe, but the main ones are included in the cloud of data regulation in Figure 6.1.

See also Viktor Mayer-Schonberger and Kenneth Cukier, *Big Data: A Revolution That Will Transform How We Live, Work and Think* (Houghton Mifflin Harcourt 2013).

⁸ Pierre Delort, *Le Big Data* (PUF 2015) 9.

⁹ Some companies sometimes add a fourth V, for veracity. See Kitchin (n 1) 28–9, 67–79, comparing small and big data and attributing seven essential characteristics to big data: volume, velocity, variety, exhaustivity (better to keep everything than to sort), resolution/indexability (data are more finegrained), strong relationality and flexibility/scalability.

¹⁰ Thomas W Merrill, ‘The Property Strategy’ (2012) 160 U Pa L Rev 2061, 2062. This definition is applied to intellectual property by Julie Cohen, ‘Property as Institutions for Resources: Lessons from and for IP’ (2015) 94 Tex L Rev 1.

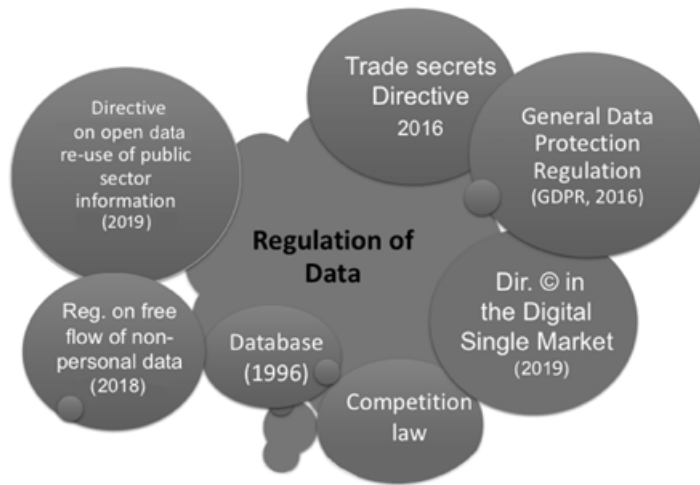


Figure 6.1 Regulation of data in the EU

Section 2 sets the scene of the proposed journey into data regulation.¹¹ It responds to the following questions: What are data? How can data be compared with information and knowledge? What is data appropriation? Different types of data are also distinguished, as those differences might (or should have) legal consequences.

Section 3 reviews four property-like regimes affecting data control and access (copyright, database right, personal data protection, trade secrets protection). This section also discusses whether a property right on nonpersonal data should be introduced and reviews the 2017 EU developments surrounding this issue. All those data regimes define the various controls over data that individuals and legal entities can enjoy. The focus of section 2 is data appropriation. The freedom principles (that is, freedom of expression or free competition) or exceptions in favour of data access (for example, the exceptions to copyright or the database right) are only briefly mentioned. This is not to say that data access and reuse are not real issues – on the contrary – but, drawing on my expertise in (intellectual) property, I analyse the issues from the ownership angle here.¹²

The chapter highlights the evolving nature of the property rights relating to data. The contours of those rights are primarily defined by various legislations, but their interpretation and application by courts and other regulatory bodies (such as the ‘Article 29 Working Party’ for

¹¹ The chapter addresses the *ex ante* regulations appearing in the above cloud, although sometimes very briefly (as for the 2003 PSI (Public Sector Information) directive, now replaced by the Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information, known as the Open Data Directive). Competition law will not be reviewed here as it operates *ex post*.

¹² The ‘access and reuse’ point of view has been adopted by a team of researchers within the Horizon 2020 EuDEco project: see <www.data-reuse.eu> accessed 14 October 2019. See also Helena Ursic and Bartt Custers, ‘Legal Barriers and Enablers to Big Data Reuse’ (2016) 2 EDPL 1.

personal data¹³) complete their delineation. This whole body of rules, decisions and opinions contributes to the regulation of data.

The chapter only addresses the state of data regulation in the EU, which arguably differs substantially with the way data, and in particular personal data, are treated in other parts of the world.¹⁴

2. THE VARIETY OF DATA AND DATA APPROPRIATION TOOLS

This section aims to clarify what is to be considered as data. It first compares data with the related concepts of information and knowledge. It then presents the notion of data appropriation. It goes on to discuss whether data appropriation by contracts is widespread. Drawing on an analysis of the interests behind the law, finally, it highlights the most relevant constituencies and risks behind data regulation.

2.1 What Are Data?

2.1.1 Distinguishing data from information and knowledge

Data proceed ‘by abstracting the world into categories, measures, and other representational forms – numbers, characters, symbols, images, sounds, electromagnetic waves, bits – that constitute the building blocks from which information and knowledge are created’.¹⁵ Data are not neutral, objective or preanalytic; they are always framed by the instruments, practices, contexts used to generate, select, represent and analyse them (for example, the Celsius or Fahrenheit grading system for temperatures).¹⁶ Therefore, to rely solely on data can easily lead to bias and discriminations, as the ways data are extracted, selected and represented is already the result of complex humanmade measurement and valuation systems.

¹³ ‘Art. 29 WP’ is the name of the Data Protection Working Party established by Article 29 of Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data. The working party ceased to exist when the GDPR entered into force. The GDPR replaced the Art. 29 WP with the *European Data Protection Board*.

¹⁴ Some observers claim that the digital divide between the EU, the US and China over personal data is widening. The development of a Chinese system using artificial intelligence to predict crimes, officially announced in 2017 (The Independent, 22 September 2017, <www.independent.co.uk/news/world/asia/china-ai-crimes-before-happen-artificial-intelligence-security-plans-beijing-meng-jianzhu-a7962496.html> accessed 14 October 2019) and the Chinese plan for a Social Credit System announced in 2014 seem to indicate that data protection is not taken as seriously as in the EU and the US (on this Chinese rating system, see Rachel Bostman, *Who Can You Trust? How Technology Brought Us Together – And Why It Could Drive Us Apart* (Portfolio Penguin 2017) 150 and ff). On the contrary, in a case (*Puttaswamy v Union of India* (2017) 10 SCC 1) involving the newly implemented biometric ID system allowing for the profiling of citizens, with information on their lifestyle, purchases, friends and financial habits, the Indian Supreme Court, in a decision of August 2017, considered privacy as a fundamental right.

¹⁵ Kitchin (n 1) 1. I follow here Kitchin’s illuminating presentation in Chapter 1 of his book.

¹⁶ Following this view, ‘raw data is an oxymoron’; ‘data are always “cooked” and never entirely “raw”’. See *ibid* 20 (quoting Lisa Gitelman and Virginia Jackson, ‘Introduction’ in Lisa Gitelman (ed), *‘Raw Data’ Is an Oxymoron* (MIT Press 2013) 1–14).

Data should be considered as the base of a pyramid, in the sense that ‘data precedes information, which precedes knowledge, which precedes understanding’.¹⁷ Information is often assimilated to data, and those terms can be used interchangeably in certain contexts. However, information is data plus meaning, or the signal in the noise of data, and it often results from an accumulation and organisation of data. Or, to put it in other words, information is data structured and put in context. Another way to distinguish the two is to consider data at the syntactic level (as bits and bytes) and information at the semantic level (as conveying meaning). The information produced by big data analyses (in the form of the observed patterns and correlations) clearly operates at the semantic level.¹⁸

Knowledge and understanding imply an additional ‘process of distillation (reducing, abstracting, processing, organizing, analyzing, interpreting, applying) that adds organization, meaning and value by revealing relationships and truths about the world’.¹⁹ Knowledge will permit the transformation of some information into instructions – for example, disposing of the information about the boiling or freezing temperature of various liquids could help to define recipes. Knowledge is thus actionable information.

2.1.2 Diversity of data and of big data exploitation

Data are otherwise very diverse. Two broad categories are commonly distinguished: quantitative and qualitative data.²⁰ Quantitative data is made of numeric records. This applies in particular to the properties of objects (length, height, distance, weight, and so on). This type of data normally characterises the legal category of industrial or nonpersonal data (see section 3.2). Quantitative data can also be confidential, with the consequences examined below. Qualitative data are nonnumeric, such as texts, pictures, sounds, videos, and so on. Many personal data (protected by privacy laws) are of this kind. Some personal data, such as the common five-star rating systems assessing reputation, can be quantitative. It is usually complex to convert qualitative data into quantitative data: the translation implies an important reduction and loss in the richness of the initial data (is this not what happens with a five-star rating system?). In the past, most collected data were organised data (for example, the census data). Today, with big data, ‘many massive datasets consist of semi- or unstructured data, such as Facebook posts, tweets, uploaded pictures and videos’.²¹ One can also oppose indexical and attribute data. Indexical data ‘enable identification and linking, and include unique identifiers, such as passport or social security numbers, credit card numbers’ – but there are also unique identifiers of objects, such as manufacturer serial numbers, DOI (digital objects identifiers), IP and MAC addresses. Those indexical data are clearly very personal (but the object identifiers are less personal though). Attribute data represent certain aspects of the facts, but are not unique. One can thus distinguish indexical data such as a fingerprint or a DNA sequence, from attribute data being the age, sex, eye colour and so on of a person. This distinction should

¹⁷ Kitchen (n 1) 9.

¹⁸ See Herbert Zech, ‘Data as a Tradable Commodity’ in Alberto De Franceschi (ed), *European Contract Law and the Digital Single Market: The Implications of the Digital Revolution* (Intersentia 2016) 51–80.

¹⁹ Kitchen (n 1) 9.

²⁰ Ibid 4–5.

²¹ Ibid 6.

have some consequences in terms of data protection, but the legal categories of personal data (normal, sensitive, anonymised – see section 3.3) do not take it into account.

Big data has obviously become a buzzword that has percolated into many discourses promising new ways of successfully dealing with multiple dimensions of human life, whether economic, social, political, environmental, health-related, or other. The promises of what has also been called ‘data-ism’²² include creating value by exploiting this new resource, governing people, managing organisations efficiently, developing better places and smart cities, allowing an environment-friendly energy policy, and so on. This chapter focuses on the economic promise of creating value and generating new profits, and thereby acquiring competitive advantages. The hypothesis is that this requires companies to develop some strategies for data appropriation.

2.2 What Is Data Appropriation?

The large internet platforms are collecting and processing masses of personal data shared online that have some value for the highly personalised services and advertising they offer. The Internet of Things (IoT) and the development of, among others, connected industries, smart cities, energy grids and connected cars, promise more data captures and exchanges. It is predicted that each autonomous car will exchange around 4 terabytes (4,000 gigabytes) of data each day.²³ Data accumulation can here translate into valuable outputs such as predictive maintenance, energy efficiency or road safety.²⁴ With the future deployment of artificial intelligence tools, the amount of data harvested for accelerating machine learning could increase astronomically. ‘Algorithms are increasingly self-teaching – the more and the fresher data they are fed, the better.’²⁵ There are thus strong pressures to facilitate the free flow of data, especially in a crossborder context. We know that, according to the famous quote attributed to Stewart Brand, ‘information wants to be free’²⁶ – a strange but strong formula, as if information would by itself aspire to freedom.

But at the same time ‘information wants to be expensive, because it’s so valuable’.²⁷ One way to raise its price is to add access controls and paywalls. Intellectual property rights are one way of achieving this. The uptake of the ‘data economy’²⁸ has thus concomitantly led to additional demands for a property-like protection of data, and/or for the strengthening of the

²² See Steve Lohr, *Data-ism: Inside the Big Data Revolution* (Oneworld 2015) 3 (data-ism recognizes that Big Data is ‘the vehicle for a point of view, or philosophy, about how decisions will be – and perhaps should be – made in the future’).

²³ Brian Krzanich, ‘Data is the New Oil in the Future of Automated Driving’ (*Intel Newsroom*, 15 November 2016) <<https://newsroom.intel.com/editorials/krzanich-the-future-of-automated-driving/>> accessed 14 October 2019.

²⁴ A 2018 report by the strategy consultancy firm Roland Berger anticipates that the predictive maintenance market will grow substantially between 2018 and 2022 (from \$3.1 billion in 2018 to \$11 billion in 2022; see <www.consultancy.uk/news/18408/market-for-predictive-maintenance-to-reach-11-billion-by-2022> accessed 14 October 2019).

²⁵ ‘Fuel of the Future – Data Is Giving Rise to a New Economy’ (n 2).

²⁶ Stewart Brand, *The Media Lab: Inventing the Future at MIT* (Viking Penguin 1987) 202.

²⁷ See ‘Information Wants to Be Free’ (*Wikipedia*, last edited 3 December 2018) <https://en.wikipedia.org/wiki/Information_wants_to_be_free> accessed 14 October 2019).

²⁸ See Commission, ‘Building a European Data Economy’ (Communication) COM (2017) 9 final.

existing protections related to certain arrangements of data (by copyright and the database right). Those legislative developments can contribute to data appropriation.

Data appropriation not only relies on the (intellectual) property rights granted by legislation. It is made possible through a complex mix of legal and practical measures of mainly three types: (i) the (intellectual) property rights granted by legislation, (ii) the contracts concluded by the parties and (iii) the practical and organisational systems, often based on a technological device, that entities can implement to control data. The focus here is on the property rights defined in statutes, while keeping in mind that the two other tools for controlling the access to data do play a considerable, if not primary, role in ensuring data appropriation (see Figure 6.2).

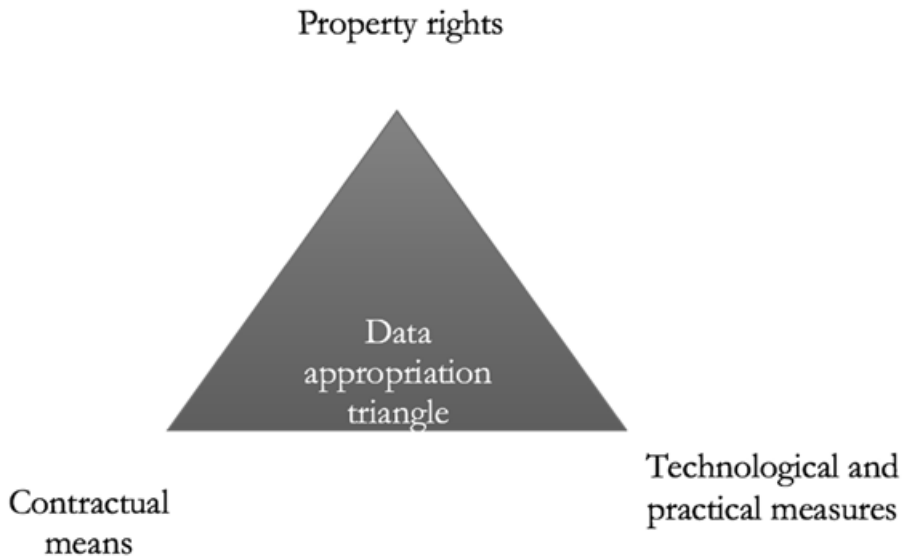


Figure 6.2 Data appropriation triangle

In the course of trade, appropriation is a means for firms to capture the economic rent from their innovation (which could be organisational, social, technical, and so on). Recognised property rights can be enlisted to this end, as well as practical measures to keep data safe and secret. Complex strategies are designed so as to optimise the outcome. For example, contracts dealing with data, in certain instances, might be preferred over the use of property rights: indeed, appropriation by contract is not subject to the limitations built into some of the property regimes. Several mandatory exceptions ensuring data access to third parties have been embedded in the intellectual property regimes, for instance the exceptions in favour of the lawful users in Articles 6(1) and 8 of the 1996/9 Database Directive.²⁹ In *Ryanair v PR Aviation*,³⁰ the Court of Justice of the EU (CJEU) confirmed that when a database is not

²⁹ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases. On the database right, see chapter 5 by T. Synodinou in this volume.

³⁰ Case C-30/14 *Ryanair v PR Aviation*, ECLI:EU:C:2015:10.

protected by copyright or by the *sui generis* database right (see section 3.1), the mandatory exceptions do not apply. In the absence of IP protection, the operator of a website may thus rely on the online terms of use to prohibit data scraping. This chapter will return to the paradox that property (sometimes) can free some uses.

Contracts such as nondisclosure agreements or confidentiality clauses in employment contracts help to keep the control over confidential data. Technological protection measures (firewalls, conditional access systems, proprietary formats, data encryption, and so on) and other practical measures leading to the segmentation of access to data likewise contribute to data control and value extraction.

Data appropriation is often analysed in an economic context, and in relation to resources having a monetary value. It can equally be justified by the protection of privacy and individual autonomy: the (theoretical) capability of individuals to master the fate of their data by imposing on third parties willing to use them the need to obtain consent in advance (see section 2.3) is based on such a justification for data appropriation.

2.3 Data Appropriation by Contracts and Limited Tradability of Data

This section focuses on the contractual acquisition of personal data that permits private companies to offer personalised advertisements or services.³¹ The tradability of nonpersonal data for the services of Industry 4.0 (predictive maintenance and so on) is also discussed (in addition, see section 3.2).

2.3.1 Personal data acquisition by online platforms

Personal data have become tradable, at least at the source, between the consumers (data subjects) and the providers of various services. Indeed, users commonly consent to make their personal data available in exchange for free online services. In a standard business model for the internet, those data are used by online platforms (social network, search engine, content streaming, and so on) to offer targeted advertising for other products or services. The use of personal data benefits the intermediary and the third parties offering those products and services. Because the consumers of online platforms regularly consent to standard terms of use allowing some reuse of their data, data appropriation is thus commonly achieved at the source, by contracts between the individuals and those platforms. This covers the data voluntarily provided by the consumers when registering (name, date of birth, address – that is, the login-based data) and the data collected later by tracking the consumer online (for example through the use of cookies). Various tracking devices and control measures used by the (online) service providers complement the (initial) appropriation of data.

This market reality is not favourably seen by data protection authorities. In its opinion of March 2017 on the draft directive on certain aspects concerning contracts for the supply of digital content,³² the European Data Protection Supervisor (EDPS) strongly supports the view that ‘the right to protection of personal data cannot be reduced to simple consumer interests,

³¹ However, it is not yet clear how personalized those services are. See Hubert Guillaud, ‘La personnalisation: un mythe?’ (*Internetactu.blog on Le Monde.fr*, 11 November 2017) <<http://internetactu.blog.lemonde.fr/2017/11/11/la-personnalisation-un-mythe/>> accessed on 14 October 2019.

³² Commission, ‘Proposal for a Directive of the European Parliament and the Council on certain aspects for the supply of digital content’ COM (2015) 634 final – 2015/0287 (COD).

and personal data cannot be considered as a mere commodity'.³³ For this reason, the EDPS criticises the possibility contemplated in the draft directive (Art. 3) that digital content is supplied in exchange for a counterperformance (other than money) in the form of personal data.³⁴ Indeed, with the draft directive, personal data is assimilated to 'consideration' in the contractual sense.³⁵

Negating that personal data are part of the normal course of online trade seems disconnected from the inner workings of today's digital markets. If data regulators show some reluctance here, the new framework for data protection has somewhat validated the idea that personal data are part of market exchanges (see on the right to portability section 3.3).

2.3.2 Role of personal data brokers

Other data intermediaries acquire huge amounts of personal data without any interaction and agreement with the consumers. Huge data brokers, especially in the US (such as Axciom, Corelogic, Datalogix, Bluekai³⁶) have collected standardised data such as addresses, contact information, creditworthiness, of masses of consumers.³⁷ This is achieved by crawling web-sites; buying printed directories (from phone companies or local governments); accessing criminal records, property data or purchase history; or through daily feeds from their source. As summarised by the US Federal Trade Commission (FTC), the primary business of data

³³ EDPS, 'Opinion 4/2017 on the Proposal for a Directive on certain aspects concerning contracts for the supply of digital content' (*EDPS Opinions*, 14 March 2017), <https://edps.europa.eu/sites/edp/files/publication/17-03-14_opinion_digital_content_en.pdf> accessed 14 October 2019, 3 (executive summary) and 7 ('personal data cannot be compared to a price, or money'). This position is also enshrined in preamble 24 of the Directive (EU) 2019/770 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services (OJ L136, 22.5.2019, p. 1–27).

³⁴ Article 3(1) of the Commission's Proposal for a Directive on certain aspects for the supply of digital content explicitly provided for the conclusion of contracts where 'the supplier supplies digital content to the consumer or undertakes to do so and, in exchange, a price is to be paid or the consumer actively provides counter-performance other than money in the form of personal data or any other data'. This phrasing has been replaced in the directive as adopted by the European Parliament and the Council. The final version of article 3(1) reads as follows:

"This Directive shall apply to any contract where the trader supplies or undertakes to supply digital content or a digital service to the consumer and the consumer pays or undertakes to pay a price.

This Directive shall also apply where the trader supplies or undertakes to supply digital content or a digital service to the consumer, and the consumer provides or undertakes to provide personal data to the trader (...)"

³⁵ Carmen Langhanke and Martin Schmidt-Kessel, 'Consumer Data as Consideration' (2015) 4 EuCML 218. That said, it might be adequate to regulate this type of contract. When data are transferred as a consideration in exchange for services, Axel Metzger ('Dienste gegen Daten: Ein Synallagmatischer Vertrag' (2016) AcP 817, 835–38) has proposed to introduce a new contract type of 'services for data' that might entail new rules such as for implied warranties or the revocability of consent.

³⁶ Federal Trade Commission, 'Data Brokers. A Call for Transparency and Accountability' (Federal Trade Commission, May 2014) <www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf> accessed 14 October 2019.

³⁷ According to the 2014 FTC report (ibid 8–9), Axciom had data on more than 700 million consumers worldwide, with more than 1,600 pieces of separated data on each consumer; ID Analytics included hundreds of billions of aggregated data points and covered 1.4 billion consumer transactions; atalogix claimed its data covered every US household. Those staggering numbers have probably increased considerably since the FTC survey was conducted.

brokers consists in ‘collecting personal information about consumers from a variety of sources and aggregating, analyzing, and sharing that information or information derived from it, for purposes such as marketing products, verifying an individual’s identity, or detecting fraud’.³⁸ Those data intermediaries trade in personal data according to various contractual arrangements with sources other than the individual consumers: according to the FTC, ‘The data brokers may acquire ownership of the data under a data supply contract, use of the data for a defined time period under a data licensing agreement, or the right to resell the source’s product using the data broker’s brand under a data reseller agreement’.³⁹

There are links between the front-(on)line platforms and those data brokers operating in the shadows: for instance, in 2012 Facebook announced a partnership with Datalogix to measure how often Facebook’s (at that time) one billion users see a product advertised on the social site and then complete the purchase in a brick and mortar retail store.⁴⁰ Other Facebook projects allowing third parties to run their app and to access members’ private data, as in the Cambridge Analytica case, confirm the sweeping sharing of data for commercial or other purposes. The combination of data directly sourced from the consumers and that indirectly acquired through other sources is undoubtedly very concerning – especially when one considers the increasing AI-based processing of those data treasures. Individuals rarely realise that they ‘give up their personal data, wittingly or unwittingly, in various capacities: as purchasers, subscribers, registrants, members, cardholders, donors, contest entrants, survey respondents, and even mere inquirers’.⁴¹

2.3.3 Contractual issues: how tradable are data in general?

This issue goes beyond the ambit of this chapter, but it has some impact on the way property rights should be designed and defined (see section 3). If data are tradable and parties are already able to negotiate and reach data arrangements, there is less or no reason to introduce a property right for nonpersonal data (see section 3.2). Invoking among others the difficulty of pricing data, *The Economist*, in its 6 May 2017 issue, states that compared with oil, ‘data, by contrast, are hardly traded at all, at least for money’: ‘flows of data are not a commodity: each stream of information is different, in terms of timeliness, for example, or how complete it might be’, and this makes it difficult to put a price on data.⁴² The absence of a real market for personal data has in the past limited the competition authorities’ possibilities of assessing market dominance involving data. The merger between Facebook and WhatsApp, for instance,

³⁸ Ibid 3.

³⁹ Ibid 16.

⁴⁰ Ibid 9. See also Kitchin (n 1) 43 (‘Facebook uses the profiles, networks and uploaded content of its billion users (their likes, comments, photos, videos, etc.) to power a set of advertising products such as Lookalike Audiences, Managed Custom Audiences, and Partner Categories, partnering with large data brokers and marketers such as Datalogix, Epsilon, Acxiom, and BlueKai in order to incorporate their non-Facebook purchasing and behavior data’): referring to Jim Edwards, ‘Facebook Is About to Launch a Huge Play in “Big Data” Analytics’ (*Business Insider*, 10 May 2013) <www.businessinsider.com/facebook-is-about-to-launch-a-huge-play-in-big-data-analytics-2013-5> accessed 14 October 2019.

⁴¹ CIPPIC, ‘On the Data Trail: How Detailed Information about You Gets into the Hands of Organizations with Whom You Have No Relationship: A Report on the Canadian Data Brokerage Industry’ (Canadian Internet Public Policy Clinic, April 2006) <<https://cippic.ca/sites/default/files/May1-06/DatabrokerReport.pdf>> accessed 14 October 2019.

⁴² ‘Fuel of the Future – Data Is Giving Rise to a New Economy’ (n 2).

was cleared by the Commission as it appeared difficult to define a market for personal data. Competition rules arguably need to be updated to reflect the power of data-rich companies.⁴³

In a 2017 working document based on various studies by third parties, the European Commission does not conclude that data markets are fully functioning. Neither does it come to the opposite conclusion. Its overview shows that in the vast majority of cases (78 per cent of the companies surveyed), data is generated and analysed inhouse by companies, and ‘is not traded with third parties’.⁴⁴ There are however notable exceptions for sector specific information, such as financial or commodities market data, and there are also several data marketplaces in place.⁴⁵ For W Kerber (a German economist), the apparent lack of market failure can be explained by the fact that ‘data can also be commercialized indirectly, not by selling or granting access to the data but by selling services that are based on data’ (emphasis added).⁴⁶ According to H Zech, offering access to data as a service (what could be referred to as DaaS) is a rather common business model that can take several forms (access to databases, provision of data measurements or recordings as a service, and so on).⁴⁷ In summary, data are either traded directly (but the data markets are still not fully fledged) or indirectly (as part of broader services). But what is important is that ‘contractual practice treats data like property rights’.⁴⁸ This practice tends to demonstrate that no additional property entitlement is needed. (In the same way, markets for transmission rights for sporting events developed without any exclusive right because private parties have used contracts and technical tools to ensure factual exclusivity⁴⁹).

2.4 What Are the Most Relevant Interests, Constituencies and Risks behind Data Regulation?

On one hand, several constituencies advocate for improved access to data (for example, as open data); on the other, several stakeholders, including private companies and privacy

⁴³ Facebook had however claimed that the user accounts of the two companies could not be matched and linked; this was misleading and led to the 2017 fine imposed on Facebook. See ‘Facebook Fined £94m for “Misleading” EU over WhatsApp Takeover’ *The Guardian* (London, 18 May 2017) <www.theguardian.com/business/2017/may/18/facebook-fined-eu-whatsapp-european-commission> accessed 14 October 2019. See also Maurice Stucke and Allen Grunes, *Big Data and Competition Policy* (OUP 2016).

⁴⁴ Commission, ‘Commission Staff Working Document on the free flow of data and emerging issues of the European data economy (hereafter: Commission Staff Working Document) SWD (2017) 2 final, 15.

⁴⁵ Ibid 13 and 17.

⁴⁶ Wolfgang Kerber, ‘A New (Intellectual) Property Rights for Non-Personal Data? An Economic Analysis’, (2016) GRUR Int 989, 994.

⁴⁷ Zech (n 18).

⁴⁸ Standard contractual terms refer to ‘property rights’ in data, as if some (intellectual) property right exists. Useful reminder made by Andreas Wiebe, ‘Protection of Industrial Data – A New Property Right for the Digital Economy?’ (2016) GRUR Int 877.

⁴⁹ Judicious comparison made by Josef Drexler and others, ‘Data Ownership and Access to Data – Position Statement of the Max Planck Institute for Innovation and Competition of 16 August 2016 on the Current European Debate’ (2016) Max Planck Institute for Innovation & Competition Research Paper 16–10, para 7 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2833165> accessed 14 October 2019.

groups, are pushing for increased control over data – which can lead to the property-like regimes presented in section 3.

Open data can be defined as data whose access, reuse or redistribution is free, subject at most to the requirement of attribution.⁵⁰ In addition, open data cannot be appropriated by the use of technological protection measures. The claims for more openness have been expressed by various groups, using sometimes the same arguments, but with a different agenda: NGOs might share with business organisations the same discourse on accountability and improved access to governmental data, but for civic reasons, while companies might want to remonetise the public data.⁵¹ The open data movement developed over the past decades parallels the campaigns in favour of the right to information and the increase of transparency within public administration. This has led to the adoption of many laws on the freedom of information (FOI) or the access to public documents, the 2008 call from the OECD for governments to open up their data, the 2009 initiative by the US government regarding the data.gov website,⁵² or the EU and Member States policies on open data (for example the European Data Portal and the EU Open Data Portal⁵³), including the ‘public sector information’ (PSI) directive.⁵⁴ The EU initiatives on open data aim to free up reuse of all the information that public bodies produce, collect or pay for, such as geographical information, statistics, weather data, data from publicly funded research projects and digitised books from libraries.⁵⁵ Access to data for public interest (and research) is an important dimension of the EU data policy. A new revision of the PSI directive initiated by a public consultation in 2017 has contemplated the introduction of a so-called reverse PSI provision. Reversing the approach of the PSI directive would entail the possibility for public sector bodies to reuse privately held data. The reverse PSI rule is no more on the table, but several initiatives regarding Business-to-Government (B2G) data-sharing are under way.⁵⁶ The open data policies and laws can thus reduce the capacity of private parties to own data – the focus of this chapter.

Business organisations and privacy advocates have defended new forms of data appropriation, and this has led to new laws (on personal and confidential data) or to a public debate (on nonpersonal or industrial data protection).⁵⁷

The risk of data leaks, with all their consequences, varies depending on the type of data involved.⁵⁸ For nonpersonal data relating to an identified or identifiable natural person, the

⁵⁰ There are of course huge debates about the scope of those access and reuse rights. Free access, for example, can be compatible with the payment of a reasonable fee for the reproduction cost. See the discussion in Kitchin (n 1) 50ff.

⁵¹ See Kitchin (n 1) 113–14.

⁵² See the presentation of those developments by Kitchin (n 1) 49.

⁵³ See <www.europeandataportal.eu/> and <<http://data.europa.eu/euodp/en/home>>.

⁵⁴ Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the reuse of public sector information, revised by the Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013, now replaced by the 2019/1024 Open Data Directive.

⁵⁵ See the Open Data webpage of the EU Commission <<https://ec.europa.eu/digital-single-market/en/open-data>> accessed 14 October 2019.

⁵⁶ See <<https://ec.europa.eu/digital-single-market/en/guidance-private-sector-data-sharing>> accessed 13 October 2019.

⁵⁷ See below section 2.2.

⁵⁸ Marc Bourreau, Alexandre de Streel and Inge Graef, ‘Big Data and Competition Policy: Market Power, Personalized Pricing and Advertising’ (CERRE, 16 February 2017) 15 <<https://ssrn.com/abstract=2920301>> accessed 14 October 2019.

risks are mostly economic, but could be considerable for the market operators. For personal data, the risks depend on the sensitivity of data: for normal personal data, the risk exists of data determinism involving profiling and judging not only on the basis of past conduct, but on the prediction of what they might do in the future; however, some data are more sensitive and their access might create some risk of discrimination based on information indicating racial or ethnic origin, political opinions, genetic data, and so on. In contrast, pseudonymised data pose in principle fewer risks, except that most of the time there are possibilities to repersonalise those data. Regarding confidential data protected by trade secrets, the release of the information might impact the conduct of businesses.

3. PROPERTY RIGHTS RELATING TO DATA

As data are becoming essential for running a business and for value creation, the demands for control of data evolve from the defined categories of information protected by existing intellectual property rights to the broader categories of nonpersonal, personal or confidential data. Each property right associated with a type of data tries to find a balance between the competing interests by ensuring access to data in certain circumstances and in favour of certain categories of persons.

3.1 Data Appropriation by Intellectual Property Rights

3.1.1 Copyright's paradox: from its nonapplication to data to the issue of text and data mining (TDM)

Data are outside copyright's reach (in principle, but not in reality)

In principle, copyright law does not confer any control on data: by application of the idea–expression dichotomy, copyright only applies to an original form of expression, not to the ideas or simple information embedded in a creative work.⁵⁹ As seen in section 2.1.1, data are even more basic components compared to information and knowledge, which both require additional structure and distillation so as to give meaning to data. Data *a fortiori* should be excluded from copyright's realm. The practice is somewhat different as there is an overlap, if not a merger, between many forms of expression and the underlying data or information. And when an entity has the exclusive control on the form of expression, in practice, it can also prohibit the reuse of the unprotected content: how to access and reuse the data embedded in copyright protected files if reproducing (part of) the files requires an authorisation?

This problem is linked with the broad interpretation of the reproduction right. As defined in Article 2 of the 2001/29/EC InfoSoc directive, the reproduction right is 'the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction *by any means and in any form, in whole or in part*' of the authors' works (emphasis added). This broad notion of reproduction is ill suited to the digital realm because of the numerous technology-driven copies that lack any commercial value (and the inflated hopes generated by the expectations of right owners who tend to believe that reproduction, even without economic reason, should

⁵⁹ See Art 9(2) of TRIPS Agreement and art 2 of the WIPO Copyright Treaty. See also in the EU, Art 1(2) of the Software Directive 91/250/EEC, now replaced by Directive 2009/24/EC.

be covered by copyright). It is probably time to differentiate between the copies that are relevant for copyright's application and those that should remain outside copyright's control. To achieve this, it appears essential to revisit the notions of reproduction and infringement.⁶⁰

Copyright infringement in case of 'use as a work' and exclusion of text and data mining

There is no explicit CJEU case law explaining what a use 'as a work' means for assessing direct copyright infringement. Copyright law however entirely relies on the notion of a work and the principle of authorship.

A work exists where an individual becomes an author by creating a form of expression which shows the imprint of her personality. There is no work without an original expression. A work is not a thing, even less a tool, it is 'an act whereby a person addresses others through speech'.⁶¹ The work of an author is the nexus for a communication between the author and a public. From this perspective, copyright law appears as a form of speech regulation, since it 'protects the integrity of the work as a communicative act'.⁶²

This should influence the condition of copying in the assessment of a copyright infringement. According to A Drassinower, '[b]ecause a work is a communicative act, to reproduce it is to recommunicate it. To copy is to repeat an author's speech as such. Uses of the work as a mere pattern of ink, so to speak, in the absence of recommunication, are not uses of the work *as a work*' (emphasis added).⁶³ Under this view, noncommunicative uses are thus not actionable. For A Drassinower, when a work is not used for a communicative use, it should not be qualified as a fair use, but simply a nonuse of the work.⁶⁴

Yet, many technical reproductions constitute noncommunicative uses: they are only needed for the 'digital machine' to function. The copy is just a tool, not an expression addressed to other humans. This applies to uses such as copying a text or corpus for a data mining exercise – but also to making a technical copy on a router for the transmission of content on the internet, or making a copy of a student's papers for the purposes of detecting plagiarism,⁶⁵ and so on. In all those cases, the digital embodiment of the work (as a series of bits) is indeed reproduced, but there is no use of the work as a work in the absence of a human public to hear and decipher it.

Text and data mining (TDM) is a form of research that extracts data and patterns from large datasets,⁶⁶ and identifies word frequencies, syntactic patterns and thematic markers in a corpus of documents. When asked if TDM should fall under copyright, many copyright scholars would until recently have doubted copyright's relevance. That copyright might extend to the TDM process does not appear legitimate: no author of literary or artistic production in the past has conceived her copyright as a way to limit the use of her work as a source of useful infor-

⁶⁰ See Alain Strowel, 'Reconstructing the Reproduction and Communication to the Public Rights: How to Align Copyright with its Fundamentals', in Bernt Hugenholtz (ed), *Copyright Reconstructed* (Wolters Kluwer 2018) 203–40.

⁶¹ Abraham Drassinower, *What's Wrong with Copying?* (HUP 2015) 8.

⁶² Ibid. Other commentators have stressed this communicative dimension: Carys J Craig, *Copyright, Communication and Culture – Towards a Relational Theory of Copyright Law* (Edward Elgar 2011).

⁶³ Drassinower (n 61), 87 (emphasis of the author on the requirement 'as a work').

⁶⁴ Ibid 13 and 87.

⁶⁵ See: *A.V. v iParadigms LLC*, 562 F.3d 630 (4th Cir. 2009) 640: 'iParadigms' use of these works was completely unrelated to the expressive content and was instead aimed at detecting and discouraging plagiarism.'

⁶⁶ Kitchin (n 1) 104.

mation, for instance to discern fluctuations in interest in a particular subject or for determining fashionable expressions. No author, while producing a work, has seriously relied on the possibility of earning revenues from the derivative use related to searching and indexing a corpus that includes her work. Such use is far removed from the core exploitation field of most works. In addition, when it appeared more than two centuries ago, copyright was not only intended to remunerate authors (and publishers) for creating (and disseminating) works, but was also promoted to expand public learning. This is not only true for the US copyright system, as the same rationale is at the origin and core of the continental *droit d'auteur* system.⁶⁷ Yet there are good arguments to conclude that the all-encompassing notion of reproduction, as delineated by EU law, is broad and sufficiently undetermined to cover the TDM (re)search process, involving various processing of data and works.⁶⁸ Copyright can thus be used to block the spread of relevant information extracted from protected corpuses. If this is possible, then copyright law is working against copyright's aim.⁶⁹

The TDM exception in the draft directive on copyright in the Digital Single Market

In the US, the fair use provision can function as a way to delineate the boundaries of the author's exclusive right with a view to its objectives. In the Google Books case (*Authors Guild v Google, Inc.*), the US Court of Appeals for the Second Circuit decided that the various acts committed by Google in reproducing books, including for searching and TDM, are to be considered as fair use.⁷⁰ If TDM falls under the reproduction right, which arguably it does (unfortunately), then in the absence of a fair use provision under EU law, a specific exception to the exclusive reproduction right must be added. Following some Member States (including the UK), the European Commission proposal of a directive on copyright in the Digital Single Market (hereafter 'draft DSM directive') of 14 September 2016 contained a TDM exception.⁷¹

The envisaged exception, however, did arguably not allow research when it results in publication or when it is conducted in a commercial context, as the exception was limited to (public interest) 'research organisations' and 'the purposes of scientific research' (Art. 3 draft

⁶⁷ See my review of the history and principles of copyright in both legal traditions: Alain Strowel, *Droit d'auteur et copyright* (Bruylant et Paris, LGDJ 1993); more recently, Alain Strowel, 'Droit d'auteur et copyright. Convergence des droits, régulation différente des contrats' in *Mélanges en l'honneur d'André Lucas* (LexisNexis 2014) 701–03.

⁶⁸ If copyright applies to TDM, this means that copyright covers the *processing* of data (for producing some research output): this shows some similarity with data protection which covers any 'processing of personal data', broadly defined in art 4(2) GDPR (see below 2.3).

⁶⁹ In 2011, the Hargreaves Report mentioned TDM as 'one current example of a new technology which copyright should not inhibit, but does' (Ian Hargreaves, 'Digital Opportunity: a Review of Intellectual Property and Growth' (May 2011) 48). I prefer to refer to TDM as a practice of finding and spreading useful information that copyright was supposed to encourage.

⁷⁰ *Authors Guild v Google, Inc.* 13-4829-cv <<https://law.justia.com/cases/federal/appellate-courts/ca2/13-4829/13-4829-2015-10-16.html>> accessed 14 October 2019. (On 18 April 2016, the Supreme Court denied the petition for a writ of certiorari, leaving the Second Circuit ruling in Google's favour intact.) To make available parts of the corpus of books, Google has scanned the digital copies and established a publicly available search function, the ngrams tool.

⁷¹ See Commission, 'Proposal for a Directive on Copyright in the Digital Single Market' COM/2016/0593 final – 2016/0280 (COD), art 3. In a December 2015 Communication, the European Commission already acknowledged the need to reduce the uncertainties by adding a TDM exception to boost research and innovation activities: Commission, 'Towards a modern, more European copyright framework' (Communication) COM (2015) 626 final, 7.

DSM directive). The ‘research organisations’, as beneficiaries of the exception, were narrowly defined. Research in corpuses conducted for the purpose of journalism by information providers and members of the press (which do not fall among the beneficiaries of the TDM exception) would not have been allowed when the researcher has lawful access to the corpus. Also, independent researchers who are not affiliated with a research organisation would not enjoy the freedom to conduct TDM. For these reasons, the proposed wording on the TDM exception was too narrow.⁷²

Interestingly, the final version of the DSM directive compels Member States to go beyond and to provide for an exception to Article 2 InfoSoc directive (and Art. 7(1) Database directive 96/9/EC) covering ‘reproductions and extractions for lawfully accessible works [...] for the purpose of text and data mining.’⁷³ Although the Council proposed for this exception to be optional, it finally became mandatory. However, while the TDM exception for scientific research cannot be waived by contract, this remains possible for the TDM exception of Article 5 DSM directive.⁷⁴

3.1.2 Database right

Chapters 3 and 4 of this book deal specifically with database protection. The developments devoted to the *sui generis* or database right introduced by the 1996 Directive on the legal protection of databases are thus very brief here.⁷⁵

The limitations of this right are known: first, following the CJEU case law,⁷⁶ the database right in principle does not protect the substantial investment in data creation, but only in the active collection or assembling of existing data. Although it might be difficult in practice to distinguish between ‘creating’ and ‘obtaining’ data, this line of demarcation creates some hurdle for protecting batches of data automatically generated by sensors or other machines. ‘This exclusion of “spin-offs” is quite relevant in an industry 4.0 environment where data is often produced as a by-product.’⁷⁷ However, it might be circumvented by better separating the activities of data generation and of data processing and organisation. Second, the database right does not apply to the bits of information (each data as such), but only to substantive parts

⁷² See ALLEA Permanent Working Group Intellectual Property Rights, ‘The Text and Data Mining Exception and the Enhancement of Access to Scientific Information in Europe’ ALLEA Position Paper, November 2017 <www.allea.org/wp-content/uploads/2017/11/PWGIPR_Statement_TDM_2017.pdf> accessed 14 October 2019. ALLEA would also like to see the results of TDM research be made available in the form of Open Access publication or as Open Data, regardless of whether the research was conducted by a publicly funded research organisation or by a private entity.

⁷³ Article 4 of the Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, OJ L 130, 17.5.2019, p. 92–125.

⁷⁴ See Rossana Ducato and Alain Strowel, *Limitations to Text and Data Mining and Consumer Empowerment: Making the Case for a Right to “Machine Legibility”*, (2019) 50(6) IIC, p. 649–684.

⁷⁵ Directive 96/9/EC of the European Parliament and Council of 11 March 1996 on the legal protection of databases [1996] OJ L77/20.

⁷⁶ C-203/02 *BHB Horseracing v William Hill* ECLI:EU:C:2004:695, para 31ff.

⁷⁷ Wiebe (n 48) 879. See also Bernt Hugenholtz, ‘Data Property: Unwelcome Guest in the House of IP’, Paper presented at Trading Data in the Digital Economy: Legal Concepts and Tools, Münster, Germany <https://pure.uva.nl/ws/files/16856245/Data_property_Muenster.pdf> accessed 14 October 2019.

of the database, meaning parts that require substantial investment.⁷⁸ However, repeated and systematic ‘pumping’ of individual data (which do not qualify as substantive part) could in certain conditions be prohibited under the database right (Art. 7(5)). Third, the scope of the database rights (covering extraction and reutilisation) is quite broad, as is the case with the reproduction right under copyright (see above). For instance in *Innoweb v Wegener*, the CJEU has proposed a broad interpretation of the notion of reutilisation in the context of a search engine implying that the translation of the queries from end users into the search engine for the database site ‘in real time’ is to be considered as a reutilisation.⁷⁹ For those reasons, a certain interpretation of the conditions of protection (allowing for the protection of generated data), of the subject matter (extending to individual data in case of repeated extraction), and of scope of protection (extraction and reutilisation rights) under the database right covers some reuses of data.

3.2 Ownership and Free Flow of Nonpersonal Data

The debate within the EU Commission on the adequacy of a new property right on industrial or raw data collected by sensors and other devices became public when the former commissioner for economy and digital society, Gunther Oettinger, published several articles in the European press,⁸⁰ these discussed the merits of data ownership,⁸¹ and even advocated a civil code on data (the codification idea was the selling point in the French press). A Commission communication of January 2017 followed by a regulation proposed in September 2017 and adopted in November 2018 show how the discussion evolved after the former commissioner in charge took up position.

3.2.1 Commission’s Communication on ‘Building a European Data Economy’ (Jan. 2017)

On 10 January 2017, the Commission published a communication entitled ‘Building a European Data Economy’ (hereafter the ‘Communication’).⁸² Although the Communication insists on the economic ‘need to have access to large and diverse datasets’ and aims at removing the barriers to the movement of data, the Communication also addresses the question whether the EU should introduce a new right on raw data, ‘i.e. data that has not been processed or changed since its recording’ by machines.⁸³ The Commission acknowledges that the

⁷⁸ While art 1(2) of the directive (Directive 96/9/EC) defines a database as ‘a collection of independent works, *data* or other materials arranged in a systematic or methodical way’ (emphasis added), the sui generis right only applies to ‘the whole’ or ‘a substantial part’ of a database (art 7). Recital 46 adds that the database right ‘should not give rise to the creation of a new right in the . . . data . . . themselves’.

⁷⁹ C-202/12 *Innoweb v Wegener* [2013] ECLI:EU:C:2013:850.

⁸⁰ Günther Oettinger, ‘Pour un ‘code civil’ des données numériques’ (*Le Monde* (Paris, 15–16 October 2016) (title in English: ‘For a “civil code” of digital data’); ‘Wem gehören die Daten?’ *Frankfurter Allgemeine Zeitung* (Frankfurt, 14 October 2016) (title in English: ‘To whom belong data?’).

⁸¹ This press campaign arguably was the political response by the German commissioner to the demands of the German car manufacturers which, like other successful companies, fear losing their position because of the Industry 4.0 digital revolution and the considerable competition coming from the big data companies, such as Google with its subsidiary Waymo; Uber; Tesla, and so on.

⁸² Commission (n 28).

⁸³ Ibid 8. Machines include ‘computer processes, applications or services, or . . . sensors processing information received from equipment, software or machinery, whether virtual or real’ (ibid 9).

machine-generated data can be personal or nonpersonal (for example the data generated by home temperature sensors versus the data on the outside soil temperature), but that, in practice, many data flows and datasets will include both types of data. The Commission then takes stock of the fact that ‘raw machine-generated data are not protected by existing intellectual property rights since they are deemed not to be the result of an intellectual effort and/or have any degree of originality’. This proposition can be challenged. Indeed, if copyright does not protect information as such, however, as discussed (see section 3.1.1), the rather low threshold for protection and the broad scope of the reproduction right might stand in the way of some data reuse. The protection of databases might well create some impediments to the reuse of batches of data. The Commission is also dismissive of the possibility to protect (industrial or raw) data as trade secrets. This is probably not correct.⁸⁴ We will see that although ‘for data to qualify as a “trade secret”, measures have to be taken to protect the secrecy of information’,⁸⁵ in practice most companies put in place the ‘reasonable steps’ to keep the data secret, and the third condition for enjoying trade secrets protection on valuable information is thus respected (see section 3.4).

The Commission then correctly notes that ‘(i)n some cases manufacturers or service providers may become the de facto “owners” of the data that their machines or processes generate, even if those machines are owned by the user’. This statement by the Commission is at least questionable: is it not the user’s ownership on the material object that determines who owns the data generated by this object? If this is correct, then material property includes data ownership – which is a conclusion with possible far-reaching effects. In practice, of course, contracts between the product manufacturers and the users will provide for the transfer of ‘ownership’ on the data, contracts being the most common way to appropriate data (see section 2.3). Underlining the risk of contractual appropriation, the Communication evokes the possibility to offer ‘guidance on how non-personal data control rights should be addressed in contract’.⁸⁶ The solution could take the form of default contractual rules. While the Commission seems keen to facilitate and incentivise the sharing of data (including by fostering technical solutions, such as Application Programming Interfaces (APIs) for identifying the data sources and facilitating reuse⁸⁷), the Communication also considered the introduction of a new ‘data producer’s right’ (to be distinguished from the right of the maker of a database presented in section 2.1.2), granting to ‘the owner or long-term user (i.e. the lessee) of the device’ a right to use and to authorise the use of non-personal data’.⁸⁸ The Communication remained vague about this right and its contours.

3.2.2 Regulation on the free flow of data (Nov. 2018)

The discussion on the merits of introducing a new right by EU legislation is closed, at least for the time being. Indeed, the regulation on a framework for the free flow of nonpersonal data

⁸⁴ Aplin has showed that trade secrets allow appropriation of data, thus making it unnecessary to introduce a new data producer’s right: Tanya Aplin, ‘Trading Data in the Digital Economy: Trade Secrets Perspective’ in Sebastian Lohsee, Reiner Schulze and Dirk Staudenmayer (eds), *Trading Data in the Digital Economy: Legal Concepts and Tools* (Nomos/Hart 2017) 59–72.

⁸⁵ Commission (n 28) 10.

⁸⁶ Ibid 12.

⁸⁷ Thus, the same two types of measures that ensure data appropriation (that is, contractual means and technical/practical measures; see above 1.2) can also facilitate data access and exchange.

⁸⁸ Commission (n 28) 13.

in the EU proposed by the Commission on 13 September 2017 and adopted on 14 November 2018 (hereafter the ‘regulation’)⁸⁹ does not contain any provision on a producer’s data right. The regulation clearly aims to liberate the flow of data in the crossborder context so as to accelerate the data economy. But it only applies to nonpersonal data.⁹⁰ Relying on the cross-cutting free of movement of data principle (also embedded in the personal data protection instruments; see section 3.3), the regulation intends to make it ‘easier for professional users to switch data storage or other processing services providers’.⁹¹

The tradability of data, and the competition between cloud providers, is limited by, among others, data localisation requirements imposed at national level for privately owned data, such as health, financial and gaming/gambling data, and for some publicly owned data, such as criminal records.⁹² Data localisation obligations means ‘any obligation, prohibition, condition, limit or other requirement provided for in the laws, regulations or administrative provisions of a Member State . . . which imposes the processing of data in the territory of a specific Member State or hinders the processing of data in any other Member State’ (Art. 3(5)). Fighting national data localisation laws, the core provision of the regulation, contained in Article 4 (entitled ‘Free movement of data within the Union’), provides that ‘data localisation requirements shall be prohibited, unless they are justified on grounds of public security in compliance with the principle of proportionality’.

The porting of data is also an important objective of the regulation. This shows that data are viewed as a resource that should circulate to generate more efficiency and added value. The reasoning is economic in substance and corresponds to a liberal vision of the market. However, contrary to the new regulation on personal data protection (over the GDPR providing for a right to data portability in Art. 20: see section 3.3), the regulation retains a more modest and less burdensome option, consisting in self-regulation facilitated by the Commission so as to define best practices for switching provider and for enhancing contractual transparency.⁹³

⁸⁹ Regulation (EU) 2018/1807 of 14 November 2018 on a framework for the free flow of non-personal data in the European Union, OJ 28.11.2018 L 303/59 (based on the Commission, ‘Proposal for a regulation of the European Parliament and of the Council on a framework for the free flow of non-personal data in the EU’ COM (2017) 495 final).

⁹⁰ Within this Regulation, “data” means data other than personal data as defined in point (1) of Article 4 of Regulation (EU) 2016/679’ (art 3(1) referring to the General Data Protection Regulation or GDPR).

⁹¹ Commission (n 28) 6. Although the regulation focuses on the movement of data owned by private entities, it also responds to the access needs of public authorities by adding a provision on data availability for competent authorities (art 4).

⁹² Commission (n 44) 5–10.

⁹³ Art 6 (entitled ‘Porting of data’) provides that ‘the Commission shall encourage and facilitate the development of self-regulatory codes of conduct at Union level . . . in order to contribute to a competitive data economy, based on the principles of transparency and interoperability and taking due account of open standards, covering, inter alia, the following aspects: (a) best practices for facilitating the switching of service providers and the porting of data in a structured, commonly used and machine-readable format including open standard formats’. Article 6 further details the information that should be provided.

3.2.3 Against data property

Some commentators have recommended the creation of a right on nonpersonal data;⁹⁴ others are critical about the introduction of such a new property right.⁹⁵ Those advocating for a new property point first to the increasing value of data (see the introduction) and justify this by referring to the rise of ‘smart manufacturing’ and the IoT (with some economic data to highlight those developments). But any new valuable object or resource does not automatically deserve a special property right – on the contrary, the data economy uptake might require freeing or better sharing the resource. The economic argument for property commonly relies on the need for additional incentives to produce by allowing to recoup the initial investment through an exclusive right: but the incentive argument, already flawed for many innovative products and creations, does not convince at all when one considers the sheer volume of industrial data.⁹⁶ A second standard argument in favour of a new data property invokes a gap in protection: the traditional civil law instruments (material property and contracts) as well as the existing intellectual property rights and trade secret protection would not adequately protect nonpersonal data as such. This chapter precisely aims to show that they are various ways of appropriating data, and the existing tools such as copyright or contracts already ensure quite ample control (see section 2.3). There is an additional acute problem with data ownership that B Hugenholtz and others have rightly pointed to: property does not fit with objects that are too fluid, difficult to identify and evolving in nature. Data, especially within the market paradigm of realtime data for targeted services, are characterised by a high velocity. This big data feature makes it impossible to adequately define the subject matter, scope of protection and ownership of a possible new right on industrial data.

By rejecting the claims for data ownership, the European institutions (the Commission first, then the Council and the European Parliament: see above on the free flow of nonpersonal data regulation) have adopted a reasonable position. That said, the fact that the (EU) legislator does not recognise a property right on nonpersonal data by no means ensures that no data appropriation takes place in practice: contractual restrictions and the use of technical measures remain largely available to the operators who want to lock in data. One should be reminded of the already discussed paradox exemplified by *Ryanair v PR Aviation* (see section 2.2): the absence of a formal property right could sometimes lead to enhanced appropriation because the exceptions to a property right do not apply when appropriation is relying on contractual provisions (and technical measures).

3.3 Towards a Property Right on Personal Data?

3.3.1 The object of personal data protection: definition and subcategories

Contrary to the broader privacy protection, which is a freedom against any unjustified interference by the State or private parties, personal data protection is construed with reference to a particular object: personal data. Under the EU Charter on fundamental rights, the general

⁹⁴ See Herbert Zech, ‘A Legal Framework for a Data Economy in the European Digital Single Market: Rights to Use Data’ (2016) 11 JIPLP 460; Jasmien César, Julien Debussche and Benoît Van Asbroeck, ‘White Paper – Data ownership in the context of the European data economy: proposal for a new right’ (*Bird & Bird*, February 2017) accessed 17 November 2017.

⁹⁵ See for example Wiebe (n 48) 877ff; Drexler (n 49); Hugenholtz (n 77).

⁹⁶ See the review of those arguments by Kerber (n 46) 989ff.

right to privacy is recognised in Article 7 as everyone's 'right to respect for his or her private and family life', thus a right against interferences, while Article 8(1) significantly provides for 'the right to the protection of personal data', thus a right subsisting in a type of data.⁹⁷ According to the General Data Protection Regulation (GDPR),⁹⁸ which this section focuses on as it contains the data protection regime applicable in Europe as of 25 May 2018, 'personal data' is 'any information relating to an identified or identifiable natural person ("data subject")' (Art. 4(1)). This definition ('personal data means any information') makes it clear that for the purpose of privacy protection, the distinction between data and information (see section 2.1.1) is irrelevant. Any information that directly identifies a person such as name or contact information, or that can indirectly be linked to a person, such as dynamic IP addresses,⁹⁹ can qualify as personal data. The GDPR adds that:

an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. (Art. 4(1))

New identifiers, such as location data, are included in the list. This further expands the instances triggering the data subject's rights and the correlative obligations for the data controller. To decide whether data is personal, 'account should be taken of all objective factors, such as the costs of and the amount of time required for identification, taking into consideration the available technology at the time of the processing and technological developments' (recital 26 GDPR). The contours of the object of protection are thus largely dependent on the available technologies and on the cost and time invested in the identification procedure. Personal data is thus a rather open and evolving notion. But it has a well-defined core comprising, for instance, the data that identify us on our identity or credit cards.

Can such an object be compared with the traditional objects (or subject matters) of intellectual property rights? There is an important difference in the sense that data protection subsists without any requirement of creativity, intellectual effort, inventive or individual character or investment – all traditional standards for IP rights on creations such as works protected by copyright or inventions by patent. The information protected by copyright, patent or design appears more qualified (it must be original, inventive, new and/or with an individual character, and so on). In practice, the threshold for those substantive conditions is rather low. Copyright subsistence depends, for instance, on the presence of 'free and creative choices'.¹⁰⁰ Protection

⁹⁷ According to the Charter, data protection requires a fair processing 'for specific purpose and on the basis of the consent of the person concerned' and includes as minimum 'the right of access to data which has been collected' 'and the right to have it rectified' (art 8(2)).

⁹⁸ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

⁹⁹ Those IP addresses, even if they change over time, can be personal data if a website operator has the means to identify the data subject by using additional data provided for instance by the internet service provider. See C-582/14 *Breyer v Bundesrepublik Deutschland* EU:C:2016:779, which was already anticipated by an *obiter dictum* in Case C-70/10 *Scarlet Extended v SABAM* ECLI:EU:C:2011:771, para 51.

¹⁰⁰ C-5/08 *Infopaq v DDF* ECLI:EU:C:2009:465; C-145/10 *Eva-Maria Painer v Standard VerlagsGmbH* ECLI:EU:C:2011:798.

of an item is deserved if it appears as the manifestation of the fundamental freedom of creation, itself deriving from the active facet of the freedom of expression, the right to hold opinions.¹⁰¹ What is needed is room for manoeuvre, a play space (*Spielraum* in German), and a margin for appreciation leaving the possibility to choose among various options for creation. Thus, no originality (and copyright) without personal freedom.

So far, only physical persons, contrary to animals and machines,¹⁰² are considered as free agents and can enjoy copyright protection *ab initio*. Protection of personal data also has its final justification in the preservation of the freedom and autonomy of the persons¹⁰³ – and this justification should command the scope and application of data protection, but sometimes, as with copyright, the protection is disconnected from its fundamental rationale. According to the CJEU, a work is protected if the author ‘can stamp the work with his “personal touch”’.¹⁰⁴ This comes close to the rationale of data protection, to protect a person by granting some control on her or his identifiers (although data protection also extend to attribute data, not only to indexical data, as distinguished in section 2.1.2; but this extension could precisely be challenged on the basis of the rationale of data protection).

The objective of data protection in ensuring the freedom of a person explains why anonymous data are excluded from the scope of data protection. Pseudonymised data have an intermediary status. Pseudonymisation results from a processing of personal data, after which it ‘can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person’ (Art. 4(5) GDPR). In practice, many pseudonymised data can be traced back to the initial data subject, especially with the new crossreferencing between, and combinations of, databases.

The object of data protection is thus quite difficult to circumscribe – unlike other aspects of personality, for example the (physical) image or portrait of a person. The rather precise delimitation and the relative stability of a person’s image probably explain why the right on one’s image has often been qualified as a (quasi) intellectual property right.¹⁰⁵

¹⁰¹ See François Jongen, Alain Strowel and Edouard Cruysmans, *Droit des médias et de la communication* (Larcier 2017) 82ff and 337ff.

¹⁰² This is the rule in most copyright laws of Continental Europe. See Alain Strowel, *Droit d’auteur et copyright. Divergences et convergences* (LGDJ and Bruylant 1992). The same is true of US copyright law; however, the rule of ‘make for hire’ works creates an exception favouring what could be called a ‘corporate copyright’. The UK copyright law (CDPA) knows a special rule (sec 9(3) CDPA) providing that for computer-generated works (defined in sec 178 CDPA as works that are generated by a computer in circumstances such that there is no human author of the work) the author is the person ‘by whom the arrangements necessary for the creation of the work are undertaken’.

¹⁰³ See Thierry Léonard and Yves Poulet, ‘Les libertés comme fondement de la protection des données nominatives’, in François Rigaux (ed), *La vie privée est une liberté parmi d’autres?* (Larcier 1992) 231ff.

¹⁰⁴ C-145/10 *Eva-Maria Painer v Standard VerlagsGmbH* ECLI:EU:C:2011:798, para 92. The Court adds that ‘as regards a portrait photograph, the freedom available to the author to exercise his creative abilities’ is likely to exist (para 93).

¹⁰⁵ The right to one’s image, designated in the US as the *right of publicity*, is a real type of property and the object of many agreements, for example with celebrities. It has often been qualified as a (quasi) intellectual property right: see Julius CS Pinckaers, *From Privacy Towards a New Intellectual Property Right in Persona* (Kluwer 1996); Huw Beverley-Smith, Ansgar Ohly and Agnes Lucas-Schloetter,

The GDPR imposes additional constraints for the processing of sensitive data, that is, ‘data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership’ as well as ‘genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person’s sex life or sexual orientation’ (Art. 9). Here the focus is clearly to protect a person against interferences (not to grant the possibility to trade in those data).

It is also clear that the contractual practice regarding personal data (see section 2.3) shows far-reaching data appropriation (even if personal data are not completely tradable, and data markets are not fully operational due to pricing issues). But the rights conferred by data protection are becoming closer to property, and the move from the Directive 95/46/EC on the protection of individuals to the 2016 GDPR shows this propertisation of personal data.

3.3.2 A property right on personal data in the making?

In the US there is no horizontal protection of personal data, only of certain sensitive data or in certain contexts.¹⁰⁶ Those advocating a stronger privacy protection tend to rely on property,¹⁰⁷ as a means to take back control or as a rhetorical tool to convince of the need of this protection.¹⁰⁸ In Europe, the question whether the relation between the data subject and personal information has acquired a property-like nature is complex. If one thing is clear, it is that the data subject is not the ‘sole and despotic dominion’ that arguably characterises the real property owner (at least according to the emphatic and well-known definition set out by William Blackstone¹⁰⁹). That said, there is not one property, but many.¹¹⁰ Intellectual property is a species of property, and there are many subspecies of intellectual property. Is data protection one more of those subspecies? Some features of the protection seem to confirm this.

First, data protection laws grant an expanding bundle of rights. Under the former regime (the 95/46/CE directive on the protection of individuals with regard to the processing of personal data), the data subjects enjoyed numerous rights, such as the right to consent to data processing (Art. 7(a)); the right to be informed on the existence of a collection of data and of a processing of their data (Art. 10); the right to access the data collected by the data controller (Art. 12); the

Privacy, Property and Personality (CUP 2005); Théo Hassler, *Le droit à l’image des personnes: entre droit de la personnalité et propriété intellectuelle* (LexisNexis 2014).

¹⁰⁶ See for a summary: Winston Maxwell, ‘La protection des données à caractère personnel aux Etats-Unis, convergences et divergences avec l’approche européenne’, October 2013, 71–78, paper available at <<https://www.hoganlovells.com/~media/french-content/pdf-and-publications/2016/6bis-wmaxwell.pdf?la=en>> accessed 14 October 2019.

¹⁰⁷ See Nadezhda Purtova, ‘Property in Personal Data: A European Perspective on the Instrumentalist Theory of Propertization’ (2010) 2 EJLS, <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2363634> accessed 14 October 2019. See also Nadezhda Purtova, *Property Rights in Personal Data: A European Perspective* (Wolters Kluwer 2011) 328.

¹⁰⁸ N Purtova quotes Lawrence Lessig, ‘Privacy as Property?’ (2002) 69(1) Social Research: An International Quarterly of Social Sciences 247–69: ‘Property talk is just how we talk about matters of great importance . . . If you could get people (in America, at this point in history) to see certain resource as property, then you are 90 percent to your protective goal.’

¹⁰⁹ 2 William Blackstone, Commentaries *2 (quoted by Cohen (n 10) 2). Interestingly this definition should be compared by the traditional definition of ownership in France and other civil law countries where the power of the owner on the corporeal thing has been described as an exclusive and full ‘jouissance-maîtrise’ enjoyment-master.

¹¹⁰ Cohen (n 10) 5ff.

right to oppose some processing of personal data, including for direct marketing (Art. 14); the right to obtain the data rectification, erasure or blocking (Art. 14 (b)); the right to the quality of the processed data and the right to a collection for specified, explicit and legitimate purposes (Art. 6); the right not to be subject to a decision which is based solely on automated processing of data (Art. 15). The 2016 GDPR expands the various rights of the data subjects in chapter III (Art. 12 and ff): the right to transparent information concerning the processing, whether the data have been obtained from the data subject or not (Arts 12 to 14); the right of access (Art. 15); the right to rectification (Art. 16) and the ‘right to be forgotten’ (Art. 17); the right to restriction of processing (Art. 18); the right to data portability (Art. 20; see below); the right to object to data processing (Art. 21); the right not to be subject to a decision based solely on automated processing, including profiling (Art. 22).

The rights included within copyright also grew over time and multiplied, either through legislative amendments or court decisions.¹¹¹ There are some similarities between the rights of the data subject and of an author: the right to oppose the disclosure of some data is close to the (moral) right of divulgation under copyright; the right to rectify data is akin to the (moral) right of attribution under copyright; the right to access the data mirrors the (moral and economic) right to access the initial copy (for example a painting) of the author; the right to be forgotten has something in common with the (moral) right to withdraw the work (*‘droit de repentir ou de retrait’*); the right to object to data processing is reminiscent of the (moral) right of integrity or respect of the author, and so on. The comparison could be made more systematically and in greater detail. However, most of the similarities concern the noneconomic (moral) aspects of copyright; this is because the rights of the data subjects, like the moral rights, are negative rights allowing a person to oppose some practices relating to the protected item (personal data or work). Those aspects of copyright relate to the right to deploy a personality or right of dignity, which is the fundamental right supporting both data protection and copyright. Contrary to copyright, however, personal data protection is not covered by the fundamental right protection of property. Some commentators think that the broad notion of ‘processing’, which includes many operations on data (the collection, recording, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, and so on: see Art. 4(2) GDPR) is comparable with the modes of exploitation known in intellectual property regimes.¹¹² But there is no right within the bundle of rights of data protection that confers a control over the data resource that is near to the control over the circulation of the work granted by the author’s economic rights (reproduction, communication to the public, distribution, adaptation).

Second, the new ‘right to data portability’ is a step forward in treating data as tradable. Although the focus of European data protection law ‘has never been to grant individuals an

¹¹¹ Comparing the expanding trajectories of the data protection and copyright bundles of rights would be interesting. For instance, copyright’s moral rights were first recognized by the courts before being embedded in statutes; regarding privacy, the right to be forgotten, or at least one of its facets, the right to be de-listed or de-referenced, was first recognized by C-131/12 *Google Spain v AEPD* ECLI:EU:C:2014:317), it is now specifically addressed under Article 17 GDPR, entitled ‘right to erasure (‘right to be forgotten’). Such comparison however goes well beyond the ambit of this chapter.

¹¹² Egbert J Dommering, ‘Property Rights in Personal Data: A European Perspective (Proefschrift van mr N Purtova)’ (2012) 22(1) *MvV* 22, 23. Strikingly, the words used to qualify the operation of ‘processing’ correspond to the names (but not necessarily to the content) of copyright’s rights (or to common forms of exploitation of works): recording, storage, adaptation, disclosure, making available, and so on.

economic right or complete autonomy in respect of their information’, ‘it is noteworthy that the GDPR introduces a new right for individuals which – while falling short of a property right, as such – could be seen as a step towards treating data as a commodity’.¹¹³ Article 20 GDPR indeed entitles any person to ‘the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided’. This entitlement, according to the Article 29 Working Party, applies to (i) information provided directly by the individual when registering his/her name, address, and so on, and (ii) the observed data about the individual that his/her use of the service reveal (search history, traffic data, location data). The application of the data portability right will of course raise many practical issues and resistance from commercial operators: it is in reality a procompetitive provision which intends to avoid lock-in practices. The inclusion of such a right favouring a real competition between the service providers (the data controllers) shows that data protection moves towards a tool for regulating the data market – and this is precisely what (intellectual) property rights stands for.

If the data are portable, data protection itself cannot be assigned. This contrasts with the copyright bundle of rights that can be transferred, for instance, to a legal entity (however, with the notable exception of moral rights under the Continental European laws). Does this demonstrate a real difference between data protection and a true property right? Not really.

Here is a third indication that data protection comes close to property: despite the unwaivability of data protection, persons commonly trade a lot of their data (not the whole of their data) in exchange for free services (see section 2.3). Through contracts concluded by a click, people grant permissions to use their data. Those operations are to be qualified as licenses, and the data subjects are becoming ‘repeat licensors’. In what could be called a generalized (cross-) licensing scheme, they often act as licensors for their data, and at the same time become licensees for the app, services and other software they use as counterpart.¹¹⁴ The number and scope of the data licences has the effect that although data protection remains inalienable as such, in practice very large segments of private life (think about Facebook) are traded. In intellectual property agreements, there is also an immaterial difference between an assignment and a (broadly drafted) license.

Fourth, data protection is still based on the protection of confidentiality, and, according to EJ Dommering, this is a basis for an economic self-determination of the personal data.¹¹⁵ To demonstrate this, EJ Dommering recalls the classic definition of privacy of Allan Westin:

Privacy is the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others. Viewed in terms of the relation of the individual to social participation, privacy is the voluntary and temporary withdrawal of a person from the general society.¹¹⁶

¹¹³ Anette Gärtner and Kate Brimsted, ‘Let’s Talk about Data Ownership’ [2017] 39(8) EIPR 465.

¹¹⁴ On this massive cross-licensing practice, see Alain Strowel, ‘Le licensing d’actifs immatériels à la lumière de la théorie des contrats relationnels’ (2016) 76 RIEJ 147.

¹¹⁵ Dommering (n 112) 24, who refers to his own contribution, ‘Van “Ja zuster, nee zuster” naar “Discodans”: de lange weg naar commerciële informatieprivacy’, in Dirk JG Visser (ed), *Commercieel portretrecht* (deLex 2009) 259–73.

¹¹⁶ Alan F Westin, *Privacy and Freedom* (The Bodley Head 1967) 7.

Confidentiality protection (what is called trade secret protection in Continental Europe) is commonly conferred by contractual constructions or by tort or unfair competition claims. But here again, as shown below, there is a move towards the propertisation of the protection.

3.4 Appropriation of Confidential Data through Trade Secret Protection

The 2016 Trade Secrets directive (hereafter, the ‘directive’)¹¹⁷ does not refer to data, but aims to harmonise and define the protection against certain unlawful acts in relation to some kind of information. Indeed, the trade secrets protection only applies in relation to

information which meets all of the following requirements: (a) it is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; (b) it has commercial value because it is secret; (c) it has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret. (Art. 2(1))

Information which is valuable because of its confidential nature has a broad coverage: it ‘extends beyond technological knowledge to commercial data’ (recital 2), as it recognises the importance of various type of data in the economy.¹¹⁸ Data on customers and suppliers, as well as more elaborated commercial information such as business plans, market research and strategies, are thus included. Data compilations and data analysis techniques could also fall under the definition of trade secrets.¹¹⁹ With Big Data, any data collected, even if trivial, might gain value through the new data analysis tools,¹²⁰ which find patterns and accordingly propose ads or services, and thus qualify for trade secret protection.¹²¹ Even personal data arguably could fall under the directive’s scope when it is valuable because it is kept confidential. Think about information relating to a future wedding or baby of a celebrity: some movie stars or famous football players, or their entourages, might take reasonable measures to keep the information confidential and grant exclusivity over the coverage of the event to a media company.¹²² Personal data can thus transform into business data. This shows that the legal silos separating data protection and trade secrets laws, for instance, should be questioned – and the approach followed here in terms of property rights and data appropriation aims precisely at this.

¹¹⁷ Directive 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure [2016] OJ L 157/1. For a commentary of the directive, see Vincent Cassiers and Alain Strowel, ‘La directive du 8 juin 2016 sur la protection des secrets d’affaires’, in *Le secret* (Anthemis 2017) 31–94.

¹¹⁸ See also recital 1 referring to ‘know-how and information which is the currency of the knowledge economy’.

¹¹⁹ See Aplin (n 84) 59–72.

¹²⁰ See Wiebe (n 48) 880.

¹²¹ Recital 14 states that the protection applies to information that ‘should have a commercial value, whether actual or potential’ (emphasis added). Data out of which relevant trends are extracted by big data tools can have a potential value although trivial as such.

¹²² See the discussion of this issue by Tanya Aplin, ‘A Critical Evaluation of the Proposed EU Trade Secrets Directive’ (2014) 4 IPQ 257.

That said, the directive does not support a property approach of the trade secret protection.¹²³ On the contrary. Recital 16 seems clear about this: ‘In the interest of innovation and to foster competition, the provisions of this directive should not create any exclusive right on the knowhow or information protected as trade secrets’. The directive considers trade secret protection ‘as a complement or as an alternative to intellectual property rights’ (recital 2). And, as noted by Aplin, Article 2(2) of the directive does not refer to the owner of a trade secret, but defines the ‘trade secret holder’ as ‘any natural or legal person lawfully controlling a trade secret’. Those are signs that the trade secret directive is not about creating an additional property right, which is to be welcomed.¹²⁴

However, when comparing the existing piecemeal approach to trade secret protection in the EU Member States with the harmonised regime,¹²⁵ there are signs of an alignment with intellectual property protection.

First, the directive, whose main achievement is to harmonise the remedies, procedures and measures available in case of a trade secret violation (chapter III of the directive), provides for remedies largely built on the civil enforcement measures defined for intellectual property rights in the 2004 Enforcement directive.¹²⁶ There is however one notable exception – the civil search or *saisie-contrefaçon* procedure, comparable with the Anton Piller Orders in the UK.¹²⁷ If we rely on the view that the available legal remedies reflect the underlying rationale of the

¹²³ See the discussion on the nature of confidentiality, the common law equivalent to trade secrets, in William Van Caenegem, *Trade Secrets and Intellectual Property* (Wolters Kluwer 2014) 15ff and 23ff. The property approach is characteristic of the US. For example, the US Supreme Court in *Ruckelshaus v Monsanto* stated that ‘trade secrets have many of the characteristics of more tangible forms of property. A trade secret is assignable. A trade secret can form the *res* of a trust, and it passes to a trustee in bankruptcy’ (467 US 986 (1984)). As a consequence, trade secrets can be considered as property for the purpose of the ‘takings’ clause in the US Constitution. Of course, because ‘information is not amenable to possession, depletion or deprivation’ (Van Caenegem, 18), any right related to information or data differs from the property control that applies to tangible objects.

¹²⁴ Tanya Aplin, ‘Right to Property and Trade Secrets’ in C Geiger (ed), *Research Handbook on Human Rights and Intellectual Property* (Edward Elgar 2015) 421–37.

¹²⁵ Most countries use unfair competition law to protect trade secrets, but some base the protection on general tort law (France), contract law principles, or labour law. On the ambivalent UK approach refusing to consider confidential information as property, but sometimes recognising it as intellectual property, leading thus to a ‘taxonomical oddity’: see Lionel Bently, ‘Trade Secrets: “Intellectual Property” But Not “Property”?’’, in Helena R Howe and Jonathan Griffiths (eds), *Concepts of Property in Intellectual Property Law* (CUP 2013) 60–93. The contractual practice relating to trade secrets shows a stronger association with property in certain countries. Terms such as ‘assignment’, ‘sale’ or ‘asset transfers’ are used in common law countries; in contrast, in countries relying on tort law (such as France), transactions regarding confidentiality will not come near to contracts on tangible goods.

¹²⁶ Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights [2002] OJ L 157/45.

¹²⁷ Article 7 of the enforcement directive, entitled ‘Measures for preserving evidence’, provides for this remedy, which is not recognized in the trade secrets directive. Ironically, the leading case that created the Anton Piller Orders was about the blunt misappropriation of confidential information: see *Anton Piller KG v Manufacturing Processes Ltd & Ors* [1975] EWCA Civ 12 [1976] 1 All ER 779 (8 December 1975), and the discussion of this case by Alain Strowel and Vicky Hanley, ‘The Anton Piller Case and Its Legacy: In Search of a Balance in Civil Search’ in Christopher Heath and Anselm Kamperman Sanders (eds), *Landmark Intellectual Property Cases and Their Legacy* (Wolters Kluwer 2011) 105–20.

legal protection,¹²⁸ then the European framework points towards the (intellectual) property nature of trade secrets. However, the trigger for trade secret violation – that is, the ‘unlawful acquisition, use or disclosure’ of the secret – vindicates a liability approach based on the condemnation of improper behaviour. Trade secret protection under the EU directive is thus not really property, but has the remedial aspect of a property-like protection.

Second, the directive expands the protection in the direction of a property right when it offers the same remedies in relation to the ‘infringing goods’. This arguably goes beyond what is conferred by existing protections based on tort, unfair competition or patent law.¹²⁹ ‘Infringing goods’ are defined as ‘goods, the design, characteristics, functioning, production process or marketing of which significantly benefits from trade secrets unlawfully acquired, used or disclosed’ (Art. 1(4)). The possibility to obtain measures against the embodiment of the trade secret violation in infringing goods points to the propertisation of trade secret protection.

The discussion on the nature of trade secrets protection is complex and goes beyond this chapter whose main objective is to compare the various property-like protections on data. Trade secrets protection arguably belongs to that category. What is at least clear with trade secret protection is that the two other tools for appropriating data (see section 2.2 on the triangle of appropriation) are involved: indeed, trade secret protection relies on contractual measures (NDAs, confidentiality clauses in employment contracts, and so on) as well as on technical and organisational measures (access codes, keys, and so on) to preserve the confidential aspect of some valuable information or data.

4. CONCLUSION

With the increasing use of data in the so-called data economy, the regulation of data has become an issue of utmost importance. To make sense of the recent legal developments in the EU, it is important to compare fields that at first sight look separate, such as intellectual property, data protection and trade secrets. The two important conceptual lenses of property rights and data appropriation (as distinguished above) help in this regard. This chapter has shown how some existing property rights are reshaped or reframed because individuals or commercial operators claim additional controls on various types of data. It also listed various arguments against the demands for ownership on nonpersonal data or the extension of existing intellectual property right on data-related operations (such as TDM). The chapter has thus addressed some issues relating to the need to free up or facilitate data access.¹³⁰

Additional research should be conducted to respond to the legitimate questions raised by D Boyd and K Crawford: ‘much of the enthusiasm surrounding big data stems from the perception that it offers easy access to massive amounts of data. But who gets access? For what

¹²⁸ This view was for instance adopted by James Hill, ‘Trade Secrets, Unjust Enrichment, and the Classification of Obligations’ (1999) 4 Va JL & Tech 2, 45.

¹²⁹ See Aplin (n 122) 268–69.

¹³⁰ In addition to sections 2.1.1 and 2.2, see section 1.4 on the open data initiatives and the review of the PSI directive.

purposes? In what contexts? And with what constraints?’¹³¹ For instance, competition law might impose new data access requirements. There are other relevant topics relating to data freedom, for instance in international trade agreements.

On one side, there are strong forces arguing for property-like protections of data, so as to reinforce data appropriation (including data localisation); equally, a strong wind is favouring the free flow of data and open data.

The future orientation of data regulation in the EU is not yet clear. A lively discussion around data regulation will likely continue with the increasing importance of data access for the development of artificial intelligence based on machine learning.

¹³¹ Danah Boyd and Kate Crawford, ‘Critical Questions for Big Data’ (2012) 15 *Information, Communication and Society* 662, 673.

7. User generated content: towards a new use privilege in EU copyright law

Martin Senftleben

1. INTRODUCTION

User generated content (UGC) is a core element of many internet platforms. With the opportunity to upload photos, films, music and texts, formerly passive users have become active contributors to (audio-)visual content portals, wikis, online marketplaces, discussion and news fora, social networking sites, virtual worlds and repositories of academic papers.¹ Today's internet users upload a myriad of literary and artistic works every day.² A delicate question arising from this user involvement concerns copyright infringement. UGC may consist of self-created works and public domain material. However, it may also include unauthorized takings of third party material that enjoys copyright protection.³ As UGC has become a mass phenomenon and a key factor in the evolution of the modern, participative web,⁴ this problem raises complex issues and requires the reconciliation of divergent interests: users, platform providers and copyright holders are central stakeholders.

In the European Union (EU), the UGC problem features prominently in the debate about a so-called value gap in the online distribution of copyrighted content.⁵ Traditionally, EU legislation in the field of e-commerce has shielded UGC platforms from liability for copyright infringement by offering a 'safe harbour' for hosting: as long as the platform provider was not actively involved in the posting of content, he only was obliged to take immediate action and remove content when a rights holder informed him in a sufficiently precise and substantiated manner about infringing content (notice and takedown).⁶ The safe harbour system rested on

¹ See the overview of UGC application that is provided in OECD, 12 April 2007, 'Participative Web: User-Created Content', Doc DSTI/ICCP/IE(2006)7/Final, available at www.oecd.org/sti/38393115.pdf accessed 13 October 2019.

² For example, statistics relating to the online platform YouTube report more than one billion users uploading 300 hours of video content every minute. Cf <www.youtube.com/intl/en-GB/yt/about/press/> and <www.statisticbrain.com/youtube-statistics/> accessed 13 October 2019.

³ For a discussion of different forms of UGC and the degree of creative input by users themselves, see Edward Lee, 'Warming Up to User-Generated Content' (2008) U Ill L Rev 1459, 1506–13 and the overview provided by JP Triaille, S Dusollier, S Depreeuw, JB Hubin, F Coppens and A de Francquen, Study on the Application of Directive 2001/29/EC on Copyright and Related Rights in the Information Society. Study prepared by De Wolf and Partners in collaboration with the Centre de Recherche Information, Droit et Société (CRIDS), University of Namur, on behalf of the European Commission (DG Markt), Brussels: European Union 2013, 455–57.

⁴ As to the use and discussion of this term, see OECD (n 1).

⁵ For an overview of the discussion on UGC prior to the current copyright reform proposals in the EU, see Triaille and Dusollier et al (n 3) 457–510.

⁶ E-Commerce Directive 2000/31/EC, art 14(1). As to CJEU decisions dealing with this liability privilege, see CJEU, 23 March 2010, Case C-236/08, *Google/Louis Vuitton*, paras 114–118; CJEU, 12 July 2011, Case C-324/09, *L'Oréal/eBay*, paras 120–22. For commentary, see Christina Angelopoulos,

the assumption that a general monitoring obligation would be too heavy a burden for platform providers. Without the safe harbour, the liability risk would thwart the creation of internet platforms depending on third party content and frustrate the development of ecommerce.⁷

In its 2015 communication 'Towards a modern, more European copyright framework', however, the European Commission took the view that the liability privilege allowed UGC platforms to generate income without sharing profits with producers of creative content (value gap).⁸ Accordingly, the new Directive on Copyright in the Digital Single Market (DSM Directive) renders the safe harbour for hosting inapplicable when it comes to copyrighted works.⁹ This position differs markedly from the traditional liability regime.¹⁰ The neutralization of the safe harbour substantially changes the climate surrounding the use and dissemination of UGC. It erodes the legal certainty resulting from the previous liability privilege. UGC platform providers are expected to enter into agreements with copyright owners and apply content filtering technology to ensure the unavailability of protected works for which no license is granted.¹¹

Without prior authorization, content portals can thus no longer provide access to the wide variety of works that are uploaded by users with diverse social, cultural and ethnic backgrounds. Instead, online platforms are likely to display predominantly licensed (mainstream) content. At the same time, copyright law becomes a central basis for content censorship in the online world. Instead of serving as an engine of content creation and dissemination,¹² it degenerates into a censorship and filtering tool with a corrosive effect on freedom of expression, freedom to conduct a business and the protection of personal data.¹³

European Intermediary Liability in Copyright: A Tort-Based Analysis (Kluwer Law International 2016); Martin Husovec, *Injunctions Against Intermediaries in the European Union – Accountable But Not Liable?* (CUP 2017); Miquel Peguera, 'The DMCA Safe Harbour and Their European Counterparts: A Comparative Analysis of Some Common Problems' (2009) 32 Colum JL & Arts 481.

⁷ E-Commerce Directive 2000/31/EC, art 15(1).

⁸ European Commission, 'Towards a modern, more European copyright framework' (Document COM (2015) 626 final 9–10).

⁹ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC, OJ 2019 L 130, 92, art 17(3).

¹⁰ See Martin RF Senftleben, 'Bermuda Triangle: Licensing, Filtering and Privileging User-Generated Content Under the New Directive on Copyright in the Digital Single Market' (2019) 41 EIPR 480–490.

¹¹ See DSM Directive, art 17(4) (n 9).

¹² As to this goal of the copyright system, see US Supreme Court, *Harper & Row v Nation Enterprises*, 471 US 539 (1985), III B, characterizing copyright as an 'engine of free expression'. For a detailed analysis of the democracy-enhancing function of copyright, see NW Netanel, 'Copyright and a Democratic Civil Society' (1996) 106 Yale LJ 283.

¹³ See Martin RF Senftleben, Christina Angelopoulos, Giancarlo F Frosio, Valentina Moscon, Miguel Peguera and Ole-Andreas Rognstad, 'The Recommendation on Measures to Safeguard Fundamental Rights and the Open Internet in the Framework of the EU Copyright Reform' (2018) 40 EIPR 149; Christina Angelopoulos, 'On Online Platforms and the Commission's New Proposal for a Directive on Copyright in the Digital Single Market' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2947800> accessed 13 October 2019; Giancarlo F Frosio, 'From Horizontal to Vertical: An Intermediary Liability Earthquake in Europe' (2017) 12 JIPLP 565–75; Giancarlo F Frosio, 'Reforming Intermediary Liability in the Platform Economy: A European Digital Single Market Strategy' (2017) 112 NWULR 19; RM Hilty and V Moscon, 'Modernisation of the EU Copyright Rules – Position Statement of the Max Planck Institute for Innovation and Competition', *Max Planck Institute for Innovation and Competition Research Paper* No 17-12, Max Planck Institute for Innovation and Competition (2017); RM Hilty and

In the light of these severe consequences, the time has come to explore alternative solutions. At the core of the neutralization of the safe harbour for hosting lies the aim to ensure a fair remuneration for the online distribution of copyrighted content. However, this fair remuneration need not flow from licensing and filtering agreements between platform providers and copyright owners. Alternatively, EU legislation offers room for a new copyright limitation infrastructure that covers the creation and dissemination of UGC.¹⁴

To generate a revenue stream for copyright holders, this exemption of UGC would have to include the obligation to pay equitable remuneration. As Matthias Leistner and Axel Metzger have rightly observed, existing EU legislation in the field of private copying could serve as a model for this alternative solution.¹⁵ Under Article 5(2)(b) of the Information Society Directive (ISD),¹⁶ natural persons enjoy the freedom of copying literary and artistic works ‘for private use and for ends that are neither directly nor indirectly commercial, on condition that the rightholders receive fair compensation’. To fulfil the requirement of fair compensation, many national copyright systems in the EU impose an obligation on manufacturers and importers of relevant blank media and copying devices to pay copyright levies to a collecting society.¹⁷ The manufacturers and importers are supposed to pass on these levy costs to end users (beneficiaries of the exemption of private copying) by adding these costs to the price of their products.¹⁸

V Moscon, ‘Contributions by the Max Planck Institute for Innovation and Competition in Response to the Questions Raised by the Authorities of Belgium, the Czech Republic, Finland, Hungary, Ireland and the Netherlands to the Council Legal Service Regarding Article 13 and Recital 38 of the Proposal for a Directive on Copyright in the Digital Single Market’ <www.ip.mpg.de/>; CREATE et al, ‘Open Letter to Members of the European Parliament and the Council of the European Union’ <www.create.ac.uk/policy-responses/eu-copyright-reform/>; E Rosati, ‘Why a Reform of Hosting Providers’ Safe Harbour Is Unnecessary under EU Copyright Law’ (2016) *CREATE Working Paper* 2016/11 <<https://ssrn.com/abstract=2830440>>; S Stalla-Bourdillon, E Rosati, MC Kettemann et al, ‘Open Letter to the European Commission – On the Importance of Preserving the Consistency and Integrity of the EU Acquis Relating to Content Monitoring within the Information Society’ <<https://ssrn.com/abstract=2850483>>.

¹⁴ See DSM Directive, art 17(7) (n 9). For an assessment of this option, see Senftleben (n 10) 485–490; Triaille and Dusollier et al (n 3) 531–34.

¹⁵ Matthias Leistner, ‘Copyright Law on the Internet in Need of Reform: Hyperlinks, Online Platforms and Aggregators’ (2017) 12(2) *JIPLP* 146–49; Matthias Leistner and Axel Metzger, ‘Wie sich das Problem illegaler Musikknutzung lösen lässt’ (2017) *Frankfurter Allgemeine Zeitung* <www.faz.net/aktuell/feuilleton/medien/gema-youtube-wie-sich-urheberrechts-streit-schlichten-liesse-14601949-p2.html> accessed 13 October 2019. Cf Reto M Hilty and Martin RF Senftleben, ‘Rückschnitt durch Differenzierung? – Wege zur Reduktion dysfunktionaler Effekte des Urheberrechts auf Kreativ- und Angebotsmärkte’ in T Dreier and RM Hilty (eds), *Vom Magnettonband zu Social Media – Festschrift 50 Jahre Urheberrechtsgesetz (UrhG)* (C.H. Beck 2015) 317, 327–28.

¹⁶ Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the information society OJ 2001 L 167, 10.

¹⁷ CJEU case law reflects this configuration of many national private copying systems in the EU. See joined cases Case C-457/11 *Verwertungsgesellschaft Wort (VG Wort) v Kyocera and Others* [2013] ECR and C-458/11 *Canon Deutschland GmbH* [2013] ECR and C-459/11 *Fujitsu Technology Solutions GmbH* [2013] ECR and C-460/11 *Hewlett-Packard GmbH v Verwertungsgesellschaft Wort (VG Wort)* [2013] ECR paras 76–77; Case C-521/11 *Amazon.com International Sales and Others* [2013] ECR para 24; Case C-435/12 *ACI Adam and Others* [2014] ECR para 52; Case C-463/12 *Copydan Båndkopi* [2015] ECR para 23.

¹⁸ Case C-467/08 *Padawan* [2010] ECR I-10055, para 49; See joined cases Case C-457/11 *Verwertungsgesellschaft Wort (VG Wort) v Kyocera and Others* [2013] ECR and C-458/11 *Canon*

Taking the regulation of private copying as a reference point, a UGC exemption in EU copyright law could be configured as follows: users could remain free to create and upload content mashups and remixes. Providers of UGC platforms, however, would be obliged to pay fair remuneration for the dissemination of content that has been uploaded by users. They could finance the fair remuneration from advertising revenue or pass on the costs by charging users for platform use.

This alternative solution has the advantage of creating a continuous revenue stream for authors and performers. While licensing and filtering agreements between copyright owners and platform providers may predominantly benefit the creative industry, the repartitioning scheme of collecting societies receiving UGC levy payments could ensure that authors and performers obtain a substantial part of the UGC remuneration, even if they have transferred their copyright and neighbouring rights to exploiters of their works and performances.¹⁹ The value gap problem could thus be solved in a way that benefits not only the creative industry but also individual creators of content. The obligation to safeguard copyright limitations for ‘quotation, criticism, review’ and ‘caricature, parody or pastiche’ in Article 17(7) of the DSM Directive can serve as a basis for this approach.

To assess the feasibility of this alternative solution, it is necessary to clarify the concept of UGC that could underlie an initiative to introduce a new use privilege in EU copyright law (following section 2). Once these conceptual contours are clear, the general yardstick for copyright limitations in international and EU law – the so-called three-step test – must be factored into the equation to ensure compliance with international obligations and the EU *acquis* (section 3), before we turn to the exploration of implementation options (section 4) and offer concluding remarks (section 5).

2. USER GENERATED CONTENT

In its 2007 analysis of the participative web 2.0, the Organisation for Economic Co-operation and Development (OECD) identified three core characteristics of UGC. First, UGC ‘is published in some context, be it on a publicly accessible website or on a page on a social networking site only accessible to a select group of people’²⁰ (publication requirement). Second, UGC implies that ‘a certain amount of creative effort was put into creating the work or adapting existing works to construct a new one; i.e. users must add their own value to the

Deutschland GmbH [2013] ECR and C-459/11 *Fujitsu Technology Solutions GmbH* [2013] ECR and C-460/11 *Hewlett-Packard GmbH v Verwertungsgesellschaft Wort (VG Wort)* [2013] ECR paras 76–77.

¹⁹ In the context of repartitioning schemes of collecting societies, the individual creator has a relatively strong position. Cf Case C-572/13 *Hewlett-Packard Belgium* [2015] para 48. As to national case law explicitly stating that a remuneration right leads to an improvement of the income situation of the individual creator (and may be preferable over an exclusive right to prohibit use for this reason), see BVerfG Case I ZR 255/00 ‘*Elektronischer Pressespiegel*’ (2002) 14–15. For a discussion of the individual creator’s entitlement to income from the payment of equitable remuneration, see Guido Westkamp, ‘The “Three-Step Test” and Copyright Limitations in Europe: European Copyright Law Between Approximation and National Decision Making’ (2008) 56(1) CSUSA 55–59; João P Quintais, *Copyright in the Age of Online Access – Alternative Compensation Systems in EU Law* (Kluwer Law International 2017) 335–36, 340–41, 347–49 and 356–57; European Copyright Society, *Opinion on Reprobel* <<https://europeancopyrightsociety.org/opinion-on-reprobel/>> accessed 13 October 2019.

²⁰ OECD (n 1) 8.

work²¹ (creative effort requirement). Third, UGC is ‘generally created outside of professional routines and practices. It often does not have an institutional or a commercial market context. In the extreme, [UGC] may be produced by non-professionals without the expectation of profit or remuneration’ (requirement of creation outside of professional routines and practices).²²

The open nature of these core characteristics shows that it is difficult to define UGC.²³ The OECD characteristics shed light on common features of photo, film, music and text contributions of internet users. However, they hardly offer sufficient precision for the development of a copyright limitation covering the phenomenon. Nonetheless, the three core characteristics yield important insights. The requirement of creative effort makes it clear that UGC legislation is not intended to whitewash copyright piracy. Only if a user adds sufficient creativity to preexisting material and adds value by expressing his own thoughts, is it justified to qualify uploaded content as UGC. Similarly, the requirement of creation outside of professional routines and practices concerns an important factor: the UGC concept underlying a copyright limitation need not cover commercial creations. The envisaged use privilege can focus on uploads of users who do not seek to derive profit from uploaded material.

Bearing these first insights in mind, it becomes possible to examine text proposals that have been tabled in the context of the EU copyright reform. In September 2017, the Committee on Culture and Education of the European Parliament (CULT) recommended the adoption of the following copyright limitation in favour of UGC:

Where a natural person makes digital, non-commercial and proportionate use of short extracts or short quotations from works and other subject-matter in the creation of a new work he or she has uploaded, for the purpose of criticism, review, illustration, caricature, parody or pastiche, Member States may provide for an exception or limitation . . . provided that the extracts or quotations:

- (a) relate to works or other subject-matter that have already been lawfully made available to the public;
- (b) are accompanied by an indication of their source, including the author’s name, unless this turns out to be impossible; and
- (c) are used in accordance with fair practice and in a manner that does not extend beyond the specific purpose for which they are being used.²⁴

While it is laudable that the Committee devoted attention to the UGC problem and expressed support for a solution based on a new copyright limitation, the proposed text can hardly be deemed satisfactory. It fails to offer sufficient room. The restriction to use for ‘the purpose of criticism, review, illustration, caricature, parody or pastiche’ devalues the proposal when it is considered that EU copyright law already contains copyright limitations for these types of use. Article 5(3)(k) ISD allows Member States to introduce a copyright limitation covering ‘use for the purpose of caricature, parody or pastiche’. Article 5(3)(d) ISD permits the exemption of ‘quotations for purposes such as criticism or review’. The words ‘such as’ indicate that

²¹ *ibid.*

²² *ibid.*

²³ For a discussion of different concepts of UGC, see Quintais (n 19) 157–58; Triaille and Dusollier et al (n 3) 452–55.

²⁴ European Parliament, Committee on Culture and Education, *Opinion of the Committee on Culture and Education for the Committee on Legal Affairs on the proposal for a directive of the European Parliament and of the Council on copyright in the Digital Single Market* (Document) COM (2016) 0593 C8-0383/2016 2016/0280 (COD) Rapporteur: Marc Joulaud Amendment 60, Article 5a(1).

criticism and review are mere examples. Member States enjoy the freedom of identifying additional purposes that justify quotations. Arguably, the additional purpose mentioned in the CULT proposal – UGC that serves as an ‘illustration’ – is comparable with ‘criticism or review’ and falls within the scope of the existing right of quotation.²⁵

The UGC proposal of the CULT Committee, however, does not only repeat legitimate purposes which existing EU legislation – Article 5(3)(d) and (k) ISD – cover anyway. It also confines the scope of the proposed UGC privilege to ‘short extracts or short quotations’. This further restriction is sought in vain in Article 5(3)(d) and (k). The proposal of the CULT Committee, therefore, does not enhance the room for UGC. It further constrains UGC by limiting the scope of the use privilege to short takings from preexisting works.

Evidently, a UGC privilege with these restrictive features can hardly serve as an alternative solution of the value gap problem. With regard to private copying, the Court of Justice of the European Union (CJEU) left no doubt in *ACI Adam* that copyright holders are only entitled to the payment of fair compensation for unauthorized use that effectively falls within the scope of the underlying copyright limitation.²⁶ As Article 5(2)(b) ISD only allows private copying from a lawful source, national legislation is prevented from extending the use privilege to copies made from unlawful sources.²⁷ This has the corollary that national legislation is also prevented from providing for the payment of fair compensation for private downloads from illegal sources.²⁸ In line with this jurisprudence, the restriction of a UGC privilege to specific purposes and short takings in the CULT proposal would have the effect of also minimizing the revenue stream following from the payment of equitable remuneration. If the copyright limitation only covers specific forms of UGC, the revenue accruing from remuneration payments also remains limited to these specific forms.

A broader use privilege for UGC, by contrast, would generate more income: the broader the scope of the copyright limitation, the higher the amount of equitable remuneration. From this perspective, the proposal made by another Parliament Committee in the legislative debate is of particular interest. The Committee on the Internal Market and Consumer Protection (IMCO) recommended a mandatory copyright limitation that would permit

the digital use of quotations or extracts of works and other subject-matter comprised within user-generated content for purposes such as criticism, review, entertainment, illustration, caricature, parody or pastiche provided that the quotations or extracts

- (a) relate to works or other subject-matter that have already been lawfully made available to the public;
- (b) are accompanied by the indication of the source, including the author’s name, unless this turns out to be impossible; and
- (c) are used in accordance with fair practice and in a manner that does not extend beyond the specific purpose for which they are being used.²⁹

²⁵ National experiences with the right of quotation confirm this conclusion. See MRF Senftleben, ‘Quotations, Parody and Fair Use’ in PB Hugenholtz, AA Quaedvlieg and DJG Visser (eds), *A Century of Dutch Copyright Law – Auteurswet 1912–2012* (Amstelveen deLex 2012) 359–412. For an overview of the situation in different Member States, see Triaille and Dusollier et al (n 3) 465–73.

²⁶ Case C-435/12 *ACI Adam and Others* [2014] ECR paras 53–56.

²⁷ *ibid* para 37.

²⁸ *ibid* para 55–56.

²⁹ European Parliament, Committee on the Internal Market and Consumer Protection (IMCO) *Opinion of the Committee on the Internal Market and Consumer Protection for the Committee on Legal*

The Committee defined UGC as ‘an image, a set of moving images [with] or without sound, a phonogram, text, software, data, or a combination of the above, which is uploaded to an online service by its users’.³⁰ In comparison with the use privilege proposed by the CULT Committee, this draft provision of the IMCO Committee has clear advantages: the list of legitimate UGC purposes includes a reference to ‘entertainment’ which goes beyond the limitation purposes recognized in existing EU copyright legislation. Moreover, the list of privileged purposes is open-ended. The proposed UGC provision refers to purposes ‘such as’ criticism, review, entertainment, and so on. The enumerated purposes are thus only illustrations. Finally, the IMCO Committee also refrained from confining the copyright limitation to short takings. It generally allows ‘quotations or extracts’ without making it a condition that these takings be short. Given these flexible features, the use privilege proposed by the IMCO Committee seems a good starting point for the development of a UGC provision that could generate a considerable revenue stream and be capable of closing the value gap.

To complete the overview of legislative initiatives to create room for UGC, it is advisable to finally extend the analysis to Canadian copyright law. In section 29.21(1), the Canadian Copyright Act provides that it is not an infringement of copyright

for an individual to use an existing work or other subject-matter or copy of one, which has been published or otherwise made available to the public, in the creation of a new work or other subject-matter in which copyright subsists and for the individual – or, with the individual’s authorization, a member of their household – to use the new work or other subject-matter or to authorize an intermediary to disseminate it, if

- (a) the use of, or the authorization to disseminate, the new work or other subject-matter is done solely for non-commercial purposes;
- (b) the source – and, if given in the source, the name of the author, performer, maker or broadcaster – of the existing work or other subject-matter or copy of it are mentioned, if it is reasonable in the circumstances to do so;
- (c) the individual had reasonable grounds to believe that the existing work or other subject-matter or copy of it, as the case may be, was not infringing copyright; and
- (d) the use of, or the authorization to disseminate, the new work or other subject-matter does not have a substantial adverse effect, financial or otherwise, on the exploitation or potential exploitation of the existing work or other subject-matter – or copy of it – or on an existing or potential market for it, including that the new work or other subject-matter is not a substitute for the existing one.³¹

This Canadian example of an existing UGC privilege in the list of copyright limitations is of particular interest for at least three reasons. First, Section 29.21(1) explicitly addresses the aspect of dissemination. The use privilege covers not only the creation of UGC but also the authorization to disseminate UGC via an online platform. Second, section 29.21(1)(a) refers to the non-commercial nature of UGC. To be permissible, the use of, and the authorization to disseminate, UGC must be without profit motive. Third, section 29.21(1)(d) provides that the

Affairs on the proposal for a directive of the European Parliament and of the Council on copyright in the Digital Single Market (Document) COM (2016) 0593 – C8-0383/2016 – 2016/0280 (COD) Rapporteur: Catherine Stihler, Amendment 55, Article 5b(1).

³⁰ *ibid*, Amendment 37, Article 2(1), point 3a.

³¹ Copyright Act of Canada 1985, s 29.21(1).

use and authorization to disseminate UGC must not encroach upon the exploitation of copyrighted source material, for instance by acting as a substitute.³²

3. THREE-STEP TEST

Existing legislation in Canada and current proposals for UGC provisions in EU copyright law show that the concept of permissible UGC can differ markedly – from a confinement to short extracts and a prohibition of commercial use,³³ to an open-ended list of legitimate purposes, including entertainment, and no explicit prohibition of larger takings and commercial use.³⁴ The foregoing analysis also yields the insight that it is advisable to adopt a UGC privilege with a broad scope. In line with the CJEU decision in *ACI Adam*, the amount of fair remuneration following from the adoption of a UGC copyright limitation will be higher, the broader is the scope of the underlying use privilege.³⁵ As the current examination serves the purpose of exploring an alternative solution for the value gap problem in EU copyright law, it is important to determine the maximum scope of a copyright limitation for UGC. This maximum scope reflects the legislative solution with the highest potential to close the value gap by generating income for right holders on the basis of equitable remuneration payments.³⁶

In EU copyright law, Article 5(5) ISD delineates the maximum scope of permissible copyright limitations.³⁷ According to this general assessment tool, a copyright limitation shall only be applied ‘in certain special cases’ (step 1) which ‘do not conflict with a normal exploitation of the work or other subject-matter’ (step 2) and ‘do not unreasonably prejudice the legitimate interests of the rightholder’ (step 3). This three-step test reflects international obligations. Its test criteria follow from Article 9(2) of the Berne Convention (BC), Article 13 of the TRIPS Agreement (TRIPS), Article 10 of the WIPO Copyright Treaty (WCT) and Article 16 of the WIPO Performances and Phonograms Treaty (WPPT).³⁸ Traditionally, the three steps of the

³² For a discussion of the Canadian provision as a model for other countries, see PK Yu, ‘Can the Canadian UGC Exception Be Transplanted Abroad?’ (2014) 26 IPJ 175, 184–90.

³³ European Parliament, CULT Committee (n 24) Amendment 60, Article 5a.

³⁴ European Parliament, IMCO Committee (n 29) Amendment 55, Article 5b.

³⁵ Case C-435/12 *ACI Adam and Others* [2014] ECR paras 53–56.

³⁶ From this perspective, the IMCO proposal appears as the broadest and most convincing concept of the three legislative models. Cf Quintais (n 19) 203–05.

³⁷ Case C-435/12 *ACI Adam and Others* [2014] ECR paras 25–27. The described legislative proposals confirm the central role of the three-step test. Both Parliament Committees proposed to add the UGC privilege to the list of new copyright limitations under Title II of the DSM Directive. The last provision of Title II, however, was Article 6, which declared the three-step test of Information Society Directive, art 5(5) fully applicable to the new copyright limitations. See CULT Committee (n 24) and IMCO Committee (n 29) Amendment 56, art 6(1), which introduces an amendment that does not affect the applicability of Information Society Directive, art 5(5).

³⁸ Information Society Directive, Recital 15. With regard to the evolution of this ‘family’ of copyright three-step tests in international copyright law, see Martin RF Senftleben, *Copyright, Limitations and the Three-Step Test – An Analysis of the Three-Step Test in International and EC Copyright Law* (Kluwer Law International 2004) 43–98; Daniel Gervais, ‘Fair Use, Fair Dealing, Fair Principles: Efforts to Conceptualize Exceptions and Limitations to Copyright’ (2009–10) 57 CSUSA 499, 510–11; Annette Kur, ‘Of Oceans, Islands, and Inland Water – How Much Room for Exceptions and Limitations under the Three-Step Test?’ (2009) 8 Rich J Global L & Bus 287, 307–08; Sam Ricketson and Jane C Ginsburg, *International Copyright and Neighbouring Rights – The Berne Convention and Beyond* (OUP 2006)

test are applied cumulatively: a UGC privilege must pass all three steps to be found permissible. Moreover, the test procedure is traditionally seen as a step-by-step exercise: a copyright limitation for UGC must pass one step after another (subsections 3.1 to 3.3).³⁹

3.1 Certain Special Case

In United States – section 110(5) of the US Copyright Act, a WTO Panel discussed the test of ‘certain special case’ in the context of Article 13 TRIPS.⁴⁰ The Panel distinguished between the word ‘certain’ and the word ‘special’. It understood the term ‘certain’ to mean that a copyright limitation had to be clearly defined, while there was no need ‘to identify explicitly each and every possible situation to which the exception could apply, provided that the scope of the exception was known and particularised’.⁴¹ From the term ‘special’, the Panel derived the additional requirement that a limitation should be narrow in a quantitative as well as a qualitative sense.⁴² It summarized this twofold requirement as narrowness in ‘scope and reach’.⁴³ The application to section 110(5) of the US Copyright Act shows that, pursuant to the Panel’s conception, it is particularly the number of potential beneficiaries that must be sufficiently limited in order to comply with the quantitative aspect of speciality.⁴⁴ As to the qualitative aspect, the Panel eschewed an inquiry into the legitimacy of the public policy purpose underlying the adoption of a limitation.⁴⁵ In the Panel’s view, the qualitative aspect of speciality does not have a normative connotation. A limitation need not serve a special purpose to be qualified

759–63; Christophe Geiger, Daniel Gervais and Martin RF Senftleben, ‘The Three-Step Test Revisited: How to Use the Test’s Flexibility in National Copyright Law’ (2014) 29 AUILR 581, 583–91.

³⁹ For a more detailed discussion of these features and the resulting test procedure, see Senftleben (n 38) 125–33. For an alternative, more flexible approach seeing the different test criteria as an indivisible entirety requiring a comprehensive overall assessment, see Christophe Geiger, Jonathan Griffiths and Reto M Hilty, ‘Declaration on a Balanced Interpretation of the “Three-Step Test” in Copyright Law’ (2008) 39 IIC 707; Reto M Hilty, ‘Declaration on the Three-Step Test – Where Do We Go from Here?’ (2010) 1 JIPITEC 83.

⁴⁰ World Trade Organization, 15 June 2000, US Copyright Act, s 110(5) Report of the Panel, WTO Document WT/DS160/R. For a discussion of this WTO Dispute Settlement decision, see Geiger, Gervais and Senftleben (n 38) 593–97; Martin RF Senftleben, ‘Towards a Horizontal Standard for Limiting Intellectual Property Rights? WTO Panel Reports Shed Light on the Three-Step Test in Copyright Law and Related Tests in Patent and Trademark Law’ (2006) 37 IIC 407; Senftleben (n 38) 134–230; Mihály J Ficsor, ‘How Much of What? The Three-Step Test and Its Application in Two Recent WTO Dispute Settlement Cases’ (2002) 192 RIDA 111; Jo Oliver, ‘Copyright in the WTO: The Panel Decision on the Three-Step Test’ (2002) 25 Colum J L & Arts 119; David J Brennan, ‘The Three-Step Test Frenzy: Why the TRIPS Panel Decision might be considered Per Incuriam’ (2002) 2 Intellectual Property Quarterly 213; Jane C Ginsburg, ‘Toward Supranational Copyright Law? The WTO Panel Decision and the “Three-Step Test” for Copyright Exceptions’ (2001) 190 RIDA 13.

⁴¹ Report of the WTO Panel (n 40) para 6.108.

⁴² *ibid* para 6.109. Cf André Lucas, ‘Le “triple test” de l’article 13 de l’Accord ADPIC à la lumière du rapport du Groupe spécial de l’OMC “Etats-Unis – Article 110 (5) de la loi sur le droit d’auteur”’ in Peter Ganeva, Christopher Heath and Gerhard Schricker (eds) *Urheberrecht Gestern Heute Morgen, Festschrift für Adolf Dietz zum 65. Geburtstag* (C.H. Beck 2001) 423, 430, who insists on the combination of both aspects of speciality to ensure a sufficiently rigid standard of control.

⁴³ Report of the WTO Panel (n 40) para 6.112.

⁴⁴ *ibid* paras 6.127 and 6.143.

⁴⁵ *ibid* para 6.111.

as a special case in the sense of Article 13 TRIPS.⁴⁶ Instead, the Panel raised conceptual issues, such as the categories of works affected by a copyright limitation and the circumstances under which it may be invoked. In this vein, the Panel lent weight to the fact that one of the use privileges following from Section 110(5) of the US Copyright Act was found to be limited to dramatic renditions of operas and homestyle receiving apparatus.⁴⁷

If the criteria following from the WTO decision in *United States – section 110(5) of the US Copyright Act* are applied strictly, a UGC privilege in EU copyright law seems to have little chance of escaping the verdict of incompatibility with the international three-step test. The circle of beneficiaries is broad. As pointed out above, UGC plays an important role in today's participative web. It is a mass phenomenon. In the light of the criteria of the WTO Panel, a UGC privilege may also be problematic because it covers a wide range of literary and artistic works. Users upload photos, films, music and texts. Arguably, the use privilege is thus narrow in neither a quantitative nor a qualitative sense.

Nevertheless, the analysis need not come to an end here. As the example of Canadian UGC legislation shows, national lawmakers seem confident that a copyright limitation permitting the creation and dissemination of UGC can survive scrutiny in the light of the three-step test. Moreover, the approach taken by the WTO Panel in *United States – section 110(5) of the US Copyright Act* has convincingly been criticized for posing overly restrictive hurdles and stifling copyright limitations that are indispensable for the adaptation of copyright to the digital environment.⁴⁸ The status quo reached under the 1996 WIPO Copyright Treaty supports this critique. With regard to the three-step tests of Article 10 WCT, the Diplomatic Conference leading to the adoption of the WIPO 'Internet' Treaties formally adopted an Agreed Statement together with the treaty text itself.⁴⁹ This Agreed Statement makes it clear that the three-step test is not intended to pose obstacles to the evolution of new copyright limitations:

⁴⁶ *ibid* para 6.112. For literature statements supporting this view, see Ginsburg (n 40) 13; Sam Ricketson, *The Three-Step Test, Deemed Quantities, Libraries and Closed Exceptions* (Centre for Copyright Studies 2002) 31. For comments insisting on the importance of a policy analysis already at this first step of the test procedure, see Ficsor (n 40) 129–33 and 223–29; Senftleben (n 38) 138–52, who propose to require that limitations be justified by some clear reason of public policy.

⁴⁷ Report of the WTO Panel (n 40) paras 6.145, 6.146 and 6.159.

⁴⁸ As to the debate about the right interpretation of the open-ended three-step test, see Geiger, Gervais and Senftleben (n 38) 581; Geiger, Griffiths and Hilty (n 39) 707; Martin RF Senftleben, 'How to Overcome the Normal Exploitation Obstacle: Opt-Out Formalities, Embargo Periods, and the International Three-Step Test' (2014) 1(1) BTLJ 1; P Bernt Hugenholtz and Ruth L Okediji, *Conceiving an International Instrument on Limitations and Exceptions to Copyright* (Institute for Information Law/University of Minnesota Law School 2008) 21; Kamiel J Koelman, 'Fixing the Three-Step Test' (2006) EIPR 407; Christophe Geiger, 'From Berne To National Law, via the Copyright Directive: The Dangerous Mutations of the Three-Step Test' (2007) EIPR 486; Christophe Geiger, *The Role of the Three-Step Test in the Adaptation of Copyright Law to the Information Society* (January–March 2007) UNESCO e-Copyright Bulletin 3, 19; Jonathan Griffiths, 'The "Three-Step Test" in European Copyright Law: Problems and Solutions' [2009] IPQ 489; Daniel Gervais, 'Making Copyright Whole: A Principled Approach to Copyright Exceptions and Limitations' (2008) 3 UOLTJ 1, 30; Christophe Geiger, 'The Three-Step Test, a Threat to a Balanced Copyright Law?' (2006) 37 IIC 683.

⁴⁹ The WIPO Copyright Treaty and the WIPO Performance and Phonograms Treaty. Cf M Ficsor, 'The Spring 1997 Horace S Manges Lecture – Copyright for the Digital Era: The WIPO "Internet" Treaties' (1997) 21 Colum.-VLA J L & Arts 197.

It is understood that the provisions of Article 10 permit Contracting Parties to carry forward and appropriately extend into the digital environment limitations and exceptions in their national laws which have been considered acceptable under the Berne Convention. Similarly, these provisions should be understood to permit Contracting Parties to devise new exceptions and limitations that are appropriate in the digital network environment.

It is also understood that Article 10(2) neither reduces nor extends the scope of applicability of the limitations and exceptions permitted by the Berne Convention.⁵⁰

In the context of the Information Society Directive, this Agreed Statement is particularly relevant. Recital 15 ISD confirms that the Directive is intended to bring EU law in line with the international rules following from the WIPO 'Internet' Treaties. Against this background, it is important to read the EU three-step test of Article 5(5) ISD in the light of the international three-step tests laid down in Article 10 WCT and Article 16 WPPT, including the Agreed Statement which applies to both international provisions.⁵¹ From this international perspective, it would seem inconsistent if the first test of 'certain special case' prohibited the introduction of a UGC privilege from the outset.

In addition, it is to be considered that the requirement of a limited group of beneficiaries and a limited circle of affected works, if applied strictly, would also cast doubt upon long-standing copyright limitations which, to this day, have not been abolished because of non-compliance with the three-step test. The traditional exemption of private copying can serve as an example. Obviously, this copyright limitation also has a broad group of beneficiaries: everybody can act as a private person in private life. While UGC can be understood to require creative effort,⁵² this condition does not apply to private copying. The circle of beneficiaries is thus even broader than in the case of UGC. Moreover, private copying affects the whole canon of work categories. Nonetheless, private copying is qualified as a 'certain special case' in EU copyright law. In *ACI Adam*, the CJEU applied the three-step test to the exemption of digital private copying in Article 5(2)(b) ISD.⁵³ In this case, prejudicial questions had arisen from the Dutch regulation of private copying which covers the whole spectrum of literary and artistic works, and private users in general.⁵⁴ Despite this broad scope, the Court did not arrive at the conclusion that the Dutch copyright limitation for private copying failed to meet the test of 'certain special case'.⁵⁵

⁵⁰ Agreed Statement Concerning Article 10 WCT.

⁵¹ According to the Agreed Statement Concerning Article 16 WPPT, the Agreed Statement Concerning Article 10 WCT is also fully applicable in the context of neighbouring rights relating to performances and phonograms: 'The agreed statement concerning Article 10 (on Limitations and Exceptions) of the WIPO Copyright Treaty is applicable mutatis mutandis also to Article 16 (on Limitations and Exceptions) of the WIPO Performances and Phonograms Treaty.'

⁵² OECD (n 1) 8.

⁵³ Case C-435/12 *ACI Adam and Others* [2014] ECR paras 38–41.

⁵⁴ For a detailed analysis of the evolution of a broad private copying privilege in Dutch copyright law, see DJG Visser, 'Private Copying' in PB Hugenholtz, AA Quaedvlieg and DJG Visser (eds), *A Century of Dutch Copyright Law – Auteurswet 1912–2012* (Amstelveen: deLex 2012) 413–41.

⁵⁵ Instead, the CJEU (n 53), in paras 39–40, concluded that private copying on the basis of illegal sources would adversely affect a work's normal exploitation and unreasonably prejudice copyright holders. These considerations concern steps 2 ('no conflict with a normal exploitation') and 3 ('no unreasonable prejudice to legitimate interests') of the three-step test. If the Court had been of the opinion that a broad private copying privilege failed step 1 ('certain special case'), it would not have reached these subsequent steps 2 and 3.

Therefore, it seems that the decision of the WTO Panel in United States – section 110(5) of the US Copyright Act did not shed light on all assessment factors that may become relevant in the context of the test of ‘certain special case’. A central dimension of the analysis remained opaque: the WTO Panel eschewed an inquiry into the normative justification underlying a copyright limitation. In the Panel’s view, a limitation did not have to serve a special purpose to be qualified as a special case in the sense of Article 13 TRIPS. The Panel stated explicitly that

a limitation or exception may be compatible with the first condition even if it pursues a special purpose whose underlying legitimacy in a normative sense cannot be discerned. The wording of Article 13’s first condition does not imply passing judgment on the legitimacy of the exceptions in dispute.⁵⁶

This consideration aims at additional room for copyright limitations: national lawmakers are free to adopt a copyright limitation without being obliged to provide a sound policy objective that justifies the inroads into the exclusive rights of copyright owners. However, it does not mean that, in case a clear and sound policy objective exists, this objective could not be factored into the equation.

The control of private copying activities on the basis of copyright is undesirable because it would encroach upon the right to privacy.⁵⁷ Furthermore, the privilege of private copying allows all members of society access to literary and artistic works for the purpose of study and enjoyment – regardless of class and income. A copyright limitation permitting people to learn of intellectual works by taking autonomous decisions on which kind of information they want to access, is a powerful decentralized instrument for spreading information. Access to diverse literary and artistic productions enables individuals to participate in the intellectual life of society. In the digital environment, the private copying privilege prevents a ‘digital divide’ of society.⁵⁸ It allows all members of society to obtain knowledge of the cultural landscape. The private study and enjoyment of literary and artistic works does not remain a privilege of elitist circles who can afford access to a broad spectrum of information resources. To achieve this societal goal, it is necessary to make the use privilege available across all segments of society. The circle of beneficiaries must be broad. Otherwise, the exemption of private copying could not prevent a digital divide of society. Moreover, the use privilege must apply to all work categories. A confinement to specific works or specific work categories would compromise the objective to provide access to all facets of the cultural landscape.

In the light of the objective underlying the exemption of private copying, the broad scope of the use privilege – in terms of beneficiaries and affected work categories – thus becomes understandable. It also becomes apparent that, despite this broad field of application, the exemption of private copying is a ‘certain special case’ in the sense of the three-step test. The special character, however, does not follow from the confinement to a specific user group or a specific type of literary and artistic productions. By contrast, it is special because it concerns

⁵⁶ Report of the WTO Panel (n 40) para 6.112.

⁵⁷ See German Federal Court of Justice, Case Ib ZR 4/63, ‘Personalausweise’, *Gewerblicher Rechtsschutz und Urheberrecht* (1965) 104, 106. Cf Natali Helberger and P Bernt Hugenholtz, ‘No Place Like Home for Making a Copy: Private Copying in European Copyright Law and Consumer Law’ (2007) 22 *BTJ* 1061, 1068–69.

⁵⁸ Cf Niva Elkin-Koren, ‘Cyberlaw and Social Change: A Democratic Approach to Copyright in Cyberspace’ (1996) 14 *AELJ* 215, 265–69.

the private sphere (right to privacy)⁵⁹ and serves the important purpose of preventing a digital divide of society by offering all members access to the cultural landscape (right to information).⁶⁰ Even though a strong public policy objective does not constitute a precondition for compliance with the test of ‘certain special case’, it is nonetheless central to the assessment: it justifies a potentially broad scope of a copyright limitation and gives the use privilege a special character that satisfies the test.⁶¹

For similar reasons, a UGC privilege in copyright law constitutes a ‘certain special case’. As in the case of private copying, fundamental rights play a decisive role. UGC has led to a revolution in the creation and dissemination of online content: formerly passive users have become active participants.⁶² With users sharing their own works as well as remixes and mashups of third party productions, the creation and dissemination of content via the internet has become more democratic. Instead of being dependent on selection mechanisms and dissemination channels of the creative industry, users can make their creations directly available to others.⁶³ Content dissemination via UGC platforms may have a disruptive effect on incumbent industries which face competition from non-professional content providers.⁶⁴ Quite clearly, however, UGC creation and dissemination substantially enhance freedom of expression (of UGC creators) and freedom of information (of UGC audiences) in the digital environment. Besides professional content that has been selected by traditional creative industries, UGC platforms offer access to an unprecedented variety of content for mainstream and niche audiences. This enhancement of freedom of expression and information is a central justification for the adoption of a copyright limitation for UGC.⁶⁵ It shows that the legislative decision to introduce a UGC privilege rests on the public policy objective to reconcile the copyright owner’s right to property with freedom of expression and information of users.⁶⁶

⁵⁹ Charter of Fundamental Rights of the European Union, art 8. Cf Helberger and Hugenholtz (n 57) 1068–69.

⁶⁰ Charter of Fundamental Rights of the European Union, art 11. Cf Elkin-Koren (n 58) 265–69.

⁶¹ See Ficsor (n 40) 129–33 and 223–29 and Senftleben (n 38) 138–52, who, in the context of the test of ‘certain special case’, underline the importance of a clear reason of public policy that is capable of justifying the adoption of a copyright limitation.

⁶² Cf Niva Elkin-Koren, ‘User-Generated Platforms’ in Rochelle C Dreyfuss, Diane L Zimmerman and Harry First (eds), *Working Within the Boundaries of Intellectual Property* (OUP 2010), ch 5, 111–12; Rochelle C Dreyfuss, Diane L Zimmerman and Harry First (eds), *Working within the Boundaries of Intellectual Property* (Oxford University Press 2010) 111, 111–12.

⁶³ Lee (n 3) 1459–1462.

⁶⁴ OECD (n 1) 5.

⁶⁵ Lee (n 3) 1499–1505. Cf Yochai Benkler, ‘Coase’s Penguin, or, Linux and the Nature of the Firm’ (2002) 112 Yale LJ 369, 414–22.

⁶⁶ See Article 17(2) of the Charter of Fundamental Rights of the European Union, on the one hand, and Article 11 of the Charter, on the other. As to the need to strike an appropriate balance, see Case C-145/10 *Painer* [2011] I-12533 paras 132–34; Case C-201/13 *Deckmyn and Vrijheidsfonds* [2014] ECR paras 25–27. Cf Christophe Geiger, ‘“Constitutionalising” Intellectual Property Law? The Influence of Fundamental Rights on Intellectual Property in the European Union’ (2006) 37 IIC 371; Alain Strowel, F Tulkens and Dirk Voorhoof (eds), *Droit d’auteur et liberté d’expression* (Larcier 2006); P Bernt Hugenholtz, ‘Copyright and Freedom of Expression in Europe’ in Niva Elkin-Koren and Neil Weinstock Netanel (eds), *The Commodification of Information* (Kluwer 2002) 239; Sandro Macciachini, *Urheberrecht und Meinungsfreiheit* (Bern Stämpfli 2000); Yochai Benkler, ‘Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain’ (1999) 74 NYU L Rev 355; Neil Weinstock Netanel, ‘Copyright and a Democratic Civil Society’ (1996) 106 Yale LJ 283.

As in the case of private copying, this fundamental rights dimension justifies and defines the conceptual contours of the resulting copyright limitation. To allow UGC to revolutionize the process of content selection and dissemination, corresponding use privileges must have a broad circle of beneficiaries. If the scope of the copyright limitation is confined to an elitist group of creators, the unprecedented enrichment of online content will not occur. In addition, a UGC privilege must cover the whole spectrum of literary and artistic works. Otherwise, the full potential for enhancing freedom of expression and information cannot be realized. The fundamental rights dimension of UGC thus justifies the broad scope of copyright limitations in this area. As a measure to strike a proper balance between intellectual property protection and freedom of expression and information, a copyright limitation for UGC is a 'certain special case'. It is the result of a legislative initiative to establish an equilibrium between two fundamental rights.

This justification of UGC privileges, however, comes at a price. The copyright limitation is only special in the sense of the three-step test because of its strong freedom of expression underpinning. Hence, it is a *conditio sine qua non* that UGC reflects a sufficient degree of creative effort. For an act of content creation and dissemination to fall within the scope of a copyright limitation for UGC, it must refrain from mere copying and sharing of pre-existing content. Instead, the privileged user must add value to protected source material. Without an enhancement of pre-existing thoughts and expressions, the freedom of expression argument would lose its validity and the copyright limitation would lose the special character which is indispensable for satisfying the test of 'certain special case'. Hence, only a UGC copyright limitation that requires creative effort is capable of passing the first step of the three-step test. Not surprisingly, section 29.21(1) of the Canadian Copyright Act only exempts the use of pre-existing material 'in the creation of a new work or other subject-matter in which copyright subsists'. The use of protected source material must culminate in the creation of new expression that has added value.

3.2 No Conflict with a Normal Exploitation

Turning to the second test of 'no conflict with a normal exploitation', the WTO Panel dealing with section 110(5) of the US Copyright Act interpreted the term 'exploitation' as a reference to 'the activity by which copyright owners employ the exclusive rights conferred on them to extract economic value from their rights to [musical] works'.⁶⁷ In this context, the Panel distinguished between an empirical and a normative meaning of the word 'normal'. While the first connotation of the term 'normal' appeared to be 'of an empirical nature, i.e. what is regular, usual, typical or ordinary', the second connotation reflected 'a somewhat more normative, if not dynamic, approach, i.e., conforming to a type or standard'.⁶⁸

With regard to the empirical aspect, the WTO Panel accepted the US approach asking 'whether there are areas of the market in which the copyright owner would ordinarily expect to exploit the work, but which are not available for exploitation because of [the exemption at issue]'.⁶⁹ Accordingly, uses from which an owner would not ordinarily expect to receive compensation were not regarded as parts of a normal exploitation. Seeking to give meaning also to

⁶⁷ Report of the WTO Panel (n 40) para 6.165.

⁶⁸ *ibid* para 6.166.

⁶⁹ *ibid* paras 6.177–6.178.

the normative aspect of the word ‘normal’, the Panel had recourse to the work of a study group preparing the 1967 Stockholm Conference for the Revision of the Berne Convention.⁷⁰ In particular, it attached importance to the conclusion that ‘all forms of exploiting a work, which have, or are likely to acquire, considerable economic or practical importance, must be reserved to the authors’.⁷¹ The Panel inferred from this formula that it was appropriate to consider, ‘in addition to those forms of exploitation that currently generate significant or tangible revenue, those forms of exploitation which, with a certain degree of likelihood and plausibility, could acquire considerable economic or practical importance’.⁷² On its merits, the normative aspect, therefore, served as a vehicle to widen the perspective. It allowed the Panel to factor into the equation both currently existing and potential future markets when determining a conflict with ‘a normal exploitation of the work’.

UGC does not constitute a part of a work’s normal exploitation in the sense of the empirical aspect in the WTO Panel’s analysis. UGC is a relatively new phenomenon that has evolved in the participative environment of web 2.0. Copyright owners can hardly assert that UGC creation and dissemination constitutes a segment of their traditional exploitation strategy, and that they ordinarily expect to make money in this area. While it is true that UGC platforms play a central role in the EU value gap debate,⁷³ the central point of this debate is that copyright owners ought to be remunerated properly for the use of their works in the context of UGC creation and dissemination. This implies that, at present, it is felt that copyright owners do not have sufficient exploitation opportunities. UGC is not a current mode of exploitation, but a potential new source of income.

Hence, an assessment based on the normative aspect of ‘normal exploitation’ is the only remaining option. According to the WTO Panel, this requires an assessment of whether the use of protected material in the context of UGC – with a certain degree of likelihood and plausibility – could acquire ‘considerable economic or practical importance’.⁷⁴ From the outset, this test should be understood to concern only those possibilities of marketing a work which typically constitute a major source of income and belong to the economic core of copyright.⁷⁵ To identify these major sources of income, the overall commercialization of work categories affected by UGC must be considered.⁷⁶ In consequence, the assessment of a conflict with a normal exploitation culminates in the question whether copyright owners are divested of a potential major source of income that could carry weight within the overall commercialization of works of a relevant category.⁷⁷

Considering the dimension of UGC in today’s digital environment, one might be tempted to answer this question in the affirmative. However, this conclusion would neglect the conceptual contours of relevant UGC. By definition, only those forms of UGC play a role which incorporate protected third party content. Uploads of own creations or public domain material do not

⁷⁰ For a description of the work of the study group, see Ficsor (n 40) 115–21.

⁷¹ Report of the WTO Panel (n 40) para 6.179. The study group was composed of representatives of the Swedish government and the United International Bureaux for the Protection of Intellectual Property (BIRPI).

⁷² Report of the WTO Panel, *ibid*, para 6.180.

⁷³ European Commission (n 9) 9–10.

⁷⁴ Report of the WTO Panel (n 40) para 6.180.

⁷⁵ Senftleben (n 38) 184–89.

⁷⁶ *ibid* 189–93.

⁷⁷ *ibid* 193–94. Cf Yu (n 32) 195–96.

require the invocation of a copyright limitation. In the case of UGC containing relevant third party content, the question arises whether every upload, in fact, is a missed opportunity to commercialize underlying works. Arguably, many users would simply refrain from uploading and sharing content if they had to obtain a licence from the copyright owner first. It is conceivable that users would ignore the obligation to obtain a licence and leave right holders empty-handed (apart from the option of having recourse to enforcement measures).⁷⁸ It is thus doubtful whether the market for UGC licences is promising to such an extent that it can be deemed a potential *major* source of royalty revenue in the overall commercialization of affected works. It seems more realistic that UGC licensing would only lead to some extra income that supplements the lion's share of revenue accruing from other modes of exploitation. Hence, UGC does not constitute a market segment with considerable economic or practical importance in a work's overall commercialization. Both meanings of 'normal exploitation' that played a role in the WTO Panel's analysis – the empirical dimension and the more normative dimension⁷⁹ – do not point in the direction of a conflict with a normal exploitation.

However, the CJEU developed additional criteria that are relevant to a legislative initiative in the EU. In *ACI Adam*, the CJEU found that a private use privilege that permitted the making of personal copies from an unlawful source 'would encourage the circulation of counterfeited or pirated works, thus inevitably reducing the volume of sales or of other lawful transactions relating to the protected works, with the result that a normal exploitation of those works would be adversely affected'.⁸⁰

Similarly, the Court held in *Stichting Brein (Filmspeler)* that a conflict with a normal exploitation arose from temporary acts of reproducing protected works on a multimedia player with add-ons that provided links to illegal streaming websites because 'that practice would usually result in a diminution of lawful transactions relating to the protected works'.⁸¹ Apart from the empirical and normative dimension of 'normal exploitation' identified by the WTO Panel, it is thus necessary to ask whether a copyright limitation kills demand for literary and artistic works by acting as a substitute.

To avoid a conflict with a normal exploitation, it is thus necessary that UGC has sufficient features of its own to prevail over the original features of underlying third party content. In practice, this need not be an insurmountable hurdle. If a user posts a hilarious animal video with background music stemming from a third party, other users are likely to watch the video because of the funny animal and not because of the music. Hence, the animal video has sufficient value of its own to avoid an encroachment upon the normal exploitation of the background music. UGC can thus escape the verdict of a conflict with a normal exploitation even if it does not substantially change pre-existing content. It is sufficient when UGC follows from 'merely adding, subtracting or associating some pre-existing content with other pre-existing content'⁸² as long as the enriched and/or remixed material has sufficient own attractiveness to avoid a substitution effect.

⁷⁸ For a discussion of this phenomenon, see Alexander Peukert, 'Why Do "Good People" Disregard Copyright on the Internet?' in Christoph Geiger (ed), *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar 2012) 151–67.

⁷⁹ Report of the WTO Panel (n 40) para 6.166.

⁸⁰ Case C-435/12 *ACI Adam and Others* [2014] ECR para 39.

⁸¹ Case C-527/15 *Stichting Brein* [2017] ECR para 70.

⁸² Triaille and Dusollier et al (n 3) 455 and Quintais (n 19) 158 also base their analysis on this broad concept that does not establish a high threshold for assuming sufficient creative effort.

The question of a potential substitution effect is also important for another reason. As already explained, section 29.21(1) of the Canadian Copyright Act provides for an exemption of the use and dissemination of UGC. Subsection (a) of this copyright limitation, however, makes it a condition that the use and authorization to disseminate be done ‘solely for non-commercial purposes’. This requirement of non-commercial use has the potential to reduce the scope of the copyright limitation substantially. If interpreted strictly, it could mean that not only the act of creation but also the subsequent dissemination must be of a non-commercial nature. As UGC platforms often derive profit from advertising, this confinement to non-commercial dissemination minimizes the scope of the use privilege and, consequently, the pool of UGC platforms liable to contribute to the payment of equitable remuneration.⁸³ A strict requirement of use for non-commercial purposes, therefore, thwarts the objective to use the adoption of a UGC privilege to close the value gap. A copyright limitation for the creation and dissemination of UGC must be broad enough to generate a sizeable amount of equitable remuneration.

Fortunately, the test of ‘no conflict with a normal exploitation’ does not necessitate a confinement to strictly non-commercial use. Long-standing EU copyright limitations that involve creative effort confirm this conclusion. The right of quotation laid down in Article 5(3)(d) ISD and the parody exemption following from Article 5(3)(k) ISD do not require that privileged use be of a non-commercial nature. By contrast, quotations and parodies may fall within the scope of these copyright limitations even if they are published in commercial media, such as professional press publications.⁸⁴ A quotation or parody only becomes excessive and impermissible if it predominantly consists of third party content and has insufficient individual features of its own.⁸⁵ Given the UGC requirement of creative effort that forges a link with quotations and parodies (in the sense of a shared freedom of expression dimension),⁸⁶ it is consistent to rely on the same principles in the context of UGC. A confinement to non-commercial use is thus unnecessary to meet the test of ‘no conflict with a normal exploitation’. This does not mean that the commercial nature of channels of UGC dissemination plays no role in the analysis. It only means that this is not a decisive factor in the context of the second criterion of the three-step test. The following third criterion prohibits an unreasonable prejudice to legitimate interests of copyright holders. This final test constitutes a refined proportionality analysis that allows the weighing of all interests involved, including the right holder’s interest in receiving a share of the advertising revenue accruing from the dissemination of derivative UGC creations.⁸⁷

⁸³ UGC platforms falling outside the scope of the copyright limitation are not obliged to pay equitable remuneration because they do not benefit from the use privilege. Cf, by analogy, the jurisprudence of the CJEU in the area of private copyright, Case C-435/12 *ACI Adam and Others* [2014] ECR paras 53–56.

⁸⁴ For instance, *Nederlandse Jurisprudentie* Damave Trouw, (1993) 205 para 3.3.

⁸⁵ For instance, *Nederlandse Jurisprudentie* Zienderogen Kunst (1991) 268 para 3.3.

⁸⁶ See the discussion of UGC as permissible quotations and parodies in Triaille and Dusollier et al (n 3) 464–82 and 518–20. As to the general need to reconcile copyright protection with freedom of expression, see the literature references (n 66).

⁸⁷ Senftleben (n 38) 243–44.

3.3 No Unreasonable Prejudice to Legitimate Interests

The WTO Panel's analysis of the test of 'no unreasonable prejudice to legitimate interests' remained limited to the interest in the economic value of the exclusive rights conferred by copyright. In the absence of any objections raised by the parties, the Panel could readily qualify this interest as legitimate.⁸⁸ With regard to the expression 'not unreasonably prejudice', the Panel noted that any copyright limitation, by definition, caused some detriment to right holders because it reduced the scope of exclusive rights. This led to the insight that in order not to erode copyright limitations altogether, 'a certain amount of prejudice has to be presumed justified as "not unreasonable"'.⁸⁹ The Panel concluded that 'prejudice to the legitimate interests of right holders reaches an unreasonable level if an exception or limitation causes or has the potential to cause an unreasonable loss of income to the copyright owner'.⁹⁰

For several reasons, a copyright limitation for UGC is unlikely to overstep this threshold of an 'unreasonable loss of income'. As already indicated, the third criterion of the three-step test constitutes a refined proportionality test. Under this final test, not each and every interest of right holders becomes relevant. Only 'legitimate' interests are to be factored into the equation. Furthermore, not each and every prejudice to legitimate interests is relevant. Only 'unreasonable' prejudices are unacceptable. The third step, therefore, offers several filters that transform it into a refined balancing exercise: the legitimacy of the interests invoked by right holders are to be weighed against the reasons justifying the use privilege.⁹¹

As already discussed, breathing space for UGC creation and dissemination substantially enhances freedom of expression and information in the digital environment.⁹² Against this background, it is not 'unreasonable' to adopt a copyright limitation for the creation and dissemination of UGC. The need to reconcile competing fundamental rights – freedom of expression on the one hand, and the right to intellectual property on the other⁹³ – offers a solid basis for the adoption of a UGC copyright limitation.

Nonetheless, an 'unreasonable prejudice' to legitimate income expectations of right holders may follow from the breadth of the use privilege. Even though a copyright limitation for UGC rests on a strong justificatory basis, the use privilege may appear problematic because it covers numerous acts of use. In addition, UGC platforms are often commercial undertakings that derive profit from the presentation and dissemination of UGC. Even if a user creation has sufficient original features of its own to eliminate the risk of a disguised exploitation of protected source material, the fact remains that, as a derivative work, it includes elements of third party creations which form part of the dissemination via UGC platforms. Against this backdrop, it is important to consider an additional feature of the test of 'no unreasonable prejudice to legitimate interests'. When the first three-step test in international copyright law – the test of Article 9(2) BC – was adopted at the 1967 Stockholm Conference for the Revision of the

⁸⁸ Report of the WTO Panel (n 40) para 6.226.

⁸⁹ *ibid* para 6.229.

⁹⁰ Report of the WTO Panel (n 40) para 6.229.

⁹¹ Senfleben (n 38) 127–33; Martin RF Senfleben, 'How to Overcome the Normal Exploitation Obstacle: Opt-Out Formalities, Embargo Periods, and the International Three-Step Test' (2014) 1(1) BTLJ Commentaries 1, 7–8.

⁹² Lee (n 3) 1499–1505.

⁹³ See the literature references (n 66). Cf Yu (n 32) 196.

Berne Convention, the report on the work of Main Committee I (the Committee dealing with the three-step test) provided the following example of the functioning of the test:

A practical example might be photocopying for various purposes. If it consists of producing a very large number of copies, it may not be permitted, as it conflicts with a normal exploitation of the work. If it implies a rather large number of copies for use in industrial undertakings, it may not unreasonably prejudice the legitimate interests of the author, provided that, according to national legislation, an equitable remuneration is paid. If a small number of copies is made, photocopying may be permitted without payment, particularly for individual or scientific use.⁹⁴

Hence, the payment of equitable remuneration was regarded as a factor capable of tipping the scales in favour of a finding of compliance: it reduces the unreasonable prejudice arising from the exemption of ‘a rather large number of copies for use in industrial undertakings’ to a permissible reasonable level. With this additional balancing tool, the widespread use of UGC in the participative web 2.0 and the commercial nature of many UGC platforms no longer pose insurmountable hurdles. Providing for the payment of equitable remuneration, the legislator can reduce the prejudice flowing from UGC creation and dissemination to an acceptable level. Following this strategy, a new copyright limitation for UGC can fulfil all criteria of the three-step test: users can enjoy the freedom of using protected works as a basis for remixes and mash-ups if UGC platforms pay equitable remuneration for subsequent UGC dissemination. As a result, the new UGC privilege generates income and closes the value gap. This solution is in line with the regulation of private copying in the EU: Article 5(2)(b) ISD permits the mass phenomenon of unauthorized digital private copying ‘on condition that the rightholders receive fair compensation’.

4. IMPLEMENTATION OPTIONS

As to the practical implementation of this solution – the introduction of a new UGC privilege and the payment of equitable remuneration – EU copyright law offers different options: EU Member States can readily adopt a national copyright limitation for UGC creation and dissemination on the basis of existing harmonized rules (section 4.1). Alternatively, a new copyright limitation could follow from a future reform of EU copyright law (section 4.2).

4.1 Regulation of UGC under Existing Copyright Standards

In the field of copyright limitations, EU Member States have traditionally refrained from exhausting the full potential of flexibilities in the EU *acquis*. The catalogue of permissible copyright limitations in Article 5 ISD offers underexplored avenues for the development of new use privileges.⁹⁵ Admittedly, the CJEU adhered to the traditional dogma of a strict

⁹⁴ See WIPO, Report of the Work of the Main Committee I (Svante Bergström, Rapporteur) in WIPO, Records of the Intellectual Property Conference of Stockholm, June 11 to July 14, 1967 Vol II (Geneva, 1971), 1145–46.

⁹⁵ P Bernt Hugenholtz and Martin RF Senftleben, *Fair Use in Europe: In Search of Flexibilities* (Institute for Information Law, VU Centre for Law and Governance 2011) 29–30. For a discussion of new UGC use privileges under the umbrella of EU copyright law, see Triaille and Dusollier et al (n 3)

interpretation of copyright limitations in *Infopaq*. The Court pointed out that, according to established case law:

the provisions of a directive which derogate from a general principle established by that directive must be interpreted strictly . . . This holds true for the exemption provided for in Article 5(1) of Directive 2001/29, which is a derogation from the general principle established by that directive, namely the requirement of authorisation from the rightholder for any reproduction of a protected work.⁹⁶

In *Football Association Premier League*, however, this decision did not hinder the Court from emphasizing with regard to the same exemption – transient copying in the sense of Article 5(1) ISD – the need to guarantee the proper functioning of the limitation and ensure an interpretation that takes due account of the exception’s objective and purpose. The Court explained that, in spite of the required strict interpretation, the effectiveness of the limitation had to be safeguarded.⁹⁷ On the basis of these considerations, the Court concluded that the transient copying at issue in *Football Association Premier League*, performed within the memory of a satellite decoder and on a television screen, was compatible with the three-step test of Article 5(5) ISD.⁹⁸

For the purposes of the present inquiry, it is of particular interest that in *Painer*, the Court confirmed this line of argument with regard to the right of quotation laid down in Article 5(3)(d) ISD. The Court underlined the need for an interpretation of the conditions set forth in Article 5(3)(d) that enables the effectiveness of the quotation right and safeguards its purpose.⁹⁹ More specifically, it clarified that Article 5(3)(d) was ‘intended to strike a fair balance between the right of freedom of expression of users of a work or other protected subject-matter and the reproduction right conferred on authors’.¹⁰⁰

In its further decision in *Deckmyn*, the CJEU followed the same path with regard to the parody exemption in Article 5(3)(k) ISD. As in *Painer*, the Court bypassed the dogma of a strict interpretation and underlined the need to ensure the effectiveness of the parody exemption,¹⁰¹ as a means to balance copyright protection against freedom of expression.¹⁰²

In the light of this jurisprudence, EU Member States may thus provide considerable breathing space for copyright limitations that support transformative use. As the decisions of the CJEU demonstrate, the fundamental guarantee of freedom of expression plays a crucial role in this context.¹⁰³ Relying on Article 11 of the EU Charter of Fundamental Rights and Article 10 of the European Convention on Human Rights, the CJEU could interpret the quotation right

522–27 and 531–34. In contrast to the present inquiry, the analysis conducted by Triaille and Dusollier et al, 522–27, does not focus specifically on the option of further developing the existing exemption of pastiches under Information Society Directive, art 5(3)(k). The discussion of a new copyright limitation (531–34) does not address the potential of a new UGC use privilege to serve as an instrument to close the value gap (which had not yet arisen in October 2013 when the report by Triaille and Dusollier et al was published).

⁹⁶ Case C-5/08 *Infopaq International* [2009] ECR paras 56–57.

⁹⁷ Case C-403/08 *Football Association Premier League and Others* [2011] paras 162–63.

⁹⁸ *ibid* 181.

⁹⁹ Case C-145/10 *Painer* [2011] I-12533 paras 132–33.

¹⁰⁰ *ibid*, para 134.

¹⁰¹ Case C-201/13 *Deckmyn and Vrijheidsfonds* [2014] ECR paras 22–23.

¹⁰² *ibid*, paras 25–27.

¹⁰³ As to the influence of expression on copyright, see the literature references in n 66.

and the parody exemption less strictly than limitations without a comparably strong freedom of speech underpinning. In both the *Painer* and the *Deckmyn* decisions, the Court emphasized the need to achieve a ‘fair balance’ between, in particular, ‘the rights and interests of authors on the one hand, and the rights of users of protected subject-matter on the other’.¹⁰⁴ The Court thus referred to quotations and parodies as user ‘rights’ rather than mere user ‘interests’.

Considering the described requirement of creative effort that adds value to underlying source material,¹⁰⁵ user-generated remixes and mash-ups of pre-existing content can be qualified as a specific form of transformative use falling under Article 11 of the EU Charter of Fundamental Rights and Article 10 of the European Convention on Human Rights. The CJEU’s line of reasoning stemming from quotation and parody cases is thus also relevant to UGC: as a copyright rule that seeks to strike a balance between copyright protection and freedom of expression, an exemption of UGC creation and dissemination must not be interpreted strictly.

Admittedly, the degree of transformative effort in UGC cases is not always comparable with the degree of transformation in quotation and parody cases. Instead of modifying or making a critical comment on the expression of source material, a user-generated remix or mash-up may simply combine pre-existing works with the user’s own creation. When a broad concept of quotation is applied, the remix or mash-up character of UGC need not pose an obstacle to the invocation of the right of quotation. As Lionel Bently and Tanya Aplin have argued, it is incompatible with the international quotation standard laid down in Article 10(1) BC to limit the scope of the quotation right by adding requirements, such as shortness, non-modification, incorporation, referencing back or distinctness. Instead, the ordinary meaning which the term has across the entire spectrum of work categories should serve as a basis for tracing the conceptual contours of ‘quotation’.¹⁰⁶ Nonetheless, it is conceivable that UGC includes a protected work without ‘quoting’ it because the creative effort of the secondary user is limited and not directed at the included work. If pre-existing content is simply added to enrich UGC (as in the aforementioned example of background music for a funny animal video), it may be difficult to qualify the use as a permissible quotation. In these cases, the payment of equitable remuneration counterbalances the lower degree of creative investment in the transformation of source material. To the extent that the prejudice caused to the copyright owner seems unreasonable because of limited creative input, the payment of equitable remuneration reduces this unreasonable prejudice to a permissible, reasonable level.

Hence, a distinction must be drawn between parody and quotation cases, on one hand, and other forms of UGC, on the other. Insofar as UGC falls within the scope of the right of quotation or the parody exemption, neither a new use privilege nor equitable remuneration is necessary. Article 5(3)(d) ISD and Article 5(3)(k) ISD permit the implementation of these

¹⁰⁴ Case C-145/10 *Painer* [2011] I-12533 para 132; Case C-201/13 *Deckmyn and Vrijheidsfonds* [2014] ECR para 26.

¹⁰⁵ OECD (n 1) 8.

¹⁰⁶ Tanya Aplin and Lionel Bently, ‘Displacing the Dominance of the Three-Step Test: The Role of Global, Mandatory Fair Use’ in Wee Loon Ng, Haochen Sun and Shyam Balganes (eds), *Comparative Aspects of Limitations and Exceptions in Copyright Law* (CUP forthcoming) <<https://ssrn.com/abstract=3119056>> accessed 13 October 2019 6–8; Lionel Bently and Tanya Aplin, ‘Whatever Became of Global Mandatory Fair Use? A Case Study in Dysfunctional Pluralism’ in Susy Frankel (ed), *Is Intellectual Property Pluralism Functional?* (Edward Elgar 2019), ch 1, 28–31.

user rights,¹⁰⁷ without providing for the payment of remuneration.¹⁰⁸ If, by contrast, UGC falls outside the scope of the right of quotation and the parody exemption, a new use privilege and the payment of equitable remuneration is necessary to comply with the three-step test.¹⁰⁹

In *Deckmyn*, the CJEU provided guidelines for the development of new use privileges in the field of transformative use that can be put to good use in the context of UGC. The Court held that the meaning of the parody concept in Article 5(3)(k) ISD had to be determined by considering its usual meaning in everyday language, while also taking into account the context in which it occurs and the purposes of the rules of which it is part.¹¹⁰ On this basis, the Court arrived at the conclusion that ‘the essential characteristics of parody are, first, to evoke an existing work while being noticeably different from it, and, secondly, to constitute an expression of humour or mockery’.¹¹¹ Emphasizing the need to reconcile freedom of expression with copyright protection,¹¹² the Court rejected more restrictive conditions which had evolved under Belgian copyright law, namely the condition that a parody display an original character of its own, be reasonably attributable to a person other than the author of the original work and relate to the original work itself or mention the source of the parodied work.¹¹³

EU Member States seeking to devise a new use privilege for UGC creation and dissemination would thus have to find a concept in the list of permissible copyright limitations in Article 5(3) ISD, the usual meaning of which can be understood to cover user-generated remixes and mash-ups. Considering the need to strike a ‘fair balance’¹¹⁴ between copyright protection and freedom of expression, this quest for an appropriate reference point need not be based on the most restrictive reading of the terms used in Article 5(3) ISD. By contrast, Member States can rely on all facets of a word’s usual meaning in everyday language.¹¹⁵ Following this approach, Article 5(3)(k) ISD is of particular interest. The provision allows Member States to set limits to the right of reproduction and the right of communication to the public. Its scope is not confined to use in the context of ‘parody’. Article 5(3)(k) ISD also permits the exemption of use for the purpose of creating a ‘pastiche’.

The Merriam-Webster English Dictionary defines ‘pastiche’ as ‘a literary, artistic, musical, or architectural work that imitates the style of previous work’.¹¹⁶ It also refers to a ‘musical, literary, or artistic composition made up of selections from different works’.¹¹⁷ Similarly, the Collins English Dictionary describes a ‘pastiche’ as ‘a work of art that imitates the style of

¹⁰⁷ Case C-145/10 *Painer* [2011] I-12533 para 132; Case C-201/13 *Deckmyn and Vrijheidsfonds* [2014] ECR para 26.

¹⁰⁸ For an overview of national implementation practices confirming the absence of an obligation to pay equitable remuneration in quotation and parody cases, see Triaille and Dusollier et al (n 3) 465–72 and 476–81.

¹⁰⁹ As to the remaining dilemma of subjecting forms of creative use to the obligation to pay equitable remuneration, see Hilty and Senftleben (n 15) 328–29.

¹¹⁰ Case C-201/13 *Deckmyn and Vrijheidsfonds* [2014] ECR para 19.

¹¹¹ *ibid* para 20.

¹¹² *ibid* paras 25–27.

¹¹³ *ibid* para 21.

¹¹⁴ *ibid* para 27.

¹¹⁵ Emily Hudson, ‘The Pastiche Exception in Copyright Law: A Case of Mashed-Up Drafting?’ (2017) IPQ 346, 362–64.

¹¹⁶ Merriam-Webster English Dictionary, ‘Pastiche’ (Merriam-Webster English Dictionary, 2019) <www.merriam-webster.com/dictionary/pastiche> accessed 13 October 2019.

¹¹⁷ *ibid*.

another artist or period' and 'a work of art that mixes styles, materials, etc'.¹¹⁸ The aspect of mixing pre-existing materials and using portions of different works is of particular importance to the UGC debate. In many cases, the remix of pre-existing works in UGC leads to a new creation that 'mixes styles, materials etc' and, in fact, is 'made up of selections from different works'. Hence, the usual meaning of 'pastiche' encompasses forms of UGC that mix different source materials and combine selected parts of pre-existing works.¹¹⁹

Existing EU copyright law, thus, already contains a concept that can serve as a basis for the introduction of a copyright limitation for UGC. Until now, EU Member States have not made effective use of this option to regulate UGC at the national level. Instead of clearly articulating the intention to create a UGC copyright limitation when permitting pastiches, they simply included the word 'pastiche' in their national legislation without explaining its relevance to UGC creation and dissemination. Article 18b of the Dutch Copyright Act, for example, exempts the reproduction and communication to the public of protected works 'in the framework of a caricature, parody or pastiche' without placing the pastiche element of this copyright limitation in the context of UGC and providing guidelines for its application.¹²⁰ As a result, the exemption of pastiche can hardly be expected to support amateur creators embarking on the remix of pre-existing material. To remedy this shortcoming, EU Member States should take a fresh look at the concept of 'pastiche', supplement their national portfolio of copyright limitations with a pastiche exemption and clarify that this use privilege is intended to cover UGC.¹²¹ To close the value gap, EU Member States should impose an obligation to pay equitable remuneration on UGC platforms in this context (the platforms, in turn, could pass on the costs to users or use advertising revenue to finance the UGC levy).

In national systems which already provide for the exemption of pastiches, the courts play a crucial role. Accepting the pastiche provision as a valid defence against infringement arguments in UGC cases, they can pave the way for the recognition of the pastiche privilege as a copyright limitation covering user-generated remixes of protected works. The courts also have a crucial role to play in the creation of revenue streams that close the value gap. In fact, a court-made obligation to pay equitable remuneration is not an anomaly in the European copyright tradition. In a 1999 case concerning the Technical Information Library Hannover, the German Federal Court of Justice, for example, permitted the library's practice of copying and dispatching scientific articles on request by single persons and industrial undertakings.¹²² The

¹¹⁸ Collins English Dictionary, 'Pastiche' (Collins English Dictionary, 2019) <www.collinsdictionary.com/dictionary/english/pastiche> accessed 13 October 2019.

¹¹⁹ See the detailed analysis conducted by Hudson (n 115) 348–52, which confirms the elastic, flexible meaning of the term encompassing 'the utilisation or assemblage of pre-existing works in new works': *ibid* 363. Cf Quintais (n 19) 235, who also points out that the concept of 'pastiche' can be understood to go beyond a mere imitation of style. In line with the results of the study tabled by Triaille and Dusollier et al (n 3) 534–41, Quintais, *ibid*, 237, nonetheless expresses a preference for legislative reform. This preference, however, need not prevent Member States from paving the way for reform by experimenting with the existing concept of pastiche.

¹²⁰ For a discussion of the objectives underlying the adoption of this copyright limitation in the Netherlands, see Senftleben (n 38) 365. See also the official government document explaining the implementation of the Information Society Directive, Tweede Kamer 2001–2, 28 482, Nr 3 (Memorie van Toelichting), 53. As to similar experiences in the UK, see Hudson (n 115) 351–52.

¹²¹ As to guidelines for a sufficiently flexible application of the pastiche exemption in the light of the underlying guarantee of free expression, see Hudson (n 115) 362–64.

¹²² German Federal Court of Justice, Case I ZR 118/96, 'TIB Hannover' *Juristenzeitung* 1000.

legal basis of this practice was the copyright limitation for personal use in § 53 of the German Copyright Act (as in force at that time). Under this provision, the authorized user needed not produce the copy herself but was free to ask a third party to make the reproduction on her behalf. The Court admitted that the dispatch of copies came close to a publisher's activity.¹²³ Nonetheless, it refrained from putting an end to the library practice by assuming a conflict with the normal exploitation of affected scientific works. Instead, the German Federal Court of Justice deduced an obligation to pay equitable remuneration from the three-step test in international copyright law and permitted the continuation of the information service on the condition that equitable remuneration be paid.¹²⁴

Under harmonized EU copyright law, the CJEU adopted a similar approach. In *Technische Universität Darmstadt*, the Court recognized an 'ancillary right'¹²⁵ of libraries to digitize books in their holdings for the purpose of making these digital copies available via dedicated reading terminals on the library premises. To counterbalance the creation of this broad use privilege, the Court deemed it necessary – in light of the three-step test – to insist on the payment of equitable remuneration. Discussing the compliance of German legislation with this requirement, the Court was satisfied that the conditions of the three-step test were satisfied because German libraries had to pay adequate remuneration for the act of making works available on dedicated terminals after digitization.¹²⁶

Hence, it is not unusual for courts in the EU to establish an obligation to pay equitable remuneration with regard to use privileges that have a broad scope. The courts derive the obligation to pay equitable remuneration from the three-step test in international and EU copyright law. Considering this practice, there can be little doubt that judges in EU Member States that already provide for an exemption of pastiches could supplement this use privilege with an obligation to pay equitable remuneration when it comes to user-generated pastiches that are disseminated via online platforms.

4.2 Addition of New Copyright Limitation to EU Acquis

In the framework of a future reform of EU copyright law, the EU legislator could also go beyond the rudimentary reference to 'pastiche' in Article 5(3)(k) ISD and regulate UGC in more detail. The above-described proposal of the IMCO Committee of the European Parliament could serve as a reference point. In the light of the foregoing analysis, this proposal could be refined in several respects. First, it seems necessary to add an obligation to pay equitable remuneration. Otherwise, the new limitation will not close the value gap. Second, it does not seem advisable to refer to quotations and parody. These forms of using pre-existing content do not require the payment of equitable remuneration. A user-generated quotation or parody that satisfies all conditions of Article 5(3)(d) or (k) ISD should therefore be kept outside a new UGC privilege that requires the payment of remuneration. Third, it seems advisable to clarify that the taking from pre-existing source material can be more extensive the stronger the creative input is. If UGC has sufficient original features of its own, even considerable takings

¹²³ *ibid* para 1004.

¹²⁴ *ibid* paras 1005–1007.

¹²⁵ Case C-117/13 *Eugen Ulmer* [2014] ECR para 48.

¹²⁶ *ibid* para 48.

are justifiable because a corrosive substitution effect is unlikely. The IMCO text could thus be modified as follows:

the digital use of takings from works and other subject-matter comprised within user-generated content for purposes such as ~~criticism, review,~~ entertainment, illustration, ~~caricature, parody~~ or pastiche provided that the rightholders receive fair compensation and the takings relate to works or other subject-matter that have already been lawfully made available to the public; are accompanied by the indication of the source, including the author's name, unless this turns out to be impossible; and are used in accordance with fair practice when considering the creative effort made by the user ~~and in a manner that does not extend beyond the specific purpose for which they are being used.~~

As to the calculation of the required amount of equitable remuneration ('fair compensation' in EU terminology),¹²⁷ new UGC legislation should include practical guidelines. In the area of private copying, the CJEU has not managed to develop parameters that put an end to the constant flow of prejudicial questions.¹²⁸ In *Padawan*, the Court held that the required amount of fair compensation had to be calculated 'on the basis of the criterion of the harm caused to authors of protected works by the introduction of the private copying exception'.¹²⁹ While this conception may appear correct from a theoretical point of view, it triggers complex debates about the right way of assessing private copying harm in practice.¹³⁰

Against this background, a different approach to the calculation of equitable remuneration in UGC cases seems preferable. Instead of focusing on potential harm flowing from UGC, it is advisable to recognize that UGC differs from private copying in that it requires creative effort.¹³¹ It is also important to bear in mind the overarching objective to close the value gap. Therefore, EU legislation should make it clear that, in this context, the payment of fair compensation arises from the desire to allow authors of pre-existing works to benefit from the success of UGC. As João Quintais has argued, it makes little sense to embark on a hypothetical calculation of the price that ought to be paid for UGC creation and dissemination in the absence of a functioning market. Instead, the amount of fair compensation should be aligned with the value which a UGC privilege has for users benefiting from the copyright limitation.¹³² This leads to an approximation of the notions of 'fair compensation' and 'appropriate reward'.¹³³ It culminates in the calculation of the amount owed 'by measuring users' willingness to pay through a method of contingent valuation'.¹³⁴

¹²⁷ Cf Information Society Directive, Recitals 35, 36, 38, 45 and art 5(2)(a), (b) and (e).

¹²⁸ For an overview of CJEU decisions in this area, see Wieke GL During, 'De billijke compensatie voor privékopieën: een overzicht van de rechtspraak van het Hof van Justitie' [2016] *Tijdschrift voor auteurs-, media- en informatierecht* 81–92.

¹²⁹ Case C-467/08 *Padawan* [2010] ECR I-10055, para 42.

¹³⁰ For a discussion of different impact factors, see TNO, SEO and IViR, *Ups and Downs – Economic and Cultural Effects of File Sharing on Music, Film and Games*, TNO Report 34782 (TNO 2009) 89–102.

¹³¹ As to the mitigating effect of this factor, see Hilty and Senftleben (n 15) 328–29.

¹³² Quintais (n 19) 293–94.

¹³³ *ibid* 381.

¹³⁴ *ibid* 395. As to the promising results of studies based on this calculation method, see Christian Handke, Balázs Bodó and Joan-Josep Vallbé, 'Going Means Trouble and Staying Makes It Double: The Value of Licensing Recorded Music Online' (2016) 40 *J Cult Econ* 227–59; Joan-Josep Vallbé, Balázs Bodó, Balázs Christian Handke and João Quintais, 'Knocking on Heaven's Door – User Preferences on

It is also important to take appropriate legislative steps to prevent an overly complicated levy payment procedure. As UGC is an internet phenomenon, online platforms liable to pay equitable remuneration should not be exposed to the challenge of clearing remuneration rights in each individual EU Member State.¹³⁵ Departing from attempts to enhance competition on the rights clearance market that have led to increasingly fragmented portfolios of online rights,¹³⁶ copyright owners should be obliged to establish a ‘one-stop shop’ for the clearance of equitable remuneration rights in respect of the entire EU territory and all affected rights owners. To achieve this goal, the EU legislator could even consider the establishment of a central EU collecting society that has exclusive competence to collect equitable remuneration payments for the dissemination of UGC.

5. CONCLUSION

The current value gap debate in the EU has led to the neutralization of the safe harbour for hosting to generate licensing revenue for the dissemination of UGC. However, a closer analysis of the breathing space for new copyright limitations in international and EU law shows that the adoption of a new use privilege for the creation and dissemination of UGC could serve as an alternative solution. If such a new use privilege is combined with the obligation to pay equitable remuneration, a new copyright limitation in the field of UGC creation and dissemination satisfies all requirements of the three-step test. In addition, it would create a new revenue stream that could close the value gap. In comparison with the erosion of the safe harbour for hosting, the adoption of a new use privilege for UGC has the important advantage of avoiding an encroachment upon fundamental rights and safeguarding the open, participative web 2.0. It also has the advantage of generating a revenue stream that benefits not only the creative industry but also individual creators.

In EU Member States that provide for the exemption of ‘pastiche’ in line with Article 5(3) (k) ISD, this alternative solution could become a reality without additional legislative steps. Construing ‘pastiche’ as a concept that encompasses user-generated remixes and mash-ups, and adding an obligation to pay equitable remuneration, national courts could develop a copyright limitation and a revenue stream for UGC. On the basis of prejudicial questions, the CJEU could provide guidance in this process. In the framework of a future copyright reform, the EU legislator could also take the steps necessary to arrive at a UGC privilege. An EU initiative allows a more detailed regulation that clarifies the conceptual contours of permissible UGC

Digital Cultural Distribution’ (2015) Institute for Information Law <<https://ssrn.com/abstract=2630519>> accessed 13 October 2019.

¹³⁵ For a detailed analysis of current EU rights clearance challenges in the digital environment, see Sebastian Felix Schwemer, *Licensing and Access to Content in the European Union – Regulation Between Copyright and Competition Law* (CUP 2019).

¹³⁶ European Commission, ‘Summary of Commission Decision of 16 July 2008 relating to a proceeding under Article 81 of the EC Treaty and Article 53 of the EEA Agreement’ (Case COMP/C-2/38.698 – CISAC), COM (2008) OJ C 323, 12; European Commission, 18 May 2005, ‘Commission Recommendation on Collective Cross-Border Management of Copyright and Related Rights for Legitimate Online Music Services (2005/737/EC)’, COM (2005) OJ L 276, 54. Cf Kamiel Koelman, ‘Op naar de Euro-Buma(s): de Aanbeveling van de Europese Commissie over grensoverschrijdend collectief rechtenbeheer’ [2005] *Tijdschrift voor auteurs-, media- en informatierecht* 191–96.

and establishes a harmonized infrastructure for the payment of equitable remuneration across Member States and groups of beneficiaries, including individual creators.

8. User generated content and its authors

*Marta Iljadica*¹

1. INTRODUCTION

User generated content (UGC) may not be a novel form of creativity but it does present us with a conceptual category that has come to relatively recent, and sometimes spectacular, prominence because of the easy dissemination of such content online. UGC is ‘new’ in offering a primarily social approach to creative production.² The copyright implications of UGC have been addressed within the literature largely in relation to the question of exceptions to infringement,³ but this chapter considers some of this literature to examine the challenges which UGC poses to the operation of copyright rules regarding authorship and the subsistence of copyright.

The chapter does not, and cannot, attempt to account for the multitude of categories and types of UGC, and any particular framing of the concept is likely to raise distinct issues at the margins. What it does, however, is offer one particular framing of UGC, and it uses that framing to analyse the extent to which copyright law offers a suitable regulatory framework for UGC as a form of creativity that has a closer affinity to a creative process than a creative product. The chapter argues that UGC as a general category of creativity highlights the difficulties in protecting forms of creativity that do not fit neatly into copyright’s existing categories. The chapter thus provides, apart from evidence of copyright law’s more general failure to recognise creativity as a process, an example of the central relevance of the extra-legal regulation of creativity, whereby social norms govern, together with and often instead of copyright rules, processes of creative production in online communities of creators.

In its first section this chapter outlines the nature of UGC as a cultural phenomenon, before turning, in the second section, to consider the challenges certain types of UGC pose to copyright subsistence rules, and in particular the challenges posed to authorship as one of the, if not *the*, central organising concepts in the law of copyright. The chapter draws on international copyright law where relevant but makes particular reference to the law of specific countries, including that of the United Kingdom, as harmonised with EU law, and that of the United States. The third section widens its lens to examine the way in which norms, unlike copyright, can and do accommodate UGC within communities of creators.

¹ I am grateful to Bolette Blaagaard, Daniela Simone and Yin Harn Lee for conversations around some of the issues in this chapter and to Tanya Aplin and Paul Scott for helpful comments on earlier drafts.

² See Niva Elkin-Koren, ‘Tailoring Copyright to Social Production’ (2011) 12 *Theo Inq L* 309. See generally Debora Halbert, ‘Mass Culture and the Culture of the Masses: A Manifesto for User-Generated Rights’ (2009) 11 *Vanderbilt J Ent and Tech Law* 4.

³ On which see Chapter 7 by Martin Senftleben in this volume.

2. THE AMBIT OF UGC

It is difficult to determine the scope of creativity that falls under the heading of ‘user generated content’.⁴ This difficulty is not necessarily a function of the form the creativity takes – though this poses its own challenges – but also reflects issues surrounding *where* the creativity and its outputs are communicated, and how. Much UGC will be familiar in the sense that it includes text and visuals, but UGC also includes the creation and modification of software and tools, and collaborative creation of open source software.⁵ Whichever form of creativity is at issue, UGC is not limited to the mode of creation, but refers, in one definition, to ‘distinct mode[s] of production *and* distribution’.⁶ This latter element – the question of how creativity is distributed – is arguably crucial in contrasting UGC with other, usually earlier, forms of creativity, because UGC is often created within existing platforms that allow for the very straightforward distribution of content,⁷ potentially to a very large audience from which the fact of production cannot necessarily be usefully separated.

2.1 Types of UGC

A 2007 report by the OECD has proved to be a popular starting point within the literature on UGC.⁸ Examples of UGC provided in the report include literature, photographs, music, citizen journalism and virtual content, which are distributed through particular platforms such as blogs, podcasts, social media and virtual works sites.⁹ The OECD refers, perhaps tellingly, to *user-created* content, which has three requirements: ‘publication’, ‘creative effort’ and ‘creation outside professional routines and practices’.¹⁰ UGC as a phenomenon therefore extends beyond the output of a creative activity, an artefact in which copyright may or may not subsist. Highlighting creation and effort rather than mere generation would seem to suggest a high level of authorial engagement and as such the definition is useful in addressing the twin aspects of UGC: creativity and distribution (that is, web dissemination). The assumption that the creators of UGC create outside of professional regimes is potentially misleading. Even at the time of the OECD report’s publication, its definitions were acknowledged to be unsustainable in the face of media platforms increasingly using UGC to raise revenue.¹¹ Given that fact, the amateur/professional dichotomy is undermined, if not yet destroyed, by the incorporation of UGC into the commercial sphere. As the discussion below suggests, it also calls into question the rigidity of – especially UK – copyright rules on authorship and joint authorship, as well as the scope of subject matter and originality standards.

⁴ As can be seen in the different, somewhat narrower, approach adopted to UGC in Chapter 7, although both proceed from the OECD definition discussed below.

⁵ Pamela J McKenzie and others, ‘User Generated Online Content 1: Overview, Current State and Context’ (2012) 17 *First Monday* 6.

⁶ *ibid* (emphasis added).

⁷ See *ibid*.

⁸ OECD, *Participative Web: User-Created Content* (2007) DSTI/ICCP/IE(2006)7/FINAL .

⁹ *ibid* 15–16.

¹⁰ *ibid* 8.

¹¹ See eg, the professional use of blogs: *ibid* 15.

An analysis of the fact and nature of copyright's application to UGC also has implications for older forms of creativity such as fanzines and sketchbooks.¹² A useful example of the creation and sharing of sketchbooks and photographs may be found within the graffiti subculture: such sharing practices were normal preinternet – by post or in person – and continued in the internet era with the additional mode of sharing through, for example, flickr bringing these works to a potentially far larger audience.¹³ As such, UGC is worth considering as a matter not only of internet distribution and participation in online platforms and communities, but also of mirroring challenges posed by earlier forms of creativity and the intensification of existing creativity and its attendant sharing practices. This of course also works in the opposite direction: we can not only reason backward from modern creative practices to preinternet forms of UGC, but also consider the lessons of the latter for the former insofar as the issues posed by, in particular, copyright's failure to account for the dynamism of creative practice are made more apparent in the context of UGC.

The first example of UGC is perhaps the most obvious and it relates to creativity generated by individuals especially through mobile phones, either through the use of a mobile phone camera and subsequent publication of the photographs on Snapchat, Instagram, Twitter or Wordpress, or simply by publishing text, from short tweets to much longer blog posts. Such platforms are built around the sharing of content, with most of them – including Twitter, Instagram and Facebook – encompassing to at least some degree both text- and image-based creativity.¹⁴ When an individual films something and then uploads the video to YouTube or another site (the now defunct Vine would be another example) it would seem to be an uncontroversial example of UGC. What is potentially more interesting about it is that in certain situations it points towards a broader category of UGC, that is, citizen journalism, because the creativity itself is produced as a form of reportage with the self-conscious aim of communicating the news to others. Illustrative of the overlap may be the way in which the popular Facebook account 'Humans of New York' – which originally posted photos of 'ordinary' individuals on the streets of New York along with short blurbs, including comment from them, but now routinely visits other parts of the world in order to tell, in words and text, the stories of residents – has become over time an endeavour which is much more socially and (at least, potentially) politically engaged, and so an example of citizen journalism.¹⁵ The category might also include one-off content provided to established media companies by readers who witness and document newsworthy events. Whether copyright law regulates UGC appropriately (or not) becomes a more obviously urgent question when faced with the category of citizen journalism – for example, with photographs and video from an unfolding natural disaster –

¹² Greg Lastowka, 'The Player-Authors Project: Summary Report of Research Findings' (2013) 9 <<https://ssrn.com/abstract=2361758>> accessed 4 September 2019 (noting that 'non-professional creativity was not born with the advent of YouTube').

¹³ Marta Iljadica, *Copyright Beyond Law: Regulating Creativity in the Graffiti Subculture* (Hart 2016) 169.

¹⁴ See eg, use of mobile footage in citizen journalism: Bolette Blaagaard, 'Post-Human Viewing: A Discussion of the Ethics of Mobile Phone Imagery' (2013) 12 *Visual Communication* 3, 362.

¹⁵ See Jessica Roberts, 'From the Street to Public Service: "Humans of New York" Photographer's Journey to Journalism' (2017) *Journalism* 1 <<https://doi.org/10.1177%2F1464884917698171>> accessed 10 October 2019.

because the practice of citizen journalism is more than the production of content but may also be characterised as the production of citizenship.¹⁶

More difficult to account for is the use of social media where there is not obviously creative input but there is nevertheless clear individual participation from users in, for example, amassing a list of followers and likes. Pinterest offers an example of the aggregation of material pulled together from elsewhere and placed on individually curated ‘walls’, without any of the individual contributions being the result of the curator’s individual efforts but, arguably, with the totality used to reflect individual interests and to communicate a certain image or set of interests – the curator’s personality, in fact – to the wider world.¹⁷ Discrete textual, visual, audio and other content may also be derived from existing works and canons of popular culture (such as the Star Wars universe) and used as the basis of new works. Such derivative works will include mashups, parodies and fan fiction – in the form of both stories and videos – but also creativity generated within virtual worlds such as avatars and skins, or modifications within video games. Of course, whether derivative or nonderivative content, the distinction between amateur and professional creativity is increasingly difficult to sustain when considering (for example) that business models may be built upon or develop out of what was initially amateur creativity, as, for example, with the work of beauty and fashion influencers on Instagram in the use of sponsored posts. A yet more complex example of derivative creativity is that produced by the user–player within video games in the context of producing a particular kind of creativity (game play) simply by playing the game, often streaming it through sites such as Twitch to many thousands of viewers simultaneously. Indeed, eSports have become a lucrative business.¹⁸

The attempt to categorise UGC becomes more complicated again when considering UGC that is the product of many creators often working towards a common goal. An example of such mass collaboration is Wikipedia. Despite its reliance on independent contributions from a number of volunteer contributors, it does not present an altogether new phenomenon: the creation of the New English Dictionary was also marked by a large group of amateur contributions to its publication, without which the project could not have been completed.¹⁹ Similarly, another example of nineteenth century UGC may be found in individual contributions to travel guidebooks.²⁰ A related but different form of mass UGC is the accumulation and compilation of content from individuals to create, within the academic context, proprietary collections of material, such as researchgate, SSRN and newer, open source versions such as LawArxiv, which will depend either on individual academics uploading content or the pulling together of such content from elsewhere – the latter suggesting a harvesting rather than a generation of content. These latter examples suggest the many directions in which UGC flows in the sense of

¹⁶ See generally Mona Baker and Bolette Blaagaard (eds), *Citizen Media and Public Spaces: Diverse Expressions of Citizenship and Dissent* (Routledge 2016).

¹⁷ See eg, Debora Lui, ‘Public Curation and Private Collection: The Production of Knowledge on Pinterest.com’ (2015) 32 *Critical Studies in Media and Communication* 2.

¹⁸ See Mariona Rosell Llorens, ‘eSport Gaming: The Rise of a New Sports Practice’ (2017) 11 *Sport, Ethics and Philosophy* 4, 464–5.

¹⁹ Elena Cooper, ‘Copyright and Mass Social Authorship: A Case Study of the Making of the Oxford English Dictionary’ (2015) 24 *S & LS* 4. This was an unusual project and relied on editors; the possibility of continuing edits common to mass social authorship (discussed below) was not available.

²⁰ Ana Alacovska, ‘The History of Participatory Practices: Rethinking Media Genres in the History of User-Generated Content in 19th-Century Travel Guidebooks’ (2017) 39 *Media Cult Soc* 5.

different modes of distribution, but also, more importantly, that UGC is never isolated but circulates within webs of relationships, creative processes and platforms: an image, for example, may be shared by its creator on a blog, pinned to a Pinterest board, added to an online database, reworked and reshared on a different blog, and so on.

A variety of themes and concerns can be identified within the academic literature, which cut across the different types of UGC and which (below) will help to explain why examination of the subsistence of copyright in such content, as well as the recognition of its authorship, arises and is significant.

2.2 Participation, Community and Communication

What is immediately apparent from blogs, photographs and the many other examples of UGC is that even in its least complicated forms – individuals posting art and literature – UGC is *shared* in its creation and/or distribution. As such UGC creativity needs to be understood primarily as a form of social production,²¹ and indeed much of the literature on UGC highlights its participative qualities. This general point has also received attention elsewhere and with different terminology that encompasses the process and production of UGC, including ‘pro-usage’,²² which highlights the importance of the *user*.

Creativity has always been in some sense interactive in that creators will take and build upon material available in the intellectual commons, but UGC perhaps differs from what has gone before in terms of the level of collaboration the internet enables in the form of ‘commons-based peer production’.²³ The interactivity of UGC is thus closely, though not necessarily, aligned with participation in the conversation and creative generation within communities. The communicative and interactive aspects of UGC have political implications in a less overt sense, too. Some UGC, specifically derivative works that build on existing creativity – fan fiction communities are an example – has historically been the domain of women and minority creators, making it a source of political power.²⁴ What this suggests is that creativity itself is not necessarily motivated by the prospect of monetary reward, nor even by nonmonetary incentives such as potential reputational gains.²⁵

What is clear is that the definition of UGC remains ‘ideologically flexible’,²⁶ and as such it is difficult to have a conversation about appropriate copyright regulation of UGC, or indeed the ambit of authorship and subsistence in relation to UGC, without implicating deeper values about what creativity is to be incentivised, protected and shared. Turning to copyright law, such ideological flexibilities are evident, among other things, in the justifications and politics that are revealed to be privileged by the operation of authorship and subsistence rules internationally and domestically.

²¹ Elkin-Koren (n 2).

²² See eg. Jose van Dijck, ‘Users Like You? Theorizing Agency in User-Generated Content’ (2009) 31 *Media Cult Soc* 1, 46.

²³ Benkler in Lastowka (n 12) 18.

²⁴ Rebecca Tushnet, ‘I Put You There: User-Generated Content and Anticircumvention’ (2010) 12 *Vanderbilt J Ent and Tech Law* 4, 897–98.

²⁵ Rebecca Tushnet, ‘Economies of Desire: Fair Use and Marketplace Assumptions’ (2009) 51 *WMLR* 513, 522.

²⁶ Kris Erickson, ‘User Illusion: Ideological Construction of “User Generated Content” in the EC Consultation on Copyright’ (2014) 3 *Internet Policy Review* 4, 11.

2.3 UGC, Communities and the Commons – Why Subsistence Matters

Many more works, while not derived from specific existing works, will nevertheless be the product of influences readily available within the intellectual commons. The user of material authored by others may become an author themselves. More importantly, they will then also address the new creativity outwards to the public: there is an element of public communication.²⁷ The effect of this is that UGC by its very nature requires a reframing of the creator at least as a simultaneous consumer and producer of creativity. In this context, key arguments coalesce around issues of *use*, which in turn makes the study of UGC particularly fertile ground for criticism of copyright as an obstacle to engagement with, and the production of, culture. As indicated above, much of the relevant literature is centred on the appropriateness of exceptions to copyright to allow such recreativity to occur.²⁸ But this chapter focuses not on uses and exceptions, but rather on a distinct, and more fundamental, question: does copyright subsist in UGC? What is at stake in the answer to this question is not, in the first place, whether copyright provides appropriate protection to UGC, but, more fundamentally, the extent to which it does, or even can, value the interactivity which is inherent in both the production and, as we have seen, the circulation of UGC. The reason this matters is that an inability to do so may call into question not only whether copyright law is compatible with the freedom to create or recreate,²⁹ but also whether copyright implicitly but inevitably deems recreated work to be less valuable, and the creative processes giving rising to it effectively beyond copyright protection.

A particular area of concern is the freedom of creators to express themselves. This is an issue which has attracted more than its fair share of the courts', and scholars', attention in this regard, with music track sampling in particular presenting an enduring challenge to copyright. The decision of the Federal Constitutional Court in Germany in *Metall auf Metall* made clear that the freedom of artistic expression was a relevant factor in determining whether the use of a musical track constituted an infringement.³⁰ The court observed, in the context of a dispute on the sampling of a Kraftwerk track by hip hop artist Moses Pelham, that sampling was acceptable when carried out for an artistic purpose.³¹ The court noted in the context of the constitutional protection of intellectual property that:

²⁷ See generally Abraham Drassinower, 'Authorship as Public Address: On the Specificity of Copyright vis-à-vis Patent and Trade Mark' [2008] Mich St L Rev 1999.

²⁸ The desirability of UGC specific exceptions is a live issue, on which see Senftleben in Chapter 7. See also eg Daniel Iguañez, 'Considerations on the Modernization of EU Copyright: Where Is the User' (2017) 12 JIPLP 8.

²⁹ In the context of copyright and artistic expression see eg Christophe Geiger, 'Freedom of Artistic Creativity and Copyright Law: A Compatible Combination?' (2017) Centre for International Intellectual Property Studies Research Paper No 2017-08, 20 <<https://ssrn.com/abstract=3053980>> accessed 4 September 2019.

³⁰ Bunderverfassungsgericht BVerfG 1 BvR 1585/13 – '*Metall auf Metall*' (2017) IIC 343. This was the subject of a reference to the CJEU: Bundesgerichtshof 1 ZR 115/66, 1 June 2017 and see Case C-476/17 *Hütter v Pelham* ECLI:EU:C:2019:624.

³¹ *ibid* [80].

a work, once published, is not only at the disposal of its owner . . . [W]ith time it becomes released from private-law disposal and becomes intellectual and cultural common property, the author must accept that it begins to serve more as a point of departure for an artistic endeavour.³²

The case was therefore significant not only for vindicating the rights of creators to sample in some circumstances – this being a mainstay of hip hop music, for instance – but also because it implies that there is a temporal element to creativity, a starting point for the preparation of new works, the very temporality that usually copyright rules on subsistence have difficulty recognising (the meaning of preparatory work in the EU context, discussed below, is an example of this). In asking whether copyright subsists in UGC we must also ask whether, at international or national level, the rules offer adequate incentives for individual creativity (and not in a purely economic sense). Unsurprisingly, then, ‘UGC has found itself at the centre of highly-contested policy debates about the future of copyright and the appropriate response by regulators to digital creative practices’.³³ It is some of the specific responses to creators to which this chapter now turns.

3. AUTHORSHIP AND COPYRIGHT SUBSISTENCE IN UGC

The possibility that copyright subsists in UGC opens the door to a number of legal questions: questions about who will be recognised as an author of a work, assuming a work can be identified; about the legal position where there are many contributors to a larger project; about whether a work of UGC might be derivative, thus raising questions about its originality, and more. This part begins with a broad examination of authorship in the context of UGC before considering certain of the types of UGC identified above, namely sole (or uncomplicatedly joint authored) works such as blogs, photographs, works such as fan fiction that are usually created within communities of creators, mass authorship of large projects such as Wikipedia, interactive and multimedia participation in video games, and, finally, accumulations of content such as voluntary contributions to academic databases. This discussion provides a snapshot of some of the most interesting, and perplexing, authorship and subsistence difficulties that UGC poses.

3.1 Authorship(s) and Creativity – When Authors Matter

To begin with, the Berne Convention protects ‘the rights of authors in their literary and artistic works’.³⁴ The Convention does not, however, define who is an author. An examination of the authorship of UGC highlights some of the existing tensions within copyright law in recognising some creators as authors but not others, especially where creativity is in some sense

³² *ibid* [87] IIC translation. Where there was no artistic purpose a licence would need to be sought, thus minimising interference with property rights: Marc Mimler, “‘Metall auf Metall’ – the German Federal Constitutional Court Discusses the Permissibility of Sampling Music Tracks” (2017) 17 QMJIP 1, 123.

³³ Erickson (n 26) 2.

³⁴ Berne Convention, art 1. Article 3 places the author at the centre of eligibility for protection.

collective.³⁵ UGC, as it is discussed below, would seem to fit well within, for example, Carys Craig's model of relational authorship.³⁶ While the 'author is the heart of copyright',³⁷ UGC tends to decentre the author from the process of creativity, and any resulting work, and so makes it difficult – and, in certain cases, impossible – to take advantage of the copyright rules which might otherwise protect it. UGC also often reflects creativity even where there is no single, identifiable, professional author. As such, the application of authorship and subsistence rules to UGC needs to be understood within broader questions about the nature of authorship. Not only do users challenge the professional conception of authorship; they also challenge the assumption that the author/owner of a UGC work ought to exercise control over their work via copyright, when UGC is distinguished by the easy use and distribution of creative content.³⁸

3.2 Sole Authored But Not 'Derived'

This section begins with the apparently easy case of UGC protection in the form of solely created work not derived from the work of others.³⁹ A photograph on Instagram, say, or a blogpost on Wordpress would, on the face of it, be works of authorship in which copyright probably subsists – in UK parlance as artistic works, in the first case,⁴⁰ or literary works,⁴¹ in the second. Depending on the nature of the work, these works would also need to be shown to be original.⁴² Blog posts and photographs posted on social media should not pose more difficulties in judgment than might ordinarily apply to literary and artistic works – for example, whether there is sufficient skill, judgement or labour, or in EU copyright terms, that they are an author's own intellectual creation,⁴³ to make the work original or not, as the case may be.

But even in this most simple of UGC scenarios, certain complications might be identified. Two particular examples of UGC suggest some of these difficulties: microblogging carried out on, and so distributed via, Twitter, and photographs which are distributed via Snapchat. In the first instance, the potential difficulty relates to the very short length of a 'tweet' in its standard form, though that difficulty has been diminished by the move to permit tweets of 280 characters rather than the 140 allowed on Twitter's launch. This short length may, in the first place, mean that tweets are too insubstantial to attract copyright protection, though UK case law relating to newspaper headlines would suggest that, now at least, brevity alone is not a bar to copyright protection. In light of EU harmonisation, *Meltwater* – indicating that what matters is that the relevant text is the author's own intellectual creation – found that copyright could

³⁵ This is a problem for copyright more generally: see eg Daniela Simone, 'Dreaming Authorship: Copyright Law and the Protection of Indigenous Cultural Expressions' (2015) 37 EIPR 4.

³⁶ Carys Craig, 'Reconstructing the Author-Self: Some Feminist Lessons for Copyright Law' (2006) 15 Am UJ Gender Soc Pol'y & L 207, 211.

³⁷ Jane Ginsburg, 'The Concept of Authorship in Comparative Copyright Law' (2003) 52 DePaul L Rev 1063, 1064.

³⁸ Users are "content providers" even though they are not professionals: Daniel Gervais, 'The Tangled Web of UGC: Making Copyright Sense of User-Generated Content' (2009) 11 Vand J Ent & Tech L 841, 849.

³⁹ *ibid* 858.

⁴⁰ Photographs: Copyright Designs and Patents Act 1988 (UK) (CDPA 1988), s 4; 'pictorial' works: 17 USC § 102(a)(5) (1974).

⁴¹ CDPA 1988, s 1(1)(a); 17 USC § 102(a)(1).

⁴² *ibid*.

⁴³ See C-5/08 *Infopaq v Danske Dagblades Forening* [2009] ECR I-6569.

subsist in newspaper headlines.⁴⁴ Further, while the shortness of a text does not prevent the text from being a literary *work*, it is difficult to state with confidence that a very brief work (up to a maximum of 280 characters) may be an *original* literary work. In US copyright law terms,⁴⁵ whereby the Twitter user claiming authorship will need to show that there is an original literary work, a tweet will be capable of being original but only insofar as the text is ‘not merely fragmentary words or phrases’;⁴⁶ subsistence is likely to be difficult to make out in light of the specific prohibition on protection for phrases and slogans.⁴⁷ However, the key would be to demonstrate that a tweet exhibits the necessary creativity so as to overcome the prohibition.⁴⁸ Thus it seems possible a tweet could, but would not necessarily, be copyright protected.

In the second instance – Snapchat photographs, or ‘snaps’ – the problem is not that there is unlikely to be an original artistic work (though it is worth noting that there remains an open question under EU law as to whether noncreative photographs will be protected, something that is echoed in the laws of Germany and Italy, which protect so-called simple photographs differently)⁴⁹ but rather that the ephemerality of the work created by the user may present a bar to copyright subsistence. Ephemerality of content is designed into Snapchat, with the default position for users of the app being that shared content is deleted after a short period of time: for ordinary snaps this will mean that the picture sent is available to the recipient for a period, as a default, of between 1 and 10 seconds.⁵⁰ This is its key feature: the whole purpose of the app is to enable ‘forgetting’,⁵¹ and it is a key part of its appeal that works made with it are transient. To facilitate this ephemerality, users take snaps from within the app itself rather than using their mobile phone gallery. As such, Snapchat offers an example of communication which, though formally meeting the definition of an artistic work, would seem to have more in common with oral communication, which is – by its nature rather than design – similarly transient.⁵² More importantly, communication via Snapchat implicitly but strongly rejects the prevailing tendency of ‘new media information aggregation’, whereby more and more information is created and then archived; huge volumes of UGC remain easily and consistently available to others to read or view.⁵³ Snapchat works therefore to complicate the ‘easy’ UGC copyright scenario by challenging not the copyright rules relating to author identification or work identification, but rather the often implicit, and sometimes explicit, requirements that for copyright to subsist, works must be permanent and/or fixed. This is by no means a new

⁴⁴ *NLA v Meltwater* [2012] RPC 1.

⁴⁵ 17 USC § 102.

⁴⁶ On protection for short phrases: *Applied Innovations v Regents of the Univ. of Minn.* 876 F2d 626 (1988).

⁴⁷ 17 USC 202(1)(a).

⁴⁸ Following *Feist Publications v Rural Telephone Service Co* 111 S Ct 1282 (1991) even a relatively low level of creativity will be enough for copyright protection.

⁴⁹ Aura Bertoni and Maria Lillà Montagnani, ‘Foodporn: Experience-Sharing Platforms and UGC: How to Make Copyright Fit for the Sharing Economy’ (2017) 39 EIPR 7, 399.

⁵⁰ Bin Xu and others, ‘Automatic Archiving versus Default Deletion: What Snapchat Tells Us About Ephemerality in Design’ (2016) Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing 1662.

⁵¹ *ibid.* At the same time it is worth noting that Snapchat is also seeking to lure traditional content creators to the app, thus blurring the distinction between amateur and professional content.

⁵² Oren Soffer, ‘The Oral Paradigm and Snapchat’ (2016) *Social Media & Society* 1 <<http://journals.sagepub.com/doi/full/10.1177/2056305116666306>> accessed 4 September 2019.

⁵³ *ibid* 4.

problem for copyright, but a study of ephemeral UGC certainly complements the difficulties already identified over copyright's problem with the spoken word and its capture as a 'literary work'.⁵⁴ Snaps, as artistic works – especially where additions are made (cartoon flower crowns overlaid on a photograph of the scene, for example) – would on the face of it be protectable artistic works under the Berne Convention as, specifically, photographs,⁵⁵ but the question of whether 'fixation in some material form' is also required is left to individual states.⁵⁶

We see some divergence between the UK and US law on this point. UK copyright law does not have a fixation requirement for artistic works, though there are good arguments to suggest that there is an implicit requirement for fixation and permanence that is bound up in the difficulty of separating an artistic work from its material support. An example of this can be found in *Harpbond*,⁵⁷ where the court held, infamously, that 'a painting is not an idea, it is an object'.⁵⁸ By analogy to face painting – as too impermanent – a 1-second snap may likewise fall foul of the intention towards permanence. In fairness, *Harpbond* may be read alternatively as having been decided on the basis that the painting itself was too insubstantial as to be original,⁵⁹ and as such, snaps, especially in the choice of additional adornments for the photographs, may present an easier case – depending on meeting the intellectual creation test – for demonstrating originality. In any event, that permanence is required is corrosive to the recognition of whole swathes of artistic practice, beyond affecting certain types of UGC.⁶⁰ It would therefore be preferable in order to keep pace with new creative processes, including in the context of UGC, to reject this formulation. The problem would appear to be more pronounced under US copyright law insofar as the Copyright Act 1976 does have an explicit fixation requirement for artistic work.⁶¹ Moreover, a work must be of 'more than transitory duration'⁶² for copyright to subsist. However, a key feature of a social media platform is to produce and communicate works that are transient. Unless – as considered in the final part of this chapter – we rethink the suitability, and role, of copyright in protecting the creative processes inherent in UGC, it is nonlegal norms that will continue to regulate creativity in copyright's shadow. Fixation also raises a broader problem for highly participatory and interactive forms of UGC (for example game play, discussed below). It also, more generally, highlights that different subsistence rules will apply to UGC in different territories despite being communicated instantaneously.⁶³

⁵⁴ On the requirement of fixation for literary works and the spoken word see Hector MacQueen, "'My Tongue Is Mine Ain": Copyright, the Spoken Word and Privacy' (2005) 68 MLR 349.

⁵⁵ Berne Convention, art 2(1).

⁵⁶ Berne Convention, art 2(2).

⁵⁷ 17 USC § 101 definition: 'A work is "created" when it is fixed in a copy or phonorecord for the first time.'

⁵⁸ *Merchandising Corp of America v Harpbond* [1983] FSR 32.

⁵⁹ Lionel Bently and Brad Sherman, *Intellectual Property Law* (OUP 2014) 73.

⁶⁰ Anne Barron, 'Copyright, Art, and Objecthood' in Daniel McClean and Karsten Schubert (eds) *Dear Images: Art, Copyright and Culture* (Ridinghouse 2002) 291.

⁶¹ 17 USC § 101: 'original works of authorship fixed in any tangible medium of expression'.

⁶² 17 USC §101. See *Cartoon Network LP, LLLP v CSC Holdings, Inc.*, 536 F 3d 121 (2nd Cir 2008) 129–31. For further discussion of the fixation requirement in the context of social media see on this, and other points: Ryan Wichtowski, 'Increasing Copyright Protection for Social Media Users by Expanding Social Media Platforms' Rights' (2017) 51 Duke L & Tech Rev 1, 259.

⁶³ Elizabeth White, 'The Berne Convention's Flexible Fixation Requirement: A Problematic Provision for User-Generated Content' (2013) 13 Chi J Int'l Law 685, 690.

3.3 Sole Authored and ‘Derived’

A somewhat different picture emerges when we consider sole authored literary works that are derived from other works (leaving aside for the moment the much broader point made forcefully in the copyright literature that *all* creativity is to some extent derived from material within the intellectual commons). Such works raise questions about copyright infringement and the appropriateness of defences or exceptions, but what we are interested in here is subsistence, and specifically whether such works will meet originality standards. We must first note that derivative works, whether under the banner of UGC or not, may appropriate all or part of the works of others, and so for that reason the use of ‘derive’ here is broader than its legal meaning in US copyright law,⁶⁴ and indeed the Berne Convention reference to ‘alterations’ of works in the context of translations, adaptations and the like.⁶⁵ Two further, preliminary points are worth making. The first is that copyright may subsist in an infringing work.⁶⁶ The second is that a distinction ought to be drawn between ‘user-derived’ and ‘user-copied’ works,⁶⁷ with the former being of interest here. The latter type refers to a work copied in its entirety and is more likely to raise straightforward infringement questions rather than subsistence ones, not least because the user copied work is likely to lack originality.

In the context of the EU originality test, for instance, the author must demonstrate the exercise of ‘free and creative choices’.⁶⁸ So, for example, picture-based memes shared across different social media platforms, featuring photographs often from popular culture with the addition of text, offer a particular type of challenge to copyright subsistence rules. There is nothing on the face of it to suggest, at least with respect to EU copyright law, that the mere choice of the picture that forms the basis of a meme of this sort – sometimes referred to as an ‘image macro’ – would meet the originality standard assuming the exercise of ‘free and creative choices’,⁶⁹ because it is simply being reused. In the UK, it is clear that derivative works may be original where ‘visual significance’ or ‘material alteration’ is demonstrated.⁷⁰ Similarly, under US law following *Feist*, the question becomes whether such a meme would exhibit the minimal creativity required for this type of derivative work to be original: it may well lack the necessary creativity.⁷¹ What that leaves unclear is whether the subsequent interaction by a new creator – the addition of humorous text, for example – would also be creating a new work in which copyright subsists. In relation to memes, the question would be whether the addition of text created a new work in which copyright subsists. It seems likely, at least in the context of UK/EU law, that merely adding text to an existing image via a macro would

⁶⁴ ‘Derivative works’ encompass translations, musical arrangements and the like: 17 USC § 101.

⁶⁵ Berne Convention, art 2(3).

⁶⁶ *ibid.* See Sam Ricketson and Jane Ginsburg, *International Copyright and Neighbouring Rights: The Berne Convention and Beyond* (OUP 2005) 473–74.

⁶⁷ Examples include mashups and copies of parts of works that are then criticised: Amber Westcott-Baker, Rebekah Pure and Christopher Seaman, ‘Copyright Law and the Implications for User-Generated Content’ (2012) 3 (1/2) *UB J of Media Law & Ethics* 171, 184; see also Gervais (n 38) 858–59.

⁶⁸ C-145/10 *Painer v Standard Verlags GmbH* [2012] ECDR 6.

⁶⁹ Eleonora Rosati, ‘Non-Commercial Quotation and Freedom of Panorama’ (2017) 8 *JIPITEC* 311.

⁷⁰ In light of *Interlego v Tyco* [1989] AC 217: Bently and Sherman (n 59) 106, 113.

⁷¹ Steven Hetcher, ‘User-Generated Content and the Future of Copyright: Part One – Investiture of Ownership’ (2008) 10 *Vand J Ent & Tech L* 863, 885.

demonstrate insufficient creativity, in EU or UK (labour, skill or judgement) terms, unless the particular phrase added is an original literary work.⁷² Memes are immediately distributed to a potentially huge audience via social media. These works demonstrate creativity – although perhaps not of the right kind for copyright protection.⁷³

From a consideration of works that are to some extent derived from existing works and their (lack of) originality, we now move to a slightly different point: the use of existing material as preparation for the generation of content. The examples considered here relate to citizen journalism and Pinterest (also discussed below in the context of the accumulation and aggregation of content). Creativity produced in the context of citizen journalism already chafes at the borders which copyright may erect around its outputs, and in any event the instinct to control such creativity does not match well the control offered by copyright law: in opposition to brute notions of control, one of the reasons why citizen journalism, for example, is produced in the first place is so that information (news) is disseminated. While the content/works produced through the practice of citizen journalism may be recognised as creativity in which copyright may subsist as a literary work, such a work may combine extracts from the works of others, including, for example, quotations from different sources. This may have an impact on the evaluation as to whether such works are original but it also highlights that the work resulting from the collection and use of existing material is a creative as well as a, potentially, political process (arguably politics may be implicit at the base level of any creative process as democratic participation),⁷⁴ which is largely irrelevant to copyright protection.

Thus, for example, citizen journalism brings to the fore the current difficulty within copyright law of recognising the process of creation. The production of citizen journalism is not merely a creative process but also a political one in which the work serves also to produce citizens.⁷⁵ So while *Feist* (in the US) requires some minimum level of creativity for a work to be original and *Painer* (EU) asks for creative choices to have been made, neither approach really captures what is important about the authorship of citizen journalism as UGC; certainly copyright cannot account for the political, highly participatory process of making political choices, participation being of course a crucial aspect of UGC more generally. *Painer*, albeit in the context of photography, does indicate that ‘preparatory acts’⁷⁶ can be taken into account in determining whether a work is original, but what if the creativity in citizen journalism lies in political preparation that goes beyond the work, or that encompasses the entirety of a journalistic investigation and the piecing together of sources? It would be straightforward to argue that the resulting, for example, blog would be an example of an original literary work in which copyright subsists. Yet, even when citizen journalism as UGC is unproblematically afforded copyright protection, asking if copyright subsists in citizen journalism raises from the beginning the prospect of the author as, fundamentally, a political actor – something that cannot be

⁷² See *NLA* (n 44).

⁷³ See Bently and Sherman (n 59) 104.

⁷⁴ On the link between copyright, democracy and culture see generally Neil Weinstock Netanel, ‘Copyright and Democratic Civil Society’ (1996) 106 *Yale LJ* 263, 341–63.

⁷⁵ The process itself is contested but see eg generally Baker and Blaagaard (n 16).

⁷⁶ *Painer* (n 68). Arguably the exercise of creative choices requires ‘both that there must have been actual choices *and* that the resulting work must as a consequence be individualized’: Bently and Sherman (n 59) 101. It would seem therefore that taking snapshots during a crisis may be insufficiently creative to attract protection.

accounted for in copyright's conceptualisation of authorship (author and work, as opposed to authorship as a process including a work).

Finally in the context of derived works, we come to a different kind of process, namely the curation of Pinterest boards by its users. Pinterest neatly demonstrates the way in which individual UGC (which can itself be copyright protected) may end up within the ecosystem of social media platforms and as such form the basis of new works. It does not seem likely that a Pinterest board would qualify as a 'systematic or methodical'⁷⁷ arrangement of the type necessary for *sui generis* protection as a database, even if on the face of it the arrangement of the boards may demonstrate some 'creative ability'.⁷⁸ Pinterest raises similar issues of authorship to much UGC in the sense that copyright cannot easily account for the process of the creation and sharing of 'boards' with changeable content, nor the pleasure or sense of participation in a community creating such boards. Such experiences and pleasures, even without the more overt *political* participation aspect of citizen journalism, are critical to creativity but cannot be defined as authorship. Of course, 'personal choice' may well be demonstrated in the collection and presentation of material to display. It is also difficult, giving the shifting nature of UGC, to link an author to the work. As with much UGC, Pinterest also presents a temporal challenge to copyright, because insofar as a work might exist it is always a work in progress, it may never be completed and it makes little sense to think of it in those terms when it is the process of development that is valued. Indeed, the boards may well change over time and some may never be 'complete', making them a process rather than a final work in a form recognisable to copyright.

3.4 Interactive and Multimedia UGC Authorship

Discussing the temporal element of UGC brings us to a discussion of a contemporary and peculiarly difficult form of highly interactive UGC, namely creativity within online games and virtual worlds. The particular kinds of creativity that demonstrate a particularly pure form of UGC interactivity discussed here are avatars, modifications in games and creativity within virtual worlds. Such UGC is highly interactive and shares with certain other forms of multimedia a nonlinearity that will mean that users experience the same multimedia work differently.⁷⁹ What is perhaps new about this form of UGC is that it sees the individual user insert themselves into the program in one of a number of ways, in doing so changing the experience of that program not only for themselves but also for other users. Creativity is necessarily both a dynamic process and an output or outputs.

In the nonlegal literature this type of creativity is a clear example of co-creation, a form of creative labour that includes, but is not limited to, not only ingame modifications ('mods') but also the development of games,⁸⁰ and in more extreme cases 'total conversion' of a game.⁸¹ Yet such a category of co-creation does not have a parallel within copyright rules: it is perhaps

⁷⁷ CDPA (UK), s 3A. Neither are Pinterest boards likely to qualify classify as original databases under CDPA 1988, s 3(1)(d).

⁷⁸ C-604/10 *Football Dataco Ltd and Ors v Yahoo! UK Ltd and Ors* [2012] ECDR 10, para 38.

⁷⁹ Tanya Aplin, *Copyright Law in the Digital Society: The Challenges of Multimedia* (Hart 2005) 10.

⁸⁰ Discussed in study of Auran Games: John Banks and Sal Humphreys, 'The Labour of User Co-Creators: Emergent Social Network Markets?' (2008) 14 *Convergence* 4, 402.

⁸¹ Needless to say, such conversion is attempted without the consent of the developers: Renyi Hong, 'Game Modding, Prosumerism and Neoliberal Labor Practices' [2013] 7 *Int J Commun*, 985.

joint authorship but not obviously so for lacking ‘common design’ (UK); neither is it, in UK terms, ‘coauthorship’, which refers specifically to the situation in which lyricist and composer create literary and musical works ‘in order to be used together’.⁸² It is more likely that players could be recognised as individual authors for copyright purposes of distinct mods, assuming that subject matter rules can be successfully met. Arguably this creativity is incentivised at least in part by seeking the approval of the relevant community.⁸³ Thus, this form of UGC offers a direct and unambiguous challenge to copyright’s conception of authorship.

Examples similar to creativity within games may also be found within virtual worlds (there will be overlap in such categorisation), in which UGC must be understood as creativity that happens within the constraints of participating or playing within a particular community or ‘world’: the creation is the participation (and vice versa). The process and pleasure aspects inherent in participation in gaming and virtual worlds thus add additional complexity to attempts at placing UGC into subject matter and authorship categories within copyright law. Choices are made around everything from avatar designs to mods that encompass changes to the environment.⁸⁴ Such creativity could certainly be an artistic work under UK/EU or US law, problems with ephemerality and fixation notwithstanding.

This form of creativity raises issues most acutely in the context of online multiplayer games, in which the users modify the world they coinhabit with other players. It is worth noting, though, that such forms of UGC echo, and intensify, wider difficulties with respect to the copyright protection of multimedia works and more generally the protection of computer programs. The UK, unlike other EU member states, offers protection to computer generated works, specifically,⁸⁵ where those works do not have a ‘human author’,⁸⁶ although in respect of mods and avatars there clearly is an author making the intervention within the game. UGC is ‘new’ in offering a different twist to existing problems with subsistence in certain types of UGC by inserting the user (potential author) within ‘worlds’ created by others, or worlds jointly created by the user and their peers within the game (deliberately or not), leaving aside the further possibility that a user could be a joint author with a game developer in a particular creation.

The difficulty, given that the co-creation (in noncopyright terms) of such works is an example of derivation (in much narrower, copyright terms), lies in determining if such works would be original,⁸⁷ for example, where an avatar copies to some extent a character in which copyright subsists.⁸⁸ The familiar question then becomes whether the work is transformative (but that is a discussion outwith the scope of this chapter). The mods in *Micro Star v FormGen*

⁸² CDPA 1988, s 10A.

⁸³ See eg Renyi Hong and Vivian Hsueh-Hua Chen, ‘Becoming an Ideal Co-Creator: Web Materiality and Intensive Laboring Practices in Game Modding’ (2014) 16 *New Media & Society* 2, 299.

⁸⁴ Example in Mira Burri, ‘Misunderstanding Creativity: User Created Content in Virtual Worlds and its Constraints by Code and Law’ (2011) 14 *IJCLP*, 13.

⁸⁵ CDPA 1988, s 9(3): ‘the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken.’

⁸⁶ CDPA 1988, s 178 definition: “‘computer-generated’, in relation to a work, means that the work is generated by computer in circumstances such that there is no human author of the work.’

⁸⁷ In the US this may be a bar to copyright subsistence: Burri (n 84) 13, n 74.

⁸⁸ John Baldrica, ‘Mod as Heck: Frameworks for Examining Ownership Rights in User-Contributed Content to Videogames, and a More Principled Evaluation of Expressive Appropriation in User-Modified Videogame Projects’ (2007) 8 *Minn JL Sci & Tech* 2, 690, arguing that the US position that mods cannot attract copyright protection is ‘inappropriately narrow’: 693.

were whole game levels,⁸⁹ and a US court held that these mods infringed the game as a computer program because they were derivative works. Whether the mods could attract copyright protection on their own terms was not at issue here – as with much UGC discussion which focuses on such creativity as infringement and hence on what defences might be appropriate and/or desirable – making it easy to lose sight of UGC as a potential work, indeed the kind of work that copyright law may seek to incentivise and reward.

An aspect of games that is worth noting is that authorship and subsistence issues are raised by both the game as a whole and the mods in games or within virtual worlds. One problem for the former, from the point of view of subsistence, is specifically whether such forms of UGC are fixed. The difficulties associated with identifying the appropriate subject matter category for games are considered in detail in Chapter 3 by Yin Harn Lee. The obvious contenders are the film or dramatic works categories,⁹⁰ though these also have significant shortcomings, including with respect to the protection of gameplay.⁹¹ These difficulties are not unique to UK copyright law. Similar problems with determining whether the work is fixed are found within US law, notably in *Stern Electronics, Inc. v Kaufman*,⁹² where the court elected to consider the ‘stable’⁹³ elements of a game capable of copyright protection.⁹⁴ In the context of an argument for the privileging of human authorship,⁹⁵ the human intervention in creating such UGC would certainly merit copyright protection on the basis of its creativity.

The above suggests that mods by players may also be independent, fixed works in which copyright may subsist. Yet, as Lee shows in the context of user modifications of games (that is, ‘mods’) and playthroughs (‘let’s play’) of games,⁹⁶ the terms of use may make any identification of an author and work moot in requiring that players of a great number of games sign away their intellectual property rights.⁹⁷ This interactivity raises questions about copyright protection for UGC in the form of ‘new’ works with new authors within existing, larger, works, though whether authorship is to be considered individual or joint (with game creators) is unclear.

The point considered with respect to ‘snaps’ above – on the ephemerality of UGC – is relevant here too. It is difficult to argue that UGC is fixed in the same way as a book, given that content can be quickly created and deleted.⁹⁸ Copyright has always struggled with the status of digital material, as we can see with the approach taken to temporary copies of digital material stored only in RAM.⁹⁹ The digital nature of the contribution need not deny the creator

⁸⁹ *Micro Star v FormGen* 154 F3d 1107 (9th Cir 1998).

⁹⁰ CDPA 1988, s 5B.

⁹¹ See Yin Harn Lee, ‘Play Again? Revisiting the Case for Copyright Protection of Gameplay in Videogames’ (2012) 34 EIPR 12.

⁹² 669 F 2d 852 (2d Cir 1982).

⁹³ Within the meaning of 17 USC § 101.

⁹⁴ *Kaufman* (n 92) 856.

⁹⁵ On which see generally Jane Ginsburg, ‘People Not Machines: Authorship and What It Means in the Berne Convention’ (2018) 49 IIC 2.

⁹⁶ Chapter 3 in this volume.

⁹⁷ *ibid.*

⁹⁸ See White (n 63) 699.

⁹⁹ See eg, in the context of video games and anticircumvention measures: *Nintendo Company Ltd v Playables Ltd, Wai Dat Chan* [2010] ECDR 14; David Booton and Angus MacCulloch, ‘Liability for the Circumvention of Technological Protection Measures Applied to Videogames: Lessons from the United Kingdom’s Experience’ (2012) 3 JBL 165.

protection in relation to mods or other ingame creativity on the basis that these lack fixation: the creator playing the game will have created something of which there will be a copy stored somewhere on a server.¹⁰⁰ There is a more fundamental difficulty: copyright cannot, except perhaps in the narrow preparatory sense discussed above with respect to EU copyright law, account for the pleasures and creative processes on which so much UGC is founded and which copyright would struggle to protect. The blurry distinctions between development, game UGC and the challenges posed to authorship categories within copyright law thus bring us to largescale collaborations where there is likely a work but not a readily identifiable author.

3.5 Mass Social Authorship

More than any other type of UGC, that which involves ‘mass social authorship’¹⁰¹ offers a stark challenge to copyright rules on subsistence, primarily in the recognition of authorship. In particular, the usual rules of joint authorship quickly break down in the attempt to apply them to largescale, decentralised, collective projects such as Wikipedia.¹⁰² As linguists and others have identified, the collaborative nature of Wikipedia is useful in what it reveals about authorship – that there is no leading author but rather ‘many potential “authors”’¹⁰³ – but also because of the ways in which it reflects cultural differences.¹⁰⁴ In and of themselves these observations do not tell us anything about the application of copyright subsistence rules. But they do foreground the *social* aspect of mass collaboration. More than any other type of UGC, the collaborative aspect is at the forefront of Wikipedia and other similar types of work – individuals are aware that they are working within a community and contributing individually to the one project:¹⁰⁵ it is evidence of ‘a dynamic process of sharing and interacting in order to construct something together’.¹⁰⁶

There is no problem in identifying Wikipedia as UGC that is literary, but what is not clear is whether Wikipedia as a whole, or parts of Wikipedia, are original literary works. For example, a single Wikipedia page would potentially be an original literary work, in UK copyright law.¹⁰⁷ Furthermore, if the author is difficult to pinpoint then so is the ‘work’ in Wikipedia in large part because creativity in the production of Wikipedia is best understood as a process,¹⁰⁸ *process* being something that presents a more general challenge to copyright law. What wikis seem to suggest is the existence of a form of creativity somewhere between a ‘collective work’

¹⁰⁰ White (n 63) 698–9.

¹⁰¹ Daniela Simone, ‘Copyright or Copyleft? Wikipedia as a Turning Point for Authorship’ (2014) 25 *KLJ* 1.

¹⁰² Note that joint authorship is not defined in the Berne Convention but the existence of ‘a work of joint authorship’ is contemplated by Art. 7*bis* on the copyright term.

¹⁰³ Simone (n 101) 111.

¹⁰⁴ Ulrike Pfeil, Panayiotis Zaphiris and Chee Siang Ang, ‘Cultural Differences in Collaborative Authoring of Wikipedia’ [2006] 12 *Journal of Computer-Mediated Communication* 1.

¹⁰⁵ Elkin-Koren (n 2) 327 on ‘social production’. On the Wikipedia ‘community’ more generally see ‘Imagining the Wikipedia Community: What do Wikipedia Authors Mean When They Write About Their “Community”?’ (2010) 13 *New Media and Society* 5, in which it is referred to as an ethos-action community (at 713).

¹⁰⁶ Elkin-Koren (n 2) 329.

¹⁰⁷ On which see Simone (n 101) 106.

¹⁰⁸ *ibid* 104.

and a ‘compilation’.¹⁰⁹ Again, an author recognisable to copyright law is missing. It is notable that Wikipedia’s (potential) authors define themselves as ‘Wikipedians’ or ‘contributors’ or ‘users’ or ‘authors’;¹¹⁰ there is not a settled terminology. Such fluidity would seem to reflect that creativity in Wikipedia’s production which ‘intentionally blurs the distinction between “reader” and “writer”’.¹¹¹ In that sense Wikipedia, and indeed any wiki – an online, collaborative repository of knowledge – represents the gradual obscuring of the author from the creative process of creation, and so stands in stark contrast to another type of UGC, the blog, which provides evidence that the author is very much alive and is therefore easier to accommodate within existing legal categories in copyright law.¹¹²

The above is not to suggest that a work, at least under EU copyright law, cannot be original because it has many contributors; nevertheless it causes difficulties insofar as originality is bound up with authorship and so involves, in the EU context most obviously, the demonstration of a ‘personal touch’. In a mass collaborative project, many authors – in fact, a theoretically indefinite number – will be ‘[leaving] their personal imprint on the work’,¹¹³ and so the ‘touch’ of any one individual may be difficult or even impossible to identify.¹¹⁴ Even where it is possible to identify such an imprint, it may well bear very little relation to the shape of the work considered as a whole (whether a particular entry or the encyclopaedia). With respect to Wikipedia, the particular difficulty is that the very freedom of creative choice on which the ‘intellectual creation’ test depends is diluted in the context of mass social authorship because contributions after the first contribution are directed, or limited, by that first contribution. There is also a temporal aspect to this – as with much UGC – in that the extent to which the personal touch can be discerned will vary over time: the longer the process of accumulation, or writing and rewriting, goes on, the less likely it will be that any (early) individual’s ‘personal touch’ will survive.

A specific copyright challenge here is the existence of multiple versions, and any one version – since the pages may be edited by anyone at any time – is likely to prove ephemeral.¹¹⁵ Ephemerality is relevant in a different way to that discussed above with respect to multimedia works. The question then becomes whether any particular version of a Wikipedia page is an original literary work. While the position with draft copies of a work may be relatively easy to dispose of, the Wikipedia page has multiple (potential) authors across multiple ‘drafts’ with potentially infinite permutations based on the degree and nature of a contribution. We return, then, to the need for a contribution such as to meet the originality requirement. In this context Daniela Simone argues that, in light of the case law on originality where a work is building on other works, finding that copyright subsists is possible but, nevertheless, it is also clear

¹⁰⁹ Referring to ‘new’ authorship practices more generally, Margaret Chon, ‘The Romantic Collective Author’ (2012) 14 *Vanderbilt J of Ent & Tech Law* 829, 834.

¹¹⁰ Aurelija Lukoseviciene, ‘On Author, Copyright and Originality: Does the Unified EU Originality Standard Correspond to the Digital Reality in Wikipedia’ (2017) 11 *Masaryk Univ J of Law and Tech* 215, 224.

¹¹¹ Simone (n 101) 102.

¹¹² Mark Warschauer and Douglas Grimes, ‘Audience, Authorship, and Artifact: The Emergent Semiotics Of Web 2.0’ (2008) 27 *Annual Review of Applied Linguistics*, 11.

¹¹³ Stef Van Gompel, ‘Creativity, Autonomy and Personal Touch: A Critical Appraisal of the CJEU’s Originality Test for Copyright’ in Mireille van Eechoud (ed), *The Work of Authorship* (AUP 2014) 131.

¹¹⁴ *ibid* 135.

¹¹⁵ Simone (n 101) 107.

that finding an independent work within the large quantities of content on Wikipedia will be difficult where individual pages are continually edited.¹¹⁶ This results in multiple works with multiple authors and, even where one author is editing a certain page, multiple versions.¹¹⁷

Indeed, mass authorship of this kind offers a significant challenge to the very concept of joint authorship. In US copyright law the question would also be whether these are 'joint works', with contributions to Wikipedia being 'interdependent parts of a unitary whole'.¹¹⁸ A key aspect of finding that a work is a joint work is the 'shared' intention to become joint authors,¹¹⁹ at least with respect to US copyright law, but what intention means for these purposes is not always clear from the case law.¹²⁰ What is clear is that the UK and US positions differ because US law insists on there being an intention to become joint authors (not merely an intention to collaborate) of a sort which is not required in the UK.¹²¹ Arguably this should be unproblematic for Wikipedia contributors, given that the social norms that underpin participation in Wikipedia editing indicate an intention to offer contributions that will merge into the larger whole of either individual entries or of the encyclopaedia. Put another way, copyright's authorship categories make little sense where a creator willingly subsumes their contribution, even a 'personal' one. What is interesting about it is that the contribution and its sublimation into the large project is done by reference to that project and not to another author with whom any one contributor is acting in concert.

Wikipedia itself could be a collective work, the US Copyright Act referring specifically to encyclopaedias as examples of such a work.¹²² Or, Wikipedia as a whole may be a database. The identification of a stable work is, however, difficult because its content is always (at least potentially) changing. Unlike other copyright protected works, however, the (EU/UK) *sui generis* database right does account for the process of creation,¹²³ because any new, substantial investments in a database will ensure ongoing,¹²⁴ perhaps indefinite, copyright protection as the database continues to change. Nevertheless, while Wikipedia may constitute a database, it would likely not meet either the copyright database or *sui generis* database rights originality threshold because the author's own intellectual creation is evident in the creation of content rather than, as required, its selection or arrangement.¹²⁵

¹¹⁶ See eg, *Baigent v Random House* [2007] FSR 24. See Simone (n 101) 109, 111.

¹¹⁷ Successive drafts may themselves attract individual copyright protection (*LA Gear Inc v Hi-Tech Sports plc* [1992] FSR 121) but this would seem to apply to successive versions by the same, not different, authors: Simone (n 101) 108.

¹¹⁸ 17 USC §101; Hetcher (n 71) 888.

¹¹⁹ *Childress v Taylor* 945 F 2d 500 (2d Cir 1991), 508. An intention to merge contributions is an insufficient basis for finding joint authorship – the *Childress* test is more stringent than the legislation indicates on its face: *Thomson v Larsen* 147 F 3d 195 (2d Cir 1998) 200.

¹²⁰ Mark Perry and Thomas Margoni, 'Ownership in Complex Authorship: A Comparative Study of Joint Works' (2012) 34 EIPR 1, 28. The CDPA in the UK does not mention intention but rather collaboration: s 10(1), eg *Cala v McAlpine* [1995] FSR 818, 835–36.

¹²¹ Elena Cooper, 'Joint Authorship in Comparative Perspective: *Levy v Rutley* and Divergence between the UK and USA' (2015) 62 J Copyright Soc'y USA 245, 247–49.

¹²² United States Code s 101 'collective work' definition.

¹²³ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases [1996] OJ L77/20, art (1)(2); CDPA 1988, s 3A.

¹²⁴ Database Directive, art 7(1). See also C-203/02 *British Horseracing Board Ltd v William Hill Organization Ltd* [2005] ECDR 1, para 36.

¹²⁵ Simone (n 101) 112–13.

A way to sidestep the problems of mass social authorship for copyright law may be to introduce a new category of authorship – ‘collaborative authorship’ – not currently recognised in copyright law that would expand the concept of the author to include a wide range of contributors.¹²⁶ For example, it may be preferable to reform the EU test to account for ‘group level creativity’.¹²⁷ This raises a different problem, however, in potentially overexpanding copyright protection, as well as the obvious difficulties, canvassed above, in determining what is protected when a given ‘work’ is constantly evolving, making it difficult to identify both the ‘work’ and its authors at any point.

Copyright law is ill equipped to protect the outputs of a highly collaborative and interactive creative process: the production of UGC such as Wikipedia is necessarily social, with a site architecture to match.¹²⁸ In line with the elements of community and interactivity described above as hallmarks of UGC, works resulting from mass collaboration are ‘more a reflection of an ongoing social process than a commodity that can be owned and transferred’.¹²⁹ What this seems to suggest is the existence of a ‘romantic collective author’ in contrast to the better known ‘romantic author’¹³⁰ – whose existence is in any event highly disputed¹³¹ – but is in the context of UGC definitively removed as a viable description of authorship. UGC such as Wikipedia echoes existing and historical examples of the collective basis of creativity.¹³² We see again UGC highlighting existing fissures within copyright in its inability to deal with nonlinear works, and also a broader problem with recognising the temporality of creativity.¹³³ Similarly engaging with temporality are different types of accumulations, to which we now turn.

3.6 Accumulations

Accumulations of material raise yet new challenges – here we are concerned with gathering material and arranging it in a certain way, rather than creating or ‘producing’ discrete content in the first place. Where with mass social authorship we must vacillate between consideration of it as a whole and as a series of individual works, here there is only the whole to consider. An example of what are termed here accumulations of material is Wikimedia Commons, which contains publicly accessible works and gallery works.¹³⁴ Academic databases such as SSRN, academia.edu and researchgate are also arguably UGC, although they are platforms for gathering the information by either enabling individual academics to willingly submit their papers or

¹²⁶ Discussing a ‘collaborative work’ proposal by Rochelle Cooper Dreyfuss: Lionel Bently and Laura Biron, ‘Discontinuities Between Legal Conceptions of Authorship and Social Practices: What, if anything, is to be done?’ in Mireille van Eechoud (ed), *The Work of Authorship* (Amsterdam University Press 2014), 264.

¹²⁷ Van Gompel (n 113) 135–36.

¹²⁸ Niva Elkin-Koren, ‘User-Generated Platforms’ (2010) <<https://ssrn.com/abstract=1648465>> 19.

¹²⁹ Elkin-Koren ‘Tailoring Copyright to Social Production’ (n 2) 337.

¹³⁰ See generally Chon (n 109).

¹³¹ Indeed, romantic collective authorship such as Wikipedia is also highly problematic when the makeup of the participants themselves is lacking in diversity: *ibid* 845.

¹³² On collectivity and authorship generally see eg Martha Woodmansee, ‘On the Author Effect: Recovering Collectivity’ (1992) 10 *Cardozo Arts and Ent LJ* 279.

¹³³ Both in terms of the process leading to the creation of the work, and the way in which a work may change over time.

¹³⁴ For a discussion of Wikimedia commons and the National Portrait Gallery (UK) see Simon Stokes, *Art and Copyright* (Hart 2012) 156.

simply gathering that information (that is, citations and other metadata). These accumulations of material may well be databases though where information is submitted by individual academics into a predetermined structure, substantial investment would need to be demonstrated in the arrangement of the submitted material.¹³⁵ Copyright that subsists will be in the database as a whole and will belong to the database creator rather than individual academics who post their material.¹³⁶ To some extent this form of UGC does not pose the same problem as some other types of UGC discussed above, but similar difficulties do arise with respect to any individual contributions which are not likely to attract copyright protection – individuals may be said to be simply supplying information rather than creating a work.

A form of accumulation of material, but compiled by individuals, is UGC on platforms such as Pinterest where users gather the material of others, especially photographs copied from elsewhere on the internet which are then ‘pinned’ to various ‘boards’. Broader concerns around the use of material available in the intellectual commons apply but here the issue is whether Pinterest users are creating a work in which copyright subsists with the account holder as its author. Similarly, copyright is unlikely to subsist in social bookmarking, such as Digg, a practice which also generates content through the selection of material online.

3.7 Community-Derived Works

This section considers UGC within certain communities, primarily communities of fans. While much UGC takes part within a community broadly conceived, given the social nature of much UGC production, the shift here is to perhaps a paradigmatic form of UGC and the challenges it poses to copyright: fan fiction and similar creativity. Such creativity is based on existing works such as films or novels and, to a greater or lesser extent, their ‘universes’ or even ‘extended universes’ encompassing the entirety of a media franchise.¹³⁷ The use of Star Trek or Star Wars characters, themes, setting and plot lines is one example of this.¹³⁸ UGC communities, such as fan fiction message boards and forums where creators develop new stories about characters, often under the radar of copyright owners (on which more in the next part in light of social norms), also raise more fundamental questions about respect for authorship and the extent to which works available within the intellectual commons may be used for developing existing characters’ story arcs. A famous example of this is the disputes over the use of the character of Sherlock Holmes,¹³⁹ but the phenomenon is not something confined to UGC as we currently understand it.¹⁴⁰ Jean Rhys’ *Wide Sargasso Sea* (a prequel of sorts to Charlotte Brontë’s *Jane Eyre*) is an example not of fan fiction, but certainly of a work derived from existing stories

¹³⁵ Database Directive, art 1(2).

¹³⁶ Omitting here that academics will be the authors and likely owners of any academic papers posted.

¹³⁷ On franchises and audience interaction see generally Kathy Bowrey, ‘The New Intellectual Property’ (2011) 201 GLR 1.

¹³⁸ On types of transformations and transformative power see Rebecca Tushnet, ‘User-Generated Discontent: Transformation in Practice’ (2008) 31 Colum JL & Arts 497.

¹³⁹ Betsy Rosenblatt, ‘The Great Game and the Copyright Villain’ [2017] Transformative Works and Cultures 23 <<http://dx.doi.org/10.3983/twc.2017.0923>> accessed 10 October 2019.

¹⁴⁰ For parallels between eighteenth-century fan fiction and UGC see Elizabeth F Judge, ‘Kidnapped and Counterfeit Characters: Eighteenth-Century Fan Fiction, Copyright Law, and the Custody of Fictional Characters’ in Reginald McGinnis (ed) *Originality and Intellectual Property in the French and English Enlightenment* (Routledge 2009).

and characters: there has always been a risk (or opportunity?) that readers might become coauthors, even if not necessarily in a way that copyright law can or will recognise.

Leaving aside issues relating to potential copyright infringement and any relevant defences,¹⁴¹ the question addressed here is when readers/fans become coauthors using existing works, especially now that there exist, for example, social platforms such as StoryMash where creators actively collaborate with each other to produce new literary creations.¹⁴² Where a first author begins the story, any subsequent additions in this ‘treelike story structure’¹⁴³ may well be literary works of which the contributors are the sole authors; the position is more difficult, as with Wikipedia, with respect to the overall output. A critical question is whether all of the contributors are joint authors of a single literary work given that these additions are solicited by the instigating author. As discussed above, there would seem to be a ‘common design’ (in UK terms), but it is unclear that there is intention to become a joint author (in US terms) even if there is an intention to create a bigger, unified work.

By contrast, fan fiction in existing ‘universes’ is more diffuse. These are not single works but rather a constellation of actual and potential works orbiting around an initiating story, or stories, or even a minor detail or location of that story. The authors may be relatively easy to identify but the question here is whether these stories and other forms of creativity within that universe are original works. Fan fiction and the like present a challenge to copyright’s categories with respect to subsistence because the production of this type of UGC exceeds neat authorial boundaries. Rather, authorship is understood within communities of fans as having two aspects: member of the community/creator, and the property owner of their work (where ‘property’ refers to the social norms within the community while, counterintuitively perhaps, reinforcing the validity of copyright owned by the author on whose work the fan fiction is based).¹⁴⁴ Again, creativity within a community among fan fiction writers is not fundamentally a new development – arguably fan writing originates in the zine culture of the 1930s¹⁴⁵ – but the platforms for creating and disseminating the work are new. What UGC, specifically community-focused UGC, reveals, is not only the need for a radical decentring of both authorship and subsistence rules but also a more fundamental move away from copyright law as the lens through which the regulation of creativity is understood and which reflects the norms the communities in question rely on to thrive.

¹⁴¹ On which see Chapter 7.

¹⁴² On which see Rita Matulionyte, ‘A Boom in Self-Publishing and Its Legal Challenges’ (2017) 39 EIPR 12, 756 (Australian copyright context).

¹⁴³ *ibid.*

¹⁴⁴ See eg, Katharine Sarikakis, Claudia Krug and Joan Ramon Rodriguez-Amat, ‘Defining Authorship in User-Generated Content: Copyright Struggles in The Game of Thrones’ (2017) 19 *New Media & Soc* 4, 553. Making money is frowned upon as a copyright infringement in the author’s work (at 552).

¹⁴⁵ Cait Coker and Candace H Benefiel, ‘Authorizing Authorship: Fan Writing and Resistance to Public Reading’ (2016) *TXT* 22.

4. BEYOND COPYRIGHT: SOCIAL NORMS AND UGC

UGC is a constituent part of certain creative communities,¹⁴⁶ and its production highlights flaws and gaps in copyright protection. It suggests that much UGC may simply be beyond copyright in law, and if not in law, in practice. Social norms in UGC production present an additional front in challenging the viability of copyright as a framework for regulating creativity and in being attuned to the peculiar creative processes within a group and, crucially, sensitive to group understandings of authorship.

As the preceding discussion on fan fiction has suggested, and indeed as the concept of UGC as a social practice implies, informal rules among UGC creators are critical to understanding the challenges that UGC poses to copyright law's conceptions of authorship and subsistence by revealing (certain types of) creativity to be an essentially normbound activity in the absence of copyright. These rules are predicated on belonging,¹⁴⁷ and in some cases – fan fiction is the key example – creators will invoke explicit notions of family to provide 'kinship narratives' in opposition to a patriarchal model embodied in copyright law (of the single, powerful author of a work).¹⁴⁸ Rather, creators of fan fiction, and other fan works, are motivated not by the prospect of economic reward, as a standard justification for copyright law might have it, but rather – as are many creators more generally – by the *desire* to create and the experience of pleasure.¹⁴⁹ More than that, fandom within a community is supported by norms of behaviour to which fans are expected to adhere.¹⁵⁰ This is not to say that creators are unaware of copyright. On the contrary, a basic rule of fan fiction creativity is that 'negative attribution' is made (that is, the original creator is credited as the owner of the characters used)¹⁵¹ and that fan fiction is not commercially exploited.¹⁵² Creators are 'paid' in the credit they receive for their work.¹⁵³

That social norms exist within specific communities that offer a better 'fit' for UGC creative processes must also be understood as part of a bigger trend of the recognition of, for example, 'user-generated fair use principles'¹⁵⁴ in the US context, suggesting that custom already plays a role within intellectual property law.¹⁵⁵ In Australia, the ALRC recognised that social norms

¹⁴⁶ See eg, in the creation of fan games: Sal Humphreys and others, 'Fan-Based Production for Computer Games: User-Led Innovation, the "Drift of Value" and Intellectual Property Rights' (2005) 114 *Media International Australia, Incorporating Culture & Policy* 16.

¹⁴⁷ Indeed creativity may be understood precisely as the creation of belonging: see Betsy Rosenblatt, 'Belonging as Intellectual Creation' (2017) 82 *Mo L Rev* 91.

¹⁴⁸ Jenny Roth and Monica Flegel, 'It's Like Rape: Metaphorical Family Transgressions, Copyright Ownership and Fandom' (2014) 28 *Continuum* 6, on 'metaphorical family transgressions' (at 908–09).

¹⁴⁹ See Tushnet (n 25) 526.

¹⁵⁰ Casey Fiesler, 'Everything I Need to Know I Learned from Fandom: How Existing Social Norms Can Help Shape the Next Generation of User-Generated Content' (2008) 10 *Vand J Ent & Tech L* 729, 746.

¹⁵¹ Rebecca Tushnet, 'Payment in Credit: Copyright Law and Subcultural Creativity' (2007) 70 *LCP* 135, 154.

¹⁵² Viktor Mayer-Schönberger and Lena Wong, 'Fan or Foe: Fan Fiction, Authorship, and the Fight for Control' (2013) 54 *IDEA* 1, 8.

¹⁵³ Tushnet, 'Payment in Credit' (n 151) 152.

¹⁵⁴ Tushnet, 'User-Generated Discontent' (n 138) 499.

¹⁵⁵ Jennifer E Rothman, 'The Questionable Use of Custom in Intellectual Property' (2007) *Va L Rev* 1899.

may have a role to play in determining appropriate copyright rules.¹⁵⁶ The question becomes what to do with this information in the context of authorship questions raised by UGC. One potential outcome of taking into account social norms may be that copyright is able to recognise different categories of authorship including ‘principal author’, ‘ancillary author’ or ‘contributor’.¹⁵⁷ Such a classification may well neatly sidestep problems raised by mass social authorship, for example. But what the study of social norms also suggests is that it does not matter that some UGC is beyond copyright, in that copyright subsistence rules do not always fit, whether neatly or at all, the types of UGC which we have been considering. Not all creators are interested in whether their work attracts copyright protection but may, within certain communities, abide by their own rules to regulate creative production and achieve the aims – the production of their own culture – that copyright cannot.¹⁵⁸ This is a feature of UGC, and, to some extent, to treat it as a problem for copyright masks the richness and sheer creativity of UGC not only on its own terms, but also in the creative approaches taken to the regulation of creativity within communities.

5. CONCLUSION

UGC may be created ‘independently’ or derived from existing creativity; it may be more or less collaborative or interactive and take the form of discrete works with one creator, a single project with many creators, or it may take the form of structure to support yet further creativity such as platforms, or the simple but largescale accumulations of material. In many instances, as demonstrated here, subsistence and authorship rules are strained in the contemplation of UGC. This matters for two reasons: first, UGC heightens the problems already identified regarding the use of works within the intellectual commons; second, much UGC is produced within the context of a group or public either in a diffuse sense through online platforms that make creation and sharing easy, or through self-selection into communities of likeminded creators where the dissemination of their works may or may not be supported by one or more platforms. The proliferation of UGC thus challenges copyright’s conception of authorship, originality and subject matter. Examining the subsistence of copyright in UGC raises the prospect that copyright rules are neither well adapted nor even desirable as the frameworks for regulating creativity. But perhaps what underlies this – and as the snapshot of the UGC literature discussed in this chapter indicates – is that, fundamentally, copyright law cannot adequately contend with creativity that may produce an *author* and an *original work*, but is better understood as a practice within a community that decentres authorship and subsistence from the pedestal on which they are placed by copyright law.

¹⁵⁶ In the context of ‘consider[ing] community standards’: Australian Law Reform Commission, *Copyright and the Digital Economy* (ALRC Report 122, 2013) 235.

¹⁵⁷ Bently and Biron (n 126) 269, though not speaking specifically to UGC.

¹⁵⁸ See generally Kate Darling and Aaron Perzanowski, *Creativity without Law: Challenging the Assumptions of Intellectual Property* (NYUP 2017).

9. Mass digitization in the ebook market: copyright protections and exceptions

Jacqueline Lipton

1. INTRODUCTION: MASS DIGITIZATION IN THE PUBLISHING INDUSTRY

The digital age has raised challenges for many sectors of industry, notably those that have moved into the production of digital content, such as the music, gaming, television, film and publishing industries. Copyright law, and associated areas of law such as contractual licensing, have struggled to keep pace with the needs of creators, copyright owners and downstream users in these markets. The challenge for the development of copyright law has been exacerbated by the lack of social and market norms in relation to acceptable versus nonacceptable uses of online content in the digital world.

Many industries had over time developed well-established practices relating to, say, personal uses of content embodied in a physical object and the applications of doctrines such as fair use and first sale (exhaustion) in that context. However, the transfer of these concepts to the digital world has not been without its challenges. Courts, legislatures and market players have struggled to determine the extent to which a digital copy is like or unlike a physical copy of a creative work. Many factors come into play here, such as the fact that digital copies are often perfect or near perfect replicas of the original while physical copies often degrade over time. Additionally, digital copies can be recopied and disseminated on a scope and scale not previously possible with respect to physical copies.

While the music and film/television industries began to face these problems head-on toward the end of the twentieth century, the publishing industry was slower to adapt to new digital opportunities, and is only now emerging as an industry significantly challenged by the realities of digital content.¹ There are likely a number of reasons for the publishing industry's delayed entry into the digital world. It could be that the publishing industry, unlike the film/television, gaming, and music industries, had no prior history of dealing with intermediaries who provided devices to access and play their work. The music, gaming and film/television industries had dealt with such intermediaries for decades prior, including manufacturers of record players, video game consoles, audio and video cassette players, and later CD and DVD players. These other industries had a head start in understanding the technology and negotiating contractually with the intermediaries to protect their intellectual property rights (for example through the advent of DVD encryption incorporated into licensed DVD players using the DeCSS code in the late 1990s for video content). In contrast, Amazon did not release its first Kindle device (the first widespread consumer digital ebook reader) until 2007. Other

¹ Sarah Reis, 'Toward a "Digital Transfer Doctrine"? The First Sale Doctrine in the Digital Era' (2015) 109(1) *Nw U L Rev* 173, 176–7 (noting that the book industry was much slower to adopt digital media than the music, movie and television industries).

companies subsequently followed suit, with Barnes and Noble's Nook ebook reader released in 2009 and Apple's iPad in 2010.

Other reasons for the publishing industry's slow adoption of digital content might have related to: greater concerns about digital piracy in relation to text files than in the case of some larger multimedia files (due to ease of copying smaller and simpler text files);² concerns that their consumers largely wanted to hold physical books in their hands (which has been borne out in some markets today, notably the children's publishing market); and perhaps the fact that historically the industry has been a little more old-fashioned, for want of a better term, than the music, gaming and film/television industries, and has tended to stick with tried and true methods of creating and distributing content.

Whatever the reason for the slow adoption by the publishing industry of digital technology in the form of ebooks (both traditionally published and self-published) and digital audiobooks, the industry is an interesting case study for examination of copyright protection and the role of copyright exceptions to a growing digital practice. Historically, copyright was originally developed in the eighteenth century to protect the needs of the then emerging publishing industry in England and Europe. Many of the underlying rules and policies of copyright law were initially derived with the publishing industry in mind on both the domestic and international levels.

However, as digital technology has taken centre stage as the preferred mode of distributing content, the law has failed to identify and keep pace with the needs of various players in the publishing industry. This is partly because the players in the industry have diversified significantly. The traditional publishers have consolidated to a large extent, but alongside that consolidation, digital technology has also enabled the rise of independent publishing houses (often relying mainly or solely on the production and distribution of ebooks) and self-published authors (who tend to rely mainly on digital distribution channels).

Digital technology also allows new forms of copyright infringement – or, at least, existing possibilities are taken to a new level. Largescale, often international, digital piracy can take place on a scope and scale never previously available. Additionally, forms of copying that are less 'direct' than traditional piracy are facilitated by the new technology. It is easier than ever to cut and paste bits and pieces from other authors' work and present them as a new creation by a new author in the digital age. This kind of copying might be better regarded as a form of plagiaristic copying than the more direct digital piracy, although copyright law typically makes no distinction between the two. Many authors are, in fact, more troubled by the plagiaristic type of copying than by direct copyright piracy (wholesale copying and distribution of an entire work under the original author's name). There are a number of reasons for this particular concern about plagiaristic copying, including the fact that it is often easier to detect a case of direct piracy using digital tools than to catch the plagiaristic version. While software programs can easily trawl the web for instances of files that directly match a target file, where there has been cutting, pasting and paraphrasing the software is less effective at identifying instances of unauthorized copying.

² In terms of the development of digital reproduction and distribution technologies, earlier digital systems had less capacity to deal with larger files (typically produced by the content industries relating to audio and video content), so perhaps the book publishers felt themselves more at risk of digital piracy due to the ease in the early years of digital technology of reproducing and distributing text files, in particular due to their smaller file size.

Additionally, some authors feel that it is more personally insulting or upsetting to have someone else take credit for aspects of their work than to pirate it wholesale. Direct piracy does not typically deprive the author of attribution to the work, although it may deprive the author of income, while plagiaristic copying that repurposes an author's characters, settings or plotlines under someone else's name may be more personally affronting to the original creator.

Again, copyright law does not do anything much about the distinction between direct piracy and plagiaristic copying. If there is substantial copying, the activity will likely amount to a copyright infringement regardless of attribution. Arguably, moral rights laws in Berne Convention countries may cover some of the plagiaristic cases,³ and copyright infringement would definitely be a possibility where the substantive amount of copying met the copyright threshold, but attribution questions *per se* are usually outside the realm of traditional copyright law, except in countries that have enacted laws requiring attribution in accordance with Article 10(3) of the Berne Convention.⁴

In terms of copyright exceptions, the publishing industry is facing some interesting challenges as well, some of which arise from recent determinations about the application of exceptions in other industries such as software and music, and attendant questions about the extent to which those determinations should apply in the publishing context. For example, in 2012,⁵ the Court of Justice of the European Union held that in certain contexts, and in conformity with the provisions of the Software Directive,⁶ the owners of a software copyright cannot prohibit the resale of perpetual licences to use the software. In other words, the exhaustion or first sale doctrine may apply here.

However, the extent to which the exhaustion doctrine could apply to ebooks under the separate InfoSoc Directive is less clear.⁷ The court in *UsedSoft* did not rule on that issue.⁸ European courts have not reached any common ground on this issue, with decisions in Dutch and German courts respectively taking different approaches on the application of the exhaustion doctrine to ebook sales and a case currently pending before the Court of Justice of the

³ For example, the right of paternity/attribution set out in Art 6bis of the Berne Convention requires signatory countries to enact laws protecting an author's right to attribution.

⁴ Article 10(3) Berne requires that mention shall be made of the author and source of material that is quoted as a 'fair practice' from a published work.

⁵ Case C-128/11 *UsedSoft GmbH v Oracle* ECLI:EU:C:2012:407.

⁶ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs OJ L 140, 5.6.2009, p. 63–87.

⁷ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society OJ L 167, 22.6.2001, p. 10–19.

⁸ In the *UsedSoft* case, the CJEU took pains to differentiate the treatment of computer software from general copyright works in connection with exhaustion/first sale: see *UsedSoft* (n 5), para 30 ('The question arises, first, whether a person who, like UsedSoft's customers, does not hold a user right in the computer program granted by the rightholder, but relies on the exhaustion of the right to distribute a copy of the computer program, is a "lawful acquirer" of that copy within the meaning of Article 5(1) of Directive 2009/24. The referring court considers that that is the case. It explains that the marketability of a copy of the computer program which arises from the exhaustion of the distribution right would be largely meaningless if the acquirer of such a copy did not have the right to reproduce the program. The use of a computer program, unlike the use of other works protected by copyright, generally requires its reproduction. Article 5(1) of Directive 2009/24 thus serves to safeguard the exhaustion of the distribution right under Article 4(2) of Directive 2009/24').

European Union (CJEU). The current precedent on digital first sale in the United States relates to a resale market for digital music.⁹

The matter is made even more complicated by recent litigation in the CJEU about both the resale of digital books and the application of the public lending right to ebooks.¹⁰ Similar issues arise in relation to the public lending right as with respect to copyright infringement and first sale in the context of the digital landscape: the question being the extent to which a digital book should be treated like a physical book for downstream use.

Finally, there is the ever present question about the application of the more traditional, but often confused, application of defences such as fair use and fair dealing to particular uses of digital content. The US fair use doctrine, in particular – with its flexibility of application – provides little guidance as to whether newer and increasingly widespread digital uses of text would amount to fair uses in practice. Among the areas of concern in recent years (which have resulted in some litigation in the United States) are developments such as the Google book digitization project, the increasing prevalence of online fanfiction (including some fanfiction which is funded by crowdsourcing online) and, in a similar vein, the advent of the relatively shortlived Kindle Worlds owner-sanctioned fanfiction program that used contractual licences to enable the development of commercial fan works with the permission of the copyright owners.

This chapter provides a survey of current copyright issues with an emphasis on the development of copyright exceptions as they apply to the digital publishing market. It notes that while mass digitization of content in this industry over the past decade or so has led to new publishing opportunities, it has also led to challenges and problems for players in the market, and for associated laws in determining, crafting and enforcing principles that reflect emerging social and market norms.

2. LEGAL VERSUS ILLEGAL COPYING: A TAXONOMY OF DIGITAL BORROWING

As indicated above, the digital age facilitates many types of copying which were not possible, or at least not possible on the same scope and scale, in a market based on physical copying and distribution of content. While digital piracy and fanfiction, for example, did exist in the world before digital technology, they are now burgeoning in a way never previously contemplated. While digital piracy (wholesale copying and distribution typically for profit of someone else's work) has always been clearly illegal and potentially subject to both civil and criminal sanctions, whether physical or digital, some other forms of copying and distribution today raise challenges as to their legality.

The discussion of whether certain types of copying should or should not be regarded as lawful also implicates the question of copyright exemptions or defences, notably fair use or

⁹ *Capitol Records v ReDigi Inc*, 934 F Supp 2d 640 (SDNY 2013) *aff'd* 910 F. 3d 649 (2nd Cir., 2018); *cert denied*.

¹⁰ Kyle K Courtney, 'EU Court: Treat Ebooks like Print Books' (2016) *Libr J* <<http://lj.libraryjournal.com/2016/11/copyright/eu-court-treat-ebooks-like-print-books/>> accessed 10 October 2019. See also Chapter 24 of this book, 'Exhaustion of Rights on Digital Content under EU Copyright: Positive and Normative Perspectives', by Professor Stavroula Karapapa.

fair dealing. In some circumstances, a reproduction of aspects of an existing work appears to amount to a *prima facie* copy but is, or ideally should be, excused by a defence. In other cases, where, say, the copying is *de minimis*, or where the content borrowed consists more of ideas than underlying expression (or where the copying is not ‘substantial’ in US copyright law terms), there may be no copyright infringement in the first place. Thus, it is difficult to divorce the discussion of kinds of borrowing from a consideration of applicable exceptions.

The factors that typically tip the scales, at least in terms of social and market norms if not legal terms, between legal and illegal copying often have to do with money. Where a copyist is not profiting from someone else’s creation or otherwise making incursions into an actual or potential market of the copyright holder, the weight of opinion will likely be against the copying being unlawful. The provisions of Article 9(2) of the Berne Convention,¹¹ as well as of Article 13 of TRIPS,¹² reflect this intuition, despite the fact that these provisions were drafted prior to the digital age.

Another important issue in relation to the distinction between legal and illegal copying relates to how, and how much, has been repurposed from the original. In this context, it might be worth considering repurposing as falling into a number of distinct categories. The following list of potential categories of copying is not exclusive, but it does reflect distinct copying situations that have arisen in recent years within the digital publishing industry:

- (1) Direct literal copying of an entire text, usually for commercial sale (the classic ‘digital piracy’ situation).
- (2) Copying snippets of text from a single or multiple sources to create a new work.
- (3) Creating a new work based on characters, settings or plot points from one or more existing works without engaging in literal copying.

These categories could be further broken down into subcategories with enhanced emphasis on commercial profit motives, or likely impacts on the value of, or market for, the original work(s). The first category is largely settled as an unlawful use in most countries, although it still raises practical issues for authors.¹³ However, the two other categories can be problematic depending on the context. The second category in particular has arisen in practice, enabled by digital ‘cut and paste’ technology to enable the repurposing of others’ work with very little independent creative effort by the copyist, and often with a profit motive. This category is the basis of the ‘plagiaristic copying’ example in the introduction. Many authors of original works are particularly concerned about this type of copying, especially when engaged in for a profit motive, as both an incursion on their markets and as offending their creative practices.¹⁴ The same can, in fact, be true of the third example where literal words are not copied, but basic

¹¹ Article 9(2) of the Berne Convention provides: ‘It shall be a matter for legislation in the countries of the Union to permit the reproduction of “copyrighted” works in certain special cases, provided that such reproduction *does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author*’ (emphasis added).

¹² Article 13 of TRIPS provides: ‘Members shall confine limitations or exceptions to exclusive rights to certain special cases which *do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder*’ (emphasis added).

¹³ See below under section 2 for the discussion of author J A Saare’s attempts to combat digital piracy of her independently published work.

¹⁴ See below under section 2 for the discussion of Tammara Webber’s and Jamie McGuire’s attempts to combat this kind of copying.

characters and settings are. It may be that literal copying (the second category) is more troublesome in practice because it is more likely to constitute a *prima facie* copyright infringement, while the ‘concept copying’ category will depend on a judicial analysis of what was taken.

In either case, authors have expressed concern about copyists interfering with their creative processes by robbing them of incentives to create if their work is only going to be ‘stolen’ by someone who takes the original authors’ ideas and repackages them under the copyist’s name or pen name. Occasionally the use of a pen name itself is cause for concern and may be a sign that the copyist knows she has done something wrong and is trying to hide her identity.

One high-profile example of an author expressing concern over an alleged copyist’s interference with her creative process arises in the case of Stephenie Meyer’s *Twilight* books: in particular, the promised retelling of the first book from Edward’s (the romantic hero’s) perspective when the original book was told from the heroine’s (Bella) perspective. Meyer first expressed concern about interference with her creative process when someone obtained an unauthorized copy of her working draft of the retelling (titled *Midnight Sun*) and posted it on the Internet. Meyer publicly stated that she could not continue writing the book because she felt she had lost creative control over the text at that point.¹⁵ While the online dissemination was clearly an unauthorized distribution of the work for copyright purposes, it was not for profit and arguably would not have impacted the commercial potential of Meyer’s book, particularly as what was circulated was an incomplete draft. It would not have become a market substitute for the new book, had Meyer ever completed the work. In countries with robust moral rights laws, these activities likely would have infringed the moral rights of divulgation and possibly also integrity.¹⁶ However, in the United States, there are few effective moral rights laws that apply to the publishing industry.

Later, Meyer expressed concerns about the work of EL James, who had made a name for herself with the *Fifty Shades of Grey* trilogy, originally written as noncommercial *Twilight* fanfiction. James later published the works commercially to great success. Initially, Meyer did not express particular concern about the series, noting that erotic romance was not her genre anyway.¹⁷ However, when EL James later published a retelling of the first *Fifty Shades* book from the romantic hero’s (Christian Grey’s) perspective in a book entitled simply *Grey*, Meyer noted that she felt that EL James had, in a sense, pulled the creative rug out from under her feet. Meyer did not feel she could return to *Midnight Sun* after James had taken the same concept (that is, a retelling of the story from the hero’s point of view) and run with it herself.¹⁸

Meyer’s feelings reflect those of many authors who become hurt, and their creative process stalled, as a result of the ‘taking’ of their plots, settings and characters by other authors for their own ends, whether commercial or not. Remember that Meyer was equally upset about the unauthorized noncommercial distribution of her working draft of *Midnight Sun* as she

¹⁵ See discussion in Jacqueline Lipton, ‘Copyright’s Twilight Zone: Digital Copyright Lessons from the Vampire Blogosphere’ (2010) 70(1) Md L Rev 1, 2–3.

¹⁶ Ibid 19 (suggesting the adoption of such rights in US law to protect authors’ rights more effectively than is currently the case).

¹⁷ Fallon Prinzivalli, ‘“Fifty Shades of Grey”: Stephenie Meyer Speaks Out’ (*MTV News*, 29 May 2012) <www.mtv.com/news/1685954/fifty-shades-of-grey-stephenie-meyer/> accessed 10 October 2019.

¹⁸ Kim Renfro, ‘“Fifty Shades of Grey” is the Reason “Twilight” Fans will Never get the Spinoff They’ve Been Waiting Years For’ (*Business Insider*, 2 October 2015) <www.businessinsider.com/midnight-sun-interrupted-by-fifty-shades-of-grey-spinoff-2015-10> accessed 10 October 2019.

was about James's commercialization of the concept in the erotic romance genre. It should be noted that some of Meyer's fans have not taken her statements about James's interference with Meyer's creative process at face value. A number of them have suggested that Meyer has used James' work as yet another excuse not to complete a book she promised to her fans years previously. They may have a point, given that in the interim Meyer did publish a retelling of *Twilight* with the genders of the two main characters switched, entitled *Life and Death*, and that she has continued to write other books outside the *Twilight* franchise.

With respect to the second category of copying identified above (cutting and pasting literal segments of others' work to create a new and often commercially competing work), the situation involving the self-published new adult romance novel *Amazingly Broken* is instructive. The book was written under the pen name Jordin Williams. The author was a man named James Bishop who had created the Williams persona online, augmenting it with a photograph of a young woman. It is unclear whether he did this because he believed the book would have a greater market appeal if it was perceived to have been written by a woman, or if he was trying to hide his true identity because he knew he was infringing copyright and wanted to make it more difficult to identify him, or both.

In *Amazingly Broken*, Bishop took verbatim passages from previous bestselling new adult romance titles penned by authors Tammara Webber and Jamie McGuire. Because of the high volume of literal copying, Webber and McGuire were relatively easily able to resolve the issue by threatening a copyright infringement action. However, while their concern was largely with protecting their commercial market, the two authors were also disturbed by Bishop effectively stealing the fruits of their creative labours and passing it off as his own work. Jamie McGuire articulated her dual concerns (economic and creative) in a November 2013 blog post.¹⁹

In both the case of copying of literal chunks of others' texts and that of drawing closely from ideas, settings and characters from others' texts, the common thread is the original authors' dual concern about the possible economic impact of the new work on their established market and the artistic integrity of their creative work. In some cases, authors seem to be more concerned, or equally concerned, about matters of artistic integrity and about preventing what they consider to be plagiarism, or plagiaristic copying, than about economics.

In an age of mass digitization, the copying of literal chunks of others' work is easily enabled by readily available technology. In both the cases of copying literal segments of others' text and of copying concepts (without reproducing the actual original words), digital technology makes distribution easy and cheap for copyists. Programs such as Kindle Direct and other self-publishing platforms enable largescale digital distribution for virtually no cost. A copyist does not even need to find an agent or publisher.

Many digital publishing cases are never litigated. Webber and McGuire were the exception rather than the rule in terms of threatening legal action. McGuire notes on her blog that most lawyers advised them that the law was too unsettled and the case too hard to win to make it worthwhile to try.²⁰ At the time of the copying both Webber and McGuire were signed with agents and traditional publishers (having originally made their names as self-published authors), but neither author's publisher was interested in bringing legal action on behalf of

¹⁹ Jamie McGuire, 'The Worst (and Best) Day of My Career' (*Jamie McGuire*, 10 November 2013) <www.jamiemcguire.com/blog/2013/11/10/the-worst-and-best-day-of-my-career> accessed 10 October 2019.

²⁰ Ibid.

the authors.²¹ Technically, Meyer could have sued EL James for copyright infringement with respect to *Fifty Shades of Grey*, if she had been minded to do so, but there is no guarantee she would have succeeded. The law on the extent to which taking concepts behind plots, characters and settings from previous copyright works may be done is very unsettled, especially in relation to books.

Should copyright do more to protect the rights of original authors in cases of plagiaristic-style copying? If so, where should the line be drawn between the protection of the original work and the incentives to create new work building on existing work? These have never been questions that copyright law has answered with any degree of certainty. To the extent that authors worry about lack of attribution, the moral rights laws in some countries may assist, particularly with respect to the right of paternity or attribution. However, even that avenue of recourse does not deal with the perceived problem that the law is not protecting some kind of ‘zone of creativity’ around the author. In the United States, in particular, there are no significant moral rights laws to help authors in this context in any event.

Of course, US copyright law includes the ‘derivative works’ right, which arguably gives original authors more power over the repurposing or retelling of their original works than is perhaps the case in some other countries. In the United States, the copyright holder has the exclusive right to make or authorize a derivative work based on their own work. Derivative work is defined broadly in the statute to include ‘a work based upon one or more pre-existing works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted’.²² Despite the breadth of this right, authors continue to be advised that success in a copyright infringement suit in the kinds of cases mentioned above is uncertain.

The answers for those concerned about protecting their copyright in the ebook space remain elusive, especially with respect to legal advice about precisely what kinds of copying and distribution might infringe original copyrights. Mass digitization has raised new challenges and exacerbated existing challenges for authors, although the digital technology (and attendant legal developments) can be useful in certain situations, particularly in cases of detecting verbatim copying of the digital piracy kind. Additionally, laws in many jurisdictions, such as 17 USC § 512 (the copyright act) in the United States, provide ‘notice and takedown’ regimes for cases of suspected copyright infringement which require online intermediaries such as Amazon to remove infringing content on notice from the copyright holder, or risk copyright liability themselves.

Thus, the news for copyright holders in the digital publishing industry is good and bad. Uncertainty remains as to the contours of some lawful versus unlawful copying, but at least cases of clearcut digital piracy are perhaps more easily addressed than ever before. That is not to say that the time and effort that typically go into addressing straightforward cases of digital piracy are not significant. Especially for self-published authors who have to take on pirates on their own without the help of a publisher’s legal department, the time commitment to stamping out piracy can be a drain on the author’s creative life. This problem has been well documented by urban fantasy/romance author JA Saare (a pen name) who was plagued for a number of years, by online piracy of her successful self-published *Rhiannon’s Law* series of books. She

²¹ Ibid.

²² 17 USC § 101.

found herself spending so much time sending ‘notice and takedown’ requests and otherwise tracking down instances of piracy that she considered discontinuing the series due to the disproportionate amount of energy she was putting into warding off digital pirates.²³

3. FAIR USE/FAIR DEALING

It is obviously important to consider copyright exceptions or defences in concert with questions about copyright infringement in order to obtain a more complete picture about lawful and unlawful activities in the digital publishing industry. Some activities that involve *prima facie* infringement will be excused under a doctrine such as fair use/fair dealing, or some other defence. The United States maintains a fair use regime which is a flexible approach to noninfringing uses, allowing courts to adapt the doctrine to new technological situations and market practices. Other countries, such as the United Kingdom, Australia, Singapore, India and Canada, rely more on a fair dealing regime, which tends to be more prescriptive about the specific types of activities that may be excused under the defence.

While digital technology enables new kinds of copying, or at least existing kinds of copying, on a scope and scale never previously possible, it also allows new forms of fair use. Courts have struggled to pinpoint precisely what kinds of uses of digital text files will fall within the contours of the defence. In the United States, judges have confronted questions about large-scale book digitization projects, such as Google Books, and the extent to which Google can avail itself of the fair use defence when it digitally copies a vast store of literature from around the world.²⁴ Questions relating to fanfiction as fair use have also confronted US courts, but so far not typically in the publishing context. A recent decision in California held that a fan film relating to the *Star Trek* universe could not avail itself of the fair use defence.²⁵ The precedents currently existing in the United States relating to fair use and commercial fiction largely predate the digital age, but some of the principles will be applicable in terms of findings in relation to substantial similarity and fair use.²⁶ Courts in the US are also currently considering the extent to which the compilation of digital course packs that make unauthorized use of excerpts from academic literary works may amount to fair use, in the *Georgia State University* litigation.²⁷

Because of the flexibility of the US fair use defence, there are few concrete guidelines about when, and the extent to which, a digital project will fall within its parameters. The key factors for most courts in recent years have been ‘factors one and four’ of the statutory defence, which appears in 17 USC § 107. These are the factors courts are instructed to consider when dealing

²³ Jacqueline Lipton, ‘Copyright, Plagiarism, and Emerging Norms in Digital Publishing’ (2014) 16(3) *Vand J Ent & Tech* 585, 597 (see also footnote 60).

²⁴ See, for example, *Authors Guild v Google* (2015) 804 F 3d 202.

²⁵ *Paramount Pictures Corp. v Axanar Prods., Inc.* No. 2:15-cv-09938-RGK-E (CD Cal 3 Jan 2017).

²⁶ Jacqueline Lipton, ‘Copyright and the Commercialisation of Fanfiction’ (2014) 52(2) *Hous L Rev* 425, 438–9.

²⁷ *Cambridge University Press v Becker*, 853 F Supp 2d 1190 (ND Ga 2012); 769 F 3d 1232 (11th circuit, 2014); ND Ga, 31 March 2016 <https://scholarworks.gsu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1007&context=univ_lib_copyrightlawsuit> accessed 10 October 2019; and Case No 16-15726 In the United States Court of Appeals for the Eleventh Circuit (19 October 2018) <<http://media.ca11.uscourts.gov/opinions/pub/files/201615726.pdf>> accessed 10 October 2019.

with a fair use issue. They revolve respectively around the ‘nature of the use’ and the likely impact of the use on an actual or potential market for, or value of, the original copyright work. Both factors require some consideration of the economic impact of the infringer’s activities, although the first factor requires examination both of whether the infringer’s activities are for a commercial purpose and, typically, whether the use is ‘transformative’ in some way – that is, adding new insights or appreciations to the original. The Google Books project was held to be transformative in a functional sense in that it enabled deep text searching of digital books (unavailable in the physical world) and also access to the disabled.²⁸

The fourth factor has raised some concerns in relation to the digital course pack environment. In the context of applying this factor, courts have turned their attention to the ready availability of an authorized licensing market for the works, suggesting that if such a market exists, the infringer’s use is less likely to be a fair use if she did not avail herself of the licensing market.²⁹ If this approach is taken further in the United States, it may become more difficult to argue fair use in cases where the work is transformative (whether in the educational context or otherwise) provided that an authorized licensing market is, or potentially could be, available.³⁰ The increasing availability of contractual licensing markets for fanfiction may be an area where this issue comes into stark relief. For example, in May 2013 Amazon established the previously mentioned ‘Kindle Worlds’ program under which it obtained licenses from copyright holders of various copyrighted properties to allow Amazon users to write fanfiction in the relevant fanworks, and even to sell the fanworks commercially on Kindle Direct, as long as they complied with contractual licensing terms articulated by the content holders. Some of these terms were quite draconian, limiting what creative uses could be made of copyrighted content often significantly, and also typically providing that the original copyright holder would own copyright in the fanwork.³¹ Amazon closed down the program in May 2018 without giving a reason, although it seems clear that the program wasn’t particularly successful and likely raised many issues about copyright and creative freedom.³² As of May 2018, Amazon informed authors that it would be making final royalty payments for any commercialized fan work on the site and then removing all work from sale by August of 2018.³³

If some of the comments from the *Georgia State University* (digital course pack) case are taken to their logical extreme,³⁴ it may be that the availability of fanfiction programs like Kindle Worlds precludes at least some fair uses of relevant content: at least with respect to the works covered by Amazon’s program or similar programs. If the availability of a licensing

²⁸ *Authors Guild v Google* (2015) 804 F 3d 202.

²⁹ Lipton (n 26) 450–51.

³⁰ It’s important to note here that the course pack issue will be resolved differently, and more easily, in countries that have clear guidelines for educational uses of copyrighted work: for example, Australia and the United Kingdom.

³¹ Lipton (n 26) 461–3.

³² See Rebecca Tushnet, ‘All of This Has Happened Before and All of This Will Happen Again: Innovation in Copyright Licensing’ (2014) 29(3) *Berkeley Tech LJ* 1447; Jeff Roberts, ‘Amazon’s Fan Fiction Portal Kindle Worlds is a Bust for Fans and for Writers Too’ (*Gigaom*, 17 August 2014) <<https://gigaom.com/2014/08/17/amazons-fan-fiction-portal-kindle-worlds-is-a-bust-for-fans-and-for-writers-too/>> accessed 10 October 2019.

³³ Nate Hoffelder, ‘Amazon to Shut Down Kindle Worlds’ (*The Digital Reader*, 15 May 2018) <<https://the-digital-reader.com/2018/05/15/amazon-to-shut-down-kindle-worlds/>> accessed 10 October 2019.

³⁴ *Cambridge* (n 27).

market authorized by the copyright holder is a factor against fair use, then the availability of a fanfiction licensing market such as Kindle Worlds may convince courts that much fanfiction is not fair use, at least fanfiction that could have been created under an available licensing program. The lack of success of Kindle Worlds when compared with unlicensed fanfiction platforms arguably demonstrates that commercial licensing markets should not in fact preclude claims of fair use, given that the licensed versions of these programs are typically more restrictive in terms of creative content and transformative use than licensed programs.

Of course, the availability of a licensing market only relates to one of the fair use factors in § 107. Even if that factor weighs against fair use, other factors may support a finding of fair use: for example, to the extent that it focuses on transformative uses of the original material, the first factor may support a finding of fair use for much fanfiction. Most fan works are typically transformative of the original, casting the characters and settings in a new light. Additionally, much fanfiction is not for a commercial purpose, which is also a consideration under the first fair use factor. Again, noncommercial use may weigh in favour of fair use for much fanfiction.

The main problem for creators of fanfiction in the current digital copyright world is that there is very little certainty or even clear guidance as to whether noncommercial fanfiction is a fair use. Many of the websites that host noncommercial fanfiction include contract terms that attempt to shield themselves from liability for anything a user might post: for example, in Wattpad's terms of service,³⁵ it is stated that a user may not post material in which the copyright belongs to someone else (without authorization from that party)³⁶ and also that a user will indemnify Wattpad in the case of a copyright infringement action.³⁷ Wattpad also includes the standard 'notice and takedown' procedure required under US copyright law for situations where a copyright owner claims that material found on the website infringes a copyright.³⁸

Fair use/fair dealing defences face significant challenges in the digital world with respect to both newer forms of user generated content (such as large scale fanfiction communities) and more traditional uses that are moving online (such as digital course packs) that are being created, uploaded and disseminated, often across national borders, at the push of a button.

While all digital content industries have been affected by these trends, the publishing industry has been later to face these challenges than some other industries. In some ways this

³⁵ See [wattpad.com](https://www.wattpad.com/terms-of-service), accessed 10 October 2019.

³⁶ See clause 6D <<https://support.wattpad.com/hc/en-us/articles/200774344-Terms-of-Service>> accessed 10 October 2019. This clause provides: 'In connection with User Submissions, you further agree that you will not submit material that is copyrighted, protected by trade secret or otherwise subject to third party proprietary rights, including privacy and publicity rights, unless you are the owner of such rights or have permission from their rightful owner and the necessary consents from any individuals whose personally identifiable information is contained in such material to post the material and to grant Wattpad.com all of the license rights granted herein.'

³⁷ Ibid clause 11 which provides, among other things: 'You agree to defend, indemnify and hold harmless Wattpad.com, its parent corporation, officers, directors, employees and agents, from and against any and all claims, demands, causes of action, damages, obligations, losses, liabilities, costs or debt, and expenses, (including but not limited to reasonable legal fees) arising from: (i) your use of and access to the Wattpad.com Website; (ii) your violation of any term of these Terms of Service; (iii) your violation of any third party right, including without limitation any copyright, intellectual property, or privacy right; or (iv) any claim that one of your User Submissions caused damage to a third party. This defence and indemnification obligation will survive these Terms of Service and your use of the Wattpad.com Website.'

³⁸ Ibid; 17 USC § 512.

is a benefit for the publishing industry, as it can draw from developments in other industries (such as fanfiction in the movie and television area) in ascertaining guiding principles for text-based content. Nevertheless, the lack of clear guidelines with respect to fair use in the digital publishing world creates uncertainties, which will hopefully be resolved to some extent in coming years in a way that encourages initial creation alongside socially beneficial downstream uses of copyrighted material.

4. FIRST SALE/EXHAUSTION

In many ways the challenges for the first sale (or exhaustion) doctrine in the digital world are even more pronounced than those that arise with respect to fair use. First sale relates to the extinguishing (or exhaustion) of rights in a particular copy of a copyrighted item once that item has been lawfully sold in the marketplace. Thus, in the physical world, once a textbook has been lawfully sold to a student, that student can do whatever she likes with that particular copy, including lending it to a friend, selling it at a used bookstore or donating it to a library. Not all countries have adopted the first sale doctrine in the same way in the copyright context. There has been disagreement both between and within countries about whether a foreign first sale should extinguish the copyrights in a particular copy of a work.³⁹ This question was tested in the United States Supreme Court relatively recently in *Kirtsaeng v John Wiley and Sons*,⁴⁰ with respect to the first sale provisions of the US Copyright Act 1976.⁴¹ A majority of the court held that a lawful foreign first sale will exhaust the rights of the copyright holder in the particular copy or copies sold, thus settling the prior uncertainty on the question in the United States.

In some countries, a 'resale right' is reserved to the creator of certain works, enabling the collection of royalties on second and subsequent sales of particular items, particularly art works that may increase in value over time.⁴² These rights tend not to involve the publishing industry to any great extent.

Because of the divergences of opinion in relation to first sale, both in the copyright context and in other intellectual property contexts, the TRIPS agreement does not tackle the question of exhaustion of intellectual property rights, leaving it to individual Member States to adopt their own rules on the issue. The downside of this approach is lack of international harmonization and clear global guidelines in relation to exhaustion. However, the benefits are the possibility of an international arbitrage approach to developing exhaustion doctrines in the digital world in which each country can look to developments being tested in other countries to ascertain the most effective approaches to the question over time.

The main challenge to the first sale doctrine in the digital copyright world arises as a result of the ability of digital technology to enable licensing models over content in place of more traditional sales. A combination of technological encryption measures and restrictive contractual

³⁹ For a discussion of this issue in the European Union context, see Alexander Pope, 'A Second Look at First Sale: An International Look at U.S. Copyright Exhaustion' (2011) 19(1) J Intell Prop L 201, 216–23.

⁴⁰ 568 US 519, 133 S Ct 1351 (2013).

⁴¹ 17 USC § 109.

⁴² See, for example, Directive 2001/84/EC of the European Parliament and of the Council of 27 September 2001 on the resale right for the benefit of the author of an original work of art, OJ L 272, 13.10.2001, p. 32–36.

licensing terms allows a copyright holder to retain significant control over what a downstream user is able to do with a copy of the work. Thus, for example, in the music industry, iTunes is able to license music to its users, rather than to sell physical CDs. Through encrypted file formatting and other technological controls it can monitor devices on which the content is used, and restrict the use to licensees who must input their username and password to access the system.

The same is true in the publishing industry: for example, ebooks ‘sold’ through Amazon for Kindle or through Barnes and Noble for Nook can only be read on a certain number of devices registered to a particular user. The arrangement is described as a licence rather than a sale, even though, when a user purchases content online, they will press a ‘buy’ button, suggesting the transaction is, or at least is like, a sale.

The significance of licensing rather than selling content is that the first sale doctrine arguably is not triggered by a license because there is no actual ‘first sale’ to which the doctrine could apply – the content is simply licensed to the user under license terms set out by the intermediary providing the service (for example, Amazon, Barnes and Noble, iTunes, Hulu, Netflix). Of course, it is possible to attach licence terms to physical goods such as physical books, CDs and DVDs. For example, an instructor copy of a textbook may be provided by a publisher on condition that it is not sold commercially in a secondhand market. However, it is much more difficult to enforce those kinds of terms with a physical object because it is much more difficult for the seller/licensor to track the physical items in the marketplace than is the case with digital content. Additionally, the transfer of a physical item from one entity to another ‘feels’ more like a sale in normative terms than perhaps the download or streaming of digital content does.

Courts around the world have been faced with a number of cases in recent years where downstream players in content markets attempt to create services that emulate ‘secondhand markets’ for digital content, arguing that the digital content, even if released under restrictive licence terms, should be treated like a physical object and subject to the first sale doctrine.

The touchstone case on this question in the United States in recent years involves the music industry. In *Capitol Records v ReDigi*, the defendant established a service allowing people to trade in their digital music as would be the case in a physical secondhand record store. The system required a transfer of relevant files from the customer’s hard drive to the ReDigi server, and a deletion of the file on the customer’s hard drive in the process. When ReDigi onsold the file to a new customer, the same process occurred, that is, the file was copied to the new purchaser and wiped from ReDigi’s server.

The US District Court for the Southern District of New York held that the service infringed copyright and that ReDigi could not take advantage of the fair use or first sale doctrines with respect to the unauthorized copies made on its server. This decision was affirmed in 2018 by the Second Circuit Court of Appeals, and certiorari was subsequently denied by the Supreme Court. While there have been no US cases on digital first sale in the publishing context, the holding in *ReDigi* has been of interest to the publishing industry because the basic holding against a first sale defense for digital music likely applies equally to digital books.

The story on first sale or exhaustion has been a little more complex in the European Union, with conflicting judgments in national courts on the issue, several of which do involve the publishing industry. The most significant judicial determination on exhaustion in the European Union to date is probably *UsedSoft GmbH v Oracle International*, mentioned previously, which involved an exhaustion question in relation to copyrighted database software and an

associated interpretation of relevant provisions of the EU Software Directive. Several EU Directives include the exhaustion doctrine, and the Software Directive applies it only in relation to computer software rather than to copyright works more generally. Thus, in the European Union there arguably remains an open question over the extent to which interpretations of the Software Directive on exhaustion would apply to copyright works not covered by that Directive. Questions about exhaustion of digital content under EU law are taken up in more detail in other chapters of this book.⁴³ In September of 2019, in the context of a CJEU case involving an attempt to legally resell ebooks, *Tom Kabinet*, Advocate General Szpunar issued an opinion to the effect that digital exhaustion, or first sale, does not apply to attempts to create secondhand markets in digital books, and that the ability to download such an ebook for permanent use is covered by the public communication right in EU copyright law, rather than by the distribution right, so the exhaustion defense does not excuse the reseller.⁴⁴

Even if a first sale/exhaustion argument could apply to digital books or other digital content in an attempted secondhand market paradigm, it would only excuse infringements of the distribution right reserved to copyright holders. It would not apply to other rights such as the public communication or reproduction rights. The Advocate General in *Tom Kabinet* made it clear that distribution of permanent digital copies of protected books is an infringement of the public communication right. In the United States, in the case of digital music files, the court in *ReDigi* made it clear that making copies of a work for secondhand market purposes is an infringement of the reproduction right, regardless of the distribution rights in the works. With respect to the reproduction right, the court in *ReDigi* did not accept a fair use argument in relation to ReDigi's attempts to mimic a secondhand market for digital music by deleting the original file from the user's computer and reproducing the file on its own server for sale to a third party. In applying the fair use factors set out in the American copyright act, the court held that the reproductions here were not transformative in any way and were clearly for commercial purposes (under the first factor);⁴⁵ the second fair use factor did not add anything significant to the analysis under the first factor;⁴⁶ they comprised the entire work (under the third factor);⁴⁷ and they were a perfect market substitute for the original work (under the fourth factor).⁴⁸

As *ReDigi* illustrates, it is possible for fair use and first sale questions to become bound up together with respect to a particular technology. In *ReDigi*, if ReDigi's reproductions of music files in their own servers to substitute for those in users' devices are not fair uses, they cannot be regarded as 'lawfully made' under the copyright act for the purposes of the first sale defence in § 109. Thus, we may see more interplay between the fair use and first sale defences in the digital context in the United States than has been the case in the world of physical copies.

⁴³ See Chapter 10 of this book, 'Ebooks/Mass Digitization Projects: The Role of Licensing', by Eleonora Rosati; Karapapa (n 10).

⁴⁴ C-263/18 *Nederlands Uitgeversverbond v Tom Kabinet*, Opinion of the Advocate General Szpunar ECLI:EU:C:2019:697.

⁴⁵ *Capitol Records v ReDigi*, 910 F. 3d 649, 661 (2nd Cir., 2018).

⁴⁶ *Ibid*, 661–2.

⁴⁷ *Ibid* 662.

⁴⁸ *Ibid* 662–3.

5. CONCLUSION

Mass digitization in the ebook area, including in terms of the explosion of self-publishing and hybrid publishing models in recent years, has created a number of pressure points for copyright law, both in relation to the kind of protection copyright provides for authors and others and in terms of the operation of copyright exceptions such as fair use and first sale. While there have been calls, both in the past and more recently, for legislative clarification on some of the key issues, it may be preferable to allow social and market norms and judicial determinations to inform evolving practices in the digital copyright area in the near future. After all, the digital publishing industry is still in its relative infancy, as compared with other digital industries like the film, television and music industries. Premature legislative action may stifle creativity or impose unnecessary burdens on various players. It may be better to allow online practices to develop more organically over time and then consider legislation when a clearer picture of the market emerges.

10. Ebooks and mass digitization projects: the role of licensing

Eleonora Rosati

1. INTRODUCTION

Until recently, licensing in the digital context has been marked by soft law developments at the EU level, such as the 2011 Memorandum of Understanding on the digitization of out-of-commerce works and mass digitization projects,¹ and national initiatives, such as the UK licensing scheme for orphan works.² However, the developments outlined below offer a clearer perspective on how the licensing framework has been subject to contrasting forces, thus signalling an evolution of the relevant terms of reference at the EU level. First, the copyright owner's control over online distributions of their work appears stronger than in analogue contexts; second, the 'high level of protection' recognized by relevant EU directives is reserved in the first place to authors. While the former conclusion is likely to hold true even if and when the opportunity arises to test it before the Court of Justice of the European Union (CJEU), the latter appears to have already been challenged at least at the policy and legislative level, that is, in the context of the recently adopted Directive on copyright in the Digital Single Market (DSM Directive).³

In all this, over the past few years, the CJEU has tackled issues relating to the scope of exclusive rights on several occasions. With regard to the issue of control, the CJEU has clarified – notably in the recent decision in *Reprobelle*,⁴ and that in *Soulhier and Doke*⁵ – that under the principal EU copyright directive, Directive 2001/29 (the InfoSoc Directive),⁶ authors are the first owners of the exclusive rights harmonized by that piece of EU legislation and, as such, are in a position to grant third parties a licence to perform restricted acts. These two decisions

¹ Memorandum of Understanding, 'Key principles on the digitisation and making available of out-of-commerce works' (20 September 2011) <http://www.eblida.org/Experts%20Groups%20papers/EGIL-papers/Signed_MoU%20OOC%2020.09.11.pdf> accessed 10 October 2019. See further Caterina Sganga, 'The Eloquent Silence of *Soulhier and Doke*' (2017) 12(4) JIPLP 321, 322–23.

² UK Copyright, Designs and Patents Act 1988, s 116A. For a critical appraisal in light of EU law obligations, see Eleonora Rosati, 'The Orphan Works Provisions of the ERR Act: Are They Compatible with UK and EU Laws?' (2013) 35(12) EIPR 724.

³ At the time of writing this chapter in February 2019, the DSM Directive had yet to be adopted. Eventually, this new piece of legislation was adopted as Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC [2019] OJ L 130/92.

⁴ Case C-572/13 *Hewlett-Packard Belgium SPRL v Reprobelle SCRL* [2015] ECR 750.

⁵ Case C-301/15 *Marc Souhier and Sara Doke v Premier ministre and Ministre de la Culture et de la Communication* [2016] ECR 878.

⁶ Council Directive (EC) 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (InfoSoc Directive) [2001] OJ L 167 10–19.

have marked an important step in the construction of EU copyright and set firm guidelines for EU Member States.

The second aspect is that, with particular regard to copyright content in digital format falling under the scope of the InfoSoc Directive (including – among other things – ebooks, videogames,⁷ music and audiovisual tracks, and so on) it may not be clear whether and to what extent the holder of the right of distribution pursuant to Article 4 therein may control relevant online disseminations of such content.⁸ In other words, it remains uncertain whether the InfoSoc Directive envisages an exhaustion of the right of distribution for the sale of copies of a work other than physical ones, although hints in CJEU case law (notably *UsedSoft*,⁹ *Allposters*,¹⁰ and *Vereniging Openbare Bibliotheken*¹¹) suggest that such possibility may be precluded under the InfoSoc Directive. It is expected that when the CJEU decides the pending reference for a preliminary ruling in *Nederlands Uitgeversverbond and Groep Algemene Uitgevers*, C-263/18, further clarity on this point will be provided.¹²

This chapter is structured as follows. Section 2 focuses on the subjects entitled to grant licences for the use of their works, and analyses relevant CJEU case law on this point. Section 3 addresses issues of digital exhaustion or lack thereof. Section 4 briefly touches upon licensing of orphan works. Section 5 discusses relevant evolution in the areas of consent and exploitation of content in digital form. The chapter concludes by emphasizing how the digital licensing framework at the EU level has been undergoing an evolution, in which legal, policy and business developments alike play a significant role.

2. THE CONSENT OF WHOM?

Recitals 4 and 9 in the preamble to the InfoSoc Directive refer to a requirement – that of granting a ‘high level of protection’ – which, over time, has been relied upon with increasing frequency by the CJEU. It is not entirely clear, however, who is to be intended as the beneficiary of such high level of protection: while Recital 24 refers, loosely, to ‘intellectual property’, the

⁷ In Case C-355/12 *Nintendo Co. Ltd and Others v PC Box Srl and 9Net Srl* [2014] ECR 25, the CJEU confirmed that (para 23) ‘videogames . . . constitute complex matter comprising not only a computer program but also graphic and sound elements, which, although encrypted in computer language, have a unique creative value which cannot be reduced to that encryption. In so far as the parts of a videogame . . . are part of its originality, they are protected, together with the entire work, by copyright in the context of the system established by Directive 2001/29.’

⁸ For a discussion of national (German) case law, see Masa Savič, ‘The Legality of Resale of Digital Content after *UsedSoft* in Subsequent German and CJEU Case Law’ (2015) 37(7) EIPR 414, 419–23.

⁹ Case C-128/11 *UsedSoft GmbH v Oracle International Corp* [2012] ECR 407.

¹⁰ Case C-419/13 *Art & Allposters International BV v Stichting Pictoright* [2015] ECR 27.

¹¹ Case C-174/15 *Vereniging Openbare Bibliotheken v Stichting Leenrecht* [2016] ECR 856.

¹² This case has originated from longstanding litigation in the Netherlands over the activities of secondhand ebook trader Tom Kabinet. While the referring court, the Rechterbank Den Haag (Court of The Hague), has held that Tom Kabinet is not liable for unauthorized acts of communication to the public under the Dutch equivalent of Article 3(1) of the InfoSoc Directive, it remains unclear whether he could successfully invoke exhaustion of the right of distribution pursuant to the Dutch equivalent of Article 4(2) of the InfoSoc Directive in relation to its ebook trade.

CJEU has often indicated ‘authors’ as those who should be guaranteed a high level of protection,¹³ although *Svensson* refers to ‘copyright holders’¹⁴ and *Zürs.net* to ‘copyright’.¹⁵

In the recent decisions in *Reprobel* (a reference concerning the beneficiaries of the fair compensation for reprography and private copying) and *Souliez and Doke* (a reference concerning the digitization of out-of-commerce works) the CJEU has clarified that authors are in the first place the direct beneficiaries of the InfoSoc Directive. Such conclusion was not obvious: this is demonstrated by the fact that, as a result of the CJEU judgments, relevant provisions in – respectively – Belgian and French laws would be incompatible with the EU law obligations of those Member States.

2.1 *Reprobel*

Although this case concerns the different area of copyright exceptions and limitations, it is relevant in the context of the present discussion in that, together with *Souliez and Doke*, it clarifies how the author principle is intended under the InfoSoc Directive.

This reference for a preliminary ruling originated in the context of litigation between Hewlett-Packard (HP) and collective management rights organization Reprobel over the level of fair compensation for reprography and private copying pursuant to the Belgian implementations of, respectively, Article 5(2)(a) and (b) of the InfoSoc Directive. Both copyright limitations, in fact, are subject to the requirement that rightholders receive fair compensation. As explained by Recital 35 in the preamble to the InfoSoc Directive, fair compensation is intended to compensate adequately rightholders for the use made of their protected works. Although Member States retain a certain freedom in determining the level and modalities of fair compensation, account should be taken of the particular circumstances of each case. Recital 35 mandates that ‘[w]hen evaluating these circumstances, a valuable criterion would be the possible *harm* to the rightholders resulting from the act in question’ (emphasis added).

Among the questions referred by the Brussels Court of Appeal was whether Member States – as it was a Belgian case – can allocate half of the fair compensation due to rightholders to the

¹³ See, *ex multis*, Case C-306/05 *Sociedad General de Autores y Editores de España (SGAE) v Rafael Hoteles SA* [2006] ECR I-11519 479, para 36; Case C-5/08 *Infopaq International A/S v Danske Dagblades Forening* [2009] ECR I-06569 465, para 40; Case C-393/09 *Bezpečnostní softwarová asociace – Svaz softwarové ochrany v Ministerstvo kultury* [2010] ECR I-13971 816, para 54; Case C-403/08 *Football Association Premier League Ltd and Others v QC Leisure and Others* and Case C-429/08 *Karen Murphy v Media Protection Services Ltd* [2011] ECR I-09083 631, para 186; Case C-607/11 *ITV Broadcasting Ltd and Others v TV Catch Up Ltd* [2013] ECR 147, para 20; Case C-145/10 *Eva-Maria Painer v Standard VerlagsGmbH and Others* [2011] ECR ECR 798, para 107; Case C-351/12 *OSA – Ochraný svaz autorský pro práva k dílům hudebním os v Léčebné lázně Mariánské Lázně as* [2014] ECR 110, para 23; Case C-419/13 *Art & Allposters International* [2015] ECR 27 cit, para 47; Case C-151/15 *Sociedade Portuguesa de Autores CRL v Ministério Público and Others* [2015] ECR 468, para 12; Case C-325/14 *SBS Belgium NV v Belgische Vereniging van Auteurs, Componisten en Uitgevers (SABAM)* [2015] ECR 764, para 14; Case C-160/15 *GS Media BV v Sanoma Media Netherlands BV and Others* [2016] ECR 644, para 30; Case C-275/15 *ITV Broadcasting Limited and Others v TVCatchup Limited (in administration) and Others* [2017] ECR 144, para 22; Case C-527/15 *Stichting Brein v Jack Frederik Willems* [2017] ECR 300, para 27; Case C-610/15 *Stichting Brein v Ziggo BV and XS4All Internet BV* [2017] ECR 456.

¹⁴ Case C-466/12 *Nils Svensson and Others v Retriever Sverige AB* [2014] ECR 76, para 17.

¹⁵ Case C-138/16 *Staatlich genehmigte Gesellschaft der Autoren, Komponisten und Musikverleger registrierte Genossenschaft mbH (AKM) v Zürs.net Betriebs GmbH* [2017] ECR 218, para 42.

publishers of works created by authors, the publishers being under no obligation whatsoever to ensure that the authors benefit, even indirectly, from some of the compensation of which they have been deprived. The Court answered in the negative, noting at the outset that compensation for reprography and private copying ‘should normally be payable to reproduction rightholders’.¹⁶ Publishers are not recognized by the InfoSoc Directive as reproduction rightholders.¹⁷ In addition, as the rationale of the fair compensation requirement is to compensate rightholders for the harm caused by unauthorized acts of reproduction, publishers cannot be directly entitled to any fair compensation: not being among reproduction rightholders, they do not suffer any harm.¹⁸

The reasoning of the Court is substantially modelled upon the Opinion of Advocate General (AG) Cruz Villalón.¹⁹ Nonetheless, the AG Opinion contains a more thorough assessment of the circumstances at issue.²⁰ The AG recalled that authors are recognized as rightholders by the InfoSoc Directive and, in the case of the right of distribution, Article 4 allows only them, in respect of the original of their works or of copies thereof, the exclusive right to authorize or prohibit any form of distribution to the public by sale or otherwise.²¹ There are some exceptions to this general principle, for instance in favour of phonogram producers or producers of the first fixations of films, for whom the investment required to produce products such as phonograms, films or multimedia products is deemed considerable and, therefore, capable of justifying adequate legal protection.²² While publishers cannot be the direct beneficiaries of fair compensation for reprography and private copying, according to the AG this does not mean that EU law prohibits any sort of remuneration in favour of publishers, notably with regard to the harm suffered as a result of the marketing and use of reprography equipment and devices:²³ ‘It could be otherwise only if it were established that the introduction of that specific remuneration for publishers had an adverse effect on the fair compensation payable to authors pursuant to Directive 2001/29.’²⁴

2.2 *Soulier and Dore*

This reference for a preliminary ruling was made by the French Council of State and concerned the compatibility with the InfoSoc Directive of a law (Law No 2012-287) enacted in France in 2012 to allow and regulate the digital exploitation of out of print twentieth century books. French legislature introduced into the Code de la propriété intellectuelle (CPI) a new chapter – Chapter IV (Articles L 134-1 to L 134-9, subsequently amended) – to Title III of Book I.²⁵ The CPI provisions vest approved collecting societies with the right to authorize the reproduction and the representation in digital form of out of print books (these being published

¹⁶ Case C-572/13 *Reprobel* (n 4) para 45.

¹⁷ *ibid* para 47.

¹⁸ *ibid* para 48.

¹⁹ Case C-527/13 *Hewlett-Packard Belgium SPRL v Reprobel SCRL* [2015] 389, Opinion of AG Cruz Villalón.

²⁰ *ibid* paras 123–143.

²¹ *ibid* para 126.

²² *ibid* para 125.

²³ *ibid* para 140.

²⁴ *ibid* para 141.

²⁵ Code de la Propriété Intellectuelle, consolidated text as of 12 October 2017.

in France before 1 January 2001, no longer commercially distributed by a publisher, and not published in print or digital format), while allowing the authors of those books, or their successors in title (including publishers), to oppose or put an end to that practice subject to certain conditions. Pursuant to the relevant implementing decree the right to authorize the reproduction or performance of those books in digital format would be exercised, six months after their registration in a publicly accessible database for which the National Library of France would be responsible, by collecting societies approved to do so by the Ministry of Culture.²⁶

The French initiative should be seen in parallel – yet not as a direct consequence – of EU-promoted stakeholder dialogue around digitization issues under the umbrella of the Digital Agenda for Europe. This resulted in the conclusion, in 2011, of a Memorandum of Understanding on the digitization of out-of-commerce works and mass digitization projects. The underlying objective of this initiative would be to serve as a blueprint for collective licensing agreements negotiated among rightholders, libraries and collecting societies.²⁷

In the French case the applicants, two authors, lodged an application with the Council of State seeking the annulment for misuse of powers of Law No 2012-287 implementing decree, on the grounds that that piece of legislation would not be compatible with the limitations and exceptions to exclusive rights as exhaustively set out in the InfoSoc Directive. Among other things, Articles 2(a) and 3(1) of the InfoSoc Directive provide that *authors* – not collecting societies – have the right to authorize the reproduction and communication to the public of their works. The Council of State asked the CJEU whether Articles 2 and 5 of the InfoSoc Directive preclude legislation such as that established in Articles L 134-1 to L 134-9 CPI.

Having clarified that the provisions in Article 5 would not be relevant to the case at issue, the CJEU noted that the French legislation called for consideration of the rights of reproduction and communication to the public. The actual question referred by the French court was read as asking whether Article 2(a) and Article 3(1) of the InfoSoc Directive preclude national legislation that gives an approved collecting society the right to authorize the reproduction and communication to the public, in digital form, of out of print books, while allowing the authors of those books or their successors in title to oppose or put an end to that practice on the conditions laid down by that legislation.

The Court noted that, in line with the provisions in the Berne Convention, the protection conferred by Articles 2(a) and 3(1) of the InfoSoc Directive must be given a broad interpretation. Such protection includes the enjoyment of rights, but also their *exercise*.²⁸ The CJEU recalled that InfoSoc exclusive rights are preventive in nature, in the sense that any reproduction or communication to the public of a work by a third party requires the prior consent of its author.²⁹ Neither Article 2(a) nor Article 3(1) specify the way in which the prior consent of the author must be expressed. Those provisions do not require such consent to be necessarily express. Hence, those provisions also allow that consent to be expressed implicitly.³⁰ However,

²⁶ For criticisms of the French initiative, see Sganga (n 1) 324–25.

²⁷ *ibid* 322–23.

²⁸ Case C-301/15 *Marc Soulier and Sara Dove v Premier ministre and Ministre de la Culture et de la Communication* [2016] ECR 878, para 31.

²⁹ *ibid* para 33.

³⁰ *ibid* para 35.

[37] [T]he objective of increased protection of authors to which recital 9 of Directive 2001/29 refers implies that the circumstances in which implicit consent can be admitted must be strictly defined in order not to deprive of effect the very principle of the author's prior consent.

[38] In particular, every author must actually be informed of the future use of his work by a third party and the means at his disposal to prohibit it if he so wishes.

[39] Failing any actual prior information relating to that future use, the author is unable to adopt a position on it and, therefore, to prohibit it, if necessary, so that the very existence of his implicit consent appears purely hypothetical in that regard.

[40] Consequently, without guarantees ensuring that authors are actually informed as to the envisaged use of their works and the means at their disposal to prohibit it, it is de facto impossible for them to adopt any position whatsoever as to such use.

The Court considered that the French legislation would not offer a mechanism ensuring that authors are actually and individually informed. Therefore, it is not inconceivable that some of the authors concerned are not, in reality, even aware of the envisaged use of their works, and that therefore they are not able to adopt a position on it one way or the other. In those circumstances, a mere lack of opposition on their part cannot be regarded as the expression of their implicit consent to that use.

In all this, the Court did not place an absolute ban on future national legislative interventions on out-of-commerce works based on the InfoSoc Directive.³¹ The Court also added that the InfoSoc Directive does not prohibit Member States from granting certain rights or certain benefits to third parties, such as publishers, as long as those rights and benefits do not harm the rights which that directive gives exclusively to authors. When the author of a work decides to put an end to the future exploitation of that work in a digital format, that right must be capable of being exercised without having to depend, in certain cases, on the concurrent will of persons other than those to whom that author had given prior authorization to proceed with such a digital exploitation, and, thus, on the agreement of the publisher holding only the rights of exploitation of that work in a printed format,³² and without being subject to any particular formality.³³

2.3 The Meaning of *Reprobel* and *Soulier and Doke*

In both *Reprobel* and *Soulier and Doke*, the CJEU relied on concepts employed in several other decisions, these being that exclusive rights must be interpreted broadly and considered as having preventive character. However, reliance on the so-called author principle served the Court to push the boundaries of EU harmonization further and, by doing so, *potentially* restrict Member States' legislative freedom. It should be noted, in fact, that in the aftermath of the *Soulier and Doke* decision the relevant CPI provisions have remained in place, although the Council of State declared the decree implementing the provisions in Articles 134-1 to 134-9 CPI, which was subject to the action before this court, invalid due to misuse of powers

³¹ *ibid* para 45.

³² *ibid* para 49.

³³ *ibid* para 50.

(*excès de pouvoir*).³⁴ With regard to *Reprobel*, despite the CJEU decision, the referring court (Brussels Court of Appeal) eventually ruled in favour of *Reprobel*.³⁵

In any case, both CJEU decisions suggest that, first, despite contrasting hints in the past in which the CJEU appeared to employ the terms ‘authors’ and ‘rightholders’ interchangeably, the Court reinforced the idea that who the InfoSoc Directive intends to grant a ‘high level of protection’ to is *authors* as first rightholders. Second, although not referring explicitly to the notion of EU preemption, this being a still rather embryonic doctrine associated with – yet distinct from – the principle of EU supremacy,³⁶ the CJEU embraced it. In his Opinion in *Soulier and Doke*, in possibly more explicit terms than the Court, AG Wathelet rejected the argument that the legislation at issue would not affect the protection of copyright because it simply constitutes an arrangement for managing certain rights which Article 2(a) and Article 3(1) of Directive 2001/29 do not preclude. According to the AG:

[55] such a view of copyright runs counter to Article (2)(a) and Article 3(1) of [the InfoSoc] Directive. In providing for the author’s exclusive right to authorise or prohibit the reproduction and communication to the public of his works, those provisions also concern the way in which those rights are exercised by the author.

[56] While it is true that [the InfoSoc] Directive 2001/29 neither harmonises nor prejudices the *arrangements* concerning the management of copyright which exist in Member States, the EU legislature, in providing that authors enjoy, in principle, exclusive rights to authorize or prohibit the reproduction of their work and its communication to the public, exercised its competence in the field of intellectual property.

[57] In those circumstances, the Member States can no longer adopt management arrangements which compromise EU legislation, even if this is done with the intention of furthering a public interest objective. Before management of the rights of reproduction and communication to the public can be taken into consideration, the holder of those exclusive rights must have authorised a management organisation to manage his rights.³⁷

Further to the *Reprobel* and *Soulier and Doke* decisions, lacking specific authorization at the EU level, national legislative initiatives (including nonvoluntary licensing schemes) that fail to incorporate appropriate and streamlined procedures to inform authors of possible future uses of their works and obtain their relevant, individual consent should be regarded as incompatible with the InfoSoc Directive.³⁸

³⁴ Conseil d’État, 10ème 9ème chambres réunies, 7 June 2017, no 368208, FR:CECHR:2017:368208.20170607. On whether the invalidity has effects *ex tunc* or *ex nunc*, see further Eleonora Rosati, ‘French Conseil d’État Invalidates Decrees Implementing Law on Out-of-Commerce Works’ (*The IPKat*, 8 June 2017) <<http://ipkitten.blogspot.com/2017/06/french-conseil-detat-invalidates.html>> accessed 10 October 2019 and Florence-Marie Pirou, ‘The Ruling of the Court of Justice in Soulier Revisited’ (*Kluwer Copyright Blog*, 2 October 2017) <<http://copyrightblog.kluweriplaw.com/2017/10/02/ruling-court-justice-soulier-revisited/>> accessed 10 October 2019.

³⁵ Cour d’appel Bruxelles, 2012/AR/3265, 2017/4122, 12 May 2017.

³⁶ In the context of EU law principles, see Robert Schütze, *European Constitutional Law* (CUP 2012) 364, and Paul Craig and Gráinne de Búrca, *EU Law – Text, Cases and Materials* (6th edn, OUP 2015) 84–85; in a copyright context, see Eleonora Rosati, ‘Copyright in the EU: In Search of (In)flexibilities’ (2014) 9(7) *JIPLP* 585.

³⁷ Case C-301/15 *Marc Soulier and Sara Doke v Premier ministre and Ministre de la Culture et de la Communication* [2016] ECR 536, Opinion of AG Wathelet, paras 55–57.

³⁸ For further discussion, see Matej Gera, ‘A Tectonic Shift in the European System of Collective Management of Copyright? Possible Effects of the *Soulier & Doke* Decision’ (2017) 39(5) *EIPR*

In addition, although the CJEU did not discuss them in *Reprobel* and *Soulie and Doke*, there is also a fundamental rights angle to consider in the case in which an author is deprived of their ability to authorize the making of acts restricted by copyright. If, as the CJEU suggested, ownership of a right includes its exercise, then depriving an author of the ability to consent to the making of restricted acts should be regarded as akin to a deprivation or severe curtailment of the right itself. In *Luksan*,³⁹ the CJEU held (although it failed to elaborate further) that a national arrangement that consists of depriving an author of a right recognized at the EU level (in that case, the right of a director to be acknowledged as coauthor of a cinematographic work) would be contrary to both relevant EU copyright legislation and Article 17(2) of the Charter of Fundamental Rights of the European Union.⁴⁰

3. THE SCOPE OF CONTROL: DIGITAL EXHAUSTION UNDER EU LAW

The issue whether the first lawful sale of a work or a copy thereof in digital format *generally* results in the exhaustion of the right of distribution remains a contentious issue in EU copyright law. In 2012, the CJEU answered the question of digital exhaustion in the affirmative in its (controversial) *UsedSoft* decision. The validity of the conclusions reached therein was confirmed in the more recent *Microsoft* decision.⁴¹

The German Federal Court of Justice asked the CJEU whether, and under what conditions, the downloading from the internet of a copy of a computer program, as authorized by the copyright holder, can give rise to exhaustion of the right of distribution of that copy within the meaning of Article 4(2) of Directive 2009/24 (the Software Directive).⁴² This provision states that the first sale in the EU of a copy of a program by the rightholder or with his consent shall exhaust the distribution right of that copy within the EU.

The Court answered in the affirmative, concluding that – despite the different *nomen juris* ('licence' in that case) – a contract by which a person, in return for payment, transfers to another person his rights of ownership in an item of tangible or intangible property belonging

261, 263; Eleonora Rosati, 'The CJEU Decision in *Soulie*: What Does It Mean for Laws other than the French One on Out-of-Print Books?' (*The IPKat*, 17 November 2016) <<http://ipkitten.blogspot.com/2016/11/the-cjeu-decision-in-soulie-what-does.html>> accessed 10 October 2019. With specific regard to the AG Opinion, see Sylvie Nérisson, 'Opinion of AG Wathelet in the *Soulie and Doke* case (C-301/15): Licensing Exclusive Rights Requires Express Prior Consent of the Author; Opt-Out Doesn't Help' (*Kluwer Copyright Blog*, 15 August 2016) <<http://copyrightblog.kluweriplaw.com/2016/08/15/opinion-ag-wathelet-soulie-doke-case-c-30115-licensing-exclusive-rights-requires-express-prior-consent-author-opt-doesnt-help/>> accessed 10 October 2019.

³⁹ Case C-277/10 *Martin Luksan v Petrus van der Let* [2012] ECR 65. The CJEU's reliance on Article 17 of the Charter has been however criticized for being 'very thinly reasoned': Jonathan Griffiths, 'Constitutionalising or Harmonising? The Court of Justice, the Rights to Property and European Copyright Law' (2013) 38(1) ELR 65, 76.

⁴⁰ Charter of Fundamental Rights of the European Union OJ C 364, 1–22.

⁴¹ Case C-166/15 *Aleksandrs Ranks and Jurijs Vasiļevičs v Finanšu un ekonomisko noziegumu izmeklēšanas prokuratūra and Microsoft Corp* [2016] ECR 762.

⁴² Council Directive (EC) 2009/24/EC of 23 April 2009 on the legal protection of computer programs (codified version) (Software Directive) [2009] OJ L 111, 16–22.

to him is considered a sale. If this occurs with the authorization of the relevant rightholder, then the right of distribution vesting on that copy will be exhausted.

Following the *UsedSoft* decision, whether the same conclusions may be reached for works other than computer programs has remained a matter of dispute. In other words, is digital exhaustion also envisaged by the principal EU copyright directive, that is, the InfoSoc Directive?

As the CJEU acknowledged in *UsedSoft*, although the wording of Article 4(2) of the InfoSoc Directive is substantially identical to Article 4(2) of the Software Directive, Recitals 28 and 29 in the preamble of the former – as well as the WIPO Copyright Treaty (which the InfoSoc Directive implemented into the EU legal order⁴³) – may be intended as providing ‘for the works covered by that directive, [that] the exhaustion of the distribution right concern[s] only tangible objects’.⁴⁴ Recital 28 refers to the right in Article 4 as the right ‘to control distribution of the work incorporated in a tangible article’, while Recital 29 excludes that the question of exhaustion may ‘arise in the case of services and on-line services in particular’. The agreed statements concerning Article 6 of the WIPO Copyright Treaty similarly provide that ‘the expressions “copies” and “original and copies”, being subject to the right of distribution . . . refer exclusively to fixed copies that can be put into circulation as tangible objects’. In addition, the right of communication to the public within the WIPO Copyright Treaty and the InfoSoc Directive is not subject to exhaustion.

The combined reading of these provisions suggests that under the InfoSoc Directive exhaustion can be only in relation to tangible copies of copyright works. The different – and reductionist – interpretation that, on the contrary, the WIPO Copyright Treaty and the InfoSoc Directive have only achieved the harmonization of exhaustion in relation to tangible copies, thus leaving individual Member States free to determine the conditions for digital exhaustion, is not convincing.⁴⁵ As discussed at greater length elsewhere,⁴⁶ if EU Member States were free to implement their own exhaustion regimes for intangible copies of protected works, the resulting differences might be such as to raise barriers to the smooth functioning of the internal market. This would ultimately defeat the rationale of EU legislative intervention with the InfoSoc Directive, that is, harmonizing the substantial scope of exclusive rights,⁴⁷ and would also give rise to legal uncertainty. As the CJEU has clarified in its case law, including in *Svensson*,⁴⁸ Member States are not able to alter the scope of rights harmonized by the InfoSoc Directive. The same principle, as expressly acknowledged by the CJEU, also applies to the conditions of exhaustion:

⁴³ InfoSoc Directive, Recital 15. See also Case C-277/10 *Martin Luksan v Petrus van der Let* [2012] ECR 65, para 59.

⁴⁴ Case C-128/11 *UsedSoft GmbH v Oracle International Corp* [2012] ECR 407, para 60.

⁴⁵ For a critical discussion, see Stavroula Karapapa, ‘Reconstructing Copyright Exhaustion in the Online World’ (2014) 2014(4) IPQ 307, 324 suggesting that the InfoSoc Directive appears to have gone beyond the wording of the WIPO Copyright Treaty 1996 and excludes the possibility of digital exhaustion under Article 4(2) therein. However, the possibility of digital exhaustion might have made its way in some CJEU cases, including Case C-128/11 *UsedSoft GmbH v Oracle International Corp* [2012] ECR 407 and Case C-466/12 *Nils Svensson and Others v Retriever Sverige AB* [2014] ECR 76.

⁴⁶ Eleonora Rosati, ‘Online Copyright Exhaustion in a Post-Allposters World’ (2015) 9(1) JIPLP 673, 674–75.

⁴⁷ InfoSoc Directive, in particular Recitals 4, 6, 7, 9.

⁴⁸ Case C-466/12 *Nils Svensson and Others v Retriever Sverige AB* [2014] ECR 76, paras 34–41.

Article 4(2) [of the InfoSoc Directive] does not leave it open to the Member States to provide for an exhaustion rule other than that set out in that provision, to the extent that, as follows from recital 31 of Directive 2001/29, differences in the national laws governing exhaustion of the right of distribution are likely to affect directly the smooth functioning of the internal market.⁴⁹

The conclusion that the InfoSoc Directive might not allow digital exhaustion is further supported by at least two CJEU cases decided after *UsedSoft*. Although the Court has not yet provided a definitive answer as regards the question of digital exhaustion, some hints can be nonetheless found in *Allposters* and *Vereniging Openbare Bibliotheken*.

In 2015, the CJEU was asked to decide a case, *Allposters*, which had been referred to it by the Dutch Supreme Court. The (rather peculiar) background related to litigation between a Dutch collecting society (Pictoright) and the producer (Allposters) of – among other things – images on canvas. These were obtained through a chemical process that allowed Allposters to lift the image of a poster whose sale had been authorized by Pictoright and place it on the canvas subsequently sold. Among the questions referred to the CJEU there was a request of clarification of the conditions of exhaustion in Article 4(2) of the InfoSoc Directive.

The Court focused on the notions of ‘that object’ within Article 4(2) of the InfoSoc Directive and ‘tangible article’ in Recital 28 in the preamble therein to hold that, by using those terms, EU legislature – in line with international law⁵⁰ – ‘wished to give authors control over the initial marketing in the European Union of each tangible object incorporating their intellectual creation’.⁵¹ It follows that ‘exhaustion of the distribution right applies to the tangible object into which a protected work or its copy is incorporated’.⁵² This means, as AG Cruz Villalón had concluded in his Opinion in the same case, that:

the object in question cannot be the *work as corpus mysticum*, since copyright in the *work* thus construed is ‘exhausted’ only when ownership of that right is transferred, while exhaustion of the distribution right occurs when ownership of something necessarily different is transferred: specifically, ownership of the object on which the work has been reproduced.⁵³

If one applies this conclusion to the case of digital copies of a copyright work (even disregarding the fact that the usual contractual type is licence, rather than sale), it appears difficult to sustain that, unless the digital copy at issue is incorporated in a tangible support (such as a USB stick or CD-ROM), the part of one’s own device that stores that copy can be regarded as a tangible support.

The CJEU incidentally touched upon issues of exhaustion also in the more recent *Vereniging Openbare Bibliotheken* case, a reference for a preliminary ruling concerning the possibility for libraries to lend electronic copies of works in their collections under Article 6(1) of Directive 2006/115 (Rental and Lending Rights Directive).⁵⁴ One of the subquestions referred by the

⁴⁹ Case C-419/13 *Art & Allposters International* (n 10) para 30, referring to Case C-479/04 *Laserdisken ApS v Kulturministeriet* [2006] ECR I-08089, paras 24 and 56.

⁵⁰ *ibid* paras 38–39.

⁵¹ *ibid* para 37.

⁵² *ibid* para 40.

⁵³ Case C-419/13 *Art & Allposters International BV v Stichting Pictoright* [2014] ECR 2214, Opinion of AG Villalón, para 67.

⁵⁴ Council Directive (EC) 2006/115/EC of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (codified version) [2006] OJ L 376, 28–35.

District Court of The Hague (Netherlands) related to digital exhaustion under Article 4(2) of the InfoSoc Directive.

Both AG Szpunar and the CJEU dismissed the possibility that answering this question would be relevant to the object of the reference. In his Opinion, AG Szpunar refrained from addressing whether the InfoSoc Directive envisages digital exhaustion, because he found it distinct from the question whether lending falls within the scope of the Rental and Lending Rights Directive.⁵⁵ Nonetheless, the Opinion contains some hints that there is no particular reason why digital copies of works should be treated differently from analogue ones, at least under the Rental and Lending Rights Directive.⁵⁶ Furthermore, the AG recalled the interpretation of ‘copy’ as provided by the CJEU in *UsedSoft* and also noted that – so far – this has been the only decision in which the Court has interpreted copyright concepts in the digital context.⁵⁷ According to a rigorous interpretation of the principle of terminological coherence, the term ‘copy’ employed both in the InfoSoc and Rental and Lending Rights directives should be intended in the sense of including digital copies devoid of physical support.⁵⁸ In the view of the AG, *Allposters* neither reopens nor limits in any way the conclusions arising from the decision *UsedSoft*.⁵⁹ In its subsequent decision, the CJEU dismissed that Article 4(2) of the InfoSoc Directive would be relevant to the interpretation of Article 6(1) of the Rental and Lending Rights Directive. Nonetheless, similarly to *Allposters*, the Court appeared to link the concept of exhaustion to the physical medium of a work rather than the work itself: at paragraph 59 of the decision it stated:

The Court has already held that forms of exploitation of a protected work, such as public lending, are different in nature from a sale or any other lawful form of distribution, since the lending right remains one of the prerogatives of the author notwithstanding the sale of the physical medium containing the work. Consequently, the lending right is not exhausted by the sale or any other act of distribution, whereas the distribution right may be exhausted, but only and specifically upon the first sale in the European Union by the rightholder or with his consent.⁶⁰

4. LICENSING OF ORPHAN WORKS: THE UK SCHEME

A brief mention should be also made of the UK licensing scheme for orphan works. The UK licensing approach, which derives from section 116A of the Copyright, Designs and Patents Act 1988 (‘CDPA’) as introduced by the Enterprise and Regulatory Reform Act 2013 (‘ERR Act’), differs greatly from the very limited provisions of Directive 2012/28 (the Orphan Works Directive).⁶¹ One major difference between the Directive and the ERR Act concerns the mechanism (copyright exception or licence) for permitting use of orphan works. In addition, unlike the Directive, the UK orphan works scheme does not provide any particular limitations

⁵⁵ Case C-174/15 *Vereniging Openbare Bibliotheken v Stichting Leenrecht* [2016] ECR 459, Opinion of AG Szpunar, para 83.

⁵⁶ *ibid* in particular paras 31 and 44.

⁵⁷ *ibid* para 50.

⁵⁸ *ibid* para 52.

⁵⁹ *ibid* para 54.

⁶⁰ Case C-174/15 *Vereniging Openbare Bibliotheken* (n 11) para 59, referring to Case C-53/05 *Commission v Portugal* [2006] ECR I-06215, para 34.

⁶¹ Council Directive (EC) 2012/28/EU of 25 October 2012 on certain permitted uses of orphan works [2012] OJ L 299, 5–12 (Orphan Works Directive).

as regards the range of beneficiaries, the types of works that can be subject to the orphan work treatment and the possible uses of such works, including widespread commercial uses.

While both the Directive and the ERR Act refer to the notion of ‘diligent search’ as a necessary condition to determine the orphan status of a work, the ERR – unlike the Directive – does not define the term ‘orphan works’ and section 116A CDPA leaves this task to secondary legislation. In addition, differences subsist between the Directive and the UK scheme as regards the geographic scope of the search. While the Directive applies to works that are first published in the territory of a Member State or, in the absence of publication, first broadcast in a Member State, the UK orphan works scheme provides that also non-UK works might be subject to the licensing mechanism envisaged therein. In any case, a licence obtained in the UK – besides being nonexclusive – would only apply to the territory of the UK.

As of today, the UK scheme has not resulted in a substantial number of licences being applied for and granted. The Orphan Works Register is divided into licences for moving images, music notation, script and choreography, sound recordings, written works and still visual arts.⁶² The latter is the category in which by far the greatest number of licences has been granted. This is probably due to the fact that the EU Directive excludes standalone photographs and other images from its scope (Article 10 therein however permits future inclusion of publishers, works and other protected subject matter that are currently outside the scope of the Directive) and suggests that the UK scheme’s success (if any) is mostly due to the inherent flaws and limitations of the EU Directive.

5. CONTROL IN THE DIGITAL SPHERE: CHANGES TO THE LICENSING LANDSCAPE

With regard to digitization of content and licensing, the preceding analysis (§§ I and II) has addressed areas that have been subject – to different degrees – to CJEU scrutiny. The evolution of the author principle and the doctrine of exhaustion, however, are far from complete. With regard to the latter, the evolution of business models and the way consumers access content may be such that the issue of digital exhaustion (or lack thereof) may become increasingly irrelevant. With regard to the former, while the CJEU has left the door open to the possibility that the authors’ consent is expressed in terms other than expressly, policy and legislative initiatives may result in the compression – if not the removal *tout court* – of the progress made by case law.⁶³

5.1 Content Access Evolution and the Removal of Exhaustion Issues

In addition to the fact that in the digital sphere, licensing of services – rather than their sale – is the usual contractual type, and accounting for the legal uncertainties around the possibility of exhaustion for digital copies, there are further obstacles to a perfect alignment between analogue and digital copies. First, unlike analogue copies, in principle the digital copy of a work is not subject to any sort of appreciable degradation. If one reads the same ebook five

⁶² Up-to-date information is available at GOV.UK, ‘View the Orphan Works Register’ (*GOV.UK*) <www.orphanworkslicensing.service.gov.uk/view-register> accessed 10 October 2019.

⁶³ This is indeed what happened when the DSM Directive was finally adopted.

times, the quality of the copy may remain substantially unaltered. The same is hardly true for a physical copy of a book. Another argument that is sometimes advanced to highlight the difference between analogue and physical copies is that greater control can be exerted over the transmission of a physical copy. If one allowed someone to transfer their digital copy of a work, ensuring that this person would not just create a new copy and keep their original one may prove challenging in principle. However, anticopying technologies have been in place for years and some secondhand digital marketplaces (albeit seemingly ill-fated, such as ReDigi in the US⁶⁴) have demonstrated that it is possible to allow the transfer of one's own copy without real possibilities of duplication. In addition, blockchain tracking technology is being proposed as an aid to make ebooks increasingly akin to analogue/physical copies. Blockchain technology allows in fact readers to 'own' an ebook and 'lend' it to others, thanks to the tracking possibility peculiar to this type of transaction. The first 'disintegrating ebook' was placed on the market in early 2017.⁶⁵ All this suggests that technological arguments against allowing or denying digital exhaustion may become increasingly weaker.

Having said so, however, shifting consumer behaviours may ultimately make addressing the issue of digital exhaustion redundant, at least as regards certain types of copyright content. There seems to be in fact an increasing trend towards consuming copyright content not by means of actually being in possession of a digital copy (such as an internet download), but rather through streaming content online.⁶⁶ This appears to be, for instance, the case for music. In its latest Global Music Report, IFPI highlighted how streaming continues to grow, while the number of downloads has been decreasing over time.⁶⁷ According to the IFPI Music Consumer Insight Report 2017, over a period of six months, only 44 per cent of the consumers surveyed in a number of countries around the world purchased physical copies of music of paid downloads, while 45 per cent and 75 per cent listened to music by, respectively, using audiostreaming and videostreaming services.⁶⁸

⁶⁴ *Capitol Records LLC v ReDigi Inc* 934 F.Supp.2d 640 (2013). See also, in the same sense, *Disney Enterprises Inc and Others v VidAngel Inc* D.C. No. 2:16-cv-04109-AB-PLA.

⁶⁵ See Meg Miller, 'This Disintegrating e-Book Cleverly Shows How Blockchains Work' (*Co. Design*, 9 May 2017) <<https://www.fastcompany.com/90124578/this-disintegrating-e-book-cleverly-shows-how-blockchains-work>> accessed 10 October 2019.

⁶⁶ Although stream-ripping is a significant cause of concern (PRS for Music – UK Intellectual Property Office, *Stream-Ripping: How It Works and Its Role in the UK Music Piracy Landscape* (July 2017), available at <<https://prsformusic.com/what-we-do/influencing-policy/stream-ripping>>), it is not relevant to the present discussion, as the copies obtained in this way would not be lawful and, as such, would not give rise to exhaustion; nor would they fall within the scope of the private copying exception within Article 5(2)(b) of the InfoSoc Directive (Case C-435/12 *ACI Adam BV and Others v Stichting de Thuis kopie and Stichting Onderhandeligen Thuis kopie vergoeding* [2014] 254).

⁶⁷ International Federation of the Phonographic Industry, 'Global Music Report 2018' (2018) <www.ifpi.org/downloads/GMR2018.pdf> 6 accessed 10 October 2019.

⁶⁸ International Federation of the Phonographic Industry, 'Connecting with Music – Music Consumer Insight Report' (2017) <<https://www.ifpi.org/downloads/Music-Consumer-Insight-Report-2017.pdf>> 9 accessed 10 October 2019.

5.2 Cancelling *Reprobel*

Under the umbrella of its Digital Single Market Strategy,⁶⁹ in 2016 the European Commission issued a proposal for a DSM directive. Among other things, the draft directive contains a provision which, if adopted, would result in a deletion of the principles expressed in *Reprobel*. Article 12 (in the version originally proposed by the European Commission) states in fact that:

Member States may provide that where an author has transferred or licensed a right to a publisher, such a transfer or a licence constitutes a sufficient legal basis for the publisher to claim a share of the compensation for the uses of the work made under an exception or limitation to the transferred or licensed right.

The rationale of this provision can be extracted from Recital 36 in the preamble thereof. Publishers often operate on the basis of the transfer of authors' rights by means of contractual agreements or statutory provisions, thus making an investment with a view to the exploitation of the works contained in their publications. The recital highlights how in certain Member States the fair compensation due under exceptions like reprography and private copying is shared between authors and publishers.⁷⁰ It follows that:

In order to take account of this situation and improve legal certainty for all concerned parties, Member States should be allowed to determine that, when an author has transferred or licensed his rights to a publisher or otherwise contributes with his works to a publication and there are systems in place to compensate for the harm caused by an exception or limitation, publishers are entitled to claim a share of such compensation, whereas the burden on the publisher to substantiate his claim should not exceed what is required under the system in place.

The draft directive refers to an overall legal uncertainty regarding the right of publishers to receive fair compensation for permitted uses of works. The Impact Assessment accompanying the proposal clarifies how such uncertainty is due to the CJEU decision in *Reprobel*:

Publishers bear the economic risks linked to the exploitation of the works contained in their publications and may suffer losses when such works are used under exceptions or limitations to copyright. However, they currently face legal uncertainty as regards their ability to receive compensation for such uses. This issue has come to the fore following a recent decision of the CJEU where, stressing

⁶⁹ European Commission, 'Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A Digital Single Market Strategy for Europe' COM (2015) 192 final.

⁷⁰ European Commission, 'Commission staff working document: Impact assessment on the modernization of EU copyright rules accompanying a Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market and Proposal for a Regulation of the European Parliament and of the Council laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes Part 1' COM (2016) 593, COM (2016) 594, SWD (2016) 302, 158; European Commission, 'Commission Staff Working Document – Impact assessment on the modernization of EU copyright rules accompanying a Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market and Proposal for a Regulation of the European Parliament and of the Council laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes – Part 3', Annex 13D.

the fact that publishers are not rightholders under the current EU rules, the Court has questioned the lawfulness of mechanisms existing in a number of [Member States] under which publishers have traditionally received compensation for uses of their publications under exceptions or limitations. This case-law concerns predominantly the private copying and reprography exceptions, but extends potentially to uses under other exceptions that are subject to compensation.⁷¹

The Impact Assessment further stresses how the post-*Reprobel* status quo threatens the protection of publishers' contribution and investment in publications, also because revenue from fair compensation is not associated with any marginal costs and therefore represents a significant source of income. According to the Impact Assessment, the fact that publishers are not protected as rightholders at the EU level but rely on the rights of the authors transferred to them ultimately threatens legal certainty.⁷²

The European Commission's proposal regarding entitlement to fair compensation should be seen in the context of broader initiatives in favour of publishers, including the proposal for a new neighbouring right for press publishers.⁷³ Nonetheless, if ultimately adopted, Article 12 of the draft DSM Directive would delete a decision, the one rendered in *Reprobel*, which is correct in its interpretation of existing legislation and the rationale of fair compensation under Articles 5(2)(a) and (b) of the InfoSoc Directive. Above all, it would weaken the author principle and endorse, contrary to CJEU case law and existing legislation, the idea that copyright protection should be available to offset one's own financial investment.⁷⁴ At the time of writing this chapter, the DSM Directive was yet to be adopted. Yet, a provision corresponding to Article 12 of the original proposal was also included in the final version as Article 16.

6. CONCLUSION

The analysis has focused on the questions of consent and control in the digital sphere. Both are key to understanding the licensing framework envisaged at the EU level. A common element of these two areas is the fact that they are both undergoing an evolution, whether prompted by technological advancement and shifting business model trends or by policy and legislative initiatives.

Similar to the area of exceptions and limitations (addressed in Chapter 9), licensing in the digital sphere is subject to different and at times contrasting strains. This is probably due to

⁷¹ European Commission, 'Commission staff working document: Impact assessment on the modernization of EU copyright rules accompanying a Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market and Proposal for a Regulation of the European Parliament and of the Council laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes Part 1', COM (2016) 593, COM (2016) 594, SWD (2016) 302, 158.

⁷² *ibid* 159–60.

⁷³ The legislative proposal for a new press publishers' right has given rise to a lively debate, including criticisms. A collection of academic reactions to the recent EU copyright reform can be found at <<https://www.create.ac.uk/policy-responses/eu-copyright-reform/>> accessed 10 October 2019.

⁷⁴ Also advocating in favour of the so-called author principle, see European Copyright Society, 'Opinion on the reference to the CJEU in Case C-572/13 *Hewlett-Packard Belgium SPRL v Reprobel SCRL*' (5 September 2015) <https://europeancopyrightsocietydotorg.files.wordpress.com/2015/12/opinion-in-case-c572_13-hp-belgium-reprobel-2015.pdf> accessed 10 October 2019.

the fact that, similar to most areas of copyright, licensing needs to adapt to the different sets of challenges presented by online dissemination and exploitation of protected content.

11. Copyright liability for hyperlinking

Jane Ginsburg and Alain Strowel¹

1. INTRODUCTION

Hyperlinks are essential to the functioning of the World Wide Web. They are, in a way, the threads with which the Web is spun. Without those links, and without the search engines and other content aggregators which commonly collect links, the information posted online would not be easy to find, and content would lose much of its value. But placing hyperlinks can also reduce the value of the content distributed offline or online, or cause other damage if the hyperlinks help to find unauthorized or illicit content.

Since the advent of the Web in the 1990s, hyperlinking has raised legal issues.² We focus here on copyright liability for placing hyperlinks to linked-to pages where content is located, sometimes without the authorization of the right holder.

Before embarking on the review of the law, it is important to distinguish various types of hyperlinks. Tim Berners-Lee, who is recognized as having invented the World Wide Web, distinguishes at least two types of links:

Normal hypertext links do not of themselves imply that the document linked to is part of, is endorsed by, or endorses, or has related ownership or distribution terms as the document linked from. However, embedding material by reference (sometimes called an embedding form of hypertext link) causes the embedded material to become a part of the embedding document.³

Both surface links which connect the user to the linked site's homepage and deep links which refer the user to an interior page of the linked-to site are to be considered as normal hyperlinks. Although those links as such do not imply any endorsement or appropriation of the linked-to content, the facts surrounding the placing of those links can show the opposite. With inlining or embedded links, an element, such as an image, a video, a logo, and so on, from another web page can be inserted into a web page without the need to leave the linking page to view the embedded element. In this case, there is a form of endorsement or appropriation of the content on the linked-to site. Another HTML (HyperText Markup Language) instruction makes it possible to present the content of a linked-to site inside the frame of the linking site. Framing might generate some confusion, and Tim Berners-Lee advises 'for content providers to make efforts to ensure by the design of (and/or statements on) their web pages that users are not left with the illusion that information within an embedded frame is part of their document when it

¹ Many thanks for research assistance to Luke Ali Budiardjo, Columbia Law School class of 2018.

² See A. Strowel, *Liaisons dangereuses et bonnes relations sur l'Internet A propos des liens hypertextes (Auteurs & Media*, 1998) 296–308 (reviewing the case law of the mid-1990s, including in the UK and US).

³ T. Berners-Lee, 'Links and Law' (*W3C*, April 1997) <www.w3.org/DesignIssues/LinkLaw> accessed 21 October 2019, abstract of the online Commentary on Web Architecture.

is really not'.⁴ The cases reviewed hereafter involve normal hyperlinks, framing or embedded links.⁵

In section 2 of the chapter, we review the EU law on liability for hyperlinking. Over the past years, the Court of Justice of the EU has ruled several times on liability for hyperlinking. This case law tackles hyperlinking through the lens of direct liability, as a potential infringement to the communication to the public right (see section 2.1). The review of this case law is complemented, in section 2.2, by a brief analysis of the notion of indirect liability in Europe.

In section 3, we discuss the US case law on the liability for hyperlinking. In the US, courts are divided over whether the operators placing hyperlinks are directly liable for infringement of the public display right (see section 3.1). In the absence of direct liability, US courts address hyperlinking under the different doctrines of indirect liability, as demonstrated in section 3.2.

Section 4 shows that the criteria for the nonliability of intermediaries, under the EU eCommerce Directive or the US Safe Harbor provisions, largely reflect the criteria for liability put forward by the case law on copyright liability for hyperlinking.

At the end of the chapter, we offer some comparative conclusions regarding the standards of liability and the immunity of service providers for providing links to infringing content.

2. EU LAW ON LIABILITY FOR HYPERLINKING

This part distinguishes the application of direct liability and the reliance on indirect liability to address the hyperlinking cases. Although cases involving links to unauthorized content arguably should be treated under indirect liability, the case law of the Court of Justice of the EU on hyperlinking relies on an expanded view of the scope of primary copyright liability.

2.1 Direct Liability for Hyperlinking in the EU

2.1.1 Statutory basis for copyright coverage of hyperlinks

Under EU copyright law, the most relevant economic right to discuss cases involving hyperlinks is the communication to the public right. This right is defined in Article 3 of the 2001/29/EC Directive on the harmonization of certain aspects of copyright and related rights in the information society (hereafter the InfoSoc Directive).⁶ This provision requires the EU Member States 'to provide authors with the exclusive right to authorize or prohibit any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access them from a place and at a time individually chosen by them'. This wording is close to the language used in the

⁴ *ibid.*

⁵ The terms 'inline linking' and 'framing' are conceptually very similar. Generally, 'inline linking' or 'embedded linking' refers to the process of importing a piece of content from another website through a hyperlink. 'Framing' is a more specific term that refers to the combination of materials from different sources on a single website through inline hyperlinks, but may refer specifically to uses in which the imported content is presented independently through a 'gateway' or 'independently scrollable frame'. See Mark Sableman, 'Link Law Revisited: Internet Linking Law at Five Years' (2001) 16 *Berkeley Tech LJ* 1273, 1297–99. For clarity, this piece will use the term 'inline linking' to refer to both practices.

⁶ Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [2001] OJ L 167/10.

post-Berne international instruments, for example in Article 8 of the WIPO Copyright Treaty 1996. The broad notion of ‘communication to the public’ contains ‘making available to the public’, characterized by the fact that ‘members of the public may access’ the works from a place and at the time they individually choose.⁷

When the posted hyperlink involves a pointer (visible part of the hyperlink) containing an image, a short text or another protected work, the reproduction right applies in principle. Article 2 of the InfoSoc Directive indeed defines the reproduction right as ‘the exclusive right to authorize or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part’ of the authors’ works. The application of the reproduction right is triggered by an operation of ‘copying’ on a tangible medium, including on a server. Some linking cases in Europe, for instance against news aggregators such as Google News, involve unauthorized copying of protected content in the aggregated hyperlinks.⁸ If we exclude those peculiar linking cases, the discussion turns on the delineation of the communication to the public right.

⁷ The European framework on the communication to the public right arguably respects the international obligations, including those defined by the Berne Convention for the Protection of Literary and Artistic Work (signed 9 September 1886, revised 1971) (Berne Convention), the Agreement on Trade-Related Aspects of Intellectual Property Rights 1994 (came into effect on 1 January 1995) (TRIPS Agreement) and the World Intellectual Property Organisation Copyright Treaty 1996 (adopted 20 December 1996) (WIPO Copyright Treaty).

⁸ See *Copiepresse v Google* 5 May 2011 (Court of Appeal Brussels) <https://lex.be/fr/doc/be/jurisprudence-juridatlocationbruxelles/juridatjuridictioncour-d-appel-arret-5-mai-2011-bejc_2011050518_fr> accessed 20 October 2019.

2.1.2 The contours of the communication to the public in the case law of the Court of Justice of the EU

The definition of the right of communication to the public by the Court of Justice of the EU (CJEU or Court)⁹ is complex and relies on a sliding scale of criteria.¹⁰ The CJEU has not always managed to conduct a refined analysis of those criteria, and this has led to some inconsistencies in its interpretation of the communication to the public right. However, the general approach of the CJEU for defining the communication to the public tends to stress the economic rationale behind the legal right. M Leistner even concluded that ‘in the realm of exclusive exploitation rights, the Court follows an *essentially “economic”*, rather flexible approach, focusing on the need to ensure an appropriate remuneration for any independent (economic) exploitation of the work by a respective user’ (emphasis added).¹¹ The Court distinguishes the following conditions and criteria.

⁹ The case law comprises the following decisions (except the hyperlinking cases listed below): Case C-306/05 *Sociedad General de Autores y Editores de España (SGAE) v Rafael Hoteles SA* ECLI:EU:C:2006:764 (SGAE); Case C-393/09 *Bezpečnostní softwarová asociace – Svaz softwarové ochrany v Ministerstvo kultury* ECLI:EU:C:2010:816 (*Bezpečnostní softwarová asociace*); Joined Cases C-403/08 and C-429/08, Case C-403/08 *Football Association Premier League Ltd and Others v QC Leisure and Others* and Case C-429/08 *Karen Murphy v Media Protection Services Ltd* ECLI:EU:C:2011:631 (*Premier League*), Joined Cases C-431/09 and Case C-432/09, Case C-431/09 *Airfield NV and Canal Digitaal BV v Belgische Vereniging van Auteurs, Componisten en Uitgevers CVBA (Sabam)* and Case C-432/09 *Airfield NV v Agicoa Belgium BVBA* ECLI:EU:C:2011:648 (*Airfield*); Case C-283/10 *Circul Globus București (Circ & Variete Globus București) v Uniunea Compozitorilor și Muzicologilor din România – Asociația pentru Drepturi de Autor (UCMR – ADA)* ECLI:EU:C:2011:772 (*Circul Globus*); Case C-135/10 *Società Consortile Fonografici (SCF) v Marco Del Corso* ECLI:EU:C:2012:140 (*Del Corso*); Case C-162/10 *Phonographic Performance (Ireland) Limited v Ireland and Attorney General* ECLI:EU:C:2012:141 (*Phonographic Performance Ltd*); Case C-607/11 *ITV Broadcasting Ltd and Others v TVCatchUp Ltd* ECLI:EU:C:2013:147 (*TV Catch-up*); Case C-351/12 *OSA – Ochraný svaz autorský pro práva k dílům hudebním o.s. v Léčebné lázně Mariánské Lázně a.s.* ECLI:EU:C:2014:110 (*OSA*); Case C-325/14 *SBS Belgium NV v Belgische Vereniging van Auteurs, Componisten en Uitgevers (SABAM)* EU:C:2015:764 (*SBS Belgium*); Case C-117/15 *Reha Training Gesellschaft für Sport- und Unfallrehabilitation mbH v Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte eV (GEMA)* ECLI:EU:C:2016:379 (*Reha Training*); Case-138/16 *Staatlich genehmigte Gesellschaft der Autoren, Komponisten und Musikverleger registrierte Genossenschaft mbH (AKM) v. Zürs.net Betriebs GmbH* ECLI:EU:C:2017:218; Case C-161/17 *Land Nordrhein-Westfalen v. Dirk Renckhoff* ECLI:EU:C:2018:634. Compare with the communication to the public right that is included in the related right of broadcasters: Case C-641/15 *Verwertungsgesellschaft Rundfunk GmbH v Hettegger Hotel Edelweiss GmbH* ECLI:EU:C:2017:131 (*VG Rundfunk*).

¹⁰ *Reha Training* (n 9) §35: ‘to determine whether there has been a communication to the public, account has to be taken of several complementary criteria, which are not autonomous and are interdependent. Since those criteria may, in different situations, be present to widely varying degrees, they must be applied both individually and in their interaction with one another (see, to that effect, judgment of 15 March 2012 in *Phonographic Performance (Ireland)*, Case C-162/10 *Phonographic Performance (Ireland) Limited v Ireland and Attorney General* EU:C:2012:141, para 30. and the case-law cited).’ See also *Del Corso* (n 9) §79.

¹¹ M Leistner, ‘Europe’s Copyright Law Decade: Recent Case Law of the European Court of Justice and Policy Perspectives’ (2014) 51 CML Rev 569, referring to J von Ungern-Sternberg, ‘Urheberrechtliche Verwertungsrechte im Lichte des Unionsrechts’ [2012] GRUR 1198 and ff).

2.1.2.1 Any technical means of (re)transmission

As long as there is a (re)transmission, the technical means used for (re)transmitting the work do not matter (*SGAE*, §46; *Premier League*, §193). This derives directly from recital 23 of the InfoSoc Directive: ‘This right should cover *any such transmission or retransmission* of a work to the public by wire or wireless means, including broadcasting’ (emphasis added). Every communication ‘which uses a specific technical means must, as a rule, be individually authorised’ (*SBS Belgium*, §17; *Reha Training*, §39). The communication refers to any (re)transmission ‘irrespective of the technical means or process used’ (*SBS Belgium*, §16; *Reha Training*, §38). A principle of technological neutrality is thus acknowledged in the EU definition of the communication to the public right (compared with the right to perform or display a work in the US: see section 3.1).¹² However, each technically independent (re)transmission does not automatically imply that a communication to the public takes place.

2.1.2.2 Two main conditions

In its 2016 *Reha Training* judgment,¹³ the Grand Chamber of the CJEU considered that two basic cumulative elements, that is, an ‘act of communication’ of a work and the transmission of this work to a ‘public’, are required.¹⁴

The ‘act of communication’ means that the user has an ‘indispensable role’ to play: some action or intervention by the user is needed, but the Court remained rather vague about what this means until it had to rule on the *Filmspeler* and *Ziggo* cases, involving a complex set of actions (see below under section 2.1.3.2).

The notion of ‘public’ is mostly defined with reference to a quantitative criterion (indeterminate but not *de minimis* number of persons who are the potential recipients of the communication). The qualitative criterion (such as the private bond between the members of the public¹⁵) is not relevant. A communication to the public thus requires an act of outreach towards a public.

¹² The principle of technological neutrality exists both for the communication to the public and for the reproduction right. Regarding reproduction, this principle relies on the text of art. 2 InfoSoc Directive, which refers to copies ‘by any means and in any form’. The technology neutral definition of reproduction has allowed its application outside the printing press context where it originated. In parallel to the expansion of the notion of work, which applies to new products of technology and creativity (films, computer games and so on), the notion of copy was able to adapt to new technologies so that it now applies to new ways of making copies (for example to various digital copies, but also nondigital copies such as canvas transfer). In that sense, the legal notion is neutral or independent from the technology involved. There are, however, other ways to define the principle of technological neutrality. For a short and recent discussion of its meanings, see Kendrick Lo, ‘What Is Technological Neutrality (in Copyright) Anyway? Revisiting *CBC v. SODRAC*’ (*CanLII Connects*, 1 August 2017) <<http://canliiconnects.org/en/commentaries/46245>> accessed 21 October 2019.

¹³ *Reha Training* (n 9) § 37.

¹⁴ Mr Malenovsky, the judge rapporteur in many copyright cases, confirmed this (see J Malenovsky, ‘La contribution de la Cour de justice au droit d’auteur en droit de l’Union européenne’ (2015) Annual ERA Conference on European Copyright Law 2015: Recent Case Law from the CJEU, unpublished).

¹⁵ For the Court, the qualitative nature of the public is not taken into account. Therefore, the private nature of hotel rooms, for instance, is not relevant. A new public might be reached, even if the members of the public will remain in an otherwise ‘private’ space.

2.1.2.3 *Two additional criteria*

In *SGAE v Rafael Hoteles*, a case involving the use of television sets and the distribution of broadcast music in hotel rooms, the Court had already articulated, on top of the two main conditions (a communication and a public), two other criteria:¹⁶ (i) the transmission to a *new* public (that is, the requirement that there is a broadening of the audience); (ii) the user's profit motives in transmitting the work.

In *SGAE*, the 'act of communication' was established because of the user's active role in the transmission: the hotel owner installed the TV sets in the rooms so as to retransmit the TV signals to the hotel guests. In *Reha Training*, which similarly involved the installation of TV sets to watch TV programmes in the premises of a rehabilitation centre, the Court stressed the intentional or volitional element of the communication on the part of the operators of the establishments: the public 'is not merely caught by chance, but is targeted by their operators'.¹⁷

The *SGAE* ruling also offers an economic interpretation of the condition of 'public': as users quickly succeed each other in hotel rooms, 'taken separately, they are of limited economic interest for the hotel' (*SGAE* §39), but this is not the case when aggregated. The presence of such a public over time generates an economic return.

The 'for profit' motive of the user shows that the legal notion is linked to the commercial or economic nature of the use. Subsequent decisions of the Court also consider the outreach towards a 'new public' and the profit raising nature of the use as decisive criteria.

Premier League involved the transmission of broadcast works via a television screen and loudspeakers to the customers of a pub. The Grand Chamber of the Court defined the 'new public' as 'an additional public' 'which was not taken into account by the authors of the protected works when they authorised their use by the communication to the original public' (*Premier League*, §197 and 198; see also *OSA*, §31).¹⁸ The Court, using a double negation, added that 'it is *not irrelevant* that a "communication" within the meaning of Article 3(1) of the Copyright Directive is of a profit-making nature' (emphasis added) (*Premier League*, §204) and concluded that the pub owner transmitted in order 'to benefit therefrom' (*Premier League*, §205). In *TVCatch-up* and subsequent decisions, the Court uses the same double negation ('not irrelevant') about the profit making nature of the act and adds that it is 'not necessarily an essential condition' (*TVCatch-up*, §44).¹⁹ In its 2016 hyperlinking decision (*GS Media*²⁰), the Court went one step further and put the profit making nature of the act at the centre of the communication to the public (see below section 2.1.3.1).

¹⁶ See also J Griffiths, 'The Role of the Court of Justice in the Development of European Union Copyright Law' in I Stamatoudi and P Torremans (eds), *EU Copyright Law: A Commentary* (Edward Elgar 2014) 1109.

¹⁷ *Reha Training* (n 9) § 48. See also § 47: 'the operators . . . make a communication to the public if they *intentionally* broadcast protected works to their clientele, by *intentionally* distributing a signal by means of television or radio sets that they have installed in their establishment' (emphasis added).

¹⁸ The Court refers also to the order of 18 March 2010 in Case C-136/09 *Organismos Sillogikis Diacheirisis Dimiourgon Theatrikon kai Optikoakoustikon Ergon* § 38. *Airfield* (n 9) was about the communication to the public by satellite. Again, the expansion of the public (or market) by a specific service, together with the fact that the service is performed with the aim of making a profit (*Airfield*, §§ 76 and 80), are the crucial parameters for concluding that a communication to the public takes place.

¹⁹ In *TVCatch-up* (n 9) the Court concludes that there is a communication because of the use of a different and independent means of transmission, without enquiring whether there is a 'new public'.

²⁰ Case C-160/15 *GS Media BV v Sanoma Media Netherlands BV* ECLI:EU:C:2016:644 (*GS Media*).

In *Phonographic Performance Ltd* (hereafter *PPL*), the issue was whether a hotel can be exonerated from the payment of equitable remuneration when using phonograms in hotel bedrooms. Decisive here was the fact that the hotel operator ‘derives economic benefits’ from the transmission (*PPL*, §51) and intervened actively in the process. The intervention of the hotel ‘constitutes an additional service’ which had an influence ‘on the hotel’s standing and, therefore, on the price of the rooms’ (*PPL*, §44). The reference to the impact on the price illustrates again the economic reasoning of the Court. The Court adds that the requirement of ‘a profit-making nature’ is more important for a right to equitable remuneration than for an exclusive right (*PPL*, §36). In *Reha Training*, the Court linked the profit nature of the act to the enhancement of ‘the attractiveness’ of the user’s service and the likelihood ‘to obtain an economic benefit’.²¹ On this basis, the Court distinguished the situation of a dental practice (*Del Corso*) where the possibility to listen to broadcasted phonograms ‘is not of such a nature as to increase its attractiveness and, therefore, the number of people going to that practice’.²²

This – possibly too flexible – method of weighting different criteria, without considering all of them as cumulative and without clearly classifying them by order of importance, was further applied in *Reha Training*. No certainty can be derived from this view, and the case law of the Court definitely shows an ad hoc application of the various conditions and criteria.

However, the CJEU case law has managed, to some extent, to take into account the economic realities by using a sliding scale of four criteria (see above 2.1.2.1 and 2.1.2.2). Among the four, the three criteria of (i) the profit making nature of the act, (ii) the existence of a true intervention and intention to target an audience and (iii) the presence of an additional public indicate that the Court is trying to capture the economic realities beyond the formal definition. As underlined by Leistner, the focus of those CJEU decisions ‘is no longer on the legal monopoly of the authors, but rather on the question of whether the concrete user *economically exploits* the copyright protected subject matter with regard to a (new) public’ (emphasis added).²³ The central question thus becomes: what is a true economic exploitation of a work? This is also central in the hyperlinking cases decided by the CJEU.

2.1.3 Hyperlinking in the case law of the Court of Justice of the EU

Before the *GS Media* decision (September 2016), the CJEU hyperlink decisions, in particular *Svensson* (February 2014),²⁴ did not expressly rely on the profit making nature of the act of (re)transmission. Neither was the intentional aspect (criterion of knowledge) discussed by the Court. As shown below, those elements are now decisive for determining whether the placing

²¹ *Reha Training* (n 9) § 51.

²² *ibid* 52. In *Del Corso* (n 9) the Court puts forward two main criteria, the requirement of a public and the profitmaking nature of the act, and adopts an economic reasoning. As the dentist cannot ‘expect a rise in the number of patients because of that broadcast alone or increase the price of the treatment’, the communication has no ‘impact on the income of that dentist’ and is ‘not of a profit-making nature’ (*Del Corso* (n 9) §§ 97–99). The possibility (or not) to pass the value (added by the use of the phonograms) into the price of the services (the price of the room or dental treatment) is the conclusive factor in those cases. See also the *OSA* judgment (§§ 34–35): the intervention by a spa establishment distributing a signal by means of TV sets in the bedrooms has an economic effect on the price of the bedrooms, not the communication within a dentist practice (as the added value cannot translate in an higher price for the dentist service, in part because the price of the dental treatment is fixed by the public authorities).

²³ Leistner (n 11) 570.

²⁴ Case C-466/12 *Nils Svensson and Others v Retriever Sverige AB* ECLI:EU:C:2014:76 (*Svensson*).

of a hyperlink and other operations involving hyperlinks must be considered as a communication to the public.

To understand, and make sense of, the case law of the Court, which now includes a collection of cases with specific facts and very different circumstances, it is important first to distinguish between the cases focusing on the act of placing a hyperlink (or a list of hyperlinks) in the code of a web page,²⁵ and the cases involving more complex operations. The ‘simple hyperlinking cases’ include *Svensson*, *BestWater*, *C-More Entertainment* and *GS Media*;²⁶ the ‘complex cases involving hyperlinks’ are illustrated by the more recent *Filmspelers* and *Ziggo* decisions.²⁷ Those last cases involve the sale of a product (multimedia player) preloaded with addons containing hyperlinks to websites (*Filmspelers*) or the creation and maintenance of a system for sharing works that includes the use of ‘magnet links’ to identify the files (*Ziggo*).

2.1.3.1 *The simple hyperlinking cases*

For the cases, such as *Svensson* and *GS Media*, that turn on whether the act of establishing one or several hyperlinks to another web page could constitute a communication to the public, the analysis depends initially on whether the linked-to content was already put online and authorized by the rightholder. By contrast, the Court’s analysis of whether a communication to the public has occurred does not distinguish between the types of link (for example, simple, deep, embedding or framing). The latter kind of links might involve an unfair exploitation of content that could be addressed by unfair competition claims, an area of the law not harmonized at EU level.²⁸

In *Svensson*,²⁹ the Court treats hyperlinking as a form of retransmission, but not as a communication to the public as it is not addressed to a ‘new public’. The ‘new public’ is defined in conformity with the other case law on the communication to the public (compare *Svensson*, §24 with *Premier League*, §198). As there is no public in addition to the public targeted by the linked-to site and the transmission means are the same, no communication to the public takes place. *Svensson* thus relies on the view that all the internet users constitute a single public

²⁵ For instance in *GS Media* (n 20), the question addressed by the Court is ‘whether the fact of posting, on a website, hyperlinks to protected works . . . constitutes a ‘communication to the public’ (*GS Media* (n 20), operative part of the decision).

²⁶ *Svensson* (n 24); Case C-348/13 *BestWater International GmbH v Michael Mebes and Stefan Potsch* EU:C:2014:2315 (*BestWater*); Case C-279/13 *C More Entertainment AB v Linus Sandberg* ECLI:EU:C:2015:199 (*C-More Entertainment*); *GS Media* (n 20).

²⁷ Case C-527/15 *Stichting Brein v Jack Frederik Wullems* ECLI:EU:C:2017:300 (*Filmspelers*); Case C-610/15 *Stichting Brein v Ziggo BV and XS4All Internet BV* ECLI:EU:C:2017:456 (*Ziggo*).

²⁸ The reasoning of the Court is not altered by the circumstance ‘that when Internet users click on the link at issue, the work appears in such a way as to give the impression that it is appearing on the site on which that link is found, whereas in fact that work comes from another site’ (*Svensson* (n 24) § 29–30; see also *BestWater* (n 26), which involves the technique known as ‘transclusion’ or ‘framing’). Hyperlinks by framing could raise unfair competition claims under the national laws of the EU Member States.

²⁹ *Svensson* (n 24) deals with clickable links posted on the site of a media monitoring agency (Retriever) to the articles of journalists (including Mr Svensson) published on their newspaper’s website, with the authorization of the rightholders. Retriever’s customers who have paid a subscription fee can access a search function on the site. In response to a query based on search terms, the customer receives a list of clickable links. If the customer clicks a link, the linked-to site article is displayed in a popup window. The customer is not clearly informed that, by clicking on the link, he has been transferred to the website of the press publisher.

(global reach of the internet), at least insofar as the linked-to site does not restrict the access by using technical measures (*Svensson*, §31). The ‘new public’ requirement has been widely criticized from various points of view.³⁰ Although it might create new law (and new uncertainties), it aims to rely on the substance of the act of communication and on the view that the remuneration should vary depending on the size of the audience. When more people benefit from, and enjoy, the work because of a public’s extension, it seems justified to negotiate an additional remuneration as a counterpart for an authorization. This is the rationale behind the Court’s approach.³¹ The ‘new public’ criterion effectively excludes links to unrestricted websites from the scope of the communication to the public right.

GS Media, which involves the provision of links to an unlawful source, imposes an additional, and subjective, criterion: knowledge of the unauthorized content on the targeted site. As the Court recognized in *Filmspeler*, the notion of an accounted-for public (or a ‘new public’) makes no sense when the source towards which the links point is illicit.³² Proof of the absence of consent with regard to the source, in turn, depends on whether the posting of the hyperlink is done by a person who does or does not pursue a profit. When the hyperlink is provided for ‘the pursuit of financial gain’ (*GS Media*, §55), there is a presumption of knowledge as to the illicit nature of the linked-to content.³³ For the Court, commercial or for-profit transmissions of works by hyperlinking to unauthorized content can presumptively be considered as falling within copyright’s scope. In practice, the for-profit nature of the linker’s activity will be a decisive factor.³⁴ The absence of any presumption of knowledge for the majority of internet users avoids a potentially oppressive application of copyright to the many internet users who are unaware that the sites to which they may be supplying links include illicit content. As a result of these decisions, it appeared that in the case of secondary communications, at least via hyperlinks, the Court of Justice, by imposing a knowledge criterion, was calling into question the nature of the communication to the public right (and therefore of copyright in general). After

³⁰ See the various criticisms: Pierre Sirinelli, Alexandra Bensamoun and Josée-Anne Benazeraf, ‘Le droit de communication au public’ (2017) 251 RIDA 207; Mattias Leistner, ‘Closing the Book on Hyperlinks: A Brief Outline of the CJEU’s Caselaw and Proposal for European Legislative Reform’ (2017) 39 EIPR 327; PB Hugenholtz and SC van Velze, ‘Communication to a New Public? Three Reasons Why EU Copyright Law Can Do Without a “New Public”’ (2016) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2811777> accessed 21 October 2019; Association Littéraire et Artistique Internationale (ALAI), ‘New Public Report and Opinion’ <www.alai.org/en/assets/files/resolutions/2014-opinion-new-public.pdf> accessed 21 October 2019.

³¹ Not all minor extensions of the public deserve to be taken into account for applying the right and adjusting the remuneration. This is why a double market analysis (impact on the market of the work and on the market of the user) might adequately complement the legalistic interpretation of the scope of the right (see A Strowel, ‘Reconstructing the Reproduction and Communication to the Public Rights: How to Align Copyright with Its Fundamentals’ in PB Hugenholtz, *Copyright Reconstructed* (Wolters Kluwer 2018) 203–40).

³² See *Filmspeler* (n 27) para 48: ‘However, the same finding cannot be deduced from those judgments failing such an authorization.’

³³ The for-profit provider of the link is supposed to carry out advance ‘checks to ensure that the work concerned is not illegally published on the website to which those hyperlinks lead’ (*GS Media* (n 20) § 51).

³⁴ Thus, while *Svensson* (n 24) relies only implicitly on an economic notion (‘new public’), *GS Media* puts the economic parameter at the forefront. In reviewing the criteria for the communication to the public, the Court underlines that ‘it is relevant that a “communication” . . . is of a profit-making nature’ (emphasis added) (*GS Media* (n 20) § 38).

all, proof of a violation of a ‘true’ property right does not require the rightholder to establish that the defendant knew that he was violating an exclusive right. By adding a knowledge requirement, the Court blurs the distinction between direct and indirect liability.³⁵ This is even clearer with the most recent cases involving hyperlinking.

2.1.3.2 *The complex cases involving hyperlinking*

Contrary to the hyperlinking cases discussed above, *Filmspeler* and *Ziggo* comprise more complex sets of offline operations (manufacturing, sale and advertising of a device with addons in *Filmspeler*) or online operations (creation and maintenance of a system based on a peer to peer software; operation of a website (The Pirate Bay or TPB) dedicated to the downloading of torrent files, acts of indexing and categorizing the files so as to permit the reassembling of the underlying works on the basis of dispersed segments in *Ziggo*). For this reason, the liability discussion has to assess conduct that goes well beyond the simple placing of one or more hyperlinks on a webpage. Both cases mainly concern not hyperlinking but rather the furnishing of other means to access infringing copies of works.

In both cases, the Court distinguished between an act of communication to the public in the sense of the InfoSoc Directive and ‘[t]he mere provision of physical facilities for enabling or making a communication [which] does not in itself amount to communication within the meaning of this Directive’.³⁶

The Court in both cases reiterated that a communication to the public must be assessed in light of the four criteria set out above (see section 2.1.2): (i) there is a deliberate act of communication; (ii) towards a public composed of an indeterminate but fairly large number of recipients; (iii) in the absence of different technical means, the communication must target a ‘new public’; (iv) the profit making nature of the communication (*Filmspeler* §§31–34; *Ziggo*, §§26–29). Condition (i) appears decisive in *Ziggo*: the Court put forward the requirement that the operators of the system and website (TPB) have ‘full knowledge of the relevant facts’ and ‘full knowledge of the consequences of their conduct’ (*Ziggo*, §§34 and 36).³⁷ The Court insisted on the ‘essential role’ of the operators in making the works available (*Ziggo*, §37 and *Filmspeler*, §31). The knowledge requirement also resurfaced when the Court discussed the ‘new public’ requirement (iii): the operators ‘were informed’ and ‘could not be unaware’ (*Ziggo*, §45) that they were facilitating access by a broader public to works that were first made available without the consent of the right holders. The knowledge requirement thus converges, and is closely intertwined, with two of the common criteria for the communication to the public in the CJEU case law.

³⁵ See Birgit Clark and Julia Dickenson, ‘Theseus and the Labyrinth? An Overview of ‘Communication to the Public’ under EU Copyright Law’ (2017) 39 EIPR 265, 277 (adverting to ‘real challenges of not having a common conception of secondary liability within the EU legal framework’). On the distinction between direct and indirect liability, see A Strowel (ed), *Peer-to-Peer File Sharing and Secondary Liability in Copyright Law* (Edward Elgar 2009) and in particular in relation to hyperlinking A Strowel and V Hanley, ‘Secondary Liability for Copyright Infringement with Regard to Hyperlink’ in A Strowel (ed), *Peer-to-Peer File Sharing and Secondary Liability in Copyright Law* (Edward Elgar 2009) 71–109.

³⁶ InfoSoc Directive (n 6) recital 27.

³⁷ See also the affirmation in Advocate General Szpunar’s conclusions in C-610/15 *Stichting Brein v Ziggo BV and XS4All Internet BV* ECLI:EU:C:2017:99, Opinion of AG Szpunar, para 51 that ‘the decisive role in the communication to the public of a given work cannot be attributed to [the defendant] if it is unaware that the work has been made available illegally’.

Likewise, in *Filmspelers*, the Court explained when there is a deliberate act of communication (condition (i)): ‘when [the user] intervenes, in full knowledge of the consequences of his action’ (§31). This appears to conflate a deliberate act (the intervention) with a knowledge requirement about its effect (to promote infringement). An intermediary might knowingly decide to facilitate access to a work, or to a site containing works, without necessarily knowing that the access is illicit. This would not create any liability. Similarly, the sole knowledge without the action obviously would not suffice for an operator to be held liable. The condition of having an act of communication (criterion (i)) is thus more complex than it first seems, as it includes the intentional and knowledge factor, as well as a positive action or intervention.

Surprisingly, *Filmspelers* compared the provision of clickable links, affording users of the linking site access to the works (as in *Svensson* and *GS Media*), to the ‘sale of a multimedia player’. The Court revealed here that the communication to the public is about controlling the access to the works;³⁸ for the Court, access is also involved in the case of a sale or distribution of a tangible object (that is preloaded with the means to access illicit works). In *UsedSoft*,³⁹ involving the digital exhaustion of software, the Court had already completely ignored the traditional difference between the tangible and intangible modes of disseminating a software – a difference with considerable copyright consequences.

Probably because the knowledge and intention component had become central in both cases, the Court did not focus on the for profit nature of the operations of the intermediary; however, it is mentioned as relevant (*Filmspelers*, §51 and *Ziggo*, §46).

These two decisions contribute to the harmonization of secondary liability, but it is done under the cover of direct copyright infringement. EU law thus knows an ‘undercover’ secondary liability doctrine nominally disguised under the direct infringement of the communication to the public right. Harmonization was necessary given both the lack of uniformity regarding secondary liability across the national laws of the Member States (see below section 2.2), and the growing economic importance of furnishing the means to access infringing sources (without serving as the initial source of the infringing communication).

2.2 Indirect Liability and Hyperlinking in the EU

EU law does not contain any provision dealing with indirect copyright liability. In addition, there is no common doctrine of indirect liability throughout the EU. In the UK, the joint tortfeasor liability doctrine permits holding a third party liable if he or she is engaged in a ‘common design’ with someone who commits an infringement in pursuance of that design; in Germany, the courts have developed the doctrine of *Störerhaftung*, allowing injunctions (but no damages) against third parties engaging in affirmative acts that cause a ‘disturbance’; in France and Belgium, the broad tort liability principle enshrined in the Civil Code (Art. 1382)

³⁸ The making available right expressly allows to control the access to the works (‘in such a way that members of the public may access them from a place and at a time individually chosen by them’). On the increasing role of access control in copyright, see J Ginsburg, ‘From Having Copies to Experiencing Works: The Development of an Access Right in U.S. Copyright Law’ (2003) 50 J Copyr Soc 113; A Strowel, ‘L’émergence d’un droit d’accès en droit d’auteur? Quelques réflexions sur le devenir du droit d’auteur’ in C Doutrelepon and F Dubuisson (sous la dir.), *Le droit d’auteur adapté à l’univers numérique* (Bruylant 2008) 61–89.

³⁹ Case C-128/11 *UsedSoft GmbH v Oracle International Corp* ECLI:EU:C:2012:407 (*UsedSoft*).

has been used to impose a duty of care on intermediaries, that is, an obligation to act reasonably so as to prevent the commitment of copyright infringements by third parties.⁴⁰

The absence of EU legislation on indirect liability and the divergence between national laws, combined with the zeal of the Court of Justice to find common ground and a harmonized solution, explains why the Court has *nominally* anchored its analysis of the hyperlinking liability in the provision on direct liability by communicating to the public. The observations of Advocate General Szpunar in *Ziggo* (see above) are clear on this: to the European Commission and the UK, which contend that the liability in *Ziggo* must be resolved under the national laws of the Member States, the Advocate General replies:

such an approach would, however, mean that liability, and ultimately the scope of the copyright holders' rights, would depend on the very divergent solutions adopted under the different national legal systems. That would undermine the objective of EU legislation in the relatively abundant field of copyright, which is precisely to harmonize the scope of the rights enjoyed by authors and other rightholders within the single market. That is why the answer to the problems raised in the present case must, in my view, be sought rather in EU law.⁴¹

Such approach is probably shared by the CJEU, although the Court remains silent on the final justification for treating the hyperlinking cases under the existing EU provisions on primary liability.

In other contexts and countries, the absence of a secondary liability standard, or the high bar for its application, has also caused claimants to push for the expansion of primary liability. After *GS Media*, *Filmspelers* and *Ziggo*, the permeability of the dividing line between primary and secondary copyright liability is greater in the EU than in the US. The case law and commentaries under the national laws of EU Member States have never delineated the different theories of secondary liability as precisely as the US courts and commentators.⁴²

The teleological interpretation by the CJEU of the existing EU provisions on direct liability can be criticized from a dogmatic point of view as it completely ignores and blurs the established distinction between the (harmonized) direct liability and the (unharmonized) indirect liability in the field of copyright. But national courts have proceeded likewise in the past, and have not been very strict about the liability standard on which they rely. The concept of 'authorization' in the UK (and in other Commonwealth countries) also establishes 'an act of *nominally* primary liability that clearly maps in substance to conventional forms of secondary or joint tortfeasor liability'.⁴³ There are other forms of liability that exist between the traditional dividing line. This is the case in the field of injunctive relief against intermediaries, based on Article 8(3) of the 2001/29 Copyright in the Information Society directive.⁴⁴ The

⁴⁰ See among others, C Angelopolous, 'European Intermediary Liability in Copyright: A Tort-Based Analysis' (Wolters Kluwer 2017) 203 ff and 233 ff; A Dixon, 'Liability of Users and Third Parties for Copyright Infringement' in Strowel (n 35) 15–19.

⁴¹ AG Szpunar (n 37) § 3.

⁴² On the distinction between contributory and inducement liability under US law, see below section 3.2.1.

⁴³ G Dinwoodie, 'A Comparative Analysis of the Secondary Liability of Online Service Providers' in G Dinwoodie (ed), *Secondary Liability of Internet Service Providers* (Springer 2017) 1–72.

⁴⁴ InfoSoc Directive (n 6) art 8(3) provides that 'Member States shall ensure that rightholders are in a position to apply for an injunction against intermediaries whose services are used by a third party to infringe a copyright or related right'.

case law applying this provision defines in reality a ‘responsibility without liability’ of service providers that are required to actively assist in preventing wrongdoing by third parties.⁴⁵

As long as those new forms of liability and new approaches permit to adequately address each set of circumstances and behaviour by applying reasonable liability or remedial criteria, the criticisms partly fall flat. Of course, there are symmetric risks with such a blurring approach: to consider the conduct of operators who facilitate or encourage some direct infringements under the lens of the communication to the public right contains the risk of applying a strict liability approach and, correlatively, of expanding copyright’s scope by stealth; on the other side, to add conditions of knowledge and intent (or the criterion of for-profit) in the analysis of what constitutes a communication to the public risks weakening the application of copyright to cases that obviously fall under this right.

With the advent of the internet 2.0 and its multiple platforms facilitating the sharing of content by endusers, enforcing copyright online requires defining the liability of many intermediaries, including those who further disseminate content with hyperlinks, beyond the traditional online service providers which enjoy some liability exemptions (see section 4.1).

3. US LAW ON LIABILITY FOR HYPERLINKING

3.1 Direct Liability for Hyperlinking in the United States

3.1.1 Statutory basis for copyright coverage of hyperlinks

The author’s exclusive rights under the US Copyright Act 1976 expressly include neither a ‘making available’ right, nor a right of ‘communication to the public’. The closest statutory analog to those rights in the context of hyperlinking is the right to perform or display a work publicly by transmission or other means of communication under section 106 of the US Copyright Act.⁴⁶ Section 101 of that act defines ‘[t]o perform or display a work “publicly”’ as

to transmit or otherwise communicate a performance or display of the work . . . to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.⁴⁷

The definition section also specifies that ‘[t]o “transmit” a performance or display is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent’.⁴⁸ The statutory language is technologically neutral, on its face encompassing all means of direct and secondary communications of performances or displays of works. US case law on hyperlinking, however, has introduced a limiting gloss.

⁴⁵ Dinwoodie (n 43).

⁴⁶ 17 USC § 106.

⁴⁷ *ibid* § 101. Section 101 also defines the term ‘to transmit’ as ‘to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent’. *Ibid*.

⁴⁸ *ibid*.

3.1.2 The server rule and *Perfect 10 v Amazon*

In the US, a judgemade doctrine known as the ‘server test’ or ‘server rule’⁴⁹ from 2001–2017 dominated the treatment of hyperlinks under the Copyright Act. The Court of Appeals for the Ninth Circuit adopted the test in a 2007 case, *Perfect 10 v Amazon*, and several US courts since then have followed it.⁵⁰ Under the ‘server rule’, ‘the owner of a computer that does not store and serve . . . electronic information to a user is not displaying [or distributing] that information, even if such owner in-line links to or frames the electronic information’.⁵¹ Therefore, a defendant who provides a hyperlink of any kind (through simple linking, deep linking, framing or inline linking) cannot incur direct copyright liability unless that defendant also ‘store[s] and serve[s]’ the copyrighted material to which the link points. More recently, however, courts have begun to question the bases for the server rule.⁵²

3.1.3 Analysis of the server rule

3.1.3.1 *The server rule and statutory authority*

The natural implication of the ‘server rule’ is that the mere provision of a hyperlink of any kind cannot constitute an act of public performance or display and therefore cannot constitute a direct violation of the exclusive rights reserved to copyright holders under section 106 of the US Copyright Act.⁵³

Thus, despite the breadth and technological neutrality of those rights, the server rule effectively assumes that a hyperlink is not a ‘device or process’ that ‘transmit[s] or otherwise communicate[s] a performance or display of a work . . . to the public’.⁵⁴ This logic relies on a restrictive definition of ‘transmit or otherwise communicate’ which it reads to include only those ‘device[s] or process[es]’ which ‘cause infringing images to appear on the user’s screen’ by pushing data from the server on which the work is stored to the user’s browser.⁵⁵ The statutory definition of ‘to transmit’, however, is not so constrained. The legislative history indicates that Congress intended to broaden the definition of public performances and displays to cover ‘not only the initial rendition or showing, but also any further act by which that rendition or showing is transmitted or communicated to the public’.⁵⁶

Even under a strictly technical approach, the process through which a user’s browser displays a webpage begins not when the host server sends data to the user’s browser, but when

⁴⁹ *Perfect 10 v Amazon* 508 F.3d 1146, 1159 (9th Cir. 2007).

⁵⁰ See *ibid*; *MyPlayCity Inc. v Conduit Ltd.* No 10 Civ. 1615 (CM) 12–14 (SDNY 30 March 2012). Contra, *Justin Goldman v Breitbart News Network LLC* 302 F. Supp. 3d 585 (SDNY 2018) (expressly declining to follow *Perfect 10* (n 49) and arguing that the ‘server test’ is not ‘adequately grounded in the text of the Copyright Act’), discussed below.

⁵¹ *Perfect 10 v Google* 416 F.Supp.2d 828, 843–45 (C.D. Cal. 2006).

⁵² See *Goldman v. Breitbart News Network, LLC* 302 F. Supp. 3d 585, 596 (S.D.N.Y. 2018) (expressly declining to follow *Perfect 10* and arguing that the “server test” is not “adequately grounded in the text of the Copyright Act”); *Leader’s Institute, LLC v. Jackson*, Civ. No. 3:14-CV-3572-B, 2017 WL 5629514, *10 (N.D. Tex. Nov. 22, 2017) (expressly declining to follow *Perfect 10* and instead holding that “by framing the defendants’ copyrighted works, the plaintiffs impermissibly displayed the works to the public.”).

⁵³ 17 USC § 106(4)–(6).

⁵⁴ *ibid* § 101.

⁵⁵ *Perfect 10 v Amazon* 508 F.3d 1146, 1161 (9th Cir. 2007).

⁵⁶ See House Report No 94-1476: Copyright Law Revision [63].

the clicked hyperlink instructs the user's browser to retrieve the data from the source server and provides the browser with the relevant URL address. The fundamental assumption underlying the server rule is that the first part of this process, which enables the browser to connect with the right server, is not part of the 'process' at all. By contrast, the District Court for the Southern District of New York rejected this logic, noting that when a website 'paste[s] a code line into its blog/article that contains' HTML instructions to 'embed' an image from a different website into its page, that website '[takes] active steps to put a process in place that resulted in a transmission of the [linked-to work] so that they could be visibly shown'.⁵⁷ These 'active steps,' according to the Court, 'constitute a process' and the 'plain language of the Copyright Act calls for no more' to establish an act of direct infringement.⁵⁸

Similarly, the inclusion of a catchall category in the statutory definition ('transmit or otherwise communicate') indicates that the definition should be read broadly, not narrowly.⁵⁹ The drafters of the bill intended the scope of the display right to be broad enough to include '[e]ach and every method by which the images . . . comprising a . . . display are picked up and conveyed' and 'any act by which [an] initial performance or display is transmitted, repeated, or made to recur', including 'any type of electronic retrieval system'.⁶⁰

Moreover, setting aside the technological minutiae of the process through which clickable deep or inline links cause a work's images or sounds to be received by the end user, it 'makes no difference' to the user's experience of the work whether its delivery emanated directly from the source site, or arrived through the mediation of a link.⁶¹ The server rule draws a legal line which completely ignores the user experience: the typical viewer of a website has no way of distinguishing content which is stored on the servers of the website operator (and which is thus being 'displayed' under the logic of the server rule) and content which is pulled from a third party server through an inline link (which, according to the server rule, is not being displayed by the website operator). This user agnostic approach is in tension with Supreme Court case law which instructs courts, when interpreting the Copyright Act,⁶² to 'focus on the [work] as presented to, and perceptible by' the public.⁶³

⁵⁷ *Goldman v Breitbart*, supra, 302 F.Supp.3d at 594.

⁵⁸ *ibid.*

⁵⁹ *ibid* at 593 (noting that the definitions of 'to perform or display a work "publicly"' and 'to "transmit"' in 17 USC § 101 are 'plainly drafted with the intent to sweep broadly').

⁶⁰ House Report No 94-1476: Copyright Law Revision [63]–[64].

⁶¹ The Supreme Court made a similar observation, noting that 'technological differences' that do not 'significantly alter the [user's] experience' should not govern the interpretation of the public display and performance rights under § 106. *American Broadcasting Companies Inc v Aereo Inc* 134 S.Ct. 2498, 2508 (2014).

⁶² The District Court for the Southern District of New York opined that this aspect of the *Aereo* (n 61) decision casts doubt on the user-agnostic logic of the server rule. See *Justin Goldman v Breitbart News Network LLC*, supra, 302 F.Supp.3d at 595 (noting that *Aereo* 'strongly support[s] [the] argument that liability should not hinge on invisible, technical processes imperceptible to the viewer' such as the server location of a piece of content embedded on a website). In 2012, the French Cour de Cassation accepted a similar argument based on the user's impression of the source of the work, and held that an unauthorized in-line link to a work on a third party website was infringing because users may have been under the impression that the content was located on the linking website. See Cass Civ *Google France v Bac Films* July 2012 11-13.666 <<https://perma.cc/X8DZ-PEXU>> accessed 21 October 2019.

⁶³ *N.Y. Times Co. v Tasini* 533 US 483, 499 (2001).

Given the logical inconsistencies underpinning the server rule, one might suggest that a desire to avoid imposing direct copyright liability on the widespread practice of internet hyperlinking may have motivated the adoption of the rule in *Perfect 10 v Amazon*. However, by responding to these concerns with a broad rule which precludes any direct liability for linking, the Ninth Circuit may have overlooked the possibility that other areas of copyright law could have alleviated these unwanted outcomes. Section 512(d) of the Digital Millennium Copyright Act (DMCA) provides a safe harbour for actors who may otherwise have infringed copyright through the use of ‘information location tools, including a directory, index, *reference, pointer, or hypertext link*’.⁶⁴ The Ninth Circuit could have recognized that actors who provide hyperlinks may be found directly liable for copyright infringement under the correct interpretation of the relevant statutory provisions, but that those defendants may claim protection under the DMCA’s Safe Harbor provisions by proving compliance with the DMCA’s Safe Harbor qualification requirements.⁶⁵

3.1.3.2 *The server rule and the making available right*

The server rule adopted in *Perfect 10 v Amazon* may also put the United States at risk of falling short of its obligation to protect copyright owners’ ‘making available’ right under the WIPO Copyright Treaty (‘WCT’) and the WIPO Performance and Phonograms Treaty (‘WPPT’). Some commentators have contended that the server rule ‘eviscerates’ the making available right by allowing other websites to inline or frame their copyrighted content without permission, thus divesting the copyright holders of the ability to control how their works are disseminated online.⁶⁶

The United States Copyright Office (‘Copyright Office’) noted these arguments in a 2016 report on the ‘making available’ right, but simply concluded that there remained doubt about whether ‘a court might deem certain forms of inline linking or framing distinguishable from the technology in *Perfect 10* for purposes of the server test’ and that ‘[c]onclusive resolution of these issues will require further guidance from courts’.⁶⁷ Some district courts in other circuits have now rejected the server rule,⁶⁸ and even within the Ninth Circuit, a district court has confined the rule’s application to search engines.⁶⁹ US courts may therefore in the future limit application of the server rule in a way that will bring US copyright law in line with the WCT and the WPPT’s provisions, assuming that the ‘making available’ right reaches at least some forms of linking.

On the other hand, the US exclusion of direct liability for hyperlinking would not preclude US compliance with its international obligations, so long as US law furnished an alternative

⁶⁴ 17 USC § 512(d) (emphasis added).

⁶⁵ Qualifying for the DMCA’s safe harbour requires that the defendant prove compliance with the particular requirements of the specific claimed safe harbour, which will be discussed below in section 4.2.

⁶⁶ PACA, Digital Media Licensing Ass’n Inc., Nat’l Press Photographers Ass’n, Am. Soc’y of Media Photographers, and Graphics Artists Guild, Comments Submitted in Response to U.S. Copyright Office’s July 15, 2014 Notice of Inquiry [4]. See also United States Copyright Office, Report on the Making Available Right in the United States 49 (February 2016).

⁶⁷ United States Copyright Office, Report on the Making Available Right in the United States 50–51 (February 2016).

⁶⁸ See *Goldman v. Breitbart*, *supra*, and *Leader’s Institute v. Jackson*, *supra*.

⁶⁹ See *Free Speech Sys., LLC v. Menzel*, 390 F. Supp. 3d 1162 (N.D. Cal. 2019).

basis for effective enforcement of the exclusive rights of public performance and display.⁷⁰ We next consider whether the US doctrine of secondary liability, as applied to hyperlinking, sufficiently fills the gap.

3.2 Secondary Liability for Hyperlinking in the United States

3.2.1 Implications of treating hyperlinking under secondary liability

If US court's treatment of direct liability claims of infringement by means of linking may be in flux, the possibility of derivative liability through secondary infringement analysis appears well-settled. In the EU, the lack of harmonization of secondary liability standards across EU Member States provided the impetus for characterizing as direct violations of the right of communication to the public at least some kinds of facilitation of infringement by means of hyperlinking.⁷¹ In the US, by contrast, copyright doctrine is effectively 'harmonized' across jurisdictions with respect to both direct and secondary liability. Albeit based in the common law, secondary liability for copyright infringement is a matter of federal law rather than of the laws of the 50 states. Treating hyperlinking as a matter of secondary liability thus does not present the problem of multiple inconsistent national standards that confronted the CJEU.

This is not to say that the US standards for direct and secondary liability for copyright infringement are identical. While direct infringement in the US is a strict liability offence,⁷² the secondary liability doctrine of contributory infringement requires that the secondary infringer 'know[s] or [has] reason to know' of direct infringement.⁷³ The server rule thus makes a hyperlinking defendant's liability turn on its actual or constructive knowledge of the infringing nature of the infringed work.⁷⁴

3.2.2 Secondary liability doctrines in the United States

Copyright actions in the US concerning secondary liability for hyperlinking typically allege that the defendant linked to an *unauthorized* source of a work protected by copyright. US courts have reiterated that there can be no secondary liability absent a primary infringement of copyright;⁷⁵ plaintiffs therefore will not succeed on secondary infringement claims based on links to authorized sources because the access which the link enables is not itself an act of direct infringement.

US copyright law recognizes three forms of secondary liability: vicarious infringement, contributory infringement and inducement of infringement. Vicarious infringement lies when

⁷⁰ cf Copyright Board of Canada, CB-CDA 2017-085 (25 August 2017) para 162, regarding national implementation of the WCT art 8 making available right ('What name a right is given in domestic legislation does not make it any more or any less compliant. What is important is that all the acts contemplated by the treaties are covered through one or more exclusive rights').

⁷¹ See *supra* section 2.2. See also Lyubomira Mideliieva, 'Rethinking Hyperlinking: Addressing Hyperlinks to Unauthorised Content in Copyright Law and Policy' (2007) 39 EIPR 479, 487.

⁷² *EMI Christian Music Group Inc. v MP3Tunes LLC* 844 F.3d 79, 89 (2d Cir. 2016).

⁷³ *A&M Records Inc. v Napster Inc.* 239 F.3d 1004, 1020 (9th Cir. 2001) (citing *Cable/Home Communication Corp. v Network Prods. Inc.* 902 F.3d 829, 845 and 846 n. 29 (11th Cir. 1990)).

⁷⁴ This aspect of the secondary infringement analysis under U.S. law parallels the knowledge-based standard which the CJEU imposed in the *GS Media* (n 20) case. See section 2, *supra*.

⁷⁵ See for example *La Resolana Architects PA v Reno Inc.* 555 F.3d 1171, 1181 (10th Cir. 2009) ('[B]oth contributory and vicarious infringements require someone to have directly infringed the copyright'); *Perfect 10 Inc. v Amazon.com Inc.* 608 F.3d 1146, 1169 (9th Cir. 2007).

a defendant ‘profit[s] from direct infringement while declining to exercise the right to stop or limit it’.⁷⁶ In order to prove a claim of contributory infringement, the copyright holder must show that the defendant ‘induce[d], cause[d], or materially contribute[d] to the infringing conduct of another’ ‘with knowledge of the infringing activity’.⁷⁷ Lastly, a claim of inducement of infringement may succeed if the defendant takes ‘active steps . . . to encourage direct infringement, such as advertising an infringing use or instructing how to engage in an infringing use’, builds a business model which ‘confirm[s] that [the defendant’s] principal object’ is to facilitate infringement of copyright, and takes no effort to limit the infringing activity resulting from its acts.⁷⁸

3.2.2.1 *Contributory infringement*

The contributory infringement analysis poses dual criteria: (i) ‘personal conduct that encourages or assists’ an act of direct infringement (also framed as ‘material contribution’ to an act of direct infringement); and (ii) actual or constructive knowledge of the specific direct infringement.⁷⁹

In most of the reported cases concerning secondary liability for hyperlinking, courts have found that providing a hyperlink to an unauthorized source, in addition to some ‘encouraging’ activity, satisfied the ‘personal conduct that encourages or assists’ or ‘material contribution’ requirement. For example, in *Pearson Educ., Inc. v Ishayev*, the Court found that a defendant who sold unauthorized versions of educational materials online and provided the materials to its customers by providing links to filesharing sites through which the infringing materials could be downloaded ‘plainly’ carried out ‘conduct that encourages or assists in copyright infringement’ and could thus be found contributorily liable.⁸⁰

The second element, actual or constructive knowledge, is slightly more complex. The knowledge standard for contributory infringement analysis is an objective one; contributory infringement liability is imposed on persons who ‘know or *have reason to know*’ of the direct infringement.⁸¹ Generally, the analysis of the knowledge standard will consist of two inquiries: First, can the plaintiff prove that the defendant has specific knowledge of the particular works to which it is alleged to have facilitated access (in contrast to a defendant who may not be aware of the particular works whose infringement it is allegedly facilitating)?⁸² Second, can the plaintiff prove that the defendant had knowledge that the acts it facilitated were infringements of copyright?

⁷⁶ *Metro-Goldwyn-Mayer Studios Inc. v Grokster Ltd.* 545 US 913, 914 (2005). The doctrine of vicarious liability is a poor fit for the hyperlinking context, because the linker rarely has ‘control’ over the infringing activity to which it links. While it may be argued that a linker may ‘control’ a linked-to source by simply removing the link, courts have held that the ‘control’ element in vicarious infringement analysis requires the actual ability to stop the direct infringement. See *Perfect 10 v Amazon* 508 F.3d 1146, 1173–74 (2007).

⁷⁷ See *Gershwin Publishing Corp v Columbia Artists Management Inc.* 443 F.2d 1159, 1162 (1971).

⁷⁸ *Grokster* at 926.

⁷⁹ *Matthew Bender & Co. v West Publishing Co.* 158 F.3d 693, 706 (2d Cir. 1998).

⁸⁰ *Pearson Educ. Inc. v Ishayev* 9 F.Supp.3d 328, 339 (2014). See also *Intellectual Reserve Inc. v Utah Lighthouse Ministry* 75 F.Supp.2d 1290, 1295 (D. Utah, 1999).

⁸¹ *Arista Records LLC v Doe* 604 F.3d 110, 118 (2010).

⁸² *A&M Records Inc. v Napster Inc.* 239 F.3d 1004, 1021 (2001).

Therefore, the first step in the analysis of knowledge for claims of contributory liability by hyperlink will be an analysis of whether the defendant had actual or constructive knowledge of the particular works to which its offending hyperlink facilitated access. Because the provision of a deep or framing link is, in most cases, an act that relates specifically to one particular source and one particular copyrighted work (and not an act that facilitates an unlimited number of potential infringements through the provision of a platform), the linker will necessarily know which works it is targeting.

However, in cases which involve linking to websites which aggregate infringing content (that is, sites which aggregate online sources of infringing works of films and television content), defendants may be able to argue that they lack the particularized knowledge of the specific works which are available through the linked-to website. In such cases, the defendant's generalized knowledge that some infringement occurs on the linked-to website may not be sufficient to meet the actual or constructive knowledge predicate to liability for contributory infringement.

Nonetheless, in most hyperlinking cases (aside from cases involving links to aggregators, which we address further below), the 'knowledge' analysis will most likely focus on whether the defendant had knowledge that the source to which it linked was unauthorized. Because, in most instances, the actor's knowledge of the infringing nature of the linked-to source has been obvious from the factual record, courts so far have not needed to grapple with this criterion.⁸³ In cases in which the defendant's knowledge of the infringing nature of the source is not so clear, plaintiffs may argue that identifying characteristics of a website or the nature and format of the copyrighted work itself should form the basis of a presumption that the defendant knew or should have known that facilitating access to that website constituted the facilitation of copyright infringement.⁸⁴ The copyright owner may also notify the defendant of the infringing nature of the work to which the defendant links with a notice, which may suffice to meet the knowledge requirement under the contributory liability analysis.⁸⁵

3.2.2.2 Inducement of infringement

Liability for inducement of infringement is a variant of contributory infringement, whose elements the US Supreme Court detailed in a case involving the liability of operators of P2P platforms: (i) '[e]vidence of active steps taken to encourage direct infringement, such as advertising an infringing use or instructing how to engage in an infringing use', such as 'aiming

⁸³ For example, in *Pearson Educ. Inc v Ishayev* 9 F.Supp.3d 328 (2014), the court could safely assume that the defendant knew that the hyperlink in question linked to an infringing source because the defendant was in the business of selling unauthorized copies of educational materials; and in *Intellectual Reserve Inc. v Utah Lighthouse Ministry* 75 F.Supp.2d 1290 (D Utah, 1999), the defendants clearly knew that the linked-to materials were infringing because they had previously posted the materials to their own website and were ordered to remove them on the basis of copyright infringement. See *ibid* 1294–95.

⁸⁴ See for example, *EMI Christian Music Group Inc. v MP3tunes LLC* 844 F.3d 79, 92–93 (2016) (concluding that evidence that the defendant 'knew that major music labels generally had not even authorized their music to be distributed in the format' through which the defendant's file sharing platform helped to distribute songs was sufficient to conclude that the defendants had 'knowledge of, or was willfully blind to, the infringing nature of' the songs on its servers); *Capitol Records LLC v Vimeo* 972 F.Supp.2d 537, 546–549 (2013) (holding that 'a reasonable juror could – but need not – find that the infringing [nature of videos uploaded to a video hosting site containing well-known songs] was "objectively" obvious to a reasonable person').

⁸⁵ See for example, *Flava Works Inc v Gunter* 10, 7 C 6517 2011 WL 3205399 (ND Ill 27 July 2011).

to satisfy a known source of demand for copyright infringement'; (ii) failing to attempt to 'diminish the infringing activity'; and (iii) building a business model that is structured around infringing use.⁸⁶ In a case concerning inducement liability of the operator of a BitTorrent 'tracker' platform, the Ninth Circuit Court of Appeals ruled that the defendant had 'active[ly] encourag[ed] the uploading of [infringing] torrent files', 'acted with a purpose to cause copyright violations by the use of' its service, 'took no steps to . . . diminish the infringing activity', and ran a business model based on benefiting from infringing activity.⁸⁷ One significant difference between liability for supplying the means to infringe (through traditional contributory or vicarious liability) and liability for inducement concerns the level of required knowledge. While US courts have demanded a showing of specific knowledge regarding the works whose infringement the defendant facilitated,⁸⁸ in the case of inducement, by contrast, US courts have ruled that proof of intent to promote infringement sufficed to make out the violation, without requiring that the defendant knew precisely which works would be infringed.

The inducement of infringement doctrine is likely to prove most useful when the link leads to a site on which multiple works are accessible (such as a website which aggregates links to online sources of infringing copies of film or television content). Plaintiffs who fail to prove that the defendant-linker had particularized knowledge of the specific works accessible on that site may still succeed if they can show that the defendant-linker 'active[ly] encourage[d]' the infringement, 'acted with a purpose to cause copyright violations' through the provision of the link, 'took no steps to . . . diminish the infringing activity' by removing the link and ran a business model based on benefiting from the infringing activity which was facilitated by the link at issue.⁸⁹

In many instances, then, doctrines of secondary liability will cover much of the ground left open by US copyright law's possible exclusion of direct liability for hyperlinking. But, in the online context, both direct and secondary liability claims now encounter assertions of service provider immunity under the 1998 Online Copyright Infringement Liability Limitations Act.⁹⁰ To determine what secondary liability claims for hyperlinking might survive the act's liability preclusions, we now address the terms and implementation of the statutory 'safe harbours'. We will begin with the equivalent regime in the EU.

4. SAFE HARBOUR PROVISIONS

4.1 The eCommerce and DSM Directives and Immunities under EU Law

While the European law of liability for facilitation of infringement by enabling access to third party infringing communications was not harmonized before *Filmspeler* and *Ziggo*, the same is not true of the criteria for *non*-liability of certain intermediaries who facilitate access to third party infringements. The 2000/31 eCommerce Directive has defined the nonliability criteria

⁸⁶ *Metro-Goldwyn-Mayer Studios Inc v Grokster Ltd* 545 US 913 (2005).

⁸⁷ *Columbia Pictures Indus v Fung* 710 F.3d 1020 (9th Cir. 2013).

⁸⁸ See for example, *Sony Corp of America v Universal City Studios Inc* 464 US 417 (1984); *A&M Records Inc. v Napster Inc* 239 F.3d 1004 (9th Cir. 2004).

⁸⁹ *Columbia Pictures Indus. v Fung* 710 F.3d 1020 (9th Cir. 2013).

⁹⁰ 17 USC § 512.

for three types of online intermediaries, including the hosting providers in Article 14. When the intermediary provides a service ‘that consists of the storage of information provided by a recipient of the service . . . the service provider is not liable for the information stored at the request of a recipient of the service’ provided that: ‘(a) the provider does not have actual knowledge of illegal activity or information and, as regards claims for damages, is not aware of facts or circumstances from which the illegal activity or information is apparent.’⁹¹

One will recognize a certain parallelism between the conditions for a violation of the right of communication to the public by facilitation, and those of the nonliability of service providers covered by the eCommerce Directive. In both cases, the lack of knowledge of the illicit activity excludes liability. The Directive sets out only the conditions of *non*-liability; it was up to the EU Member States to draw the negative inference, and to decide whether (or not) effective knowledge resulted in the liability of those who facilitate access to infringing content. The CJEU has now filled this gap by taking on the task of assessing the liability of some facilitators by linking the knowledge requirement with two of the four criteria for determining whether an infringement of the communication to the public right takes place. This case law applies to any internet intermediary or, to use the term in *Ziggo*, (online) ‘platforms’;⁹² it goes beyond the ‘information society services’ covered by the eCommerce Directive. The CJEU decisions defining the liability of facilitators thus have a broader coverage than the provision on the nonliability of intermediaries, for it is quite clear that not all internet actors that act as facilitators do provide a service ‘that consists of the storage of information provided by a recipient of the service’. Under the recently adopted 2019/790 DSM Directive,⁹³ new obligations to ‘make best efforts’ to licence or to filter are imposed on the ‘online content-sharing service provider’ (OCSSP) defined as a type of information society service provider ‘of which the main or one of the main purposes is to store and give the public access to a large amount of copyrighted-protected works [...] uploaded by its users’ (Art. 2(6) §1 DSM Directive). The notion of OCSSP has been further delineated in the DSM Directive (Art. 2(6), §2 and 17(6)) so that it does not apply to pure search engines using hyperlinks (e.g. Google Search) or small operators aggregating content through hyperlinks. Article 17 would apply to a large OCSSP

⁹¹ Council Directive 2000/31/EC of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market OJ L 178, art. 14. These conditions of nonliability do not include an obligation ‘actively’ to seek out infringing content. On the contrary, according to Article 15, ‘Member States shall not impose a general obligation on providers, when providing the services covered by arts 12, 13 and 14, to monitor the information which they transmit or store, nor a general obligation actively to seek facts or circumstances indicating illegal activity’ (‘eCommerce Directive’). The analysis of the scope of the no-monitoring provision goes beyond the present contribution (see in the defamation context, the recent CJEU decision in Case C-18/18 *Eva Glawischnig-Piesczek v. Facebook Ireland Ltd*, ECLI:EU:C:2019:821, §45–46).

⁹² Significantly, the notion of (online) ‘platform’ (or of a ‘sharing platform’ in the case of *Ziggo*) or at least of ‘online content-sharing service provider’ has found its way in the CJEU language: it must be distinguished from the term ‘intermediary’ used when the 2000 eCommerce and the 2001 InfoSoc Directives were adopted; it probably reflects the ongoing discussion on the role of online platforms (see art 17 of the DSM Directive). The ‘Communication of the European Commission on Online Platforms and the Digital Single Market’ COM (2016) 288 final addresses the need for ensuring that online platforms act responsibly (see also ‘Online Platform’ (*European Commission*, 14 February 2019) <<https://ec.europa.eu/digital-single-market/en/policies/online-platforms>> accessed 21 October 2019).

⁹³ Directive 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, OJ 17.5.2019 L 130/92, hereafter ‘DSM Directive’.

storing both content and hyperlinks uploaded by its users, so that this OCSSP would have to make its best efforts to get the authorization not only for the content directly uploaded by the users but as well for the content linked-to by the users as both involve a communication to the public. The new framework for the liability of those ‘platforms’, and in particular the carving-out of an exception to the Article 14 safe harbour (Art. 17(3) DSM Directive) does not otherwise change the analysis of the liability for hyperlinking discussed here.

The knowledge element that determines the copyright liability of facilitators is indissociable from the neutrality/passivity test already put forward by the CJEU for applying the safe harbour of Article 14. In *Google France*, the CJEU, relying on recital 42, emphasized that

the exemptions from liability established in that directive cover only cases in which the activity of the information society service provider is ‘of a mere technical, automatic and passive nature’, which implies that that service provider ‘has neither knowledge of nor control over the information which is transmitted or stored’.⁹⁴

In *Google France*, the Court ruled that an indexing service could be covered by Article 14, but it does not follow that the provision of individual links by an actor who is not a search engine corresponds to the criteria of Article 14, particularly if the defendant itself supplied the links (rather than hosted a platform to which others posted links). The role of the person supplying the links contributes more directly to the infringement than the simple offer of a hosting platform. But, at some point, the hosting platform itself could be considered as playing an active role when it has knowledge about the content put on the platform. According to *L’Oréal v eBay*, the exemption of liability does not apply ‘where the service provider, instead of confining itself to providing that service neutrally by a merely technical and automatic processing of the data provided by its customers, plays an active role of such a kind as to give it knowledge of, or control over, those data’.⁹⁵ The liability exemption only applies to the technical intermediaries which do process the data in an automatic and blind way, as the internet intermediaries did in the late 1990s when those provisions were discussed.

The CJEU’s approach to safe harbours thus converges with the case law on the communication to the public that requires a deliberate act of communication, or an active role in the transmission of the work (see section 2.1.2).

There is one difference in the analyses regarding the placement of the burden of proof. Because Article 14 of the eCommerce Directive sets out an exception, the beneficiary should bear the burden of proving compliance with its conditions. By contrast, when the question of knowledge becomes part of the case in chief, the rightholder bears the burden of establishing every element of the claim, including that the defendant acted with knowledge that it was facilitating infringement. That said, the rebuttable presumption that the Court imposed on commercial actors in the context of the ‘new public’ analysis in *GS Media* could also apply to the analysis of the deliberate intervention of the intermediary in the commission of an act of communication. In that case, profit-seeking defendants will be required to prove their lack of

⁹⁴ Joined cases C-236/08 to C-238/08 *Case C-236/08 Google France SARL and Google Inc. v Louis Vuitton Malletier SA*, *Case C-237/08 Google France SARL v Viaticum SA and Luteciel SARL* and *Case C-238/08 Google France SARL v Centre national de recherche en relations humaines (CNRRH) SARL and Others* ECLI:EU:C:2010:159 (*Google France*), § 113.

⁹⁵ *Case C-324/09 L’Oréal SA and Others v eBay International AG and Others* ECLI:EU:C:2011:474, 113 (*L’Oréal v eBay*).

knowledge. As a result, commercial actors will receive the same treatment under the analysis of liability for facilitation of infringing communications as under the analysis of nonliability of 'information society services' covered by the eCommerce Directive.

4.2 The Digital Millennium Copyright Act and Safe Harbors under US Law

The 1998 Online Copyright Infringement Liability Limitations Act (OCILLA), part of the broader Digital Millennium Copyright Act (DMCA),⁹⁶ creates four safe harbours which allow qualifying 'service providers' safe harbour from claims of both direct and secondary copyright infringement.⁹⁷ Subsection 512(a) establishes a safe harbour for 'transitory digital network communications' (which applies to providers of internet access); subsection 512(b) establishes a safe harbour for 'system caching' (or temporary storage of material); subsection 512(c) establishes a safe harbour for 'information residing on systems or networks at [the] direction of users' (which generally applies to websites that store information provided by users); and subsection 512(d) establishes a safe harbour for 'information location tools' (such as links to content on other sites, typically applied to search engines).⁹⁸

Subsection 512(d) shields copyright infringement 'by reason of the provider referring or linking users to an online location containing infringing material or infringing activity, by using information location tools, including a directory, index, reference, pointer, or *hyperlink text*'.⁹⁹ When passing this provision, Congress noted that 'information location tools are essential to the operation of the internet' because they enable users to 'find the information they need'.¹⁰⁰ The legislative history specifically refers to search engines and online directories such as Yahoo! as examples of information location tools covered by the act, and notes that the 'human judgment and editorial discretion exercised by [directory-based information location tools]' makes these services valuable.¹⁰¹

Very few cases in the US have dealt with the applicability of the DMCA's safe harbour provisions to claims for copyright infringement based on hyperlinks, posted by the defendant, to copyrighted material. The majority of cases involving the §512(d) safe harbour provision

⁹⁶ *ibid.*

⁹⁷ Digital Millennium Copyright Act S. Rep. 105–190, 40. ('The limitations in [§ 512] subsections (a) through (d) protect qualifying service providers from liability for all monetary relief for direct, vicarious, and contributory infringement.')

⁹⁸ See 17 USC § 512(a)–(d); Edward Lee, 'Decoding the DMCA Safe Harbors' (2009) 32 Colum JL & Arts 233, 235. Subsections 512(a) and (b) will not apply to hyperlinking liability cases because these provisions only provide immunity against infringement claims 'by reason of the provider's transmitting, routing, or providing connections for, material through a system or network'; (§ 512(a)) 'by reason of the intermediate and transient storage of that material in the course of such transmitting, routing, or providing connections' (§ 512(a)); or 'by reason of the intermediate and temporary storage of material on a system or network controlled or operated by or for the service provider' (§ 512(b)). Additionally, because section 512(c) only applies to service providers who may be liable for infringement of copyright 'by reason of the storage . . . of material that resides on a system or network controlled or operated by or for the service provider', this provision may be equally unhelpful to defendants who are facing liability for linking to material stored on a third party server.

⁹⁹ 17 USC § 512(d).

¹⁰⁰ H.R. Rep. (1998) 105–551, 58.

¹⁰¹ *ibid.*

concern defendants who provide online platforms on which *users* post hyperlinks.¹⁰² Most §512(d) cases concerning defendants who themselves provided the links at issue involved defendants who operate search engines and online directories, similar to the actors contemplated in the DMCA's legislative history.¹⁰³ However, in a few instances, courts have applied §512(d) to defendants who do not provide search engines or directories, but who instead simply provide a handful of hyperlinks to websites, some of which may have contained infringing material.¹⁰⁴

4.2.1 Basic requirements for qualification for DMCA safe harbour under §512

Because the DMCA safe harbours provide affirmative defences, the burden of proof is on the defendant to establish compliance with the statutory requirements for safe harbour qualification.¹⁰⁵ Several requirements apply to any party seeking to claim safe harbour under the DMCA.¹⁰⁶

First, the party must establish that it is a 'service provider' as defined by the statute.¹⁰⁷ The statute defines the term 'service provider' (for the purposes of § 512(b)–(d)) as 'a provider of online services or network access, or the operator of facilities therefor'.¹⁰⁸ This definition is 'intended to encompass a broad set of Internet entities'¹⁰⁹ and most likely covers any website on the internet.¹¹⁰

Second, the party must have 'adopted and reasonably implemented, and inform[ed] subscribers and account holders of the service provider's system or network of, a policy that provides for the termination in appropriate circumstances of subscribers and account holders

¹⁰² See for example, *Totally Her Media LLC v BWP Media USA Inc.* No CV1308379ABPLAX, 2015 WL 12659912 (CD Cal 24 March 2015); *Columbia Pictures Indus. Inc. v Fung* 710 F.3d 1020, 1046–47 (9th Cir 2013).

¹⁰³ See for example, *Perfect 10, Inc. v Google Inc.* No CV 04–9484 AHM (SHx), 2010 WL 9479059, 13 (CD Cal 26 July 2010).

¹⁰⁴ See *Perfect 10, Inc v CCBill LLC* 340 F Supp 2d 1077, 1083, 1097–98 (CD Cal. 2004), *aff'd* in part, *rev'd* in part and remanded, 481 F.3d 751 (9th Cir. 2007); *Perfect 10, Inc v Cybernet Ventures Inc* 213 F Supp 2d 1146, 1179–83 (CD Cal 2002).

¹⁰⁵ *Columbia Pictures Industries Inc. v Fung* 710 F.3d 1020, 1039 (9th Cir 2013); *WPIX Inc v ivi Inc* 691 F.3d 275, 278 (2d Cir 2012).

¹⁰⁶ In addition to the requirements mentioned below, § 512 requires that the service provider must not interfere with standard technical measures used by copyright owners to identify or protect copyrighted works. The statute defines 'standard technical measures' as 'technical measures' that '(A) have been developed pursuant to a broad consensus of copyright owners and service providers in an open, fair, voluntary, multi-industry standards process; (B) are available to any person on reasonable and nondiscriminatory terms; and (C) do not impose substantial costs on service providers or substantial burdens on their systems or networks': 17 USC § 512(i)(2). However, as of 2017, this provision has not been used to disqualify a service provider from DMCA safe harbor because of the lack of a 'broad consensus' regarding the definition of 'standard technical measures'. See US Copyright Office, 'Section 512 Study: Request for Additional Comments' 81 Fed Reg 78636, 78641 (8 November 2016) ('[S]ince passage of the DMCA, no standard technical measures have been adopted pursuant to section 512(i)').

¹⁰⁷ *Capitol Records LLC v Vimeo LLC* 972 F.Supp.2d 500, 509 (SDNY 2013).

¹⁰⁸ 17 USC § 512(k)(1)(B).

¹⁰⁹ *Viacom Intern. Inc v YouTube Inc.* 676 F.3d 19, 39 (2d Cir 2012).

¹¹⁰ One court commented that the definition of 'service provider' is so broad that the court '[had] trouble imagining the existence of an online service that would *not* fall under the definitions'. In *re Aimster Copyright Litig.* 252 F.Supp.2d 634, 658 (ND Ill 2002), *aff'd*, 334 F.3d 643 (7th Cir 2003) (emphasis in original).

of the service provider's system or network who are repeat infringers'.¹¹¹ In many §512(d) cases, the service provider will not have a preexisting service relationship with 'subscribers or account holders' – for example, search engines, online link directories and other websites may not be able to 'inform subscribers and account holders' of their repeat offender policy because the websites to which these service providers link may not even be aware of the existence of that service provider's link. Courts have held that when a defendant is claiming DMCA safe harbour for a service which lacks 'account holders or subscribers', simply providing proof that the defendant has a 'system for receiving and processing notifications' is sufficient to meet the 'repeat offender policy' requirement.¹¹²

4.2.2 Specific requirements for qualification for safe harbour under §512(d)

Sections 512(c) and (d) of the DMCA impose additional qualification requirements on service providers who seek safe harbour under those provisions. These provisions require that the service providers do not have actual or 'red flag' knowledge of the infringing nature of the material which the service provider facilitates or provides access to, that the service providers do not 'receive a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity',¹¹³ and that the service provider complies with the notice and takedown procedures laid out in §512(c) by 'responding expeditiously to remove, or disable access to' material once that material is identified in a 'notification of claimed infringement' provided to the service provider.¹¹⁴

Actual or 'red flag' knowledge requirement: Sections 512(c)(1)(A) and 512(d)(1) require that the defendant seeking safe harbour under § 512(c) or (d) prove the absence of actual or 'red flag' knowledge of the infringing nature of the activity at issue.¹¹⁵ The defendant:

(A) [must] not have actual knowledge that the material or activity is infringing; (B) in the absence of such actual knowledge, [must not be] aware of facts or circumstances from which infringing activity

¹¹¹ 17 USC § 512(i)(1)(A).

¹¹² *Perfect 10, Inc v Google Inc.* No CV 04-9484 AHM (SHx), 2010 WL 9479059, 4 (CD Cal 26 July 2010).

¹¹³ In the linking context, defendants will rarely have the 'right and ability' to control the infringing activity of the unauthorized sites they link to. See *Perfect 10 v Amazon* 508 F.3d 1146, 1173–74 (2007). Therefore, this provision is not immediately relevant to our analysis.

¹¹⁴ 17 USC § 512(c); *ibid* § 512(d). After receiving a proper notice from a copyright holder, the party seeking safe harbor must 'respond[] expeditiously to remove, or disable access to, the material that is claimed to be infringing or to be the subject of infringing activity'. *Ibid*. The statute does not define 'expeditiously' and Congress noted in the DMCA legislative history that '[b]ecause the factual circumstances and technical parameters may vary from case to case, it is not possible to identify a uniform time limit for expeditious action'. See S Rep No 105–190, at 44 (1998). After the service provider receives the notice and 'remove[s], or disable[s] access to' the identified link, § 512(g) sets out a procedure through which the service provider must 'take[] reasonable steps' to 'notify the subscriber that it has . . . disabled access to the material'. See 17 USC § 512(g). The 'subscriber' then has the opportunity to send a counternotification to the service provider, after which the service provider must restore access to the removed link within 10–14 days: *ibid*. However, because many § 512(d) defendants may not have a preexisting relationship with the websites to which they link, there is significant uncertainty about the proper application of this counternotification and putback procedure to certain linking cases.

¹¹⁵ 17 USC § 512(c)(1)(A); *ibid* § 512(d)(1).

is apparent [that is, ‘red flag’ knowledge]; or (C) upon obtaining such knowledge or awareness, acts expeditiously to remove, or disable access to, the material.¹¹⁶

This provision parallels the analysis of contributory liability: at first blush, a defendant who possesses actual or constructive knowledge of the infringing nature of the facilitated activity under contributory liability doctrine would accordingly fail to qualify for the §512(c)(1)(A) or §512(d)(1) safe harbour.

Courts construing the DMCA, however, have underscored a difference between common law standards of contributory liability and the statutory regime under the DMCA.¹¹⁷ US courts point to §512(m), which bars courts from requiring that a service provider ‘monitor its service or affirmatively seek facts indicating infringing activity’,¹¹⁸ to limit the grounds on which a defendant can be disqualified from §512(c) safe harbour on the basis of ‘red flag’ knowledge. Because of the explicit ‘no monitoring obligation’ language in the DMCA, the protections of the DMCA safe harbour may be *broader* than the standard under contributory liability doctrine. Evidence showing (i) that the defendant had at least some *general* knowledge that it was facilitating infringement, and (ii) that the defendant had the ability to identify acts of infringement and cease to facilitate them, may be sufficient to support a finding of liability for contributory infringement,¹¹⁹ but may be insufficient to support a finding that the defendant is disqualified from seeking the protections of DMCA safe harbour.¹²⁰

Two recent developments in DMCA case law may signal that courts are retreating from this broad reading of the safe harbour provisions. First, in *Viacom v YouTube*, the Second Circuit recognized that plaintiffs may meet the disqualifying ‘knowledge’ standard under the DMCA through arguments based on the principle of wilful blindness.¹²¹ Second, recent case law suggests that in some circumstances, despite the ‘no monitoring obligations’ language in §512(m), defendants may have a ‘time-limited, targeted duty – even if encompassing a large number of [works]’ to monitor their platform when they become aware of facts which strongly suggest that their actions facilitate infringement of a category of works.¹²²

¹¹⁶ *ibid.*

¹¹⁷ See for example, *A&M Records Inc. v Napster Inc.* 239 F.3d 1004, 1025 (9th Cir 2001) (rejecting the lower court’s argument that the defendant’s potential ‘liability for contributory and vicarious infringement renders the [safe harbor provisions of the] Digital Millennium Copyright Act inapplicable per se’); Mark A Lemley and R Anthony Reese ‘Reducing Digital Copyright Infringement Without Restricting Innovation’ (2004) 56 *Stan. L. Rev.* 1345, at 1372 n 102 (‘The standard of knowledge that a provider must have to fall outside the protections of the safe harbor may be somewhat higher than the standard required in an ordinary action for contributory infringement, so the safe harbor may offer some incremental protection even against claims of contributory infringement’).

¹¹⁸ 17 USC § 512(m)(1).

¹¹⁹ See for example, *A&M Records Inc. v Napster Inc.* 239 F.3d 1004, 1020–21 (9th Cir 2001) (holding that the defendant had both actual and constructive knowledge for contributory liability analysis because evidence showed that the defendant had both a generalized knowledge of the infringement that occurred on its platform, and had the clear ability to identify specific acts of infringement).

¹²⁰ See for example, *Capitol Records LLC v Vimeo LLC* 826 F.3d 78, 98 (2d Cir 2016) (holding that the defendant’s ‘awareness of facts suggesting a likelihood of infringement’ did not ‘requir[e] investigation merely because [the defendant had] learned facts raising a *suspicion* of infringement’ because of the existence of § 512(m) and thus holding that defendant may still qualify for § 512(c) safe harbour).

¹²¹ *Viacom Intern Inc v Youtube Inc* 676 F.3d 19, 35 (2d Cir 2012).

¹²² *EMI Christian Music Group Inc. v MP3tunes LLC* 844 F.3d 79, 93 (2d Cir 2016) (holding that because defendants, who operated an online music service on which users posted links to mp3 files,

While these recent developments may imply that courts are reconsidering their initially broad interpretations of the DMCA safe harbour provisions, the ‘no monitoring obligation’ provision (§512(m)) may stunt the reach of the novel approaches based on ‘wilful blindness’ and ‘time-limited, targeted dut[ies]’. Thus, in the hyperlinking context, the analysis of a defendant’s knowledge of the infringing nature of the linked-to source may be more defendant-friendly under the DMCA safe harbour analysis than under general principles of contributory liability. Because the DMCA case law establishes that the defendant is required to investigate whether a particular facilitated act is illicit only when it learns of ‘facts making infringement *obvious*’ (rather than when it learns of facts that ‘rais[e] a *suspicion* of infringement’), it may be relatively easy for a defendant-linker to claim the benefits of the §512(d) safe harbour as long as the defendant does not know of the infringing nature of the linked-to source, and does not possess knowledge of (nor is wilfully blind to) facts or circumstances which would make the infringing nature of the linked-to source obvious to a ‘reasonable person’.

5. COMPARATIVE CONCLUSIONS

Some US authority and the EU regime preclude copyright liability for hyperlinking to an *authorized* source on the internet. In *Svensson*, the CJEU held that even though placing hyperlinks is an act of communication, a hyperlink that merely offers to *re-communicate* a work from a source authorized by the rightholder which has made the work available to all internet users (that is, without technical restrictions or paywalls) is not covered by the concept of “communication to the public”, within the meaning of Article 3(1) of Directive 2001/29, because it does not make the work available to a public the rightholder did not take into account in the initial authorized communication. The CJEU expanded this ‘new public’ principle to inline links in *BestWater*. Therefore, any hyperlink to a site on which a copyrighted work has been published with proper authorization cannot constitute an actionable ‘communication to the public’ because such a hyperlink does not communicate the work to a ‘new public’.

Similarly, US courts that follow *Perfect 10 v. Amazon* are likely to reject copyright holders’ claims that a link to an authorized publication of their work constitutes a violation of her rights under §106 of the Copyright Act. Under the ‘server rule,’ a hyperlink of any type cannot constitute a direct infringement of copyright unless the linker ‘store[s] and serve[s]’ the copyrighted work from its own server – any liability for linking would be a matter of secondary infringement. But because those claims require an underlying act of direct infringement, a secondary infringement claim based on a hyperlink to an authorized source will fail.

The two regimes reach the result through different reasoning, but the result seems to reflect widespread concerns about the adverse consequences of imposing copyright liability on actors who innocently link to authorized content on the internet, and to reflect a broader recognition of the importance of hyperlinks to the functioning of the internet as a whole. On the other hand, this result raises the concern that copyright holders who make their works available on

knew (i) that their service allowed users to share mp3 versions of Beatles songs, and (ii) that ‘there had been no *legal* online distribution of Beatles tracks before 2010’, the jury was ‘permitted to conclude that [defendants had] a time-limited, targeting duty – even if encompassing a large number of songs’, and implied that only an ‘amorphous’ duty to monitor constituted a ‘contravention of the DMCA [§ 512(m) provision]’).

the internet without technical restrictions may lose control of how their works are presented and disseminated. This downside may be compensated by the increased facility for the public to access authorized content online, unless copyright owners seek to restore control by limiting access to authorized sites through paywalls or other protection measures.¹²³

Some commentators, including the authors of the present chapter, have observed that the CJEU's imposition of a knowledge-based standard after *GS Media*, albeit providing the basis for direct liability for facilitation of infringement of the right of communication to the public, in fact resembles a secondary or contributory infringement standard.¹²⁴ As a result, even though US courts have declined to hold linkers directly liable for infringement that they facilitate, and therefore address claims against linkers as matters of secondary liability, EU standards of direct liability for facilitation of infringement seem to parallel US standards of derivative liability, because the CJEU has incorporated a knowledge standard in its interpretation of two of the four criteria put forward for defining a communication to the public (a deliberate act of communication and the intent to reach a new public). The legal framework and standard under both regimes differ, but they focus on similar questions, and may reach similar results.

Finally, the EU and US safe harbours also appear to operate similarly, although the level of knowledge that will disqualify a US service provider may be somewhat higher, particularly given the textual disparity between US law's preclusion of a duty to monitor and the EU's rejection of a 'general duty to monitor'.¹²⁵ This last prohibition leaves room in the EU for a specific duty to monitor and to act, for example, 'to bring infringing activities to an end' and to take proportional, that is, 'strictly targeted', measures to implement a court's injunction,¹²⁶

¹²³ See for example, Sirinelli (n 30) (making the point that *Svensson* (n 24) could result in less unrestricted access).

¹²⁴ E Rosati, 'The CJEU Pirate Bay Judgment and Its Impact on the Liability of Online Platforms' EIPR (forthcoming) ('It has been argued that, by introducing a knowledge requirement within the scope of primary liability, the CJEU has blurred the distinction between what has traditionally regarded as a strict liability tort (primary infringement) and liability informed by the defendant's subjective state of actual or constructive knowledge (secondary infringement)'); JC Ginsburg, 'The Court of Justice of the European Union Creates an EU Law of Liability for Facilitation of Copyright Infringement: Observations on *Brein v. FilmSpiel* [C-527/15] (2017) and *Brein v. Ziggo* [C-610/15]' (2017) Columbia Law and Economics Working Paper No 572; Columbia Public Law & Legal Theory Paper # 14-557 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3024302> accessed 21 October 2019. A Strowel, 'L'arrêt GS Media sur les hyperliens: trop embrasser, mal étreindre' (2016) ICIP-Ing.Cons 4 878–81.

¹²⁵ 17 USC sec c. 512(m); eCommerce Directive (n 91) art 15.

¹²⁶ See for example, Case C-314/12 *UPC Telekabel Wien GmbH v Constantin Film Verleih GmbH and Wega Filmproduktionsgesellschaft mbH* ECLI:EU:C:2014:192, § 27 and § 53–56 (*UPC Telekabel*). *UPC Telekabel* qualifies the previous case law: Case C-70/10 *Scarlet Extended SA v Société belge des auteurs, compositeurs et éditeurs SCRL (SABAM)* ECLI:EU:C:2011:771 (*Scarlet*) (holding that a general, preventative, time-unlimited duty for an access provider to monitor a system for infringements would violate the prohibition of general monitoring obligations under art. 15 eCommerce Directive) and Case C-360/10 *Belgische Vereniging van Auteurs, Componisten en Uitgevers CVBA (SABAM) v Netlog NV* ECLI:EU:C:2012:85 (*Netlog*) (an obligation for a hosting provider to install a filtering system that 'would oblige it to actively monitor almost all the data relating to all of its service users in order to prevent any future infringement' is not compatible with the prohibition to carry out general monitoring under art 15). On this case law, see A. Strowel, 'Pondération entre liberté d'expression et droit d'auteur sur Internet: de la réserve des juges de Strasbourg à une concordance pratique par les juges de Luxembourg' (2014) 100 RTDH 889–911.

or to ensure that infringing content, once taken down, stays down.¹²⁷ It is less clear that a copyright owner may impose such an obligation on a US service provider. On the other hand, while US law includes a safe harbour specifically for the benefit of search engines and providers of links, the eCommerce directive requires creative judicial exposition to reach these actors. Nonetheless, the knowledge standard, which the CJEU has now engrafted onto a nominally direct infringement of the communication to the public right by facilitation of infringement, may well result in the same degree of impunity as is found for the activities that US law shields as a matter of service provider immunity.

¹²⁷ See at national level, for example *Rapidshare I*, Bundesgerichtshof [BGH] [Federal Court of Justice] 12 July 2012, I ZR 18/11, 2012, ¶¶ 19 and 31 (Ger.) (holding that in ‘specific cases’ once a right-holder informs a service provider of infringement, the service provider must do ‘everything that is . . . technically and economically reasonable to prevent further infringements’); *GEMA v RapidShare AG*, Bundesgerichtshof [BGH] [Federal Court of Justice] 15 August 2013, I ZR 80/12, 2013, ¶. 39 (Ger.) (holding that a service provider who was notified of claimed infringement was required to monitor content uploaded by its users to prevent further infringement).

12. Video streaming and the communication to the public right in the United States and European Union

Makeen Fouad Makeen

1. INTRODUCTION

Arguably, copyright as a legal framework came into existence as a response to new technology – namely, the printing press.¹ Since then, every generation or so, new ways of distributing copyright works emerged. These new technological means included: photography; gramophone records; moving pictures; broadcasting; cabling; photocopiers; direct broadcasting by satellite; and the internet. Undoubtedly, the internet is the most efficient technology that has ever existed for the dissemination of copyright works. This chapter focuses solely on one method of disseminating works over the internet, namely video streaming.

Streaming is a method through which data, be it audio, visual or audiovisual, is delivered from one place to another over computer networks. Video streaming is a type of media streaming in which the data from a video file is continuously delivered via the internet to a remote user. It allows a video to be viewed online without being downloaded onto a host computer or device.²

Video streaming is not only taking over the market that was traditionally reserved for DVDs,³ but has also started to compete seriously with pay TV and even with free to air services. According to a recent survey, two thirds of 18–24 year olds would choose streaming services over traditional pay TV.⁴ Similarly, young viewers seem to spend more time on websites offering free and subscription-based video streaming services than they do watching TV.⁵ As a result, the number of subscribers to video streaming services is rapidly increasing. For instance, Netflix's paying subscriber count almost doubled during the period 2012–17 and as a result its market share in the US equals that of all the top cable companies combined.⁶

¹ For a different view, see Augustine Birrell, *Seven Lectures on The Law and History of Copyright in Books* (Cassell and Company Ltd 1899) 48–49.

² See 'Video Streaming' (*Techopedia*) <www.techopedia.com/definition/9927/video-streaming> accessed 10 October 2019.

³ Smith and Telang argue that as early as 2010, 'DVDs were on their way out and streaming was on its way in': see Michael D Smith and Rahul Telang, *Streaming, Sharing, Stealing* (The Massachusetts Institute of Technology Press 2016) 137.

⁴ See 'Age Gap in Pay-TV v. SVOD Preference' (*Marketing Charts*, 18 July 2017) <www.marketingcharts.com/television/pay-tv-and-cord-cutting-79072> accessed 10 October 2019.

⁵ Todd Spangler, 'Younger Viewers Watch 2.5 Times More Internet Video than TV (Study)' (*Variety*, 29 March 2016) <<http://variety.com/2016/digital/news/millennial-gen-z-youtube-netflix-video-social-tv-study-1201740829/>> accessed 10 October 2019.

⁶ See 'Netflix Has Almost as Many Paying Subscribers as All the Top Cable TV Companies, Combined' (*Marketing Charts*, 3 April 2017) <www.marketingcharts.com/television-76269> accessed 10 October 2019.

While the terms ‘downloading’ and ‘streaming’ are sometimes used interchangeably, they are in fact two very different methods of communicating works over the internet. In downloading, the file cannot be played until the entire work, or a significant part, has been copied into the permanent memory of the end user’s computer. In streaming, the file is not copied into the permanent memory, and can be played as soon as there is enough data stored in the Random Access Memory (RAM).⁷ Therefore, streaming is normally a faster process, which gives the impression of real time communication. With the advent of high speed broadband, streaming is becoming the most popular means of disseminating audio, visual and audiovisual works over the internet.

This chapter is concerned solely with the communication to the public right as applied to video streaming in the US and the EU.⁸ Since no copyright study that deals with more than one legal system would be complete without considering the international conventions, the relevant provisions of the Berne Convention (last revised 1971) and the WIPO Copyright Treaty 1996 are used as the standard against which compatibility with US and EU laws is examined. Furthermore, this chapter focuses exclusively on authors’ rights. Neighbouring rights are excluded from the discussion and referred to briefly only where this is necessary to clarify the position with regard to authors’ rights. This chapter divides video streaming into three types, each discussed separately: webcasting; on-demand streaming; and Internet retransmission of broadcasts.⁹

2. WEBCASTING

The term ‘webcasting’ is normally used to refer to the situation where a media file is distributed over the internet using streaming media technology. It is a point to multipoint communication in which single source content is distributed to many users simultaneously. Here, the service provider transmits programmes of its own choice to be received in real time by members of the public who are geographically dispersed.¹⁰

Although the term ‘webcasting’ is sometimes inaccurately used to cover on-demand streaming, it is used here to refer only to ‘real time’ streaming. Therefore, webcasting could be defined as the use of the internet to broadcast live or prerecorded audio and/or visual content, much like traditional television and radio broadcasts.¹¹ Accordingly, it is the internet equivalent of traditional broadcasting or cabling. Since under international copyright law

⁷ In the context of streaming, the process of collecting data in the RAM is often referred to as ‘buffering’. For buffering and EU copyright law, see Gianluca Campus, ‘Legal Aspects of the Video Buffering Process: The Uncertain Line Between Acts of Reproduction and Acts Accessory to a Communication to the Public’ [2017] EIPR 366.

⁸ For streaming and the reproduction rights, see Maurizio Borghi, ‘Chasing Copyright Infringement in the Streaming Landscape’ (2011) 42(3) IIC 316, 326–43.

⁹ Although this chapter is solely concerned with video streaming, whatever is stated in respect of video streaming is also applicable *mutatis mutandis* to audio streaming.

¹⁰ One of the earliest webcasts was that conducted by Apple on 10 June 1996, where a Metallica concert was streamed live from Slim’s in San Francisco.

¹¹ ‘Search Results: “webcast”’ (*Webopedia*) <www.webopedia.com/sgsearch/results?cx=partner-pub-8768004398756183%3A6766915980&cof=FORID%3A10&ie=UTF-8&q=webcast> accessed 10 October 2019.

broadcasting and cabling are treated differently, this section discusses both regimes and their application to webcasting.¹²

2.1 Webcasting as a Form of Broadcasting

Since the Rome Act of 1928, the exclusive right of authors to authorise the broadcasting of their works has been recognised under Article 11*bis* of the Berne Convention.¹³ As such, it is one of the minimum rights specifically recognised under the Convention.¹⁴ In introducing this provision, the Convention was ahead of most national laws, which were now required to offer foreign authors protection against the unauthorised broadcasting of their works even when such a protection was not available to national authors.¹⁵ Unlike all the other communication to the public provisions of the Convention,¹⁶ Article 11*bis* is a subject-matter neutral provision and therefore covers all types of literary and artistic works.

In order to accommodate the needs of Norway, Australia and New Zealand,¹⁷ which saw radio as a means of serving important educational and cultural policies and feared that the newly recognised right might extend the monopoly powers of collecting societies to cover radio broadcasting, the second paragraph of Article 11*bis* of the 1928 Act of the Berne Convention permitted national laws to replace the exclusive broadcasting right with a compulsory licensing mechanism. This mechanism takes away the author's right of authorisation and leaves them with a mere right of remuneration.¹⁸ Such a system had the effect of strengthening the negotiating power of broadcasters vis-à-vis the collecting societies.

While the formula adopted in Article 11*bis* (2) embodies a concession that permits national laws to impose a compulsory licence to restrict the scope of the author's exclusive right of broadcasting, it does not permit national laws to deny protection altogether.¹⁹ Furthermore,

¹² Since webcasting is a new technology, some may argue that it should not be considered analogous to broadcasting or cabling under the Berne Convention and therefore should come within the scope of Article 8 of the WIPO Copyright Treaty 1996. This line of reasoning is not followed here, mainly because it does not reflect the *raison d'être* of Article 8 as discussed under section 3 below.

¹³ The Berne Convention for the Protection of Literary and Artistic Work (signed 9 September 1886) often referred to as the Berne Union, was established on 9 September 1886. Article 17 of the 1886 Act provided for periodic revisions and these have taken place roughly every 20 years. The first revision took place in Berlin in 1908 (the Berlin Act), followed by Rome in 1928 (the Rome Act), Brussels in 1948 (the Brussels Act), Stockholm in 1967 (the Stockholm Act) and Paris in 1971 (the Paris Act). It is also worth noting that an Additional Act was attached to the Convention in 1896, together with an Additional Protocol in 1914.

¹⁴ The Berne Convention is based on two basic principles: national treatment and minimum rights.

¹⁵ Since the Berne Convention is a public international law instrument that is solely concerned with private international law interests, that is, the protection of foreign authors, the Convention does not, strictly speaking, specify the level of protection that may be granted to national authors. However, since it is highly unlikely that a country would offer foreign authors a standard of protection that it would deny its own authors, the Convention seems to have indirectly catered for the protection of national authors.

¹⁶ See Berne Convention, arts 11(1)(ii), 11*ter*(1)(ii), 14(1)(ii) and 14*bis*(1).

¹⁷ Stephen Ladas, *The International Protection of Literary and Artistic Property* (The Macmillan Company 1938) 477.

¹⁸ For the same meaning, see Dworkin and Taylor, *Blackstone's Guide to the Copyright, Designs & Patents Act 1988* (Blackstone Press Limited 1992) 105.

¹⁹ It is worth noting that upon the insistence of the French delegation, the Convention avoided using the term 'compulsory licence' in the body of the text: see Sam Ricketson, *The Berne Convention for the*

to soften the impact of the compulsory licence mechanism, Article 11*bis* (2) requires national laws to comply with three conditions: first, the compulsory licence is permissible only where a country expressly legislates for that and therefore its application must be restricted to the territory of the country in which it is prescribed; second, the application of the compulsory licence should in no event be prejudicial to the author's moral rights; and third, it should not affect the author's entitlement to an equitable remuneration.

The compulsory licence mechanism of Article 11*bis* was left intact under the Brussels Act (1948), the Stockholm Act (1967) and the Paris Act of 1971. However, during the preparatory stages for a possible protocol to the Berne Convention, later named the WIPO Copyright Treaty 1996, the Committee of Experts expressed the view that the compulsory licence mechanism had outlived its usefulness.²⁰ As a result, the Australian government, which was adamant in its opposition to the recognition of an absolute exclusive broadcasting right in 1928, submitted a comprehensive proposal for the elimination of the broadcasting compulsory licence mechanism.

Although the Australian proposal was received favourably by a number of delegates,²¹ it did not gain enough support, especially among the developing countries. As a result, the WIPO Copyright Treaty 1996 left the compulsory licence mechanism intact. This is confirmed by the Agreed Statement to Article 8 of the WIPO Copyright Treaty, which states that 'it is further understood that nothing in Article 8 precludes a Contracting Party from applying Article 11*bis* [2]' of the Berne Convention.²²

Since webcasting could be classified as broadcasting under the Berne Convention, the question that needs to be answered here is whether webcasting could benefit from the compulsory licence mechanism of Article 11*bis* (2). As far as EU copyright law is concerned, the answer is categorically in the negative. In respect of online communication and broadcasting, EU law has come close to full harmonisation.²³ The broadcasting right is considered a subcategory of the broader right of communication to the public. As such, its exclusive nature is preserved under Article 3(1) of the Information Society Directive.²⁴

Furthermore, all exceptions and limitations that EU member states may introduce to limit, restrict, or exempt certain acts from the scope of the author's exclusive right of communication to the public are listed under Article 5 of the Information Society Directive.²⁵ This provision,

Protection of Literary and Artistic Works: 1886–1986 (Queen Mary College Centre for Commercial Law Studies Kluwer 1987) 523.

²⁰ WIPO (Fourth Session) 'Committee of Experts on a possible protocol to the Berne Convention' (Geneva, 5–9 December 1994) Copyright BCP/CE/IV/2 214, 218.

²¹ See the proposals of Canada, USA, EU, Argentina, Uruguay, WIPO (Sixth Session) 'Committee of Experts on a Possible Protocol to the Berne Convention' (Geneva, 1–9 February 1996) WIPO, BCP/CE/VI/12, 117–19.

²² See the Agreed Statements Concerning the WIPO Copyright Treaty adopted by the Diplomatic Conference WIPO, 'Diplomatic conference on certain copyright and neighboring rights questions' (Geneva, 2–20 December 1996) CRNR/DC/96.

²³ Ansgar Ohly, 'Economic Rights' in Estelle Derclaye (ed), *Research Handbook on the Future of EU Copyright* (Edward Elgar 2009) 225.

²⁴ Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society OJ L 167, 22.6.2001, p. 10–19 (Information Society Directive).

²⁵ As mentioned above, this chapter is solely concerned with authors' rights. Therefore, the exceptions and limitations that may be introduced in respect of the broadcasting and the making available

which reflects an exhaustive list of exceptions and limitations,²⁶ does not permit national laws to introduce a compulsory licensing mechanism to restrict the scope of the author's exclusive right of broadcasting, or the wider right of communication to the public.²⁷

Although Article 5(3)(o) of the Information Society Directive permits national laws to maintain exceptions or limitations which were already in existence at the time of its coming into force, this provision covers only analogue uses. Since the internet is a digital network, all communication over this medium, including webcasting, will naturally fall outside the scope of that provision.

As for US law, the position is less clear. Under section 106 of the US Copyright Act 1976, authors enjoy the exclusive right of public performance, which covers communication in public as well as communication to the public. Therefore, broadcasting comes within the ambit of the author's exclusive right of public performance. However, section 118 of the Act contains the possibility of a compulsory licence for the use of published nondramatic musical works and published pictorial, graphic and sculptural works by public broadcasting entities.²⁸ Similar to the position of Australia and New Zealand during the Rome Conference of the Berne Convention, public broadcasters in the US continuously expressed fear that the three collecting societies operating at the time (ASCAP, BMI and SESAC) might abuse their dominant position by determining licence conditions that they could not meet.²⁹ As a result, Congress adopted the compulsory licence mechanism as a compromise, by which authors would be remunerated for the broadcasting of their works, at the same time guaranteeing to public broadcasters wide access to musical works on reasonable terms.³⁰

For financial reasons and in the hope of reaching a far wider audience, public broadcasters may invoke the public interest as a reason to extend the application of the compulsory licence mechanism to webcasting. To that end, they may invoke a teleological interpretation, which

rights of neighbouring rights holders, that is, performers, sound recording companies and broadcasters, fall outside the scope of this chapter.

²⁶ For more on exceptions and limitations under the Directive, see Ted Shapiro, 'Directive 2001/29/EC on Copyright in the Information Society' in Brigitte Linder and Ted Shapiro (eds) *Copyright in the Information Society* (Edward Elgar 2011) 27–56; and Silke von Lewinski, 'Article 5 Exceptions and Limitations' in Michel Walter and Silke von Lewinski (eds), *European Copyright Law* (OUP 2010) 1013–64.

²⁷ It is worth noting that according to Article 5(5) of the Information Society Directive, any exception or limitation must still comply with the three step test. For the history of the three step test, see Martin Senftleben, *Copyright, Limitations and the Three-Step Test* (Kluwer Law International 2004) 43–87. For the scope of the three step test at the international level, see Jane C Ginsburg, 'Toward Supranational Copyright Law? The WTO Panel Decision and the "Three-Step Test" for Copyright Exceptions' (2001) 187 RIDA 3; M Makeen, 'The Reception in Public Dilemma under U.S. Copyright Law' (2011) 58(2) J Copyright Socy USA 355, 403–19.

²⁸ For the history of what was then called 'educational broadcasting', see George H Douglas, *The Early Days of Broadcasting* (McFarland and Company 1987) 142. For a general history of public broadcasting, see George H Gibson, *Public Broadcasting: The Role of the Federal Government, 1912–1976* (Praeger Publishers 1977).

²⁹ In addition to the above three, a fourth collecting society, Global Music Right (GMR), was established in 2013.

³⁰ For the history and development of the compulsory licence mechanism in the US and its expansion to cover noncommercial public broadcasting, see M Makeen, *Copyright in a Global Information Society: The Scope of Copyright Protection under International, US, UK and French Law* (Kluwer Law International 2000) 112–21.

focuses on the aim of the rule formulated in section 118, to emphasise the purpose of the provision and accordingly its extension to cover webcasting.

A literal reading of section 118 would render any such argument unpersuasive. Furthermore, since section 118 represents an exception, its scope must be determined in accordance with the principle of *exceptiones sunt strictissimae interpretationis*,³¹ that is, exceptions should only be interpreted narrowly or strictly. Therefore, any attempt to interpret the scope of the existing compulsory licensing mechanism widely to cover webcasting could possibly be in direct conflict with the general principles of statutory interpretation.

Extending the scope of the compulsory licence mechanism of section 118, through Congress or the judiciary, to cover webcasting may also raise questions at the international level. Although Article 11*bis* [2] of the Berne Convention permits national laws to replace the author's exclusive right of broadcasting with a compulsory licensing mechanism, any national law availing itself of such a possibility needs to comply with the three conditions discussed above, that is, 'specifically prescribed', no prejudice to moral rights and entitlement to equitable remuneration. While extending the compulsory licensing mechanism to cover webcasting may not be in direct conflict with the second and third requirements,³² the first requirement is not as easy to satisfy.

The wording of Article 11*bis* [2] makes it absolutely clear that the compulsory licensing mechanism only applies in the countries where it has been prescribed. Accordingly, the geographical reach of the compulsory licence mechanism must not go beyond the territory of the country in which it has been prescribed. Since the internet is a global network, it recognises no national boundaries. Allowing webcasting in one country to benefit from the compulsory licensing mechanism would necessarily extend that mechanism beyond the territory of the country in which it has been prescribed and consequently would be in direct conflict with the first requirement.³³ However, it remains to be seen whether the use of geoblocking technology, to ensure that only US users are able to access the service, may encourage Congress to extend the application of the compulsory licensing mechanism to cover webcasting.

2.2 Webcasting as a Form of Cabling³⁴

Unfortunately, the Berne Convention seems to have followed a technology-specific approach. As a result, a distinction is made between broadcasting and cabling. The distinction is based

³¹ It is also sometimes referred to as '*singularia non sunt extendenda*' or '*exceptio est strictissimae interpretationis*'.

³² Notwithstanding that the Berne Convention only specifically recognises the moral rights of paternity and integrity, the protection of moral rights was one of the main reasons for the US opposition to joining the Berne Convention: S Ladas, *The International Protection of Literary and Artistic Property* (The Macmillan Company 1938) 856–76. See also Kristin Lingren, 'United States of America' in G Davies and K Garnett (eds), *Moral Rights* (2nd edn, Sweet & Maxwell 2016) 1039. Even after joining the Convention in 1988, it is still questionable whether the US grants the level of moral rights protection required under the Berne Convention.

³³ For the same meaning, see Mihály Ficsor, *The Law of Copyright and the Internet* (OUP 2002) 496 and Mihály Ficsor, 'Collective Management of Copyright and Related Rights in the Digital Networked Environment: Voluntary, Presumption-Based, Extended, Mandatory, Possible, Inevitable?' in D Gervais (ed), *Collective Management of Copyright and Related Rights* (Kluwer Law International 2006) 59.

³⁴ The scope of this subsection is restricted to cabling, as in cable-originated programmes. For cable retransmission on the internet (hereinafter referred to as internet retransmission), see *infra* section 4.

on whether the process of signal transport is wireless (broadcasting) or via wire (cabling). Therefore, webcasting may also be classified in the traditional sense as cabling. In the context of the Berne Convention, the author's exclusive right of cabling was recognised in the Brussels Act of 1948. However, unlike the broadcasting right provision of Article 11*bis*, which is subject matter neutral, the cabling right under the Berne Convention is subject matter specific. Consequently, the cabling right is covered by a number of fragmented provisions.³⁵ While each of these provisions has its own defects, which are not relevant in the context of webcasting, none permits national laws to impose a compulsory licence to restrict the scope of the exclusive cabling right.³⁶ Accordingly, if webcasting was to be classified as a type of cabling, neither the US nor the EU may introduce a compulsory licensing mechanism to cover such a use.

In sum, although international copyright treaties do not recognise a specific webcasting right, this new mode of exploitation is covered by the existing broadcasting and cabling rights. While the cabling right under the Berne Convention is not subject to any specific exceptions or limitations, Article 11*bis* (2) of the Convention permits national laws to restrict the scope of the author's exclusive right of broadcasting with a compulsory licensing mechanism.

Under EU law, webcasting comes under the general right of communication to the public. The exclusive nature of this right is preserved under the Information Society Directive and therefore no EU national law may restrict its scope with a compulsory licensing mechanism. In contrast, the US does not recognise a general communication to the public right. Therefore, webcasting comes within the scope of the public performance right. The scope of this right is restricted with a compulsory licensing mechanism in respect of public broadcasting systems. However, extending the reach of the public broadcasting compulsory licensing mechanism to cover webcasting might bring US copyright law into conflict with its obligations under the Berne Convention.

3. ON DEMAND STREAMING

On demand streaming refers to a type of streaming where the data streams have been prepared and are available for users who wish to play a specific video, such as a cinematographic work or a song, at a time of their choosing.³⁷ According to the Internet TV Dictionary, it is where the streaming media content is transmitted to the client upon the latter's request.³⁸ Similar to webcasting, on demand streaming is used to reach people who are geographically dispersed.

³⁵ Berne Convention, arts 11(1)(ii), 11*ter*(1)(ii), 14 (1)(ii) and 14*bis*(1).

³⁶ The fact that the Berne Convention did not recognise a compulsory licence in favour of cable operators makes the argument for the abolition of the broadcasting compulsory licence of article 11*bis* even stronger, especially since the cable industry competes with the broadcasting industry to attract the same viewers and copyright should not be employed to favour one rival at the expense of another. However, given the experience of the Stockholm Revision Conference of 1967 and that of Paris of 1971, where the haves and havenots found it difficult to compromise, it is highly unlikely that the substantive provisions of the Berne Convention will ever be revised again.

³⁷ IT Law Wiki, 'On-Demand Streaming' (*IT Law Wiki*) <http://itlaw.wikia.com/wiki/On-demand_streaming> accessed 10 October 2019.

³⁸ ITV Dictionary, 'On-demand streaming' (*ITV Dictionary*) <www.itvdictionary.com/definitions/on-demand_streaming_definitions.html> accessed 10 October 2018.

However, unlike webcasting, on demand streaming also reaches people who are chronologically dispersed. As such, it is a type of video on demand or VOD, and therefore is a point to point type of communication. Thus, it is an interactive service, where the listener or the viewer decides where and when to watch the content of the requested file.

On demand streaming is becoming increasingly popular. A number of websites in today's world offer on demand streaming. While some, such as Netflix, are subscription-based,³⁹ others, such as YouTube, are free to the end user.⁴⁰ Additionally, a growing number of broadcasters offer 'catchup TV' to enable their viewers to watch their shows hours, days or even weeks after the original television broadcast.

3.1 On Demand Streaming under International Copyright Instruments

In the early 1990s, doubts were raised as to whether existing international instruments, and more specifically the Berne Convention, covered transmission of works via electronic networks such as the internet.⁴¹ Similarly, it was unclear whether on demand services would come within the scope of any of the exclusive rights that are specifically recognised under that Convention.⁴² As a result, the WIPO took the decision to prepare a Possible Protocol to the Berne Convention to update the norms of international copyright.

At the eleventh hour, and only during the 1996 Diplomatic Conference, there was a change of heart among members of the Berne Union and the idea of a protocol was dropped. Instead, the provisions of the protocol were incorporated into a new international instrument that took the form of the WIPO Copyright Treaty 1996.⁴³ For the purposes of this chapter, the most important provision of the Treaty is Article 8, which states:

Without prejudice to the provisions of Articles 11(1)(ii), 11bis(1)(i) and (ii), 11ter(1)(ii), 14(1)(ii) and 14bis(1) of the Berne Convention, authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access these works from a place and at a time individually chosen by them.

This provision, which for some reflects one of the Treaty's main achievements,⁴⁴ was introduced to address the dissemination of works over the internet in general and on demand services in particular. Accordingly, it sought to achieve two objectives: to introduce a general communication to the public right to supplement the communication to the public right provisions of the Berne Convention and to extend copyright protection to cover on demand services.

The first objective was deemed necessary because the fragmented cabling provisions of the Berne Convention are subject matter specific and therefore created gaps in protection. For instance, artistic works enjoyed very limited protection against their unauthorised communi-

³⁹ This type of service is normally referred to as SVOD or subscription video on demand.

⁴⁰ This type of service is referred to as AVOD or advertising, or ad-based, video on demand.

⁴¹ Tanya Aplin and Jennifer Davis, *Intellectual Property Law* (3rd edn, OUP 2017) 69.

⁴² Paul Goldstein and Bernt Hugenholtz, *International Copyright: Principles, Law and Practice* (3rd edn, OUP 2013) 335.

⁴³ WIPO Copyright Treaty, art 1(4) requires every member state to comply with all the substantive law provisions of the Berne Convention, that is, arts 1–21 and the Appendix.

⁴⁴ J Reinbothe, M Martin-Prat and S von Lewinski, 'The New WIPO Treaties: A First Resume' (1997) 19 EIPR 171, 173.

cation by cable under the Berne Convention. Even within the context of musical, dramatic, dramaticomusical and literary works, the cabling provisions of the Berne Convention are inherently defective: they only protect authors against the unauthorised communication by cable of the performance, representation and recitation of their works and not against the communication of the work *per se*.⁴⁵ Thus, Article 8 of the WIPO Copyright Treaty extended the protection of the communication to the public right to cover all types of literary and artistic works; hitherto only the performance of which was protected by the cabling provisions of the Berne Convention.

The second objective was achieved through the introduction of the ‘making available’ aspect of the communication to the public right to cover the dissemination of copyright works to geographically and chronologically dispersed people (hereinafter referred to as the ‘making available right’). While the provisions of the Berne Convention were more concerned with communication to members of the public who are geographically dispersed, the last sentence of Article 8 of the WIPO Copyright Treaty was drafted with the aim of extending copyright protection to cover people who are chronologically dispersed. Thus, the making available right extended copyright protection to cover on demand services.⁴⁶

In order to accommodate the different legal traditions and different drafting techniques, the WIPO Copyright Treaty did not require national laws to specifically recognise a general communication to the public right and/or the making available aspect of that right. Instead, it adopted the so-called umbrella solution. According to this approach, it was not the legal characterisation which was important, but rather that the acts involved were covered by an appropriate exclusive right in domestic law.⁴⁷ Thus, it was left to national laws to choose the appropriate right or rights to cover on demand services.

Unfortunately, the drafters of the WIPO Copyright Treaty seem to have overlooked that this umbrella solution in international copyright terms could lead to chaos. The exploitation of authors’ works over the internet recognises no national boundaries, and allowing national laws to protect against such exploitation by different rights which are normally subject to different limitations from one jurisdiction to another may lead to a great deal of uncertainty.⁴⁸ Furthermore, since the classification of the right would also play a crucial role in determining the applicable law, the umbrella solution would naturally make solving the private international law aspects even more complex. While the umbrella solution might have appeared to be an appropriate political compromise, in legal terms it can only be perceived as a setback.

3.2 On Demand Streaming under US Law

As a result of the umbrella solution, the US deemed it unnecessary to introduce a general communication to the public right or a specific making available right in its domestic law.

⁴⁵ Berne Convention, arts 11(1)(ii), 11*ter* (1)(ii) and 14(1)(ii).

⁴⁶ Mihály Ficsor, *The Law of Copyright and the Internet: The 1996 WIPO Treaties, Their Interpretation and Implementation* (OUP 2002) para 4.56.

⁴⁷ See the submissions of the Delegations of the USA and the UK to the Committee of Experts on a Possible Protocol to the Berne Convention (Fifth Session) WIPO (Document) BCP/CE/V/9-INR/CE/IV/8, para 20.

⁴⁸ For the same opinion, see the submission of the Delegation of Hungary, WIPO Committee of Experts on Possible Protocol to the Berne Convention (Sixth Session) (Geneva, 1–9 February 1996) WIPO (Document) BCP/CE/VI/16-INR/CE/V/14, para 96.

Notwithstanding that, it could be argued that the US Copyright Act of 1976 was the first national legislation to specifically extend copyright protection to cover on demand services. This was achieved through the public performance and public display rights.

Section 101 of the 1976 Act defines 'to perform or display a work publicly' in the following terms:

- (1) to perform or a display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered; or
- (2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.

While the first paragraph of the definition covers communication in public, the second paragraph covers communication to the public and is widely known as the 'Transmit Clause'.⁴⁹ The second part of the second paragraph of the definition covers the communication of works to geographically and chronologically dispersed people. It was introduced mainly to cover on demand services, or as Professor Nimmer put it, the situation where the same copy of a given work is repeatedly played, albeit at different times.⁵⁰

In introducing the chronological aspect in 1976, the US legislature showed foresight, since most on demand services, including the internet, had not yet been invented. Furthermore, it could be argued that in introducing the making available right under the WIPO Copyright Treaty, the drafters were very much influenced by the chronological aspect of the definition of the 1976 Act, and thus very similar wording was adopted under Article 8 of the Treaty.

Even before the adoption of Article 8 of the WIPO Copyright Treaty, courts in the US did not hesitate to extend the scope of the public performance right to cover video on demand. In *On Command Video Corporation v Columbia Pictures Industries*,⁵¹ the plaintiff developed a system for the electronic delivery of movies to hotel guestrooms, upon the occupier's request. Once a guest selected a movie, that video selection disappeared from the menu of available videos displayed on all other television sets in the hotel, and therefore no movie could be communicated to more than one hotel room at a time. Since section 101 of the 1976 Act defines the performance of a motion picture as 'to show its images in any sequence or to make the sounds accompanying it audible', the court did not find it difficult to conclude that the On Command system satisfied the performance requirement.

Unlike in France,⁵² performance *per se* is not a restricted act under US law and therefore a performance must be public to come within the scope of the author's exclusive rights. In confirming that On Command publicly performs the motion pictures, the court applied the chronological aspect of the Transmit Clause and held that a performance may still be public

⁴⁹ For the distinction between 'communication in public' and 'communication to the public', see Makeen (n 30) 33–83.

⁵⁰ MB Nimmer and D Nimmer, *Nimmer on Copyright* (Mathew Bender 2010) § 8.14[c][3].

⁵¹ 777 F Supp 787 (ND California 1991).

⁵² The only exception specifically recognised under French law is that of gratuitous performances within the family circle.

whether the number of hotel guests viewing the ‘transmission is one or hundred, and whether these guests view the transmission simultaneously or sequentially’.⁵³

Although this decision makes it clear that VOD comes within the scope of the public performance right,⁵⁴ two elements may slightly undermine its value in the context of on demand streaming. First, while clarifying the scope of the term performance, the court stated that ‘[a] movie is thus performed only when it is visible and audible’.⁵⁵ This could mean that only when the content of the stream is actually visible and audible on the end user’s device would there be a performance. Put differently, the mere offering of movies on a VOD website may not suffice.⁵⁶ Second, in deciding that the transmission of a movie to a hotel room constitutes ‘public performance’ under the Transmit Clause, the court based its analysis on the commercial nature of the relationship between the transmitter and the audience.⁵⁷ This reasoning not only rewrites the statutory language by introducing the commercial nature element,⁵⁸ but also *a contrario* may lead to the undesirable result of exempting noncommercial on demand streaming websites from any copyright liability under the public performance right.

Given the umbrella solution adopted under the WIPO Copyright Treaty, national laws are allowed to apply a combination of rights to cover on demand streaming. Therefore, under US law, a single transmission may simultaneously violate the public performance and the public display rights. In *Video Pipeline, Inc. v Buena Vista Home Entertainment*, movie previews were made available on demand via the plaintiff’s website to instore video rental customers.⁵⁹ The court applied the public display right, which under US law covers the nonsequential showing of motion pictures, together with the public performance right to enjoin the plaintiff from streaming the video clips to its retail customers.

3.3 On Demand Streaming under EU Law

Under EU law, on demand streaming is covered by the making available right. This making available right forms part of the wider communication to the public right of Article 3 of the Information Society Directive. It was introduced not only to implement Article 8 of the WIPO Copyright Treaty, but also, as the Court of Justice of the European Union [CJEU] put it – albeit in the context of broadcasters’ rights – ‘to overcome the legal uncertainty regarding the nature and the level of protection of acts of on-demand transmission by providing for harmonised protection at Community level for that type of act’.⁶⁰ Therefore, this making available right does not cover the transmission of predetermined programmes, but comes into play only when

⁵³ 777 F Supp 787 (n 51) 790.

⁵⁴ This was confirmed in *United States v ASCAP* 627 F.3d 64, 74 (2d Cir 2010) where it was stated that unlike downloading, streaming is governed by the public performance right.

⁵⁵ *ibid* 789.

⁵⁶ For the same issue, but in the context of the distribution right and online exploitation, see John Horsfield-Bradbury, “‘Making Available’ as Distribution: File-Sharing and the Copyright Act” (2008) 22 Harv JL & Tech 273.

⁵⁷ 777 F Supp 787 (n 51) 790.

⁵⁸ *Cartoon Network v CSC Holdings, Inc.* 536 F.3d 121, 139 (2nd Cir 2008).

⁵⁹ 192 F Supp 2d 321 (D.N.J. 2002); *aff’d*, 342 F.3d 191 (3rd Cir 2003).

⁶⁰ Case C-279/13 *C More Entertainment AB v Linus Sandberg* EU:C:2015:199, para 30; Information Society Directive, recital 25.

members of the public can access the protected work at a time and place chosen by them.⁶¹ It is not necessary for members of the public actually to access the copyright work,⁶² for the mere act of making the video available on the internet triggers the making available right.

The making available right covers all on demand streaming services, such as VOD, pay per view, selection of works from online databases and podcasts.⁶³ Recently, the CJEU made it clear that the making available right is also relevant in the context of peer to peer networks. In *Stichting Brein v Ziggo BV and XS4ALL Internet BV*,⁶⁴ the scope of this right was extended to cover the making available and management of a sharing platform on the internet, which, by means of indexation of metadata relating to protected works and the provision of a search engine, allows users of that platform to locate those works and to share them within a peer to peer network.

In sum, at the international level, on demand streaming is covered by the making available right of Article 8 of the WIPO Copyright Treaty. However, this right was introduced only as an umbrella solution and therefore it is left to national laws to choose the right or rights through which on demand streaming may be covered. Thus, while the US chose to protect authors against on demand streaming through the public performance and public display rights, the EU adopted a specific making available right for that purpose.

4. INTERNET RETRANSMISSION OF A BROADCAST

Unlike webcasting, where the service provider originates its own programmes, the service provider in internet retransmissions captures over the air broadcast signals, or cable signals, carrying copyright works, and then retransmits them to geographically dispersed people over the internet. While cable and satellite packages are inflexible and therefore may require viewers to pay for programmes they do not watch, internet retransmissions seem to satisfy consumers' need for more choice and control over how and when they view television programmes.⁶⁵ The term 'internet retransmissions' covers simultaneous and delayed retransmissions. Since delayed retransmissions would naturally implicate the reproduction right, the topic falls outside the scope of this chapter. Accordingly, the rest of this section focuses only on simultaneous internet retransmissions, where the service provider captures the signals and immediately retransmits them without delay to its subscribers.

⁶¹ Unfortunately, the CJEU seems to have indirectly extended the criterion governing the application of the making available right, that is, the chronological aspect, beyond its intended purpose to cover the communication of predetermined programmes: see Case C-306/05 *Sociedad General de Autores y Editores de España (SGAE) v Rafael Hoteles SA* EU:C:2006:764, paras 38–39.

⁶² S von Lewinski and M Walter, 'Information Society Directive' in Michel Walter and Silke von Lewinski (eds), *European Copyright Law* (OUP 2010) 983.

⁶³ Irini Stamatoudi and Paul Torremans, 'The Information Society Directive' in Irini Stamatoudi and Paul Torremans (eds), *EU Copyright Law: a Commentary* (Edward Elgar 2014) 413.

⁶⁴ Case C-610/15 *Stichting Brein v Ziggo BV and XS4All Internet BV* EU:C:2017:456, para 35.

⁶⁵ Pooja Patel, 'Aereo and Internet Television: A Call to Save the Ducks (a la Carte)' (2016) 14 Duke L & Tech Rev 140, 141.

4.1 Internet Retransmission under International Copyright Instruments

Under international copyright instruments, internet retransmissions constitute communication to the public. However, for three reasons, it is submitted that Article 8 of the WIPO Copyright Treaty 1996 has no application to internet retransmission, which continues to be governed solely by Article 11*bis* (1)(ii) of the Berne Convention which protects authors against the unauthorised communication of their works by cable retransmission and rebroadcasting. First, the wording of Article 8 of the WIPO Copyright Treaty preserved the integrity of the Berne Convention, and consequently the ‘without prejudice clause’ of that provision makes it clear that Article 11*bis* (1)(ii) of the Berne Convention should remain intact. Second, the *raison d’être* of the general communication to the public right of Article 8 of the WIPO Copyright Treaty, as discussed above, was to supplement the defective and subject matter specific cabling provisions of the Berne Convention, as opposed to cable retransmission. In this connection, it is worth noting that unlike all the other communication to the public provisions of the Berne Convention, which are subject matter specific, Article 11*bis* offers comprehensive protection and covers all types of literary and artistic works, in whatever form. Third, the making available aspect of Article 8 of the WIPO Copyright Treaty, as discussed above, was intended to cover on demand services, where members of the public access the work from a place and at a time chosen by them. Conversely, it has no application to services that operate on a predetermined programmes basis, such as internet retransmission services. Thus, neither the general communication to the public right of Article 8 of the WIPO Copyright Treaty, nor its making available aspect, is relevant in the context of internet retransmissions.

Since Article 11*bis* (1)(ii) of the Berne Convention is the most relevant provision to Internet retransmissions, its wording, history and scope will be briefly examined here. As a general principle, under the Berne Convention the dissemination of works in nonmaterial form is governed by the criterion of ‘new public’. As such, every act of exploitation that communicates the rendition to a new potential audience is considered to be a separate and independent prohibited act. Accordingly, the Convention recognises public performance, broadcasting and reception in public as separate exclusive rights.⁶⁶

The Convention does not follow this general criterion in relation to the simultaneous cable retransmission right of Article 11*bis* (1)(ii). This provision grants authors of literary and artistic works the exclusive right of authorising ‘any communication to the public by wire or by rebroadcasting of the broadcast of the work, when this communication is made by an organisation other than the original one’.

Under the Rome Act of 1928 of the Berne Convention, the broadcasting right was the only economic right specifically recognised in Article 11*bis*. During the Brussels Revision Conference, the Belgian government and the Bureaux Internationaux Réunis pour la Protection de la Propriété Intellectuelle (BIRPI) suggested extending the scope of that provision to cover cable retransmission. Accordingly, they submitted a proposal that followed the ‘new public’ criterion, giving the author the exclusive right to authorise ‘any new communication, whether over wires or not, of the work broadcast’.⁶⁷

⁶⁶ Berne Convention, arts 11 [1](i), 13ter [1](i) and 14 [1](ii) cover the public performance, art 11*bis* [1](i) covers broadcasting and 11*bis*[1](iii) covers reception in public.

⁶⁷ *Actes de la Conférence réunie à Bruxelles* du 5 au 26 juin 1948 (Berne International Office) [1951] 270.

The proposal would have had the effect of making simultaneous cable retransmission and simultaneous rebroadcasting subject to the author's authorisation when such retransmission or rebroadcast served to communicate the broadcast work to a new public.⁶⁸ Some delegations objected to this criterion on the grounds that any kind of retransmission can be classified as reaching a new audience that could not otherwise be reached, and that it was not possible, or practical, to investigate every installation used by a broadcasting organisation to determine whether it reached a new public.⁶⁹

Furthermore, the delegations of Monaco and the Netherlands expressed the view that, for economic or other reasons, a broadcasting organisation that held the broadcasting right might prefer to serve a section of its audience via cable. In such a case, in their view, applying the 'new public' criterion would subject such communication by cable to the author's consent, a result that might affect the development of the new cable technology.⁷⁰

Accordingly, the two delegations supported by the delegation of Luxembourg proposed that authorisation to broadcast a work should cover any retransmission, whether by wire or not, made by the original broadcasting organisation.⁷¹ As a result, a new proposal submitted by the Belgian delegation and adopted by the Conference provided that any communication to the public, whether over wires or not, would be subject to the author's authorisation when made by an organisation other than the original authorised broadcasting organisation. The adopted wording, as Walter correctly pointed out, 'corresponded to the solution proposed by Monaco and the Netherlands which, *a contrario*, also required the author's consent for any rediffusion made by a body other than the one originally authorised'.⁷²

Accordingly, under the Convention there is a rebuttable presumption that an authorisation to broadcast, in the absence of any agreement to the contrary, will cover the use of all broadcasting installations, whether wireless or wire, of the same broadcaster.⁷³ Thus, disposing of the fear that authors one day might argue that each amplification and/or relay by the original broadcaster constitutes a rebroadcast requiring fresh consent and a new royalty. As such, the retransmission right comes into play only when the retransmission of signals is conducted by an organisation other than the original one.⁷⁴

Put differently, the adopted text of Article 11*bis* (1)(ii) employs the notion of 'different use' to distinguish between broadcasting and retransmission by cable. Since broadcasting and retransmission by cable are two different types of use, each requires the author's consent. However, as a concession to the original broadcaster, the adopted provision recognised a specific exception through which the original broadcast and any further cable retransmission are considered to be a single use, where both are undertaken by the same entity. Thus, the wording

⁶⁸ *ibid* 265.

⁶⁹ *ibid* 273, 275, 278–79, 289. The Sub-Committee on Broadcasting and Mechanical Instrument of the Brussels Conference also found the criterion of 'new public communication' to be vague, *ibid* 114.

⁷⁰ *ibid* 275.

⁷¹ 'The right to broadcast a work covers the use of any process and means of sending out and transmitting sounds and images exploited by the broadcasting organisation granted the right': *ibid* 278–79, and for the Luxembourg position see *ibid* 289.

⁷² Michel M. Walter, 'Telediffusion and Wired-Distribution Systems: Berne Convention and Copyright Legislation in Europe' [1974] Copyright (WIPO) 302, 304.

⁷³ In this connection, see *Actes de la Conférence réunie à Bruxelles* (n 67) 289.

⁷⁴ H Desbois and A Françon, 'Copyright and the Dissemination by Wire of Radio and Television Programmes' (1975) 86 RIDA 3, 50–52.

and legislative history of Article 11*bis* (1)(ii) make it clear that the criterion of ‘new public’ was explicitly rejected in respect of simultaneous cable retransmission. Similarly, the plain language of that provision makes it clear that the simultaneous cable retransmission right comes into play only when carried out by an organisation other than the original one, irrespective of whether the retransmission was made to a new public or to a public that was reachable by the original broadcast.

Notwithstanding the clarity of the text adopted under Article 11*bis* (1)(ii), some continental scholars, including Robert Dittrich, came up with an interpretation that neither the text nor the legislative history of that provision could support.⁷⁵ Fearing that it might lead to double payment for the author in respect of the same audience, Dittrich rejected the ‘organisation other than the original one’ criterion and instead advocated the ‘service zone theory’.⁷⁶

In defining the service zone, Dittrich stated that it is the legally assigned area of responsibility in the case of broadcasting organisations under public law, and in the case of broadcasting organisations set up under private law by their statutes.⁷⁷ He went on to say that any relaying of a broadcast by wire within that service area is to be considered ‘a mere act of reception, even if reception is thereby improved or indeed made possible where previously it was not owing to a transmission shadow’.⁷⁸ In his view, the service zone theory would not only avoid the danger of double payment, but would also give the broadcasting organisation a free hand in the choice of available technology to fulfil its legal obligation or, as the case may be, to exercise its intention, to service a particular area.⁷⁹ Furthermore, he asserted that it would make no difference whether the ‘relay station was installed and/or operated by the broadcasting organisation itself, by others alone or by others with financial or organisational assistance from the broadcasting organisation’.⁸⁰

It is submitted that the service zone theory is a foreign concept to the Berne Convention. This is especially so, since it amounts to a subtle attempt to introduce through the backdoor the ‘new public’ criterion, which was emphatically rejected at the Brussels Conference. Furthermore, it goes against the clear wording of Article 11*bis* (1)(ii). Moreover, most international scholars are in agreement that the only criterion applicable to cable retransmission is that of ‘organisation other than the original one’.⁸¹ Therefore, under the Berne Convention an

⁷⁵ Robert Dittrich, ‘On the Interpretation of Article 11*bis* [1] and [2] of the Berne Convention’ [1982] Copyright (WIPO) 294.

⁷⁶ The same reasoning seems to be followed by Werner Rumphorst, ‘Cable Distribution of Broadcast’ [1983] Copyright (WIPO) 301, 302 and Dietrich Reimer, ‘The Right of Public Performance in View of Technological Advancement’ (1979) 10 IIC 541, 547, 559.

⁷⁷ Dittrich (n 75) 300.

⁷⁸ *ibid.* For the same opinion, see Reimer (n 76) 547, 559.

⁷⁹ Although a distinction might be made between the ‘service zone or area’ and the ‘direct reception zone or area’, this is not followed here. Therefore, this chapter uses the term ‘service zone’ to cover the service area, direct reception area and operating area of the transmitter.

⁸⁰ Dittrich (n 75) 301.

⁸¹ Frank Gotzen, ‘Cable Television and Copyright in Belgium’ [1982] Copyright (WIPO) 307, 310; Victor Hazan, ‘The “Body other than the Original Broadcaster” in Cable Transmissions – Article 11*bis* [1] (i) of the Berne Convention’ [1984] Copyright (WIPO) 228, 236; Michel M Walter, ‘Telediffusion and Wired-Distribution Systems: Berne Convention and Copyright Legislation in Europe’ [1974] Copyright (WIPO) 302, 304; Ulrich Uchtenhagen, ‘Broadcasting and Copyright’ WIPO/Egypt national seminar on copyright and neighboring rights (Cairo, 17–19 January 1994) WIPO/CNR/CA/94/8, 6 <www.wipo.int/mdocsarchives/WIPO_CNR_CA_94/WIPO_CNR_CA_94_8_E.pdf> accessed 10

internet retransmission would constitute a separate and independent prohibited act from that of broadcasting, if carried out by an organisation other than the original broadcasting station. Any national law of a Berne Union member that does not protect authors against internet retransmissions made by a third party, that is, an entity other than the original broadcaster, would be in breach of its international obligations.

4.2 Internet Retransmission under EU Law

Since UK law has so far been the only national law to come under EU scrutiny in respect of internet retransmissions, it is discussed here in detail. Although the service zone theory was formulated by continental European scholars, it seems that the idea upon which it is based originated from UK law. A quarter of a century prior to the publication of Dittrich's service zone theory, the UK Copyright Act of 1956 adopted a provision that, for all intents and purposes, introduced a service zone exception in respect of simultaneous cable retransmission.⁸² The reason for recognising such an exception was the belief that it would support the development of cable infrastructure.⁸³ Accordingly, under the Copyright Act 1956, cable operators were allowed to retransmit free of charge the broadcast works of the British Broadcasting Corporation (BBC) and the Independent Television Authority (ITA) without obtaining the authors' permission.⁸⁴ Even if the work broadcast by the BBC or the ITA, which was to become the Independent Broadcasting Authority (IBA), was unauthorised by the copyright owner, the cable operator was still exempted from copyright liability, but the scope of the retransmission by cable was taken into account in assessing damages against the BBC or the IBA.⁸⁵

During the process of revising the 1956 Act, which led to a major overhaul of UK copyright law and the enactment of the Copyright, Designs and Patent Act 1988 (CDPA), it was pointed out to the revision committee (the Whitford Committee) that the service zone exemption was in direct conflict with Article 11*bis* (1)(ii) of the Berne Convention. Furthermore, it was proposed to the Whitford Committee that authors should at least share in the commercial proceeds flowing from the retransmission of their works by cable.⁸⁶ Although that proposal amounted to a compulsory licensing mechanism, it would still have been in compliance with Article 11*bis*. This is especially so, since, as discussed above, the second paragraph of that provision allows Berne Union members to replace the exclusive rights recognised under the first paragraph, including cable retransmission, with a compulsory licensing mechanism.

October 2019; and H Desbois and A Françon, 'Copyright and the Dissemination by Wire of Radio and Television Programmes' (1975) 86 RIDA 3, 50–52.

⁸² Thus, any deferred retransmission fell outside the scope of the exemption.

⁸³ See GOV.UK Consultation Paper, 'The Balance of Payments between Television Platforms and Public Service Broadcasters' (*Department for Culture, Media & Sport*, 26 March 2015) para 38 <www.gov.uk/government/consultations/the-balance-of-payments-between-television-platforms-and-public-service-broadcasters-consultation-paper> accessed 10 October 2019.

⁸⁴ Copyright Act 1956, s 40[3], [3A].

⁸⁵ *ibid* s 40[4].

⁸⁶ Committee to Consider the Law on Copyright and Designs, 'Copyright and Designs Law: Report of the Committee to Consider the Law on Copyright and Designs 1977' (Cmnd 6732, 1980) 115, para 439 ('The Whitford Committee').

The response of the Whitford Committee was couched in what was described as ‘somewhat strange terms’.⁸⁷ ‘We are impressed by the fact that the present position, although somewhat anomalous by international standards, works well in practice.’⁸⁸ Regrettably, section 73 of the CDPA of 1988 followed the recommendation of the Whitford Committee and retained the simultaneous cable retransmission exemption. Indeed, it could be argued that that provision, with its 13 subsections, has widened the scope of the cable retransmission exemption.⁸⁹

It was this provision of the CDPA that provided the CJEU with its first opportunity to consider the issue of Internet retransmission. In *ITV Broadcasting v TV Catchup Ltd [TVC]*,⁹⁰ the defendant operated a website that offered internet retransmission service of a number of stations, including those transmitted by the claimants. The TVC service was designed to allow people who do not have access to their television sets at the time of broadcasting to follow their favourite programmes ‘on the move’, that is, on their computers or mobile devices in almost real time. This was done through capturing the signals via an antenna, converting the incoming transmission into a different compression standard and without delay retransmitting the same (known as simultaneous retransmission) to the end user upon their request over the internet. Accordingly, while the same antenna might have served a group of end users, a separate individual packet of data was addressed to every individual user. Put differently, not a single stream was addressed to more than one end user at a time. Therefore, a new stream was created for every single individual user and never to a group of users.

All internet retransmissions made by TVC were of content that could be viewed for free on television sets in the UK, provided that the user held a valid UK television licence. To that end, TVC made sure that its subscribers had confirmed that they had a valid UK television licence before allowing access to its service. Furthermore, TVC authenticated the location of users and refused access to those outside the UK.

The service offered by TVC was funded by advertising. In addition to ‘pre-roll advertising’, which was shown before the end user was able to view the Internet retransmission, TVC also employed ‘in-skin advertising’, where the viewer saw the TVC stream surrounded by advertising. The advertisements already contained in the original broadcast were left intact and sent to the end user as part of the stream.

The claimants instituted proceedings against TVC before the High Court of Justice of England and Wales claiming, *inter alia*, infringement of their communication to the public right as recognised under section 20 of the CDPA and Article 3(1) of the Information Society Directive.⁹¹ In defining the scope of section 20 of the CDPA and Article 3(1) of the

⁸⁷ Denis de Freitas, ‘Diffusion of Broadcast Programmes – UK Authors Lose Out Despite the Berne Convention’ (1979) 1 EIPR 121, 122.

⁸⁸ Whitford Committee (n 86) paras 431, 445.

⁸⁹ Copyright, Designs and Patents Act 1988, s 73. Reception and retransmission of wireless broadcast by cable (CDPA 1988):

1. This section applies where a wireless broadcast made from a place in the United Kingdom is received and immediately re-transmitted by cable.
2. The copyright in the broadcast is not infringed
 - (a) if the re-transmission by cable is in pursuance of a relevant requirement, or
 - (b) if and to the extent that the broadcast is made for reception in the area in which it is re-transmitted by cable . . .

⁹⁰ Case C-607/11 *ITV Broadcasting v TV Catchup Ltd* EU:C:2013:147.

⁹¹ *ITV Broadcasting Limited, ITV 2 Limited, ITV Digital Channels Limited, Channel 4 Television Corporation, Four Ventures Limited, Channel 5 Broadcasting Limited, ITV Studios Limited v TV Catchup Ltd* [2011] EWHC 1874, [2011] FSR 40.

Information Society Directive, the claimants invoked the wording and spirit of Article 11*bis* (1)(ii) of the Berne Convention, discussed above, and argued that whenever there is an intervention by a broadcasting organisation other than the original one, there is a communication to the public.⁹² The defendant on the other hand contended that its activities were exempted from any copyright liability based on section 73 of the CDPA and the service zone exception contained therein.⁹³

The claimants made a number of arguments to exclude the application of section 73 of the CDPA. First, the claimants pointed out that since any internet retransmission was digital in nature, it could not be in compliance with Article 5(3)(o) of the Information Society Directive.⁹⁴ Second, they argued that since the exception could only apply to retransmissions of unadulterated signal, the internet retransmission of TVC failed that condition for being viewed within ‘in-skin’ advertising. Third, they asserted that the internet retransmission of TVC was a delayed retransmission because the showing of preroll advertisements to the end user disqualified the Internet retransmission from being simultaneous. Fourth, they contended that the term ‘cable’ as used under section 73 should be narrowly interpreted so as not to cover internet retransmissions. Curiously, all the above arguments were unreservedly rejected by Floyd J, as he was then.⁹⁵

The court accepted, however, that for TVC to benefit from the exception, the whole or substantially the whole of the process must be by cable. Accordingly, it was held that the defendant could not take advantage of the defence where their retransmissions were for reception by mobile phones.⁹⁶ Similarly, the court accepted that the defendant could not benefit from the exception where the internet retransmission goes beyond the service zone of the original broadcaster.⁹⁷ Accordingly, Floyd J handed down a provisional judgment in which he held that TVC were entitled to the benefit of the exception under section 73, except to the extent that the internet retransmission was for (a) reception by mobile phones or (b) reception outside the original service zone of the broadcaster. He also stayed proceedings in relation to the scope of the rights of communication to the public and reproduction pending a reference to the CJEU.

In seeking clarification from the CJEU, Floyd J correctly pointed out that neither the scope of the communication to the public nor its application to Internet retransmissions were rendered *acte claire* by previous decisions of the CJEU.⁹⁸ Accordingly, he referred a host of questions to the CJEU for preliminary ruling, the most important of which can be summarised in the following terms:

Whether the concept of ‘communication to the public’, within the meaning of Article 3(1) of Directive 2001/29, must be interpreted to cover retransmission of copyright works included in a terrestrial television broadcast:

- where the retransmission is made by an organisation other than the original broadcaster;
- by means of an internet stream made available to the subscribers of that other organisation;

⁹² *ibid* [84].

⁹³ *ibid* [20].

⁹⁴ For Article 5(3)(o) see *supra* p. 248.

⁹⁵ *ITV Broadcasting Limited* (n 91) [130]–[140].

⁹⁶ *ibid* para [139].

⁹⁷ *ibid* para [142].

⁹⁸ *ITV Broadcasting Limited v TV Catchup Ltd* [2011] EWHC 2977, [2012] ECDR 5 [23].

- where the subscribers are within the intended area of reception of the initial broadcast and may lawfully receive the broadcast on a television receiver; and
- where the Internet retransmission is communicated through one-to-one connection.⁹⁹

In answering the referred questions, the CJEU reiterated that the principal objective of the Information Society Directive was to establish a high level of protection of authors and that therefore the communication to the public right must be interpreted broadly.¹⁰⁰ Similarly, the Court reiterated that the author's right of communication to the public under the Information Society Directive covers any transmission or retransmission of a work to the public not present at the place where the communication originates. Furthermore, the Court made reference to Article 3(3) of that Directive and stated that authorising the inclusion of protected works in a communication to the public does not exhaust the right to authorise or prohibit other communications of those works to the public.

The Court noted that since the Information Society Directive did not define the concept of communication exhaustively, the meaning and scope of that concept must be defined in the light of the context in which it occurs and also in the light of the objective of the Directive.¹⁰¹ This line of reasoning seems to have allowed the Court to adopt a technology specific approach and thus to deviate from the 'new public' criterion,¹⁰² which hitherto had been applied indiscriminately by the CJEU. Instead, the Court introduced the concept of 'different technical use' as the governing criterion for the application of the communication to the public right to internet retransmissions.

This concept, according to the Court, reflects the intention of the EU legislature that each transmission or retransmission of a work that 'uses a specific technical means' must be individually authorised by the author of the work in question.¹⁰³ Accordingly, the Court concluded that since an internet retransmission uses a specific technical means different from that of the original broadcasting, they are separate acts of communication.

In determining the scope of the term 'public', the Court followed previous case law which defined the term to mean 'an indeterminate number of potential recipients and which implies a fairly large number of persons'.¹⁰⁴ Furthermore, the Court made it clear that it was irrelevant whether the potential recipients accessed the retransmitted works through a one to one connection. This is especially so since that technique does not prevent a fairly large number of persons from having access to the retransmitted work at the same time.¹⁰⁵

By introducing the criterion of 'different technical use' to govern the application of the EU communication to the public right to internet retransmissions, the CJEU seems to have achieved two objectives. First, it interpreted the EU communication to the public right in a way that is compliant with Article 11*bis* (1)(ii) of the Berne Convention. This provision, as

⁹⁹ *ibid* [24] and *ITV Broadcasting* (n 90) para 18.

¹⁰⁰ *ITV Broadcasting* (n 90) para 20.

¹⁰¹ *ibid* para 22.

¹⁰² *ibid* para 39. The CJEU has been consistent in defining the term 'new public' as a public that was not taken into account by the copyright holders when they authorised the initial communication to the public.

¹⁰³ *ibid* para 23.

¹⁰⁴ *ibid* para 32.

¹⁰⁵ *ibid* para 34. The Court also acknowledged that the 'for profit' nature of the defendant's activity was not a determinative factor.

discussed above, adopts the concept of ‘different use’, which is also known as the organisation other than the original one, as the sole criterion to distinguish between two separate and independent acts: communication by broadcasting and any further communication by simultaneous cable retransmission of the broadcast. Thus, as a result of introducing the criterion of ‘different technical use’, the EU communication to the public rights, at least in the context of Internet retransmission, seems to be in conformity with its international obligations under the Berne Convention.¹⁰⁶

Second, it freed the EU communication to the public right, at least within the context of internet retransmissions, from the shackles of the ‘new public’ criterion. In stating that the meaning and scope of the communication to the public must be defined in the light of the context in which it occurs,¹⁰⁷ the CJEU seems to have implicitly acknowledged that the criteria governing the application of the EU communication to the public right may differ from one situation to another, depending on the technological context. Accordingly, while satisfying the ‘new public’ criterion remains a prerequisite for the application of the communication to the public right to hyperlinking,¹⁰⁸ reception in public,¹⁰⁹ simultaneous cable retransmission through a collective antenna,¹¹⁰ and even the simultaneous cable retransmission to hotel rooms,¹¹¹ it is irrelevant in the context of internet retransmissions.¹¹²

In the context of cable retransmission in general, and internet retransmission in particular, this ‘new public’ criterion, as discussed above, is tantamount to adherence to the service zone theory.¹¹³ Therefore, in rejecting the application of the ‘new public’ criterion, the CJEU had implicitly dismissed the relevance of the service zone theory in the context of internet retransmission.

¹⁰⁶ Although the EU is not a member of the Berne Convention, it is still required to comply with its provisions. This is especially so, since the EU is a member of TRIPS, which requires members to comply with all the substantive law provisions of the Berne Convention, excluding the moral rights provision of Article 6 *bis*.

¹⁰⁷ *ITV Broadcasting* (n 90) para 22.

¹⁰⁸ Case C-466/12 *Nils Svensson v Retriever Sverige AB* EU:C:2014:76, para 24; Case C-160/15 *GS Media BV v Sanoma Media Netherlands BV and others* EU:C:2016:644, paras 40, 42 and 52; and Case C-348/13 *BestWater International v Michael Mebes* EU:C:2014:2315, paras 14 and 18.

¹⁰⁹ Case C-117/15, *Reha Training Gesellschaft für Sport- und Unfallrehabilitation mbH v Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte eV (GEMA)* EU:C:2016:379, para 45; Joined Cases C-403/08 and 429/08 *Football Association Premier League and Others v QC Leisure and Karen Murphy* EU:C:2011:631, para 197.

¹¹⁰ Case C-138/16 *AKM v Zürs.net Betriebs GmbH* EU:C:2017:218, para 29. Here, the CJEU seems to have merged the ‘different technical use’ criterion, as used in this chapter, with the ‘new public criterion’ and required both to be satisfied for a traditional simultaneous retransmission by cable to come within the scope of the communication to the public right, see paras 26–27.

¹¹¹ Case C-306/05 *Sociedad General de Autores y Editores de España (SGAE) v Rafael Hoteles SA* ECLI:EU:C:2006:764 para 40.

¹¹² *ITV Broadcasting* (n 90) para 39.

¹¹³ For a criticism of applying the ‘new public’ criterion by the CJEU to cases of simultaneous cable retransmission, see M Makeen, ‘The Controversy of Simultaneous Cable Retransmission to Hotel Rooms Under International and European Copyright Laws’ (2009–10) 57 [1–2] *J Copyright Soc’y USA* 59, 97–103.

When the case returned to the High Court, Floyd J applied the approach adopted by the CJEU.¹¹⁴ Accordingly, the internet retransmission by TV Catchup was held to be a communication to the public within the meaning of Article 3 of the Information Society Directive. However, since the validity of the service zone exception was not explicitly referred to the CJEU, the High Court held that TV Catchup had a valid defence under section 73(2)(b) and (3) of the CDPA 1988 and therefore was allowed to continue to retransmit public service broadcasting. The application of the defence was subject to the same two conditions of the provisional order, namely that the retransmission is not made to mobile devices or to areas outside the catchment area of the original broadcast.

Both parties appealed the decision. TV Catchup appealed the part of the decision that held internet retransmission to mobile devices to be a copyright infringement. However, the Court of Appeal confirmed the mobile devices part of the decision and dismissed TV Catchup's appeal.¹¹⁵ The broadcasters, on the other hand, appealed the part of the decision that extended the application of the service zone exception of section 73 of the CDPA to cover internet retransmission and challenged the compatibility of that section with EU copyright law. As a result, yet again, proceedings were stayed and the Court made a reference to the CJEU to clarify whether Article 9 of the Information Society Directive permitted the retention of the exception of section 73 of the CDPA and if so, whether that exception extended to cover internet retransmission or only retransmission by traditional cable systems.¹¹⁶

Article 9 of the Information Society Directive states:

This Directive shall be without prejudice to provisions concerning in particular patent rights, trade marks, design rights, utility models, topographies of semi-conductor products, type faces, conditional access, access to cable of broadcasting services, protection of national treasures, legal deposit requirements, laws on restrictive practices and unfair competition, trade secrets, security, confidentiality, data protection and privacy, access to public documents, the law of contract.

In rejecting the application of Article 9 to cover the service zone exception of section 73 and accordingly internet retransmissions, the CJEU noted that the principal objective of the Directive is to establish a high level of protection of authors. The Court then based its judgment on two grounds. The first was that the concept of 'access to cable of broadcasting services', as used in the above provision, in the absence of any express reference to the laws of member states, must be given an autonomous and uniform interpretation throughout the European Union.¹¹⁷ The Court went on to say that the term 'access to cable' as used in Article 9 does not cover retransmission by cable, which was deliberately omitted from the scope of the provision.¹¹⁸

The second ground upon which the Court based its judgment is the exhaustive nature of the exceptions and limitations recognised under Article 5 of the Information Society Directive,

¹¹⁴ *ITV v TVCatchup* [2013] EWHC 3638 (Ch); 2013 WL 6047421. However, the published report seems to be incomplete and the complete version is available at <<http://presscentre.itvstatic.com/presscentre/sites/presscentre/files/TVCatchup.pdf>> accessed 10 October 2019.

¹¹⁵ *ITV Broadcasting Ltd v TVCatchup Ltd (in administration)* [2015] EWCA Civ 204; [2015] ECDR 16, paras 91–95.

¹¹⁶ *ibid* paras 87–90. For analysis of the questions referred to the CJEU, see Nishani Reed, 'Is Time Catching Up with TVCatchup and the Cable Retransmission Defence?' [2015] Ent L Rev 181.

¹¹⁷ Case C-275/15 *ITV v TV Catchup Ltd* [in administration] EU:C:2017:144, para 18.

¹¹⁸ *ibid* paras 18–23.

and that internet retransmissions do not fall within the scope of any of the exceptions or limitations enumerated under that provision.¹¹⁹ Thus, it held that interpreting Article 9 of the Directive as permitting national law to exempt Internet retransmissions within the service zone of the original broadcast from copyright liability would run counter to the exhaustive nature of the exceptions and limitations and would be detrimental to the objectives of that Directive.¹²⁰

Notwithstanding the results of the Brexit referendum, this ruling seems to have forced the hand of the UK government to reconsider its position on the service zone exception. Consequently, section 34(1) of the Digital Economy Act 2017 repealed section 73 of the CDPA and its service zone exception.¹²¹ This provision of the Digital Economy Act, which came into force on 31 July 2017, not only abolished the service zone exception in respect of internet retransmissions, but also in respect of traditional cable retransmission. Therefore, after six years of litigation,¹²² and almost two decades after this author had raised the issue of section 73 of the CDPA's incompatibility with the UK's international obligations,¹²³ the service zone exception has finally ceased to exist. Thus, under EU law, internet retransmissions require the copyright owners' consent and no national law may employ the service zone theory to exempt such an activity from the scope of the communication to the public right.

4.3 Internet Retransmission under US Law

In the US, as discussed above, the public performance right covers communication in public and communication to the public. While US copyright law has consistently been successful in responding to new technologies,¹²⁴ it has always struggled with the notion that a single rendition may lead to multiple public performances. Therefore, cable retransmission has had an uneasy life under US copyright law.

With the steady increase in the late 1960s and early 1970s in the number of cable retransmission systems,¹²⁵ or, as they were then known, community antennae television (CATV), a conflict between copyright owners and cable operators became inevitable. As a result, the Supreme Court had to decide two cases of cable retransmission within a period of six

¹¹⁹ It is worth noting that even when a national law introduces an exception or limitation that is already recognised under Article 5, that exception or limitation still needs to comply with the three step test.

¹²⁰ *TV Catchup Ltd* (n 117) paras 25–28.

¹²¹ Digital Economy Act 2017.

¹²² During that period, a number of short case comments were published by various authors. For a concise history of the litigation covering the period 2011–15, see Iona Silverman and Yindi Gesinde, '*ITV v TV Catchup*: the saga continues . . . ' (2016) 38(9) EIPR 580. For the first ruling by the CJEU, see Rachel Montagnon and Joel Smith, 'Live Streaming of TV Content to Recipients Licensed to Receive the Original Broadcast Infringes the Communication to the Public Rights of Copyright Owners' [2013] 24(4) Ent L Rev 149. For the second ruling by the CJEU, see Joel Smith, Victoria Horsey and Adam Goddard, 'Law Catches up with Free TV Streaming Sites' [2017] 39(6) EIPR 386.

¹²³ Makeen (n 30) 251.

¹²⁴ For a view that the ever expanding scope of the public performance right might be to the detriment of transmissions technology, see Nicole Webster, 'Copyright Takeover: Balancing Art and Technology after Aereo' (2017) 57 Santa Clara L Rev 161, 177.

¹²⁵ While in 1952 there were approximately 70 such systems serving a total of 14,000 households, by 1983 there were more than 4,700 cable systems: see William Grant, *Cable Television* (Reston Publishing 1983) xiv.

years: *Fortnightly Corp. v United Artists Television*,¹²⁶ and *Teleprompter Corp. v Columbia Broadcasting System*.¹²⁷ In these two cases, the cable operator, without the copyright owner's consent, retransmitted simultaneously to its subscribers broadcast signals carrying copyright works.¹²⁸

Oddly enough, in reaching its decision, which reflected reluctance to accept that a single rendition may lead to multiple public performances, the Supreme Court employed what is widely known as the 'viewer/performer' test. According to that test, both broadcasters and viewers play a role in the total television process. A distinction must be made, however, between the active role played by broadcasters and the passive role played by viewers.¹²⁹ According to the Court, cable systems came within the viewer's sphere. Thus, it concluded that simultaneous cable retransmission was essentially a viewer function and did not amount to a separate public performance from that of broadcasting.

As a result of these two cases, cable systems engaged more aggressively in the transmission of all types of television programmes and copyright owners lobbied for legislation to reverse the approach adopted by the Supreme Court. In response, Congress – which is an intensely political body, loath to impose onesided losses on any interest group, even if sound copyright policy dictates that result¹³⁰ – sought a compromise that accommodated the needs of both camps.¹³¹

Accordingly, the 1976 Act adopted the single rendition/multiple public performances approach and widened the scope of the term 'public performance' to cover not only the initial rendition or showing, but also any further act by which the rendition or showing is transmitted or retransmitted to the public.¹³² This approach reversed the basis upon which the Supreme Court rendered its decisions of *Fortnightly* and *Teleprompter* and made it clear that the simultaneous cable retransmission amounts to a separate and independent public performance from the initial broadcast. However, Congress acknowledged that a system where every cable system needed to negotiate for the rights to every work it retransmits was impractical and unduly burdensome.¹³³ Therefore, by virtue of section 111, a compulsory licensing mechanism was recognised to cover the simultaneous cable retransmission.¹³⁴ This compulsory licensing

¹²⁶ 392 US 390 (1968).

¹²⁷ 415 US 394 (1974).

¹²⁸ These two cases share similar facts, save that in *Fortnightly* the cable operator retransmitted local signals and in *Teleprompter* the retransmission was of distant signals.

¹²⁹ *Fortnightly Corp* (n 126) 399 and *Teleprompter Corp* (n 127) 408.

¹³⁰ Thomas P Olson, 'The Iron Law of Consensus: Congressional Responses to Proposed Copyright Reforms since the 1909 Act' (1988–89) 36 J Copyright Soc'y 109, 111, 116.

¹³¹ Gerald Meyer, 'The Feat of Houdini or How the New Act Disentangles the CATV–Copyright Knot' (1977) 22 N Y L Sch L Rev 545, 549.

¹³² The House Report stated: 'a singer is performing when he sings a song; a broadcasting network is performing when it transmits his performance (whether simultaneously or from records); a local broadcaster is performing when it transmits the network broadcast; a cable television system is performing when it retransmits the broadcast to its subscribers; and any individual is performing whenever he plays a phonorecord embodying the performance or communicates the performance by turning on a receiving set': H R Rep 94-1476, 2d Sess [1976] 62–63.

¹³³ *ibid* 89.

¹³⁴ This provision has been described as the most technical section of the 1976 Copyright Act, see Edward B Samuels, 'Copyright and the New Communications Technology' (1980) 25 N Y L Sch L Rev 905, 911.

mechanism, which reflects the core of the compromise adopted by Congress, not only guarantees to cable operators unhindered access to copyright works, but also allows them to bypass the transaction costs and impracticalities of negotiating individual licences. Equally, this compulsory licensing mechanism restores a measure of protection to copyright owners by ensuring that they are compensated whenever their works are subject to retransmission by cable.¹³⁵

In *WPIX, Inc v ivi, Inc*, the defendant attempted to extend the application of the compulsory licensing mechanism of section 111 to cover its internet retransmission.¹³⁶ In rejecting the defendant's argument, the court followed the *Chevron* two step process, which requires the court to ascertain whether Congress has clearly spoken on the issue and if it has not, the court can proceed to the second step and defer to an agency's interpretation of the statute, so long as it is reasonable.¹³⁷ The Court concluded that although the statutory language of section 111 was slightly ambiguous, the legislative history made it clear that it was not the intention of Congress to extend the compulsory licensing mechanism to internet retransmissions. Furthermore, the Court invoked the Copyright Office's interpretation, which has consistently maintained that internet retransmission services are not qualified for a section 111 licence.

Had this decision stood on its own, it would have put an end to the internet retransmission controversy within the geographical jurisdiction of the Second Circuit. However, a few years earlier, in *Cartoon Network v CSC Holdings* (known as the Cablevision decision),¹³⁸ the same Circuit held that transmissions from Remote Storage Digital Video Recordings (RS-DVR) to individual subscribers fall outside the scope of the author's exclusive right of public performance. According to the court, since every RS-DVR transmission is made to a single subscriber, those transmissions could not amount to 'public' performances.¹³⁹

Notwithstanding its attempt to restrict the scope of its holding to the technology subject to the dispute,¹⁴⁰ the Second Circuit's decision seems to have inadvertently encouraged businesses to design technologies to circumvent the copyright owner's exclusive right of public performance.¹⁴¹ As Giblin and Ginsburg correctly observed, the decision 'appears to instruct technology providers that if they design their systems to enable each user to make unique personal copies, that structure could, in appropriate cases, effectively immunize the services from any liability under both the reproduction and the public performance rights'.¹⁴²

Aereo, which was one of those business models designed with the Second Circuit holding in mind,¹⁴³ intended to satisfy consumers' needs for more choice and a cheaper subscription fee

¹³⁵ Although most types of simultaneous cable retransmission come within the scope of the compulsory licensing mechanism of Section 111, it is worth noting that that provision exempts certain retransmissions from any copyright liability and any retransmission falling outside the scope of the exemptions, or not meeting the conditions of the compulsory licensing mechanism, is subject to full liability.

¹³⁶ 691 F.3d 275 (2nd Cir 2012).

¹³⁷ *Chevron U.S.A., Inc v Natural Res. Def. Council, Inc.* 467 U.S. 837 (1984).

¹³⁸ *Cartoon Network v CSC Holdings, Inc.* 536 F.3d 121 (2nd Cir 2008).

¹³⁹ *ibid* 138.

¹⁴⁰ 'This holding, we must emphasize, does not generally permit content delivery networks to avoid all copyright liability by making copies of each item of content and associating one unique copy with each subscriber to the network, or by giving their subscribers the capacity to make their own individual copies': *ibid* 139.

¹⁴¹ *WNET, Thirteen v Aereo, Inc*, 712 F.3d 676, 694 (2nd Cir 2013).

¹⁴² Rebecca Giblin and Jane C Ginsburg, 'We (Still) Need to Talk about Aereo: New Controversies and Unresolved Questions after the Supreme Court's Decision' (2015) 38 Colum LJ & Arts 109, 115.

¹⁴³ Another business model was that of *FimOnX*, which for a while was a competitor to *Aereo*.

than that of a traditional cable service. Accordingly, Aereo developed a system through which it could retransmit broadcast programmes to its subscribers over the internet. This system allowed subscribers to watch the retransmitted programme on their computers and mobile devices. In order to watch a programme, the subscriber first has to log into their own account on Aereo's website. When a subscriber selects a programme, an automatic request is sent to the application server, which in turn directs the information about the selected programme and the user to the antenna server.

Unlike in *TV Catchup*, the antenna server then instructs and allocates a separate antenna to each individual user's request. The antenna receives the broadcast signals and sends the same back to the antenna server, which in turn sends them to another server where a user's directory is created and a copy of the incoming signals is made. Once enough has been recorded, normally six or seven seconds of programming, the system sends the programme from the user's directory to the subscriber's device. Thus, through its internet retransmission, Aereo offered its subscribers the opportunity to watch near live broadcast television.

Undoubtedly, this system was specifically designed to fall within the scope of the Second Circuit decision in *Cablevision*. To this end, Aereo deliberately used thousands of very small antennae, housed in a central warehouse, to satisfy the requests made by its subscribers. Furthermore, no two users were assigned the same antenna simultaneously and no recording made for a subscriber was ever available to another subscriber.

The copyright owners of the programmes thus retransmitted filed copyright infringement action against Aereo before the US District Court for the Southern District of New York. In *American Broadcasting Companies v Aereo*, the District Court followed the *Cablevision* approach and denied the plaintiff's motion for a preliminary injunction prohibiting Aereo from retransmitting their programmes.¹⁴⁴ The Second Circuit affirmed and made it clear that it was bound by the decision in *Cablevision* until such time as it is overruled either by *en banc* panel or by the Supreme Court.¹⁴⁵

Before the Supreme Court, where the original name of the case was revived as *American Broadcasting Companies et al v Aereo*, the question was whether Aereo's Internet retransmission fell within the scope of the copyright owners' exclusive right of public performance.¹⁴⁶ In a split decision, the Supreme Court gave an answer in the affirmative and reversed the decision of the Court of Appeal. In doing so, the Supreme Court followed the century old tradition of breaking the issue into two parts: 'to perform' and 'publicly'.¹⁴⁷

The Court acknowledged that 'considered alone, the language of the Act does not clearly indicate when an entity performs or transmits and when it merely supplies equipment that allows others to do so'.¹⁴⁸ In holding that Aereo 'performs', the Court highlighted the many

¹⁴⁴ 874 F. Supp. 2d 373 (SDNY 2012). In a case with very similar facts, the US District Court for the Central District of California reached the opposite conclusion: see *Fox Television Stations v BarryDriller Content Systems* 915 F Supp.2d 1138 (2013).

¹⁴⁵ *WNET v Aereo* 712 F.3d 676, 695 (2d Cir 2013). It is worth noting that the change in the name of the case was because initially there were two groups of plaintiffs and they joined together before the court of appeal.

¹⁴⁶ *American Broadcasting Companies et al v Aereo* 134 S Ct 2498 (2014).

¹⁴⁷ Although Aereo's system allowed subscribers to record the programme on its server to watch at a later time, which automatically implicates the reproduction right, that aspect of Aereo's service was not raised before the Supreme Court.

¹⁴⁸ *American Broadcasting Companies* (n 146) 2504.

similarities it shares with cable systems.¹⁴⁹ Thereupon it adopted a purposive approach of interpretation and pointed out that one of Congress' primary aims in amending the Copyright Act in 1976 was to overturn its cable systems (CATV) decisions.¹⁵⁰ Accordingly, the definition provision of section 101 clarified that 'to perform' an audiovisual work means 'to show its images in any sequence or to make the sounds accompanying it audible'. Under this language, according to the Court, 'both the broadcaster and the viewer of a television programme 'perform', because they both show the programme's images and make audible the programme's sounds'.¹⁵¹ This language abolished the odd distinction between performer and viewer, that is, the 'performer/viewer' test, upon which the two CATV decisions were based.

Furthermore, the Court stated that in enacting the communication to the public clause – or, as it is known in the US, 'the Transmit Clause' – as part of the public performance definition, Congress intended to bring the activities of CATV systems within the scope of the public performance right. Moreover, the Court remarked that section 111 of the 1976 Act had created a highly detailed compulsory licensing scheme to regulate cable retransmission. Put differently, had Congress intended to exempt cable retransmission from the scope of the public performance right, the whole of section 111 would have been redundant. It then concluded that Aereo's activities are substantially similar to those of the CATV companies that Congress had amended the Act to reach, and that therefore 'Aereo performs'.¹⁵²

The next issue was whether Aereo performs 'publicly'. The Court took the statutory definition of public performance as its starting point. As discussed above, the communication to the public limb of the definition, which is known as the Transmit Clause, states:

(2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.

Aereo contended that since each internet retransmission is made to only one subscriber at a time, it does not transmit 'to the public'. The petitioners, on the other hand, argued that the Second Circuit's reading of the Transmit Clause was fundamentally flawed and that it may render Aereo's simultaneous retransmissions to thousands of paying subscribers private. This is especially so, since in exempting Aereo from the scope of the public performance right, the Second Circuit based its decision on the fact that every user receives a unique copy, through a unique transmission that is never accessible to more than one person at a time, and therefore concluded that such a transmission is not 'public'. The petitioners argued that the Transmit Clause requires the court to focus on whether the public is capable of receiving the

¹⁴⁹ The dissenting opinion emphasised one particular difference between Aereo and cable systems, namely that while cable systems continuously send programmes, Aereo's system remains inert until activated by a request from a subscriber. Accordingly, the dissent concluded that for the lack of volition, Aereo did not perform: *ibid* 2512–16. This sole technological difference was dismissed by the majority as not a 'critical difference': *ibid* 2508.

¹⁵⁰ These two decisions, as discussed above, made it clear that cable systems fell outside the scope of the public performance right.

¹⁵¹ *American Broadcasting Companies* (n 146) 2504.

¹⁵² *ibid* 2507.

‘performance’ and not whether it is capable of receiving the ‘transmission’ and therefore it is irrelevant that every user receives a separate retransmission from Aereo.

In rejecting Aereo’s argument, the Supreme Court pointed out that since Aereo performs the same work, by showing the same images and making the same sounds audible, it is of little relevance whether it transmits from the same or separate copies. Furthermore, the Court correctly pointed out that ‘an entity may transmit a performance through one or several transmissions, where the performance is of the same work’.¹⁵³ Put differently, in defining the term ‘public’, the Court focused on the relationship between the work and the potential recipient.¹⁵⁴ Accordingly, if the copyright owner or lawful possessor of the work subject to transmission is the sole potential recipient or recipients, then there will be no public; any other types of potential recipients may constitute ‘public’. This reflects a shift in the criterion governing the application of the term public in the context of internet streaming, which hitherto had been based on the relationship between the sender and the recipient of the performance to determine whether it had been made to the public.¹⁵⁵

The dissenting opinion criticised the majority’s decision for adopting the shaky approach of ‘it looks like a cable system, therefore it performs’, or, as they put it, the ‘guilt by resemblance’ approach.¹⁵⁶ Similarly, by not engaging with the issue of volitional conduct, the majority’s view was intensely criticised as inconsistent with the legal standard that a defendant may be held directly liable only if it has engaged in volitional conduct that violates the Act.¹⁵⁷ In their view, the distinction between direct and secondary liability would collapse in the absence of the volitional conduct requirement.¹⁵⁸

In addition to the dissenting opinion, the decision was criticised as ‘result oriented (defendant is a bad guy and therefore loses) as to be devoid of any governing principles’.¹⁵⁹ Furthermore, notwithstanding the majority’s attempt to restrict the scope of its ruling to the technology at hand,¹⁶⁰ which allowed later courts to make a distinction between different technologies,¹⁶¹ its approach was not unreasonably criticised for construing the Transmit Clause ‘in a technology-blind manner’.¹⁶² Some commentators went as far as arguing that the Supreme Court decision endangers technological innovation.¹⁶³

When the case was remanded to the District Court in New York, Aereo adopted a new strategy. Aereo argued that in light of the Supreme Court decision, which concluded that its system looked and functioned like a cable company, it should be considered a ‘cable system’ and therefore entitled to a compulsory licence under section 111 of the Copyright Act.¹⁶⁴ The cop-

¹⁵³ *ibid* 2509.

¹⁵⁴ *ibid* 2510.

¹⁵⁵ Giblin and Ginsburg (n 142) 123.

¹⁵⁶ *American Broadcasting Companies* (n 146) 2515.

¹⁵⁷ *ibid* 2512.

¹⁵⁸ *ibid* 2514.

¹⁵⁹ William F Patry, *Patry on Copyright* (Thomson West 2017) § 14:28.

¹⁶⁰ *American Broadcasting Companies* (n 146) 2511.

¹⁶¹ *Fox Broadcasting Company v Dish Network* 160 F Supp 3d 1139, 1159–62 (CD California 2015).

¹⁶² Yvette Joy Liebesman, ‘When Does Copyright Law Require Technology Blindness? Aiken Meets Aereo’ (2015) 30 BTLJ 1383, 1386–87, 1423–24.

¹⁶³ Webster (n 124) 189.

¹⁶⁴ *American Broadcasting Companies et al v Aereo* 23 Oct. 2014 (SD New York) 2014 WL 5393867 [not reported in F Supp 3d 2014].

right owners, on the other hand, invoked *WPIX, Inc v ivi*, which, as discussed above, denied the extension of the compulsory licensing mechanism to cover Internet retransmissions.

In rejecting Aereo's argument, the court gave four reasons. First, while the Supreme Court considered Aereo's activities to be similar to that of a cable company, it intentionally refrained from classifying it as a cable system. Therefore, an entity that performs copyright works in a way similar to cable systems must not necessarily be deemed a cable system for all other purposes of the Copyright Act.¹⁶⁵ Second, the court made it clear that nothing in the Supreme Court opinion can be read as abrogating *WPIX, Inc v ivi*, discussed above, and that therefore the Second Circuit holding remains a binding precedent that must be followed.¹⁶⁶

Third, the court considered Aereo's attempt to distinguish its system from that of *ivi* to be flawed. Aereo emphasised that its system, unlike that of *ivi*, does not give its subscribers access to broadcasts outside of their home DMA (Designated Market Area) and therefore falls within the objective of section 111's compulsory licensing scheme which, as acknowledged in *ivi*'s decision, 'was intended to support local market – rather than national market – systems'.¹⁶⁷ The court indicated the fallacy of that argument by stating that the geographic reach of internet retransmission was but one of many factors the Second Circuit considered in reaching its decision.

Fourth, the court pointed out that in following the first part of the *Chevron* analysis, discussed above, the Second Circuit emphasised that

the legislative history indicates that if Congress had intended to extend section 111's compulsory license to Internet retransmissions, it would have done so expressly – either through the language of section 111 as it did for microwave retransmissions or by codifying a separate statutory provision as it did for satellite carriers.¹⁶⁸

Moreover, the court stressed that according to the second part of the *Chevron* analysis, reference should be made to the Copyright Office's interpretation of section 111, which consistently concluded in 1997, 2000 and 2008 that internet retransmissions are not cable systems and therefore do not qualify for the benefits of the compulsory licensing scheme. Thus, the court ruled for a preliminary injunction against Aereo's simultaneous, or near live, internet retransmissions.

Shortly after the preliminary injunction was granted, Aereo filed for bankruptcy.¹⁶⁹ As a result, the granting of the injunction was heavily criticised. While some levelled their criticism at the injunction for letting innovation 'be crushed in copyright's hungry mouth',¹⁷⁰ others criticised it for adopting a technology specific approach which bars new business models from reaping the benefits given to cable companies and, as a result, for failing to maintain fair competition within the retransmission industry.¹⁷¹ Notwithstanding the intense criticism, the Ninth

¹⁶⁵ *ibid* 3.

¹⁶⁶ *ibid* 5.

¹⁶⁷ *ibid* referring to slightly different wording in *WPIX* (n 136) 282–83.

¹⁶⁸ *ibid*.

¹⁶⁹ Aereo applied for bankruptcy on 20 November 2014. See Geoffrey Palachuk, 'How Evolving Technology Demands Rapid Re-Evaluation of Legislative Protections in Light of Streaming Television Broadcasts' (2014–15) 50 *Gonz L Rev* 117, 142 fn 120.

¹⁷⁰ Webster (n 124) 196.

¹⁷¹ Patel (n 65) 151–56, 158.

Circuit has recently reached the same conclusion in *Fox Television Stations, Inc v AereoKiller et FilmOn* [hereinafter *FilmOn*].¹⁷² However, the reasoning employed in *FilmOn* seems to differ slightly from that of *Aereo* in three respects.

First, while assessing the weight to be given to the Copyright Office's interpretation of Section 111, and in order to avoid constitutional law questions, the Ninth Circuit followed the less deferential *Skidmore* framework,¹⁷³ rather than that of *Chevron*.¹⁷⁴ Second, the Court of Appeal in *FilmOn* invoked the general principles of interpretation and remarked that since the compulsory licensing mechanism represents an exception, its scope should be narrowly construed.¹⁷⁵ Third, the Court of Appeal acknowledged that extending the compulsory licensing mechanism to cover internet retransmissions would risk putting the US in violation of its international obligations.¹⁷⁶ Thus, it referred to the well-established principle that an Act of Congress must not be construed to violate the law of nations, when other possible constructions are available.¹⁷⁷

In sum, as far as international copyright law is concerned, the *Aereo* Supreme Court decision is in conformity with the US international obligations. However, as far as domestic law is concerned, it seems that the issue of internet retransmission raises the same question that was raised in the late 1960s and early 1970s in the context of CATV. However, while the 1909 Act offered courts only two options in respect of CATV, that is, to exempt or to bring their activities within the scope of the public performance right, the 1976 Act offers courts a third option in the context of internet retransmission, namely to analogise internet retransmission services to cable companies and therefore extend the application of the compulsory licensing mechanism of Section 111 to cover their activities. Given the position adopted by courts in New York and California, it is unlikely that this third option will be available to Internet retransmission services without a legislative intervention.

5. CONCLUSION

At the international level, this chapter has demonstrated that none of the three different types of video streaming discussed here operates in a legal vacuum. While the broadcasting, cabling and simultaneous cable retransmission provisions of the Berne Convention offer adequate protection against unauthorised webcasting and Internet retransmissions, one of the main

¹⁷² 851 F.3d 1002 (9th Cir. 2017). *AereoKiller*, which had been known as *FilmOn X*, is a clone of *Aereo* and operates using similar technology on the West Coast.

¹⁷³ *Skidmore v Swift & Co.* 323 US 134 (1944).

¹⁷⁴ '[T]he *Chevron* deference standard contemplates the two steps of evaluating whether a statute is ambiguous, and if so, deferring to any reasonable or permissible agency interpretation. The *Skidmore* deference standard, by contrast, calls upon reviewing courts to evaluate an interpretation's persuasiveness by weighing various factors including the agency's thoroughness and consistency', Kristin E Hickman and Matthew D Krueger, 'In Search of the Modern *Skidmore* Standard' (2007) 107(6) *Columbia Law Review* 1236, 1246–47.

¹⁷⁵ *FilmOn* (n 172) 1011.

¹⁷⁶ *ibid.* It is a shame that the court did not explicitly state which provision of which international instrument it had in mind while discussing the compatibility of US law with its international obligations. If the court meant Article 11*bis* [2] of the Berne Convention, then in order to avoid repetition here, whatever is said above in the context of webcasting is applicable *mutatis mutandis* to internet retransmissions.

¹⁷⁷ *Murray v Schooner Charming Betsy* 6 US 64 (1804).

achievements of the WIPO Copyright Treaty was recognising the making available right and thus extending copyright protection to on demand services, including on demand streaming.

Although the Berne Convention permits national laws to impose a compulsory licensing mechanism in respect of broadcasting and retransmission by cable, any national law that extends the application of that mechanism to cover webcasting or internet retransmissions may run the risk of being in breach of its international obligations. This is especially so, since the internet recognises no national boundaries and the Berne Convention requires any such mechanism to be bounded by the territory of the country in which it is prescribed. Although the use of geoblocking technology may arguably resolve this issue, it remains to be seen whether extending the compulsory licensing mechanism to webcasting and/or internet retransmissions would be in compliance with the three step test as laid down in Article 13 of TRIPS.

Under EU law, with the exception of communication in public, the general communication to the public right, together with its making available aspect, covers all means of dissemination of works in nonmaterial form. While webcasting and Internet retransmissions come within the scope of the general communication to the public right, on demand streaming comes within its making available aspect. No national law may exempt any of the three types of video streaming from the scope of the author's exclusive right of communication to the public. Similarly, any national law that imposes a compulsory licensing mechanism to restrict the scope of that right will be in direct conflict with EU law.

Interestingly, while the EU communication to the public right was intended to be technology neutral, no uniform criterion seems to have been developed to govern its application to video streaming. Whereas webcasting is governed by the EU-cherished criterion of 'new public', Internet retransmission is governed by that of 'different technical use'. As for the making available aspect of that right, it comes into play only when the potential audience are geographically and chronologically dispersed.

Under US law, the scope of the public performance right is broad enough to accommodate webcasting, internet retransmissions and on demand streaming. However, as this chapter demonstrated, on demand streaming may also trigger the public display right. Among the three types of video streaming, internet retransmission proves to be the most controversial. This is mainly because technological innovation in this field seems to outpace copyright law. Although the Supreme Court decision in *Aereo* managed to settle the issue in respect of one particular technology, it seems to have inadvertently encouraged some commentators and entrepreneurs to seek the extension of the simultaneous cable retransmission compulsory licensing mechanism to cover internet retransmissions. Whether the US legislature will be able to resist its natural tendency to extend the compulsory licensing mechanism to cover new technologies, in order to accommodate different conflicting interests, is an intriguing issue for the future.

PART II

PATENTS AND TRADE SECRETS

13. Software-related inventions

Matthew Fisher

1. INTRODUCTION

On 29 November 1972, Atari Inc., a newly incorporated Californian firm, announced the release of its first video arcade game: PONG.¹ The game required the player to control a simulated table tennis paddle, moving it vertically across the screen to intercept and return a ball to an opponent (either one that is computer-controlled or another person). Although simplistic by today's standards, it was a roaring success, arguably laying the foundations for a multibillion dollar gaming industry and catapulting Atari to massive (albeit shortlived) riches.²

As a technical creation, the PONG arcade cabinet was fascinating. The soul of the machine was held in the connection and arrangement of 66 chips of varying types.³ The components of its experience – graphics, sounds and gameplay – were all a product of hardware: an example of transistor-transistor logic reliant upon the components' relative configuration and the power supplied to them. There was no software. No writing of code. No instructions issued to the components other than by the machine's physical controls. That an identical result can now be replicated in software – that a suitably programmed, off the shelf computer can emulate this feat of wiring and solder – is testament to the boundaries that computer programs can cross. It also highlights the core of the problem with the law's understanding and treatment of this subject matter within the confines of intellectual property: software possesses a unique duality. It is, as Nack explains, 'both the text description of a machine and the "machine" itself . . . no special physical device is needed to implement the algorithm – a standard computer will suffice'.⁴

¹ Computer History Museum, 'What Happened on November 29th' <www.computerhistory.org/t dih/November/29/> accessed 12 October 2019. Also in Steven Kent, *The Ultimate History of Video Games* (Three Rivers Press 2010), Chapter 4 'And Then There Was Pong'. PONG was designed and created by Allan Alcorn.

² The original Atari, Atari Inc, was founded in April 1972. Its assets were split and sold off in July 1984: David E Sanger, 'Warner Sells Atari to Tramiel' (*New York Times*, 3 July 1984) <www.nytimes.com/1984/07/03/business/warner-sells-atari-to-tramiel.html> accessed 12 October 2019. The company had initially been sold to Warner Communications in 1978 and, according to the *New York Times*, in 1981 Warner's consumer electronics division, of which Atari was the star, accounted for 47 per cent of the company's total sales (US\$511.8 million of US\$1.09 billion). See 'Atari Swells Warner Profit' (*New York Times*, 10 February 1982) <www.nytimes.com/1982/02/10/business/atari-swells-warner-profit.html> accessed 12 October 2019. By 1983 this had been transformed into a US\$538.6 million loss. See Associated Press, 'Warner-Tramiel Talks on Atari Sale Reported' (*New York Times*, 2 July 1984) <www.nytimes.com/1984/07/02/business/warner-tramiel-talks-on-atari-sale-reported.html> accessed 12 October 2019.

³ A full pdf of the schematics is available at Atari Gaming, 'PongSchematic' (*Atari Gaming*) <<http://atarihq.com/danb/files/PongSchematic.pdf>> accessed 12 October 2019.

⁴ Ralph Nack, 'Catalogue of Exclusions: XI. Programs for Data Processing Equipment' in Maximilian Haedicke and Henrik Timmann (eds) *Patent Law: A Handbook on European and German Patent Law* (Hart 2014) 115.



Source: Bumm13, 'File:Pong.png' (en.wikipedia.org, 2006) <<https://commons.wikimedia.org/w/index.php?curid=799667>> accessed 12 October 2019. Declared to be in the public domain. The score (0:1) is indicated by the numerals at the top of the screen. The paddles are the smaller vertical lines to the left and right of the dotted 'net'. The square dot to the right of the net is the ball.

Figure 13.1 PONG

On the one hand, then, a computer program is the embodiment of an underlying algorithm – a sequence of technologically complex commands that dictate the operation of the machine. The selfsame piece of hardware can, to all intents and purposes, be considered a different contrivance when running different programs. Software forms subject matter that, just like physical wiring (or even cogs, gears and sprockets), creates physical effects and causes pre-determined changes in operation. Within this context, solutions to particular problems can be achieved either by (a) creating separate, hardwired circuitry or machines for each and every algorithm required for the solution (as with the PONG cabinet),⁵ or (b) embodying those algorithms into a computer program to be run on standard machinery. The user's experience in each case would, in theory, be indistinguishable. We obviously have no problem considering the PONG circuitry as suitable subject matter for a patent – a series of components assembled in a manner that allows them to operate in a special way is an archetype of a patentable product, provided the machine is new, nonobvious, and so on. If an instruction set enables the same, transforming the ordinary into the extraordinary in a manner that emulates physical wiring, then we might feel similar results should be forthcoming.

⁵ This point is made by both Peter Kirby, 'Industrial Property Protection for Software' (1974) 5 IIC 169, 169, and Nack (n 4).

Nevertheless, the textual element of software invites us to see it in a different light: as an informational product of authorship – creative and practical choices of a programmer expressed via keyboard and mouse, fashioned and formed of words, numerals, symbols and formulae, conveyed and recorded in notation and code. That these instruction sets are then compiled, transcribed and adapted – complex commands reduced to sequences of zeros and ones, the flicking of switches within an intricate system of parallel and serial instruction sets – does not change the expressive nature of the creative endeavour at their source. Seen in this light, software is the archetype of textual expression: something at the very core of copyright's paradigm. Naysayers may object that computer programs are intended to be read and executed by machine alone, but we could say the same of sound recordings and video footage encoded on suitable media.⁶ For the latter enterprises the envelope of storage is accorded copyright protection in and of itself,⁷ but the underlying content – the set of instructions, whether they be dialogue, lyrics, music, stage directions – can also enjoy separate protection.⁸

However, copyright is rather a poor tool with which to regulate the technical field of software development – or indeed to promote intellectual property's underlying goals of incentivizing the creation and dissemination of this particular subject matter. Despite lasting for an inordinate time in relation to the viable lifecycle of a computer program,⁹ its manifold limitations provide somewhat feeble, arguably inadequate, protection for elements lying behind the coded text. Copyright obviously protects only the expression of the author's creativity,¹⁰ and as such if an underlying algorithm can be denoted using different text, or articulated in a functionally equivalent manner using different language, then this will evade the grip of the law. Accordingly, only the most egregious of infractions, facsimile reproduction of source code, will infringe the author's rights. Ideas, after all, sit outside of copyright's controlling influence.¹¹ Thus, similarities in the look and feel of a computer game,¹² or replication of the functionality of an analytical system,¹³ will not infringe where there is no textual copying.

Patents do not suffer the same limitations. They protect features of technology: products and processes which are new, useful and inventive.¹⁴ Infringement is determined not by copying, but instead by whether a given embodiment falls within the scope of the earlier right.¹⁵ The patent's duration also maps more accurately onto the effective life of software components.¹⁶

⁶ Aspden makes a similar point: H Aspden, 'Patentability of Computer Programs' in John A Kemp (eds) *Patent Claim Drafting and Interpretation* (Oyez Longman 1983) 174.

⁷ In the UK by, respectively, s 5A and s 5B of the Copyright, Designs and Patents Act 1988.

⁸ Provided, of course, that it complies with the requirements for subsistence contained within the Act.

⁹ The standard term under Art 7 of the Berne Convention 1886 (as amended) is life plus 50 years. In the context of computer-implemented inventions, even 50 years represents many product lifecycles.

¹⁰ This principle is also embodied in Art 9(2) of the TRIPS Agreement: 'Copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical methods as such.'

¹¹ *ibid.*

¹² For example *Nova v Mazooma* [2006] RPC 14 (HC); [2007] RPC 25 (CA).

¹³ Case C-406/10 *SAS Institute Inc v World Programming Ltd* ECLI:EU:C:2012:259.

¹⁴ See for example Patents Act 1977, s 1. The Patents Act refers to capability of industrial application rather than an invention being useful. For current purposes the two are considered synonymous.

¹⁵ See for example, Patents Act 1977, s 60 in connection with Patents Act 1977, s 125(1).

¹⁶ A maximum of 20 years' protection from application, Patents Act 1977, s 25. The shortest maximum term permitted by the TRIPS Agreement, art 33, is 20 years.

Furthermore, the sort of intellectual flourishes in question – the contributions made to an art simply by doing something in a new way, combining known elements in an interesting and innovative fashion – are those which the patent system is specifically designed to promote. After all, these are the gears that drive industrial progress. Nevertheless, there are a number of practical problems that stand in the way of this conclusion. The remainder of this chapter is therefore dedicated to exploring these issues. We begin with the position in Europe.

2. PATENT PROTECTION FOR COMPUTER PROGRAMS UNDER THE EUROPEAN PATENT CONVENTION

On 8 December 1972, nine days after Atari Inc. announced PONG, the Government of the Federal Republic of Germany published the text of a Draft Convention establishing a European System for the Grant of Patents.¹⁷ The wording of this Draft was derived from the output of a series of intergovernmental meetings, committees, subcommittees and working parties that had occurred over the preceding three and a half years under the umbrella of the Council of Europe. The text was prepared so it could be considered by a Diplomatic Conference to be held in Munich from September to October 1973. The output of this Conference became the European Patent Convention (EPC).

As those familiar with the provisions of EPC will doubtless be aware, its drafters decided not to define the core subject matter of a patentable invention in positive terms. Instead they preferred partial definition by the inclusion of a non-exclusive list of things that are ‘not . . . regarded as inventions’ for the purposes of the legislation. Accordingly, under Art 52(2)(c) EPC this prohibition was (and remains) extended to ‘schemes, rules and methods for performing mental acts, playing games or doing business, and *programs for computers*’ (emphasis added). Thus, within the 38 States that currently subscribe to the European Patent Organisation (EPO) and who have harmonized their patent laws to accord to the provisions of the EPC,¹⁸ one might be forgiven for thinking that protection of software-related inventions is impossible. If only things were this simple. . .

2.1 Muddying the Waters

The most obvious difficulty with Art 52(2) EPC derives from the fact that it defines an invention by what it is not. The claims of a patent, under Art 69 EPC, determine the relevant scope of its protection and, according to Art 84, also define the matter for which protection is sought. The claims are drafted at the behest of the patentee – part of ‘a unilateral statement . . . in words of his own choosing . . . [by which he states] what he claims to be the essential features of the new product or process for which the letters patent grant him a monopoly’.¹⁹ In order, there-

¹⁷ Draft Convention establishing a European System for the Grant of Patents (Munich, 8 December 1972) (Doc) No M/1.

¹⁸ See ‘Member states of the European Patent Organisation’ (European Patent Office) <www.epo.org/about-us/foundation/member-states.html> accessed 12 October 2019 for a list of the member states and their respective dates of accession.

¹⁹ *Catnic Components v Hill & Smith* [1982] RPC 183, [242] (Lord Diplock). This statement has been cited with approval on many occasions, including by the Supreme Court in *Schutz v Werit* [2013] RPC 16, [28].

fore, to consider the effect of the exclusions under Art 52(2) in any given case, we must read the list of noninventions onto the patentee's own statement of what it is they have invented. It is therefore hardly surprising that applicants might go to great lengths to try and obfuscate the presence of a software-related element within their claims.²⁰

However, the risk of concealment is actually the least of our worries. Far more troubling is the fact that the beguiling simplicity of Art 52(2) EPC is frustrated by the addition of a substantial caveat within the subsequent subarticle. Art 52(3) therefore adds that patentability of these prohibited subject matters is only excluded to the extent that the patent or application relates to them 'as such'. The inclusion of these weasel words presents a headache. No longer are we simply concerned with the assessment of what a computer program is and, by extension, whether the thing under consideration falls within that definition. Instead, even if we detect that there is a computer program at play, we are forced to ask whether the patent (or application) relates to that computer program as a computer program, or whether it relates to the program as something else. This is not a straightforward enquiry. Not only are we left unclear as to what the 'something else' may legitimately be, but we are also not told precisely how any of this 'excluded subject matter' relates to the other requirements for patentability.

For a prospective applicant this lack of definitional clarity is further enhanced by the remainder of Art 52(2) EPC, for it is clear that the categories there mentioned are capable of overlap. Thus, even if the patent or application relates to a computer program as a carrier for something else, it may still fall into crisis if the thing it relates to is nevertheless also on the list of subject matters that are 'not . . . regarded as inventions'. Prime candidates for substitution in this manner would be methods of doing business, presenting information or performing mental acts.²¹ Scientific theories and mathematical methods may also be implicated in software, and also feature as 'noninventions' for the purposes of the legislation.²² However, while some of the exclusions under Art 52(2) appear to be closely related, others – 'aesthetic creations',²³ for example – seem to have been incorporated in the list of prohibited subject matter for entirely unconnected reasons.²⁴

Baillie once described the Protocol on the Interpretation of Article 69 EPC, which concerns the manner of approaching the determination of the scope of a patent's claims, as 'a masterpiece of ambiguity'.²⁵ The same could easily be said of Arts 52(2) and (3) of the Convention. Lack of definitional clarity, and the consequent difficulty of divining the precise ambit of the exclusion of 'programs for computers . . . as such', is one of the reasons why the English courts have declared this subject to be 'inherently difficult'.²⁶ It is therefore also the first port of call on our tour of the exclusion and the problems that it brings.

²⁰ See for example *Halliburton Energy Service Inc. 's Patent Application* [2012] RPC 12, [23].

²¹ All under European Patent Convention, art 52(2)(c).

²² Under European Patent Convention, art 52(2)(a).

²³ Under European Patent Convention, art 52(2)(b).

²⁴ Predominantly because these are the very things that should be protected by copyright.

²⁵ Iain C Baillie, 'Where Goes Europe? The European Patent' (1976) 58 JPOS 153, 167.

²⁶ *Symbian 's Application* [2009] RPC (CA) 1, [1] (Lord Neuberger).

2.2 A Lack of Definitional Clarity, Part I: An Openended Exclusionary Provision

Part of the difficulty with the interpretation of Art 52(2) stems from the fact that it is not, and was never intended to be, exhaustive. The language of the provision is openended: '[t]he following *in particular* shall not be regarded as inventions. . . .' (emphasis supplied). During the drafting phase of the EPC, proposals to make the list closed were explicitly rejected by the Inter-Governmental Conference.²⁷ However, while expansion of the scope of prohibited matter was evidently envisaged by the Convention's drafters, there is nothing in the text or indeed the *travaux* that instructs anyone on precisely how to do this. Sterckx and Cockbain envisage two methods: (1) expanding along the lines of equivalency; (2) expansion on the basis of shared commonality.²⁸ Nevertheless, they profess no clear view as to how these possibilities might be realised.

According to the story promulgated by the European Patent Office in a series of decisions of the Technical Boards of Appeal (TBA), Art 52(2) EPC sets forth exclusions based on a central conception that these things are not inventions because they possess no technical character.²⁹ This idea of an underlying latticework tying the exclusions together can be traced back at least as far as the TBA's decision in *IBM/Document Abstracting and Retrieving*. Here the Board noted: 'Whatever their differences, these exclusions have in common that they refer to activities which do not aim at any direct technical result but are rather of an abstract and intellectual character.'³⁰ By the time of the decision in *DUNS LICENSING ASSOCIATES/Estimating Sales Activity*,³¹ nearly a decade later, the mantra had taken on evangelical zeal. Thus, possession of 'technical character' was stated to be 'an implicit requisite of "invention" within the meaning of Art 52(1) EPC',³² and was furthermore 'the general criterion embodied in paras 2 and 3 of Art.52 EPC'.³³ In addition, the 'mere fact' that the list of exclusions within Art 52(2) was nonexhaustive was considered 'indicative of the existence of an exclusion criterion common to all those items and allowing for additions to the list that were thought possible'.³⁴ While it is perhaps comforting to think that this might be the case, there is little, if any, evidence in the drafting history of the provision to support this view.³⁵

The *travaux préparatoires* of the European Patent Convention reveal that Art 52(2) has an unusually complicated backstory. By the time the EPC deliberations began in earnest with the

²⁷ Minutes of the 5th Meeting of the Inter-Governmental Conference for the Setting up of a European System for the Grant of Patents (Parts 1 and 3) (Brussels, 15 March 1972) (Doc) No BR/168/72, [26].

²⁸ Sigrid Sterckx and Julian Cockbain, *Exclusions from Patentability* (CUP 2012), 68.

²⁹ See for example Case T_154/04 *DUNS LICENSING ASSOCIATES/Estimating Sales Activity* ECLI:EP:BA:2006.

³⁰ Case T_22/85 *IBM/Document Abstracting and Retrieving* ECLI:EP:BA:1988, 103.

³¹ *DUNS LICENSING ASSOCIATES* (n 29).

³² *ibid* [24].

³³ *ibid* [28].

³⁴ *ibid* [29].

³⁵ This point is made clearly by Pila when she remarks that 'the prevailing construction . . . [of the provision within decision of the EPO Boards of Appeal as] . . . resolving to a single requirement for technical character' is simply not supported by the Convention's legislative history. See Justine Pila, 'Article 52(2) of the Convention on the Grant of European Patents: What Did the Framers Intend? A Study of the Travaux Préparatoires' (2005) 36 IIC 755, 755. See also Justine Pila, 'Dispute over the Meaning of "Invention" in Art.52(2) EPC – The Patentability of Computer-Implemented Inventions in Europe' (2005) 36 IIC 173.

first meeting of the Inter-Governmental Conference for the setting up of a European system for the grant of patents in Brussels in May 1969,³⁶ the idea of European harmonization in this area was almost two decades old.³⁷ The idea of unpatentable subject matter had been extensively discussed and a draft framework concluded in 1965.³⁸ However, the exclusions found in the working draft Convention derived not from these earlier European discussions, but instead from rule 39 of the draft Regulations applicable under the Patent Cooperation Treaty (PCT).³⁹

The perceived need to harmonize with the PCT was a somewhat strange compulsion given the very different aims of the two Conventions. Whereas the EPC was intended to become a system for the centralized application, examination and grant of European patents, the PCT was simply designed to assist in the international protection of inventions by providing a unified procedure for filing applications. However, perhaps of more consequence than the incongruence of the decision to follow the PCT in this respect is the fact that the 1969 version of the Draft EPC text makes no mention of computer programs. In fact, in its very first meeting, Working Party I (responsible for the patentability elements under the Draft Convention) is recorded as wishing to 'point . . . out that the text of paragraph 2 [of what was eventually to become Art 52 EPC] does not prejudice the question of whether computer programmes may be the subject of a European patent.'⁴⁰ Indeed, it was not until January 1971 that Working Party I (by then in its Seventh Meeting) finally agreed to adapt the language of the draft Article to include computer programs within the list of exclusions,⁴¹ and thereby to align the EPC with what had, in the interim, become the final version of the PCT Regulations.⁴² Notwithstanding this agreement, the minutes of this meeting record that substantive discussion of the changes would still need to be entertained.⁴³

Turning to the PCT itself, the addition of the computer program exclusion was made on very precise grounds. It essentially followed the conclusions reached by the 1967 US Report of the President's Commission on the Patent System.⁴⁴ This had highlighted the impossibility of establishing 'appropriate search reports on software patent applications, as no classification system was available and as prior art was already too voluminous and moreover developing too quickly'⁴⁵ was highlighted. Accordingly, as the representative of WIPO (which had taken over administration of the PCT in 1970) pointed out at the Ninth Meeting of Working Party

³⁶ The minutes of this meeting can be found in the travaux préparatoires of the EPC 1973 as (Doc) No BR/4/69.

³⁷ See further, Justine Pila, *The Requirement for an Invention in Patent Law* (OUP 2010) 126–45.

³⁸ As is clear from (Doc) No BR/6/69, [17], in which the 1965 version of the Draft Convention relating to European Patent Law (CEPL) established by the EEC Patents Working Party is compared to the initial draft of the EPC.

³⁹ A fact made clear in the Minutes of the [First] Meeting of Working Party I (held in Luxembourg 8–11 July 1969) (Brussels, 29 July 1969) (Doc) No BR/7/69, [22].

⁴⁰ *ibid* [22].

⁴¹ Minutes of the 7th Meeting of Working Party I (held in Luxembourg 26–29 January 1971) (Brussels, 6 April 1971) (Doc) No BR/94/71, [22].

⁴² The PCT and its accompanying Regulations were agreed at a Diplomatic Conference in Washington DC in June 1970.

⁴³ BR/94/71 (n 41) [22] and [23].

⁴⁴ Committee on the Judiciary of the United States Senate, Report of the President's Commission on the Patent System: 'To promote the progress of . . . useful arts', in *Age of Exploding Technology* (US Government Printing Office 1967).

⁴⁵ M van Empel, *The Granting of European Patents* (Sijthoff 1975) 33.

I: ‘the PCT gave little guidance on [the question of whether computer programs should be excluded from patentability] . . . as the criterion whether a computer programme fell under the PCT system depended only on the capacity of the international searching authority to conduct a search’.⁴⁶ Van Empel therefore notes: ‘It is clearly on this ground – and no other! – that PCT Rule 39.1 provides that no International Searching Authority shall be required to search “computer programs”’.⁴⁷ The same can obviously not be said of the other exclusions. It is therefore very unlikely (at the very least) that all were incorporated for the same reason. This point is reinforced when it is appreciated that some exclusions originally found within the same PCT rule were subsequently moved into separate provisions of the EPC during the drafting process. Thus, ‘therapeutic or surgical methods for treatment of the human or animal body, and diagnostic methods’, are also derived from draft Rule 39.1 PCT. However, these later found their way into Art 52(4) EPC 1973, to be excluded on the basis of a lack of industrial application.

Unifying theory or no, this is clearly not the end of the exclusionary provision’s woes. As already noted, its clarity is further eroded by the addition of the ‘as such’ limitation within Art 52(3). It is to this issue that we now direct our attention.

2.3 A Lack of Definitional Clarity, Part II: Half a Pound of Tuppenny Rice. . .

By the time of the EPC’s entry into force, computer programs were on their face excluded from patent protection, along with schemes, rules and methods for performing mental acts, playing games or doing business, all under Art 52(2)(c). All, however, were only excluded to the extent that a patent or patent application related to them ‘as such’. The suggestion for the general application of this proviso, now found within Art 52(3) EPC, originated from a proposal put forward by the German government in March 1973.⁴⁸ Prior to this point, limitation had been applied only to ‘discoveries, as such’ and to ‘mere presentation of information’. The remainder of the exclusions, including computer programs, were simply stated not to be inventions without more. Concern was expressed, however, that this differential treatment may have led to ‘the erroneous conclusion that a broad interpretation should be given to items not limited in this way in paragraph 2’.⁴⁹ Accordingly, it was suggested that the restriction ‘be set forth in a general manner in a separate paragraph’.⁵⁰ This proposal was accepted by the Diplomatic Conference.⁵¹ However, notwithstanding the German delegation’s overtures to the contrary, it is difficult to see how one can interpret the addition of this proviso as having anything other than a narrowing effect on the status of excluded subject matter.⁵² It is therefore unsurprising that we would see an erosion of the prohibition and a consequent broadening of the scope of things that can be deemed patentable as time progressed.

⁴⁶ Minutes of the 9th Meeting of Working Party I – held in Luxembourg 12–22 October 1971 (Brussels, 17 Nov 1971) (Doc) No BR/135/71, [96].

⁴⁷ Van Empel (n 45) 33.

⁴⁸ Comments by the Government of the Federal Republic of Germany (Munich, 29 March 1973) (Doc) No M/11.

⁴⁹ *ibid* [21].

⁵⁰ *ibid*.

⁵¹ M/PR/I [42].

⁵² Pila (n 37) 152 makes the same point.

2.4 The Scope of Meanings Embraced by ‘As Such’

There are evidently numerous ways in which limitation of the exclusions to the subject matter listed when claimed ‘as such’ could influence their treatment. Particular questions arise where we are faced with mixed claims where programs are but one part of the inventor’s alleged contribution. How do we proceed, for example, where a novel invention that might be implemented in special circuitry is instead simply implemented in software? Sterckx and Cockbain outline a number of ‘obvious’ potential approaches. At one end of the spectrum are situations in which we consider a claim ‘contaminated’ (and thereby completely prohibited) if it touches upon excluded matter. At the other lie those where a claim may be salvaged if it includes anything that is not excluded.⁵³ Between these extremes we could focus on the novel contribution made by an invention, asking whether this exists solely within excluded subject matter (if it does then what is claimed is not an invention) or whether it lies elsewhere. We might also deem as acceptable a claim that ‘uses a generic definition that encompasses, but is not limited to, excluded subject-matter’, or perhaps even accept claims where the ‘subject-matter . . . has a technical character . . . even if it belongs to an excluded class’.⁵⁴

This panoply of potential constructions is not, however, the end of the problem. The fate of subject matter that escapes Art 52(2)’s clutches is equally important in the definition of the provision’s scope. How, then, is novelty and inventive step assessed, and what limitations, if any, spill over from the consideration of whether subject matter is or is not an invention? Once more, there are many different possible views. At the most restrictive, we could assess these elements based only on matter that does not fall into an exclusion, thereby excising all traces of a computer program (for example) from consideration. Alternatively, we could assess whether the claim, warts and all, makes a contribution to human knowledge that is novel and inventive. There are many subsidiary positions in between. It should therefore not surprise the reader that the majority of relevant jurisprudence that has emerged from under the wings of Arts 52(2) and (3) EPC over the past 40-odd years has focused not on the substantive issue of what a computer program is or does, but rather on the determination of these related matters. In historical over-view, this began with a process of simplification under the banner of ‘technical contribution’.

2.5 The Ascendancy of the Technical: It All Starts with a Contribution

The idea of using ‘technical contribution’ as a litmus test for nonexcluded subject matter can be traced back to a series of decisions of the EPO’s Technical Boards of Appeal in the mid to late 1980s. The ascendancy of ‘technical means’ was initially promoted by drawing analogy between digital and analogue worlds. Thus, in *VICOM/Computer-related Invention*, the TBA explained that a method of digitally processing images through the application of a specific algorithm to an image file was a ‘real world’ activity. The process was said to ‘start in the real world (with a picture) and end in the real world (with a picture)’. The intervening steps were therefore not abstract, but were rather ‘the physical manipulation of electrical signals representing the picture in accordance with the procedures defined in the claims’.⁵⁵ The TBA explained that

⁵³ Sterckx and Cockbain (n 28) 68.

⁵⁴ *ibid.*

⁵⁵ Case T_208/84 *VICOM/Computer-Related Invention* ECLI:EP:BA:1986 77.

an invention . . . should not be excluded from protection by the mere fact that for its implementation modern technical means in the form of a computer program are used. Decisive is what technical contribution the invention as defined in the claim when considered as a whole makes to the known art.⁵⁶

Accordingly, while a *pure* algorithm might still be denied protection, one that was *applied* in a technical process could escape the exclusions' clutches. The key, it would seem, was to identify the inventive contribution made by the alleged invention and then to revert to see if this resided purely in excluded subject matter. As Ballardini has noted, the legitimacy of this approach must be doubted, if only for the fact that inventive step assumes a double role: first it is used to identify whether there is an invention, which must then be seen to possess novelty, inventive step and industrial application in order to be patentable.⁵⁷

Distilling the EPC's list of excluded subject matter into a question of technical contribution does, however, offer a convenient simplification of the unruly collection of elements contained in Art 52(2). Nevertheless, substitution of one consideration for a collection of others obviously relies on the identification of a factor common to them all. As noted above, and notwithstanding assertions to the contrary, it is far from clear that this can be done. Furthermore, the translation of a multifaceted provision into a simple, single element formulation also erodes the force of the exclusions themselves. This weakening is explicitly acknowledged by the Enlarged Board of Appeal in *PRESIDENT'S REFERENCE/Programs for computers*,⁵⁸ which also downplays its significance, noting that the end result will be unchanged as other factors, such as inventive step, will take up the slack. While this may be true – after all, a failure of patentability remains a failure whether an invention lacks inventive step or falls within excluded subject matter – it is not really a satisfactory justification. Indeed, if we reach a position in which the exclusions are only paid lip service then it does raise questions about why we bother with them at all.

Furthermore, by searching for a technical contribution to satisfy the requirement of 'invention' (and thereby avoid the exclusions), *VICOM* simply substituted one vague standard for another. Satisfaction of this new gatekeeper requirement relied upon an applicant identifying the correct kind of technical element. Merely using technical means to obtain a result would not be sufficient. Accordingly, pure mathematical manipulations (that is, changes to outputs where those outputs were simply numerical) could not, of themselves, pass muster even if implemented by a computer.⁵⁹ However, if those manipulations resulted in a physical change outside of the computer then this could be used to support a claim to an invention.⁶⁰ Furthermore, in a move startlingly reminiscent of the 'machine or transformation' test applied in the US,⁶¹ the Board explained that this change could occur in a physical object or, as in *VICOM*, in electrical data encoding an image.⁶² With this the TBA had created what Cohen and Lemley have referred to in the context of US development on the same issue as a doctrine

⁵⁶ *ibid* 80–81.

⁵⁷ Rosa Maria Ballardini 'Software Patents in Europe: The Technical Requirement Dilemma' (2008) 9 *JIPLP* 563, 565.

⁵⁸ Case G_03/08 *PRESIDENT'S REFERENCE/Programs for computers* ECLI:EP:BA:2010, [81].

⁵⁹ Case T_208/84 *VICOM/Computer-Related Invention* ECLI:EP:BA:1986, 79.

⁶⁰ *ibid*.

⁶¹ See section 2.9 below.

⁶² *VICOM* (n 59) 79.

of magic words.⁶³ Framed in the correct way, effective protection for an algorithm having use only in the context of a machine could be achieved by merely claiming its functional output. Form replaces substance, and patentability essentially seems to turn on questions of presentation alone.

2.6 From Contribution to Character in the EPO

However, despite concerns being expressed over the vagueness of the *VICOM* standard,⁶⁴ the contribution approach was eventually displaced not due to any uncertainty in its application, but predominantly because of concerns raised about its application in light of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). Technical character, the doctrine that replaced it—although arguably no more justified as an interpretation of the EPC’s text—does at least enable TRIPS compliance.

Within the TRIPS Agreement, patents are dealt with in Articles 27 to 34, commencing with a broad definition of patentable subject matter. Accordingly, Art 27 famously dictates that ‘patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application’.⁶⁵ The provision continues, explaining that States are free to adopt measures that exclude certain inventions from patentability where this is necessary to protect ‘ordre public or morality’.⁶⁶ States are also explicitly empowered to exclude certain other things from being subject to patent rights.⁶⁷ The list of this optionally prohibited subject matter is very short, consisting only of medical methods for the treatment of humans or animals (by surgery, therapy and diagnosis), and plants, animals and essentially biological processes for their production. On other exclusions, TRIPS is silent. One may therefore be forgiven for assuming that ‘all fields of technology’ means just that, and that inventions not featuring on its list of optional prohibitions, including computer software, are as patentable as anything else.

This was certainly one of the arguments deployed by the applicant in *IBM/Computer Programs*.⁶⁸ The case revolved around claims directed respectively to ‘a computer program product directly loadable into the internal memory of a digital computer (Claim 20) and to a computer program product stored on a computer usable medium (Claim 21)’.⁶⁹ Both were initially rejected on grounds that their only contribution was confined to excluded subject matter, as such—that is, contributing to programs as programs. Before the TBA, IBM alleged that instead of focusing on contribution, the Board should instead concentrate on the technical character of the invention. This was, it said, the more appropriate standard to be applied in light of TRIPS, as while this element of ‘an invention might result from its field of application,

⁶³ Julie E Cohen and Mark A Lemley, ‘Patent Scope and Innovation in the Software Industry’ (2001) 89 Cal L Rev 1, 9.

⁶⁴ For example, in *Fujitsu’s Application* [1996] RPC 511 it was noted that ‘in practice it is often very difficult to determine whether a particular invention does as a matter of fact involve the sort of technical contribution or result alluded to in the cases’. See *Fujitsu’s Application* [1996] RPC 511, 521.

⁶⁵ Agreement on Trade-Related Aspects of Intellectual Property Rights (4 May 1994) LT/UR/A-1C/IP/1 art 27(1) (TRIPS).

⁶⁶ TRIPS art 27(2).

⁶⁷ TRIPS art 27(3).

⁶⁸ Case T_1173/97 *IBM/Computer Programs* ECLI:EP:BA:1998.

⁶⁹ *ibid* 221–22.

[it] . . . might equally well result from using information technology to solve a problem in a non-technical field'.⁷⁰ Accordingly, it was asserted that searching for a technical contribution alone would place the EPC in danger of being TRIPS noncompliant. The TBA, while not being 'convinced that TRIPs may be applied directly to the EPC',⁷¹ nevertheless thought that it would be 'appropriate to take it into consideration'⁷² as it gave 'a clear indication of current trends'.⁷³ The Board also acknowledged the relative ease with which computer program products could be patented in the US and Japan. As Sterckx and Cockbain therefore explain, the maintenance of the 'technical contribution approach risked both TRIPs non-compliance and the EPO becoming a backwater . . . in the development of new technologies'.⁷⁴

With little ceremony, the Board therefore shifted focus: 'Determining the technical contribution an invention achieves with respect to the prior art is . . . more appropriate for the purpose of examining novelty and inventive step than for deciding on possible exclusion under Article 52(2) and (3)'.⁷⁵ Contribution therefore gave way to character. An invention with no technical character could obviously not be considered an invention in a field of technology (if an invention at all), and therefore the TRIPS point fell away. However, this move also opened the door to a more liberating approach in general.

2.7 . . . Pop Goes the Weasel (Words)

The ascendancy of technical character as a determinant of a qualifying invention was further promoted three years later in *PBS PARTNERSHIP*.⁷⁶ Here the Board of Appeal decided that claims directed to an apparatus (as opposed to a program in the abstract) should automatically be considered inventions and overcome this first hurdle to patentability. It explained that 'a computer system suitably programmed for use in a particular field, even if that is the field of business and economy, has the character of a concrete apparatus in the sense of a physical entity, man-made for a utilitarian purpose and is thus an invention within the meaning of Article 52(1) EPC'.⁷⁷ Claims to the method underlying the invention, however, were rejected. These simply consisted of 'steps of processing and producing information having purely administrative, actuarial and/or financial character', and moreover were 'typical steps of business and economic methods' which were additionally not technical.⁷⁸

With this decision we see the creation of a crude litmus test. Labels such as 'concrete', 'physical' and 'manmade' are used as proxies for the identification of an entity that evades the exclusions. The EPC's negative definition of 'invention' (via the identification of things that it is not) had already been replaced by a quest for the technical, and now this was supplanted by synonym. Any assessment of what Art 52(2) EPC's exclusions actually mean had been swapped for a far simpler tickbox exercise. Thus, the difficult question of whether the claims

⁷⁰ *ibid* 224.

⁷¹ *ibid* 224.

⁷² *ibid*.

⁷³ *ibid*.

⁷⁴ Sterckx and Cockbain (n 28) 80.

⁷⁵ *IBM/Computer Programs* (n 68) 229. Sterckx and Cockbain refer to the OJ version of the case [1999] OJ EPO 619. In this version the quote appears at 623.

⁷⁶ Case T_931/95 *PBS PARTNERSHIP/Controlling Pension Benefits Systems* ECLI:EP:BA:2000.

⁷⁷ *ibid* [5].

⁷⁸ *ibid* [3].

of the alleged invention relate to excluded subject matter ‘as such’ was replaced by simply asking if there is any hardware present.

This whirlwind of simplification was taken a step further in *HITACHI* the following year, when the TBA determined that claims directed at the method itself, when carried out on suitable hardware, could possess technical character. The critical requirement could be ‘implied by the physical features of an entity or the nature of an activity, or may be conferred to a non-technical activity by the use of technical means’.⁷⁹ Accordingly, even activities ‘so familiar that their technical character tends to be overlooked, such as the act of writing using a pen and paper’,⁸⁰ could be used to give character to a claim. Only ‘purely abstract concepts devoid of any technical implications’⁸¹ would generally be considered to fall within the exclusion’s grasp. The end result was the evisceration of Art 52(2). With it the transition under the doctrine of magic words was complete: the abracadabra of the ‘technical’ simply involved claiming some physical element. Once this was done, the subject matter hurdle was passed.

This approach was not, however, to everyone’s liking. Perhaps most affronted by the modification in the treatment of the exclusions were the courts of England and Wales. Thus, in *Aerotel v Telco* in the English Court of Appeal,⁸² Jacob LJ famously commented that while ‘conscious of the need to place great weight on decisions of the Boards of Appeal’,⁸³ he felt unable to do so in this instance as even under the technical character line of cases there were a number of ‘mutually contradictory’⁸⁴ variants. Moreover, the effects of *PBS* were said to lead one down a path that was ‘not intellectually honest’.⁸⁵ Thus, the Court of Appeal chose to follow its own line of precedent, considering itself bound by a triumvirate of cases: *Merrill Lynch*,⁸⁶ *Gale*,⁸⁷ and *Fujitsu*,⁸⁸ all decisions forged when *VICOM* was king. The Court adopted Pumfrey J’s reasoning in *Shoppalotto.com Ltd’s Application*,⁸⁹ in which he opined that a ‘programmed computer, itself a machine that ex hypothesi has never existed before, is itself a technical article and so in principle the subject of patent protection’.⁹⁰ Accordingly, the real question must be whether such a creation possesses the right kind of technical effect – that is, more than ‘that to be expected from the mere loading of a program into a computer?’⁹¹ The correct approach, it said, was to identify the technical contribution made by the claimed invention, with the rider that ‘a novel or inventive purely excluded matter does not count as a “technical contribution”’.⁹²

A four stage test, consistent with previous authority, was suggested: ‘(1) properly construe the claim; (2) identify the actual contribution; (3) ask whether it falls solely within the excluded subject matter; (4) check whether the actual or alleged contribution is actually

⁷⁹ Case T_258/03 *HITACHI/Auction Method* ECLI:EP:BA:2004 [33].

⁸⁰ *ibid* [34].

⁸¹ *ibid* [33].

⁸² *Aerotel v Telco (including the Matter of Macrossan’s Patent)* [2007] RPC 7.

⁸³ *ibid* [29].

⁸⁴ *ibid* [25].

⁸⁵ *ibid* [27].

⁸⁶ *Merrill Lynch’s Patent Application* [1989] RPC 561.

⁸⁷ *Gale’s Patent Application* [1991] RPC 305.

⁸⁸ *Fujitsu’s Application* [1997] RPC 608.

⁸⁹ *Shoppalotto.com Ltd’s Application* [2006] RPC 7.

⁹⁰ *ibid* [9].

⁹¹ *ibid*.

⁹² *Aerotel* (n 82) [26].

technical in nature.’⁹³ The first stage was considered uncontroversial – identifying the bounds of the monopoly must be integral to deciding if subject matter is excluded. The second stage involved identification of what the inventor had ‘added to human knowledge’ – an approach which sought to consider the substance not the form of the claimed element. The third and fourth stages were presented as reflections of the ‘as such’ qualification of Art 52(3), stage 4 being an additional check in case something unreasonably evaded stage 3. While undoubtedly consistent with its own previous decisions, the Court of Appeal’s approach was self-assuredly out of step with that laid down by the TBA in *PBS* and *HITACHI*. It is difficult, if not impossible, to reconcile an approach that looks for the substance of the invention with one that accepts that the act of writing using pen and paper can confer technical character on an otherwise nontechnical activity. It should therefore come as no surprise that in the next decision of the TBA, *Aerotel* was singled out for criticism. And what criticism it was.

In an uncompromising opinion, the Board in *DUNS/Estimating Sales Activity* lambasted the English decision. The ‘technical effect approach’ endorsed by Jacob LJ in *Aerotel* was stated to be rooted in ‘the layman’s ordinary understanding of invention as a novel, and often also inventive contribution to the known art’. The Board considered that while this might be understandable ‘given the shape of the old law . . . [it was] not consistent with a good-faith interpretation of the European Patent Convention’.⁹⁴ Technical character was stated to be an ‘absolute requirement that does not imply any new contribution to the prior art’.⁹⁵ As such, the approach laid down in *PBS* and *HITACHI* was unequivocally endorsed. The Board did, however, acknowledge that concurrent objections under the other heads of patentability (novelty, inventive step and industrial application) could still arise, and noted that it would be here that questions of contribution found their expression.

Subsequent decisions of the English courts made at least some attempt to pour oil on troubled waters. Thus, in *Symbian* the Court of Appeal opined that ‘as a matter of broad principle . . . the approaches in [*DUNS* and *Aerotel*] . . . are, on a fair basis, capable of reconciliation’.⁹⁶ The Board’s decision in *DUNS* was stated to involve explanation of the effect of the limitation ‘as such’ within Art 52(3), and the Court considered the same principles underpinned *Aerotel* stage 3. ‘So far as we can see’, it noted, ‘there is no reason, at least in principle, why that test should not amount to the same as that identified in *Duns*, namely whether the *contribution* cannot be characterised as “technical”’⁹⁷ (emphasis supplied). The reader will note that this statement entirely fails to engage with the criticism made in *DUNS* that the contribution approach was ‘not consistent with a good-faith interpretation of the European Patent Convention’.⁹⁸ The extent of reconciliation would therefore appear to consist of the Court of Appeal simply stating that the two approaches are essentially synonymous, coupled with an expectation that people would believe them.

Thus, despite the tests being characterized as amounting to essentially the same thing, the Court nevertheless declined to abandon *Aerotel* to follow *PBS* or *HITACHI*. In defence of this

⁹³ *ibid* [40].

⁹⁴ *DUNS LICENSING ASSOCIATES* (n 29) [40] and [41].

⁹⁵ *ibid* [32].

⁹⁶ *Symbian v Comptroller General of Patents* [2009] RPC 1, [11].

⁹⁷ *ibid*.

⁹⁸ *DUNS LICENSING ASSOCIATES* (n 29) [41].

decision,⁹⁹ it noted first of all that the Enlarged Board had not seen fit to provide judgment and therefore the question had not been conclusively determined. It also suggested that the decisions of the TBA following *HITACHI* demonstrated that the approach was still in flux, and that some moreover indicated that the computer program exclusion had essentially lost all meaning. Accordingly, there were not considered sufficient grounds to depart from the ‘previous, carefully considered, approach’ laid down in *Aerotel*.¹⁰⁰ Therefore, even if reconciled as a ‘matter of broad principle’, the details of the Court of Appeal’s approach still differed significantly from an approach in which technical means of storage alone would be sufficient to take a computer program outside of the grasp of Art 52(2).

2.8 Resistance Is Futile

At around the same time as the Court of Appeal was attempting its ‘reconciliation’ in *Symbian*, the (then) president of the EPO, Alison Brimelow, referred a number of questions to the Enlarged Board concerning Arts 52(2) and (3) EPC as applied to computer programs. The questions sought to explore the scope of the exclusion: whether a computer program was only excluded if the claim was explicitly directed to it; whether the exclusion could be avoided by claiming the program on storage media; whether a claimed feature must have a real world effect in order to provide technical character; and whether the activity of programming a computer necessarily involves technical considerations.¹⁰¹ The EBA noted that a referral was only justified if at least two Board of Appeal decisions come into conflict with the principle of legal uniformity, and that the process could not be used to interfere with ‘mere legal development’. Accordingly, the questions would be inadmissible unless such conflict could be found and there was a consequent ‘need for correction to establish legal certainty’.¹⁰² Following consideration of the circumstances, no such need was discovered.

Notwithstanding this conclusion, the Board went on to consider the substance of the questions. While doing so, it clearly reiterated the position adopted in the *PBS* and *HITACHI* line of cases. Thus, while resisting the temptation to provide a definition of the word ‘technical’, it nevertheless explained that “‘a computer-readable data storage medium’ and a cup [both] have technical character”,¹⁰³ and that this was an indication of a nonexcluded invention. Therefore ‘a claim to a computer implemented method or a computer program on a computer-readable storage medium will never fall within the exclusion of claimed subject-matter under Articles 52(2) and (3) EPC, just as a claim to a picture on a cup will also never fall under this exclusion’.¹⁰⁴ The transformation of the exclusions into mere formalities would seem to be made complete by this finding. Nevertheless, the EBA also stressed that this would not mean that the list of exclusions in Art 52(2) had no effect on such claims, as the requirement of inventive step would fill the gap – the list of noninventions being stated to ‘play a very important role in determining whether claimed subject-matter is inventive’.¹⁰⁵

⁹⁹ *Aerotel* (n 82) [46].

¹⁰⁰ *ibid* [46].

¹⁰¹ *PRESIDENT’S REFERENCE* (n 58). Question 1 is presented at [10], question 2 at [11], question 3 at [12] and question 4 at [13].

¹⁰² *ibid* [7.3.8].

¹⁰³ *ibid* [9.2].

¹⁰⁴ *ibid* [10.13.1].

¹⁰⁵ *ibid* [10.13.1].

2.9 An Alternative Dimension

The law's crisis of confidence over the protection of computer software within the patent system is not something that is of uniquely European origin. Computer software appears, as Burk has noted, to simply be one of 'patent law's problem children'.¹⁰⁶ Thus, while the language of Art 52(2) and (3) EPC is undoubtedly responsible for a degree of uncertainty, it cannot be blamed for everything. Simply put, the duality of software as both the carrier and the embodiment of a series of instructions specifying a method is itself problematic. Seeing the program as an algorithmic set of mathematical and/or logical steps or seeing it as a technical list of instructions that embody and specify a method of manufacture may lead one to differing conclusions about its viability as patentable subject matter. The discomfort that one naturally feels with monopolizing concepts that are too abstract is evidently not shared as a matter of principle with methods of manufacture. It is therefore interesting to compare the approaches taken in Europe under the EPC's explicit exclusionary framework with that of the US, where more general principles are applied to much the same end. What follows is necessarily a rather brief overview of a very complex area of the law. The main peaks and troughs are sketched to provide a sense of the overall landscape and to highlight the courts' vacillation over the question of how best to police the computer program issue.

3. THE US POSITION

3.1 Part I: The Formative Decisions

The US Patents Act 1952 (title 35 of the US Code (USC)) contains no explicit exclusions from patent protection on the ground of prohibited subject matter. 35 USC 101 details patentable inventions in the following terms: 'Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.' The subsequent sections of the Act, on the remaining 'conditions for patentability', simply stress the need for the invention to possess novelty and to be a nonobvious improvement over the state of the art at the priority date of the application. Subject matter discussions have therefore revolved around the meaning of 'process, machine, manufacture, or composition of matter'. Given the difference in language, it is odd how closely the development of US law in this area parallels that of the EPO.

When considering the scope and effect of the patent eligibility elements within 35 USC 101, the US courts have relied upon a number of subsidiary doctrines developed in case law. Of these, three prohibitions are particularly pertinent to the patentability of computer software:

¹⁰⁶ Dan L Burk, 'Patent Law's Problem Children: Software and Biotechnology in Transatlantic Context' in Margot Bagley and Ruth L Okediji, *Patent Law in Global Perspective* (OUP 2014), ch 7.

laws of nature;¹⁰⁷ abstract ideas;¹⁰⁸ and mental steps.¹⁰⁹ In relation to the latter, Samuelson explains that it is ‘the measurements, calculations, and interpretations of data [which] are the “mental processes” or “mental steps” to which the cases refer’.¹¹⁰ These are obviously concepts relevant to the subject matter under consideration.

Early appellate decisions relating to the patentability of computer programs focused on the identification of the novel contribution made by the invention. If this lay purely in a ‘mental step’ then, according to the rules by which the application of the doctrine was governed,¹¹¹ the patent was invalid – an approach that has many similarities with the search for the technical contribution under early EPO jurisprudence. It was only in cases where both mental and physical steps were claimed, and innovation could be found in the physical, that a patent could in principle be forthcoming – subject, of course, to the other patentability criteria.¹¹² In such cases, the ‘mental steps’ were merely ‘incidental parts to the process’ and could be ignored.¹¹³ Accordingly, the Court of Customs and Patent Appeals (CCPA)¹¹⁴ initially upheld software claims that restricted the scope of the patent to ‘machine implementations of the process’,¹¹⁵ as in such cases infringement could not simply occur in the mind.¹¹⁶ Nevertheless, in much the same manner as occurred in the EPO some decades later, this soon shifted (in *re Musgrave*) to an arguably simpler question of whether the claimed process was part of the ‘technological arts’.¹¹⁷ The precise area that the court considered would be occupied by such arts is somewhat

¹⁰⁷ See for example, comments in *Funk Brothers Seed Co. v Kalo Inoculant Co.* 333 US 127, 130 (Sup Ct 1948) explaining that ‘He who discovers a hitherto unknown phenomenon of nature has no claim to a monopoly of it which the law recognizes. If there is to be invention from such a discovery, it must come from the application of the law of nature to a new and useful end.’ Also *Le Roy v Tatham* 14 How 156, 175 (Sup Ct 1853) discussing the fact that while ‘powers of nature’ should be left free for all to use, the practical application of that power or principle could form the basis for the ‘construction of a useful article of commerce or manufacture’ which may itself be patentable.

¹⁰⁸ See for example, *Rubber-Tip Pencil Co. v Howard* 20 Wall 498, 507 (Sup Ct 1874): ‘An idea of itself is not patentable.’ Alternatively, *Le Roy v Tatham* (n 107): ‘A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.’

¹⁰⁹ In *Diamond v Diehr* 450 US 175, 196–7 (Sup Ct 1981) the Supreme Court explained that the doctrine ‘applied against patent claims in which a mental operation or mathematical computation was the sole novel element or inventive contribution; it was clear that patentability could not be predicated upon a mental step’. It referred to a series of decisions of the Court of Customs and Patent Appeals in support of this proposition.

¹¹⁰ Pamela Samuelson, ‘Benson Revisited: The Case against Patent Protection for Algorithms and Other Computer-Related Inventions’ (1990) 39 Emory LJ 1025, 1035.

¹¹¹ Derived from cases such as *Re Abrams* 188 F.2d 165 (CCPA 1951).

¹¹² *ibid* 166.

¹¹³ *ibid*. The list comes from submissions of counsel, but was endorsed by the court as an accurate statement of the law.

¹¹⁴ The CCPA was the forebear of the Court of Appeals for the Federal Circuit (CAFC) and operated as the first stage of the appellate process following the first instance decisions of the Patent Office Board of Appeals concerning the grant or refusal of a patent.

¹¹⁵ Samuelson (n 110) 1045, referring to cases such as *Prater I* 415 F.2d 1378 (CCPA 1968) and *Prater II* 415 F.2d 1393 (CCPA 1969).

¹¹⁶ Under the EPC, of course, ‘methods of performing mental acts’ are explicitly excluded from protection under art 52(2)(c) to the extent that they are claimed ‘as such’.

¹¹⁷ In *re Musgrave* 431 F.2d 882 (CCPA 1970), see particularly the comments of Judge Baldwin (concurring) [894]: ‘All that is necessary, in our view, to make a sequence of operational steps a statutory

difficult to divine from the decided cases. However, on at least one reading of *Musgrave* it is possible to conclude that this would be satisfied by the mere fact that the process was implemented by machine.¹¹⁸ Again, the parallels with the later approach of the EPO in this area are striking.

The invocation of rhetoric concerning the ‘technological arts’ has a further consequence. The label implies something both reliant for its existence upon human interaction and specifically (and clearly) delineated. It thus invites consideration of the remaining categories of excluded subject matter noted above: laws of nature and abstract ideas. In relation to the former, the US courts have consistently drawn distinctions between naturally occurring and humanmade subject matter; while the latter is *prima facie* patent eligible, the former falls outside of the patent’s grasp.¹¹⁹ Perhaps the most famous decision to make the point is that of the Supreme Court in *Diamond v Chakrabarty*.¹²⁰ Here, when considering the scope of inventions embraced by the Patents Act, the Court explained that the Committee Reports accompanying the 1952 Act made clear that Congress had ‘intended statutory subject matter to “include anything under the sun that is made by man”’.¹²¹ While *Chakrabarty* itself concerns a biotechnological invention, specifically a microorganism engineered to digest components of crude oil, the Supreme Court’s statement of principle has repercussions that reach far beyond this specific sphere, seeming on their face even to cover computer software. The instruction sets recorded in such programs are reliant upon human coding. The natural principles underpinning the operation of the machine – algorithms and processes – must also have been tamed and confined in order to place them in a machine readable format. Given these factors, computer software would seem to fall squarely within the category of things that should be considered patent eligible. Nevertheless, as Burk has explained, process-based inventions such as these ‘implement general principles in a manner that tends to implicate the division between the natural and the artificial’.¹²² In other words, the meniscus between the underlying algorithm and its implementation in the computer program may be sufficiently thin that a patent over the latter effectively forecloses the former.

This fear prompted the Supreme Court, in *Gottschalk v Benson*,¹²³ to reject claims directed to a computer-implemented method for converting binary coded decimal numerals into pure binary numerals. Justice Douglas, giving the opinion of the Court, explained that the claim was ‘so abstract and sweeping as to cover both known and unknown uses of the [algorithm]’.¹²⁴ Thus, despite taking the form of a ‘sequence of coded instructions for a digital computer’, the claimed invention had no dependence on the apparatus used for its performance. Indeed, it could be ‘performed through any existing machinery or future-derived machinery or without

“process” within 35 U.S.C. §101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of “useful arts.” Const. Art. 1, sec. 8.’

¹¹⁸ As Samuelson (n 110) 1047 notes, this is arguably the reading adopted by the Supreme Court in *Gottschalk v Benson*, 409 US 63 (Sup Ct 1972).

¹¹⁹ See for example, *Parker v Flook* 437 US 584 (Sup Ct 1978) and the cases referred to in n 107.

¹²⁰ *Diamond v Chakrabarty* 447 US 303 (Sup Ct 1980).

¹²¹ *ibid* 309 referring to Senate Report No 1979, 82nd Congress, 2nd Session, 5 (1952); and House of Representatives Report No 1923, 82nd Congress, 2nd Session, 6 (1952).

¹²² Burk (n 106) 196.

¹²³ *Gottschalk v Benson* 409 U.S. 63 (Sup Ct 1972).

¹²⁴ *ibid* 68.

any apparatus'.¹²⁵ Moreover, the end use could vary greatly depending on the purpose to which it was put. All of these things suggested the principle sought to be protected essentially took the form of a general idea. It was thus a claim to a 'pure' software process – to a computer program, as such. Accordingly, like Morse's much maligned attempt to patent the 'use of electromagnetism, however developed for marking or printing intelligible characters, signs, or letters at any distances',¹²⁶ the claim was thought too broad. *Benson's* message is therefore clear: a mathematical algorithm per se, even if embodied in computer code, could not itself be considered a product of human intervention. However, this approach still raised a question: if such 'pure' software was unpatentable under *Benson*, what were the limits of this principle? Did it also apply to exclude machines or processes that included computer programs in their operation? As Cohen and Lemley note: 'The prototypical application in this category was for a "new" machine or process in a familiar art, in which the only point of novelty was the use of a computer program to run the machine or implement the process.'¹²⁷ How, then, to deal with such claims?

This question was addressed in *Parker v Flook*,¹²⁸ some years later. The decision concerned a method for updating alarm limits during a catalytic conversion process, the only novel feature of which was a mathematical formula embodied in a computer program. As the reaction progressed, various readings were fed into the computer, which then used the formula to calculate its progress and trigger alarms when certain levels were reached. The Supreme Court noted that 'the discovery of [a phenomenon of nature or mathematical formula] cannot support a patent unless there is some other inventive concept in its application'.¹²⁹ Thus, for the purposes of assessing eligibility of subject matter, the novel algorithm was to be 'treated as though it were a familiar part of the prior art'.¹³⁰ As the dissent from Justice Stewart explains, this formulation seems to import questions of novelty and inventive step into that of eligibility, whereas the enquiry should only really be a gatekeeper provision for these other considerations: 'Section 101 is concerned only with subject-matter patentability. Whether a patent will actually *issue* depends upon the criteria of §§102 and 103, which include novelty and inventiveness, among many others.'¹³¹ Once more we therefore see parallels between the development of the US approach to the subject matter debate and the approaches that were later to develop in Europe. The idea of a technical contribution under *VICOM* clearly suffers from the same defects as the majority view in *Flook*, but equally the minority's idea of the exclusions having simple 'gatekeeper' status is also enlightening. It suggests that the heavy lifting should take place elsewhere within the framework of provisions that govern patentability. Again, this is a sentiment that has become embedded in the European approach as the jurisprudence has matured. The rejection of this position by the majority in *Flook* is clear, giving broad application to the patent ineligible subject matters themselves. In the Court's view, adopting a narrower approach would have made 'the determination of patentable subject

¹²⁵ Ibid.

¹²⁶ *O'Reilly v Morse* 15 How (56 US) 62, 14 L.Ed. 601 (Sup Ct 1853).

¹²⁷ Cohen and Lemley (n 63) 9.

¹²⁸ *Flook* (n 119).

¹²⁹ Ibid 593.

¹³⁰ Ibid 592.

¹³¹ *Flook* (n 119) 600.

matter depend simply on the draftsman's art',¹³² this was rejected, as Samuelson notes, 'as exalting form over substance'.¹³³

Nevertheless, just as in Europe some years later, this position was soon relaxed. Thus, merely months after the court in *Chakrabarty* had declared that 'anything under the sun that is made by man' ought to be *prima facie* patent eligible, the Supreme Court was once more called upon to consider the effect of these standards in relation to a computer implemented invention. *Diamond v Diehr* concerned a method of curing synthetic rubber.¹³⁴ The patented process required the use of apparatus to constantly monitor the temperature inside a rubber mould, feeding this information to a computer that would then recalculate the cure time using the well-known Arrhenius equation.¹³⁵ The similarities with the invention rejected in *Flook* are noteworthy. Justice Stevens, in a powerfully worded dissent in *Diehr*, makes the point well: '[the] essence of the claimed discovery in both cases . . . was an algorithm that could be programmed on a digital computer'.¹³⁶ Moreover, in both cases the only element possessing novelty was the algorithm/computer program itself. However, in contrast to *Flook*, the majority in *Diehr* considered the invention eligible for patent protection. Thus, while the Arrhenius equation would not have been patentable in the abstract, an industrial process that incorporated the equation in reaching a more efficient solution should not be considered 'barred at the threshold by §101'.¹³⁷

The majority in *Diehr* therefore endorsed what would appear to be a 'whole-contents' approach to the determination of patent eligibility. It held that 'a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula, computer program, or digital computer'.¹³⁸ Under the guise of assessing the substance of the invention, however, the determinative enquiry had become one of seeking what the claim was directed towards. Critical in the Court's view were the facts that: (a) the patentee did not claim all applications of the underlying equation, only those that were within the specific context of this industrial process; (b) that there was significant 'post-solution activity' outside of the computer program.¹³⁹ Once more, the parallels with the approach later adopted by the EPO are apparent. Despite being guided by an altogether different framework, elements such as mathematical methods, scientific principles and phenomena of nature found themselves patent ineligible due to their abstract character. Nevertheless, claims encompassing these same subject matters but implementing or employing them 'in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect (e.g. transforming or reducing an article to a different state or thing)',¹⁴⁰ would satisfy the requirements of §101. This decision, according to Cohen and Lemley, marks the beginning of the reign of the 'doctrine of magic words'. Accordingly: 'software was patentable subject

¹³² *ibid* 593.

¹³³ Samuelson (n 110) 1080.

¹³⁴ *Diamond v Diehr* 450 US 175 (Sup Ct 1981).

¹³⁵ For detailed explanation of the Arrhenius equation see Topic 17D in Peter Atkins, Julio de Paula and James Keeler, *Atkins' Physical Chemistry* (11th edn, OUP 2017) 741 et seq.

¹³⁶ *Diehr* (n 134) 209. Justice Stevens in dissent.

¹³⁷ *ibid* 188.

¹³⁸ *ibid* 187.

¹³⁹ *ibid* 191–92. Inferred from the following statement: 'insignificant post-solution activity will not transform an unpatentable principle into a patentable process.'

¹⁴⁰ *ibid* 192.

matter, but only if the applicant recited the magic words and pretended that she was patenting something else entirely.¹⁴¹ Mirroring therefore the ascendancy of the technical in EPO jurisprudence, the *Diehr* approach encouraged the patenting of software-implemented inventions by focusing on the physical elements of the claim (apparatus or physical steps in the process).

3.2 Part II: Inflating the Bubble

The *Diehr* decision can be seen as liberating the software industry from the spectre of patent ineligibility. Indeed, as Hall and MacGarvie explain, there was a marked increase in both the number and share of software patents granted following the case.¹⁴² Thus, as the standard remained essentially unchanged throughout the remainder of the 1980s and into the early 1990s, applications for relevant patents spiralled.¹⁴³ This process was accelerated following a number of liberating decisions of the Court of Appeals for the Federal Circuit (CAFC) that commenced with *In re Alappat* in 1994.¹⁴⁴ Here the Court decided that the principle of ineligibility should only apply where the claimed software (as a whole) represented ‘a disembodied mathematical concept . . . which in essence represents nothing more than a “law of nature,” “natural phenomenon,” or “abstract idea”’.¹⁴⁵ If, by contrast, a patent claimed a ‘specific machine to produce a useful, concrete, and tangible result’, then it passed the hurdle. Thus, in much the same manner as occurred in Europe under *PBS*, the Court considered that even trivial physical steps could signify that an applicant had successfully evaded the prohibitions on patentability. Programs embodied in the envelope of machine apparatus would therefore never be caught by the gatekeeper of patent ineligibility. Subsequently, the Commissioner of Patents issued new guidelines for the examination of computer software,¹⁴⁶ which ‘opened the existing doorway to patentability so wide that inventors . . . [could], in effect, patent any computer software provided that it is embodied in a medium such as a diskette’.¹⁴⁷ As Sterne and Bugaisky note, for all practical purposes this change essentially reversed the decision in *Benson* noted above.

However, the high water mark of patent eligibility was arguably reached with the infamous decision in *State Street Bank* in 1998.¹⁴⁸ Here, the CAFC essentially opened the doors to the patenting of pure software by dispensing with the requirement of claiming a physical structure. Instead, the Court focused on the presence of a useful process or idea. Purportedly applying *Diehr* and *Alappat*, it held that ‘the transformation of data . . . by a machine through a series of mathematical calculations . . . constitutes a practical application of a mathematical algorithm,

¹⁴¹ Cohen & Lemley (n 63) 9.

¹⁴² ‘[T]he growth of software patenting increased from a 5–10% level prior to 1981 to a 15% level afterwards.’ Bronwen H Hall and Megan MacGarvie, ‘The Private Value of Software Patents’ (2010) 39 Research Policy 994, 996.

¹⁴³ Michael Noel and Mark Schankerman, ‘Strategic Patenting and Software Innovation’ (2013) 61 J Ind Econ 481, 482. Noel and Schankerman explain that the annual year on year growth for patent applications in all fields between 1986 and 1999 was 6.7 per cent. In the software field (up to 1996) it was 21 per cent.

¹⁴⁴ *In re Alappat* 33 F.3d 1526 (CAFC 1994).

¹⁴⁵ *ibid* 1544.

¹⁴⁶ Examination Guidelines for Computer Related Inventions 61 *Fed Reg* 7478 (1996).

¹⁴⁷ Robert G Sterne and Lawrence B Bugaisky, ‘The Expansion of Statutory Subject Matter under the 1952 Patent Act’ (2004) 37 Akron L Rev 217, 223.

¹⁴⁸ *State Street Bank & Trust v Signature Financial Group* 149 F.3d 1368 (CAFC 1998).

formula, or calculation, because it produces “a useful, concrete and tangible result”¹⁴⁹ In coming to this conclusion, the Court was quick to note that it did not therefore matter which of the statutory species of acceptable subject matter (process, machine, manufacture or composition of matter) the invention actually belonged to as long as it possessed the required utility.¹⁵⁰ The focus was therefore placed on the ‘essential characteristics of the subject matter’ and the result of the claimed invention. The hurdle of ineligibility could be surmounted by either claiming a machine (physical, concrete) or by highlighting the transformation of data itself. The first of these elements should be startlingly familiar to those versed in the relevant jurisprudence of the EPO. However, the second, purely transformative, indicium of eligibility – divorced entirely from any requirement of tangibility – far exceeds anything thus far advanced under the European Patent Convention.

3.3 Part III: Every Bubble Has to Burst

Barriers to patenting software were not the only things to have dissolved with *State Street*: it also opened up the possibility of protecting pure business methods. For the next decade the law in both of these areas appeared relatively well settled, if startlingly broad. The bar of patent eligibility had been set at such a low level that, as Thomas was to note, ‘After *State Street*, it is hardly an exaggeration to say that if you can name it, you can claim it.’¹⁵¹ The question of whether ineligibility had any influence on the decision to issue a patent was seen as closed. Put simply, it was irrelevant.¹⁵²

This all changed, however, with another trio of Supreme Court cases, starting with *Bilski* in 2010,¹⁵³ that bookended the CAFC’s expansionist efforts and resurrected patent eligibility standards – returning directly to *Benson*, *Flook* and *Diehr*. Suddenly, therefore, following years of claiming freedom, patentees were once more subject to the zombie hand of §101. The *Bilski* decision itself is noteworthy for the Supreme Court’s rejection of the machine or transformation test as the only indicium of patentable subject matter.¹⁵⁴ However, while accepting that the question of patent eligibility provided only a threshold test – any invention passing this standard would still need to be ‘new and useful’ – the Court also stressed the importance of considering the repercussions that passing this threshold would have. *Bilski* itself concerned a business method – a method of hedging risk – reduced to mathematical formula. This was, according to the Supreme Court, ‘an unpatentable abstract idea, just like the algorithms at issue in *Benson* and *Flook*’. Furthermore, ‘[a]llowing petitioners to patent risk hedging would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea’.¹⁵⁵ Thus, in a return to the more substantive examination of claimed subject matter from the pre-*Alappat* era, the Court explained that *Flook* had ‘established that limiting

¹⁴⁹ *ibid* 1373.

¹⁵⁰ *ibid* 1375.

¹⁵¹ John R Thomas, ‘The Patenting of the Liberal Professions’ (1999) 40 Boston College L Rev 1139, 1160.

¹⁵² See for example, Mark Lemley et al, ‘Life after *Bilski*’ (2010) 63 Stan L Rev 1315, 1318, who note that ‘For a decade after 1998, patentable subject matter was effectively a dead letter’.

¹⁵³ *Bilski v Kappos* 561 US 593 (Sup Ct 2010).

¹⁵⁴ *ibid* 604. The CAFC decision in the case had held that machine-or-transformation should be the sole test to govern the § 101 analysis. See *In re Bilski* 545 F.3d 943, 954–55 (CAFC 2008).

¹⁵⁵ *Bilski v Kappos* (n 153) 611–12.

an abstract idea to one field of use or adding token postsolution components did not make the concept patentable'.¹⁵⁶ Accordingly, merely placing the claim in the correct form could no longer be seen as an automatic guarantee of eligibility.

This process of rowing back from *State Street*'s high water mark was taken further in *Mayo v Prometheus*,¹⁵⁷ decided a couple of years after *Bilski*. While it did not involve a software patent (the case concerned claims relating the use of thiopurine drugs to treat autoimmune diseases),¹⁵⁸ the methodology laid down by the Supreme Court has nevertheless become dominant in the field of computer program patents. The relevant elements of the decision essentially revert to the application of *Diehr* and *Flook*, with the Court noting that steps adding nothing to the 'specific laws of nature other than what is well-understood, routine, conventional activity, previously engaged in by those in the field'¹⁵⁹ could not rescue a *prima facie* ineligible claim. Accordingly, the addition of 'conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable'.¹⁶⁰ We therefore see a return to a position where the underlying program is treated as part of the prior art and the contribution made by the implementation of the claimed subject matter is the determinative factor in its eligibility.

The final chapter, for the moment, in this eligibility *danse macabre* came in 2014 with the Supreme Court decision in *Alice v CLS Bank*.¹⁶¹ Here the Court used the analysis laid down in *Mayo* to hold that 'merely requiring generic computer implementation fails to transform [an] . . . abstract idea into a patent-eligible invention'.¹⁶² With this statement, the US 'any hardware' era was firmly over. A structured approach was extracted from the earlier case, with the Court distilling a framework for the determination of matters of eligibility. Accordingly, the first stage of the assessment is to determine whether the claims are directed towards one of the ineligible concepts (laws of nature, natural phenomena or abstract ideas). If they are, then the Court asks itself: 'what else is there in the claims?' The elements of the claims are then considered both individually and 'as an ordered combination' in order to assess 'whether these additional elements "transform the nature of the claim" into a patent-eligible application'.¹⁶³ The search for this extra something finds its basis in *Flook*, where the court insisted upon the presence of an 'inventive concept'¹⁶⁴ – an element described in *Mayo* as something that was 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself'.¹⁶⁵

Following *Alice*, therefore, the law finds itself in much the same position in which it was left following the Supreme Court's original trifecta of decisions on this matter. Having come full circle from the *State Street* excesses, the doctrine of magic words is once again in effect. Software can be claimed provided the patentee pretends that they are claiming something else.

¹⁵⁶ *ibid* 612.

¹⁵⁷ *Mayo Collaborative Servs v Prometheus Labs Inc* 566 US 66 (Sup Ct 2012).

¹⁵⁸ *ibid* 77. In particular, 'to the relationships between concentrations of certain metabolites in the blood and the likelihood that a thiopurine drug dosage will prove ineffective or cause harm'.

¹⁵⁹ *ibid* 82.

¹⁶⁰ *ibid*.

¹⁶¹ *Alice Corp Pty v CLS Bank* 134 S Ct 2347 (Sup Ct 2014).

¹⁶² *ibid* 2352.

¹⁶³ *ibid* 2235.

¹⁶⁴ *Flook* (n 119) 594.

¹⁶⁵ *Mayo* (n 157) 73.

4. ROUND AND ROUND THE MULBERRY BUSH: SOME CONCLUDING COMMENTS

Despite starting from completely different positions – one having a defined list of noninventions embodied in statutory language, the other possessing no inherent limitations but instead extracting principles from a series of eligible subject matters – it is striking how the development of excluded subject matter/patent eligibility jurisprudence in Europe and the US has progressed along very similar lines. Not only are the core principles developed by the courts practically identical, but they have also gone through analogous changes in a similar pattern. Furthermore, in neither jurisdiction do the decisionmaking bodies appear entirely at ease with these particular issues. We therefore see a somewhat idiosyncratic ebb and flow of protection that has led to significant flex in the envelope of patentability within even a single patent generation.

In Europe, the Boards of Appeal's approach to the software exclusion, slowly whittling it away until practically nothing is left, would seem to go directly against the Convention itself. If flexibility was maintained within the EPC by insisting that the list of excluded subject matter was nonexhaustive,¹⁶⁶ then we might also assume it was intended that standards should be heightened as time went on rather than relaxed: adding 'bananas' to an open list that contains apples, oranges and pears is obviously a very different proposition to removing one of the three examples already present. Nevertheless, the general trend within the EPO's Boards has been to marginalize the exclusions, making them ever easier to circumvent and placing more weight upon the remaining elements of patentability. Some blame for this must lie at the feet of the Convention's drafters. It is evident that whatever approach was taken there were likely to be problems: any designation of 'invention' or 'computer program' expressed positively would, for example, have suffered from issues of abstraction or obsolescence. However, negative definition when combined with a statement that such things are only excluded to the extent they are claimed 'as such' results in what Von Hellfeld describes as: 'an empty phrase, meaningless and devoid of content'.¹⁶⁷ He continues, prophetically noting that such empty vessels can be filled with practically anything at all.¹⁶⁸ And so they were. Initial statements from the Boards of Appeal that 'it cannot have been intended by the Contracting States to the EPC that express exclusions from patentability could be circumvented simply by the manner in which the invention is expressed in a claim'¹⁶⁹ were cast aside. What replaced them – *HITACHI*, *PBS* and their progeny – allowed precisely this.

However, the shifting sands that have characterized the courts' understanding of software patents on both sides of the Atlantic suggest something deeper is at play. The US Court's oscillation between extremes – from restrictive through expansive, topping out for some time at a position where ineligibility had practically no presence within the system before rapidly shrinking back to a more conservative approach – tells us a great deal about the incertitude

¹⁶⁶ A proposal to make the list exhaustive was rejected at the 5th Meeting of the Inter-Governmental Conference. See *Minutes of the 5th Meeting of the Inter-Governmental Conference for the Setting up of a European System for the Grant of Patents (Parts 1 and 3)* (Brussels, 15 March 1972) (Doc) No BR/168/72, [26].

¹⁶⁷ Axel von Hellfeld, 'Sind Algorithmen schutzfähig?' [1989] GRUR 471, 475, (my translation).

¹⁶⁸ *ibid* 476.

¹⁶⁹ *IBM/Document Abstracting* (n 30) [12].

that ineligible subject matter engenders. While it is not necessarily possible to divorce the treatment of computer programs from the broader subject matter question per se, it is also remarkable that so many of the cases that define the general approach to eligibility come from the software field. It cannot be coincidence that this is also a subject matter that straddles two zones of creativity – that is both technological and authorial – and which overlaps so heavily with other products of human ingenuity that one feels would also be problematic to monopolize. Thus, while copyright avoids inhibiting reutilization of the mere ideas of the author, so patent law attempts to distance itself from tying up the fundamental building blocks of technological thinking. Regulating the frontier between these two zones of protection and navigating their attendant exclusions is therefore no easy task. The mere fact that alternate protection may be gained under copyright, for example, may lead some to question the scope that should be given by patent law, and vice versa.

The duality of computer code as both text and machine and the reproducibility of effect in both hardware and software only add to the problems of conceptualization. Returning to the example with which we started this chapter, if the cabinet that became PONG is acceptable as an invention when composed of wired components, but a functionally identical piece of software would not be, then we have to ask what element of ingenuity the patent system is actually seeking to promote. Perhaps the key is to accept that the linguistic elements of software are simply tools, equivalent of the mechanist's alphabet of expression: cogs, gears, springs and sprockets. We have no problem seeing the artistic accumulation of such functional artefacts as works of sculpture, but there seems to be more resistance when the tables are turned and it is language that adopts a functional aspect. Possibly then it is software's overlap with undeniably human concepts, such as mental acts and methods of doing business, as well as the underlying reliance upon algorithmic and mathematical methods that is fundamentally responsible for the uncertainty that we have seen in judicial responses to such inventions. As time progresses, and computer-implemented innovation, data manipulation and artificial intelligence become even more prevalent than they are now, these problems of conceptualization will only increase. Difficult questions will eventually have to be asked about the very fundamentals of patent law and the bases for the systems currently in existence. After all, the closer 'software' comes to mirroring the mental processes of creativity – eventually perhaps lifting itself from mere subject of creation to the object creating – the more challenging it will become to separate patentable from unpatentable technology. Until then, in Europe at least, computer programs as such are excluded as a matter of legislation – and, as Birss HHJ (as he then was) noted in *Halliburton*, it should not be 'for any court to interpret that that exclusion out of existence'.¹⁷⁰

¹⁷⁰ *Halliburton* (n 20) [79].

14. The prejudice against patenting business methods

Trevor Cook

1. INTRODUCTION

Of all the various activities in respect of which patents are sought, business methods would seem at first sight to be the most reviled. Thus, some legal systems expressly stipulate – without, however, going to the trouble of defining them – that ‘business methods’ are not patentable subject matter.¹ Other legal systems single out business method patents for some form of ‘special measures’.² Yet other legal systems refuse to conduct searches against them.³ Neither is this attitude to business method patenting confined to the law itself; it can even be found in legal commentaries that address exclusions from patentability, but focus exclusively instead on other types of exclusion and do not even discuss business methods, giving the impression that it is self-evident that business methods are not patentable subject matter.⁴

Given the inherently imprecise meaning of the word ‘business’, defining what constitutes a ‘business method’ is not at all straightforward and few if any laws seek to do so – an omission that of itself raises the question of the scope and extent of the exception, and even the degree to which the prejudice against the patentability of such undefined subject matter is merited. Moreover, the various jurisdictions which discriminate against business method patents will rarely provide much by way of underlying justification for their prejudice. When courts have sought to fill this lacuna various different reasons have been advanced, such as the suggestion that ‘business has managed without this so far, and so does not need it’,⁵ or that business methods are abstract or nontechnical.

It is this last consideration, the perceived nontechnological nature of ‘pure’ business methods, that nowadays provides the most straightforward explanation within the framework of most modern patent laws for their perceived unpatentability, even though it provides no underlying justification for this situation and in a sense takes matters little further. This is because it begs the question of what is meant by ‘technology’ – yet another inherently imprecise

¹ European Patent Convention 2000, Article 52(2)(c), providing that ‘schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers’ shall not be regarded as inventions.

² In the US a ‘covered business method patent’ is open to a unique type of procedural challenge – see text associated with n 55 below.

³ See Notice from the European Patent Office dated 1 October 2007 concerning business methods (OJ EPO 2007, 592) observing that “The EPO wishes to remind applicants that pursuant to Rule 39.1(iii) PCT it will not carry out an international search on an application to the extent that its subject-matter relates to no more than a method of doing business, in the absence of any apparent technical character.”

⁴ See for example Sigrid Sterckx and Julian Cockbain, *Exclusions from Patentability* (CUP 2012).

⁵ Paraphrasing Peter Prescott QC in *CFPH LLC v Comptroller General of Patents Designs and Trade Marks* [2005] EWHC 1589 (Pat); [2006] IP&T; [2006] RPC 259 (Patents Court), as quoted in the text associated with n 30 below.

cise term, like ‘technical’⁶ – and in itself provides no guidance as to how one should address those business methods that are implemented by means of technology. But it is this distinction that serves to explain why it is not inconsistent with the TRIPS Agreement to discriminate against business method patents, at least to the extent that they do not involve technology, as this only requires, by Article 27, that patents ‘be available for any inventions, whether products or processes, in all fields of technology’.⁷ However, adopting this as a basis for discriminating against business method patents also provides a reason why business method patenting is likely to become more common in the future, as business methods become increasingly embedded in and integrated with the technical systems used to implement them, making it ever more difficult in practice to separate them from such technical systems.

Thus, much attempted business method patenting has in recent years been criticised, not unfairly, as serving ‘merely [to] recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet’.⁸ One might argue that the more straightforward way of addressing such an objection would be that such a proposal, and its manner of implementation, is highly likely to be obvious, and would therefore be unpatentable on that ground alone – an objection which is available as against all types of patents and does not call for a separate filter for business methods. Be that as it may, although such criticism has no doubt been valid in many instances in the past, there is likely to be less and less basis for it in the future. This is a simple consequence of the ever more technological nature of much of business. This makes it likely that it will become increasingly impractical to attempt to disentangle business methods from the technical systems that implement them, and from the underlying, generally computer implemented, technology that supports them. Thus, rather like the exclusion from patentability for computer programs itself – which is also found in many patent laws, but which, it could be argued, is now more honoured in the breach than in any observance, given that already nearly half of all current patent applications now claim software-implemented inventions⁹ – the scope for applying the exclusion for business methods will narrow, rendering it largely irrelevant over time.

⁶ See for example the English judge Nicolls LJ in *Gale’s Application* [1991] RPC 317, 328 (CA), referring to the decisions of EPO Technical Boards of Appeal in Cases T-115/85 and T6/83 and observing: ‘I confess to having difficulty in identifying clearly the boundary line between what is and what is not a technical problem for this purpose. That, at least to some extent, may well be no more than a reflection of my lack of expertise in this technical field.’ With even greater irony, the EPO Technical Board of Appeal responsible in 2000 for one of the leading cases on business method patenting, T-931/95 – having held that ‘technical character is an implicit requirement of the EPC to be met by an invention in order to be an invention within the meaning of Article 52(1) EPC, following decisions T 1173/97 and T 935/97’ – observed at Reasons [6]: ‘It may very well be that, as put forward by the appellant, the meaning of the term “technical” or “technical character” is not particularly clear. However, this also applies to the term “invention”. In the Board’s view the fact that the exact meaning of a term may be disputed does in itself not necessarily constitute a good reason for not using the term as a criterion, certainly not in the absence of a better term; case law may clarify this issue.’

⁷ The ‘all fields of technology’ language has been copied into the European Patent Convention 2000, Article 52(1).

⁸ *DDR Holdings, LLC v Hotels.com, LP*, 773 F.3d 1245 (Fed Cir 2014) at 1257 (Circuit Judge Chen), before observing ‘Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.’

⁹ See Raimund Lutz, Vice-President, EPO, observing that “By 2020 it is quite possible that over 50% of all patent applications at the EPO and globally will claim software implemented inventions.” See *India and Europe Explore the Impact of Industry 4.0 on the Patent System*, Conference report in EPO

This chapter starts by seeking to trace the historical background in the UK to the current prejudice against business method patenting. It then seeks briefly to summarise the recent and current approaches to the issue of the EPO and certain other leading jurisdictions, looking primarily at the legal basis for the exclusion, before suggesting that there is little real difference between an exclusion based on the apparently abstract nature of pure business methods and one that is based on their nontechnological nature, and then seeking to justify the conclusion that the increasingly technological nature of business will restrict the application of the exclusion. What this chapter does not seek to do is to analyse the benefits or otherwise, from an economic perspective, of allowing business methods to be patented, first noting that even in far less contentious areas of patent law than business methods, the economic evidence for or against patenting remains an active subject of controversy,¹⁰ and second recognising that other authors – very much better qualified than this particular writer so to do – have already commented on such matters in the context of business methods.¹¹

2. BUSINESS METHODS UNDER UNITED KINGDOM PATENT LAW BEFORE THE EUROPEAN PATENT CONVENTION

The prejudice against business methods as patentable subject matter is not new. For example, in 1904, one English author observed the following, which I quote at length:¹²

Report on European Conference on “Industry 4.0 and its impact on the patent system” held in Munich on 9 December 2016.

¹⁰ See for example Heidi L Williams (2017), *How Do Patents Affect Research Investments?* NBER Working Paper 23088, <www.nber.org/papers/w23088> accessed 12 October 2019, observing (references omitted) that:

While patent systems have been quite widely used both historically and internationally, there is nonetheless a tremendous amount of controversy over whether the patent system is – in practice – improving the alignment between private returns and social contributions. In 1951, Edith Penrose famously wrote, ‘[i]f national patent laws did not exist, it would be difficult to make a conclusive case for introducing them; but the fact that they do exist shifts the burden of proof and it is equally difficult to make a really conclusive case for abolishing them.’ Over a half-century later, the question of whether patents are effective in spurring the development of new socially valuable technologies is still at the center of an active debate. On one hand, in a recent *Journal of Economic Perspectives* article Boldrin and Levine (2013) argue that the case against patents can be summarized concisely: ‘... there is no empirical evidence that [patents] serve to increase innovation. ...’ On the other hand, in a recent *George Mason Law Review* article Haber (2016) argues that ‘... the weight of the evidence supports the claim of a positive causal relationship between the strength of patent rights and innovation’.

¹¹ For a relatively recent discussion by an eminent commentator as to the benefits or otherwise, from an economic perspective, of allowing business methods to be patented see Bronwyn Hall, *Business and Financial Method Patents, Innovation and Policy* in Michael B Abramowitz, James E Daily and F Scott Kieff, *Perspectives on Patentable Subject Matter* (CUP 2015).

¹² William Martin, *The English Patent System* (JM Dent & Co 1904) at 39–40. This book was not presented as a work of authority but rather as a primer on patent law. In contrast, and despite its considerable scope and its recognised authority as a treatise on late nineteenth century UK patent law, *Frost on Patents* did not discuss this issue: see Robert Frost, *A Treatise on the Law and Practice relating to Letters Patent for Inventions: With an Appendix of Statutes, International Convention, Rules* (Stevens and Haynes 1891).

Many kinds of projects, enterprises, and ideas resulting from inventive originality cannot be protected by patent, for the reason that they are no 'manner of new manufacture.' What is the policy that underlies this distinction? Some projects incapable of inclusion within the phrase 'manner of new manufacture' have, indeed, been considered by the legislature as worthy of other protection, and are provided for either by general statutes or by private Acts. As examples of projects for which monopolies are granted by private Acts, there may be mentioned the water and gas supply of districts, and the carriage of passengers and goods over railroads. There are also those various bodies upon which monopolies are conferred either directly or indirectly through government departments in virtue of general Acts. Of enterprises encouraged in this manner, tramway and electric-lighting schemes afford examples. In contrast with these public schemes there are also the ideas which usually emanate from and primarily concern individuals, viz. designs, trade-marks, copyright in books, music, engravings, sculpture, and so on. For the protection of these, in analogy to the patent law, appropriate Acts of Parliament exist. When, however, all the instances where protection is usually given are added together, it is clear that the total does not cover the whole field of useful enterprise or of fruitful idea. In fact, there are many other classes of useful discovery which, as soon as published, are without protection.

The reasons for the distinction between the protected and the unprotected classes is not altogether clear. Sometimes protection is issued with the view to encourage trade, sometimes to secure adequate return for the outlay of capital in gigantic undertakings, sometimes on the score of 'natural justice' – a reason which is ever at work. But why some enterprises should be denied the protection cast about others is difficult of comprehension, unless indeed it be due to their relative unimportance, or to the difficulty of defining the scope of what ought to be protected. But perhaps the most probable source of the distinction is an accident of history. The oppression and vexation caused by so many of the early monopolies led, as we have seen, to the suppressing of all but specially favoured monopolies, those for new manufactures being almost the only exception.

Instances of ideas which, though eminently useful and practical, are without protection are easy to adduce. Thus, there may be mentioned the discovery of mathematical formulae, which may effect a material saving of labour in the compilation of useful tables; also systems of book-keeping or of shorthand, schemes for business administration, and, in general, means for the satisfaction of a public want which, hitherto, has not been recognised. In either case, unless there is a 'new manufacture,' a trade-mark, a design, or something capable of being brought within the terms of the general Acts relating to copyright, no matter how meritorious or labour-saving the discovery may be, no exclusive privilege issues as a matter of course.

These words were written at a time when – as had by then been the case for nearly three hundred years – the threshold criterion under English, and latterly UK, law for patentability was that there be a 'manner of new manufacture' – which terminology, although stretched by the courts to cover much which would not on its face appear to meet such criteria, does not, at least as a matter of strict language, readily embrace what we would now describe as 'business methods'. Such 'manner of new manufacture' language has its origins in the Statute of Monopolies of 1623, and in the exception provided in favour of such inventions, as set out in section 6 of that measure, to the wideranging statutory ban that this otherwise imposed on the grant of monopolies by the English Crown.¹³

¹³ Section 6 of the Statute of Monopolies reads: 'Provided also, that any declaration before mentioned shall not extend to any letters patents and grants of privilege for the term of fourteen years or under, hereafter to be made, of the sole working or making of any manner of new manufactures within this realm to the true and first inventor and inventors of such manufactures, which others at the time of making such letters patents and grants shall not use, so as also they be not contrary to the law nor mischievous to the state by raising prices of commodities at home, or hurt of trade, or generally inconvenient: the same fourteen years to be accounted from the date of the first letters patents or grant of such privilege hereafter to be made, but that the same shall be of such force as they should be if this act had never been made, and of none other.'

But the language of the earlier English court decisions that established the principles that were subsequently enacted in section 6 of the Statute of Monopolies was more permissive than these words would suggest, in expressing at common law the exception as to those monopolies that were to be regarded as lawful. Thus, in reporting on the successful challenge to a monopoly of playing cards in *The Case of Monopolies* (otherwise referred to as *Darcy v Allen*) in 1602, and in which he, as Attorney General, had argued for the plaintiff, Sir Edward Coke set out how one Mr Fuller, counsel for the successful defendant, had expressed the exception in the following manner:¹⁴

Now therefore I will shew you how the Judges have theretofore allowed of monopoly patents, which is that where any man by his own charge and industry, or his own wit or invention doth bring any new trade into the realm, or any engine tending to the furtherance of a trade that never was used before; and that for the good of the realm; that in such cases the King may grant to him a monopoly patent for some reasonable time, until the subjects may learn the same, in consideration of the good that he doth bring by his invention to the commonwealth, otherwise not.

In the *Clothworkers of Ipswich Case* of 1615, the court, having observed that although ‘the King might make corporations any grant to them that they may make ordinances for the ordering and government of any trade; but thereby they cannot make a monopoly for that is to take way free-trade, which is the birthright of every subject’, and provided examples of charters that were void for this reason, expressed the exception as follows:¹⁵

But if a man hath brought a new invention and a new trade within the kingdom, in peril of his life, and consumption of his estate or stock, etc, or if a man hath made a new discovery of any thing, in such cases the King of his grace and favour, in recompense of his costs and travail, may grant by charter unto him, that he only shall use such a trade or trafique for a certain time, because at first the people of the kingdom are ignorant, and have not the knowledge or skill to use it.

In both cases the language of the permitted exception for properly patentable subject matter was expressed in terms not only of ‘new invention’, but also of ‘new trade’.

Oren Bracha, when tracing the English background to US patent law in this area, has also commented on the manner in which early English patents were framed in terms of protecting ‘new trades’ rather than in terms of protecting ‘inventions’ (footnotes omitted):¹⁶

The reference to ‘patents for invention’, even as undistinguishable category of ad hoc discretionary royal grants, conceals another danger of anachronism. Though the term ‘invention’ was used at the time, its meaning was entirely different from the one associated with it today. Early English patents for invention were, in fact, patents for the introduction of a new ‘trade’ rather than for ‘invention’ in the modern sense. This brand of patents, inasmuch as it was distinguished from other patents, was

¹⁴ *The Case of Monopolies* (1602) 11 Co Rep 84b, 77 Eng Rep 1260; *Darcy v Allen* Moore 671, 72 Eng Rep 830; Noy 173, 74 Eng. Rep. 1131. The importance of this principle as stated is elevated by the court having provided no reasons for its decision: see Jacob I Corre, *The Argument, Decision, and Reports of Darcy v Allen* (1996) 45 Emory L J 1261, A-8, concluding, as to the status of Coke’s commentary, that ‘Subsequent events and Coke’s unsurpassed authority combined to give *Darcy v Allen* the meaning it has today’.

¹⁵ *The Clothworkers of Ipswich Case* (1615) 11 Co Rep 53a, 77 Eng Rep 1218, Godb 252, 78 Eng R 1417, 1 Rolle 4. 81 Eng Rep 285, Shower 266, 89 Eng Rep 988.

¹⁶ Oren Bracha (2017) *Owning Ideas: The Intellectual Origins of American Intellectual Property, 1790–1909* (CUP 2017) 12.

thought and spoken of in terms of a policy strategy used to nourish and support the development of the English economy by encouraging the introduction of a non-existent industry or trade into it. Such new trades were conceived of in much broader terms than merely technological discoveries or improvements. Thus, many invention patents established monopolies in activities like the manufacture of a particular kind of glass, the production of salt or soap or the weaving of a certain kind of cloth. It was a common case that patents for invention did not involve any new technological invention (in the modern sense) or discovery of any kind. Patents were granted for ‘inventions’ such as: the privilege to “to take large fish . . . called Bottled-nosed Whales . . . in the North and South Seas adjacent to our said countries of Devon and Cornwall,” or for a business scheme for the insurance of horses. A modern lawyer might say that this confused patents with franchise, but the point is exactly that the two were not sharply distinguished.

Given the wording of section 6 of the Statute of Monopolies, what is notable about the pre-Statute of Monopolies cases discussed above, in referring to ‘new inventions’ and to ‘new trades’, is that these do not use the expression ‘new manufacture’. While, as is well recognised, words do change their sense over time, the concept of ‘trade’ would on any basis seem to be broader than that of ‘manufacture’,¹⁷ and better suited to include business methods within its scope.¹⁸ But it was ‘new manufacture’ and not ‘new invention’ or ‘new trade’ that found its way into section 6 of the Statute of Monopolies, and which provided the basis for English, and subsequently UK, patent law until it was replaced by the system established under the European Patent Convention of 1973 by virtue of the Patents Act 1977.¹⁹ As noted below, it still provides the basis for Australian law.

However, the cases reported for the more than 350 years after the passage of the Statute of Monopolies, until the entry into force of the 1977 Act in 1978, do not give the impression that the English courts, at least initially, felt themselves to be overly constrained in their approach to patentable subject matter by the expression ‘manner of new manufacture’, albeit that such case law rarely touched on what we might now call ‘business methods’. Thus, in 1795, Chief Justice Eyre in *Boulton v Bull*,²⁰ in the course of an extensive discussion of the meaning of

¹⁷ The term ‘trade’ would seem also to be better suited to cover pre-Statute of Monopolies patents such as Patent No XLIV (dated 26 July 1588) to ‘teach, print and publish works in shorthand’, reproduced in Hulme, *The History of the Patent System under the Prerogative and at Common Law: A Sequel* (1900) 16(55) Law Quarterly Review 44–56 (cited at n 55 by Justine Pila (2010) *The Requirement for an Invention in Patent Law* (OUP 2010), who also observes (at 22) that this conception ‘is more restrictive than [that] suggested by the Case of the Monopolies’).

¹⁸ Although the discussion in the quoted passage from *The Case of Monopolies* was presaged by the reference to ‘monopoly patents’ and it has been suggested that different considerations as to validity might apply to ‘patents of invention’ – as to which see Jacob I Corre, *The Argument, Decision, and Reports of Darcy v Allen* (1996) 45 Emory L J 1261, A-8 at 1304–5 – the same principle is expressed in the quoted passage to apply whether to ‘new trade’ or ‘any engine tending to the furtherance of a trade that never was used before’.

¹⁹ Chris Dent observes that ‘the exact nature of what constituted a “new Manufactures” in the collective mind of the Parliament . . . in 1624 cannot be known with any degree of certainty’: see Chris Dent (2009) ‘Generally Inconvenient’: The 1624 Statute of Monopolies as Political Compromise (2009) 33 Melbourne University Law Review 415–53, at 444). For a review of how section 6, and in particular the expression ‘manner of new manufactures’, was interpreted over its nearly 350-year history as part of English patent law see Justine Pila (2010) *The Requirement for an Invention in Patent Law* (OUP 2010), in particular chapters 1, 2 and 3. As to the interpretation of ‘manner of new manufactures’ see also Helen Gubby, *Developing a Legal Paradigm for Patents* (Eleven International Publishing 2012) 109–40.

²⁰ *Boulton and Watt v Bull*. 2 H Bl 463–501 (3 R R 439), reproduced in Robert Campbell, *Patents – English Ruling Cases* (Stevens 1900), 9ff, at 40. The invention at issue concerned a new and more

section 6 of the Statute of Monopolies, observed: ‘Undoubtedly there can be no patent for a mere principle; but for a principle so far embodied and connected with corporeal substances, as to be in a condition to act, and to produce effects in any art, trade, mystery or manual occupation I think there may be a patent.’

This observation draws the distinction between a ‘mere principle’ and its (potentially patentable) practical effect, as did the House of Lords 50 years later in *Househill Company v Neilson* when distinguishing between an ‘abstract principle’ and its (potentially patentable) practical application:²¹

The main merit, the most important part of the invention, may consist in the conception of the original idea – in the discovery of the principle in science, or of the law of nature, stated in the patent, and little or no pains may have been taken in working out the best manner and mode of the application of the principle to the purpose set forth in the patent. But still, if the principle is stated to be applicable to any special purpose, so as to produce any result previously unknown, in the way and for the objects described, the patent is good. It is no longer an abstract principle. It comes to be a principle turned to account, to a practical object, and applied to a special result. It becomes, then, not an abstract principle, which means a principle considered apart from any special purpose or practical operation, but the discovery and statement of a principle for a special purpose, that is, a practical invention, a mode of carrying a principle into effect. That such is the law, if a well-known principle is applied for the first time to produce a practical result for a special purpose, has never been disputed. It would be very strange and unjust to refuse the same legal effect, when the inventor has the additional merit of discovering the principle as well as its application to a practical object. The instant that the principle, although discovered for the first time, is stated, in actual application to, and as the agent of, producing a certain specified effect, it is no longer an abstract principle, it is then clothed with the language of practical application, and receives the impress of tangible direction to the actual business of human life.

Despite such observations, by the beginning of the twentieth century the UK Patent Office, supported by the courts, was adopting a narrow reading of section 6 of the Statute of Monopolies, especially in relation to business methods, as exemplified by the observations of Sir Robert Finlay AG in *Cooper’s Application* in seeking to distinguish the invention in issue²² – which provided what was said to be a mechanical advantage from what he characterised as unpatentable ‘schemes’:

You cannot have a patent for a mere scheme or plan – a plan for becoming rich; a plan for better government of a State; a plan for the efficient conduct of a business. The subject with reference to which you must apply for a Patent must be one which results in a material product of some substantial character . . . If the case is one in which the only material product is a printed sheet, or its equivalent,

efficient way of operating a known steam engine. To show the way in which different propositions may be drawn from the same case it should be noted that Nuno Pires de Carvalho, in his *Patently Outdated: Patents in the Post-Industrial Economy – The Case for Service Patents* (quoted from below in the text associated with n 51) credits this decision by holding that ‘an invention must involve the labor of human hands in order to be patentable’ with responsibility for the ‘principle of materiality [which] has firmly presided over the patent system [ever since]’.

²¹ *Househill Coal and Iron Company v James B Neilson and others*, in Thomas Webster, *Reports and Notes of Cases on Letters Patent for Inventions* (Thomas Blenkarn 1844) 673ff, at 683–84.

²² *Coopers’ Application* (1901) 19 RPC 53. ‘The alleged invention which formed the subject of this application consisted of leaving a space or spaces across the printed page of a newspaper or the like, the object being to enable a person reading a newspaper to fold it along the spaces and thus avoid the trouble involved in reading over the folded part of the paper.’

and the only alleged invention an arrangement of words or the like upon such sheet, it appears that the Comptroller was directed that the Patent might be properly refused.

Now I take it that that points to a class or class of cases of which anyone who has followed the history of invention, or supposed invention, in this country must have had experience – where a man has attempted to take out a patent for what is really a plan for the conduct of some branch of business, a plan for a co-operative trading, a plan for securing the payment of a discount in a particular way, and various other plans of that sort, which it is not the least necessary to refer to in detail.

The source of these various examples of unpatentable subject matter is not given in this decision, but the reasoning in *Coopers' Application* was subsequently applied in *Johnson's Application* to deny the patentability of an 'envelope, postcard or the like, with certain printed matter thereon, which would have enabled a certain system of business correspondence to be carried out'.²³

This attitude persisted, so that by 1970, three years before the European Patent Convention was agreed, the Banks Committee could confidently list 'Business schemes (e.g. methods of office management and product promotion)'²⁴ along with 'Commercial, financial and propaganda schemes'²⁵ as '[e]xamples of matter which has never been considered to be an invention as defined [by Section 101 Patents Act 1949]' where such definition referred in part back to section 6 of the Statute of Monopolies.²⁶

3. BUSINESS METHOD PATENTING UNDER EUROPEAN PATENT CONVENTION

The term 'business method' is used in the European Patent Convention (EPC) to identify one of the various types of matter (along with, inter alia, 'computer programs') excluded by Article 52(2) EPC 1973 (and also by Article 52(2) EPC 2000) from patentability (albeit, by Article 52(3), 'only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such'), but is not further defined. The long history of the negotiations that led up to this set of exclusions has been traced by Justine Pila in *The Requirement for an Invention in Patent Law*,²⁷ but the record in this respect would appear to be sketchy when it comes to the business methods exclusion, in contrast, say, to that for computer programs. Certainly, in 1965 the list of excluded subject matter as agreed upon by

²³ *Johnson's Application* (1901) 19 RPC 56.

²⁴ *The British Patent System – Report of the Committee to Examine the Patent System and the Patent Law – Chairman MAL Banks Esq* – Her Majesty's Stationery Office 1960, Cmnd 4407 at para [213].

²⁵ The three other examples it provided were 'Methods of calculation; theoretical ideas and scientific principles', 'Treatment of human beings' and 'Designs or arrangements which serve only to convey information and in which the novelty resides solely in the information conveyed, e.g. normally printed sheets and mere presentations of information'.

²⁶ Section 101 Patents Act 1949 provided that 'invention means any manner of new manufacture the subject of letters patent and grant of privilege within Section 6 of the Statute of Monopolies and any new method of testing applicable to the improvement or control of manufacture and includes an alleged invention', the latter test having been inserted in the statutory definition in 1949 following a recommendation by the Swan Committee.

²⁷ Justine Pila, *The Requirement for an Invention in Patent Law* (OUP 2010), in Part II, who also discusses early case law of the EPO Technical Boards of Appeal on excluded subject matter, including business methods.

the relevant working party, while not including computer programs, did include ‘financial or accounting methods, rules for playing games or other systems, insofar as they are of a purely abstract nature’.²⁸

The lack of much by way of unifying principle behind the business method and other Article 52(2) EPC exclusions has often been the subject of comment,²⁹ but in so doing, few have focused on the business method exclusion in particular. One who did seek so to do was Peter Prescott QC – sitting as a judge of the English Patents Court, discussing the public policy background to this exclusion and its relationship with that for computer programs – when holding in *CFPH’s Applications* that two applications for patents on computerised business methods were excluded from patentability as methods of doing business.³⁰

41 Now let us consider business methods. What is the policy reason that lies behind the exclusion of those? It is because, historically, patents for business methods were never granted yet business innovation went on very well without the benefit of that protection and without the red tape. Businessmen have been every bit as inventive as engineers. It was probably business administrators (and not poets or priests) who made the greatest ‘invention’ of all time: phonetic writing. Consider as further examples: the invention of money; of double-entry bookkeeping; of negotiable bills of exchange; of joint-stock companies; of insurance policies; of clearance banking; of business name franchising; of the supermarket; and so on. None of these needed patent protection to get started. A patent system is always a burden on trade, commerce and industry: if only because of the ‘red tape’ effect. The only question is whether the benefits outweigh the burdens. That has to be demonstrated by those who assert it is so, and in any case the decision is for the legislature. In this country and in Europe the legislature has not yet been persuaded.

42 The point often comes up when the alleged invention has to do with carrying out a business using a computer system. Is the applicant trying to patent a method of doing business? That is not allowed. Or is he trying to patent computer technology? That may be allowed (it depends). But how do you tell the difference? In one sense, a computer that is programmed so as to implement a novel business technique is a new technological artefact. It is a machine with millions of switches arranged as never before. If you say, ‘Yes, but it is not the sort of switch-arrangement that ought to be allowed to count’, you must explain why. It is not always as easy as it might sound.

²⁸ Patents Working Group. Amendments to the Preliminary Draft Convention relating to a European Patent Law (Arts 1 to 175), 23335/IV/65-E (22 January 1965), Art 9, quoted in Justine Pila, *The Requirement for an Invention in Patent Law* (OUP 2010) at 145.

²⁹ See for example *Halliburton Energy Services Inc v Smith International (North Sea) Limited* [2005] EWHC 1623 (Pat) at [211] and [212] and *Aerotel v Telco* [2006] EWHC 997 (Pat); *Macrossan’s Application* [2006] EWHC 705 (Ch) (Patents Court); *Aerotel v Telco & Macrossan’s Application* [2006] EWCA Civ 1371 (Court of Appeal) in the judgment of the Court of Appeal at [9] and [10]. For academic comment on this see Lionel Bently, Exclusions from Patentability and Exceptions to Patentees’ Rights: Taking Exceptions Seriously (2011) 64(1) *Current Legal Problems* 315–47, <<https://doi.org/10.1093/clp/cor011>> accessed 12 October 2019.

³⁰ *CFPH LLC v Comptroller General of Patents Designs and Trade Marks* [2005] EWHC 1589 (Pat); [2006] IP&T; [2006] RPC 259 (Patents Court). Justice Stevens of the US Supreme Court subsequently expressed similar sentiments in *Bilski v Kappos* 130 S Ct 3218 (2010) when considering English law and the Statute of Monopolies (at 3240), and observing (at 3241–42) that there is no basis in the Statute of Monopolies or in pre-1790 English precedent to infer that business methods could qualify for a patent, and yet during the seventeenth and eighteenth centuries, ‘Great Britain saw innovations in business organization, business models, management techniques, and novel solutions to the challenges of operating global firms in which the board of managers could be reached only by a long sea voyage. Few if any of these methods of conducting business were patented.’

It is indeed ‘not always as easy as it might sound’ to make such a distinction, even though it may be relatively easy to articulate an approach to doing so. The EPO Technical Boards of Appeal have thus developed over time a consistently articulated approach as to how to deal with patent applications for carrying out a business using a computer system. Formerly,³¹ the EPO Guidelines for Examination used to express this approach in general terms (conflating the discussion with that of the exclusions for performing mental acts or playing games) as follows:

Schemes, rules and methods for performing mental acts, playing games or doing business

These are further examples of items of an abstract or intellectual character. In particular, a scheme for learning a language, a method of solving crossword puzzles, a game (as an abstract entity defined by its rules), modelling information or . . . a scheme for organising a commercial operation would not be patentable . . .

A method of doing business is excluded from patentability even where it implies the possibility of making use of unspecified technical means or has practical utility (see T 388/04).

However, if the claimed subject-matter specifies an apparatus or a technical process for carrying out at least some part of the scheme, that scheme and the apparatus or process have to be examined as a whole. In particular, if the claim specifies computers, computer networks or other conventional programmable apparatus, a program therefor, or a storage medium carrying the program, for executing at least some steps of a scheme, it may comprise a mix of technical and non-technical features, with the technical features directed to a computer or a comparable programmed device. In these cases, the claim is to be examined as a ‘computer-implemented invention’ (see G-II, 3.6).

The discussion in the corresponding version of the Guidelines for Examination about the examination of computer-implemented inventions was more detailed, but essentially required, for the exclusion from patentability for computer programs (as such) not to apply, that the patent application claim a ‘further technical effect which lends technical character to a computer program’ going beyond the ‘normal physical effects of the execution of a program e.g. electrical currents’ or ‘beyond merely finding a computer algorithm to carry out some procedure’. Such ‘further technical effect which lends technical character to a computer program’ might, according to such version of the Guidelines, be found ‘e.g. in the control of an industrial process or in the internal functioning of the computer itself or its interfaces under the influence of the program and could, for example, affect the efficiency or security of a process, the management of computer resources required or the rate of data transfer in a communication link’, all of which examples would have potential application to the operation of computerised business methods. When it comes to examining inventive step as against the state of the art, nontechnical elements do not contribute to inventive step, and so a nonobvious difference over the prior art leads to a positive outcome, if it is deemed technical; but a nonobvious difference that is deemed nontechnical leads to a negative outcome.³²

Although the passage quoted above has been omitted in the most recent version of the Guidelines for Examination and replaced with three much more detailed sections addressing each of the exclusions separately, such revision (along with a revision of the section of the Guidelines dealing with programs for computers and computer-implemented inventions) does not reflect any change in the underlying law or the approach adopted in examination, but rather

³¹ Such language was last found in the November 2017 *Guidelines for Examination* at Part G Chapter II #3.5, but can be traced back to at least the September 2013 version of the Guidelines.

³² See Chapter 13 in this volume, ‘Software-related inventions’, by Matthew Fisher.

the greater body of EPO Board of Appeal case law on the subject and the increasing attention that such subject has attracted in practice. Such revision can however be seen as reflecting a change in presentation and emphasis, as it elevates the examination of the exclusion for business methods as such to a separate and standalone topic in its own right, rather than as an adjunct to the examination of the exclusion for computer programs as such. The new section for ‘Schemes, rules and methods for doing business’³³ equates ‘business methods’ with ‘subject-matter or activities which are of financial, commercial, administrative or organisational nature’, which it exemplifies as follows:

Financial activities typically include banking, billing or accounting. Marketing, advertising, licensing, management of rights and contractual agreements, as well as activities involving legal considerations, are of a commercial or administrative nature. Personnel management, designing a workflow for a business process or communicating postings to a target user community based on location information are examples of organizational rules. Other activities typical of doing business concern operational research, planning, forecasting and optimisations in business environments, including logistics and scheduling of tasks. These activities involve collecting information, setting goals, and using mathematical and statistical methods to evaluate the information for the purpose of facilitating managerial decision-making.

The new section then explains those circumstances in which patent applications for business methods are not rejected as excluded subject matter as such but go on to be examined for novelty and inventive step, but taking account only of those features which contribute to the technical character of the invention:

If the claimed subject-matter specifies technical means, such as computers, computer networks or other programmable apparatus, for executing at least some steps of a business method, it is not limited to excluded subject-matter as such and thus not excluded from patentability under Art. 52(2)(c) and (3).

...

Once it is established that the claimed subject-matter as a whole is not excluded from patentability under Art. 52(2) and (3), it is examined with respect to novelty and inventive step (G-I, 1). The examination of inventive step requires an assessment of which features contribute to the technical character of the invention (G-VII, 5.4).

The section then concludes with several detailed examples of apparently technical features which do not however contribute to the technical character of the invention, largely because they do not specify a particular technical implementation. In contrast, it observes that ‘[f]eatures which are results of technical implementation choices and not part of the business method contribute to the technical character and thus have to be duly taken into account’. However, even features that lack technical character may become relevant when assessing inventive step, which under EPO practice is in general undertaken using the problem–solution approach, one aspect of which involves identifying the objective technical problem. This is because, as the Guidelines also make clear, ‘an administrative rule with no technical effect . . . does not contribute to the technical character of the claimed subject-matter and may be used in the formulation of the objective technical problem as a constraint that has to be met when assessing inventive step’.

³³ November 2018 *Guidelines for Examination*, available at <www.epo.org/law-practice/legal-texts/guidelines.html> at Part G Chapter II, #3.5.3 accessed 12 October 2019.

The Case Law of the Boards of Appeal of the EPO also provides,³⁴ at section 2.5.1, some exemplification of the EPO approach to business methods, giving three examples of patent applications that were held by the Technical Boards of Appeal – upholding the Examination Division – not to be inventions because it was considered that they related to business methods as such,³⁵ and one, later, example of an application which the Board considered not to be a business method as such.³⁶

The age of the cited decisions is notable, with the latest (holding the claim in issue to not be for a business method as such, but to lack inventive step anyway) having been decided in 2009. No less notable is the fact that between the publication of the seventh edition of the Case Law of the Boards of Appeal of the EPO in 2013 and the eighth edition in 2016, none of the annual or biennial reviews of Boards of Appeal case law have included any case law on business methods or computer-implemented inventions,³⁷ and the only exclusions from patentability that have been discussed have been those relating to *ordre public* and various issues in life sciences, such as stem cells and essentially biological processes. Indeed, the relevant passage dealing with business methods was unchanged between the seventh and eighth editions of the Case Law of the Boards of Appeal, giving the impression that EPO case law as to business methods is regarded by the Boards of Appeal as settled.

Going further, it could be said that the current approach of the EPO to business method patenting has changed little since it was described in the EPO Paper on ‘Examination of “business method” applications’ at Appendix 6 of the Trilateral Study undertaken by the European, Japanese and US Patent Offices (dated November 2001) that followed up on the Comparative Trilateral Study on the subject of business method patents in June 2000.³⁸ The EPO Paper divides business methods into three types, which it treats as follows:

³⁴ *The Case Law of the Boards of Appeal of the European Patent Office* (8th edn, 2016) available at <www.epo.org/law-practice/case-law-appeals/case-law.html> at Part IA accessed 12 October 2019.

³⁵ Namely T 854/90 and T 931/95 in addition to T 388/04, which is also referred to in the Guidelines. In T 854/90 (Board 3.4.01, 19 March 1992) the technical aspect of the claimed method was an electronic self-service machine, such as a cash dispenser, which could be accessed using any machine-readable card, but the other aspects of the claimed method were merely instructions for using the machine, and although technical components were used, this did not alter the fact that what was being claimed was a method for doing business as such. In T 931/95 (Board 3.5.01, 8 September 2000) the technical aspect of the claimed method was the use of data processing means and all the individual steps that defined the claimed method were ones that involved processing and producing information of a purely administrative, actuarial and/or financial character.

³⁶ T 384/07 (Board 3.4.03, 8 September 2009), in which the Board observed at Reasons [2] ‘As in the present case the method as claimed, in addition to those features corresponding to the underlying business scheme itself, includes features corresponding to technical means for the technical implementation of the business scheme, such as a data processing terminal connected to a network of data processing terminals etc., it does not constitute a method for doing business as such, and, therefore, is not excluded from patentability in accordance with Article 52(2) and (3) EPC.’ However, the Board then went on to find the claimed invention to lack inventive step on a conventional basis.

³⁷ Most recently *Supplementary Publication 4, Official Journal 2017, EPO Boards of Appeal Case Law 2015 and 2016*, available at <www.epo.org/law-practice/legal-texts/official-journal/2017/etc/se4.html> accessed 12 October 2019.

³⁸ Available at <www.trilateral.net/projects/Comparative/business/Main.pdf> accessed 12 October 2019.

- (1) Claims to abstract business methods should be rejected on the grounds that they are excluded by Articles 52(2) and (3) EPC, since they are methods of doing business “as such”.
- (2) Claims for computer-implemented business methods should be treated in exactly the same way as any other computer-implemented invention.
- (3) Claims for other implementations of business methods should be treated using the same scheme for examination as for computer implementations.

Thus it is only ‘abstract’ business methods, which one might equate with ‘pure’ or ‘nontechnical’ business methods, that are excluded at an initial stage under EPO practice. The EPO Paper then outlines the EPO approach to examining other implementations of business methods by reference to how computer-implemented business method inventions are examined:

The claimed subject-matter, which by definition includes elements such as a computer or code which is intended to run on a computer, is presumed, *prima facie*, not to be excluded from patentability by Articles 52(2) and (3) EPC.

...
The subject-matter of the claim is therefore to be examined for novelty and inventive step. This is done according to the Guidelines for Examination as currently specified. In particular, in the examination for inventive step the objective technical problem solved by the invention as claimed considered as a whole when compared with the closest prior art is to be determined. If no such objective technical problem can be determined, the claim is to be rejected on the ground that its subject-matter lacks an inventive step.

The most recent developments in the Technical Board of Appeal case law, although not changing the fundamental approach as set out above, refine this in, for example addressing how to assess the inventive step of a claim which defines a method with both technical and nontechnical elements, where the formulation of the objective technical problem in terms of nontechnical requirements raises the question of what requirements a business person would actually give to the technically skilled person. To do so, late in 2016 the Boards introduced, alongside the well-established concept of the notional (technically) skilled person, that of the ‘notional business person’ – another artificial construct, who would not specify any particular technical means for meeting the required specification, thereby ensuring that all technical matter – including known or even notorious matter – is considered for obviousness and can contribute to the inventive step analysis.³⁹ Applying this approach, the Board, recognising in these cases there to be a technical rather than a business prejudice against the claimed invention, reversed a rejection by the Examining Division, which had found the claimed invention to lack inventive step as a straightforward implementation of an administrative scheme. However, the wider significance of this approach remains to be determined – in a subsequent decision by the same Board of Appeal, which emphasised the distinction between requiring technical means and requiring something which has technical implications, its application did not save the patent application in issue from rejection.⁴⁰

³⁹ T-1463/11 *Universal merchant platform/CardinalCommerce* (Technical Board 3.5.01, 29 November 2016) at Reasons [10]–[17], and T-1658/15 *Universal merchant platform II/CardinalCommerce* (Technical Board 3.5.01, 29 November 2016) at Reasons [12]–[19].

⁴⁰ T 0630/11 *Gaming Server/Waterleaf* (Technical Board 3.5.01 13 July 2017) at Reasons [8] to [12].

4. APPROACHES OF SOME OTHER LEGAL SYSTEMS TO PATENTING BUSINESS METHODS

Europe is not unique in facing the challenges of business method patenting. This section outlines the approach of three other jurisdictions – Australia, China and the United States – each of which are instructive in their own different ways. Australia is instructive in that it has addressed the issue of business method patenting in recent years in the context of section 6 of the English Statute of Monopolies. China is instructive not only as potentially the most significant jurisdiction internationally, given its size, but also as a jurisdiction which has only relatively recently introduced a patent law, which has meant it is relatively untrammelled by the baggage of patent history. The United States is instructive in that it is well established that business methods are potentially patentable, in response to which it has not only introduced specific measures to expose certain such patents to greater scope for scrutiny than others, but has also in recent years, by virtue of court decisions at the highest level, considered the patentability of such patents and limited the scope to secure such patents – albeit by means of principles the application of which as yet seems, at least to a non-US lawyer, to be obscure, leaving the law in a state of flux and uncertainty.

As already observed, Australia has had to address the issue of business method patenting in recent years in the context of section 6 of the English Statute of Monopolies, on which its patent law is still based to this day. However, the ‘manner of new manufacture’ wording, of itself, would seem now to impose little constraint on the Australian courts, given the basis for a flexible modern-day interpretation of what is meant by this expression as set out by the High Court, the highest court in Australia, in *National Research Development Corporation v Commissioner of Patents*:⁴¹

[14] . . . The word ‘manufacture’ finds a place in the present Act, not as a word intended to reduce a question of patentability to a question of verbal interpretation, but simply as the general title found in the Statute of Monopolies for the whole category under which all grants of patents which may be made in accordance with the developed principles of patent law are to be subsumed. It is therefore a mistake, and a mistake likely to lead to an incorrect conclusion, to treat the question whether a given process or product is within the definition as if that question could be restated in the form: ‘Is this a manner (or kind) of manufacture?’ It is a mistake which tends to limit one’s thinking by reference to the idea of making tangible goods by hand or by machine, because ‘manufacture’ as a word of everyday speech generally conveys that idea. The right question is: ‘Is this a proper subject of letters patent according to the principles which have been developed for the application of s. 6 of the Statute of Monopolies?’

Applying these principles to what constituted a potentially patentable process the Court went on to observe:

[22] . . . The point is that a process, to fall within the limits of patentability which the context of the Statute of Monopolies has supplied, must be one that offers some advantage which is material, in the sense that the process belongs to a useful art as distinct from a fine art . . . that its value to the country is in the field of economic endeavour.

⁴¹ *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252; (1961) RPC 134; 1A IPR 63 (High Court).

The *National Research Development Corporation* case, however, concerned not a business method but a process for ridding crop areas of certain kinds of weeds by applying chemicals which had formerly been supposed not to be useful for this kind of purpose at all. In its extensive review of earlier cases in the English and Australian courts, the High Court discussed no cases that involved business methods.

However, the next most senior appellate court in Australia, the Full Federal Court, has more recently addressed business method patents at some length in two cases. In *Research Affiliates LLC v Commissioner of Patents*,⁴² the Full Court reviewed some aspects of UK and US law in addition to earlier Australian decisions, before concluding, after an extensive discussion of the application under consideration, that '[t]he claimed method in this case clearly involves what may well be an inventive idea, but it is an abstract idea' and was hence unpatentable.⁴³ The Court appears to have drawn the proposition that it is the nature of an 'abstract idea' that is the touchstone of unpatentability from longstanding US case law, as discussed below, by which 'abstract ideas' (along with laws of nature, and natural phenomenon) are regarded patent ineligible.⁴⁴ The following year, in *Commissioner of Patents v RPL Central Pty Ltd*,⁴⁵ the Full Court, having drawn a number of principles from its decision of the previous year, provided a more extensive articulation of the principles that it sought to apply:

[96] A claimed invention must be examined to ascertain whether it is in substance a scheme or plan or whether it can broadly be described as an improvement in computer technology. The basis for the analysis starts with the fact that a business method, or mere scheme, is not, *per se*, patentable. The fact that it is a scheme or business method does not exclude it from properly being the subject of letters patent, but it must be more than that. There must be more than an abstract idea; it must involve the creation of an artificial state of affairs where the computer is integral to the invention, rather than a mere tool in which the invention is performed. Where the claimed invention is to a computerised business method, the invention must lie in that computerisation. It is not a patentable invention simply to 'put' a business method 'into' a computer to implement the business method using the computer for its well-known and understood functions.

Again, this statement of principle bases the unpatentability of a 'scheme or business method' *per se* on its being an 'abstract idea'. However, the Full Court also accepts that schemes or business methods may properly be the subject of letters patent if these 'involve the creation of an artificial state of affairs where the computer is integral to the invention, rather than a mere tool in which the invention is performed'. Elsewhere in its decision, here drawing on UK law as discussed in its earlier decision and also earlier Australian decisions, the Full Court

⁴² *Research Affiliates LLC v Commissioner of Patents* [2014] FCAFC 150.

⁴³ *ibid* [118].

⁴⁴ The *National Research Development Corporation* case provides little support for the use of the word 'abstract' in this context as it only uses the word 'abstract' at [8] in contrasting a discovery with an invention: 'The truth is that the distinction between discovery and invention is not precise enough to be other than misleading in this area of discussion. There may indeed be a discovery without invention – either because the discovery is of some piece of abstract information without any suggestion of a practical application of it to a useful end, or because its application lies outside the realm of 'manufacture'. But where a person finds out that a useful result may be produced by doing something which has not been done by that procedure before, his claim for a patent is not validly answered by telling him that although there was ingenuity in his discovery that the materials used in the process would produce the useful result no ingenuity was involved in showing how the discovery, once it had been made, might be applied.'

⁴⁵ *Commissioner of Patents v RPL Central Pty Ltd* [2015] FCAFC 177.

emphasised the need for the contribution to the claimed invention to be technical in nature. It accepted that the method claimed in the particular application under consideration could not be carried out without the use of a computer, but observed that this alone could not render the claimed invention patentable if it involves simply the speed of processing and the creation of information for which computers are routinely used, in which circumstances the claimed invention was still to the business method itself.⁴⁶ Thus, as with so many rejected applications for business method patents, the application here was seen as being an example of the situation as set out in the last sentence quoted above – it had ‘simply [been] “put” . . . “into” a computer to implement the business method using the computer for its well-known and understood functions’.

Article 25 of the Patent Law of the People’s Republic of China, as last amended in 2008,⁴⁷ provides for patent rights not to be granted for, inter alia, ‘rules and methods for intellectual activities’. Revisions to the Examination Guidelines that entered into force on 1 April 2017 supplement the previous qualification to this, namely that ‘If a claim in its whole contents contains not only matter of rule or method for mental activities but also technical features, then the claim, viewed as a whole, is not a rule or method for mental activities, and shall not be excluded from patentability under Art. 25 of the Patent Law’, to make it clear that ‘If a claim relating to business model contains not only matter of business rules and methods but also technical features, it shall not be excluded from patentability under Art. 25 of the Patent Law’. This new provision is seen as being favourable towards the patenting of applications for business methods, even though its effect on examination practice may be more subtle than it at first sight appears, in that relatively few rejections of patents for business method-related patent applications had previously been based on Article 25.⁴⁸

The United States – the patent law of which, despite its heritage in English patent law, was never framed in terms of the ‘manner of new manufacture’ – is the country that has experienced the greatest challenge from business method patenting: while there was an apparently favourable climate towards it since at least 1998,⁴⁹ this ended in 2010 with the Supreme Court decision in *Bilski v Kappos*,⁵⁰ followed in 2014 by *Alice Corp. Proprietary Ltd. v CLS Bank*

⁴⁶ *ibid* [104].

⁴⁷ See <<http://english.sipo.gov.cn/lawpolicy/patentlawsregulations/915574.htm>> (accessed 12 October 2019).

⁴⁸ See China Patent Agent (H.K) Ltd at <www.cpahkltd.com/UploadFiles/20170309184413307.pdf> (accessed 12 October 2019) observing that under current examination practice most business method patent application rejections are on the grounds of Article 2.2 of the Patent Law, which requires a technical solution.

⁴⁹ *State Street Bank and Trust Company v Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed Cir 1998) is the decision which is usually cited as establishing a sympathetic approach to such patents. For comment on the growth in business method patenting subsequent to this case see John R Thomas, ‘Patents on Methods of Doing Business–Congressional Research Service Report’ RL30572 (2000); Greg S Fine, ‘To Issue or Not to Issue: Analysis of the Business Method Patent Controversy on the Internet’ (2001) 42 BC L Rev 1195; Andre J Porter, ‘Should Business Method Patents Continue to Be Patentable?’ (2002) 29 S U L Rev 225.

⁵⁰ *Bilski v Kappos* 130 S Ct 3218 (2010), concerning ‘a method of hedging risk in electricity markets is patentable subject matter; the idea was to minimize the input costs of an electricity provider that must sell to consumers at a fixed rate despite purchasing at a variable rate’: Ben McEniery, ‘Patent Eligibility and Physicality in the Early History of Patent Law and Practice’ (2016), 38 U Ark Little Rock L Rev 175. Available at <<http://lawrepository.ualr.edu/lawreview/vol38/iss2/2/>> accessed 12 October 2019.

International.⁵¹ These two Supreme Court decisions have left United States law in what can perhaps best be described as a state of uncertainty as regards the patentability of business methods, although the general principle underlying these cases was that the subject matter in issue was unpatentable as ‘abstract ideas’.⁵² Despite this, it is clear that there is no absolute ban in the United States on business method patenting, reflected in the fact that part of the USPTO is dedicated to the grant of business method patents,⁵³ and the *Subject Matter Eligibility Examples: Business Methods* published by the USPTO in 2016 give several examples of patent eligible subject matter in the area of business methods.⁵⁴

This is further emphasised by the fact that statute provides a specific means of challenging certain types of such patent. Thus, while the United States lacks any express exclusion in its law for business methods, it recognises in the ‘covered business method patent’ a uniquely disadvantaged species of business method patent which may be challenged in circumstances that are not available for other types of patent. This is defined as ‘a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions’.⁵⁵ It is implicit in this definition that there are other types of business method patents, which are not concerned with financial services, that also constitute potentially patentable subject matter. But given the thesis behind this chapter, namely that business method patent exclusions will wither away in relevance as business methods become inextricably linked with technology, the definition of ‘covered

⁵¹ *Alice Corp. Proprietary Ltd. v CLS Bank International*, 134 S Ct 2347 (2014), concerning ‘a computerized trading platform that eliminates “counterparty” or “settlement” risk, being the risk that only one party to a financial transaction performs its obligation to pay, leaving the other party without its principal or the benefit of the counterparty’s performance’: Ben McEniery, ‘Patent Eligibility and Physicality in the Early History of Patent Law and Practice’ (2016), 38 U Ark Little Rock L Rev 175. Available at <<http://lawrepository.uarl.edu/lawreview/vol38/iss2/2>> accessed 12 October 2019.

⁵² Former Chief Judge of the Federal Circuit Paul Michel has described the standard as ‘too vague, too subjective, too unpredictable and impossible to administer in a coherent, consistent way in the patent office or in the district courts or even in the federal circuit’: Gene Quinn, *Judge Michel Says Alice Decision ‘Will Create Total Chaos’*, IPWATCHDOG (6 August 2014) <www.ipwatchdog.com/2014/08/06/judge-michel-says-alice-decision-will-create-total-chaos/id=50696/> (quoting former Chief Judge Paul Michel) accessed 12 October 2019. Quoted in Jason D Reinecke, *Is the Supreme Court’s Patentable Subject Matter Test Overly Ambiguous: An Empirical Test*, SSRN-id3123524 (2018).

⁵³ See the USPTO site headed ‘Business Methods’ at <www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/utility-patent/patent-business#step1> accessed 12 October 2019, the overview to which notes ‘The Business Methods Practice Area is part of Technology Center 3600 that handles Business Methods applications. The Business Methods Practice Area is comprised of three workgroups that include 3620, 3680, and 3690. The 3620 and the 3680 workgroups examine applications pertaining to incentive programs, coupons; operations research; electronic shopping; health care; point of sale, inventory, accounting; cost/price, reservations, shipping, and transportation; and business processing. The 3690 workgroup examines applications pertaining to finance/banking/insurance.’

⁵⁴ See *Subject Matter Eligibility Examples: Business Methods* (USPTO December 2016) available at <www.uspto.gov/sites/default/files/documents/ieg-bus-meth-exs-dec2016.pdf> accessed 12 October 2019.

⁵⁵ Leahy-Smith America Invents Act (‘AIA’), Pub L No 112-29, § 18, 125 Stat. 284, 329–31 (2011) at (d)(1). For a review of the operation of this legislation, see United States Government Accountability Office, Report to the Chairman, Committee on the Judiciary, House of Representatives, US Patent and Trademark Office Assessment of the Covered Business Method Patent Review Program GAO-18-320 (March 2018), available at <www.gao.gov/products/GAO-18-320> accessed 12 October 2019.

business method patent’ is especially interesting in that this definition provides a safe harbour from such review for ‘technological inventions’ even though these may be used in the practice, administration or management of a financial product or service.

This definition also provides a link between the US concern with business methods as abstract ideas and those jurisdictions, such as Europe and China, which provide a legal basis for the exclusion from patentability for pure business methods in their nontechnological nature but make it clear that technical features, albeit of the right sort, will render business methods patentable. Even those jurisdictions, when discussing exclusions, will resort to concepts such as ‘nonabstract’ and equate this with the use of technical means, as the Case Law of the Boards of Appeal of the EPO makes clear (emphasis added):⁵⁶

Technical considerations and technical implementations

...

In T-914/02 the involvement of technical considerations, however, was not sufficient for a method, which might exclusively be carried out mentally, to have technical character. In fact, other non-inventions listed in Art. 52(2) EPC 1973, such as scientific theories, but also computer programs, typically involved technical considerations. Technical character could be provided through the technical implementation of the method, resulting in the method providing a tangible, technical effect, such as the provision of a physical entity as the resulting product, or a non-abstract activity, such as through the use of technical means. The board rejected a claim directed to an invention involving technical considerations and encompassing technical embodiments (point 3 of the Reasons) on the grounds that the invention as claimed could also be exclusively performed by purely mental acts excluded from patentability under Art. 52(2)(c) EPC 1973.

It is notable also that the EPO Paper on ‘Examination of “business method” applications’ (dated November 2001) that followed up on the Comparative Trilateral Study on the subject of business method patents in June 2000, and which is quoted from above characterises,⁵⁷ as its first type of business method, (emphasis added) “claims to abstract business methods” which, unlike other types of business method claims, “should be rejected on the grounds that they are excluded by Articles 52(2) and (3) EPC, since they are methods of doing business “as such””.⁵⁸

There is no need to seek to equate the two concepts in Australia, as, drawing from both US and (via the UK) EPO case law in *Commissioner of Patents v RPL Central Pty Ltd*, they are treated as equal, and implicitly equivalent, bases for excluding certain types of business method from patentability.

5. CONCLUSION

It is apparent from the above discussion that the prejudice against business method patenting has become deepseated, even if it lacks much by way of clearly or consistently articulated policy rationale and would seem to be more a matter of historical accident than of intention.

⁵⁶ *The Case Law of the Boards of Appeal of the European Patent Office* (8th edn, 2016) available at <www.epo.org/law-practice/case-law-appeals/case-law.html> at Part IA, accessed 12 October 2019.

⁵⁷ See text associated with n 38 above.

⁵⁸ Another example, from the travaux préparatoires for the EPC, proposing as one type of excluded subject matter ‘financial or accounting methods, rules for playing games or other systems, insofar as they are of a purely abstract nature’: see n 28 above.

Thus, it is unrealistic to imagine that the prejudice against business method patents that is found in the patent laws of most jurisdictions will dissipate in the foreseeable future, and that those jurisdictions which expressly exclude business methods from patentability will decide to abolish such exclusions. What instead seems more likely is that such exclusions will become harder in practice to apply, and less relevant, over time, given that, as the above discussion also makes clear, and irrespective of how the exclusion from patentability for business methods is expressed, it does not apply where the claimed invention has the requisite type of technical contribution.

Nuno Pires de Carvalho, who has written extensively, engagingly and informatively about the subject in *Patently Outdated: Patents in the Post-Industrial Economy*,⁵⁹ sees matters rather differently, observing:⁶⁰

There is no problem with too many patents. The problem that this book detects and alerts for is that the largest field in the economies of most countries, the field of services, is left entirely outside the positive influence of patents. The reason is that purely intangible inventions are generally deemed not patentable.

He suggests that one way to address this to facilitate the patenting of what he describes as ‘service inventions’⁶¹ (within which term he includes business methods⁶²) would be to amend Article 27.1 TRIPS expressly to insert ‘or services’ after ‘products, or processes’. But he does not suggest amending the wording in Article 27.1 TRIPS that follows – ‘in all fields of technology’ – despite it being this wording, as this chapter suggests, that provides the real basis for the limitation of the patentability of pure business methods, albeit a basis that is likely to fade in relevance over time as business methods become ever more embedded in technology.

Looking at the relationship between business (or, in the language of early English patent law as discussed above, trade) and technology in another way, and returning to the early origins of English patent law, it is perhaps fitting to conclude by quoting Oren Bracha, in a footnote associated with the text quoted above discussing what early English patents protected (albeit writing at a time when business method patenting had become rather easier in the United States than it has gone on to be in recent years), who observed:⁶³

Ironically the recent rise of willingness of patent offices and of courts to uphold patents for ‘business methods’ seems to revive a practice similar to the ancient English one of patents that protect the practice of a particular trade rather than a technological innovation of any kind. The modern business method patent, though not identical in scope to English patents for the exercise of certain trades seems to sometimes cover very similar activities. Conceptually, however, the two are mirror images of each other. Under the early English patent the concept of a ‘new trade’ swallowed and engulfed the indistinguishable component of an ‘invention.’ In the context of the modern business method patent it is the ever-expanding concept of invention that swallows and incorporates that of a new trade. In other words while in the seventeenth century technological developments were thought of mainly

⁵⁹ Nuno Pires de Carvalho, *Patently Outdated: Patents in the Post-Industrial Economy – The Case for Service Patents* (Wolters Kluwer 2012).

⁶⁰ *ibid* xvii.

⁶¹ *ibid* 207.

⁶² *ibid* 158.

⁶³ Oren Bracha, *Owning Ideas: The Intellectual Origins of American Intellectual Property, 1790–1909* (CUP 2017) at 12, n 13.

in terms of a new trade, nowadays new trade practices are thought of in terms of being themselves technological developments.

Looking to the future, it is very hard to conceive of new trade practices (or business methods) being implemented in any other way than technologically.

15. Artificial intelligence, big data and intellectual property: protecting computer generated works in the United Kingdom

Ryan Abbott

1. INTRODUCTION

Big data and its use by artificial intelligence (AI) is changing the way intellectual property is developed and granted. For decades, machines have been autonomously generating works which have traditionally been eligible for copyright and patent protection.¹ For instance, in the US, the first ‘computer generated work’ (CGW) was submitted for copyright registration prior to 1965. The US Patent and Trademark Office (USPTO) has granted patents for inventions autonomously generated by computers as early as 1998. Terms such as ‘computers’ and ‘machines’ are used in this chapter interchangeably to refer to computer programs or software rather than to physical devices or hardware. As AI continues exponentially to become more sophisticated and powerful, and the amount of data available to these machines keeps pace, CGWs should become a major contributor to the creative and inventive economies.²

This chapter considers the phenomenon of CGWs from a UK, EU and international law perspective. There is little law on the subject. UK law explicitly provides for copyright protection of CGWs, and in this respect it is an outlier in the EU and internationally. However, UK law is silent on patent protection. No UK, EU or international law explicitly prohibits protection for CGWs, but rarely are such works explicitly protected. Legal instruments and judicial language related to both copyright and patents frequently refer to authors and inventors as natural persons, or restrict authorship or inventorship to natural persons, but this is most likely in response to the prospect of corporate authorship and inventorship. Such language does not appear to be the result of seriously considering CGWs and should not prohibit intellectual property rights (IPRs) as a matter of policy.

This chapter begins by describing the phenomenon of CGWs and then reviewing the relevant law. It seeks to resolve the following questions: Are computers autonomously creating or inventing or merely aiding human authors and inventors? How will inventive machines alter research and development? Can a CGW receive copyright or patent protection? Can a person qualify as an author or inventor for a machine’s output? Who would own IPRs associated with a CGW? These and other questions can be answered by referring to the fundamental policy rationales for IPRs, and by analogy to instances of human authorship and invention.

The chapter argues that patentability of CGWs is a matter of first impression in the UK, but that CGWs should be eligible for patent protection. This would incentivise the development

¹ See Ryan Abbott, ‘I Think, Therefore I Invent: Creative Computers and the Future of Patent Law’ (2016) 54 B C L Rev 1079.

² See Ryan Abbott, ‘Everything Is Obvious’ (2019) 66 UCLA L Rev 2.

of inventive machines, which will ultimately result in more innovation. Acknowledging machines as inventors would also safeguard moral rights, because it would prevent people from receiving undeserved acknowledgement.

The chapter also proposes that the standard for CGWs should be amended – for copyright as well as patent. Rather than treating a CGW as a work ‘generated by a computer in circumstances such that there is no human author of the work’, a CGW should be a work ‘generated by a computer in circumstances such that the computer, if a natural person, would be an author’. Similarly, for patents, CGW should be a work ‘generated by a computer in circumstances such that the computer, if a natural person, would be an inventor’. This would take into account the fact that people and machines often work collaboratively, and that even with the involvement of a person, a machine can contribute as an author or inventor in its own right.

Finally, this chapter argues there is a need for an internationally harmonised approach to CGWs. Most jurisdictions in the EU, and worldwide, have yet to decide how to regulate CGWs. Failure to internationally harmonise may disadvantage countries which permit IPRs for CGWs, and advantage those which do not.

2. CREATIVE COMPUTERS AND INVENTIVE MACHINES

2.1 The Growing Sophistication of AI

Much has been written about the increasing capacity of AI to engage in knowledge work. Indeed, hardly a day goes by without a news article describing some new feat achieved by AI, whether it is IBM’s AI system DeepBlue beating Garry Kasparov at chess, IBM’s Watson winning a game of Jeopardy or Google’s DeepMind defeating a Go world champion in 2016. DeepMind’s Go victory was unexpected at the time because of the sheer complexity of the game, which has more potential board configurations than there are atoms in the universe. AI systems are playing games to demonstrate their capabilities and to train, but they are also being applied to solve practical problems. Watson, for example, is being used to find new uses for existing drugs – an activity that has traditionally been fertile ground for generating patentable inventions.

Computer knowledge work can be thought of on a spectrum. At one end, computers may function as simple tools that assist human authors and inventors, much the way that a pen or a wrench can help someone to write or to invent. Works generated in this fashion have been referred to as ‘works created using a computer’, and likely account for the vast majority of human–machine collaboration. While it could not be seriously argued that Microsoft Word should be a coauthor of this chapter, it did contribute to the chapter’s creation. At times, Word corrects spelling, automatically formats and even suggests the use of certain words.

The term ‘intermediate works’ has been used to refer to more substantive contributions made by computers to creative works where a person qualifies as an author or inventor. It may be difficult to precisely distinguish between an intermediate work and a work created using a computer. Word probably could not contribute to an intermediate work, but a variety of publicly available software programs can. For instance, ‘Band-in-a-Box’ allows a user to choose chords and styles, and the program then automatically generates a ‘complete

professional-quality arrangement of piano, bass, drums, guitar, and strings or horns'.³ Other programs can make similarly substantive contributions to different types of creative works, such as novels and films. In some instances of intermediate works, it may be the case that the computer would qualify as a joint author or inventor, if it were a natural person.

At the other end of the spectrum, computers generate works under circumstances in which no human author or inventor can be identified. These are often referred to as CGWs or 'works created by a computer'. While not widely appreciated, computers have been creating CGWs for decades. As an interesting example of the interplay between copyright and patent, in 2003 technologist Raymond Kurzweil, now a director of engineering at Google, was granted a patent on a computer program that could autonomously generate creative writings – the 'Cybernetic Poet'. Incidentally, Mr Kurzweil now predicts that machines will have human levels of intelligence in about a decade.

The argument has been made that a human author or inventor exists for any CGW, in the sense that, 'behind every good robot is a good person'.⁴ It is true that a programmer (or many programmers and developers) has to create computer software, and in some cases it may make sense to impute authorship or inventorship to a programmer – particularly if a programmer develops an algorithm specifically to solve a particular problem or to generate a particular output. In these cases a programmer might have a significant contribution to a machine's specific output. However, it may also be the case that a programmer creates an algorithm with no expectation or knowledge of the problems it will go on to solve. Some AI systems such as neural networks can behave unpredictably, such that their original programmers may not understand precisely how they function.⁵ Some computer systems, such as those based on genetic programming, may even be able to alter their own code. By analogy to human inventorship, an inventor's teachers, mentors and even parents do not qualify as inventors on their patents – at least, not without directly contributing to the conception of a specific invention.

Attributing authorship or inventorship to a computer user, rather than a programmer, is also problematic. It may sometimes be the case that a user makes a significant contribution to a computer's output, or that formulating instructions to a computer requires significant skill. However, it may also be the case that a user simply asks a computer to solve a problem, and the computer proceeds to independently generate an answer. In the future, it may even be the case that the computer is able to identify that its output is eligible for copyright or patent protection. In such cases, it seems difficult to argue that the user is an author or inventor. Again, by analogy to human works, simply instructing another person to solve a problem does not usually qualify for authorship or inventorship.

Thus, in at least some instances, computers are generating works traditionally entitled to copyright and patent protection under circumstances in which no natural person qualifies as an author or inventor according to traditional criteria. In practice, it may be difficult to distinguish between works created using a computer, intermediate works and works created by a computer. However, this is not unlike making sense of human authorship and inventorship for joint works where individuals make diverse contributions.

³ See, for example, Band-in-a-Box, PG Music <www.pgmusic.com> accessed 12 October 2019.

⁴ Arthur Miller, 'Copyright Protection for Computer Programs, Databases, and Computer Generated Works: Is Anything New since CONTU?' (1993) 106 Harv L Rev 977.

⁵ Ryan Abbott, 'The Reasonable Computer: Disrupting the Paradigm of Tort Liability' (2018) 86 Geo Wash L Rev 1 (discussing unexplainability in the context of AI).

2.2 Where is the CGW?

Given these technological advances, one would be forgiven for asking: where are the CGWs? Why are there not routinely lawsuits over CGWs? How have countries managed without legal standards for CGWs?

It may be that the creative AI revolution has yet to arrive. CGWs may be few and far between, or lack commercial value. When Scott French programmed a computer to write a novel in the style of a famous author in 1993, the resulting work was described by one critic as ‘a mitigated disaster’.⁶ Likewise, with regard to inventions, computers may rarely be inventing, or these outputs may lack significant utility.

It may also be that computers are creating CGWs, but this is not being disclosed. There are good reasons to think this may be the case. In the US, for example, CGWs are not entitled to copyright protection. In 1965, the US Copyright Office reported it had received several applications for CGWs. Given the exponential improvements in computer science, one would thus expect a similarly exponential increase in CGWs submitted for copyright protection from 1965 until the present. However, at least as early as 1973, the US Copyright Office elected to deny protection for CGWs. As a result, anyone in possession of a potentially valuable CGW would disqualify protection for the work by revealing its origins. A computer user wishing to obtain protection for a CGW may thus end up identifying himself or herself as the author. Similarly, in the UK, it is not clear that CGWs are entitled to patent protection. Computer users may thus elect to identify themselves as inventors for CGWs. Indeed, some of the earliest applicants for patents on CGWs were advised by their attorneys to report themselves as inventors.⁷

Failing to disclose the machine’s role in a CGW may also seem an appealing option because it is unlikely to be challenged. For instance, in the UK, CGWs are protected by copyright without registration, and the UK Intellectual Property Office (IPO) will not dispute a patent applicant’s reported inventorship unless this is challenged by a third party. The issue of authorship or inventorship of a CGW may not arise until litigation, and even that is unlikely. When human authors and inventors have a disagreement about relative contributions, there will generally be one or more parties with an adverse legal interest. However, if a user takes credit for a computer’s invention, the computer is not in a position to protest. A legal dispute will probably only occur in cases where an alleged infringing party wants to dispute that copyright or patent protection can subsist in a CGW, and somehow becomes aware that a computer was involved in generating the work.

This situation with respect to CGWs is a problematic state of affairs. It is important that authorship and inventorship be accurately attributed, both to optimise the use of copyright and patents as economic incentives, and to preserve the moral rights of natural persons. Establishing an author or inventor’s identity is important because whether the work qualifies for protection in the UK may depend on the author’s national status. It also identifies the first owner of copyright or patent, may base the term of copyright protection on the author’s death and determines whether there are moral and rental rights belonging to an author. In whatever manner nations elect to protect CGWs, including by providing no protection, appropriate

⁶ Patricia Holt, ‘S.F.CHRON’ (*The New York Times*, 15 August 1993) B4; see generally James Grimmelmann, ‘There’s No Such Thing as a Computer-Authored Work – And It’s a Good Thing, Too’ (2016) 39 Colum J L & Arts 403, 408.

⁷ Abbott (n 1).

identification of the origin of CGWs is necessary for IPRs to function effectively as economic rights. Even with regard to moral rights, failure to designate a computer as an author or inventor may result in individuals taking credit for works they have not personally generated. This may undermine the value of human authorship and inventorship.

Determining computer authorship and inventorship may be a complex endeavour. However, that is already the case with natural persons. For instance, despite the romantic conception of inventors as lone prodigies tinkering in their garages and experiencing flashes of genius, the vast majority of invention comes from industry and academic work where multiperson collaborations are the norm. Inventorship disputes are becoming more common,⁸ and determining inventorship in collaborative work is ‘one of the muddiest concepts in the muddy metaphysics of the patent law’.⁹

3. LEGAL STANDARDS

Intellectual property in the UK is primarily governed at the national level, subject to compliance with certain EU requirements and international treaties.

3.1 United Kingdom Standards for Computer Generated Works

The Copyright, Designs and Patents Act 1998 (CDPA) is the primary legislation for copyright law.¹⁰ Copyright is an intellectual property right which subsists in certain creative works such as books, music and movies. It gives its owner the exclusive right to exploit the underlying subject matter for a fixed number of years, generally 70 years plus the life of the author, subject to certain exceptions such as fair dealing. Generally, the author of a work is the person who creates it, and the author is the default copyright owner. A notable exception is that an employer will be the default owner if a work is ‘made by’ an employee in the course of employment. In some instances, an ‘author’ can be a body incorporated in the UK, such as a limited company.¹¹ Special authorship rules apply to ‘entrepreneurial’ or ‘media’ works – sound recordings, films, broadcasts and typographical works – that are produced rather than created, whereby legal entities are accepted as authors.

The CDPA makes special provision for CGWs with different rules for authorship and copyright duration. These works are defined in section 178 as those ‘generated by a computer in circumstances such that there is no human author of the work[s]’. For these works, the CDPA provides in section 9(3) that, ‘[i]n the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangement necessary for the creation of the work are undertaken’. Of note, this protection only extends to literary, dramatic, musical and artistic works and not to media works, although

⁸ *IDA Ltd and others v University of Southampton and others* [2006] EWCA Civ 145; Ryan Abbott, Jeremy Lack and David Perkins, ‘Managing Disputes in the Life Sciences’ (2018) 36 *Nat Biotechnol* 697.

⁹ *Mueller Brass Co. v Reading Industries Inc.* 176 USPQ 361 (1972).

¹⁰ The CDPA permits copyright for ‘(a) original literary, dramatic, musical or artistic works, (b) sound recordings, films [or broadcasts], and (c) the typographical arrangement of published editions’. See CDPA, s 1 (internal footnote and emphasis omitted).

¹¹ CDPA, s 154.

a similar system to section 9(3) also applies with regard to design rights.¹² For CGWs, the term of the copyright is 50 years from the end of the calendar year in which the work was made.¹³

At least two cases considered CGWs under the Copyright Act 1956, the statutory regime prior to the CDPA.¹⁴ This statute had no provisions for CGWs.¹⁵ In *Express Newspapers plc v Liverpool Daily Post & Echo*,¹⁶ the plaintiff newspaper *Daily Express* conducted a 'Millionaire of the Month' competition. It distributed cards with a five-letter code; the public could check these cards against a daily newspaper grid, generated by a computer, to see if they won a prize. The defendant newspaper copied these grids and was subsequently sued for copyright infringement. One argument advanced by the defendant was that because the grids were produced with the aid of a computer, they had no human author and thus could not be protected by copyright. Whitford J rejected this argument, stating:

[t]he computer was no more than the tool by which the varying grids of five-letter sequences were produced to the instructions, via the computer programs, of [the programmer]. It is as unrealistic [to suggest the programmer was not the author] as it would be to suggest that, if you write your work with a pen, it is the pen which is the author of the work rather than the person who drives the pen.

Whitford J also noted 'that a great deal of skill and indeed, a good deal of labour went into the production of the grid and the two separate sequences of five letters'.¹⁷

Prior to this case, in 1977, Whitford J had chaired the 'Whitford Report', which found of computer generated works:

the correct approach is to look on the computer as a mere tool in much the same way as a slide rule or even, in a simple sense, a paint brush. A very sophisticated tool it may be, with considerable powers to extend man's capabilities to create new works, but a tool nevertheless.¹⁸

The Whitford Report concluded that both the computer programmer and the person who originated data to provide the computer should be authors of any resultant CGW. In response to the Whitford Report, the government issued the Green Paper report. Among other things, this report argued that the computer user, as potentially distinct from the programmer and originator of data, should generally also be an author.¹⁹ In 1986, the government published a White Paper, *Intellectual Property and Innovation*, which argued:

The responses to the 1981 Green Paper have shown, however, that circumstances vary so much in practice that a general solution will not be fair in all cases. It appears that no practical problems arise

¹² CDPA, s 214.

¹³ CDPA, s 12(7).

¹⁴ See *Cummins v Bond* [1927] 1 Ch 167. In the case of *Cummins v Bond* in 1927, a court was asked to adjudicate copyright in a work allegedly written by a journalist while acting as a spiritual medium. The court was not willing to decide that 'authorship and copyright rest with someone already domiciled on the other side of the inevitable river' (173). The rights to the work had to vest in a terrestrial being.

¹⁵ A similar outcome occurred in the case of *The Jockey Club v Rahim* (unreported) 22 July 1983, which concerned computers generating lists of runners and riders for horse races.

¹⁶ [1985] FSR 306.

¹⁷ *Ibid.*

¹⁸ The Whitford Committee, *Copyright and Design Law* (Cmnd 6732, 1977) para 514.

¹⁹ *Reform of the Law Relating to Copyright, Designs and Performer's Protection, A Consultative Document* (Green Paper, Cmnd 8302, 1981) 58.

from the absence of specific authorship provisions in this area. The Government has therefore concluded that no specific provisions should be made to determine this question . . . If no human skill and effort has been expended then no work warranting copyright protection has been created.²⁰

After this White Paper, the Copyright Committee of the British Computer Society (BCS) submitted a proposal to the government arguing that CGWs should be protected as a distinct type of work. 'The BCS proposes the creation of a new class of copyright protected works. The copyright owner or "maker" should be defined as the person by whom the arrangements necessary for the making of that computer output or computer-generated work, are undertaken.'²¹ This language was essentially adopted in the CDPA. The BCS's proposed language was modelled after provisions for film authorship under the Copyright Act 1956. Despite the BCS's protestation that sound recordings, films, cable programmes and published editions were already being generated by computer, the CDPA did not extend protections to this subject matter for CGWs.

Since the CDPA's enactment, the authorship of CGWs has been considered in *Nova Productions Ltd v Mazooma Games Ltd*.²² In this case, the parties were competing manufacturers of electronic pool games. Nova claimed copyright in its graphics and the frames generated by software from those graphics and displayed to users during gameplay. Kitchen J (as he then was) regarded the frames which the software generated based on user actions to be CGWs, even though the component graphics of the frames were designed by a person. Kitchen J further held that the author of the CGW in this case was the company director responsible for designing the game – the person who designed the appearance of the various elements displayed, devised the rules and logic for frame generation, and wrote the program – and not the game player, who 'contributed no skill or labour of an artistic kind'. It should be noted there was limited consideration of section 9(3) in this case because the subsistence and ownership of the works was not contested.

In sum, while judicial experience with CGW copyright is limited, it is clear that copyright protection is available. The 'author' of a CGW work is the person by whom the arrangements necessary for the creation of the work are undertaken. In light of the relative absence of case law related to authorship of CGWs, cases that have investigated authorship for films may be instructive. Under the CDPA, a film's producer and principal director are together deemed an author. A producer, according to section 178 CDPA, 'in relation to a sound recording or a film, means the person by whom the arrangements necessary for the making of the sound recording or film are undertaken'. Identifying a producer may be a fact intensive inquiry.²³ Cases have found it is relevant who instigated the making of the film, who paid for the making of the film, whether a film would not have existed but for the input of a person, whether more than one person may be a producer, and the extent of creative contributions.²⁴ Although jurisprudence in related areas may provide guidance, there is a degree of novelty to determining authorship of

²⁰ Department of Trade and Industry, *Intellectual Property and Innovation* (White Paper, Cmnd 9712, 1986) ch 9, paras 9.6–8.

²¹ Robert Hart, 'Copyright and Computer Generated Works' (1988) 40 *Aslib Proc* 173, 173–81.

²² *Nova Productions Ltd v Mazooma Games Ltd* [2006] RPC 379. CGWs were also briefly considered in *Bamgboye v Reed* [2004] EMLR 5, 73 [38], Williamson J wrote that section 9(3) 'is dealing with the case where one is looking at a piece of music which, in fact, is composed of computerised sounds'.

²³ See, for example, *Beggars Banquet Records Ltd v Carlton Television Ltd* [1993] EMLR 349.

²⁴ Jani McCutcheon, 'Curing the Authorless Void: Protecting Computer-Generated Works Following IceTV and Phone Directories' (2013) 37 *Melb U L Rev* 46.

CGWs. It may not be clear in all cases whether the person who makes necessary arrangements is a computer's owner, user or programmer.

3.2 United Kingdom Standards for Patenting Computer Generated Works

By contrast to copyright, there is no statutory provision governing patents for CGWs, and there appear to have been no cases on the subject. The Patents Act 1977 (PA) is the primary legislation for patent law. The PA protects inventions which are new, involve an inventive step and are capable of industrial application. Patents grant their owners the exclusive right to make, use, sell and import an invention for a limited term, generally 20 years from the date an application is filed, subject to certain exceptions.

While nothing in the PA explicitly deals with CGWs, on numerous occasions it references natural persons. For example, the PA requires the identity of individual inventors to be disclosed, and inventors have the right to be mentioned in an application or a patent. It also provides benefits to inventors in some circumstances in which an employer has received outstanding benefit from an invention. The PA states that 'inventor . . . in relation to an invention means the actual deviser of the invention'.²⁵ The term 'deviser' is not defined in the PA, but judicial language also frequently refers to inventors as persons and refers to concepts such as 'mental activity' being necessary for invention.²⁶

3.3 European Union Standards for Computer Generated Works

The European Single Market seeks to guarantee the free movement of goods, capital, services and labour within the European Union. However, IPRs such as copyright and patents can create barriers to free trade. IPRs are largely national in origin, and not transferable across borders or mutually recognised per se. In the interest of promoting trade, the EU has attempted to centralise and harmonise national IP laws. This has been aided by case law from the Court of Justice of the European Union (CJEU), the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) – which is discussed in the next section – and various EU directives.

Early CJEU cases established the doctrine of exhaustion and the specific subject matter doctrine. This allowed recognition of national IPRs, but limited the application of IPRs where they would limit free movement of goods. The EU is a party to TRIPS, which has harmonised, to a great extent, IPRs within the EU. Since TRIPS, various EU directives, such as the Computer Program Directive and the Database Directive, have increasingly harmonised national IP laws where differences existed in terms of substance or duration of rights.²⁷ Further efforts at

²⁵ PA, s 7(3).

²⁶ See, for example, *Yeda Research and Development Co Ltd v Rhone-Poulenc Rorer International Holdings Inc* [2007] UKHL 43, [2008] RPC 1 quoting Laddie J in *University of Southampton's Applications* [2005] RPC 11, [39] ('The inventor is defined in s.7(3) as "the actual deviser of the invention". The word "actual" denotes a contrast with a deemed or pretended deviser of the invention; it means, as Laddie J said in *University of Southampton's Applications* [2005] R.P.C. 11, [39], the natural person who "came up with the inventive concept."')

²⁷ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs OJ L 111, 5.5.2009, p. 16–22; Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases OJ L 77, 27.3.1996, p. 20–28.

harmonisation have resulted in a unique EU trademark system and various *sui generis* rights such as EU level plant variety rights. Today, there is relative comprehensive harmonisation of some forms of IP such as trademarks, and relative greater discrepancy in terms of copyright.²⁸

There is no equivalent to section 9(3) CDPA in other EU continental jurisdictions.²⁹ Worldwide, the UK is one of only a handful of countries that explicitly permits copyright for CGWs. Other nations that provide protection, such as Ireland, New Zealand and India, were influenced by the UK's example – their statutory instruments contain similar language to section 9(3) CDPA.³⁰

EU member states may not have laws specifically permitting or refusing copyright protection for CGWs, but many have laws that restrict authorship to natural persons. For example, Spanish copyright law states that the author of a work is the natural person who creates it.³¹ Under French law, only natural persons who create works may be considered authors, and the rights to a work vest in the author regardless of any contract.³² For collective works, a legal entity can exercise rights but is not classified as the author. Various other national instruments contain language that alludes to authorship as being a human activity. At a European level, the benchmark for originality is an 'author's own intellectual creation'. This concept was first introduced through legislation – the Software, Term and Database Directives³³ – and then developed by the CJEU.³⁴ For example, in 2011, the CJEU held that, 'copyright is liable to apply only in relation to a subject-matter, such as a photograph, which is original in the sense that it is its author's own intellectual creation . . . the author of a portrait photograph can stamp the work created with his "personal touch"'.³⁵ This and similar language seems to imply an author is a natural person. CGWs are not explicitly discussed in any European directives.

For patents, as with the PA, the European Patent Convention (EPC) requires the identity of inventors to be disclosed in patent applications and issued patents,³⁶ although it is left to contracting states to resolve who is an inventor and other entitlement issues. The EPC is a multilateral treaty, separate from the EU and with different membership, which created the European Patent Organisation (EPO) and a system for granting 'European patents'. A European patent is not a centrally enforceable patent or a unitary right. Rather, the EPC provides a harmonised

²⁸ Matthew James Elsmore, 'Comparing Regulatory Treatment of Intellectual Property at WTO and EU Level' in Sanford E Gaines and others (eds), *Liberalising Trade in the EU and the WTO: A Legal Comparison* (CUP 2012).

²⁹ Andres Guadamuz, 'Do Androids Dream of Electric Copyright? Comparative Analysis of Originality in Artificial Intelligence Generated Works' (2017) IPQ 169.

³⁰ Copyright Act of 1994, s 5 (NZ); Copyright and Related Rights Act 2000, pt 1, s 2 (No 28/2000) (IR).

³¹ Ley 22/11 sobre la Propiedad Intelectual de 1987.

³² C IP Art L111-1 (2003).

³³ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs OJ L 111, 5.5.2009, p. 16–22; Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the term of protection of copyright and certain related rights OJ L 372, 27.12.2006, p. 12–18; Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases OJ L 77/20 OJ L 77, 27.3.1996, p. 20–28.

³⁴ Case C-5/08 *Infopaq International A/S v Danske Dagblades Forening* [2009] ECR I-06569.

³⁵ Case C-145/10 *Eva-Maria Painer v Standard VerlagsGmbH and ors* [2011] ECDR (13) 297, 324, [AG121]. In that case, Advocate-General Trstenjak interpreted EU directives related to this language to mean that "only human creations are . . . protected", although these can "include those for which the person employs a technical aid, such as a camera".

³⁶ EPC, r 19 (Designation of the inventor).

procedure for unified prosecution and opposition, on the basis of which a European patent may be nationally granted in any of the 38 EPO countries. By contrast, the European patent with unitary effect (EPUE), or the unitary patent, is a new type of European patent that would be valid in participating member states of the EU. This would involve a single patent and ownership, as well as a single court (the Unified Patent Court), and uniform protection. The Agreement on a Unified Patent Court establishes the unitary patent system. Participation is open to any member state of the EU, but not to other parties to the EPC. Negotiations for the unitary patent have been ongoing since the 1970s. At present, the unitary patent and Unified Patent Court are expected to enter into force shortly, but negotiations have been ongoing since the 1970s.

3.4 International Standards for Computer Generated Works

Two of the most important international agreements governing copyright and patent law are the Berne Convention and the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). For example, the Berne Convention required countries to offer the same level of copyright protection to nationals of other parties to the convention. It also introduced the idea that copyright protection is not contingent on formalities such as registration, though member states are free to require ‘fixation’. The most substantive international IP agreement is TRIPS, which established global standards for copyright and patent protection. The UK and all EU member states are required to adhere to the mandatory requirements in TRIPS. These requirements were modelled after the IP laws in developed nations such as the United Kingdom, the United States and Japan, so TRIPS required relatively few changes to the UK’s IP laws when it came into effect on 1 January 1996.³⁷

Nothing in these, or any other binding international instrument, explicitly authorises or prohibits protections for CGWs. The Berne Convention, for instance, states the Union is created ‘for the protection of the rights of authors in their literary and artistic works’.³⁸ However, the Convention does not define ‘author’.³⁹ The Berne Convention Guide states that this is due to the fact that ‘national laws diverge widely, some recognising only natural persons as authors, while others treat certain legal entities as copyright owners’.⁴⁰

The World Intellectual Property Organization (WIPO) did consider protections of ‘computer-produced works’ in discussions of a possible Model Copyright Law.⁴¹ It defined a computer produced work as one generated by a computer where identification of authors is impossible because of the indirect nature of individual contributions. The original owner of the

³⁷ 94/800/EC Council Decision (of 22 December 1994). See generally Elsmore (n 28) 412–39.

³⁸ Berne Convention, art 1.

³⁹ Cf Sam Ricketson and Jane C Ginsburg, *International Copyright and Neighboring Rights (2 Vols): The Berne Convention and Beyond* (2nd edn, OUP 2006) (arguing the reference to ‘makers’ of cinematographic works is the exception rather than the rule, and that ‘author’ referring to natural persons would be most consistent with the moral rights provisions and durations of protection being based on the life of an author).

⁴⁰ World Intellectual Property Organisation, *Guide to the Berne Convention for the Protection of Literary and Artistic Works (Paris Act, 1971)*, II (WIPO 1978) para 1.16 available at <www.wipo.int/edocs/pubdocs/en/copyright/615/wipo_pub_615.pdf> accessed 12 October 2019.

⁴¹ See International Bureau of WIPO, ‘Preparatory Document: Draft Model on Copyright’ (No CD/MPC/III/2, 30 March 1990) 258–59.

moral and economic rights in such a work would be either the entity ‘by whom or by which the arrangements necessary for the creation of the work are undertaken’, or the entity ‘at the initiative and under the responsibility of whom or of which the work is created and disclosed’. WIPO’s Committee of Experts eventually concluded further study was needed, and the model law was never adopted.

3.5 United States Standards for Computer Generated Works

No statute governs the subject of CGWs in the US, and no cases have seriously considered copyright or patent protection for CGWs. However, the US Patent and Trademark Office (USPTO) has a policy prohibiting copyright for any nonhuman work – what it now refers to as its ‘human authorship requirement’. There is no USPTO policy regarding CGWs and patents. In 1986, Professor Pamela Samuelson wrote: ‘[a]s yet there has been no judicial decision allocating rights in computer-generated works. It can, however, only be a matter of time before courts are forced to resolve the issue.’⁴² That prediction proved optimistic.

One recent US case came close to raising the issue. *Naruto v Slater* involved a series of pictures that a crested macaque took of itself. These ‘Monkey Selfies’ were subsequently commercialised by the camera’s owner, David Slater, who asserted he owned the copyright to the photographs. People for the Ethical Treatment of Animals (PETA) subsequently sued Mr Slater, alleging that the macaque, Naruto, was the copyright owner, and that Mr Slater had infringed Naruto’s copyright.

In January 2016, US District Judge William Orrick III dismissed the case on the grounds that Naruto lacked standing to sue. The judge also deferred to the USPTO’s interpretation that the macaque was not an ‘author’ within the meaning of the Copyright Act. He considered PETA’s argument that the USPTO policy is antithetical to the ‘public interest in animal art’, but ultimately ruled ‘that is an argument that should be made to Congress and the President, not to me’.⁴³ PETA appealed the decision to the Ninth Circuit Court of Appeals, and shortly after oral arguments, the parties reached a settlement in which Mr Slater agreed to donate 25 per cent of any future revenues from the monkey selfies to charities. Despite the settlement, however, the Ninth Circuit dismissed the case to create precedent. The Court held that animals only have statutory standing if an Act of Congress plainly states animals have statutory standing, and so animals are unable to sue under the Copyright Act because the law does not expressly authorise animals to file copyright infringement claims. In doing so, the court avoided weighing in on the merits of non-human authorship.

Outside of CGWs, US copyright law has a mechanism for authorship of artificial persons. ‘In the case of a work made for hire, the employer for whom the work was prepared is considered the author for purposes.’⁴⁴ Functionally, the same outcome may occur in the UK, but while the UK permits employers to own works, ownership is distinct from authorship for so-called author works – literary, dramatic, musical or artistic works – the same works protected by section 9(3) CDPA. Even in EU countries where only natural persons may be authors, a focus on ‘author’s rights’ does not preclude authors from transferring certain rights to employers,

⁴² Pamela Samuelson, ‘Allocating Ownership Rights in Computer-Generated Works’ (1985) 47 U Pitt L Rev 1185, 1190.

⁴³ *Naruto v David John Slater et al*, No 16-15469 (9th Cir 2018).

⁴⁴ 17 USC § 201(b).

and some jurisdictions will imply the existence of an agreement to do so. Ultimately, then, the same economic outcome may occur for works made in the course of employment in the US, UK and in EU civil law jurisdictions, but the terminology may differ. Some civil law jurisdictions may also retain additional, inalienable rights for authors.

4. PROTECTING COMPUTER GENERATED WORKS

4.1 Policy

Various rationales are given for IPRs, but broadly speaking, they can function as economic incentives and they are justified on the basis of natural rights. The notion of IPRs as an economic right, particularly for patents, dominates the Anglo-American system. In the US, for example, the Constitution explicitly endorses an innovation incentive rationale for IPRs, by granting Congress the power '[t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries'.⁴⁵

Patents can incentivise innovation.⁴⁶ This is based on the theory that information goods are typically nonexcludable and nonrivalrous, so lack of protection will lead to underproduction. By granting a limited monopoly in the form of a patent, this allows inventors to enjoy greater financial benefits from discoveries and encourages invention. In addition, patents can promote the commercialisation of inventions. For instance, new drug approvals often take years, and the pharmaceutical industry claims that getting new drugs approved costs billions of pounds. Once a drug is approved, it may be easy for a competitor to copy the drug and avoid the costs of initial approval. Patents may thus encourage an originator pharmaceutical company to spend the necessary resources on approval, because after the drug is approved they can charge monopoly prices until patents expire. Patents, whether incentivising research or commercialisation, are thus one solution to the 'free rider' problem. Finally, patents can promote information disclosure. Patents are issued to inventors in exchange for disclosing to the public how to make an invention. Without patents, inventors might rely on confidential information to prevent copying, and never publicly disclose how to make an invention. This happened, for example, with the drug 'Premarin' which was first made by Wyeth and now is made by Pfizer. No generics company has been able to replicate this drug since its first regulatory approval in 1942. Perhaps most famously, Coca-Cola has kept its recipe for its iconic beverage confidential for more than a century.

By contrast, the civil law systems of continental Europe may place more emphasis than the UK on moral rights, which are viewed as independently protectable and separate from economic rights. Moral rights protect an author's personality and the integrity of a work, and are considered 'personal, perpetually inalienable and unassignable'.⁴⁷ Moral rights also accommodate 'personality' rights based, for instance, on theories by Kant and Hegel that people express

⁴⁵ United States Constitution, art I, s 8, cl 8 (emphasis added).

⁴⁶ William M Landes and Richard A Posner, *The Economic Structure of Intellectual Property Law* (Belknap Press 2003).

⁴⁷ Martin A Roeder, 'The Doctrine of Moral Right: A Study in the Law of Artists, Authors and Creators' (1940) 53 Harv L Rev 554, 557. See also Graham Dutfield, 'Collective Invention and Patent

their ‘wills’ and develop as persons through their interactions with external objects. This, for instance, is accomplished by giving authors the right to control certain uses of their works, even after assigning economic rights. Personality theorists argue that authors and inventors are inherently at risk of having their ideas stolen or altered in objectionable ways. Thus, IPRs are justified to prevent misappropriation or modification of objects through which authors express themselves. IPRs also accommodate Lockean theories of first occupancy, the idea that the person who owns a particular thing should be the person who ‘gets there first’, as well as labour theory, the idea that ownership is derived from mixing labour with unowned or commonly held property, and that appropriating these products would be unjust. These ideals are reflected in patent law, for instance, by giving inventorship rights to the first inventor to file for a patent and giving inventorship rights to individuals who find new uses for natural products.

But IPRs can also have significant costs. They restrict competition (particularly in the case of patents) and free speech (particularly in the case of copyright), and they can inhibit innovation, collaboration and open communities. To the extent that IPRs are justified, it is because they are thought to have more benefits than costs. However, with IPRs, more is not always better. For instance, software patents have been criticized for being unnecessary as an incentive, while at the same time creating ‘patent thickets’ that make work in the software industry challenging.⁴⁸ For this reason, the EPC states that ‘programs for computers’ are not patentable, but the EPO will grant patents for ‘computer-implemented inventions’ as long as they have a technical effect.

4.2 Whether to Patent and to Whom?

Having examined UK, EU and international laws on copyright and patent protection for CGWs, or the absence thereof, let us return to the question of whether the UK should provide patent protection for CGWs. A number of academic commentators have argued that CGWs should become public property.⁴⁹ If CGWs should instead be eligible for patent protection, who should be the inventor and owner of a CGW?

This chapter proposes that CGWs should be eligible for patent protection. The innovation incentive function of patents does not change based on whether a computer or a person invents. It is true that a computer does not respond to financial incentives, but the entities who develop inventive machines do. Providing patent protection for the output of autonomous machines makes autonomous machines more valuable, and what better way to incentivise innovation than to incentivise the development of inventive machines? This would reward activity upstream from the act of invention. To the extent that patents are incentivizing commercialization and disclosure of information, there is no change in this function as between a human and CGW. Also, if patent protection is not available for inventive AI output, then businesses may not use inventive AI, even in future instances where AI will be more effective than a person.

Law Individualism: Origins and Functions of the Inventor’s Right of Attribution’ (2013) 5 The WIPO Journal 25, 27.

⁴⁸ Daniel J Hemel and Lisa Larrimore Ouellette, ‘Beyond the Patents–Prizes Debate’ (2013) 92 Tex L Rev 303.

⁴⁹ See, for example, Ralph Clifford, ‘Intellectual Property in the Era of the Creative Computer Program: Will the True Creator Please Stand Up?’ (1997) 71 Tul L Rev 1675.

If CGWs are prohibited from receiving patents, it may be possible for a natural person to claim inventorship of a CGW even where that person was not involved in the development or operation of a computer. Namely, a person could argue they ‘devised the invention by virtue of recognising the relevance of a machine’s output. Indeed, discovery of an unrecognised problem may give rise to patentable subject matter (‘problem inventions’).⁵⁰ Similarly, discovery of an unrecognised solution can be patentable. In some cases, recognition of the inventive nature of a computer’s output may require significant skill, but in others, the nature of inventive output may be obvious. In the future, it may even be the case that a computer can identify its own output as patentable, and format it for a patent application.

If CGWs are to be protected, how then should inventorship and ownership be determined? Distinguishing inventorship and ownership may not functionally impact economic rights, but it does implicate moral rights. At present, *de jure* or *de facto*, individuals are claiming inventorship of CGWs under circumstances in which they have not functioned as inventors. This is fundamentally unfair, and it weakens moral justifications for patents by allowing individuals to take credit for the work of inventive machines. It is not unfair to computers who have no interest in being acknowledged, but it is unfair to other human inventors because it devalues their accomplishments by altering, and diminishing, the meaning of inventorship. This could equate the hard work of creative geniuses with those simply asking a computer to solve a problem. It would be particularly problematic once inventive machines come to generate a substantial portion, or even the majority, of inventions.⁵¹ By contrast, acknowledging computers as inventors would also acknowledge the work of computer programmers. While they may not have directly contributed to an invention, they may take credit for the success of their machines. This is similar to the way in which a supervisor may take pride in the success of a PhD student, without taking direct credit for their future writings and inventions.

If CGWs are to be protected, and a computer is to be acknowledged as an inventor, who should own the CGW? Certainly, computers should not own patents. Computers are nonsentient, cannot own property and are themselves owned as property. Colin Davies has suggested that the computer should hold IP rights and transfer these under contract.⁵² He notes that this would require machine ‘responsibility’, which might require a deposit in a computer’s name to satisfy adverse judgments or an insurance scheme. More simply, ownership may directly vest in a computer’s user, programmer or owner. In many instances these may be the same entity, but they may also be distinct parties. The best policy or ideal solution would be to have ownership vest in the party that results in the most effective economic outcome, and also results in a standard that is practical to implement.⁵³

The computer’s owner should be the default owner of any CGW it produces. This is most consistent with current ownership norms surrounding personal property (including both computers and patents).⁵⁴ It should also most effectively incentivise innovation because it will

⁵⁰ See, for example, T 0002/83 (Simethicone Tablet) of 15.3.1984 (EPO Board of Appeal).

⁵¹ See Abbott (n 2).

⁵² Colin Davies, ‘An Evolutionary Step in Intellectual Property Rights – Artificial Intelligence and Intellectual Property’ (2011) 27 *Comput L Secur Rev* 601, 615.

⁵³ Ryan Abbott, ‘Hal the Inventor: Big Data and its Use by Artificial Intelligence’ in Cassidy R Sugimoto, Hamid R Ekbia and Michael Mattioli (eds), *Big Data Is Not a Monolith* (The MIT Press 2016), ch 14.

⁵⁴ cf W Michael Schuster, ‘A Coasean Analysis of Ownership of Patents for Inventions Created by Artificial Intelligence’ (2019) 75 *Wash & Lee L Rev* 1946 (arguing for user default ownership).

motivate owners to share access to their software. If the computer's user is the default owner of a CGW, this may instead result in computer owners restricting access. Computer programmers do not need to own future CGWs because they will capture the increased value of an inventive machine upon selling it. Also, having ownership default to programmers would interfere with the transfer of a machine, and it would be logistically problematic for developers to monitor machines they no longer own. The case for computer owners also having ownership of CGWs reveals another reason why computers should be acknowledged as inventors. If computers cannot be inventors and instead the first natural person to recognise a computer's invention becomes the inventor, this would give CGWs to computer users rather than owners. There is already precedent for assigning ownership in IPRs to an owner distinct from an author or inventors, such as with works for hire, joint authorship, films and so on.

This default would just be a starting point – computer users, owners and developers would be free to contract to different outcomes.

4.3 Computer Generated Works: Competition or Collaboration?

The current definition of CGWs fails to take into account the fact that computers should qualify independently for authorship and inventorship, even when contributing to jointly authored works with natural persons. Computers may be inventors even of intermediate works. As such, the definition of CGWs should be amended from work 'generated by a computer in circumstances such that there is no human author of the work', to work 'generated by a computer in circumstances such that the computer, if a natural person, would meet authorship requirements'. This would more accurately take into account contributions by machines, and allow economic incentives to work more efficiently.

The downside of this approach may be that it would be difficult for computer owners to know when their machines have generated CGWs. Users might benefit from failing to disclose CGWs to computer owners and then claiming they invented a CGW. However, users may still choose to disclose CGWs so that they could negotiate for clear title and, alternatively, to avoid liability. To the extent that users and owners are distinct entities and users are licensing computers for purposes generating CGWs, users may choose to negotiate *a priori* for ownership of CGWs with computer owners.

Determining human inventorship is already a tricky business in collaborative works. It may be even more difficult for collaborative works involving a computer. There are a variety of ways for computers to invent, some of which involve more human intervention than others. For example, a programmer may design a computer program specifically to solve a particular problem, and the solution may be the patentable invention. In such an instance, the programmer might have a greater claim to inventorship, resulting in joint inventorship with a computer. Again, this is not unlike current inventorship criteria, where a variety of individuals can play greater or lesser roles in invention. However, the current definition of CGWs in the CDPA does not accommodate this reality for copyright, as it fails to take into account that a computer can jointly author a work with a person.

4.4 International Harmonisation

Finally, there is a need for a harmonised approach to CGWs. If the UK grants copyright and patent protections for CGWs, it has to provide nationals of other EU member states and parties

to TRIPS with the same rights. However, if these other parties fail to allow for CGWs in their own domestic laws, UK nationals may not receive reciprocal protections.⁵⁵ Few EU member states have dealt with CGWs.⁵⁶ Inventive machine owners might thus be unable to obtain IPRs outside the UK. In fact, disclosing a machine author or inventor in a UK application might prejudice IPRs in other jurisdictions. At least for an interim period, UK entities would be advised to identify a natural person as an author or inventor where possible, to avoid an inequitable economic outcome.

Future treatment of CGWs within the EU might be dealt with by an EU directive or regulation, although Brexit may remove the UK from the direct effect of changes to EU law. Regardless of Brexit, UK nationals still should benefit under the national treatment rule of TRIPS from changes to EU law that ascribe machine authorship and inventorship for CGWs. CGWs might also be dealt with by a future multinational agreement. However, harmonisation exercises at the international level tend to proceed at a glacial pace.

5. CONCLUSION

In October 2017, the Kingdom of Saudi Arabia announced it was granting citizenship to a humanoid robot, Sophia, manufactured by Hanson Robotics. It is unclear whether this announcement was merely intended for publicity, or whether the nation has actually granted Sophia citizenship. In any event, if Sophia is a Saudi citizen, because Saudi Arabia is a party to TRIPS, other WTO members may be obliged to provide for IPRs for Sophia's CGWs. Other countries may argue that Berne and TRIPS refer to authors and inventors who are nationals, but that machines cannot be authors and inventors regardless of 'nationality'. In any event, while granting legal personhood to a machine may be one way to try and avoid disparate treatment of CGWs at the international level, there are other reasons to disfavour such an approach.

The law is overdue for establishing clear standards for protection of CGWs. As AI continues to improve, such works will become increasingly important. Efficiently structured copyright and patent laws can help maximise the value of CGWs and protect the moral rights of human authors and inventors.⁵⁷ However, for IPRs to function effectively, it is important that right holders and potential infringers have a reasonable degree of certainty about the scope and limits of protection.

⁵⁵ Hart (n 21).

⁵⁶ Mark Perry and Thomas Margoni, 'From Music Tracks to Google Maps: Who Owns Computer-Generated Works?' (2010) 26 *Comput L Secur Rev* 621, 621–29.

⁵⁷ Ryan Abbott and Bret Bogenschneider, 'Should Robots Pay Taxes? Tax Policy in the Age of Automation' (2018) 12 *Harv L & Pol Rev* 145.

16. Extraterritoriality and digital patent infringement

Timothy R. Holbrook¹

1. INTRODUCTION

It seems that almost daily there is a new report about significant advances in additive manufacturing technologies. Colloquially known as “3D printing,” additive manufacturing technologies create objects by layering materials on top of each other to create incredibly complex objects.² Older technologies, such as the use of molds, are subtractive in nature: material is removed to form the final object desired. Additive manufacturing, in contrast, can create highly complex items with less waste than subtractive ones. Many companies, such as Volkswagen, are using the technology to produce tools needed around their plants, at a considerable savings.³ Companies are engaged in research into different types of materials that can be used in additive manufacturing technologies.⁴ Some believe that technologies akin to 3D printing could be used in surprising ways, such as to print complex biologic molecules.⁵

In order for a 3D printer to construct an object, it must receive appropriate instructions.⁶ These instructions come from a computer file, which has its antecedent in either a virtual computer design or a file generated by scanning an existing object. The creation of a computer file is necessary for a 3D printer to generate the desired object. The use of these computer files is yet another step down the path of digitization, where the divide between the tangible and intangible has shrunk to almost nothing. Previously, many products were rooted in the physical. Digital music and movie files, however, dramatically altered the ways we receive entertainment: from vinyl records, to CDs, briefly to DAT tapes and minidisc players, then on to iPods. Now music and movies are increasingly streamed, changing our notions of what constitutes the work and even of what ownership is.

The digital revolution has not been limited to domains typically associated with copyright or trademark law. The advent of additive manufacturing has brought the digital revolution to classic manufacturing technologies, with the potential to go beyond even that space. The use of

¹ My thanks for comments received on presenting this chapter as a paper at the University of Iowa College of Law, Vanderbilt Law School, Hofstra Law School and the 2017 Conference on Innovation and Communications Law at Szeged University, Szeged, Hungary.

² Lucas S Osborn, “Regulating Three-Dimensional Printing: The Converging World of Bits and Atoms” (2014) 51 San Diego L Rev 553, 555.

³ Alexander H Tullo, “3-D Printing: A Tool for Production” [2017] Chemical & Engineering News 30, 31.

⁴ *ibid* 33.

⁵ National Science Foundation, *Drag-and-Drop DNA* (Press Release, 4 December 2012) <www.nsf.gov/news/news_summ.jsp?cntn_id=125990> accessed 12 October 2019.

⁶ Timothy R Holbrook and Lucas S Osborn, “Digital Patent Infringement in an Era of 3d Printing” (2015) 48 UC Davis L Rev 1319, 1329.

computer-aided design (CAD) files now makes the tangible and digital world almost seamless. Press a button (and wait a bit) and you will have the physical item.

Unsurprisingly, 3D printing technologies pose challenges to patent law, just as digital music and movie files challenged copyright law.⁷ Because these files are digital, they can easily be copied and transferred. Digital files created considerable challenges—and opportunities—for the copyright system, as incumbent business practices had to react to the new digital reality.⁸ Unfortunately, patent law seems less prepared to deal with digital technologies and, in particular, the role that digital files play in this ecosystem.

This chapter provides an overview of the challenges that US patent law will face in combating infringement via additive manufacturing. It elaborates on a potential approach for digital patent infringement that would view selling or offering to sell the digital file of the patented invention as a form of direct infringement. Accepting this form of patent infringement or embracing the direct claiming of digital files in a patent generates difficult questions of the extraterritorial reach of US patents (and the patents of other countries, for that matter). If the digital file itself can form the basis for direct patent infringement liability, then seemingly anyone placing these files on the internet could be liable for patent infringement, regardless of where they are in the world. Digital patent infringement also creates complications for the calculation of damages, particularly for damages arising outside of the United States.

This chapter explores both sides of the territoriality issue: liability for selling CAD files and damages that might arise when domestic acts of infringement generate damages outside of the United States.

2. ADDITIVE MANUFACTURING, CAD FILES, AND DIGITAL PATENT INFRINGEMENT

Additive manufacturing, or 3D printing as it is colloquially known, has the potential to impact patent law in a manner similar to the impact digital files had on copyright law. The use of CAD files in additive manufacturing technologies creates unique challenges to patent law, in a manner akin to what copyright law faced with digital music and movie files. Unfortunately, patent law doctrines cannot protect rights holders in the same way as copyright law did.

2.1 Limits on the Ability of Patent Law to Protect Actual Printing of a Patented Invention

For direct infringement, someone must make, use, sell, offer to sell, or import the patented invention without authorization from the patent owner.⁹ Someone using a 3D printer to print a patented item would undeniably be a direct infringer because she will have “made” the

⁷ Deven R Desai and Gerard N Magliocca, “Patents, Meet Napster: 3d Printing and the Digitization of Things” (2014) 102 Geo LJ 1691, 1693–4.

⁸ Deven R Desai, “The New Steam: On Digitization, Decentralization, and Disruption” (2014) 65 Hastings LJ 1469, 1472.

⁹ 35 USC § 271(a). US patent law provides other forms of direct infringement (for example, 35 USC § 271). See generally Timothy R Holbrook, “The Potential Extraterritorial Consequences of Akamai” (2012) 26 Emory Intl L Rev 499, 502.

patented invention and also may “use” the invention if she utilizes the printed device. A patent owner could in theory pursue a patent infringement case against such a user of a 3D printer.

There are considerable barriers to suing such a user, however. First, given the dispersed nature of 3D printers, the patent holder would have to be able to find and identify the person.¹⁰ If such infringement is widespread, then the patent holder likely would have to sue a large swathe of persons individually, making enforcement costs higher.¹¹ Finally, the person printing the object seemingly wants the patented invention; therefore, the infringer is a potential customer. As the music industry came to realize, suing a potential customer is usually not a successful business model and could create troubling public optics.¹²

In some ways, though, difficulty or reluctance in suing one’s customers is not unique to the 3D printing context. Consumers of pharmaceuticals, for example, would technically be infringing a patent on the drug if it is obtained from an unauthorized source. Pharmaceutical patent holders generally do not sue the consumer, however; instead, they sue the generic manufacturer. If the patent holder has a patent on the chemical in the drug itself, then the generic company could be a direct infringer. Often, however, the pharmaceutical company holds a patent on a method of using the chemical to treat a medical condition.¹³ The direct infringer for such method claims is only the person taking the medicine, yet the pharmaceutical company would much prefer to sue the generic company, largely to keep the generic off of the market, to avoid suing dispersed individual customers, and because generic companies would have deeper pockets for damages.

Patent law facilitates such lawsuits by making a party an infringer if someone actively induces others to infringe the patent,¹⁴ or if they have contributed to another’s infringement.¹⁵ A patent holder, therefore, could consider suing someone inducing or contributing to the infringement by these users of 3D printers. Indeed, it was similar theories—and inducement of copyright infringement in particular—that led to the end of Grokster and similar peer to peer file sharing services.¹⁶ A patent holder concerned with third parties using 3D printers to print their patented invention similarly could pursue patent infringement suits for contributory or induced infringement against the makers of 3D printers.

There are serious problems with this approach, however. Putting aside the concern that such suits could shut down, or put considerable drag on, 3D printer production and innovation, the requirements of induced and contributory infringement would make such a strategy difficult, if

¹⁰ Holbrook and Osborn (n 6) 1332.

¹¹ *ibid* 1332–33.

¹² *ibid* 1333. See also Electronic Frontier Foundation, “RIAA v The People: Five Years Later” (30 September 2008) <www EFF.org/wp/riaa-v-people-five-years-later> accessed 12 October 2019.

¹³ Timothy R Holbrook, “Method Patent Exceptionalism” (2017) 102 Iowa L Rev 1001, 1005 (“Such ‘method of use’ patents can be quite important: if an inventor finds a new use for an old drug, she can get a patent on the new method for using the drug even though she cannot get a patent on the drug itself”).

¹⁴ 35 USC § 271(b).

¹⁵ 35 USC § 271(c). To be clear, pharmaceutical patent litigation in the United States is often governed by § 271(e), which makes it an act of infringement for someone to file an application at the Food and Drug Administration to market a patented drug. See 35 USC § 271(e)(2)(A). The Supreme Court has called this a “highly artificial act of infringement.” *Eli Lilly & Co v Medtronic Inc* 496 US 661, 678 (1990) Claims under § 271(e)(2), however, devolve into regular patent infringement cases based on what likely will happen if the generic company enters the market, including proving induced or contributory infringement. See, for example, *Warner-Lambert Co v Apotex Corp* 316 F3d 1348, 1365 (Fed Cir 2003).

¹⁶ *Metro-Goldwyn-Mayer Studios Inc v Grokster Ltd* 545 US 913, 936–37 (2005).

not impossible. The problem is that both forms of indirect patent infringement have knowledge requirements. To induce infringement, the inducer must both know of the patent and that the conduct they are inducing constitutes patent infringement.¹⁷ Similarly, contributory infringement requires knowledge of the patent and that the supplied component have no substantial noninfringing uses.¹⁸ From this knowledge, one can impute intent on the part of the contributory infringer to facilitate infringement by the third party.¹⁹

As a result, to prove either of these forms of indirect patent infringement, a patent owner would need to demonstrate that the manufacturer of the 3D printer has knowledge of both the patent and infringement. Such particularized knowledge of a given patent is highly unlikely given the thousands of patents issued each year.²⁰ In a particular case, the lawsuit itself could give the 3D printer manufacturer knowledge of the relevant patent, potentially exposing it to an injunction or ongoing royalties.²¹ Likely such an injunction, though, would be tailored to the particular patent, and not be a blanket prohibition on selling the 3D printer.

Moreover, active inducement requires affirmative acts. Merely selling a generic 3D printer without more would seem inadequate. Similarly, contributory infringement requires a party to supply a component of a patented invention, something that would be absent from the manufacturer or seller of a 3D printer. All of these factors strongly suggest that these forms of indirect patent infringement would not afford patent holders adequate protection.

As such, patent law is poorly equipped to control potential infringement by 3D printing and additive manufacturing, if the focus is on the actual printing of the claimed invention. Of course, in copyright law, the focus was not on tangible items containing the copyrighted work, such as CDs that someone burned after getting the digital file from a peer to peer network. The focus instead was on the digital files themselves. Under copyright law, the digital file alone constitutes a copy of the work because the file constitutes a fixed, tangible medium.²² The question then is whether patent law has the appropriate tools to regulate CAD files directly. In other words, can someone with a CAD file be deemed either a direct or indirect infringer?

¹⁷ *Global-Tech Appliances Inc v SEB SA* 563 US 754, 766 (2011) (“Accordingly, we now hold that induced infringement under § 271(b) requires knowledge that the induced acts constitute patent infringement”). See also *Commil USA LLC v Cisco Sys Inc* 135 S Ct 1920, 1927 (2015) (refusing the US government’s arguments to overrule *Global-Tech*). The Supreme Court also held in *Global-Tech* that “wilful blindness” can suffice to demonstrate the requisite knowledge and intent: at 766.

¹⁸ 35 USC § 271(c) (requiring that a party “know[s] the [component] to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use”). See also *Aro Mfg Co v Convertible Top Replacement Co* 377 US 476, 488 (1964) (“[A] majority of the Court is of the view that § 271(c) does require a showing that the alleged contributory infringer knew that the combination for which his component was especially designed was both patented and infringing”).

¹⁹ *Metro-Goldwyn-Mayer Studios Inc v Grokster Ltd* 545 US 913, 932 (2005) (“[W]here an article is ‘good for nothing else’ but infringement . . . there is no injustice in presuming or imputing an intent to infringe”).

²⁰ Holbrook and Osborn (n 6) 1334 (“Because 3D printers are generic—they print whatever the CAD file tells them to print—it is highly unlikely the manufacturers of the printers would ever be liable for indirect infringement.”).

²¹ Timothy R Holbrook, “The Supreme Court’s Quiet Revolution in Induced Patent Infringement” (2016) 91 Notre Dame L Rev 1007, 1041–42; Jason A Rantanen, “An Objective View of Fault in Patent Infringement” (2011) 60 Am U L Rev 1575, 1633.

²² *MAI Sys Corp v Peak Computer Inc* 991 F2d 511, 519 (9th Cir 1993).

2.2 Can Patent Law Regulate the Use of CAD Files Themselves?

Patent law has generally been concerned with the tangible. It has not yet addressed whether a CAD file itself could trigger infringement under section 271. In particular, could a party be found to make, use, sell, offer to sell, or import an invention based on its activity with a CAD file?

One could attempt to regulate CAD files through the indirect forms of infringement. But such an approach suffers the same flaws as trying to use induced infringement and contributory infringement to capture persons actually printing the patented invention. The knowledge requirements for both section 271(b) and section 271(c) create a considerable barrier to using those approaches. Pragmatically, suing potential customers is also problematic.

In the alternative, one could consider theories that permit the CAD file to constitute a form of direct infringement. Traditionally infringement by making, using, or importing the patented invention required a physical instantiation of the invention.²³ Those acts of infringement essentially are physical appropriations of the patented invention.²⁴ Because the divide between the tangible and intangible in an era of 3D printing has narrowed significantly, one could argue that the law should also evolve such that the CAD file itself should constitute a making of the claimed invention. While this is a plausible move, in other work Professor Osborn and I reject this approach for a variety of policy reasons. In particular, one of the laudable aspects of the patent system is the opportunity for third parties to design around the patented invention.²⁵ One way to design around without infringing a patent is to play with the invention virtually, which would generally entail a digital file of some sort. As such, we are hesitant to suggest an expansion of patent infringement liability in this way.²⁶

Additionally, the Federal Circuit has rejected such an expansion of patent infringement, albeit in a different context. In *ClearCorrect Operating, LLC. v International Trade Commission*, the court addressed whether the electronic transmission of a digital file constituted the importation of an ‘article’ under 19 USC § 1337 of US law.²⁷ This section affords jurisdiction to the International Trade Commission (ITC) over the importation of articles that either infringe a US patent or are the product of a patented process.²⁸ In the case, the accused infringer transmitted from Pakistan the CAD files to be used to 3D print dental aligners, and the patent holder sought to prevent those transmissions from coming into the United States.²⁹ The Federal Circuit rejected the patent holder’s and ITC’s argument that such files

²³ Timothy R Holbrook, “Liability for the ‘Threat of a Sale’: Assessing Patent Infringement for Offering to Sell an Invention and Implications for the On-Sale Patentability Bar and Other Forms of Infringement” (2003) 43 Santa Clara L Rev 751, 805.

²⁴ Daniel Harris Brean, “Patenting Physibles: A Fresh Perspective for Claiming 3D-Printable Products” (2015) 55 Santa Clara L Rev 837, 840 (suggesting all forms of infringement require a tangible embodiment).

²⁵ See, for example, *State Indus Inc v AO Smith Corp* 751 F2d 1226, 1236 (Fed Cir 1985) (“One of the benefits of a patent system is its so-called ‘negative incentive’ to ‘design around’ a competitor’s products, even when they are patented, thus bringing a steady flow of innovations to the marketplace”).

²⁶ Holbrook and Osborn (n 6) 1364–67.

²⁷ 810 F3d 1283 (Fed Cir 2015). For an excellent discussion of circumstances of this case, see Sapna Kumar, “Regulating Digital Trade” (2015) 67 Fla L Rev 1909.

²⁸ 19 USC § 1337(a)(1)(B)(i) and (2).

²⁹ 810 F3d at 1287–88.

constitute ‘articles’ because the term is limited to ‘material things’.³⁰ Thus, in an analogous circumstance, the Federal Circuit has rejected an expansive view of digital goods as triggering traditional patent infringement.

The situation is different, however, with infringing sales and offers to sell. In this context, the appropriation is not the physical invention but instead its commercial value.³¹ In this context, the Federal Circuit has found infringement in the absence of a physical infringing device. In *Transocean Offshore Deepwater Drilling, Inc. v Maersk Contractors USA, Inc.*, the court encountered a patent on a drilling rig. The rig that was ultimately delivered did not infringe, but the design of the rig that was the subject of the offer and the original sale seemingly did infringe.³² The court rejected the argument that the rig had to be complete at the time of contracting in order for there to be an infringing sale.³³ Remanding the case to the district court to consider the infringement issue, the court noted that the ‘district court must determine what was offered for sale, not what was ultimately delivered’.³⁴ Thus, even though the rig ultimately delivered was modified so as to not infringe, the Federal Circuit required the district court to determine whether the designs of the unmodified rig did infringe.³⁵ As a result, a physical embodiment of the claimed invention is no longer required for infringing sales or offers to sell.

Transocean thus opens the door to permitting the sellers of CAD files to be direct infringers.³⁶ These acts constitute the economic appropriation of the patented invention, regardless of whether the invention has been printed or not. There are limits to this approach, however. Sales or offers to sell must satisfy the respective requirements of contract law. For example, purely donative transfers of a CAD file would not be considered infringing, creating a potential gap in protection for patent owners. Nevertheless, this theory does provide a means for patent owners to regulate CAD files through direct infringement, which we dubbed ‘digital patent infringement’.

Others have suggested different ways to regulate CAD files. Professor Daniel Brean has suggested that patent owners should draft claims that cover CAD files *per se*.³⁷ Under this theory, a patent applicant would draft claims not only to cover an apparatus but also for a CAD file programmed to print the apparatus. Professor Brean compared such a claiming technique to *Beauregard* claims,³⁸ where an applicant claims a method (such as computer software) in terms of some tangible medium, such as a disk or other usable medium.³⁹ *Beauregard* claims work to make something intangible—a method—into something tangible—a storage medium.

³⁰ *ibid* 1299 (“the unambiguously expressed intent of Congress is that ‘articles’ means ‘material things’ and does not extend to electronically transmitted digital data”).

³¹ Holbrook (n 23) 805.

³² 617 F.3d 1296, 1307 (Fed Cir 2010) (“Before delivering the rig to the U.S., Maersk USA learned of the injunction against GSF and modified the accused rig with the same casing sleeve to prevent one of the stations from advancing pipes to the seabed”). See also Timothy R Holbrook, “Territoriality and Tangibility after *Transocean*” (2012) 61 Emory LJ 1087, 1098.

³³ 617 F3d at 1310–11.

³⁴ *ibid* 1310 n 4 (citing Holbrook (n 23) 753).

³⁵ *ibid*.

³⁶ Holbrook and Osborn (n 6) 1356–64.

³⁷ Brean (n 24) 849.

³⁸ Named in homage of *In re Beauregard*, 53 F3d 1583 (Fed Cir 1995).

³⁹ Brean (n 24) 843.

In the CAD file context, this dynamic works in reverse. The applicant is using the CAD file claim to cover something, a tangible invention, in an intangible way. There are concerns as to whether such claiming would be permitted, and the continued viability of *Beauregard* claims is in doubt since the US Supreme Court began reining in the patentability of business methods and computer software.⁴⁰ Regardless, drafting claims to directly cover CAD files would permit patent holders to sue users of CAD files for direct patent infringement in a way even more robust than limiting infringement to attempts to commercialize the files.

Regardless of which approach one might embrace, there has been the suggestion that CAD files should be regulated as forms of direct patent infringement. Opening the door to such infringement can pose a number of issues. For example, it may be difficult to craft appropriate injunctions and damages in this context.⁴¹ The concern with this chapter, however, is how digital patent infringement could permit the extension of a US patent extraterritorially.

3. EXTRATERRITORIALITY FOR DIGITAL PATENT INFRINGEMENT LIABILITY UNDER US PATENT LAW

Transocean opened the door under current law for digital patent infringement. But *Transocean* dealt with more than simply the tangibility aspect of infringing sales and offers to sell: the Federal Circuit also addressed the territorial limits of those infringement doctrines. This section explores the territorial rule articulated by *Transocean* and its implications for the digital patent infringement theory advocated above.

3.1 Liability for Offers to Sell and Sales

In *Transocean* the negotiations and execution of the contract for the sale of the oil rig at issue did not take place in the United States. Instead, they were in Norway.⁴² The rig was to be delivered in the United States, however. Thus, the question was whether the offer to sell made outside of the United States nevertheless infringes a US patent if the location of the ultimate sale would be in the United States.

In terms of infringing offers to sell the patented invention, there are four permutations that could arise:

- Scenario 1: Offer made in the United States to sell the invention in the United States.
- Scenario 2: Offer made outside of the United States to sell the invention outside of the United States.
- Scenario 3: Offer made in the United States to sell the invention outside of the United States.
- Scenario 4: Offer made outside of the United States to sell the invention inside the United States.

⁴⁰ *Alice Corp Pty v CLS Bank Int'l*, 134 S Ct 2347 (2014).

⁴¹ Timothy R Holbrook, "Remedies for Digital Patent Infringement," in D Mendis, M Lemley and M Rimmer (eds), *3D Printing and Beyond: Intellectual Property and Regulation* (Edward Elgar 2019), ch 10.

⁴² *Transocean Offshore Deepwater Drilling Inc v Maersk Contractors USA Inc*, 617 F3d 1296, 1308 (Fed Cir 2010).

Under scenario 1, there is no doubt there would be infringement of a US patent. At the other extreme, scenario 2 undoubtedly does not infringe a US patent. For example, an offer made in Hungary to sell the invention in Australia has no territorial nexus to the United States, so there is no infringement of a US patent.

The tougher questions arise when the other two scenarios are considered. Is there an infringement if the offer is made in the United States, but the contemplated sale is to be outside of the United States? For example, if someone negotiates a sale in the United States that is to be consummated in Hungary, would that infringe a US patent? *Transocean* posed the fourth scenario: an offer made outside of the United States to sell the patented invention within the United States.⁴³

Prior to *Transocean*, the case law strongly suggested that an offer in the United States to sell the invention abroad would infringe. In two cases decided before *Transocean*, the court addressed the scenario where activity took place within the US that contemplated an eventual sale abroad.⁴⁴ In both cases, the court concluded that there was no infringement. The reason was not that the sale was abroad, however. The court instead concluded that the activity within the United States did not constitute a formal offer to sell the invention pursuant to general contract law principles.⁴⁵ Of course, if the territorial rule was that the sale contemplated in the offer must occur in the United States, these cases could have been decided on a clear legal basis. Instead, the court wrestled with the factual issue of whether there were offers to sell the claimed invention, implicitly suggesting that there could be infringement where the offer has been made in the United States to sell the patent abroad.⁴⁶

Before *Transocean*, the court had never confronted scenario 4: an offer made outside of the United States to sell the patented invention within the United States. In answering this issue, the court spoke more broadly than simply answering whether this scenario infringes. Instead, the court noted: ‘In order for an offer to sell to constitute infringement, the offer must be to sell a patented invention within the United States. The focus should not be on the location of the offer, but rather the location of the future sale that would occur pursuant to the offer.’⁴⁷ The court seemingly answered the question not only for scenario 4, but also for scenario 3. The court dismissed the earlier cases as inapposite to the question.⁴⁸

The court was correct in that the earlier cases were not binding as to this particular fact pattern, that of scenario 4. But it seems that those earlier cases had made clear that there could be infringement when the offer was made in the United States, regardless of where the sale may be completed. Indeed, it would have been plausible for both scenarios 3 and 4 to constitute acts of infringement.⁴⁹ Because the court was not presented with scenario 3, however, technically the rule adopted by *Transocean* was dicta.

⁴³ Holbrook (n 32) 1101 (laying out the four scenarios in a 2X2 matrix).

⁴⁴ *ibid* 1095.

⁴⁵ *MEMC Elec Materials Inc v Mitsubishi Materials Silicon Corp*, 420 F3d 1369, 1376 (Fed Cir 2005); *Rotec Indus Inc v Mitsubishi Corp*, 215 F3d 1246, 1257 (Fed Cir 2000).

⁴⁶ Holbrook (n 32) 1103 (“Under the *Transocean* rule, there would be no need to consider the evidence of the location of the negotiations because the location would be irrelevant”).

⁴⁷ *Transocean* (n 42) 1309.

⁴⁸ *ibid* 1309 (“Neither *Rotec* nor *MEMC* preclude our determination that an offer by a U.S. company to sell a patented invention to another U.S. company for delivery and use in the U.S. constitutes an offer to sell within the U.S.”).

⁴⁹ Holbrook (n 32) 1103.

Shortly after the Federal Circuit decided *Transocean*, however, the Federal Circuit rejected scenario 3 as infringing. In *Halo Electronics, Inc. v Pulse Electronics, Inc.*, the court “adopt[ed] the reasoning of *Transocean*” to hold “that Pulse did not directly infringe the Halo patents under the “offer to sell” provision by offering to sell in the United States the products at issue, because the locations of the contemplated sales were outside the United States.”⁵⁰ Thus, the litmus test for infringing offers to sell is where the sale contemplated in the offer will be completed. The same is true for actually completed sales: regardless of where the agreement is negotiated and completed, the geographic location of the sale is determined by factors such as the place of performance and delivery.⁵¹

The consequence of this rule is that a US patent can have considerable extraterritorial reach. For there to be an infringing offer to sell, the offer need not be accepted (or else there would be an infringing sale). Imagine that an offer is made in Hungary to sell the patented invention in the United States, but the offer is not accepted. The party could be liable for infringement of a US patent even though no activity has taken place within the territorial United States.

3.2 Application of *Transocean* to Digital Patent Infringement

The *Transocean* rule for offering to sell or selling a patented invention creates considerable extraterritorial concerns in the context of digital patent infringement. Even for the narrow theory that Professor Osborn and I have advocated, the reach would be considerable. Anyone selling a CAD file on the internet could be subject to patent infringement in the United States. The situation is even worse if one considers the approach of permitting patentees to claim CAD files themselves. Depending on how courts would interpret the “making” or “use” of such claims, anything on the internet could trigger US patent infringement, regardless of where the infringer is located.⁵²

⁵⁰ 769 F3d 1371, 1381 (Fed Cir 2014), vacated and remanded on other grounds, 136 S Ct 1923 (2016). The Supreme Court addressed the issue of wilful patent infringement and enhanced damages in the case but left undisturbed the court’s territorial rule. See 136 S Ct 1923 (2016). The Federal Circuit later reinstated its territorial ruling. See *Halo Elecs Inc v Pulse Elecs Inc*, 831 F3d 1369, 1380 (Fed Cir 2016).

⁵¹ *Transocean* (n 42) 1310 (“As with the offer to sell, we hold that a contract between two U.S. companies for the sale of the patented invention with delivery and performance in the U.S. constitutes a sale under § 271(a) as a matter of law”). See also *Halo Elecs Inc v Pulse Elecs Inc*, 831 F3d 1369, 1378 (Fed Cir 2016) (“[W]hen substantial activities of a sales transaction, including . . . the delivery and performance under that sales contract, occur entirely outside the United States, pricing and contracting negotiations in the United States alone do not constitute or transform those extraterritorial activities into a sale within the United States for purposes of § 271(a)”).

⁵² Internet service providers could also face issues of indirect infringement liability, although the knowledge requirements would act to prevent extensive exposure. Nevertheless, if Congress or the courts embrace a variation of digital patent infringement, it may be important for Congress to consider a safe harbour similar to that found for copyright infringement in the Digital Millennium Copyright Act. Desai and Magliocca (n 7) 1718–19; Mark A Lemley, “IP in a World Without Scarcity” (2015) 90 NYU L Rev 460, 509–10.

3.3 Options for Dealing with Extraterritoriality and Digital Patent Infringement

It is undeniable that any of the proffered theories of digital patent infringement would afford patent owners considerable extraterritorial protection for patent infringement through the sale or other use of CAD files. The question then is: what options does patent law have to deal with this issue? The answer, of course, depends in large part on one's normative assessment of patents and the scope of patent protection. The section below explores a variety of potential alternatives that fall on both sides of that question. In other words, some options consider this extraterritorial reach to be normatively good, while others view such expansion as inappropriate. Others attempt to strike some middle ground to provide patent owners with some protection while balancing other concerns attending extraterritorial applications of US law more broadly.

3.3.1 Fully embrace digital patent infringement, including its attendant extraterritorial scope

One option to address the issue of extraterritoriality with respect to digital patent infringement is to simply embrace it. This approach would provide a patent owner considerable potential to regulate activity on the internet using a US patent. Such potential may give patent owners incentives to enter the CAD file market themselves, knowing that they have more robust protection against copying and infringement by third parties, wherever they may be. Moreover, there are some practical restraints on such seemingly unfettered reach. For example, if the infringer is outside of the United States, a patent owner may have difficulty identifying the infringer. Additionally, the patent owner may have difficulty obtaining jurisdiction over the infringer. Bringing a lawsuit in US district court would require personal jurisdiction over the infringer, which requires minimum contacts within a particular forum. Overall, under this approach, the issue of extraterritoriality is something to be celebrated and not a source of concern.

3.3.2 Reject digital patent infringement altogether

If one considers such extraterritorial reach to be troubling, another option is to reject these theories of digital patent infringement altogether. Even though Congress undeniably has the power to legislate extraterritorially, courts are to presume that US law does not so apply.⁵³ There are a variety of justifications for the presumption against extraterritoriality. Applying US law extraterritorially risks conflicts with international law.⁵⁴ Second, such extraterritorial application of domestic law can run afoul of principles of comity, where a clash between US and foreign law could develop.⁵⁵ Other concerns are choice of law principles, congressional intent, and separation of powers.⁵⁶

⁵³ *RJR Nabisco Inc v European Cmty*, 136 S Ct 2090 (2016); *Kiobel v Royal Dutch Petroleum Co*, 569 US 108 (2013); *Morrison v National Australia Bank Ltd*, 561 US 247 (2010); *Microsoft Corp v AT & T Corp*, 550 US 437 (2007).

⁵⁴ Curtis A Bradley, "Territorial Intellectual Property Rights in an Age of Globalism" (1997) 37 Va J Intl L 505, 514.

⁵⁵ *ibid*; *RJR Nabisco* (n 53) 2100.

⁵⁶ Bradley (n 54) 513–14.

All of these considerations are apparent in the digital patent infringement context, which could lead some to reject the theory altogether. Digital patent infringement would provide considerable power to patent owners to regulate markets and actors well outside of the United States. The countries in which the possessor of a CAD file lives could have competing policies. Indeed, it could be that the US patent owner does not have a patent in the relevant country, which would allow the patentee to leverage its patent into a country where the person could legitimately sell not only the CAD file but also the actual device itself. Moreover, if the US is unique in providing protection against infringing CAD files, there could be a significant conflict of laws with a country in which the accused infringer resides. In other words, the patent holder would be using its patent to control the CAD file in a jurisdiction where such activity would otherwise be deemed noninfringing.

As a result of these complications, one could think that the entire concept of digital patent infringement should be rejected. Instead, the law should retain its current focus on the physical instantiation of invention. Indeed, such argumentation could extend beyond the digital patent infringement context and lead to the conclusion that *Transocean's* holding that a party can infringe by selling or offering to sell the invention without constructing or delivering the invention at all should be rejected.⁵⁷

3.3.3 Reject *Transocean's* locus of sales and offers to sell

A third potential reaction to the extraterritorial reach of digital patent infringement falls short of a complete rejection of *Transocean's* holdings. One could reject the territorial rule of *Transocean* that focuses on the location of the contemplated sale for determining the locus of infringement and, instead, return to the implicit pre-*Transocean* rule that focuses on whatever activity takes place in the United States. Before *Transocean*, the district courts had split on whether both the offer and the sale had to be in the United States, or whether the offer alone was sufficient for infringement of a US patent, regardless of where the sale was ultimately consummated.⁵⁸ Thus, if an offer takes place in the United States, then there could be infringement. With this approach, the potential infringer would necessarily have to take some steps within the United States to trigger patent infringement, unlike the *Transocean* rule.

Of course, rejection of the *Transocean* rule may not curtail the extraterritorial scope of a patent terribly much in the digital patent infringement context. Likely, placing something for sale on the internet will be deemed as an offer in the United States because a US citizen would be able to form a binding contract by accepting the offer (thus purchasing the CAD file).⁵⁹ As a result, even embracing the apparent pre-*Transocean* rule that focused on the geographic location of the offer may not effectively limit the extraterritorial reach of US patent law.

⁵⁷ cf Daniel Harris Brean, "Asserting Patents to Combat Infringement via 3D Printing: It's No 'Use'" (2013) 23 Fordham Intell Prop Media & Ent LJ 771, 793 ("*Transocean* still requires an agreement to transfer a tangible physical object. Contracts for sale of CAD drawings do not constitute an agreement to transfer any tangible property, but only an intangible digital representation of tangible property"); Holbrook (n 32) 1106–08.

⁵⁸ Timothy R Holbrook, "Territoriality Waning? Patent Infringement for Offering in the United States to Sell an Invention Abroad" (2004) 37 UC Davis L Rev 701, 741 (discussing split in authority).

⁵⁹ Restatement (Second) of Contracts § 35 (1981); Lucas S Osborn, "The Leaky Common Law: An 'Offer to Sell' as a Policy Tool in Patent Law and Beyond" (2013) 53 Santa Clara L Rev 143, 145 ("The concept of an offer that an offeree may accept to create a contract is a pillar of contract law").

3.3.4 For every case, perform the two step extraterritoriality analysis of *RJR Nabisco*

Another approach to dealing with the extraterritorial reach of digital patent infringement would be to consider such reach on a case by case basis, as suggested by the Supreme Court's analysis in its extraterritoriality cases. In recent years, the Supreme Court has reengaged with, and clarified, its methodology for determining when it is appropriate to apply US law extraterritorially.⁶⁰

Appropriately enough, the first in this line of cases involved patent law. In *Microsoft Corp. v AT&T Corp.*, the Court reviewed the scope of 35 USC § 271(f), an infringement provision unique to the United States.⁶¹ Section 271(f) creates a form of infringement for exportation of all or substantially all of the components of an invention, or a component with no noninfringing uses, where these parts are intended to be assembled outside of the United States.⁶² The Court offered the provision a narrow interpretation, rejecting that software in the abstract could be deemed a component and that overseas copying of the software constituted supplying a component.⁶³ In so doing, it relied on the presumption to afford the statute a narrower interpretation.⁶⁴

Subsequent to *Microsoft*, the Supreme Court twice considered the presumption against the extraterritorial application of US law in the context of United States security laws,⁶⁵ and of a statute that permitted US courts to hear causes of action based on clear violations of international law norms.⁶⁶

Finally, the Supreme Court's efforts on the presumption culminated in its decision in *RJR Nabisco, Inc. v European Community*, in which it assessed the extraterritorial scope of the Racketeer Influenced and Corrupt Organizations Act (RICO).⁶⁷ In analyzing this issue, the court formalized its doctrine regarding the presumption into a two-step analysis. In the first step, a court must ask "whether the presumption against extraterritoriality has been rebutted—that is, whether the statute gives a clear, affirmative indication that it applies extraterritorially."⁶⁸ If the presumption has been rebutted, then the case can proceed because the statute does reach the foreign activity. If the presumption has not been rebutted, then the court proceeds to step two, which requires the court to ask "whether the case involves a domestic application of the statute" by "looking to the statute's 'focus'."⁶⁹ As the court reasoned:

⁶⁰ Timothy R Holbrook, "Boundaries, Extraterritoriality, and Patent Infringement Damages" (2017) 92 Notre Dame L Rev 1745, 1752–60.

⁶¹ *Microsoft* (n 53) 437.

⁶² 35 USC § 271(f)(1) and (2). These forms of infringement are not strict liability in nature; both have knowledge requirements. These two provisions are parallel to active inducement of § 271(b) and contributory infringement under § 271(c). See also *Life Techs Corp v Promega Corp*, 137 S Ct 734 (2017) 739 (holding that supplying single component is not infringement of § 271(f)(1)).

⁶³ *Microsoft* (n 53) 442.

⁶⁴ *ibid* 454 ("Any doubt that Microsoft's conduct falls outside § 271(f)'s compass would be resolved by the presumption against extraterritoriality").

⁶⁵ *Morrison* (n 53).

⁶⁶ *Kiobel v Royal Dutch Petroleum Co*, 569 US 108 (2013) 116 (statute at issue "allows federal courts to recognise certain causes of action based on sufficiently definite norms of international law").

⁶⁷ 136 S Ct 2090, 2096 (2016).

⁶⁸ *ibid* 2101.

⁶⁹ *ibid*.

If the conduct relevant to the statute's focus occurred in the United States, then the case involves a permissible domestic application even if other conduct occurred abroad; but if the conduct relevant to the focus occurred in a foreign country, then the case involves an impermissible extraterritorial application regardless of any other conduct that occurred in U.S. territory.⁷⁰

This two step methodology seemingly is now *the* approach for assessing the extraterritorial reach of a statute.

But arguably it is inconsistent with the Court's own decision in *Microsoft*. Section 271(f) seemingly would satisfy step one of *RJR Nabisco* because Congress specifically adopted the provision to overrule an earlier case, *Deepsouth Packing Co. v Laitram Corp.*,⁷¹ and to afford some extraterritorial protection to US patent holders.⁷² Because section 271(f) would satisfy step one, the *RJR Nabisco* analysis is essentially done. Yet, the Court used the presumption in *Microsoft* to afford the statute a narrower interpretation.⁷³ *RJR Nabisco* does not appear to provide such a role for the presumption, which may reflect a shift in the Supreme Court's extraterritoriality jurisprudence.⁷⁴

In the context of digital patent infringement, a court could apply this framework to a particular case. The theories of digital patent infringement offered generally contemplate infringement under section 271(a) of the Patent Act. That provision defines an infringer to be anyone who, without authorization, "makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States."⁷⁵

At step one of the *RJR Nabisco* methodology, one must ask whether the presumption has been rebutted, which arises when "the statute gives a clear, affirmative indication that it applies extraterritorially."⁷⁶ The answer to step one here is undeniably that the presumption has not been rebutted. It is harder to imagine a clearer statement of territoriality than section 271(a), requiring all acts to be within or into the United States. Indeed, patents have been called the "most explicitly territorial."⁷⁷ Consequently, step one is not satisfied.

Step one, though, is the only way to categorically conclude whether there is extraterritorial protection or not, because the analysis focuses on the statutory language. At step two, in contrast, a court must evaluate the focus of the statute in the context of the particular conduct at issue in the case. As such, step two necessarily is applied on a case by case basis. So, every case of digital patent infringement would have to be assessed on its own facts.

The focus of the statute is the various acts within the United States. Efforts to sell the CAD file within the United States arguably could be deemed within the focus of the statute. But it is not entirely clear that is the case. The Supreme Court offered very little guidance as to how to assess the focus of the statute. Is the focus simply on the relevant conduct, or do other factors,

⁷⁰ *ibid.*

⁷¹ 406 US 518 (1972).

⁷² Timothy R Holbrook, "Extraterritoriality in U.S. Patent Law" (2008) 49 Wm & Mary L Rev 2119, 2132.

⁷³ *ibid* 454 ("Any doubt that Microsoft's conduct falls outside § 271(f)'s compass would be resolved by the presumption against extraterritoriality").

⁷⁴ Holbrook (n 60) 1759.

⁷⁵ 35 USC § 271(a).

⁷⁶ *RJR Nabisco* (n 53) 2101.

⁷⁷ Donald S Chisum, "Normative and Empirical Territoriality in Intellectual Property: Lessons from Patent Law" (1997) 37 Va J Intl L 603, 605.

such as the citizenship of the infringer, come into play?⁷⁸ Absent a particular fact pattern, it is hard to answer the step two inquiry as it relates to digital patent infringement. One of the problems with the step two inquiry is that it necessarily is case specific.

3.3.5 US courts could expressly consider foreign patent law and potential conflicts

Another way to address the potential extraterritorial reach of digital patent infringement would be to assess whether such infringement would create a conflict with the law of the country in which the infringer is located. One of the primary concerns with applying US law extraterritorially is that it could generate conflicts with foreign law.⁷⁹ The Supreme Court has noted, however, that the presumption applies regardless of whether there is a risk of such a conflict.⁸⁰ But such language seems to be a bit of hyperbole: the Supreme Court often addresses whether there is a conflict with foreign law in these cases.⁸¹

RJR Nabisco itself is most notable in this regard. While acknowledging the language in *Morrison*, the Court clarified: “Although ‘a risk of conflict between the American statute and a foreign law’ is not a prerequisite for applying the presumption against extraterritoriality, where such a risk is evident, the need to enforce the presumption is at its apex.”⁸² The only way to determine if the presumption is at its “apex,” then, is to expressly consider the existence of potential conflicts. This language, therefore, mitigates some of the stronger language in *Morrison*. *RJR Nabisco* creates the space for courts to look at conflicts of law.

Some courts have expressly embraced consideration of conflicts as a formal matter in their doctrine. Even before these recent cases, the Supreme Court articulated an approach to the extraterritorial reach of trademark law. In *Steele v Bulova Watch Co.*, the Supreme Court addressed a claim of trademark infringement where the infringer was a US citizen, the act of infringement took place in Mexico, and, at least initially, the trademark BULOVA was owned in Mexico by the infringer.⁸³ The infringer, however, lost ownership of the mark before the decision in the case.⁸⁴ The Court held that the courts had jurisdiction under the Lanham Act, the federal trademark statute, given these facts.⁸⁵ Other courts, interpreting *Bulova*, have rec-

⁷⁸ cf *Transocean* (n 42) 1309 (“This case presents the question whether an offer which is made in Norway by a U.S. company to a U.S. company to sell a product within the U.S., for delivery and use within the U.S. constitutes an offer to sell within the U.S. under § 271(a)”).

⁷⁹ *RJR Nabisco* (n 53) 2107 (“where such a risk [of conflict with foreign law] is evident, the need to enforce the presumption is at its apex”); *Morrison* (n 53) 269 (“The probability of incompatibility with the applicable laws of other countries is so obvious that if Congress intended such foreign application ‘it would have addressed the subject of conflicts with foreign laws and procedures’,” quoting *EEOC v Arabian Am Oil Co*, 499 US 244, 256 (1991)); *Microsoft* (n 53) 455 (“[F]oreign law ‘may embody different policy judgments about the relative rights of inventors, competitors, and the public in patented inventions’,” quoting Brief for the United States as Amicus Curiae Supporting Petitioner at 28 (No 05-1056))).

⁸⁰ *Morrison* (n 53) 255.

⁸¹ See Holbrook (n 60) 17868–67 (reviewing discussions of conflicts within Supreme Court cases).

⁸² *RJR Nabisco* (n 53) 2107 (quoting *Morrison* (n 53) 255).

⁸³ *Steele v Bulova Watch Co*, 344 US 280, 281 (1952).

⁸⁴ *ibid* 285 (“Moreover, subsequent to our grant of certiorari in this case the prolonged litigation in the courts of Mexico has come to an end. On October 6, 1952, the Supreme Court of Mexico rendered a judgment upholding an administrative ruling which had nullified petitioner’s Mexican registration of ‘Bulova.’”).

⁸⁵ *ibid* 289.

ognized that the court focused on three factors: the citizenship of the infringer, the effect on the United States commerce, and any conflicts of law.⁸⁶

These cases pre-date *RJR Nabisco* and, somewhat quixotically, *RJR Nabisco* does not even cite *Bulova*.⁸⁷ *RJR Nabisco*, however, appears to leave room for the consideration of conflicts as a formal matter, and one court has done just that in the trademark context. In *Trader Joe's Co. v Hallatt*, the US Court of Appeals for the Ninth Circuit concluded, post-*RJR Nabisco*, that the Lanham Act can have extraterritorial reach, specifically considering potential conflicts with foreign laws.⁸⁸ The Ninth Circuit at least believes that a formal consideration of potential conflicts with foreign law is appropriate even after *RJR Nabisco*.

The courts could take a similar approach in the context of digital patent infringement. A court would consider whether finding infringement would create a conflict with the country in which the infringer is located. Elsewhere, I have offered a formal methodology for making this determination.⁸⁹ Other scholars have embraced the consideration of conflicts to deal with extraterritorial situations.⁹⁰ The underlying rule would be that, for there to be infringement of the US patent, there would also have to be infringement within the country where the defendant is located.

There are a variety of considerations that could factor into a conflict analysis: variations in validity, claim construction, and infringement doctrines; ownership of any relevant patents; and whether there is even a patent in the country at issue. My approach was particularly stringent: if there would be no infringement in the foreign country, then there would be no infringement of the US patent. If the patent owner did not have patent in the foreign country, and no third party did, then the courts could use the US patent as a proxy for applying the law of the foreign country. In this way, courts would perform fairly sophisticated analyses of foreign patent law. One need not take the strict approach I have advocated. Instead, a court could take a more holistic approach, treating various potential conflicts as factors to be weighed in determining whether it would be appropriate to find infringement of the US patent.⁹¹

Under either approach, some uncertainty will attend the infringement determination. A patentee would have to discern the law of the relevant country. A holistic approach would compound this problem, as no set factors would be determinative. At least with the strict approach that I have advanced, there would be more certainty as to infringement.

Nevertheless, the express consideration of conflicts with foreign law would have a number of laudable advantages. Having courts engage with the patent laws of other countries could

⁸⁶ *Vanity Fair Mills Inc v T Eaton Co*, 234 F2d 633, 642 (2d Cir 1956).

⁸⁷ The Court did cite *Bulova* in *Morrison*—see *Morrison* (n 53) 272, n 11—but not in *Kiobel*, which is odd given that all of these cases deal with extraterritoriality.

⁸⁸ 835 F3d 960, 972 (9th Cir 2016); accord *Update Inc v Axel Springer SE*, No 17-CV-05054-SI, 2017 WL 5665669, *9 (ND Cal 27 November 2017); *Sound N Light Animatronics Co v Cloud B Inc*, No CV1605271BROJPR, 2017 WL 3081685, *10 (CD Cal 7 April 2017)

⁸⁹ Holbrook (n 73) 2169.

⁹⁰ See, for example, Sapna Kumar, “Patent Damages without Borders” (2017) 25 Texas Intell Prop LJ 73, 109–13; Kendra Robins, Note, “Extraterritorial Patent Enforcement and Multinational Patent Litigation: Proposed Guidelines for U.S. Courts” (2007) 93 Va L Rev 1259, 1310–11.

⁹¹ Holbrook (n 72) 2168 (“One approach under the auspices of a balancing methodology would be to take into account all relevant national policies, international treaties, and other potential norms in a ‘totality of the circumstances’ approach”); cf Graeme B. Dinwoodie, ‘A New Copyright Order: Why National Courts Should Create Global Norms’ (2000) 149 U PA L Rev 469, 477–89 (advocating a similar approach for copyright law).

help educate courts about the variations in those countries. This approach could facilitate convergence on certain international norms. Conversely, it could help make clear divergences in national laws, which could be the subject of future treaty negotiations or domestic amendments to the law, if harmonization is deemed appropriate.

One could be concerned about the institutional capacity of US courts to consider foreign law. This concern is often overstated, particularly in the patent context. Given that the Agreement on Trade Related Aspects of Intellectual Property Rights has created, at a level of generality, a basic framework across patent regimes, US courts should be able to understand the law of foreign jurisdictions fairly readily. Institutionally, courts seem positioned to be able to deal with this approach.

How would this methodology work in the context of digital patent infringement? In the near term, it likely would mean that there is no extraterritorial protection afforded patent owners for potentially infringing CAD files. Given that all the theories advanced for digital patent infringement require either an extension of the law or a modification to claim drafting convention, it is highly likely that this form of infringement would not be recognized in foreign jurisdictions. Under the strict approach, at least, digital patent infringement could not be used to reach foreign actors, even if they ultimately are selling the CAD file in the United States under the *Transocean* rule.

In the long term, however, it may be conceivable that other jurisdictions could embrace variations of digital patent infringement. If that were to take place, then a patent owner could assert its patent over these foreign activities, so long as the conflict is eliminated under the strict approach or was deemed minor under the more malleable, factor-based approaches.

3.4 Conclusion

Various forms of digital patent infringement necessarily will involve issues of extraterritoriality. Just as digital music and movie files have challenged the territorial limits of copyright law, so will CAD and related files challenge patent law. The above section offers a variety of methods for dealing with this concern. Ultimately, a balanced, conflicts-based approach is normatively preferable. While in the near term it may preclude a patent owner from being able to use its patent extraterritorially, that outcome is fine to the extent that extraterritorial application of a US patent is the exception, not the norm. As other countries confront the challenges posed by 3D printing and CAD files, they may come into agreement with the US approach (assuming the United States embraces some form of digital patent infringement). If that happens, then the conflicts-based approach would provide some protection to US patent holders against the spread of a CAD file of the patented invention.

4. DAMAGES FOR DOMESTIC ACTS OF INFRINGEMENT WITH OVERSEAS CONSEQUENCES

The territoriality issues for digital patent infringement are not limited to the issue of liability for patent infringement. Scenarios have already arisen in the United States which involve the scope of damages for an act of domestic infringement. In these scenarios, there is an act of domestic infringement but the theory of damages includes redress for acts arising outside of the United States. For example, assume the infringer has used the patented method within the

United States to show the method to potential customers. Some of those customers ultimately purchase an apparatus that performs the method that is both made and delivered abroad. Should a patent owner be compensated for those lost, foreign sales of the patented invention that arose from this domestic act of infringement?

4.1 The Law of Patent Damages

Damages under US patent law are governed by section 284 of the Patent Act, which states: “Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.”⁹²

The Supreme Court has noted that this provision reflects a purely compensatory regime in which the patentee should be placed in the position they would have been in but for the acts of infringement.⁹³ The statute does establish a floor for damages, however: a reasonable royalty for the use of the patented invention.⁹⁴

Compensatory damages have taken three forms in US patent law: lost profits, price erosion, and reasonable royalties. For an award of lost profits, the measure of damages is the profit the patentee would have made absent infringement.⁹⁵ One helpful, though not exclusive,⁹⁶ way of demonstrating lost profits is to satisfy the following four factor test: “(1) demand for the patented product, (2) absence of acceptable noninfringing substitutes, (3) his manufacturing and marketing capability to exploit the demand, and (4) the amount of the profit he would have made.”⁹⁷ Proof of lost profits requires a demonstration that, but for the infringement, the patentee would have made that sale, and also that the lost sale was a foreseeable consequence of the infringement.⁹⁸ For example, imagine that the patent owner, upon hearing of the acts of infringement, suffered a heart attack and was unable to market his invention as much as normal. It would be highly unlikely that such lost profits would be deemed foreseeable.

Price erosion is a variation of lost profits. Under a price erosion theory, the patent holder is entitled to the profits she lost when she had to reduce the price of her goods in response to competition by the infringer. Thus, her profit margin has been reduced, yielding a loss in profits due to the price erosion.⁹⁹ Although price erosion damages should be “endemic in

⁹² 35 USC § 284.

⁹³ *Gen Motors Corp v Devex Corp*, 461 US 648, 654–55 (1983); *Aro Mfg Co* (n 18) 507 (“had the Infringer not infringed, what would Patent Holder-Licensee have made?” (quoting *Livesay Window Co v Livesay Indus Inc*, 251 F2d 469, 471 (5th Cir 1958)). The Supreme Court was not addressing the appropriate standard for measuring compensatory damages; instead, it was addressing the narrow issue of whether prejudgment interest ordinarily should be awarded to patentees, holding that they should be, albeit not automatically: *ibid* 656–57. Interestingly, the Supreme Court has never squarely addressed the standard of damages under section 284: *Holbrook* (n 60) 1767.

⁹⁴ 35 USC § 284.

⁹⁵ *Rite-Hite Corp v Kelley Co*, 56 F3d 1538 (Fed Cir 1995) (en banc) 1545.

⁹⁶ *ibid* 1548 (“Panduit is not the sine qua non for proving ‘but for’ causation”).

⁹⁷ *Panduit Corp v Stahl Bros Fibre Works*, 575 F2d 1152 (6th Cir 1978) 1156.

⁹⁸ *Rite-Hite* (n 95) 1546. Foreseeability is basically the tort concept of proximate cause (“Judicial limitations on damages, either for certain classes of plaintiffs or for certain types of injuries have been imposed in terms of ‘proximate cause’ or ‘foreseeability’”).

⁹⁹ *Yale Lock Mfg Co v Sargent*, 117 US 536, 553 (1886).

infringements,”¹⁰⁰ they generally are rare in patent litigation. A patentee’s decision to reduce price may involve more than just the act of infringement, making causation more difficult to demonstrate.¹⁰¹ Moreover, pursuing a price erosion theory can be inconsistent, and indeed can undermine a pure lost profits theory. In recreating the market that would have existed absent infringement, a higher price could mean that the quantity of goods sold on the market would be less. Thus, the patentee would have difficulty proving it would have made the infringing sale at the higher price because that purchaser may have simply left the market.¹⁰²

The third form of patent damages are reasonable royalties, the floor for damages. A reasonable royalty is a measure of the value for the use of the patented invention. Absent any evidence whatsoever of a royalty amount, a court must award the patent holder at least a reasonable royalty.¹⁰³ To assess what royalty would be reasonable, a court generally envisions a hypothetical negotiation at the time of infringement.¹⁰⁴ As the court has noted, “The hypothetical negotiation tries, as best as possible, to recreate the *ex ante* licensing negotiation scenario and to describe the resulting agreement. In other words, if infringement had not occurred, willing parties would have executed a license agreement specifying a certain royalty payment scheme.”¹⁰⁵ The ultimate royalty rate, however, is assessed using a wide range of factors.¹⁰⁶

In the context of digital patent infringement, measuring damages could be rather important.¹⁰⁷ A single CAD file could spread, resulting in multiple copies—and consequently potential widespread printing of the patented invention.

The extraterritorial dimension, however, complicates matters. If the CAD file is sold in the United States or otherwise subject to a clear domestic act of patent infringement, the CAD file could spread globally. Should a patent owner be entitled to damages for those overseas acts that flow from the act of domestic infringement? Current case law on this issue is a bit mixed.

¹⁰⁰ Roy J Epstein, ‘*State Industries* and Economics: Rethinking Patent Infringement Damages’ (1999–2000) 9 Fed Cir Bar J 367, 368.

¹⁰¹ See, for example, *BIC Leisure Prod Inc v Windsurfing Int’l Inc*, 1 F3d 1214 (Fed Cir 1993) 1220 (“The record shows that other market forces, not BIC, forced Windsurfing to lower its prices”).

¹⁰² See Timothy R Holbrook, “Liability for the ‘Threat of a Sale’: Assessing Patent Infringement for Offering to Sell an Invention and Implications for the on-Sale Patentability Bar and Other Forms of Infringement” (2003) 43 Santa Clara L Rev 751, 793–94.

¹⁰³ *Apple Inc v Motorola Inc*, 757 F3d 1286 (Fed Cir 2014) 1327–28 (“If a patentee’s evidence fails to support its specific royalty estimate, the fact finder is still required to determine what royalty is supported by the record . . . Thus, a fact finder may award no damages only when the record supports a zero royalty award” (internal citations omitted)), overruled on other grounds by *Williamson v Citrix Online LLC*, 792 F3d 1339 (Fed Cir 2015) (en banc).

¹⁰⁴ *Wang Labs Inc v Toshiba Corp*, 993 F2d 858 (Fed Cir 1993) 870. The Federal Circuit has also permitted the analytical method which focuses more readily “on the infringer’s projections of profit for the infringing product”: *Lucent Techs Inc v Gateway Inc*, 580 F3d 1301 (Fed Cir 2009) 1324; *TWM Mfg Co v Dura Corp*, 789 F2d 895 (Fed Cir 1986) 899.

¹⁰⁵ *Lucent Techs* (n 104) 1325.

¹⁰⁶ *Georgia-Pacific Corp v US Plywood Corp*, 318 F Supp 1116 (SDNY 1970) 1120. The Federal Circuit has embraced the use of these factors. *Lucent Techs* (n 104) 1325.

¹⁰⁷ For a general discussion of patent damages in the digital patent infringement context, see Holbrook (n 41).

4.2 US Case Law on Patent Damages and Territoriality

The Federal Circuit has encountered cases in the nondigital infringement context addressing so-called “worldwide causation” theories of patent damages.¹⁰⁸ In all three of these cases, the Federal Circuit embraced a strict territorial rule for patent damages.¹⁰⁹ In the first case, *Power Integrations, Inc. v Fairchild Semiconductor International, Inc.*, the Federal Circuit refused to award the patentee lost profits for sales that arose overseas but which were the result of a domestic act of infringement.¹¹⁰ The court reached this conclusion even if such lost sales “were the direct, foreseeable result of [the infringer’s] domestic infringement.”¹¹¹ The Federal Circuit therefore grafted a territorial limit on patent damages that trumped the compensatory nature of patent damages.

The Federal Circuit extended this analysis to an award of a reasonable royalty. Relying on *Power Integrations*, the court in *Carnegie Mellon University v Marvel Technology Group, Ltd.* rejected a reasonable royalty that accounted for foreign sales of chips that would perform the patented process.¹¹² The court relied on the presumption against extraterritoriality, noting that the presumption “applies not just to identifying the conduct that will be deemed infringing but also to assessing the damages that are to be imposed for domestic liability-creating conduct.”¹¹³ The court therefore continued to enforce a strict territorial limit to compensatory patent damages.

The third case in this line involved a slightly different infringement provision. Section 271(f) of the Patent Act specifically addresses extraterritorial conduct. This provision defines infringement as certain acts of exportation; the impacted markets, therefore, are foreign ones, not ones within the United States.¹¹⁴ The damages at issue in *WesternGeco L.L.C. v ION Geophysical Corp.* were the lost profits from the “failure to win...contracts” to use the patented device to perform the sale of services to using the patented invention to survey the sea floor.¹¹⁵ Relying on the presumption against extraterritoriality and *Power Integrations*, the majority rejected an award of damages for these forgone service contracts.¹¹⁶ The court reasoned:

by its terms, § 271(f) operates to attach liability to domestic entities who export components they know and intend to be combined in a would-be infringing manner abroad. But the liability attaches in

¹⁰⁸ Bernard Chao, “Patent Imperialism” (2014) 109 Nw UL Rev Online 77 (coining this term).

¹⁰⁹ Holbrook (n 60) 1770–77.

¹¹⁰ *Power Integrations Inc v Fairchild Semiconductor Int’l Inc*, 711 F3d 1348 (Fed Cir 2013) 1371.

¹¹¹ *ibid*.

¹¹² 807 F3d 1283 (Fed Cir 2015) 1306–08.

¹¹³ *ibid* 1306.

¹¹⁴ 35 USC § 271(f).

¹¹⁵ 791 F3d 1340 (Fed Cir 2015) 1349, cert. granted, judgment vacated sub nom *WesternGeco L.L.C. v ION Geophysical Corp.*, 136 S Ct 2486 (2016). Technically, the US Supreme Court remanded the case back to the Federal Circuit to address an unrelated issue. The majority at the Federal Circuit simply reinstated its earlier ruling on the territorial limits on patent damages. *WesternGeco L.L.C. v ION Geophysical Corp.*, 837 F3d 1358 (Fed Cir 2016) 1360. Judge Wallach dissented in both opinions on this basis. The Supreme Court subsequently granted certiorari a second time and reversed the Federal Circuit on the merits with respect to the Federal Circuit’s territorial rule. *WesternGeco LLC v ION Geophysical Corp.*, 138 S Ct 2129 (2018).

¹¹⁶ *WesternGeco L.L.C. v ION Geophysical Corp.*, 791 F.3d 1340, 1351 (Fed Cir 2015).

the United States. It is the act of exporting the components from the United States which creates the liability. A construction that would allow recovery of foreign profits would make § 271(f), relating to components, broader than § 271(a), which covers finished products.¹¹⁷

Judge Wallach dissented. He noted that patentees generally are “entitled to full compensatory damages where infringement is found.”¹¹⁸ In his view, judicial precedent did not support such a *per se* exclusion; instead, the focus should be on whether there is a sufficient connection between the act of infringement and the desired damages.¹¹⁹

The US Supreme Court, however, rejected the Federal Circuit’s decision in *WesternGeco*. The Court declined to address the presumption against extraterritoriality directly, instead addressing statute’s focus under step two of the *RJR Nabisco* framework.¹²⁰ Although the provision at issue was section 284, the Court turned to section 271(f)(2) to determine the focus of the statute.¹²¹ The Court concluded that the provision regulates the domestic act of exporting components abroad, and the damages arising outside of the United States were incidental and subsequent to the act of infringement itself.¹²² The Court did note that it was not addressing issues of proximate cause.¹²³

After *WesternGeco*, a patent owner may be able to receive damages for overseas activities, so long as there is a domestic act of infringement. The law is unclear, however, as to the scope of this ability. For example, under the reasoning of *WesternGeco*, damages under the scenarios present in *Power Integration* and *Carnegie Mellon* still may not be available, depending on how future courts apply the Supreme Court’s decision. The question remains, then, as to how to deal with extraterritorial damages in the digital patent infringement context.

4.3 Options for Assessing Extraterritorial Damages from Digital Patent Infringement

What options could there be for damages in the digital patent infringement context? This section explores three options: maintain the status quo’s strict limits; embrace an entirely compensatory view of patent damages that does not consider national borders; or utilize some variation of the conflicts approach advocated above.

4.3.1 Adopt a strict territorial approach

One option for dealing with extraterritorial damages in the context of digital patent infringement is to prohibit them. Such an approach would act in a way to mitigate the potential extraterritorial reach of a US patent. It may encourage patent owners to seek injunctive relief promptly to preclude such downstream harms. It also would avoid the potential of double exposure for some infringers, where they could be liable under both the US patent and a patent in the jurisdiction where the infringer resides.

¹¹⁷ *ibid.*

¹¹⁸ *ibid* 1355 (Wallach J, dissenting).

¹¹⁹ *ibid* 1360.

¹²⁰ *WesternGeco LLC v ION Geophysical Corp.*, 138 S. Ct. 2129, 2136–37 (2018).

¹²¹ *ibid* 2137.

¹²² *ibid* 2138.

¹²³ *Ibid* 2139 n 3.

Of course, the spread of a digital file can be difficult to control, even with an injunction. Consequently, cutting off damages for such downstream uses of the CAD file would significantly impact the patent holder's ability to use the US patent to protect herself. Instead, the patent owner would have to attempt to enforce whatever patents they may have around the world.

This approach also creates an exception to the traditional rule for compensatory damages. Indeed, the trio of Federal Circuit cases on the territorial limits of damages was in considerable tension with the reasoning of the Federal Circuit's en banc decision in *Rite-Hite Corp. v Kelley Co.*¹²⁴ The court's approach in *Rite-Hite* was to consider the economic consequences of infringement. So long as the infringement was the but-for and proximate cause of the harm, then, under the reasoning of *Rite-Hite*, the patentee should be able to obtain an award of damages. Subsequent cases have explored patent damages by exploring the hypothetical market that would have existed absent the infringement.¹²⁵

The three Federal Circuit cases embracing a strict territorial line ignore that many markets are global in nature. For actors in certain areas, it is entirely foreseeable that their infringing acts in the United States could have an impact on markets outside of the United States. The court's rule belies the reality of modern markets. The Supreme Court's decision in *WesternGeco*, however, opens the door to for the award of such damages.

4.3.2 Focus on the compensatory nature of patent damages and ignore territorial boundaries

Another approach would be to embrace the pure economic methodology of *Rite-Hite*. Under this approach, territorial lines effectively become irrelevant. Instead, the focus of the analysis would simply be the economic impact on the patent owner, regardless of where that harm is located geographically.

The Solicitor General recently advocated for this methodology in its support of the petitioner in *WesternGeco*. The Solicitor General faulted the Federal Circuit's rule because it "systematically undercompensates US patent owners for infringement when the patent owner derives profits from cross-border commerce."¹²⁶ The Solicitor General noted that patent damages are limited by proximate cause and not national boundaries.¹²⁷

Although the Supreme Court ultimately concluded that damages for extraterritorial activity were available, the Court did not embrace the Solicitor General's argument. The Solicitor General treated section 284 independently of any other provision. In contrast, the Supreme Court tied the issue of damages to the specific infringement provision at issue, 35 USC § 271(f)(2). As such, the Court's approach suggests that the availability of extraterritorial damages depends on the form of infringement.¹²⁸

¹²⁴ *Rite-Hite* (n 95) 1542.

¹²⁵ See, for example, *Grain Processing Corp. v Am. Maize-Prod. Co.*, 185 F.3d 1341 (Fed Cir 1999) 1350.

¹²⁶ Brief for the United States as Amicus Curiae Supporting Petitioner, *WesternGeco* (n 115).

¹²⁷ *ibid* 8 ('But once that showing was made, the relevant question was *how much* profit petitioner had lost as a proximate result of respondent's wrongful conduct, not *where* petitioner would have earned those profits in a hypothetical world if the domestic infringement had not occurred' (emphasis in original)).

¹²⁸ *Holbrook* (n 60) 1778–83.

Of course, this approach ignores some of the negative consequences of such a capacious view of damages. Because the damages are arising from activities outside of the United States, there is an extraterritorial concern here. The infringer in fact could be exposed to double jeopardy: damages flowing from an act of infringement within the United States and damages for infringement within the country where the infringer resides. Justice Gorsuch recognized this potential in his dissent in *WesternGeco*.¹²⁹ If the patentee has a patent in both the United States and the other country, then there is the risk of double exposure to the infringer and double recovery to the patent holder. But the double exposure could also arise for the infringer if someone else owns the patent in their home country, which is possible given differing approaches to awarding patent rights in various countries. The purely compensatory approach ignores such potential conflicts.

4.3.3 Use the *RJR Nabisco* analysis

The two above approaches ignore the two step process of *RJR Nabisco*. While the Supreme Court expressly did not address whether the presumption against extraterritoriality (step one of the *RJR Nabisco* framework) applies to remedial statutes, it did at least rely on the focus analysis of step two in its *WesternGeco* decision.¹³⁰

Ignoring *RJR Nabisco*, as the purely compensatory approach would do, creates an artificial distinction between liability and damages. The presumption recognizes that using US law to regulate conduct outside of the United States can create a host of problems, particularly conflicts with a foreign sovereign's law. Liability is, of course, retrospective. So the creation of such liability is concerned not only with the behavior at issue but also with regulation of future behavior.

The purely compensatory approach would not focus on the presumption because the award of damages flows from a demonstrated act of domestic infringement. But this distinction is at best gossamer thin. Because liability is necessarily retrospective, awarding damages based on foreign conduct is effectively the same as finding liability based on foreign conduct. From the perspective of the defendant, their conduct could very well be permissible in their country. To have to pay damages based on that behavior—even if tied to US conduct—effectively is the same as finding them liable based on that conduct. Ultimately, the liability/damages distinction breaks down. Considering the presumption would therefore seem appropriate.

Applying *RJR Nabisco* in the context of digital patent infringement damages would depend on which provision is used in a given case. Section 284 itself is silent as to any territorial limits.¹³¹ It simply makes reference to “the infringement.” As such, section 284 is necessarily linked to the acts of infringement delineated in section 271.¹³² For a given case of digital patent infringement, therefore, a court would have to make the assessment through the lens of the particular infringement provision at issue.

For infringement under section 271(a), an award of damages based on foreign activity would seem inappropriate. Section 271(a) is explicitly territorial in nature. It requires that all acts take place within the United States or, for importations, into the United States. Given this

¹²⁹ *WesternGeco* (n 120) 2142–43.

¹³⁰ *ibid* 2136–37.

¹³¹ *ibid* 2137.

¹³² *ibid*; see also Holbrook (n 60) 1779.

rather stark language, extraterritorial damages would fail step one of *RJR Nabisco*.¹³³ As for step two—assessing the focus of the statute—the outcome would necessarily depend on the facts of a given case. The focus “requires an inquiry as to whether the relevant behaviour has a sufficient domestic nexus such that it is appropriate to apply US law.”¹³⁴ As such, it may depend on the particular act of digital infringement. Seemingly, however, copies of the CAD files or printings of the invention outside of the United States would be beyond the focus of the statute.

For infringement under section 271(f), however, the outcome would likely differ.¹³⁵ For example, if the CAD file does not print the entire invention but perhaps single or multiple components, then exporting the CAD file could trigger liability under this provision.¹³⁶ Under *WesternGeco*, damages under this provision would appear to be those that would make the patent holder whole, given the focus of the statute.¹³⁷ Exportation of CAD files that constitute components of a patented invention, therefore, should entitle the patent owner to recover for any foreseeable downstream economic harm.

4.3.4 Embrace some variation of a conflicts-based approach

Another option to deal with the potential extraterritorial damages issue arising in the context of digital patent infringement would be to perform a conflict of law analysis, as posited above.¹³⁸ In some contexts, it might be that the conflicts analysis for damages would be duplicative with the liability determination. If that is the case, then there would be no reason to repeat the inquiry (although seemingly repeating it would yield the same result). It is possible for different conflicts to arise or for the scenario to be slightly different for damages as opposed to liability.

4.3.5 Is it time to reconsider proximate cause in patent law?

A final mechanism to deal with extraterritorial damages for digital infringement may be to reconsider patent law’s concepts of proximate cause and foreseeability. The Federal Circuit has recognized that proximate cause is the lever that courts can use to determine whether certain damages are appropriate.¹³⁹ Proximate cause does not require a slavish adherence to the concept of foreseeability; instead, proximate cause involves a nuanced analysis that considers “logic, common sense, justice, policy and precedent.”¹⁴⁰ Thus, simply because a form of damage is foreseeable in an economic sense does not mean that the law must necessarily recognize that harm as compensable. The Federal Circuit, establishing foreseeability as part of the

¹³³ See Holbrook (n 60) 1779.

¹³⁴ *ibid*.

¹³⁵ Elsewhere I have argued that, as a result, *WesternGeco* was wrongly decided by the Federal Circuit. See *ibid* 1783.

¹³⁶ *cf* *Microsoft* (n 53) 449–52 (rejecting software in the abstract as a component but seemingly permitting particular copies to constitute a component); see also Holbrook and Osborn (n 6) 1351 (making this argument).

¹³⁷ See Holbrook (n 60) 1783.

¹³⁸ See Holbrook (n 60) 1788–89; Kumar (n 90) 37–40.

¹³⁹ *Rite-Hite* (n 95) 1546 (“Such labels have been judicial tools used to limit legal responsibility for the consequences of one’s conduct that are too remote to justify compensation”).

¹⁴⁰ *ibid* (citing Thomas Atkins Street, *Foundations of Legal Liability* (Edward Thompson 1906) 110, quoted in W Page Keeton and others, *Prosser & Keeton on the Law of Torts* (5th edn, West Group 1984) 279, s 42).

damages analysis, noted that there can be a safety valve: “If a particular injury was or should have been reasonably foreseeable by an infringing competitor in the relevant market, broadly defined, that injury is generally compensable absent a persuasive reason to the contrary.”¹⁴¹ Indeed, the Federal Circuit’s embrace of foreseeability is in tension with its later holding in the same case that damages for lost sales of complementary items can only be recovered if the two items acts as a functional unit.¹⁴² Such a requirement would deny recovery for such complementary sales even if they were foreseeable.

The Federal Circuit’s cases on territoriality and damages demonstrate that the concept of proximate cause could have come into play. In *Carnegie Mellon*, the infringed claim was a method, suggesting that the appropriate remedy would be a measure of the value of using the method.¹⁴³ The court nevertheless concluded that the proper measure of the reasonable royalty was based on the sales of the chips that performed the method.¹⁴⁴ From a proximate cause perspective, it is not clear that the baseline for damages should have been sales of chips that perform the method. Subsequent uses of the chips would be separate acts of infringement, if they took place in the United States. It is not clear why such remote harm—downstream potential uses of the method through use of the chip—should be compensable from a domestic use of the method.¹⁴⁵ Similarly, the lost profits at issue in *WesternGeco* were from the sales of services to use the patented invention and not the lost sales of the invention itself.¹⁴⁶ Although the Supreme Court appears to be permitting such damages, it is not entirely clear why these lost services should fall within the appropriate scope of harm for patent infringement.

The same issues could arise in the context of digital patent infringement. Conceivably, there could be a variety of uses of CAD files that, while not technically infringement, could be deemed as generating economic harm for the patent owner, particularly if these harms arise outside of the United States. The use of the CAD file to create a noninfringing alternative, for example, might create economic harm to the patent holder in terms of competition. From a proximate cause perspective, such remote uses arguably should not constitute a harm for which a court should afford compensation.

Minimally, one could easily envision the territoriality rule as being subsumed in the proximate cause analysis. Under the Federal Circuit’s approach, and the argument of the Solicitor General, the territorial rule has functioned as some exogenous limit on damages (in an inappropriate fashion, in the view of the Solicitor General). The Supreme Court’s decision in *WesternGeco* seems to embrace the idea that territorial limits and proximate cause are distinct.

Nevertheless, one could see how territoriality could be incorporated into the proximate cause analysis. If infringers have internalized the territoriality principle—a likely scenario

¹⁴¹ *ibid.*

¹⁴² See *ibid* 1550 (“Thus, the facts of past cases clearly imply a limitation on damages, when recovery is sought on sales of unpatented components sold with patented components, to the effect that the unpatented components must function together with the patented component in some manner so as to produce a desired end product or result”).

¹⁴³ See Holbrook (n 13) 1042.

¹⁴⁴ *Carnegie Mellon* (n 112) 1306 (“Where a physical product is being employed to measure damages for the infringing use of patented methods, we conclude, territoriality is satisfied when and only when any one of those domestic actions for that unit (e.g., sale) is proved to be present, even if others of the listed activities for that unit (e.g., making, using) take place abroad”).

¹⁴⁵ Holbrook (n 60) 1791.

¹⁴⁶ *WesternGeco L.L.C. v ION Geophysical Corp.*, 791 F.3d 1340, 1351 (Fed Cir 2015).

given the territorial nature of patent rights—then it would not be foreseeable for these parties to be exposed to liability for activities outside of the United States.

5. CONCLUSION

Digital patent infringement, in whatever form it may take, undeniably challenges the traditional territorial boundaries of patent law. Courts are likely to encounter issues of transborder uses of CAD files, either in the context of sales and offers to sell or, even more broadly, if applicants are permitted to claim CAD files directly. Once such files have spread globally, the measure of damages will become increasingly complex. This chapter has provided an overview of these issues and provided several tools that could be used to combat any perceived excesses that digital patent infringement could provide, including simply rejecting the concept.

17. Out of thin air: trade secrets, cybersecurity and the wrongful acquisition tort

Sharon K. Sandeen

1. INTRODUCTION

On 19 March 1969, two photographers (Rolfe Christopher, who had been an aerial photographer for the US Navy during the Second World War, and his son, Gary) flew over a manufacturing plant in Texas that was then under construction and took photographs of the plant. Upon seeing a plane circling its construction site, E.I. du Pont de Nemours & Co., Inc. (DuPont)¹ brought a lawsuit in federal court for trade secret misappropriation under Texas common law, alleging that the actions of the defendants constituted the acquisition of trade secrets by ‘improper means’. At the time, there was no recognised trade secret claim for the improper acquisition of trade secrets not followed by a disclosure or use of the trade secrets,² or a well-used claim for the wrongful acquisition of business information not constituting trade secrets (often referred to as confidential and proprietary information). To the contrary, two key facts of *E.I. du Pont de Nemours & Co., Inc v Christopher* (hereinafter *Christopher*)³ were that: (1) the plaintiff owned protectable information in the form of trade secrets; and (2) the defendants either disclosed or threatened to disclose those trade secrets to the unidentified third party who hired them to take the photographs.

While *Christopher* is famous for holding that the ‘improper means’ used to acquire trade secrets need not constitute ‘a trespass, other illegal conduct, or breach of a confidential relationship’⁴ (at least in Texas), it did not answer three questions that are central to any attempt to use tort law (including trade secret law) to combat the wrongful acquisition of information through cyberhacking or other means. First, if the information that is acquired is not subsequently disclosed or used, what is the cognisable harm to the information owner?⁵ Second, what if the information that was taken does not constitute a protectable ‘property’ interest, for instance, by qualifying for trade secret protection?⁶ Relatedly, given the strong public policy

¹ 476 F 2d 1357 (CCPA 1973).

² Roger M Milgrim and Eric E Benson, *Milgrim on Trade Secrets* (Matthew Bender 2017), s 1.01 (citations omitted); Restatement (Third) of Unfair Competition (1995), s 40, comment b.

³ *E I du Pont deNemours & Co v Christopher*, 431 F 2d 1012, 1014 (5th Cir 1970) cert denied, 400 US 1024 (1971).

⁴ *ibid*. See also David S Levine, ‘Schoolboy’s Tricks: Reasonable Cybersecurity and the Panic of Law Creation’, (2015) 72 Wash & Lee L Rev Online 323.

⁵ See *Intel v Hamidi*, 30 Cal 4th 1342 (2003) 1347 (emphasising the need for provable harm for most torts and finding no harm to support a trespass to chattel claim regarding the misuse of Intel’s computer system).

⁶ The word ‘property’ is in quotes because the question of whether trade secrets are property (and if so, to what extent) is unresolved, with most of the world resisting such a characterisation. In the United States, trade secret law was historically based upon unfair competition principles, but it also has property aspects because a trade secret claim requires proof of an identifiable body of valuable information, often

in the United States and elsewhere that favours the dissemination of information, particularly information that is a part of the public domain, is it advisable to create a broad wrongful acquisition tort to protect all types of information?

Since the advent of the personal computer and the internet, and the concomitant increase in the risk of computer hacking, policymakers have struggled with how to address the acquisition of information by means that are deemed (or seem) improper. In the United States, for instance, the federal law known as the Computer Fraud and Abuse Act (CFAA)⁷ was adopted in 1986 to address, among other things, wrongful access to and wrongful acquisition of information from a ‘protected computer’.⁸ In 1996, the European Union (EU) adopted a Database Directive that gives ‘the makers of a database’ a *sui generis* right to protect databases in which they made ‘a substantial investment’.⁹ More recently, the United States enacted the Defend Trade Secrets Act of 2016 (DTSA)¹⁰ and the EU adopted a Trade Secret Directive for the stated purpose of combatting the misappropriation of trade secret information.¹¹ In designing these laws, policymakers skirted the questions posed above by statutorily: (1) defining the interests to be protected; (2) identifying cognisable harm to include, at least, threatened disclosure or use; and (3) specifying a private right of action and remedies. But none of these laws answer the questions left unresolved by *Christopher* with respect to the common law development (or lack thereof) of a wrongful acquisition tort which, at best, seems to have come out of thin air based upon the unique facts of *Christopher*.

The analysis undertaken in this chapter was prompted by two puzzles. First, since US trade secret law was developed based upon the breach of confidence law of England, and the law of England does not recognise an acquisition by improper means theory of recovery except in rare and nascent circumstances,¹² how and why did such a theory develop in the United States? Second, to the extent that the acquisition by improper means prong of US trade secret law (unlike its counterpart in England) is disconnected from a duty of confidence and should be thought of as a separate tort, what are its elements, including the definition of cognisable harm? These questions are important not only for an understanding of trade secret law in

referred to as a ‘property interest’. cf *Mattel, Inc. v MGA Ent, Inc.*, 782 F Supp 2d 911 (CD Cal 2011) 960–61 (discussing the inability to prevail on a trade secret misappropriation counterclaim if one cannot prove a protectable property interest through proving something is a trade secret). The underdeveloped common law tort of ‘misappropriation’ also typically requires an identifiable property interest. See, for example, *Hollywood Screentest of Am, Inc v NBC Universal, Inc.*, 151 Cal App 4th 631 (2007). Thus, as noted in the commentary to the *Restatement (Third) of Unfair Competition*, trade secret claims are hybrid unfair competition and property claims. *Restatement (Third) of Unfair Competition*, s 39, comment b.

⁷ Public Law 98-473, 98 Stat 1976, s 1762, codified at 18 USC s 1030 (1996).

⁸ 18 USC s 1030(e)(2).

⁹ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases [1996] OJ L77/20 (hereinafter Database Directive).

¹⁰ Public Law 114-153, s 1890, codified at 18 USC s 1832 and the following.

¹¹ Directive (EU) 2016/943 of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure [2016] OJ L157/10 (hereinafter Trade Secret Directive).

¹² Some recent English cases have provided relief in wrongful acquisition situations involving rights of privacy by finding that a duty of confidence arose from the wrongful acquisition. See for example, *Tchenguz v Imerman* [2010] ECWA Civ 908. This, however, is different from finding a standalone wrongful acquisition claim not based upon a breach of confidence which, only in the last few years, has begun to emerge in England in relation to private information. See *Google v Vidal Hall* [2015] EWCA Civ 311.

the United States, but also for the implementation of the EU Trade Secret Directive, which borrows from US law to include the ‘acquisition by improper means’ prong of US trade secret law. They also relate to the debate concerning the harms caused by data breaches and whether the mere taking or misuse of personal information, such as credit information, is a cognisable ‘injury in fact’ under US law.¹³

This chapter proceeds in three sections. First, based upon historical research, it examines how the acquisition by improper means prong of US trade secret law developed and how it became disconnected from the requirement of a subsequent disclosure or use of the trade secrets. This analysis begins in section 2 with an overview of the laws of the United States that protect information. In section 3, the history of the acquisition by improper means prong of trade secret misappropriation is discussed, showing that it is undertheorised, particularly when the alleged wrongful acquisition is not connected to a duty of confidence or a subsequent disclosure or use of trade secrets. Third, in section 4, the pros and cons of recognising a separate wrongful acquisition tort are discussed, including observations concerning the inability of trade secret law to address all incidents of cyberhacking and how a standalone wrongful acquisition tort might be designed.

2. SUMMARY OF INFORMATION LAW

With the increase in accusations and incidents of ‘leaking’, ‘hacking’, and ‘spying’, including cyberhacking, the law governing the protection of information has taken on greater importance, requiring an understanding of the types of information that can be protected and the nature of cognisable harms related to information. This is particularly true with respect to ‘nonconfidential’ and ‘public’ information because the policy in the United States (and many other countries)¹⁴ is that information is not protected except in limited circumstances, and once information is made public it is free for anyone to use. As has been repeatedly stated by the US Supreme Court, all ideas and information in general circulation are dedicated to the common good unless protected by applicable (but limited) intellectual property rights.¹⁵ As Justice O’Connor explained with respect to US patent law: ‘From their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.’¹⁶ This same sentiment explains the limited scope of all laws that protect information and why trade secret protection in the United States is designed so as not to interfere with the disclosure purpose of patent law. Thus, the desire to protect information and databases, even against acts of wrongful acquisition, must

¹³ For example, *Spokeo, Inc v Robins*, 136 S Ct 1540 (2016).

¹⁴ See Universal Declaration of Human Rights, art 19 (freedom of information includes the right ‘to receive and impart information’) and the Charter of Fundamental Rights of the European Union, art 11.1 (right to freedom of expression includes the right ‘to receive and impart information without interference by public authorities’).

¹⁵ See for example, *Golan v Holder*, 565 US 302 (2012) 328–32; *Bonito Boats, Inc v Thunder Craft Boats, Inc*, 489 US 141 (1989) 146; *Kewanee Oil Co v Bicorn Corp*, 416 US 470 (1974) 481. See also Restatement (First) of Torts, s 757, comment b.

¹⁶ *Bonito Boats* (n 15) 146.

always be balanced against the essential role that information plays in creating knowledge and the conditions for innovation and competition.

Based upon existing law in the United States and elsewhere, there are currently five (perhaps six) limited means to protect information, each providing varying degrees of protection. First, certain types of information may be protected by patent and copyright laws, but only for a limited time and with respect to certain types of uses or wrongs.¹⁷ Second, if information qualifies as ‘personal information’, it may be protected by applicable privacy and data protection laws.¹⁸ Third, if information meets the legal definition of a trade secret, then it might be protected against ‘misappropriation’, but trade secret protection ends when the information becomes generally known or readily ascertainable.¹⁹ Fourth, an information owner might protect its confidential information pursuant to contract law, but usually contract law cannot be used to protect nonconfidential information or to designate information as protectable trade secrets and usually does not apply to third parties to the contract.²⁰ Fifth, some statutes provide *sui generis* forms of protection for specified types of information – for instance, laws that protect information that is submitted to the government, databases and so-called ‘data exclusivity’ laws.²¹ The possible sixth claim for relief, although limited and suffering from various preemption and preclusion problems, relates to common law misappropriation and unfair competition causes of action that are recognised in some US states.²²

The limited types and scope of protection for information means that not all information is protected by law and, in fact, not all ‘secret’ or ‘confidential’ information is protected. This is particularly true with respect to information that can be gleaned from public sources, whether the information is widely distributed or not. Although the language used under various areas of law and in different countries varies, generally, information that is ‘generally known’, ‘readily ascertainable’, and ‘in the public domain’ is not protected.²³ Thus, the unprotected status of some information means that someone can ‘wrongfully acquire’ information from another without violating a recognised interest in the information. This might happen, for instance, when the information taken does not qualify as ‘confidential information’ in breach of confidence jurisdictions or as ‘trade secrets’ in jurisdictions which apply the definition of the Uniform Trade Secrets Act (UTSA), or where the alleged bad actor is not subject to a contractual or implied duty of confidentiality. It might also happen in cases where the holder of the information does not own the information – for instance, in the case of businesses that collect and compile preexisting information from public databases and individuals that, technically, is owned by others or no one.

¹⁷ 35 USC s 271; 17 USC ss 106 and 501.

¹⁸ For example, in the US, see Privacy Act of 1974, 5 USC s 552a (2017); Fair Credit Reporting Act of 1970, 15 USC s 1681b(a); Freedom of Information Act, 5 USC s 552a(a)(5) (2017). In the European Union, see Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119/1.

¹⁹ See Milgrim (n 2) s 4.02 (‘Use of Contract to Protect Trade Secrets: Pros and Cons’); see also *Coco v A N Clark (Engineers) Ltd* [1968] FSR 415 (detailing English breach of confidence claim elements).

²⁰ For example, 18 USC s 1905 (2017); 41 USC s 2102 (2017).

²¹ For example, 18 USC s 1905.

²² See, for example, *Sioux Biochem, Inc v Cargill, Inc*, 410 F Supp 2d 785 (ND Iowa 2005) 804 (discussing Iowa’s common law claim for misappropriation and the pre-emption and preclusion issues attendant thereto).

²³ See *Kewanee* (n 15) 476; *Bonito Boats* (n 15) 150.

3. THE ELUSIVE WRONGFUL ACQUISITION TORT

Currently, when wrongfully acquired information meets the definition of a trade secret, then wrongful acquisition is a subset of the acquisition by improper means form of trade secret misappropriation as defined in the UTSA, the DTSA and the EU Trade Secret Directive, and can be redressed by bringing a claim for relief under those laws. Similarly, when the information meets the definition of ‘confidential information’ in breach of confidence jurisdictions, a breach of confidence claim may lie. However, if the wrongfully acquired information does not meet the definition of a trade secret or confidential information, then some other claim for relief must exist.

The principal hypothesis underlying this chapter is that no tort of wrongful acquisition developed in the United States,²⁴ either separately or as part of trade secret law. Instead, language of bad acts amounting to wrongful acquisition often appears in trade secret cases that otherwise involve breach of confidence claims. In this regard, most trade secret cases are imbued with the rhetoric of ‘theft’ and ‘espionage’ even if acts of wrongful acquisition did not occur. Thus, one must carefully examine the factual allegations of cases to distinguish between those involving the breach of confidence type of trade secret misappropriation (including claims of inducement of breach of a duty of confidence) and those involving wrongful acquisition claims as defined herein. A corollary hypothesis is that, even if a separate tort of wrongful acquisition developed at common law, a theory of harm for wrongful acquisition not accompanied by the subsequent disclosure or use of the wrongfully acquired information is nonexistent.²⁵

To test these hypotheses, relevant reported cases and secondary sources were examined that establish that few reported cases of the wrongful acquisition of trade secrets or other information exist in the United States. The first set of reported cases examined was for the period of 1837 (the date of the first trade secret case in the United States)²⁶ to 1938 (the year before the *Restatement (First) of Torts* provisions on trade secret law were published by the American Law Institute).²⁷ Using the online database Westlaw, the author identified a pool of more than 1200 cases and carefully reviewed the first 150, ranked by relevance. Next, using the initial 1200 cases, additional search queries were conducted for the terms ‘theft’, ‘bribery’, ‘misrepresentation’, ‘inducement of breach’, ‘espionage’ and ‘fraud’, in an attempt to find

²⁴ To differentiate a wrongful acquisition tort from a trade secret or breach of confidence claim, the term ‘wrongful acquisition’ is used herein to refer to bad acts that either: (1) do not involve breaches of the duty of confidence in the first or second degree; or (2) lead to the acquisition of unprotected information held by another. Breach of confidence in the ‘second degree’ refers to acts by third parties to the original misappropriation, where the first party was subject to a duty of confidentiality.

²⁵ The ‘disclosure’ of trade secrets means that the subject information was shared or used in such a manner that it became generally known or readily ascertainable and no longer qualifies for trade secret protection. According to the *Restatement (Third) of Unfair Competition*, section 40, comment c, ‘use’ means ‘any exploitation of the trade secret that is likely to result in injury to the trade secret owner or enrichment to the defendant’. Which wrong occurs dictates the available remedies for misappropriation as the harm caused by disclosure is ordinarily measured by the value of the trade secret at the time of disclosure, whereas the harm caused by use is ordinarily measured by lost profits or unjust enrichment.

²⁶ *Vickery v Welch*, 36 Mass 523 (1837).

²⁷ *Restatement (First) of Torts*, ss 757–9 (1939).

examples of wrongful acquisition cases.²⁸ Additionally, because the language of ‘discovery by improper means’ is contained in the *Restatement (First) of Torts*, section 757, the archives of the American Law Institute (ALI) related to the drafting of the provisions on trade secrecy, as well as early treatises and casebooks on tort law, were examined to identify additional cases involving allegations of wrongful acquisition and to determine if early tort scholars recognised the existence of a wrongful acquisition claim that was separate from the common law breach of confidence claim. This included a review of the *Restatement*’s provisions on trade secret law and the Reporter’s Explanatory Notes to those provisions.²⁹

It is clear from the early development of trade secret law in the United States that it was originally conceived of as an act of unfair competition resulting from a breach of confidence and that this conception of wrongdoing was borrowed from England.³⁰ Justice Holmes famously said as much in *E.I. duPont de Nemours Powder Co. v Masland*.³¹ However, at that time, the cognisable harm was the ‘disclosure or use of another’s trade secret’ as reflected in the first line of the *Restatement (First) of Torts*, section 757,³² highlighting the property aspects of trade secret law.³³ It is also clear, based on the language of the *Restatement (First) of Torts*, that the act of acquiring trade secrets and other business information by ‘improper means’ or ‘improper procurement’ has long been seen as an act of unfair competition in the United States. It is just not clear what the requisite harm is in the absence of a subsequent disclosure or use of the information and what justifications and defences might apply to such behaviour.

An early case that appears to be the genesis of the acquisition by improper means theory of trade secret misappropriation is *Tabor v Hoffman*,³⁴ in which the defendant acquired copies of patterns for the manufacture of pumps. The question before the court was whether the patterns for a product that was patented and sold publicly could nonetheless qualify as trade secrets. The defendant had not acquired the patterns from public information but obtained them from a vendor of plaintiff who copied the patterns and provided them to the defendant.³⁵ Thus, although the vendor was under a direct duty of confidentiality to the trade secret owner, the defendant was not. In modern times, this set of facts would give rise to liability based upon the defendant’s knowledge or reason to know of the misappropriation by the vendor, but the

²⁸ All of these terms, with the exception of fraud, are listed as ‘improper means’ in the UTSA; see also Trade Secret Directive (listing practices to misappropriate including theft, unauthorised copying and economic espionage).

²⁹ *Restatement (First) of Torts*, Explanatory Notes s 2, comment a (Am. Law Inst., Preliminary Draft No 6, 1938).

³⁰ *Restatement (Third) of Unfair Competition*, s 39, comment a, citing *Morison v Moat* (1852) 68 ER 492.

³¹ 244 US 100 (1917) 102 (‘Whether the plaintiffs have any valuable secret or not the defendant knows the facts, whatever they are, through a special confidence that he accepted. The property may be denied, but the confidence cannot be. Therefore, the starting point for the present matter is not property or due process of law, but that the defendant stood in confidential relations with the plaintiffs, or one of them’).

³² *Milgrim* (n 2) s 101, fn 82 (noting that under the *Restatement (First) of Torts*, acquisition by improper means was a predicate act for misappropriation, not a tortious act in itself).

³³ See Eric R Claeys, ‘Private Law Theory and Corrective Justice in Trade Secrecy’ (2011) 4 J of Tort L 1, 9 (arguing that a property rights view of trade secret law is the theory that best explains the various features of trade secret law).

³⁴ 118 NY 30 (1889).

³⁵ *ibid* 35.

court focused on the perceived wrongful acts of the defendant. In *dicta*, the court explained: ‘But, because this discovery may be possible by fair means, it would not justify a discovery by unfair means, such as the bribery of a clerk, who in course of his employment had aided in compounding the medicine, and had thus become familiar with the formula.’³⁶ It is not clear from the reported case decision, however, whether *Tabor* involved acts of bribery.

Since it was decided in 1889, *Tabor* has been cited in more than 100 cases for four different but related principles: (1) that the public has the right to use information that has been disclosed to the public;³⁷ (2) that trade secrets may exist even if the goods to which they are related are otherwise exposed to the public;³⁸ (3) that the circumstances by which trade secrets are acquired may be actionable, even if the information could have been acquired rightfully;³⁹ and (4) that trade secret owners may be entitled to permanent injunctive relief even in situations where an award of damages would be an adequate remedy.⁴⁰ In keeping with the improper acquisition language of *Tabor*, the statements of subsequent courts about what constitutes improper acquisition usually include a trinity of some type of wrongful acquisition (usually fraud, theft or bribery), breach of a duty of confidence and breach of contract, but with little discussion of what might constitute wrongful acquisition not accompanied by a breach of confidence or a subsequent disclosure or use of trade secrets.

The provisions of the *Restatement (First) of Torts* that address trade secret law reflect what the members of the ALI thought was the better reasoned law circa 1939. As a practical matter, they also reflect the caselaw that the drafters reviewed and relied upon. Significantly, however, none of the cases cited in the Reporter’s Explanatory Notes or in the commentary to the *Restatement (First) of Torts*, sections 757–59, involve a wrongful acquisition claim (as that term is defined herein).⁴¹ Instead, the cases cited (fewer than 40) involve breach of confidence claims, including claims of inducement of breach involving the acquisition of trade secrets by a third party. This is true even with respect to section 759 of the *Restatement (First) of Torts*, which sets forth the wrong (not adopted by the UTSA or the DTSA) of ‘procuring’ the business information of another ‘for the purpose of advancing a rival business interest’. Thus, the comment to section 757, which defines ‘improper means’ to include all means which ‘fall below the generally accepted standards of commercial morality and reasonable conduct’, seems to have come out of thin air, or at least a thin body of reported decisions.⁴² Also, in 1939, an act of ‘discovery by improper means’, alone, did not result in a cognisable harm unless it was accompanied by a subsequent disclosure or use of the subject trade secrets.⁴³ As explained in *Milgrim*:

Notably, under the *Restatement of Torts* § 757 . . . the wrongful acquisition (i.e., ‘discovery by improper means’) of a trade secret is not in and of itself misappropriation but rather is simply a pred-

³⁶ *ibid* 36.

³⁷ *Kaylon Inc v Collegiate Manufacturing Co*, 7 NY S 2d 113 (1938) 114.

³⁸ *Edward H Woods Associates Inc v Skene*, 347 Mass 351 (1964) 364.

³⁹ *Dr Miles Medical Co v John D Park & Sons Co*, 220 US 373 (1911) 402.

⁴⁰ *Franke v Wiltschek*, 209 F 2d 493 (NY 1953) 497.

⁴¹ See *Restatement (First) of Torts*, ss 757–59, Explanatory Notes s 2, comment a (Am. Law Inst., Preliminary Draft No 6, 1938).

⁴² *Restatement (First) of Torts*, s 757, comment f (1939).

⁴³ This is consistent with US patent, copyright and trade mark law, which each require some use of the intellectual property rights as a part of the plaintiff’s claim of infringement.

icate for holding the wrongdoer liable for the *later* unauthorised use or disclosure of the secret. By contrast, under the UTSA, wrongful acquisition of a trade secret is independently actionable even if there is no ensuing use or disclosure.⁴⁴

In other words, the recognition of a claim of acquisition by improper means, not followed by a subsequent disclosure or use, did not officially occur until 1979, when the UTSA was adopted and was thereafter enacted by individual states, and it is not clear why the disconnection occurred. Additionally, although wrongful acquisition not followed by disclosure or use may be 'actionable' under the UTSA (and now the DTSA), damage remedies remain unavailable in the absence of proof of actual harm.

Noting that the UTSA modified the wording of the *Restatement (First)* to include, for the first time, language of acquisition by improper means not followed by disclosure or use,⁴⁵ the author examined records of the American Bar Association (ABA) and the National Conference of Commissioners on Uniform State Laws (now the Uniform Law Commission (ULC)) to determine if there was an explanation for the change. There was none, and consequently, there is no record of a discussion of the nature of the required harm for acquisition by improper means if such act is not accompanied by a subsequent disclosure or use of the subject trade secrets. Indeed, the only relevant information that is contained in the drafting history of the UTSA is a brief discussion of *Christopher*, one of only a handful of reported wrongful acquisition cases that were found as part of this project.

Finally, the author reviewed *Milgrim on Trade Secrets* and undertook a search of relevant cases cited therein.⁴⁶ The *Milgrim* treatise confirmed that there is a paucity of reported case decision involving claims that trade secrets were wrongfully acquired.⁴⁷ Thus, a review of relevant secondary resources and a search of reported cases from 1837 to present reveals little jurisprudence to support or explain the development of a wrongful acquisition tort within or outside of trade secret law. This may explain why there are few prosecutions under the Economic Espionage Act of 1996 as well. Either there are not a lot of incidents involving the wrongful acquisition of trade secrets and other information *per se* or acts of wrongful acquisition are not being detected.

One explanation for the paucity of wrongful acquisition cases before (and since) 1979 is that most trade secret cases involve parties that are in a confidential relationship and, of those, most involve the employer–employee relationship. Typically, in an employer–employee case, there is no claim of acquisition by improper means because the employer voluntarily disclosed its secrets to its employees. Where allegations of wrongful acquisition creep into reported cases is with respect to claims not involving employees, but even then, the focus of the cases is often on the existence of a duty of confidentiality between the trade secret owner and a former employee.⁴⁸ An explanation for this relates to the struggles of early courts to develop theories to hold third parties (those not engaged in the initial misappropriation) liable for their subse-

⁴⁴ *Milgrim* (n 2) s 1.01 (citations omitted); *Restatement (Third) of Unfair Competition*, s 40, comment b. But note, what remedies would be available is a separate question.

⁴⁵ *Uniform Trade Secrets Act* (1985) s 1.

⁴⁶ See in general *Milgrim* (n 2).

⁴⁷ *ibid* s 15.01 ('The issue of wrongful taking, however, arises relatively rarely: the vast preponderance of disputes in the law of misappropriation arise from proper acquisition followed by later unauthorised use or disclosure').

⁴⁸ For example, *Computer Associates International v Altai*, 982 F 2d 693 (2d Cir 1992).

quent disclosure or use of the subject trade secrets. In the US, this was done by imposing a duty upon third parties not to disclose or use trade secrets once they knew or had reason to know of the existence of trade secrets and their misappropriation.⁴⁹

Separate from the few cases that discuss the wrongful acquisition of trade secrets, a body of common law developed that some courts label the ‘improper procurement tort’. It is reflected in section 759 of the *Restatement (First) of Torts*, which states: ‘One who, for the purpose of advancing a rival business interest, procures by improper means information about another’s business is liable to the other for the harm caused by his possession, disclosure or use of the information.’

The significance of this tort for present purposes is that it could protect confidential business information not rising to the level of a trade secret, thereby potentially providing guidance concerning the elements of a wrongful acquisition tort not based on trade secrets. But despite its existence, there are not many reported cases that explain its parameters, in part because of the general paucity of cases involving acquisition of information by improper means, but also because such a claim was subsequently precluded by the reasoning of *Kewanee* and by the UTSA, both of which limited the availability of tort claims for the misappropriation of information.⁵⁰ Moreover, while seemingly covering more business information than trade secrets, the requirement of harm under section 759 still demanded a level of confidentiality similar to trade secrecy. As explained in comment b to section 759: ‘There are no limitations as to the type of information included except that it relate to matters in his business. Generally, however, if the improper discovery of the information is to cause harm, the information must be of a secret or confidential character.’ Importantly, section 759 does not reflect a decision to do away with the traditional requirement of harm for tort claims related to the wrongful acquisition of information.

The drafting history of the UTSA, consisting of hundreds of pages of source documents obtained from the ABA and the ULC, also does not contain a robust discussion of the wrongful acquisition type of trade secret misappropriation, even though the UTSA’s definition of misappropriation is a departure from the language of the *Restatement (First) of Torts* in that it defines ‘acquisition by improper means’ as a wrong disconnected from a subsequent disclosure or use. The impetus behind the UTSA was multifaceted, but was primarily a desire to fix perceived abuses in the interpretation and application of the common law of trade secrecy by limiting the scope of trade secret protection in numerous respects.⁵¹ The drafters of the UTSA were particularly concerned about the assertion of tort claims not requiring proof of the existence of viable trade secrets and the likelihood that such claims were pre-empted by federal law as explained in *Kewanee*. This explains why section 759 of the *Restatement (First) of Torts* was not carried over into the UTSA or the *Restatement (Third) of Unfair Competition*,⁵² but it does not explain why ‘acquisition by improper means’ was included as a potential wrong without a requirement of a subsequent disclosure or use and what the required ‘harm’ might be in the absence of disclosure or use. As stated in *Milgrim*:

⁴⁹ Uniform Trade Secrets Act (1985), s 1(2)(ii)(B). See also Trade Secret Directive, art 4(4).

⁵⁰ *Kewanee* (n 15); Uniform Trade Secrets Act (1985), s 7.

⁵¹ See Sharon K Sandeen, ‘The Evolution of Trade Secret Law and Why Courts Commit Error When They Do Not Follow the Uniform Trade Secrets Act’ (2010) 33 Hamline L Rev 493, 507.

⁵² Compare *Restatement (First) of Torts*, s 759 with Uniform Trade Secrets Act (1979) s 1(4) and *Restatement (Third) of Unfair Competition*, s 39.

The Uniform Trade Secrets Act provides a somewhat different test than trade secret common law. While in the great preponderance of cases, the wrongful conduct consists of unauthorised use or disclosure, it should not be overlooked that unauthorised access or acquisition alone may give rise to a cause of action . . . However, where access is authorised, the issue of claimed trade secret misappropriation will turn upon whether the recipient engaged in wrongful use or disclosure. In other words, mere access or acquisition without wrongful conduct will not generate trade secret liability.⁵³

This change, while not discussed in the drafting history of the UTSA, appears to have been influenced by *Christopher*, which was decided in 1970 during the early stages of the UTSA drafting project.⁵⁴

As in *Tabor*, a critical fact of *Christopher* is that the defendants who were sued owed no duty of trust or confidence to the plaintiff, but unlike *Tabor*, none of the actors who facilitated the acquisition of DuPont's trade secrets owed any duty of trust or confidence. Thus, the 'wrong' was the acquisition of trade secrets without any duty of confidence in the first or second degrees. Characterising the defendants' acts as 'industrial espionage' and 'schoolboy's tricks', and applying a cost-benefit analysis, the court explained: 'Commercial privacy must be protected from espionage which could not have been reasonably anticipated or prevented.'⁵⁵ Significantly, however, the court was careful not to impugn all acts of competitive information collection, explaining:

We do not mean to imply, however, that everything not in plain view is within the protected vale, nor that all information obtained through every extra optical extension is forbidden. Indeed, for our industrial competition to remain healthy there must be breathing room for observing a competing industrialist. A competitor can and must shop his competition for pricing and examine his products for quality, components, and methods of manufacture.⁵⁶

Also, given the procedural posture of the case (an appeal from an interlocutory order denying a motion to dismiss), the court did not consider the nature and extent of DuPont's harm, other than to point out that there was evidence that the defendants disclosed the information to a third party.

In keeping with the paucity of wrongful acquisition cases, *Christopher* has been cited in only 55 reported cases in the United States, mostly for one of two propositions: either (1) that improper means of acquiring trade secrets need not amount to a crime or tort; and (2) that trade secret owners are only required to engage in 'reasonable efforts' to protect their trade secrets and are not required to institute extreme and unduly expensive security measures. *Christopher* is cited more often in secondary sources (417 times) as an example of an acquisition by improper means form of trade secret misrepresentation case, proving its influence despite its lack of details. The problem with relying upon *Christopher* to define a wrongful acquisition tort (if one is to be further developed) is that it does not discuss all the elements of such a tort. While the court recognised that DuPont had to prove the existence of a trade secret and its mis-

⁵³ Milgrim (n 2) s 15.01 (citations omitted).

⁵⁴ For the drafting history, see Sharon Sandeen, 'The Evolution of Trade Secret Law and Why Courts Commit Error When They Do Not Follow the Uniform Trade Secrets Act' 33 Hamline L Rev 493, 510–13.

⁵⁵ *Christopher* (n 3) 1016.

⁵⁶ *ibid.*

appropriation, it does not discuss the classic tort elements of causation and harm, specifically what constitutes a cognisable harm if the trade secrets are not subsequently disclosed or used.

Reported cases since *Christopher* involving wrongful acquisition claims are few and typically fail to discuss the elements of such a claim in detail. Most of the cases listed in *Milgrim* are cited for the proposition that, in the absence of a claim that the plaintiff's trade secrets were disclosed or used, a trade secret owner can state a claim for relief by alleging that it owns trade secrets that were acquired by improper means.⁵⁷ In such cases, the plaintiff has the burden of pleading and proving the existence of trade secrets and their improper acquisition, but it is unclear how the requisite harm would be shown to support a damages claim. If trade secret misappropriation is viewed as a type of property claim, then it might be argued that the harm is the invasion of a property interest, similar to the harm recognised for a trespass to real property.⁵⁸ But if it is viewed as a form of unfair competition, then a non-property-based theory of harm must be articulated. Of course, the lack of discussion of cognisable harm becomes more critical when a claim of wrongful acquisition concerns information that does not qualify for some form of legal protection.

With respect to the common law development of a wrongful acquisition tort, the conundrum is that if information is wrongfully acquired but not subsequently disclosed or used, there is no harm to the information nor an argument of unjust enrichment on which to base a claim for monetary damages. If the information is not protected as a property-like right by some body of law, such as trade secret law, then a theory of harm based upon trespass would not work either. Additionally, unlike personal information that is the focus of privacy or rights of publicity claims, businesses do not have an interest in their information that might support an allegation of dignitary harm. Thus, even in trade secret cases involving the alleged wrongful acquisition of information, there may be a wrong but no protectable trade secrets and, therefore, no monetary remedy. Other areas of information law involve similar weaknesses. In the case of patent and copyright law, for instance, the wrongful behaviour must constitute a violation of a limited list of exclusive rights and the subject information must meet the definition of protected information.

4. SHOULD A SEPARATE TORT OF WRONGFUL ACQUISITION BE RECOGNISED?

The possibility that unprotected or nonowned information held by a business or individual may be 'wrongfully acquired' suggests the need for a wrongful acquisition tort either developed at law or by statute, but it does not answer the question whether such a tort should be recognised. Our laws do not currently provide remedies for all perceived wrongdoing but instead reflect policy choices that usually involve a weighing of competing interests. As noted previously, it is generally understood that competition and the free flow of unprotected information is the rule and that intellectual property protection (including trade secret law) is a limited exception to the rule designed to benefit society in some way. Thus, it must be asked what society would gain from a law that restricts the acquisition (and the disclosure or use) of otherwise

⁵⁷ *Milgrim* (n 2) s 1.01; Comment 'Theft of Trade Secrets: The Need for a Statutory Solution' (1971) 120 U Pa L Rev 378, 383 fn 34.

⁵⁸ See Claeys (n 33).

unprotected information, and what it might lose. Assuming (as the definition of ‘wrongful acquisition’ used herein does) that an act of wrongful acquisition does not involve a recognised property interest or a cognisable harm, there is no property interest to be protected or harm to be rectified that relates to the information itself.

The rhetoric of ‘theft’ that pervades trade secret law and accusations of cyberhacking suggests that many assume that all acts leading to the unauthorised acquisition of information should be deemed ‘wrongful’, but as the court in *Christopher* recognised, a commitment to free enterprise and a competitive market environment requires a more nuanced view – one that recognises the value of information flows, particularly for information that is not protected by an existing body of law. This is particularly true if the subject information was acquired for a salutary purpose, such as to reveal criminal behaviour, share unprotected information or enhance competition. As things currently stand, US law makes a rough distinction between acquisition of information for improper versus beneficial purposes by only providing a claim for relief for trade secrets and other categories of protected information. If the United States and other jurisdictions wish to create a standalone wrongful acquisition tort for otherwise unprotected information, then the resulting claim for relief should be limited in other ways.

Under tort law, not all wrongful behaviour results in a claim for relief. Rather, whether tort liability is imposed usually depends upon the ability to articulate some ‘fault’ of the defendant that society wishes to sanction and that caused actual harm to the plaintiff. Ordinarily, fault is defined by some combination of: (1) the nature of the defendant’s acts; (2) the defendant’s mental state; and (3) the type of resulting harm. Thus, the first step in the development of a wrongful acquisition tort requires that the bad acts of the defendant be defined. With respect to other types of information torts, including trade secret law, the bad acts relate directly to the existence of a property-like right. And, as explained in *Chris Demetriades & Demetriades Developers v Kaufmann*, the property right exists independently and at the inception of the wrongful acquisition and is not created by the mere taking of the information itself.⁵⁹

The foregoing suggests that one means of fashioning a wrongful acquisition tort for information that is not otherwise protected by law is to expand the definition of protectable information to include all forms of information held by an individual or company. The problem with this approach, however, is that it would be inconsistent with the important policy choices that have already been made concerning the protection and dissemination of information. It would also be inconsistent with the desire to rid the law of the hodgepodge of information-related claims that existed at common law and which was a principal motivating factor behind the enactment of the UTSA, explaining why section 7 of the UTSA was adopted to preclude all preexisting tort and equitable claims related to the misappropriation of ‘competitively significant’ information.⁶⁰ Moreover, recognising property-like rights with respect to wide swathes of information would likely quell the use of information that is part of the public domain and is inconsistent with the rejection of the ‘sweat of the brow’ doctrine in the United States.⁶¹ Additionally, while such an approach might be welcomed by database owners that have their information taken, it would not be welcomed by them when they are sued

⁵⁹ 698 F Supp 521, 527–28 (SDNY 1988) 527–28.

⁶⁰ Uniform Trade Secrets Act, s 7, cmt.

⁶¹ *Feist Publications, Inc v Rural Tel Serv Co*, 499 US 340, (1991) 353 (The ‘sweat of the brow’ doctrine had numerous flaws, the most glaring being that it extended copyright protection in a compilation beyond selection and arrangement – the compiler’s original contributions – to the facts themselves).

for allowing the hacking of the customer information they hold. Currently, database owners benefit from the limits that are placed upon their potential liability by the very tort principles that make recognition of a wrongful acquisition tort difficult.

Ordinarily, when new torts are developed to address gaps in existing law, different or additional elements are added so that the new tort is not simply a lesser included tort with fewer elements to be proven. Instead, the missing element is replaced with another and more exacting element. Consider, for instance, the torts of conversion and trespass to chattels: although both concern interferences with personal property, they have different required elements, with the 'lesser' tort of trespass to chattel having a more exacting element of harm.⁶² Another example is the tort of 'hot news misappropriation' as defined in *International New Service v Associated Press*.⁶³ In that case, the absence of copyright protected information required the Supreme Court, sitting in equity, to devise a theory of wrongdoing that did not alter the policy concerning the freedom to use public information, but still provided a remedy for what the Court perceived as improper behaviour. The Court did this by focusing on the unfair competition aspects of the defendant's behaviour, defining the defendant's acts as 'taking' the material of complainant 'and selling it as its own'.⁶⁴ The wrong was acquiring the plaintiff's time sensitive information for the specific purpose of reselling it in competition with the complainant, coupled with misrepresenting the source of the information. The reasoning of *Christopher* has a similar, but perhaps unappreciated, structure: the court defined the wrong as 'industrial espionage' with an intent to acquire the information for the specific purpose of sharing it with a third party.⁶⁵ For a wrongful acquisition tort that is separate from a trade secret claim, what would substitute for the missing property-like interest?

Of course, courts and lawmakers could be direct and intentional about defining the required wrongful acts, state of mind and harms of a wrongful acquisition tort so that they are sufficiently robust to substitute for the usual requirement of protectable information. But a question for policymakers is: how precise should the tort be in defining the required wrongful behaviour? Currently, at least under the principles expressed in *INS* and *Christopher*, courts have some leeway to decide what constitutes 'unfair competition' and 'behaviour contrary to honest business practices', but these are malleable standards that would not be appropriate for a claim which would not involve information that is otherwise protected by law. Under the existing information torts, including trade secret law, the existence of an identifiable property right is an important grounding principle. Without it, other, more precise, concepts of wrongdoing are needed. When balanced against the strong public interest in the diffusion of nonconfidential information, including the importance of information diffusion in the development of knowledge and innovation, it seems that making the wrongful acquisition tort an intentional tort that requires specific behaviours would be the best course of action, if such a tort is created at all.

An example of this approach is provided in the EU Database Directive, which defines a wrong that goes beyond the mere acquisition of protected data to require the 'extraction

⁶² See *Intel v Hamidi*, 1350, comparing the two torts and quoting Prosser who called trespass to chattel the 'little brother of conversion'.

⁶³ 248 US 215 (1918). Although the 'hot news' tort continues to be discussed in information law circles, arguably, it was effectively overruled by the US Supreme Court's subsequent decision in *Erie Railroad Co v Tompkins*, 304 US 64 (1938).

⁶⁴ *ibid* 231.

⁶⁵ *Christopher* (n 3) 1016.

and/or re-utilisation of the whole or a substantial part' of a qualifying database.⁶⁶ In keeping with this approach, the required bad acts of a wrongful acquisition tort might require specific behaviours. For instance, the requisite bad acts might be defined by reference to existing crimes or torts. This is consistent with the part of the definition of 'improper means' under the UTSA and DTSA which refers to specific tortious and criminal behaviours,⁶⁷ but since a wrongful acquisition tort would be disconnected from an existing property interest, something more should be required, such as a heightened intent or harm requirement.

Every tort claim includes a required mental state, ranging from the specific to the general, that helps determine and define the culpability of an actor. Even in cases where strict liability is imposed, there is at least the required mental state of engaging in the activity to which strict liability attaches. Thus, for instance, although both patent and copyright law do not require proof that the defendant intended to infringe the plaintiff's rights, they do require proof that the defendant volitionally engaged in infringing behaviour. Requiring a more exacting and specific mental state of the defendant in a wrongful acquisition case would be one way to create balance where a wrongful acquisition tort is defined so as not to require a protectable property interest. It is also consistent with the rhetoric surrounding cyberhacking, which seems to assume that all cyberhackers are acting with evil intent. If it is bad acts coupled with evil intent that is at the heart of the concerns about cyberhacking and other forms of wrongful acquisition, then both should be required if designing a separate wrongful acquisition tort.

The critical question with respect to an intent requirement is: what degree of knowledge or intent by the defendant should be required? In the case of US trade secret law, liability is imposed if it is proven that the defendant engaged in acts of misappropriation with 'knowledge or reason to know' of the existence of trade secrets and the act of misappropriation.⁶⁸ To substitute for a missing property right, a wrongful acquisition tort should require a more demanding type of knowledge or intent. This is the approach taken by the CFAA, which, in part, defines the required wrongdoing as

intentionally access[ing] a computer without authorisation or exceed[ing] authorised access, and thereby obtain[ing] . . . information from any protected computer' or 'knowingly and with intent to defraud, access[ing] a computer without authorisation, or exceed[ing] authorised access, and . . . further[ing] the intended fraud and obtain[ing] anything of value.'⁶⁹

Both *INS* and *Christopher* provide some guidance on a state of mind requirement because of the courts' reference to the purposes for which the defendants engaged in the challenged behaviours. So, too, the common law tort specified in *Restatement (First) of Torts*, section 759, which required that the defendant act with the purpose of 'advancing a rival business interest'. The problem with the purposes defined in those sources, however, is that they tread close to the purpose of engaging in robust competition, which numerous cases have held is appropriate behaviour in a free market economy.⁷⁰ This is particularly true with respect to information that has been publicly disclosed. Businesses frequently acquire information about

⁶⁶ Database Directive, art 7.

⁶⁷ Uniform Trade Secrets Act s 1(1); 18 USC s 1839(5)(A).

⁶⁸ Uniform Trade Secrets Act ss 1(2) and 3(a).

⁶⁹ 18 USC s 1030(a)(2) and (4).

⁷⁰ See generally *Berkey Photo, Inc v Eastman Kodak Co*, 603 F 2d 263 (2d Cir 1979) 272; *Northern Pacific Railway Co v US*, 356 US 1 (1958).

their rivals, and it is not improper or morally wrong to use such information to compete with a rival so long as the information is not otherwise protected by law.⁷¹

The required bad acts of a wrongful acquisition tort, either a tort or a crime, may include intent requirements that could be incorporated into a wrongful acquisition tort, requiring the same proof of intent as is required for the subject tort or crime. Short of this approach, if wrongful acquisition can be established upon proof of an act not amounting to a tort or crime (the *Christopher* scenario), an intent to engage in the wrongful acquisition for a very specific purpose, such as harming the information owner or its customers, might be required. This would limit potential liability for the acts of those who access nonprotected information for their personal, noncommercial or whistleblowing uses, and would be consistent with notions of 'fair use' under US copyright law. Additionally, because much of the information that today's businesses collect and store does not originate with them and is not owned by them (because it was gleaned from public sources or collected from their customers), a mental state requirement should require something more than the defendant's intent to acquire information held by another. Like the improper procurement tort of section 759 of the *Restatement (First) of Torts*, a wrongful acquisition tort might require the acquisition of identifiable holder-generated information for the specific purpose of establishing a competing database. Or, analogising to the crime of burglary, it might require the entering into a computer system with a specific intent to engage in additional wrongful behaviour.

Failing to get the state of mind element right could result in a wrongful acquisition tort that is over or underinclusive: underinclusive in that it does not provide a remedy for bad behaviour that society wishes to deter, and overinclusive for providing a remedy for behaviour that was engaged in without culpable intent, for instance for a beneficial or altruistic purpose. The CFAA has been criticised for being unclear and not getting the balance right.⁷² One problem with the language of the CFAA is that it is often difficult for users of computers to know when their authorisation to access and use information begins and when it ends, because they never read the limitations that are embedded in lengthy employment agreements or terms of use agreements or because those limitations are written in ambiguous language.⁷³ However, for torts and crimes to act as deterrents (presumably the chief purpose of a wrongful acquisition tort), individuals and companies should be able to discern the required intent and prohibited behaviours. Additionally, where such behaviours hew too closely to desired behaviours, particularly the collection, dissemination and use of publicly available information, we should err on the side of limiting potential liability.

⁷¹ See generally Restatement (Third) of Unfair Competition, Appropriation of Trade Values s 43; *Bonito Boats* (n 15) 144–46.

⁷² See, for example, Note, 'The Vagaries of Vagueness: Rethinking the CFAA As a Problem of Private Nondelegation' (2013) 127 Harv L Rev 751; Andrew Trombly, 'Right for the Wrong Reasons: The Ninth Circuit Excludes Misappropriation from the CFAA's Ambit in *United States v. Nosal*' (2013) 54 BC L Rev E-Supplement 129, 140; Lee Goldman, 'Interpreting the Computer Fraud and Abuse Act' (2012) 13(1) Pitt J Tech L & Pol'y 1, 15–19; Garrett D Urban, 'Causing Damage Without Authorisation: The Limitations of Current Judicial Interpretations of Employee Authorisation under the Computer Fraud and Abuse Act' (2011) 52 Wm & Mary L Rev 1369, 1373; Orin S Kerr, 'Vagueness Challenges to the Computer Fraud and Abuse Act' (2010) 94 Minn L Rev 1561, 1563–71.

⁷³ *United States v Nosal*, 676 F 3d 854 (9th Cir 2012) 860 ('Significant notice problems arise if we allow criminal liability to turn on the vagaries of private policies that are lengthy, opaque, subject to change and seldom read').

Under longstanding principles of tort law, ordinarily there can be no tort recovery without a wrongful act that causes cognisable injury. Yet, the focus of much of the rhetoric about the wrongful acquisition of information, particularly cyberhacking, relates to the act of acquiring information, and not on any resulting harm.⁷⁴ Ironically, the absence of cognisable harm is the argument that defendants in data breach litigation often use to avoid liability to their customers, arguing that the mere hacking and holding of information by the wrongdoers is not a cognisable harm.⁷⁵ However, as the court explained in *Spokeo*, “[t]o establish injury in fact, a plaintiff must show that he or she suffered “an invasion of a legally protected interest” that is “concrete and particularized” and “actual or imminent, not conjectural or hypothetical.””⁷⁶ Thus, defendants in data breach cases understand that the cognisable harm requirement of tort theory has the effect of reducing the number of lawsuits that are brought since, even though someone may have engaged in tortious behaviour, no recovery will be granted unless the plaintiff suffered actual harm.

While harm is always a required element of a tort, sometimes the tort defines the harm – as is the case with false imprisonment, which defines the harm as the very confinement which is also the tortious wrong, the principal issue being the dollar value associated with the emotional distress and lost time associated with the confinement. Similarly, the development of causes of action designed to protect information, including copyright and trade secret law, did not ignore the essential requirement that the defendant’s actions cause cognisable harm. Instead, they broadened how harm could be conceived and measured and provided nonmonetary remedies to prevent threatened harm. Thus, for instance, trade secret law under both the UTSA and DTSA allows for injunctive relief even in the absence of actual harm if it can be shown that there is a threatened disclosure or use of the subject trade secrets. Where a trade secret claimant wishes to recover monetary damages, actual harm must be proven, but pursuant to statutorily defined measures of damages that are broader than what is allowed under common law. Conceivably, the same approach could be undertaken with a wrongful acquisition tort, but any measure of damage typically relates to some actual effect upon the defendant.

Typically, the harm associated with information torts relates directly to the property nature of the information, with the harm measured by the loss of income that could have been derived from authorising use of the property, the unjust enrichment derived by the defendant from using the information, or, in the case of trade secrets, by the loss of the property rights themselves. A theory of trespass that would give rise to, at least, nominal damages, is not a feature of information laws. This limitation means that the use of a trade secret law to deter cyberhacking is suboptimal because there is too much beyond the act of hacking (misappropriation) that must be proven for relief to be granted. However, if a *sui generis* wrongful acquisition tort is created to provide a claim for relief without proof of a protectable property interest, the requirement of a cognisable harm becomes even more important.

⁷⁴ See, for example, *Silvaco Data Sys. v Intel Corp.*, 109 Cal. Rptr. 3d 27, 56 (Cal. Ct. App. 2010) (assuming harm, for purposes of federal standing doctrine, satisfied by impeding further use, but requiring a plaintiff to show eligibility for restitution in order to establish standing under California law); *Kwikset Corp. v Superior Court*, 246 P.3d 877 (Cal. 2011) (overturning *Silvaco*’s decision confining standing under Cal. Bus. & Prof. Code s 17204 to those who are eligible for restitution).

⁷⁵ See *Storm v Paytime, Inc.*, 90 F Supp 3d 359 (MD Pa 2015); *Whalen v Michael Stores Inc.*, 153 F Supp 3d 577 (EDNY 2015).

⁷⁶ *Spokeo* (n 13) 1548.

The CFAA provides a potential model, but one that does not make the element of harm more exacting than it is under common law or the expanded remedies provisions of other information torts. Instead, the CFAA is remarkable for not only *not* requiring that the subject information be within a legally protected class of information, such as trade secret or, even, confidential and proprietary information, but also for defining possible harms broadly. According to the CFAA, ‘damage’ means ‘any impairment to the integrity or availability of data, a program, a system, or information’.⁷⁷ Even more broadly, ‘loss’ is defined to mean:

Any reasonable cost to any victim, including the cost of responding to an offense, conducting a damage assessment, and restoring the data, program, system, or information to its condition prior to the offense, and any revenue lost, cost incurred, or other consequential damages incurred because of interruption of service.⁷⁸

While this broad conception of harm was obviously designed to address the perceived bad acts of cyberhacking, it should be criticised for not giving sufficient deference to the nonprotectable status of some hacked information, as well as the strong public policy that favours information diffusion.

Finally, another policy lever that is available to courts and policymakers who wish to create a wrongful acquisition tort that appropriately balances the interests of the public and the information holder relates to possible defences. All defences that currently exist with respect to other information-related torts should be considered, including the reverse engineering defence of trade secret law and the fair use defence of copyright law. Indeed, it is these defences which, in large part, prevent state information claims from conflicting too much with US patent and copyright law and from being unconstitutional on First Amendment grounds. An additional defence might be fashioned related to the nature and value of the information that was acquired, for instance, if the original source of the information was a public record. There is something odd about taxpayers paying for the collection and maintenance of public records, providing those public records to a third party (usually for a modest price), and then paying for the enforcement of a third party’s alleged rights in such information. Thus, in designing a wrongful acquisition tort, its remedies and its defences, the original source and nature of the information should matter. This should particularly be the case if the originator of the information who provided the information to the person or entity from whom it was ‘wrongfully acquired’ does not care if the information is shared.

5. CONCLUSION

It is possible to design a tort to deter acts of wrongful acquisition, including cyberhacking, but it is not easy. One reason for the difficulty is the need to distinguish such claims from existing information-related torts such as copyright infringement and trade secret misappropriation by adding extra elements to those causes of action. Simply creating what amounts to a ‘lesser included’ wrongful acquisition tort would risk undermining the balance between information protection and information diffusion that is reflected in existing US patent, copyright, trade

⁷⁷ 18 USC s 1030(e)(8).

⁷⁸ 18 USC s 1030(e)(11).

secret and unfair competition law, and may be deemed preempted by federal patent and copyright law. Moreover, recognising property-like rights with respect to wide swathes of information would likely quell the use of information that is part of the public domain and hamper invention and competition. As experience with the CFAA has shown, it is difficult to fashion laws to preclude the alleged wrongful acquisition of information without putting legitimate uses of information at risk. Thus, given the importance of the free flow of information and knowledge to our society and economy, it may be that we should simply learn to tolerate the gap in the law that currently exists and, instead, enjoy the rewards that come from the dissemination and sharing of unprotected information. The fact that a wrongful acquisition tort has not already developed, even since *Christopher*, strongly suggests that such a policy choice has already been made.

PART III

TRADE MARKS, DESIGNS AND UNFAIR COMPETITION

18. Trade mark protection for digital goods

Mark P. McKenna and Lucas S. Osborn

1. INTRODUCTION

Consider a claim by the creator of a movie the copyright protection for which has lapsed. Can the creator successfully assert a trade mark infringement claim against a party that copies the film, including particularly identifiable content like the movie studio's logo or a famous scene? Or consider a website that allows artists to upload and offer for sale digital models of various goods, where the models include recognisable designs and/or logos. Does the website operator commit trade mark infringement simply by distributing the digital files, from which someone might print a physical good that bears the trade mark?

These sorts of claims raise important questions about the boundaries of different forms of intellectual property, particularly the boundaries of trade mark, copyright and design laws.¹ In this chapter, we describe US courts' approaches to these cases, particularly in light of the US Supreme Court decision in *Dastar Corp. v Twentieth Century Fox Film Corp.*² We then turn to the European experience, which is surprisingly thinner. We offer some hypotheses for the relative lack of these cases in Europe.

2. THE UNITED STATES' EXPERIENCE

Claimants in the US have asserted trade mark and unfair competition claims in a variety of contexts involving intangible works. In some cases, the defendants produced tangible goods, but the plaintiffs' claims were based on allegations of unauthorised copying of the designs of those articles (rather than on allegations that the defendants misrepresented the origins of the physical goods themselves). In one case, for example, the plaintiff alleged that the defendant falsely designated the origin of its specialised lighting products when it copied the design of those products and sold under its own trade mark the copies it physically produced.³ Other cases have involved allegations of unaccredited copying of the plaintiff's architectural design.⁴

¹ For a thorough discussion of the range of overlapping intellectual property protections, see Neil Wilkof and Shannad Basheer (eds), *Overlapping Intellectual Property Rights* (OUP 2012). See also Estelle Derclaye and Matthias Leistner (eds), *Intellectual Property Overlaps: A European Perspective* (Hart 2011).

² 539 US 23 (2003).

³ *Kehoe Component Sales Inc v Best Lighting Prods Inc*, 796 F3d 576 (6th Cir 2015).

⁴ *M Arthur Gensler Jr & Assocs v Strabala*, 764 F3d 735 (7th Cir 2014); *Dorchen/Martin Assocs Inc v Brook of Cheboygan Inc*, 838 F Supp 2d 607 (ED Mich 2012).

Still other cases have involved allegations of copying and/or inaccurate attribution of works of authorship, including books,⁵ exam questions,⁶ website content,⁷ and research projects.⁸

These sorts of claims increasingly arise in the digital context. Parties have pursued trade mark claims, for example, against bars and restaurants that copied and permitted the performance of the plaintiff's karaoke tracks in which the plaintiff's trade marks were embedded;⁹ against a web site that used plaintiff's trade marked logo in a digital model of a car;¹⁰ and against a video game producer that gave a fictional strip club a name similar to the name of the plaintiff's real life establishment.¹¹

In some of these cases the plaintiffs asserted trade mark or false designation of origin claims in addition to their copyright claims. In other cases, the conduct of which the plaintiff complained seemed suited to a copyright claim, but for one reason or another those copyright claims were not available (because the copyright had expired, or because the plaintiff did not own the copyright, etc). Thus, the trade mark-related claims stood alone. In still other cases, the allegedly copied material was not subject to copyright protection but might have been protected by a design patent. All of these cases raise fundamental questions regarding the boundaries between trade mark law and other modes of intellectual property protection.

In the US, these cases implicate the Supreme Court's decision in *Dastar Corp. v Twentieth Century Fox Film Corp.* That case dealt with the meaning of the term 'origin of goods' in the Lanham Act,¹² and particularly the question of whether a party can assert a false designation of origin claim based on unaccredited copying of intangible content. Dastar edited Fox's public domain television series,¹³ and relied extensively on footage from that series to create its own videos. Dastar then distributed the videos without reference to Fox, crediting Dastar's subsidiary as the producer and distributor of the videos. According to Fox, Dastar was falsely designating the origin of the content by passing it off as though it was Dastar's own.

The Supreme Court rejected Fox's claim, holding that 'origin of goods' for purposes of the Lanham Act referred only to the origin of tangible goods, not the origin of intangible creative content.¹⁴ In that sense, "'origin" refers most naturally to the producer of the tangible product sold in the marketplace',¹⁵ though the Court allowed that the origin could 'include not only the actual producer' but also the party who '("stood behind") production of the physical product'.¹⁶ But, the Court made clear, 'origin of goods' is 'incapable of connoting the person or entity that originated the ideas or communications that "goods" embody or contain'.¹⁷

⁵ *Zyla v Wadsworth, Div of Thomson Corp*, 360 F3d 243 (1st Cir 2004).

⁶ *Cisco Tech, Inc v Certification Trendz, Ltd*, 177 F Supp 3d 732 (D Conn 2016).

⁷ *Cvent, Inc v Eventbrite, Inc*, 739 F Supp 2d 927 (ED Va 2010); *Craigslislist Inc v 3Taps Inc*, 942 F Supp 2d 962 (ND Cal 2013).

⁸ *Romero v Buhimschi*, 396 F App'x 224 (6th Cir 2010).

⁹ *Phx Entm't Partners v Rumsey*, 829 F3d 817 (7th Cir 2016) 823.

¹⁰ Complaint at 1, *BMW of N Am, LLC v TurboSquid, Inc*, No 2:16-CV-02500 (DNJ 3 May 2016).

¹¹ *ESS Entm't 2000, Inc v Rock Star Videos, Inc*, 547 F3d 1095 (9th Cir 2008).

¹² The Lanham Act is the United States statute that provides protection for, inter alia, registered and unregistered trade marks. See 15 USC ss 1114 (2012) 1125.

¹³ Fox failed to renew the copyright in the television series, causing them to fall into the public domain.

¹⁴ 539 US 23, 31–38 (2003).

¹⁵ *ibid* 31.

¹⁶ *ibid* 31–32.

¹⁷ *ibid* 32.

It is not that the Court was unaware that consumers sometimes care about the source of intellectual contributions; it simply maintained that the origin of creative work is irrelevant to trademark law. As the Court said, ‘according special treatment to communicative products would put the Lanham Act into conflict with the law of copyright, which addresses [use of creative works] specifically’.¹⁸ Allowing parties to assert false designation of origin claims based on the origin of intellectual content ‘would create a species of mutant copyright law, limiting the public’s “federal right to ‘copy and to use’” expired copyrights’.¹⁹

Dastar was fairly controversial and courts have sometimes had trouble accepting its holding, even outside of the digital context.²⁰ Courts have had particular difficulty in cases involving claims of false designation of the origin of services rather than goods,²¹ perhaps because the *Dastar* decision did not address services (an omission for which it has been justly criticised²²).

Adapting *Dastar* to the digital context has proven especially challenging. One reason is that courts have struggled with the Court’s ‘repackaging’ language in cases that obviously do not involve physical goods. In the process of explaining its focus on physical goods, the Court in *Dastar* distinguished Fox’s claim from one in which ‘Dastar had bought some of [Fox’s] videotapes and merely repackaged them as its own’.²³ According to the Court, the passing off claim based on unaccredited copying was barred, but the claim based on repackaging ‘would undoubtedly [have been] sustained’.²⁴ That distinction between physical repackaging and unaccredited copying of content makes sense in a world in which parties distribute their content in physical form (on videotapes, for example). It is obviously a more difficult distinction when digital distribution is the norm.

In *Cisco Technology, Inc. v Certification Trendz, Ltd.*,²⁵ the plaintiff claimed that the defendant falsely designated the origin of its practice tests by including in the practice tests questions that it copied from the plaintiff’s exams. The court dismissed the claim, however, finding that the defendant had created a new product (of which it was the unambiguous origin) when it added original material, including explanations, in the practice tests.²⁶ But, notably, the court thought a claim might have been available if the defendant had simply copied the questions and answers from Cisco’s exams without adding anything new, since in that case the defendant would merely have been ‘repackaging’ the content.²⁷ That explanation misses the point of the Supreme Court’s distinction, since even if it had simply reproduced Cisco’s questions and answers, the defendant still would not have obtained the plaintiff’s tangible

¹⁸ *ibid.*

¹⁹ *ibid* 34.

²⁰ The authors of this chapter have elsewhere provided a thorough analysis of US courts’ application of *Dastar*, and we direct interested readers to those works. Mark P McKenna and Lucas S Osborn, ‘Trademark and Digital Goods’ (2017) 92 Notre Dame L Rev 1425; Mark P McKenna, ‘*Dastar*’s Next Stand’ (2012) 19 J Intell Prop L 357.

²¹ See *Gensler* (n 4) (refusing to apply *Dastar* where an architectural firm claimed its former employee committed reverse passing by claiming to have designed five buildings, even though the case was unquestionably about intellectual origin).

²² See, for example, Mary LaFrance, ‘When You Wish upon *Dastar*: Creative Provenance and the Lanham Act’ (2005) 23 Cardozo Arts & Ent LJ 197, 244–46.

²³ *Dastar* (n 2) 31.

²⁴ *ibid.*

²⁵ 177 F Supp 3d 732 (D Conn 2016).

²⁶ *ibid.*

²⁷ See *ibid* 737.

goods and physically repackaged them. The only thing the defendant could have ‘repackaged’ was the intangible content; the defendant’s digital files were necessarily separate, independent copies of the content of the plaintiff’s files, just as *Dastar*’s videos were copies of the content of Fox’s television series.²⁸

More fundamentally, courts have had to determine when digital files can and should be treated as relevant ‘goods’ under *Dastar*. Given the Court’s directive that ‘origin of goods’ is ‘incapable of connoting the person or entity that originated the ideas or communications that ‘goods’ embody or contain’,²⁹ it is clear that the relevant good cannot be the intangible content of the file – whether a movie or song or a digital image or text – just as Fox’s television series content could not be treated as a relevant good. Yet some courts have had more difficulty with that conclusion in the digital context.³⁰

Take, for example, the series of cases brought by Phoenix Entertainment (previously Slep-Tone Entertainment).³¹ Phoenix produces audiovisual karaoke tracks that display a song’s lyrics in time with (usually famous) prerecorded music that does not include vocals, and it distributes those karaoke tracks on CDs or as downloadable digital files. Each track displays Phoenix’s Sound Choice mark at the beginning and end of the track. Over the course of several years, Phoenix sued a large number of bars and restaurants for allegedly making illegal copies of its karaoke tracks (either from another’s CDs or from internet downloads).

Reproducing another’s audiovisual works would obviously constitute copyright infringement, but Phoenix did not assert copyright claims in these cases (apparently because they did not own copyright in the works). Instead, Phoenix alleged that use of the Sound Choice mark within the unauthorised tracks falsely represented the origin of the tracks and therefore constituted trade mark infringement.³² In the first round of cases, Phoenix (then Slep-Tone) argued that the unauthorised uses would confuse consumers as to the authorship of the tracks, claims that are clearly precluded by *Dastar*. Yet some courts misapplied *Dastar*, perhaps bewitched by the defendants’ reproduction of the Sound Choice trade mark within the content. Sometimes courts fixated on the fact that the defendants created copies of the karaoke tracks, which courts treated as new ‘goods’ that were somehow distinguishable from those in *Dastar*,³³ despite the fact that *Dastar* itself involved copies of the content of Fox’s television series.

Over time, Phoenix’s legal theory became more sophisticated, and it argued that the digital files made by the bars and restaurants were tangible goods and that the presence of the Sound Choice mark within the tracks (that is, on the screen when the tracks were played) would cause confusion about the origin of those files.³⁴ That argument raised the difficult legal question of

²⁸ See also *Do It Best Corp v Passport Software, Inc*, 2004 WL 1660814 (ND Ill, 23 July 2004) (confusing new digital copies with repackaged physical goods); *Cvent* (n 7) (same).

²⁹ *Dastar* (n 2) 32.

³⁰ See, for example, *Eastland Music Group, LLC v Lionsgate Entertainment, Inc*, 707 F3d 869 (7th Cir 2013) (treating a song as a ‘work of intellectual property’ as the relevant good); *Harbour v Farquhar*, 245 F App’x 582, 582–83 (9th Cir 2007) (treating television programmes as the relevant good); *Bob Creeden & Assocs v Infosoftware, Inc*, 326 F Supp 2d 876 (ND Ill 2004) 877–88 (treating a software system in the abstract as the relevant good).

³¹ Disclosure: one of the authors of this chapter, Professor McKenna, was the lead author on two amicus briefs arguing against Slep-Tone’s position.

³² See, for example, *Slep-Tone Entm’t Corp v Sellis Enters, Inc*, 87 F Supp 3d 897 (ND Ill 2015); *Slep-Tone Entm’t Corp v Canton Phoenix Inc*, 2014 WL 5817903 (D Or 7 November 2014).

³³ *ibid*, *Slep-Tone v Sellis*, 905.

³⁴ See, for example, *Rumsey* (n 9).

whether, and when, digital files should be considered tangible goods. But on the facts of the Phoenix cases, it ran into a problem – the bar’s patrons were extremely unlikely to be confused about the source of the actual files, which resided on the bar’s unquestionably tangible hard drive, because the patrons were almost certainly unaware of how the bar was generating the karaoke sound and video. Consumers did not know (and presumably would not care) whether the tracks were played from a CD or from a hard drive, or whether the tracks were streamed from the internet.³⁵ Because Phoenix could not connect any confusion to the digital files as such, courts considering these cases could simply find no likelihood of confusion.

But other cases will surely continue to raise the issue of whether digital files should count, and the analogies to *Dastar* will be difficult. Digital files are in one sense tangible in that they reside on a computer-readable medium. But digital files are not typically sold or transferred in the same manner as videotapes and DVDs. When a user downloads a file from the internet, for example, she is not taking a physical object from one place and moving it to another. Rather, a new copy is created with each download.

At the same time, this difference does not mean that *Dastar* has nothing to say in the digital era. Indeed, just as computer memory containing a file’s data is tangible, so were *Dastar*’s videotapes. Still, the Court refused to infer anything about the origin of the physical videotapes from the content embodied in those tapes. That is to say that only indications external to the content of the tapes mattered when the court was assessing whether *Dastar* had falsely designated the origin of those tapes; the intangible content (the video in the abstract and as played on a screen) could not, according to the Court, be used as an indication of the tangible good’s origin.

In this sense, *Dastar* makes tangibility a necessary, but not sufficient, condition. With respect to digital files, courts must determine that any alleged confusion relates to the origin of files as such, rather than their content. But importantly, confusion about the origin of the files is only relevant to the extent it is attributable to something external to the content of the file. As one court astutely noted:

That the Sound Choice mark is embedded in the creative content of the karaoke track and is visible to the public whenever the track is played does not falsely suggest that Slep-Tone is endorsing the performance, as the plaintiffs have alleged. The producers of communicative goods often embed their marks not only on the packaging of the good but in its content . . . [A] movie theatre may freely exhibit a copy of Universal Studios’ 1925 silent film, *The Phantom of the Opera*, which is now in the public domain, without fear of committing trade mark infringement simply because Universal’s registered trade mark will be displayed when the film is played.³⁶

In our view, material confusion about the origin of the digital files themselves is likely to be rare, and as a result, application of *Dastar* should preclude most claims in the digital context. Thus, for example, a three dimensional (3D) digital model of a BMW car that includes the BMW logo cannot be argued to cause confusion based on the logo appearing on the model car.³⁷ And a 3D printable file of a handbag or mobile phone case that includes another’s trade mark cannot be argued to cause confusion based on the logo appearing in the digital file.

³⁵ *ibid* 829.

³⁶ *ibid* 829–30.

³⁷ Digital models bearing a variety of trade marks are widely available on the internet. See, for example, <www.turbosquid.com> accessed 21 October 2019.

Likewise, a digital file that would run Microsoft Word cannot cause actionable confusion based on Microsoft trade marks appearing inside the file. But material confusion is possible in some contexts, including, perhaps, when a party uses a Microsoft trade mark on a website on which digital files labelled as Microsoft Word are made available for download.³⁸ In those cases, one could imagine that consumers would be confused about the origin of the digital files they are downloading, and that the origin might be quite material to their willingness to download from that site.

These results resonate with trade mark law's core focus on relevant consumer confusion. If a user visits a website and understands from its context that it is not BMW's or Microsoft's website, the user is unlikely to believe that the file it is downloading originates with BMW or Microsoft based purely on the presence of trade marks within digital files on those sites. This is especially so where the website indicates that someone else made the file (for example, 'this digital model was uploaded by Username123'). In that case, the downloader knows the source or origin of the file as such is 'Username123'.³⁹ Obviously, the downloader would recognise BMW or Microsoft as the intellectual origin of the content, but the downloader will not likely blame BMW if the digital model is imperfect. On the other hand, if the website claims to be offering 'authentic, authorised Microsoft Word programs', such external indicia would result in trade mark harm: confusion as to the origin of the file.

3. THE EUROPEAN EXPERIENCE

Interestingly, given the increasing frequency of cases in the US involving digital goods, few such cases seem to have arisen in Europe, even though some of the policy concerns of *Dastar* have occasionally surfaced.

Take, for example, the recent decision of the Court of Justice of the European Free Trade Association States (EFTA court) regarding the city of Oslo's applications to register as trade marks several works of the Norwegian artist Gustav Vigeland.⁴⁰ By its own account, Oslo sought to register the works as trade marks because the copyright protections for the works (which Oslo owned) were expiring. The Norwegian trade mark office rejected the applications on distinctiveness grounds, and the Board of Appeal referred an additional ground for rejection to the EFTA court, specifically asking whether registration of trade marks that consist of works for which the copyright has expired should be refused under the provision of the EU Trade Mark Directive that prohibits registration of marks that are 'contrary to public policy or accepted principles of morality'.⁴¹ While the EFTA court recognised the potential conflict entailed in registration of such works, it nevertheless held that 'the fact that an artwork has previously enjoyed copyright protection may not in itself form the basis for refusing trade mark registration [on the ground that registration is against public policy]'.⁴² Instead, 'registration

³⁸ For a more indepth discussion, see McKenna and Osborn (n 20) 1451–56.

³⁹ The website and or the file creator may be violating copyright law or design patent law, but not trade mark law.

⁴⁰ Case E-5/16 *Municipality of Oslo*, EFTA, 6 April 2007.

⁴¹ *ibid*; see Council Directive 2008/95/EC of 22 October 2008 to approximate the laws of the Member States relating to trade marks [2008] OJ L299/25, art 3(1)(f).

⁴² *Municipality of Oslo* (n 40) 20.

of a sign may only be refused on basis of the public policy exception provided for in Article 3(1)(f) of the Trade Mark Directive if the sign consists exclusively of a work pertaining to the public domain and the registration of this sign constitutes a genuine and sufficiently serious threat to a fundamental interest of society'. When making this determination, the EFTA court emphasised that applications for registration must be assessed in light of the goods or services for which protection is claimed.⁴³

Notably, following the EFTA court's elucidation of the proper approach, the Norwegian Trade Mark Board of Appeal held that registration of the Vigeland works did in fact 'constitute[] a genuine and sufficiently serious threat to a fundamental interest of society' such that registration should be refused under Article 3(1)(f).⁴⁴ Perhaps not surprisingly, given the EFTA court's refusal to adopt a categorical rule and its emphasis on assessing applications in light of the goods or services for which protection is claimed, the Norwegian Board of Appeal believed that the determining factor was the Oslo Municipality's 'systematic attempts to register practically all works found in the Vigeland Park and Museum as trade marks'.⁴⁵ The obvious implication is that, had the Municipality sought only to register one or a small number of the Vigeland works to use as marks for particular goods or services, the result may have been different.⁴⁶

The EFTA court's decision suggests that concerns about extending control over copyright-expired works are to some extent on the radar of European courts. Indeed, the EFTA court's emphasis on the particular goods and services for which a party seeks registration reflected the court's concern about attempts to use trade mark law to protect works as such rather than as indications of the origin of those goods or services. But the decision obviously stops short of *Dastar* in refusing to adopt a categorical rule. The context of the decision also differentiates it from *Dastar*, as the next section explains.

3.1 The Significance of Registration Systems

The EFTA court made its decision in the context of the Municipality of Oslo's attempt to register various Vigeland works as trade marks. In that way, the case is quite different from *Dastar*, which was concerned with the enforcement side of the equation. Obviously, *Dastar* has implications for protectability; in particular the decision would seem to render invalid claims of rights based on use that merely indicates the origin of creative content. But since Fox's claim in *Dastar* was based on a lack of attribution and the Court resolved it by interpreting the language of section 43(a) of the Lanham Act, nothing in the decision speaks directly to the question of whether, and under what circumstances, a party may claim valid trade mark rights in a previously copyright protected work. *Dastar* might even implicitly accept that one can assert legitimate claims of ownership to marks based on copyright protected works, so long as

⁴³ *ibid* 22, para 100.

⁴⁴ 2017 KFIR 16/00148, 16/00149, 16/00150, 16/00151, 16/00153, 16/00154.

⁴⁵ *Municipality of Oslo* (n 40) 24.

⁴⁶ A similar question arose when someone claimed rights in the Mona Lisa as a trade mark for their goods: see

Bundespatentgericht [BpatG] [Federal Patent Court] Nov. 25, 1997, 1998 Gewerblicher Rechtsschutz Und Urheberrecht [GRUR] 1022, Case 24 W (pat) 188/96, Mona Lisa (Ger.) as cited in Irene Calboli and Martin Senfleben (eds), *The Protection of Non-Traditional Trademarks: Critical Perspectives* (OUP 2018) 310.

those marks are used in connection with tangible goods and claims are based on allegations of confusion regarding the origin of those tangible goods.

Moreover, because the EFTA court's decision focused on registrability and the grounds for refusing registration are specifically iterated in the Trade Mark Directive, the court had limited tools at its disposal; hence the court's discussion of the conflict with copyright in the context of a provision prohibiting registration of marks 'contrary to public policy or accepted principles of morality'⁴⁷ – a provision that is not especially well suited to the policy concerns at issue.

There is a more general point here. As a matter of trade mark law proper, it seems clear that one significant reason we do not see *Dastar*-style claims seeking to control creative content in Europe has to do with the greater significance of registration in European trade mark systems. Specifically, the goods and services in the registration shape the scope of a party's rights much more powerfully in Europe than in the US.⁴⁸

To begin with, US law protects unregistered marks on substantially the same basis as registered marks.⁴⁹ In cases involving unregistered marks, there obviously is no registration that could determine the scope of a party's rights. But even in cases involving registered rights, the registrations do very little to determine the scope of a party's rights. While the existence of a registration confers a presumption of trade mark validity, courts evaluating likelihood of confusion rarely pay attention to the form or content of registration, or even to the identified goods or services.⁵⁰ Instead, courts focus on consumer understanding of a mark as used in the marketplace.⁵¹

The fact that the substantive rights are the same in the US regardless of registration status also has a subtler effect. One significant reason to emphasise the content of the registration in a registration system is that going beyond the registration would blur the line between trade mark law and unfair competition; it is the registration itself that draws the line in the first place. But there is no longer nearly such a clean distinction between trade mark and unfair competition in US law, so there is less need for courts to be scrupulous about limiting the scope of a party's rights to what is contained in the registration.

The merger of trade mark and unfair competition is evidenced by the fact that, even though *Dastar* involved a reverse passing off claim and not a claim of trade mark infringement, courts have had no trouble applying the decision in cases alleging infringement of unregistered or even registered marks. After all, *Dastar* was based on an interpretation of the text of the same provision in section 43(a) under which parties assert claims for infringement of unregistered marks, and all of the concerns animating the Court's decision seem equally applicable in trade mark infringement cases.

At least some of the cases that in the US have been or will be resolved under *Dastar* would have more difficulty succeeding in a registration system. Take, for example, a case in which the plaintiff has registered its mark for prerecorded music or for musical performances. If that party were to assert its rights against another party that made copies of the music and argue

⁴⁷ *Municipality of Oslo* (n 40); see Council Directive 2008/95/EC (n 40), art 3(1)(f).

⁴⁸ Indeed, that insight has much to say about the EFTA court's implicit confidence that, by focusing on the particular goods or services for which registration is sought, any resulting registrations would not effectively enable the registrant to control use of the work as such.

⁴⁹ Unregistered marks are enforced under section 43(a) of the Lanham Act 15 USC section 1125(a).

⁵⁰ See Rebecca Tushnet, 'Registering Disagreement: Registration in Modern American Trademark Law' (2017) 130 Harv L Rev 867, 909 (citing cases).

⁵¹ *ibid.*

that consumers are likely to be confused about the source of the digital files in which those copies were fixed, the registrant would be claiming infringement based on use in connection with goods or services outside the scope of its registration. And it would be difficult to register many marks for digital files where the registrant does not transfer the physical medium.

This cannot, of course, be a complete explanation, since some US cases resolved by *Dastar* do involve uses of a trade mark, and even marks registered for goods and services similar to the defendant's use. So even a greater emphasis on the goods and services in the registration would not resolve all of the cases in which US courts have applied *Dastar* to bar the claims.

It is possible that even apart from the way in which the goods and services listed in a registration limit the scope of enforcement, European courts are simply more sceptical that consumers infer anything about the source of the file from a mark which designates the source of the content. In one German decision, the court rejected Opel's claim against the creator of a remote-control scale model replica of an Opel Astra, even though the model bore the Opel logo.⁵² Opel had registered its logo for both automobiles and toys,⁵³ and yet, after noting the long history of a sophisticated replica model market in Germany,⁵⁴ the court maintained that there would be no liability if the lower court finds that 'the relevant public does not perceive the [allegedly infringing use] as an indication that those products come from Adam Opel or an undertaking economically linked to it'.⁵⁵

Still, even if EU trade mark law is less amenable to *Dastar*-type claims because of the significance of registration or because courts are more sceptical of broader confusion claims, most European jurisdictions recognise unfair competition claims. Indeed, notwithstanding its doubts about Opel's trade mark claims, the German court left the lower court to determine whether the use on model cars 'constitutes use without due cause which takes unfair advantage of, or is detrimental to, the distinctive character or the repute of the registered mark' under Article 5(2) of the Trade Mark Directive.⁵⁶ In the UK, the torts of passing off and reverse passing off persist and can be used not only in a manner that overlaps with copyright and rights of attribution and integrity, but in ways that might effectively extend those rights.⁵⁷

3.2 Passing Off, Reverse Passing Off and Unfair Competition

Parties can assert passing off claims in the UK when they can establish the 'classic trinity' of elements: (1) the goods or services have acquired goodwill or reputation in the marketplace that distinguishes such goods or services from competitors; (2) the defendant misrepresents his goods or services, either intentionally or unintentionally, so that the public may have the

⁵² Case 48/05, *Adam Opel AG v Autec AG*, 2007 ECR I-01017, 2007 ECJ EUR-Lex LEXIS 1972 (GER); Bundesgerichtshof [BGH] [Nuremberg Higher Regional Court] 14 January 2010, Case I ZR 88/08 (GER).

⁵³ *ibid.*

⁵⁴ *ibid.* See also Birgit Clark, 'Bundesgerichtshof Decides in the Opel/Autec Toy Car Case' (2010) 5 J Intell Prop L & Prac 212, 213.

⁵⁵ *Adam Opel* (n 52) [23].

⁵⁶ *ibid* [36].

⁵⁷ Jonathan Griffiths, 'Misattribution and Misrepresentation – The Claim for Reverse Passing Off as "Paternity" Right' (2006) 41 IPQ 34.

impression that the offered goods or services are those of the claimant; and (3) the claimant may suffer damages because of the misrepresentation.⁵⁸

That parties can use passing off to prevent something like misattribution is established by a nineteenth century case in which the defendant used a title for its instructional piano book that was very similar to that of the plaintiff's previously produced instructional piano book.⁵⁹ More recently, Alan Clark, a former member of Parliament, succeeded in a passing off action against a newspaper that created a parody version of his published diaries.⁶⁰ According to the court, the parody harmed Clark's goodwill as an author and was capable of confusing a substantial number of readers into believing that the plaintiff authored the parody version. The newspaper's identification of a newspaper employee as the author of the parody (who was imagining how plaintiff's diary might look for recent events) was apparently too subtle for the court.

In addition to traditional passing off claims, UK law recognises reverse passing off claims that overlap with the right of attribution.⁶¹ In *Bristol Conservatories v Conservatories Custom Built*,⁶² for example, the defendants, manufacturers of conservatories (greenhouses or sunrooms), allegedly showed prospective customers photographs of plaintiffs' ornamental conservatories and represented that the conservatories in the photos were made by defendants. The court, while avoiding any commitment to the label of reverse passing off, held that 'the goodwill was asserted and demonstrated as the photographs were shown and was at the same moment misappropriated by Custom Built'.⁶³

The particular claim in *Bristol Conservatories* does not seem to be ruled out by *Dastar*, since the allegations focused on misrepresentation of the origin of the tangible conservatories shown in the photos. But neither is there anything in the decision that makes a distinction between the tangible and intangible, leaving open the possibility that reverse passing off claims are more broadly available.

According to Jonathan Griffiths, as of 2006, 'the only reported example of a case in which the action for reverse passing off ha[d] been employed successfully against the misattribution of creative works' was a decision of the Singapore Court of Appeal in *John Robert Powers School Inc. v Tessensohn*.⁶⁴ In that case, the plaintiff, an internationally known school offering 'courses on social development and self-improvement', sued for reverse passing off when its former franchisee set up her own competing school using course materials the plaintiff had authored, without any acknowledgement of their source. The plaintiff apparently did not assert that use of the course materials constituted copyright infringement, perhaps because the defendant did not copy the materials but simply retained the copies after her franchise relationship with the plaintiff ended. In finding for the plaintiff, the appellate court focused on the fact that the defendant left the notes on shelves that students could access, even though there was no evidence that students actually did access them. The court stated that, 'by making the [plaintiff's] notes available in that manner, she was in fact holding out to her

⁵⁸ For example, *Reckitt & Colman Products Ltd v Borden Inc* [1990] 1 All ER 873.

⁵⁹ *Metzler v Wood* (1877) Ch D 606 (CA).

⁶⁰ *Clark v Associated Newspapers* [1998] 1 All ER 959.

⁶¹ Griffiths (n 57) 43–44.

⁶² [1989] RPC 455.

⁶³ *ibid* 465.

⁶⁴ [1995] FSR 947.

students and customers that the notes were the product of her own efforts. That clearly was a misrepresentation'.⁶⁵

On one hand, *Tessensohn* differs from *Dastar* in that *Tessensohn* did not involve copying at all – the claim alleged misrepresentation of the origin of the original materials printed by the plaintiff.⁶⁶ At the same time, it seems hard to believe that the plaintiff's concern in *Tessensohn* had to do with who printed the paper. Nor does there seem to have been any sort of packaging of the tangible papers, so the case was not one of 'repackaging'. But of course, not being bound by *Dastar*, the court had no need to focus on the distinction between designations of the origin of tangible goods and designations of the origin of the intangible content, so it is difficult to know how broadly its reasoning applies.

Griffiths explores possible extensions of the case, both where statutory rights of attribution existed at the time of his writing and where they did not.⁶⁷ While he recognises that the required elements of misrepresentation and materiality will preclude many cases, he also wonders why 'this potential [to use passing off claims] has not been more widely appreciated'.⁶⁸

Although passing off and reverse passing off can be considered types of unfair competition, unfair competition is broader in scope.⁶⁹ Passing off involves some type of deception,⁷⁰ whereas unfair competition focuses on unfairness even in the absence of deception.⁷¹ Despite the fact that English law has no cause of action for unfair competition as such,⁷² countries in continental Europe have strong jurisprudential traditions in the area.⁷³

Because unfair competition law has been used at times to prevent even truthful, nondeceptive comparative advertising,⁷⁴ as well as to offer protections for titles of films and videogames,⁷⁵ one might conclude that courts applying the doctrine would apply it in the karaoke

⁶⁵ *ibid* 956.

⁶⁶ *ibid* 952 (stating that the appellant 'had kept some printed sheets of JRP notes after termination of the franchise').

⁶⁷ Griffiths (n 57) 46–48.

⁶⁸ Griffiths (n 57) 49.

⁶⁹ See generally, Mary LaFrance, 'Passing Off and Unfair Competition: Conflict and Convergence in Competition Law' (2011) 2011 Mich St L Rev 1413.

⁷⁰ For example, *Hodgkinson & Corby Ltd v Wards Mobility Services Ltd* [1994] 1 WLR 1564 ('Never has the tort shown even a slight tendency to stray beyond cases of deception').

⁷¹ See, for example, Case C-487/07 *L'Oréal SA v Bellure NV* [2009] ECR I-5185 (holding that comparative advertising, even where not jeopardising the essential function of the trade mark, can be prohibited under the Trade Mark Directive 89/104/EEC). Judicial and academic writers have criticised the decision. *L'Oréal SA v Bellure NV* [2010] EWCA Civ 535, [2010] RPC 23; Dev Gangjee and Robert Burrell, 'Because You're Worth It: L'Oréal and the Prohibition on Free Riding' (2010) 73 MLR 282.

⁷² Lord Justice Aldous caused a stir when he stated in dicta in *Arsenal v Reed* that passing off is 'perhaps best referred to as unfair competition': *Arsenal Football Club plc v Matthew Reed* [2003] EWCA Civ 696, para 70. See also Richard Arnold, 'English Unfair Competition Law' (2013) 44 IIC 63.

⁷³ See, for example, B Steckler, 'Unfair Trade Practices under German Law: "Slavish Imitation" of Commercial and Industrial Activities' (1996) EIPR 390.

⁷⁴ See, for example, Irene Calboli, 'Recent Developments in the Law of Comparative Advertising in Italy: Towards an Effective Enforcement of the Principles of Directive 97/55/EC Under the New Regime' (2002) 33 Int'l R Indus Prop & Copyright L 415, 421–23.

⁷⁵ LaFrance (n 69) 1428.

cases or in those involving 3D digital models of branded items. Nevertheless, we have been unable to locate cases where digital uses of trade marks like these have been condemned.⁷⁶

3.3 Moral Rights

To the extent that the *Dastar* cases genuinely are concerned with attribution (rather than simply reflecting efforts to control content in the absence of copyright), one obvious explanation for the lack of similar cases in Europe is that parties can often directly protect their rights of attribution through moral rights, which are generally available in Europe.⁷⁷ In the UK, for example, the Copyright, Designs and Patents Act of 1988 governs moral rights, which include:

- the author's right to be identified as the creator of a work,
- the author's right to object to the work being used in a way the author opposes,
- the right of a person not to be attributed as author of something she has not created, and
- the right to privacy in certain commissioned photographs.⁷⁸

Claims like those in *Dastar* would fit comfortably within the right of attribution in the UK, at least when brought by the principal director (in other jurisdictions that might also include screenwriters and composers). And the right is perpetual in some countries (France), though it is only applicable to natural persons (not legal persons).

Neither Fox nor the director had the option of such an attribution claim in the US. The only explicit protection for moral rights in the US is found in the Visual Artists Rights Act of 1990 (VARA),⁷⁹ which applies only to a narrow range of visual art – specifically paintings, drawings, prints, sculptures and still photographs existing in 200 or fewer copies.⁸⁰ Indeed, before *Dastar*, courts sometimes allowed parties to maintain reverse passing off claims precisely because no general attribution right existed.⁸¹

Obviously not all of the cases that implicate *Dastar* are really attribution cases. But at least a subset of the cases are about attribution, and it seems likely that those cases are not brought as trade mark cases in Europe at least in part because they do not need to be.

⁷⁶ The digital use of trade marks has garnered particular attention in the area of keyword advertising. Two of the ECJ's leading opinions in this area are C-236/08 *Google France, Google Inc v Louis Vuitton Malletier* [2010] ECR I-2467 and C-323/09 *Interflora, Inc v Marks & Spencer Plc* [2011] ECR I-8625, the latter of which involves an unfair competition claim. The *Interflora* court was more conservative in its application of unfair competition than some lower courts had been. It limited unfair competition to use of keywords without due cause, with due cause existing when the advertiser offered an alternative product or service and not existing when the competitor offered a mere imitation. The distinction between an imitation and an alternative is not a clear one, and in any event the keyword cases are distinguishable as keyword uses are not visible to consumers.

⁷⁷ The Berne Convention requires that certain 'moral rights', including a right of attribution, be recognised '[i]ndependently of the author's economic rights, and even after the transfer of the said rights'. Berne Convention for the Protection of Literary and Artistic Works 1886 (Revised 1971) (hereafter 'Berne Convention') art 6bis.

⁷⁸ Copyright, Designs and Patents Act 1988 (CPDA 1988) ss 77–85. For simplicity we refer generally to 'authors', though the legislation separately refers to directors of films.

⁷⁹ 17 USC sec 106(A).

⁸⁰ 17 USC sec 101.

⁸¹ See, for example, *Gilliam v Am Broad Cos*, 538 F2d 14 (2d Cir 1976) 23–25 (holding that attribution of a significantly modified work to the creator of the original work is actionable as passing off).

3.4 Design Rights

Broader availability of design protection in Europe might explain the lack of trademark-related cases in a different subset of disputes. Indeed, according to one European lawyer, design rights are preferable for precisely the reasons we discussed above – specifically, because trade marks are ‘difficult to be obtained, and the scope is limited to the class and goods you have registered’.⁸² Although design is protected in a variety of ways in the US, including under an increasingly popular design patent system, the EU (and the UK, which may soon need to be separated for analysis) has a stronger tradition of design rights. By most accounts, it is easier to obtain design protection in the EU, and the protections are more robust. Design rights protect designs that are new and have individual character, a relatively low threshold for protection that does not require personal expression or creativity.

Under the EU design protection regimes, designs are registered without examination, making that route an attractive option for protection.⁸³ Registered EU design rights enjoy a term of 25 years (subject to renewal payments every five years) from the time of filing.⁸⁴ And, importantly, there is no need to prove copying to prove infringement of a registered design.⁸⁵

Design rights would, of course, be irrelevant in cases involving karaoke tracks or unattributed copying of television series, but they may play an important role with digital models and 3D printable files.⁸⁶ At this moment, the role of design rights in this context is somewhat uncertain, since the extent to which design rights protect digital representations of physical objects is not yet clear.⁸⁷ The problem involves the meaning of ‘product’ in the various articles of the Regulation. The Regulation defines design broadly to include ‘the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation’.⁸⁸ A ‘product’ is ‘any industrial or handicraft item’ – a definition which seems to focus on tangible products. But the definition continues, potentially paradoxically, to include ‘graphic symbols’. That term could be interpreted to include ephemeral images on a computer screen, though the defi-

⁸² Rainer Filitz, Joachim Henkel and Jörg Ohnemus, ‘Digital Design Protection in Europe: Law, Trends, and Emerging Issues’ (2017) Centre for European Economic Research Discussion Paper <<http://ftp.zew.de/pub/zew-docs/dp/dp17007.pdf>> accessed 21 October 2019.

⁸³ Design rights in Europe exist both at the national level and the EU level. For simplicity, unless otherwise noted, we refer here primarily to the EU level. National laws for registered designs are supposed to be harmonised to the extent of Directive 98/71/EC of the European Parliament and of the Council of 13 October 1998 on the legal protection of designs (hereinafter DD). At the EU level, design rights, registered and unregistered, are governed by Council Regulation (EC) no 6/2002 of 12 December 2001 on Community Designs (hereinafter CDR).

⁸⁴ Unregistered design rights accrue automatically without any filing by the owner, but those rights only last three years from the date of disclosure to the public. Because unregistered design rights terminate so quickly, their availability is unlikely to be a major factor in the lack of trademark-based claims.

⁸⁵ CDR, art 19(a). Unregistered designs are protected only against copying. CDR, art 19(2).

⁸⁶ For a more in-depth analysis of 3D printable files and EU design rights, see generally Dinusha Mendis, ‘Fit for Purpose? 3D Printing and the Implications for Design Law: Opportunities and Challenges’, in ch 22 of this volume.

⁸⁷ Thomas Margoni, ‘Not For Designers’ (2013) 3 JIPITEC 225.

⁸⁸ CDR, art 3(a); see also DD, art 1(a).

dition does not include ‘computer programs’.⁸⁹ Indeed, registrations for computer icons and GUIs have grown quickly in recent years, led by Microsoft, Apple and Samsung.⁹⁰

Moreover, EU design law has trended in the direction of protecting the design *per se*, that is, allowing enforcement of the design rights regardless of the similarity of products on which the design is used.⁹¹ Taken to the extreme, a registered design for a physical object could be infringed by a digital version of the object.⁹² But Article 19 of the Regulation does not protect designs in the abstract; rather, it protects ‘the making, offering, putting on the market, importing, exporting or using of a product in which the design is incorporated or to which it is applied’.⁹³ Keying protection to a ‘product’ seems to connote tangibility and might exclude a digital version that appears on a computer screen temporarily, unless the design is deemed to be applied to the computer or is protected because it will eventually form the appearance of a tangible article.⁹⁴

Neither the Regulation nor the Directive lends itself to easy answers on this score. Some commentators support an interpretation that would trigger design infringement for designs incorporated into 3D printable files, while acknowledging the lack of certainty in the area.⁹⁵ It should be noted that some countries’ laws explicitly state that manufacturing drawings can trigger design infringement.⁹⁶ But at the EU level, the uncertainty has drawn significant attention. A recent report for the European Commission expressed angst about 3D printing technology’s effects on the design regime.⁹⁷ The primary concerns relate to the ability of individuals to manufacture the tangible objects using personal 3D printers and avoid liability because their conduct falls within the safe harbour for ‘acts done privately and for non-commercial purposes’.⁹⁸ The report also notes the possibility of registered design owners seeking legal relief against the online intermediaries that host the digital files, though the report implies that a change in the law would be required for such relief to be available.⁹⁹ The report recommends considering extending intermediary liability to design law and creating a direct infringement avenue through a ‘making available’ right.¹⁰⁰ Finally, it recommends exploring whether to make the mere creation of a 3D printable file an act of infringement.

⁸⁹ CDR, art 3(b); see also DD, art 1(b).

⁹⁰ Filitz, Henkel and Ohnemus (n 82).

⁹¹ See Sarah Burstein, ‘The Patented Design’ (2015) 83 Tenn L Rev 161, 165; Viola Elam, ‘CAD Files and European Design Law’ (2016) 2 JIPITEC 146, 160; Margoni (n 87) 230.

⁹² *ibid*, Burstein, 165.

⁹³ CDR, art 19(a); see also DD, art 12(1).

⁹⁴ Margoni (n 87) 231–32; Elam (n 91) 160. Mendis argues that under RDA 1949 digital designs displayed on any computer interface should be considered designs if those designs will eventually form the appearance of a product, but she does not consider CAD files as falling into that category. Mendis (n 86). Mendis builds on a decision by Jacob J (as he then was) under the old RDA 1949, in which Jacob J noted that a computer icon is protectable as a design insofar as it is inherently built into a machine. See *Apple Computer Incorporated v Design Registry* [2002] ECDR 19 (Chancery Division).

⁹⁵ Margoni (n 87) 232.

⁹⁶ See CDPA 1988 s 226 (providing the exclusive right to reproduce the design ‘by making a design document recording the design for the purpose of enabling such articles to be made’).

⁹⁷ Commission, ‘Legal Review on Industrial Design Protection in Europe’ COM (2016) 2582936 pt 6.1.

⁹⁸ See Council Directive 98/71 of 13 October 1998 on the legal protection of design [1988] OJ L41/289 art 13.

⁹⁹ Commission (n 97) 131–33.

¹⁰⁰ *ibid* 132–33.

Regardless of the outcome of the debate, for our purposes it is enough to point out that design rights may play an important role for protecting some digital works. The more significant the role, the less pressure there will be for others to claim trade mark-like protections. At the same time, however, because design rights last for at most 25 years, parties will always be tempted to claim the potentially unlimited term of protection that trade marks can bring.

4. CONCLUSION

We live in a world in which goods are increasingly distributed in nonphysical form. That raises difficult problems for trade mark law, which has always been oriented to physical goods. One manifestation of that problem is the increasing number of US cases involving digital goods. Many of those cases implicate the US Supreme Court's decision in *Dastar*, which held that only claims involving confusion regarding the source of tangible goods are actionable under the Lanham Act.

Given similar marketplace trends, the lack of analogous cases in the EU is notable. The relatively greater role of trade mark registration may be a partial explanation – many of these cases involve assertions of rights against different types of goods or services than those for which the plaintiff could register its mark. But that seems unlikely to be a complete explanation, given the availability of passing off and unfair competition claims. Perhaps a better explanation is that at least some of the *Dastar*-type claims are better seen as attribution claims, which can be addressed directly via moral rights. Others, particularly those involving digital models, might be easier to bring under various design protection systems.

19. The Uniform Domain Name Dispute Resolution Policy (UDRP): not quite arbitration, but satisfying?¹

Ilhyung Lee

1. INTRODUCTION

In *Amazon.com, Inc. v Sung Hee Cho*,² the US-based online retail company doing business using the mark ‘AMAZON.COM’ filed a claim against a national of the Republic of Korea who registered and used the domain name <amazoncar.com>. Internet users who resorted to this domain name were directed to a website (with content in Korean text) that offered to rent or lease Hyundai and Kia automobiles.³ Amazon.com – whose own website offered online sales of motor vehicles, in addition to books and other merchandise – argued that users would mistakenly associate the domain name with the US company.⁴ The claim was decided not in a civil action in a court of law stateside, in Korea or elsewhere, but instead under the Uniform Domain Name Dispute Resolution Policy (‘UDRP’ or ‘Policy’).⁵ Some background is in order.

In 1999, the Internet Corporation for Assigned Names and Numerals (ICANN) adopted the UDRP to provide for an extrajudicial method of resolving disputes stemming from the abusive registration and use of a domain name in violation of protected trade mark rights,⁶ or ‘cybersquatting’.⁷ The Policy is incorporated by reference into every domain name registration agreement between an ICANN-accredited registrar and a registrant, and ‘sets forth the terms and conditions in connection with a dispute between [the registrant] and any party . . . over

¹ A prior version of this chapter appeared in the author’s *The Fifty-Eight Proceedings: Domain Name Disputes, Korean Parties, and WIPO Three-Member Panels* (2016) U. Miami Int’l & Comp. L. Rev. 429.

² WIPO Case No D2001-1276 (20 December 2001).

³ *ibid.*

⁴ *ibid.*

⁵ Internet Corporation for Assigned Names and Numbers (ICANN), ‘Uniform Domain Name Dispute Resolution Policy’ (ICANN 1999) <<https://www.icann.org/resources/pages/policy-2012-02-25-en>> accessed 21 October 2019 [hereinafter UDRP].

⁶ See ICANN, ‘Second Staff Report on Implementation Documents for the Uniform Dispute Resolution Policy’ (ICANN, 25 October 1999) <<https://archive.icann.org/en/udrp/udrp-second-staff-report-24oct99.htm>> accessed 21 October 2019 [hereinafter ICANN, Second Staff Report]. ICANN adopted the UDRP on the basis of the World Intellectual Property Organization’s Final Report, ‘The Management of Internet Names and Addresses: Intellectual Property Issues’ (World Intellectual Property Organization (WIPO) 1999) [hereinafter WIPO, Final Report], and the recommendations of others, ICANN, Second Staff Report (*ibid.*) para 4.1.a.

⁷ *Sallen v Corinthians Licenciamentos LTDA*, 273 F3d 14 (1st Cir 2001) 16–17 (citing S Rep No 106-140, (1999) 4).

the registration and use of an Internet domain name registered by [the registrant]’.⁸ Under paragraph 4(a) of the Policy, a registrant is

required to submit to a mandatory administrative proceeding in the event that a third party (a ‘complainant’) asserts . . . that

- (i) [the] domain name is identical or confusingly similar to a trademark or service mark in which the complainant has rights; and
- (ii) [the registrant] ha[s] no rights or legitimate interests in respect of the domain name; and
- (iii) [the] domain name has been registered and is being used in bad faith.⁹

In order for the complainant (that is, the party objecting to the registration and use of the domain name) to prevail, it must prove that all of the three elements are present,¹⁰ whereupon an administrative panel of one or three members may order that the domain name be transferred to the complainant or cancelled. These are the only remedies permitted under the Policy.¹¹ Of the UDRP proceedings that result in a panel decision, a significant majority (more than 80 per cent) are rendered in favour of the complainant. As of May 2004, the most recent statistics provided by ICANN showed that in the proceedings that resulted in a panel decision nearly 81 per cent of the subject domain names were transferred to the complainant (80.5 per cent) or cancelled at the request of the complainant (0.4 per cent) and 14.2 per cent of the domain names stayed with the respondent. The remaining decisions were categorised under ‘Split decision’.¹² The statistics are similar for WIPO-administered UDRP cases as of the summer of 2019: 89.13 per cent in favour of the complainant (87.53 per cent transferred; 1.60 per cent cancelled); and 10.87 per cent in favour of the respondent.¹³

ICANN does not itself administer the proceedings, nor does it decide any case.¹⁴ Instead, ICANN assigns the case management to approved dispute resolution service providers. The list of currently approved providers includes the Arab Center for Domain Name Dispute Resolution, the Asian Domain Name Dispute Resolution Centre, the Czech Arbitration Court Arbitration Center for Internet Disputes, the National Arbitration Forum, and WIPO.¹⁵ Each provider maintains a list of panellists, from which it appoints panellists to decide cases on the merits.¹⁶ Panel decisions are not necessarily binding and do not have the force of a judicial ruling. That is, the UDRP does ‘not prevent either [the respondent] or the complainant from submitting the dispute to a court of competent jurisdiction for independent resolution before such mandatory administrative proceeding is commenced or after such proceeding is conclud-

⁸ ICANN, UDRP (n 5) para 1.

⁹ *ibid* para 4(a).

¹⁰ *ibid*.

¹¹ *ibid* para 4(i).

¹² ICANN, ‘Archived Statistical Summary of Proceedings Under Uniform Domain Name Dispute Resolution Policy’ (*ICANN*, 10 May 2004) <<https://archive.icann.org/en/udrp/proceedings-stat.htm>> accessed 21 October 2019.

¹³ WIPO, ‘Case Outcome (Consolidated): All Years, WIPO’ (*WIPO*), <www.wipo.int/amc/en/domains/statistics/decision_rate.jsp?year=>> accessed 21 October 2019.

¹⁴ ICANN, UDRP (n 5), para 4(h).

¹⁵ ICANN, ‘List of Approved Dispute Resolution Service Providers’ (*ICANN*) <www.icann.org/resources/pages/providers-6d-2012-02-25-en> accessed 21 October 2019.

¹⁶ ICANN, ‘Rules for Uniform Domain Name Dispute Resolution Policy’ (*ICANN*, 17 May 2018), <www.icann.org/resources/pages/udrp-rules-2015-03-11-en> accessed 21 October 2019, para 6(a) [hereinafter UDRP Rules].

ed'.¹⁷ Thus, even if the panel decides in favour of the complainant and orders cancellation or transfer of the domain name, ICANN will not implement the panel's decision if the registrant commences a timely court action against the complainant.¹⁸ In practice, however, most registrants against whom a UDRP claim is brought do not participate in the proceeding. As Professor David E Sorkin reported in 2001, 'Default proceedings are commonplace; domain name registrants do not even file a response in one third to one half of all UDRP cases'.¹⁹ Nor do many registrants resort to the courts to challenge the panel's decision.²⁰ As a result, ICANN's implementation of the panel's decision is the final action in the large majority of UDRP proceedings. Ultimately, the Policy provides for a streamlined, efficient and inexpensive method of resolving disputes. The rules require the panel to forward its decision to the provider within 14 days after the panel appointment, except in 'exceptional circumstances'.²¹ As WIPO notes:

The main advantage of the UDRP Administrative Procedure is that it typically provides a faster and cheaper way to resolve a dispute regarding the registration and use of an Internet domain name than going to court. In addition, the procedures are considerably more informal than litigation and the decision-makers are experts in such areas as international trademark law, domain name issues, electronic commerce, the Internet and dispute resolution. It is also international in scope: it provides a single mechanism for resolving a domain name dispute regardless of where the registrar or the domain name holder or the complainant are located.²²

The World Intellectual Property Organization (WIPO), based in Geneva, Switzerland, was the provider and case administrator in *Amazon.com, Inc. v Sung Hee Cho*. (Indeed, WIPO was the first dispute resolution service provider accredited by ICANN and the first to receive cases under the UDRP.²³) The Policy provisions governed. Regarding procedural rules, ICANN's Rules for Uniform Domain Name Dispute Resolution Policy ('UDRP Rules')²⁴ and the WIPO Supplemental Rules for Uniform Domain Name Dispute Resolution Policy ('WIPO Supplemental Rules')²⁵ were in effect. WIPO appointed three panellists to decide the merits of the case: one each from the United States, Korea and New Zealand. The panel issued a divided decision. As further discussed herein, the majority concluded that Amazon.com proved the three elements under paragraph 4(a) of the Policy and ordered the transfer of the domain name

¹⁷ ICANN, UDRP (n 5) para 4(k).

¹⁸ *ibid*.

¹⁹ David E Sorkin, 'Judicial Review of ICANN Domain Name Dispute Decisions' (2001) 18 Santa Clara Computer & High Tech LJ 35, 42. The default rate in WIPO-administered proceedings involving Korean parties is over 70 per cent. Ilhyung Lee, 'The Korea Database: WIPO-Administered UDRP Decisions, the First Fifteen Years (2000–2014)' (2015) 15 Chi-Kent J Intell Prop 261, 309–10.

²⁰ For a list of court actions related to UDRP proceedings, see WIPO, 'Selection of UDRP-Related Court Cases' (WIPO) <www.wipo.int/amc/en/domains/challenged/> accessed 21 October 2019.

²¹ ICANN, UDRP Rules (n 16) para 15(b).

²² WIPO, 'WIPO Guide to the Uniform Domain Name Dispute Resolution Policy' (WIPO) <www.wipo.int/amc/en/domains/guide/> accessed 21 October 2019, pt A [hereinafter WIPO Guide].

²³ *ibid* pt C.

²⁴ ICANN originally approved the rules on 24 October 1999, and later approved amendments on 30 October 2009 and 28 September 2013. See ICANN, UDRP Rules (n 16).

²⁵ WIPO, 'World Intellectual Property Organization Supplemental Rules for Uniform Domain Name Dispute Resolution Policy' (WIPO 31 July 2015) <www.wipo.int/amc/en/domains/supplemental/eudrp/newrules.html#7> accessed 21 October 2019 [hereinafter WIPO Supp Rules].

to the complainant.²⁶ The Korean panellist dissented, stating that Amazon.com failed to satisfy the bad faith element.²⁷

The decision is an introductory example of an extrajudicial resolution of a domain name dispute in the international setting and is similar in some respects to an international arbitration matter. The parties are from different countries and are involved in a dispute relating to an economic interest; legal standards and principles apply in the resolution of the claim. Rather than resorting to the courts (in the country of either party or another country), they seek a decision made by a private, neutral tribunal. The administering organisation appoints three panellists to decide the case. In such cases, decisions are mostly unanimous, but there are occasional dissents.

Although the ICANN-implemented method of resolving disputes over domain names is reminiscent of the arbitration method, the UDRP proceeding is not arbitration, as explained herein. Nevertheless, there are similarities between the two, and indeed, the basics of an international arbitration are reflected in a UDRP proceeding. Given the nature of the internet, its international users, the cybersquatting character of some domain name registrations and use and the need for an efficient method of dispute resolution, perhaps the arbitration-like qualities of the UDRP provide for a capable method. There are of course, some critics of the UDRP.²⁸

The UDRP drafters considered arbitration as the method to resolve domain name disputes, but decided against it.²⁹ The commentary has affirmed that a proceeding under the UDRP is *not* arbitration.³⁰ Moreover, US courts have ruled that for the purposes of the Federal Arbitration Act,³¹ a UDRP decision does not qualify as an arbitration award.³² Yet some commentators,³³

²⁶ *Amazon.com, Inc v Sung Hee Cho*, WIPO Case No D2001-1276 (20 December 2001).

²⁷ *ibid* (Hwang, Pan., dissenting).

²⁸ For a summary, see Zohar Efronia, 'The Anticybersquatting Consumer Protection Act and the Uniform Dispute Resolution Policy: New Opportunities for International Forum Shopping?' (2003) 26 *Colum JL & Arts* 335, 351.

²⁹ WIPO, Final Report (n 6) [234].

³⁰ For example, Ljiljana Biukovic, 'International Commercial Arbitration in Cyberspace: Recent Developments' (2002) 22 *Nw J Int'l L & Bus* 319, 337; A Michael Froomkin, 'ICANN's "Uniform Dispute Resolution Policy" – Causes and (Partial) Cures' (2002) 67 *Brook L Rev* 605, 687; Sorkin (n 19) 41–42; Richard E Speidel, 'ICANN Domain Name Dispute Resolution, the Revised Uniform Arbitration Act, and the Limitations of Modern Arbitration Law' (2002) 6 *J Small & Emerging Bus L* 167, 171–72.

³¹ 9 USC ss 1-16 (2016).

³² For example, *Dluhos v Strasberg*, 321 F3d 365 (3d Cir 2003) 372; *Parisi v Netlearning, Inc*, 139 F Supp 2d 745 (ED Va 2001) 745–46.

³³ For example, Jordan A Arnot, 'Navigating Cybersquatting Enforcement in the Expanding Internet' (2014) 13 *J. Marshall Rev of Intell Prop L* 321, 329–30 ('UDRP is an international arbitration process established by ICANN'; 'UDRP arbitration proceeding'); Stephen McJohn, 'Top Tens of 2013: Patent, Trademark, Copyright, and Trade Secret Cases' (2014) 12 *Nw J Tech & Intell Prop* 177, 197 ('arbitration under the UDRP'); Gideon Parchomovsky, 'On Trademarks, Domain Names, and Internal Auctions' (2001) *U Ill L Rev* 211, 225 ('arbitration under the Uniform Domain Name Dispute Resolution Policy'); Suzanna Sherry, 'Haste Makes Waste: Congress and the Common Law in Cyberspace' (2002) 55 *Vand L Rev* 309, 355 ('4,000 arbitrations under the UDRP'); Allan R Stein, 'Parochialism and Pluralism in Cyberspace Regulation' (2005) 153 *U Pa L Rev* 2003, 2012 ('international arbitration . . . pursuant to the resolution dispute policy of the Internet Corporation for Assigned Names and Numbers'); Jason Vogel and Jeremy A Schachter, 'How Ethics Rules Can Be Used to Address Trademark Bullying' (2013) 103 *Trademark Rep* 503, 507 ('(UDRP), which governs domain name arbitrations in the current gTLD domain system'); Recent Cases, 'Cyberlaw – Trademark Law – WIPO Arbitrators Uphold Conjunctive

courts,³⁴ and UDRP panellists³⁵ have imprecisely referred to the UDRP process as ‘arbitration’. Perhaps there is understandable reason for the confusion. All publicly available UDRP decisions administered by WIPO have at the top of the first page the caption ‘WIPO Arbitration and Mediation Center’. In addition to UDRP proceedings, WIPO provides administration services for arbitration and mediation.³⁶ Another ICANN-approved dispute resolution service provider is the National Arbitration Forum (NAF), whose internet site includes a searchable database for its UDRP decisions under various fields, including ‘Arbitrator’.³⁷ Yet more precisely, the UDRP provides for an administrative proceeding, in contrast to arbitration.³⁸ Then Circuit Judge Sonia Sotomayor emphasised the ‘administrative proceeding’ phrasing and used it throughout her opinion in a case involving a claim under the UDRP.³⁹ To confirm, the Policy specifies that a proceeding brought under it is a ‘mandatory administrative proceeding’ or ‘administrative proceeding’.⁴⁰ The panel that decides the dispute is the ‘Panel’ or ‘Administrative Panel’.⁴¹ The UDRP Rules further define: ‘Panel means an administrative panel appointed by a Provider to decide a complaint concerning a domain-name registration’ and ‘Panelist means an individual appointed by a Provider to be a member of a Panel’.⁴² There are four references to ‘arbitration’ and one to ‘arbitrator’ in the text of the Policy, all directed to a proceeding separate from the UDRP proceeding.⁴³

Black’s Law Dictionary reports that ‘arbitration’ was first used in English in the fifteenth century.⁴⁴ Over time, there have been many meanings. For purposes of the discussion herein, this chapter adopts a definition contained in a previous edition of *Black’s*: ‘The reference of a dispute to an impartial (third) person chosen by the parties to the dispute who agree in advance to abide by the arbitrator’s award issued after a hearing at which both parties have

View of Bad Faith Under the Uniform Domain Name Dispute Resolution Policy’ (2014) 127 Harv L Rev 2130, 2130 and 2133 (‘UDRP, a system of international arbitration’; ‘arbitrations under the UDRP’).

³⁴ For example, *ISystems v Spark Networks, Ltd*, No 10-10905, 2012 WL 3101672 (5th Cir 2012) (per curiam) *3, n 11 (‘arbitration pursuant to the UDRP’; ‘UDRP arbitrations’); *Calista Enters Ltd v Tenza Trading Ltd*, No 3:13-cv-01045-SI, 2014 WL 3670856 (D Or 2014) *1 (‘UDRP arbitration panel’); *Parker Waichman Alonso LLP v Orlando Firm, PC*, No 09 Civ 7401(CM), 2010 WL 1956871 (SDNY 2010) *5 (‘Arbitration decisions governed by the UDRP’); *Olympic Sports Data Servs, Ltd v Maselli, Misc Action*, No 07-117, 2010 WL 310772, (ED Pa 2010) *2 (‘arbitration under the UDRP’); *Bord v Banco de Chile*, 205 F Supp 2d 521 (ED Va 2002) 523 (‘This arbitration procedure mandated by the accreditation agreement is the [UDRP]’).

³⁵ For example, *Swarovski Aktiengesellschaft v Li XiaoLi*, WIPO Case No D2012-1401 (5 September 2012) (referring to ‘[m]any UDR arbitration panelists’); *Hoffmann-La Roche Inc v #1 Viagra Propecia Xenical & More Online Pharm*, WIPO Case No D2003-0793 (30 November 2003) (‘the majority of UDRP arbitration decisions’).

³⁶ WIPO, ‘WIPO Arbitration and Mediation Center’ (WIPO) <www.wipo.int/amc/en/center/background.html> accessed 21 October 2019.

³⁷ FORUM, ‘Domain Name Dispute Proceedings and Decisions’ <www.adrforum.com/SearchDecisions> accessed 21 October 2019.

³⁸ Froomkin (n 30) 687.

³⁹ *Storey v Cello Holdings, LLC*, 347 F3d 370 (2d Cir 2003) 376.

⁴⁰ ICANN, UDRP (n 5) paras 3(c), 4, 4(a), 4(h), 4(k), 5, 8(a) and 8(b).

⁴¹ *ibid* paras 3(c), 4(b), 4(c) and (e)–(k).

⁴² ICANN, UDRP Rules (n 16) para 1.

⁴³ ICANN, UDRP (n 5) paras 5, 8(a) and 8(b).

⁴⁴ Bryan Garner, *Black’s Law Dictionary* (10th edn, Thomson West 2014) xxxi and 125.

an opportunity to be heard.⁴⁵ These elements are evident in the provisions of the US Federal Arbitration Act: section 2 of the Act provides that an arbitration agreement is enforceable; section 4 gives the district court the authority to compel arbitration; section 10 refers to a 'hearing' and also provides the limited grounds on which a court may vacate the award.⁴⁶ The elements of the basic definition most relevant here are (i) the agreement by the parties to resort to the extrajudicial procedure and (ii) the binding nature of the impartial panel's award. These essential aspects of arbitration are not present in the UDRP process.

Foremost, '[a]rbitration can only take place if both parties have agreed to it'.⁴⁷ In a UDRP proceeding, there is no agreement at all between the two parties – the respondent (the registrant of a disputed domain name) and the complainant (who alleges that the registrant's registration of the domain name violates the complainant's trade mark rights).⁴⁸ The only operative agreement is between the registrant and the registrar, in which the registrant agrees, inter alia, to submit a dispute to an administrative proceeding brought by a complainant that is not known at the time of the agreement. The complainant is not a party to the agreement. Some commentators suggest that the UDRP process triggers a form of 'third party beneficiary' arbitration.⁴⁹ But again, this approach departs from the basic definition of arbitration, which requires an agreement between the principals. Moreover, by agreeing to the arbitration method, the parties waive their right of access to the courts for the resolution of their dispute on the merits,⁵⁰ and, in the US jurisdiction, the right to a jury trial.⁵¹ As one commentator observed: 'A valid agreement to arbitrate excludes the jurisdiction of the courts and makes arbitration an exclusive method for dispute resolution.'⁵² Once the parties agree to resort to arbitration and the arbitration panel issues an award, there is no appeal on the merits. Even if the award is challenged in the judiciary, a court may decline to recognise the award or may vacate the award only on very limited grounds. In the international setting, the leading treaty on the recognition and enforcement of foreign arbitral awards provides for the seven grounds on which courts of a contracting party may refuse to enforce an award.⁵³ The grounds for vacating an arbitration

⁴⁵ *Black's Law Dictionary* (5th edn, West 1979) 96. The tenth edition defines arbitration as follows: 'A dispute-resolution process in which the disputing parties choose one or more neutral third parties to make a final and binding decision resolving the dispute . . . The parties to the dispute may choose a third party directly by mutual agreement, or indirectly, such as by agreeing to have an arbitration organization select the third party.' Garner (n 44) 125.

⁴⁶ 9 USC ss 1–16 (2016). The US Supreme Court has ruled that such grounds are exclusive. *Hall Street Assocs v Mattel, Inc.*, 552 US 576 (2008) 578.

⁴⁷ WIPO, 'What Is Arbitration?' (WIPO) <www.wipo.int/amc/en/arbitration/what-is-arb.html> accessed 21 October 2019.

⁴⁸ See Speidel (n 30) 172–73.

⁴⁹ A Michael Froomkin, 'Wrong Turn in Cyberspace: Using ICANN To Route around the APA and the Constitution' (2000) 50 Duke LJ 17, 135. See Benjamin G Davis, 'Une Magouille Planétaire: The UDRP Is an International Scam' (2002) 72 Miss LJ 815, 862 fn74; Froomkin (n 30) 612.

⁵⁰ *Belom v Nat'l Futures Ass'n*, 284 F3d 795 (7th Cir 2002) 799 (citing *Commodity Futures Trading Comm'n v Schor*, 478 US 833 (1986) 848; *Marsh v First USA Bank, NA*, 103 F Supp 2d 909 (ND Tex 2000) 921; Cynthia L Estlund, 'Between Rights and Contract: Arbitration, Agreements and Non-Compete Covenants As a Hybrid From of Employment Law' (2006) 155 U Pa L Rev 379, 381.

⁵¹ For example, *Marsh* (n 50); *In re Prudential Ins Co of Am*, 148 SW3d 124 (Tex 2004) 132.

⁵² Nilanjana Chatterjee, 'Arbitration Proceedings under ICANN's Uniform Domain Name Dispute Resolution Policy – Myth or Reality?' (2006) 10 Vindobona J Int'l Com L & Arb 67, 84–85.

⁵³ Convention on the Recognition and Enforcement of Foreign Arbitral Awards, 10 June 1958, 21 UST 2517, 330 UNTS 3 [hereinafter New York Convention] art V.

award under the international arbitration model law are likewise quite limited.⁵⁴ Perhaps the consequences of the arbitration method explain the requirement that the effecting arbitration agreement between the parties be in writing.⁵⁵

To emphasise, a UDRP panel's decision on the merits is not binding,⁵⁶ or, more technically, there is no agreement between the parties that the decision will be binding. As indicated above, even if the panel decides in favour of the complainant and orders a transfer or cancellation of the domain name, the respondent may avoid ICANN's implementation of the panel decision by bringing an action in court.⁵⁷ Indeed, either party may ignore the UDRP proceeding altogether and seek resolution in the courts before, during or after the proceeding: 'Unlike traditional binding arbitration proceedings, UDRP proceedings are structured specially to permit the domain-name registrant two bites at the apple.'⁵⁸

The current edition of *Black's* has an entry for 'nonbinding arbitration'.⁵⁹ The phrase has been used to describe a UDRP proceeding.⁶⁰ But the term is a 'misnomer . . . because arbitration is usu[ally] intended to result in a final, binding award'.⁶¹ Except for the rare situation where the parties agree to disregard the arbitration award and instead agree on a settlement (with party autonomy reigning supreme), an arbitration by definition cannot be nonbinding.

Even though the UDRP procedure does not fit within the traditional definition of arbitration, there are important similarities between a UDRP proceeding and arbitration.⁶² Foremost and fundamentally, both offer an extrajudicial method to resolve a dispute over a commercial interest as an alternative to adjudication in the courts. There is also often an international component in many UDRP and arbitration proceedings, when the parties are of different nationalities, cultures and languages. The UDRP proceeding (as with some arbitration matters) involves an institutional case manager,⁶³ who oversees the conduct of the proceeding under specified rules and guidelines. In addition, several features of the UDRP procedure appear to be borrowed from the international arbitration model, especially relating to the panels (and individual panellists) that decide the dispute. Specifically, these features address: (1) the panellists' qualifications; (2) the panellists' required disclosures before and after appointment; (3) the number of panellists comprising the panel; (4) party involvement in the selection of panellists; (5) the role of the presiding panellist (or chair); (6) the nationality of the panellists; and (7) the powers and authority of the panels during the proceeding. These characteristics are addressed in order.

⁵⁴ UNCITRAL Model Law on International Commercial Arbitration, GA Res 40/72, UN Doc A/40/17/Annex I and A/61/17/Annex I (21 June 1985) art 34(2).

⁵⁵ New York Convention (n 53) art II(1); Federal Arbitration Act, 9 USC s 2 (2016).

⁵⁶ See Sorkin (n 19) 42; Speidel (n 30) 174–75.

⁵⁷ ICANN, UDRP (n 5) para 4(k).

⁵⁸ *Storey v Cello Holdings, LLC*, 347 F3d 370 (2d Cir 2003) 381.

⁵⁹ Garner (n 44) 126.

⁶⁰ For example, *Bord v Banco de Chile*, 205 F Supp 2d 521 (ED Va 2002) 523; Sherry (n 33) 354; Stephen J Ware, 'Domain-Name Arbitration in the Arbitration-Law Context: Consent to, and Fairness in, the UDRP' (2002) 6 J Small & Emerging Bus L 129, 149.

⁶¹ Garner (n 44) 126.

⁶² See Holger P Hestermeyer, 'The Invalidity of ICANN's UDRP under National Law' (2002) 3 Minn Intell Prop Rev 1, 44; Julia Hörnle, 'The Uniform Domain Name Dispute Resolution Procedure: Is Too Much of a Good Thing a Bad Thing?' (2008) 11 SMU Sci & Tech L Rev 253, 254.

⁶³ In arbitration, the parties may agree to craft the procedures of the arbitration themselves (ad hoc arbitration), or to abide by the rules and practices of an administering organization (institutional arbitration). See generally Gerald Aksen, 'Ad Hoc Versus Institutional Arbitration' (1991) 2 ICC IC Arb Bull 8.

- (1) Regarding the qualifications of tribunal members, the major international arbitral organisations impose a basic requirement that every arbitrator be ‘impartial and independent’.⁶⁴ The UDRP Rules repeat this same phrasing for the administrative panel.⁶⁵ WIPO offers that its panellists are ‘well-reputed for their impartiality, sound judgement and experience as decision-makers, as well as their substantive experience in the areas of intellectual property law, electronic commerce and the Internet’.⁶⁶
- (2) A prospective arbitrator must disclose any circumstances that might give rise to ‘justifiable doubts’ as to her impartiality or independence.⁶⁷ Some organisations add that such doubt or question should be considered in ‘the eyes’⁶⁸ or ‘the mind’⁶⁹ of the parties. A UDRP panellist is likewise under a duty to disclose ‘any circumstances giving rise to justifiable doubt as to the Panelist’s impartiality or independence’,⁷⁰ to which WIPO practice adds that the question of independence be considered ‘in the eyes of one or both of the parties’.⁷¹
- (3) With respect to the number of arbitrators, the rules of most administering organisations provide that a single arbitrator will preside over the arbitration, unless the parties agree on a different number, or the organisation in its discretion determines that a three-member tribunal is necessary.⁷² In a UDRP proceeding, a sole panellist decides the case,⁷³ unless either the complainant or the respondent elects to have the dispute decided by a panel with three members.⁷⁴

⁶⁴ American Arbitration Association, *International Arbitration Rules* (2014), art 13(1) [hereinafter AAA Rules]; International Chamber of Commerce, *Arbitration Rules* (2012) art 11(1) [hereinafter ICC Rules]; London Court of International Arbitration, *Arbitration Rules* (2014), art 5.3 [hereinafter LCIA Rules]. The United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules, the leading rules for ad hoc arbitrations, provide: ‘The appointing authority shall have regard to such considerations as are likely to secure the appointment of an independent and impartial arbitrator.’ General Assembly, ‘United Nations Commission on International Trade Law Rules on Transparency in Treaty-based Investor-State Arbitration and Arbitration Rules’ A/RES/68/109 (16 December 2013) [hereinafter UNCITRAL Rules].

⁶⁵ ICANN, UDRP Rules (n 16) para 7.

⁶⁶ WIPO, ‘WIPO Domain Name Panelists’ (*WIPO*) <www.wipo.int/amc/en/domains/panel.html> accessed 21 October 2019. See also WIPO, WIPO Guide (n 22) pt E (‘The persons appearing on the WIPO Center’s list of Domain Name Panelists have been selected on the basis of their well-established reputation for their impartiality, sound judgment and experience as decision-makers, as well as their substantive experience in the areas of international trademark law, electronic commerce and Internet-related issues’).

⁶⁷ AAA Rules (n 64) art 13(2); LCIA Rules (n 64) art 5.4; UNCITRAL Rules (n 64) art 11. See ICC Rules (n 64) art 11(2) (requiring disclosure of ‘any facts or circumstances which might be of such a nature as to call into question the arbitrator’s independence in the eyes of the parties, as well as any circumstances that could give rise to reasonable doubts as to the arbitrator’s impartiality’).

⁶⁸ ICC Rules (n 64) art 11(2).

⁶⁹ LCIA Rules (n 64) art 5.4.

⁷⁰ ICANN, UDRP Rules (n 16) para 7. The duty to disclose is a continuing one: *ibid*.

⁷¹ WIPO, ‘Statement of Acceptance and Declaration of Impartiality and Independence’ (*WIPO*, 14 December 2009) <www.wipo.int/amc/en/domains/statement/panel.html> accessed 21 October 2019.

⁷² AAA Rules (n 64) art 11; ICC Rules (n 64) art 12(2); LCIA Rules (n 64) art 5.8. See UNCITRAL Rules (n 64) art 7.

⁷³ ICANN, UDRP Rules (n 16) para 6(b).

⁷⁴ *ibid* para 6(c).

- (4) In an arbitration, if a single arbitrator is to decide the dispute, the administering organisation appoints the arbitrator, unless the parties agree on a different procedure.⁷⁵ In a UDRP proceeding, the provider appoints a single panellist from its list of approved panellists.⁷⁶ Where an arbitration agreement provides for three arbitrators, some arbitral organisations allow each party to nominate one of the arbitrators.⁷⁷ In a UDRP proceeding with a three-member panel, there is also party involvement in the selection of the panellists – each party is to provide a list of three candidates, ‘drawn from any ICANN-approved Provider’s list of panellists’, to serve as one of the panelists.⁷⁸ The rules also state that the provider ‘shall endeavor’ to appoint one panellist from the list of candidates provided by each of the parties.⁷⁹
- (5) In an arbitration with three arbitrators, one of the arbitrators serves as the chair or presiding arbitrator of the tribunal. This is of practical significance in that she, as first among equals, serves a leading role in the conduct of the arbitration, may vote to break ties when the party-nominated arbitrators disagree,⁸⁰ and takes on the principal responsibility of drafting the resulting award. The rules of one administering organisation provide that it will select the president of the arbitral tribunal unless the parties have agreed on another procedure.⁸¹ Another method seen in practice is for the two party-appointed arbitrators to select the presiding arbitrator.⁸² For proceedings under the UDRP, ‘The third Panelist shall be appointed by the Provider from a list of five candidates submitted by the Provider to the Parties, the Provider’s selection from among the five being made in a manner that reasonably balances the preferences of both Parties, as they may specify to the Provider’.⁸³ ICANN’s UDRP documents do not specify the role or the title of the third panellist, but the WIPO Supplemental Rules provide that the third panellist ‘shall be the Presiding Panelist’.⁸⁴

⁷⁵ AAA Rules (n 64) arts 12(1) and (6); ICC Rules (n 64) art 12(3); UNCITRAL Rules (n 64) art 8(1). The LCIA takes a different approach: ‘No party or third person may appoint any arbitrator under the Arbitration Agreement: the LCIA Court alone is empowered to appoint arbitrators (albeit taking into account any written agreement or joint nomination by the parties).’ LCIA Rules (n 64) art 5.7.

⁷⁶ ICANN, UDRP Rules (n 16) para 6(b).

⁷⁷ ICC Rules (n 64) art 12(4); LCIA Rules (n 64) art 5.8; see UNCITRAL Rules (n 64) art 9(1) (‘If three arbitrators are to be appointed, each party shall appoint one arbitrator’).

⁷⁸ ICANN, UDRP Rules (n 16) paras 3(b)(iv), 5(b)(v) and 6(d). The WIPO Supplemental Rules add that the party must indicate its order of preference. WIPO Supp Rules (n 25) para 8(a).

⁷⁹ ICANN, UDRP Rules (n 16) para 6(e). The WIPO Supplemental Rules state that in appointing a panellist in this situation, WIPO ‘shall, subject to availability, respect the order of preference indicated by a Party’. WIPO Supp Rules (n 25) para 8(a). In the event that a provider is unable to confirm timely the appointment of a panellist from either party’s list of candidates, ‘the Provider shall make that appointment from its list of panellists’. ICANN, UDRP Rules (n 16) para 6(e). Also, if the complainant elects to have a three-member panel and the respondent defaults, WIPO ‘shall, subject to availability, appoint one Panelist from the names submitted by the Complainant and shall appoint the second Panelist and the Presiding Panelist from its published list’. WIPO Supp. Rules (n 25) para 8(c)(ii).

⁸⁰ See ICC Rules (n 64) art 31(1); LCIA Rules (n 64) art 26.5; UNCITRAL Rules (n 64) art 33(2).

⁸¹ ICC Rules (n 64) art 12(5).

⁸² UNCITRAL Rules (n 64) art 9(1).

⁸³ ICANN, UDRP Rules (n 16) para 6(e).

⁸⁴ WIPO Supp Rules (n 25) para 8(b)(i).

- (6) Where an arbitration involves opposing parties from different countries, the nationality of the arbitrator deciding the case is of some moment.⁸⁵ Most arbitral rules address the nationality of the parties or arbitrators explicitly.⁸⁶ Some provide that where the parties are of different nationalities, the sole panellist or the chair must be of a nationality other than those of the parties, unless the parties agree otherwise.⁸⁷ Given that many disputes under the UDRP involve parties from different countries, perhaps it is surprising that the Policy, the UDRP Rules and the WIPO Supplemental Rules do not specifically mention the nationality of the parties or panellists. WIPO does note that its list of panellists ‘is international, consisting of some 400 Panelists from over 50 countries, many of whom are multi-lingual’.⁸⁸ Especially because some proceedings involve more than one language,⁸⁹ it is likely that the nationality of the parties and prospective panellists is taken into account when providers appoint individual panellists. In a UDRP proceeding where the complainant and respondent are from different countries, a three-member panel whose composition includes both nationalities will contribute to party confidence in the system.
- (7) Once appointed, the arbitrator has wide discretion in conducting the arbitration.⁹⁰ In contrast to the arbitrator, the tasks of the UDRP panellist are more circumscribed, especially given that generally the proceeding does not allow for discovery (of the type seen in US civil actions) or in-person hearings.⁹¹ Yet the UDRP panel has similar discretion and authority to ‘conduct the administrative proceeding in such manner as it considers appropriate in accordance with the Policy and these Rules’⁹² and ‘determine the admissibility, relevance, materiality and weight of the evidence’.⁹³ Toward a decision, the panel may consider, in addition to the party submissions and the UDRP documents, ‘any rules and principles of law that it deems applicable’.⁹⁴

⁸⁵ See generally Ilhyung Lee, ‘Practice and Predicament: The Nationality of the International Arbitrator’ (2008) 31 *Fordham Int’l LJ* 603.

⁸⁶ For example, AAA Rules (n 64) art 12(4) (‘At the request of any party or on its own initiative, the Administrator may appoint *nationals* of a country other than that of any of the parties’); ICC Rules (n 64), art 13(1) (‘In confirming or appointing arbitrators, the [ICC] shall consider the prospective arbitrator’s *nationality*, residence and other relationships with the countries of which the parties or the other arbitrators are *nationals* . . .’) (emphasis added); see UNCITRAL Rules (n 64) art 6.7 (‘The appointing authority . . . shall take into account the advisability of appointing an arbitrator of a *nationality* other than the *nationalities* of the parties’) (emphasis added).

⁸⁷ ICC Rules (n 64) art 13(5); LCIA Rules (n 64) art 6.1.

⁸⁸ WIPO Guide (n 22) pt E (‘E. Who Are the Panelists’). See WIPO Domain Name Panelists (n 66) (‘WIPO panelists come from different regions of the world’).

⁸⁹ The UDRP Rules address the matter of the language of the proceeding. ICANN, UDRP Rules (n 16) para 11.

⁹⁰ AAA Rules (n 64) art 20(1); LCIA Rules (n 64) art 14.5.

⁹¹ Paragraph 13 of the UDRP Rules states: ‘There shall be no in-person hearings (including hearings by teleconference, videoconference, and web conference), unless the Panel determines, in its sole discretion and as an exceptional matter, that such a hearing is necessary for deciding the complaint.’ ICANN, UDRP Rules (n 16) para 13.

⁹² *ibid* para 10(a).

⁹³ *ibid* para 10(d).

⁹⁴ *ibid* para 15(a).

The similarities between arbitration and the UDRP proceeding continue to the decision stage. A decision by any three-member tribunal requires deliberations within the collective body. UDRP decisions are no exception. Like the rules of most arbitral organisations, the Policy, the UDRP Rules and the WIPO Supplemental Rules do not provide any mention of, or guidance on, the panel's internal deliberations. As with many arbitration cases involving multi-member panels, the manner and extent of the UDRP panel's deliberation is entirely up to its members. Because UDRP proceedings generally have no in-person hearings, internal deliberations will most likely be by electronic means. Given the international composition of many UDRP panels, deliberations would be necessary especially where party submissions and portions of the case record are in a language in which an individual panellist may not have proficiency, requiring summaries of translations or similar assistance by another member of the panel with proficiency in that language.

With respect to the tribunal's ultimate decision, the rules of the leading arbitral organisations require that the award be in writing and state the reasons upon which the award is based.⁹⁵ These rules also acknowledge the possibility of a divided vote and decision by a majority.⁹⁶ Identical provisions appear in the UDRP Rules: 'The Panel's decision shall be in writing, provide the reasons on which it is based',⁹⁷ and '[i]n the case of a three-member Panel, the Panel's decision shall be made by a majority'.⁹⁸ While some arbitration administering organisations do not address explicitly the matter of a separate opposing opinion, the UDRP framework contemplates the possibility of the dissenting opinion and addresses it squarely: 'Panel decisions and dissenting opinions shall normally comply with the guidelines as to length set forth in the Provider's Supplemental Rules. Any dissenting opinion shall accompany the majority decision.'⁹⁹ The UDRP prescription that a dissenting opinion 'shall accompany the majority decision' is perhaps included in light of the general understanding in arbitration that a dissenting opinion is not part of the award.¹⁰⁰ The UDRP rule avoids the (one hopes) rare situation in arbitration where the dissenting opinion surfaces after the award is issued, sometimes without the knowledge of the majority or the administering organisation, when the dissenter reveals the opinion to the losing party.

In international arbitration, there has been significant discussion regarding the utility of dissenting opinions.¹⁰¹ Alan Redfern, among others, is critically opposed to the practice:

⁹⁵ AAA Int'l Rules (n 7) art 30(1); ICC Rules (n 64) art 31(2); LCIA Rules (n 64) art 26.2. See UNCITRAL Rules (n 64) art 34(2) and (3). Some organisations provide that the parties may agree that no reasons are to be given. AAA Int'l Rules (n 64) art 30(1); LCIA Rules (n 64) art 26.2. See UNCITRAL Rules (n 64) art 34(3).

⁹⁶ AAA Int'l Rules (n 64) art 29(2); ICC Rules (n 64) art 31(1); LCIA Rules (n 64) art 26.5. See UNCITRAL Rules (n 64) art 33(1). Some rules provide that where there is no majority, the president or presiding arbitrator makes the decision. ICC Rules (n 64) art 31(1); LCIA Rules (n 64) art 26.5.

⁹⁷ ICANN, UDRP Rules (n 16) para 15(d).

⁹⁸ *ibid* para 15(c).

⁹⁹ *ibid* para 15(e).

¹⁰⁰ Alan Redfern and Martin Hunter, *Law and Practice of International Commercial Arbitration* 389 (4th edn, Sweet & Maxwell 2004) 389; Peter J Rees QC and Patrick Rohn, 'Dissenting Opinions: Can They Fulfil a Beneficial Role?' (2009) 25 *Arb Int'l* 329, 333.

¹⁰¹ For a summary, see Ilhyung Lee, 'Introducing International Commercial Arbitration and Its Lawlessness, by Way of the Dissenting Opinion' (2011) 4 *Contemp Asia Arb J* 19, and citations therein.

[F]irst, . . . they may inhibit that open discussion which ought to take place secretly and within the confines of the arbitral tribunal. Secondly, . . . they may cast doubts on the correctness or validity of the award made by the majority. Thirdly, . . . they do not serve to advance the development of the law, since there is no doctrine of precedence in arbitrations and, in general no appeal against the award of an arbitral tribunal and no open publication of that tribunal's award.¹⁰²

Others argue that a proper dissent can be beneficial. For example, American jurist and former judge of the Iran–United States Claims Tribunal Richard M Mosk wrote that dissenting, as well as concurring, opinions should be permitted in international arbitration, because they can be ‘influential’ and ‘a source of legal reasoning’.¹⁰³ Although the UDRP process borrows much from the arbitration method, given some of the differences between the two (mainly that the UDRP decision is not necessarily binding), the reasons for opposing a dissent in arbitration do not transfer perfectly to the UDRP setting. With respect to WIPO-administered decisions particularly, note the provider's understanding that

with UDRP decisions covering a multitude of facts and arguments, genuine differences of opinion may be difficult to avoid on particular issues, all the more so where panelists and parties come from a multitude of jurisdictions. Moreover, these opinions must be formed in the context of a rapidly evolving Domain Name System and Internet.¹⁰⁴

WIPO also notes that although ‘[t]he UDRP does not operate on a strict doctrine of precedent’¹⁰⁵ and prior decisions are not binding on panellists,¹⁰⁶ the organisation apparently desires to ‘maximize the consistency’ of the UDRP system,¹⁰⁷ one that operates in a ‘predictable manner for all parties’.¹⁰⁸ As one commentator noted, ‘[T]he UDRP has in effect given rise to a new system of *international common law*, with panelists increasingly citing to, and relying upon, previous UDRP decisions’.¹⁰⁹ Over time, ‘consensus or clear majority views’¹¹⁰ may

¹⁰² Alan Redfern, ‘The 2003 Freshfields Lecture – Dissenting Opinions in International Commercial Arbitration: The Good, the Bad, and the Ugly’ (2004) 20 *Arb Int'l* 223, 240; see Redfern and Hunter (n 100) 391–92.

¹⁰³ Richard M Mosk, ‘The Debate Over Dissenting and Concurring Opinions in International Arbitration’ (1995) 26 *UWLA L Rev* 51, 53–54. See also Richard M Mosk and Tom Ginsburg, ‘Dissenting Opinions in International Arbitration’, in Matt Tupamäki (ed) *Liber Amicorum Bengt Broms: Celebrating His 70th Birthday* (Finnish Branch of the International Law Association 1999) 259, 283 (‘Dissenting opinions can improve the legitimacy and performance of international arbitration, and thus offer significant benefits that offset the risks posed’).

¹⁰⁴ WIPO, ‘WIPO Overview of WIPO Panel Views on Selected UDRP Questions, Second Edition’ (WIPO) <www.wipo.int/amc/en/domains/search/overview2.0/> accessed 21 October 2019 [hereinafter WIPO Overview 2.0] (prefatory text). A revised third edition became available in 2017: <www.wipo.int/amc/en/domains/search/overview3.0/> accessed 21 October 2019.

¹⁰⁵ *ibid* para 4.1 (‘What deference is owed to past UDRP decisions dealing with similar factual matters or legal issues?’)

¹⁰⁶ *ibid* (prefatory text).

¹⁰⁷ *ibid*.

¹⁰⁸ *ibid* para 4.1 (‘What deference is owed to past UDRP decisions dealing with similar factual matters or legal issues?’) [P]redictability remains a key element of dispute resolution systems’: *ibid* (prefatory text).

¹⁰⁹ Sorkin (n 19) 43 (citing David G Post, ‘Juries and the UDRP’ (*ICANN Watch*, 6 September 2000), <www.icannwatch.org/archive/juries_and_the_udrp.htm> (emphasis added)).

¹¹⁰ WIPO Overview 2.0 (n 104) (prefatory text).

emerge. Along the way, well-reasoned dissenting statements by individual panellists may provoke thought and prompt deliberative discussion within the international pool of panellists, and perhaps serve as the basis for sound majority rules in the future.

With the above background in place, we return to the decision that opened this chapter – *Amazon.com, Inc. v Sung Hee Cho*.¹¹¹ There, the complainant was Amazon.com, the US company that operates ‘an Internet website <amazon.com> that permits persons around the world to purchase books and other merchandise including motor vehicles on-line’.¹¹² The panel noted that ‘[s]tudies by Internet monitors have identified the <amazon.com> as one of the most frequently visited sites on the Internet’.¹¹³ The complainant had registered the ‘AMAZON.COM’ mark in 70 countries, including Korea.¹¹⁴ Amazon.com objected to the Korean respondent’s registration of the domain names <amazoncar.com> (which was used for ‘a Korean language website that offers to rent or lease Hyundai & Kia automobiles’) and <amazonecar.com> (which did not resolve to a website).¹¹⁵ The respondent did not file a response. The panel – comprised of M Scott Donahey (USA); the Honorable Sir Ian Barker QC (New Zealand), as the presiding panellist; and Boh Young Hwang (Republic of Korea) – unanimously determined that the domain names were confusingly similar to the complainant’s mark and that the respondent had no right or legitimate interest in the domain name.¹¹⁶ Regarding the bad faith element, the majority of the panel wrote:

[I]t strains belief that the Respondent did not know of the Complainant’s mark and reputation at the time of registration. The inference that there has been a crude attempt by the Respondent to capitalize on the Complainant’s reputation as a worldwide vendor on the Internet is inescapable. It is thus easy to infer that the Respondent in bad faith is attempting to divert to his website Internet users who may think the website has some connection with the Complainant.¹¹⁷

Panellist Hwang dissented.¹¹⁸ Although she agreed with the majority on the first two elements of paragraph 4(a), she stated that the complainant failed to prove that the domain names were registered and used in bad faith, and thus would have denied the complaint.¹¹⁹ The crux of the dissenting view appears to be that even though the complainant’s trademark was ‘famous worldwide’, especially for its business of internet book sales, there was no evidence that the mark was well known for car-related products or services.¹²⁰ Panellist Hwang noted that the respondent’s website for <amazoncar.com> was used only for a car rental service and presented only ‘in the local language of the country which the Respondent is targeting for its business purposes’.¹²¹ In contrast to the majority’s conclusion on the respondent’s intent in selecting the domain name, the dissent expressed a fundamentally different view: ‘Except

¹¹¹ WIPO Case No D2001-1276 (20 December 2001).

¹¹² *ibid.*

¹¹³ *ibid.*

¹¹⁴ *ibid.*

¹¹⁵ *ibid.*

¹¹⁶ *ibid.*

¹¹⁷ *ibid.*

¹¹⁸ Until her untimely passing in 2009, Panellist Hwang was the most prolific Korean author of WIPO-administered UDRP decisions.

¹¹⁹ *Sung Hee Cho*, WIPO Case No D2001-1276 (Hwang, Pan, dissenting).

¹²⁰ *ibid.*

¹²¹ *ibid.*

for the Complainant's use of the word "amazoncar", the reiteration of its domain name and its trade name, nowhere in the Complaint is any indication that the Respondent registered or is using the domain names and the word "amazon" for the purpose of capitalizing on the Complainant's reputation.'¹²² In urging that the complainant should be required to present 'more concrete evidence of bad faith', Hwang referred to the geographic and generic nature of the domain name: 'The name "Amazon" is the name of the famous river which runs through the South American Continent and it is within the general knowledge of the public', and '[t]he term "car" refers to a general commodity used in our everyday life which is the subject of trade in various transactions worldwide'.¹²³

Ultimately, the dispute between trademark holder Amazon.com and the Korean registrant of the domain name containing 'amazon' was resolved under the UDRP, a method that has many characteristics of an arbitration in the international setting. Perhaps some of the advantages of arbitration over court adjudication – including expertise by a neutral tribunal, no appeal on the merits, limited discovery and a less costly and time consuming procedure¹²⁴ – are also evident in a UDRP proceeding. The UDRP method in *Amazon.com, Inc. v Sung Hee Cho* did not yield an arbitration result in that it did not produce a binding award. Instead, the panel issued its decision in favour of the complainant exactly two months after Amazon.com filed its claim alleging infringement of its protected mark. The Korean company did not challenge the panel's decision in court, and the case concluded.

¹²² *ibid.*

¹²³ *ibid.*

¹²⁴ Christian Bühring-Uhle and others, *Arbitration and Mediation in International Business* (2nd edn), Kluwer Law International 2006) 107–08.

20. Metatags ‘using’ third party trade marks on the Internet

David Llewelyn and Prashant Reddy T.

1. INTRODUCTION

With the exponential growth in importance of the internet as a platform for sales, advertising and communication, the issue of trade mark infringement has arisen both in disputes related to cybersquatting on domain names and in those involving use of a third party’s trade mark online. A subset of the latter is the use of trade marks as ‘metatags’ for webpages. Although there has been relatively little litigation on this issue when compared to that of use of trade marks as domain names or as Google AdWords, it raises fundamental questions since the metatags containing a word protected as a trade mark by some third parties are not visible to the human eye.

The initial question, then, is whether such invisible use is sufficient to constitute ‘use’ for the purposes of trade mark law. Somewhat surprisingly, courts in different jurisdictions have found this difficult to answer definitively. This may be partly to do with the fact that more often than not the metatag issue is only one of a number of claims raised in a trade mark infringement action and does not attract the same attention as other claims, which are perhaps easier to fit within the traditional framework of trade mark law and theory. As a result, there is a disquieting degree of confusion and lack of clarity in the reasoning of courts as to whether metatag use is an activity that engages, and may be restrained by, trade mark law. This chapter seeks to cast some light on the question by surveying metatag related litigation in Australia, Canada, Germany, India, New Zealand, the United Kingdom and the United States.

2. WHAT ARE METATAGS?

The phrase ‘metatags’ was originally a term of art from the computer language hypertext markup language (HTML). This is the building block of most webpages on the internet. ‘Metatags’ in the context of HTML refers to certain hidden descriptive identifiers or keywords embedded in the source code of a webpage.¹ Although there are different types of metatags, such as title metatags, description metatags and keyword metatags, this chapter will focus only on the last of these, as keyword metatags are the class of metatags that has generated most of the litigation.

Keyword metatags comprise words which, in the opinion of the webpage owner (through the medium of the person designing it), best describe the contents of the website. Although not visible to humans on the webpage itself, these ‘metatags’ are readable by computer programs,

¹ See generally Sham Bhangai and Tomasz Jankowski, *Foundation Web Design* (Apress 2013) 33–35.

and it was thought for a long time (from an internet perspective) that search engines would use them to match search queries by users and generate appropriate search results.² A key point to note at this juncture is that even according to this understanding, metatags influenced only the ‘organic’ or ‘natural’ search results that are returned in response to a search query. This is unlike the ‘AdWords’ programs operated by Google, which influence only paid or sponsored advertisements that appear alongside the ‘natural’ or ‘organic’ search results, but which are usually presented in a different format to inform readers that they are sponsored links.³ That users are actually able to distinguish the ‘organic’ search results from the sponsored advertisements is a debatable proposition and will depend on a number of factors, such as the manner of presentation of information by the internet search engine and the sophistication of the target population to online advertising practices.

Since metatags are provided by the webpage owners, they tend to be self-laudatory and do not provide the most accurate description of the website’s contents. Very often such metatags include words that may be registered as trade marks by third parties, with the aim of trying to benefit from the goodwill of a better known brand. However, given the inherent unreliability of metatags, some search engines, such as Google, have developed algorithms which supposedly do not place any reliance whatsoever on metatags provided by the webpage owner while indexing a website and deciding its ranking in the ‘organic’ search results. Google explained this policy in an announcement made in 2009:

Q: Why doesn't Google use the keywords ‘meta tag’?

A: About a decade ago, search engines judged pages only on the content of web pages, not any so-called ‘off-page’ factors such as the links pointing to a web page. In those days, keyword meta tags quickly became an area where someone could stuff often-irrelevant keywords without typical visitors ever seeing those keywords. Because the keywords meta tag was so often abused, many years ago Google began disregarding the keywords meta tag.⁴

However, despite the predominance of Google as a search engine in many parts of the world, this does not mean that metatags are of no practical relevance to trade mark law. Other search engines, such as Microsoft’s Bing and Google’s video platform YouTube, appear still to depend on metatags to a limited extent, since both platforms have policies in place to punish the use of false or misleading metatags. YouTube states clearly in its support policies that ‘Metadata is information about your video, such as the video title, description, tags, and annotations. Metadata helps users find your video when they search for something on YouTube.’ It also warns users that if ‘metadata includes names or words unrelated to your video, you may receive a strike and your video will be removed’.⁵ Similarly, there are reports which state that Microsoft’s Bing does place some kind of reliance on metatagging while formulating

² See generally Dan McCuaig, ‘Halve the Baby: An Obvious Solution to the Troubling Use of Trademarks as Metatags’ [1999–2000] 18 J Marshall J Computer & Info L 643, 645–47.

³ See R Burrell and M Handler, ‘Keyword Advertising and Actionable Consumer Confusion’ in ch 21 of this volume. Financial Times Lexicon, ‘Definition of Sponsored Search Advertising’ <<http://lexicon.ft.com/Term?term=sponsored-search-advertising>> accessed 12 October 2019.

⁴ Matt Cutts, ‘Google Does Not Use the Keywords Meta Tags in Web Ranking’ (*Google Webmaster Central Blog*, 21 September 2009) <<https://webmasters.googleblog.com/2009/09/google-does-not-use-keywords-meta-tag.html>> accessed 12 October 2019.

⁵ YouTube Help, ‘Best Practices for Metadata’ <<https://support.google.com/youtube/answer/7002331?hl=en>> accessed 12 October 2019.

its search results.⁶ The extent to which the metatags are of relevance to both platforms will never be completely known, as the workings of proprietary search algorithms are usually kept strictly confidential (or, in American parlance, are a trade secret).⁷ The Chinese search engine Baidu reportedly still uses metatags for search engine rankings.⁸

Unfortunately, this factual position is often missed during the course of trade mark litigation related to metatags. Lawyers, litigants and judges often appear to presume that metatags are relevant to search engines. Likewise, they often seem to presume that metatags are relevant from the fact that the offending websites, which have used the plaintiff's trade marks as metatags, display themselves in the top rankings of the search engine's results. That is, however, no proof that the metatags actually worked. The results could have been influenced by many other factors, most of which search engines will never reveal so as to prevent users from trying to game the results of a search.

The limited and decreasing dependence of search engines on metatags is perhaps one of the reasons why the use of trade marks in metatags has been raised in comparatively few actions when compared with other online activities using third party trade marks. On the other hand, the few cases that have been litigated on this point have raised interesting questions that go to the heart of trade mark law.

3. TRADE MARKS AS METATAGS – IS THIS USE OF A TRADE MARK?

One of the first steps in establishing trade mark infringement is to demonstrate that the trade mark in question has in fact been 'used' by the alleged infringer: the whole basis of the cause of action is the illegitimate 'use' of another's mark. Only after 'use' of the trade mark is established by the proprietor of the trade mark will the infringement analysis move on to the legitimacy of what has been done.

The threshold for 'using' a trade mark can be crossed in many different ways. The most common is where the trade mark at issue is simply affixed to a product or is advertised in relation to certain products or services. Once a trade mark is displayed in conjunction with any goods or services, and is being used to communicate information as to the trade source, it is presumed to be used for the purposes of trade mark law. The infringement analysis that ensues considers similarity of goods/services, likelihood of confusion, etc.

In most cases of trade mark infringement, the use of the mark or sign by the defendant is visual or aural and it is relatively easy to establish that it has been 'used' as required for trade mark law to be engaged at the outset. The challenge with metatags on the internet is that they are not usually visible to the average internet user. Theoretically, it is possible for an expert to

⁶ Danny Sullivan, 'The Meta Keywords Tag Lives at Bing and Why Only Spammers Should Use It' (*Search Engine Land*, 14 October 2011) <<http://searchengineland.com/the-meta-keywords-tag-lives-at-bing-why-only-spammers-should-use-it-96874>> accessed 12 October 2019.

⁷ Maura Stouffer, 'Search Engine Optimization – A Search Engine's Perspective' (*Visibility*, 20 July 2009) <www.visibilitymagazine.com/search-engine-optimization-a-search-engines-perspective/> accessed 12 October 2019.

⁸ Harrison Jones, 'The B2B Marketer's Guide to Baidu SEO' (*Search Engine Land*, 2 January 2014) <<http://searchengineland.com/the-b2b-marketers-guide-to-baidu-seo-180658>> accessed 12 October 2019.

access the source code of the webpage and view the third party trade marks that have been used by the proprietor of the webpage. However, trade mark law is judged from the perspective of an average consumer (although the exact formulation of that mythical individual varies across jurisdictions) and not the expert. The question then is whether a trade mark can be said to have been ‘used’ when it forms a part of the metatags which are not visible to a reasonable person, but which can be read by a computer program such as a search engine. Or, put in more simple terms: does invisible use cross the threshold of trade mark use for all purposes in trade mark law, or only some? For example, can such invisible use save a registered trade mark from being revoked due to ‘nonuse’? A less important question from an academic perspective is the evidentiary standard that should be adopted by the court to ascertain whether metatags actually influence search engine results. These questions serve as the theoretical background for the following discussion of judgments from various jurisdictions.

3.1 United Kingdom

The only English case to deal with this issue is *Reed Elsevier v Reed Executive*.⁹ The claimant sued the defendant for its use of the registered trade mark ‘Reed’. One aspect of the infringement claim was the use of the words ‘Reed Business Information’ as one of the metatags on the defendant’s website. The claimant alleged that the use of its trade mark as a metatag by the defendant was the reason for the defendant’s website being displayed right below the claimant’s website in search results returned for the phrase ‘Reed jobs’. At first instance, the High Court held the defendant’s use of ‘Reed’ as a metatag to amount both to passing off and trade mark infringement.

The Court of Appeal disagreed and allowed the appeal on the ground that the use by the defendant did not result in either a misrepresentation or in confusion, since any person looking for the claimant’s website would clearly find it in the search engine’s results. The Court of Appeal also disagreed with the High Court that the ‘ultimate purpose [of the metatag] is to use the sign to suggest a connection which does not exist’.¹⁰ In the words of Jacob LJ, the ‘purpose is irrelevant to trade mark infringement and causing a site to appear in a search result, without more, does not suggest any connection with anyone else’.¹¹ While it is difficult to quibble with the conclusion, it would have helped later users if the Court of Appeal had discussed in greater detail the causal link between the metatag and the search results and the basis for presuming consumers’ perceptions of search results.

The relevance of metatags to individual search engines’ search algorithm and their ability to influence results is important because, as mentioned earlier, although metatags are not relevant for search engines such as Google, it is possible that metatags were of relevance to some search engines in 2003, and may still be in certain areas. These are mixed issues of fact and law that necessarily require resolution through evidence.

The more important observation by Jacob LJ, and one that has often been missed in subsequent cases, is the issue of whether use of a trade mark in a metatag is sufficient to defeat a claim to cancel a trade mark registration for nonuse (in the UK the relevant period is five years, but this varies around the world). On this, Jacob LJ stated:

⁹ [2004] RPC 40 767.

¹⁰ *ibid* [148] (Jacob LJ).

¹¹ *ibid*.

First, does metatag use count as use of a trade mark at all? In this context it must be remembered that use is important not only for infringement but also for saving a mark from non-use. In the latter context it would at least be odd that a wholly invisible use could defeat a non-use attack. Mr. Hobbs suggested that metatag use should be treated in the same way as uses of a trade mark which ultimately are read by people such as uses on a DVD. But in those cases the ultimate function of a trademark is achieved – an indication to someone of trade origin. Uses read only by computers may not count – they never convey a message to anyone.¹²

This is at the heart of the debate on the use of third party trade marks as metatags. Most trade mark legislations allow for a trade mark to be revoked if it has not been used.¹³ The use has to be genuine and consistent with the function of a trade mark, which is to help consumers identify goods or services without any confusion. In jurisdictions such as the UK, mere internal use of a trade mark or use during purely private events or on promotional items has been held to not constitute 'use' of a trade mark.¹⁴

If an invisible use of a trade mark can amount to use for the purposes of trade mark law, it follows that as long as a trade mark is used as a metatag it can never be revoked, even if it has never been visible to any customers at all. Prima facie, this would be an absurd conclusion, for two reasons. The first reason is that infringement and revocation are two sides of the same coin and it makes sense to use the same standard of trade mark use for determining both issues. That ensures that the balance of trade mark law is maintained without favouring trade mark proprietors over competitors. The second reason is that the very purpose of trade marks is to help traders differentiate their products/services from those of others by means of visual appearance or aural distinctiveness.

Despite this issue of 'use' being at the crux of trade mark law, it has received surprisingly little attention by most courts handling claims of trade mark infringement in the context of metatags. Most courts in other countries have tended to focus their analysis on the issue of confusion and infringement, rather than considering at the outset the threshold issue of 'use'.¹⁵

3.2 Germany

In 2006, a few years after the judgment in *Reed*, the German Bundesgerichtshof (the Federal Supreme Court) was faced with a similar question of law in the case of *Impuls Medienmarketing GmbH's Application*.¹⁶ The defendants had used the plaintiff's registered trade mark as a part of its metatags and this, according to the plaintiff, had resulted in the defendant's website

¹² *ibid* [149] (Jacob LJ).

¹³ 'Non-Use Grace Period – Opposition and Cancellation Standards and Procedures Subcommittee, INTA Enforcement Committee', International Trademark Association (April 2015) <www.inta.org/Advocacy/Documents/2015/Non-Use%20Grace%20Period%20Report%20to%20PDA.pdf> accessed 12 October 2019.

¹⁴ Case C-40/01 *Ansul BV v Ajax Brandbeveiliging BV* [2003] RPC 40; Case C-495/07 *Silberquell GmbH v Maselli-Strickmode GmbH* [2009]; Case C-442/08 *Verein Radetzky Orden v Bundesvereinigung Kameradschaft Feldmarschall Radetzky* [2009] ETMR 14.

¹⁵ This question of what constitutes 'use' runs throughout trade mark law and a failure to appreciate this can lead to incoherence in the treatment of this core concept in different contexts: see generally *Trade Mark Use*, eds J Phillips and I Simon (OUP 2005), including Chapter 15 Maniatis, 'Trade Mark Use on the Internet', at [263].

¹⁶ [2007] ETMR 46.

appearing in the search results in response to the keying of the plaintiff's trade mark into the search bar. The District Court and Court of Appeal had dismissed the plaintiff's claim. On further appeal, the Federal Supreme Court overruled the lower courts and held that use of a trade mark as a metatag was indeed trade mark infringement.

In its judgment, the Federal Supreme Court noted that there was a 'controversy in both court rulings and literature as to whether a trade mark use is given if the operator of an internet site uses a third-party sign as a keyword in the source text, which is not readily visible to the user'.¹⁷ The court then conclusively ruled that 'the use as a trade mark cannot be denied on the grounds that a metatag is not perceptible to the average user of the internet'.¹⁸ It reasoned that even if the keyword is not visible in such cases, the use of the keyword influences the search results and the user's attention is deflected to the competitor (the defendant's website). This is a problematic conclusion. It does not cite any evidence demonstrating that metatags are capable of influencing search results, relying instead on consequential reasoning to state the impact of using a trade mark in a metatag, but without explaining the fundamental issue of how this can constitute 'use' within the framework of a trade mark law.

On the argument that an internet user would be able to filter the multiple search results and distinguish between different websites, the court reasoned that since the trade mark in question was a common German word, a user would likely be confused into believing that the defendant's website was in fact associated with the plaintiff's website since both parties were competing in the same field of business.

As in most other judicial decisions on this issue, the court is silent on whether such hidden use will qualify as a defence in an action for nonuse. However, the logical conclusion would seem to be that invisible use should suffice to defeat an application to have the trade mark removed from the register on the grounds of five years' continuous nonuse, despite the fact that no single German consumer, whether reasonable or otherwise, has seen or even been aware of it. Of course, this is not to say that such behaviour by a defendant should be accepted as legitimate in all circumstances and should not be capable of being stopped by, for example, unfair competition laws, but it is not easy to reconcile with the purpose of trade mark law.

3.3 Canada

A Canadian judgment came to similar conclusions in 2007. In *Steve Pandi v Fieldofwebs.com Ltd*,¹⁹ the plaintiff sued the defendant for trade mark infringement, arguing *inter alia* that the use of its trade marks by the defendant as metatags amounted to infringement. Although during the course of litigation the defendants agreed to stop using the said metatags, the Supreme Court of Justice at Ontario ruled that if the use of the plaintiff's trade marks as metatags had continued it would have constituted trade mark infringement. The reason offered by the court for this conclusion was that use of the plaintiff's trade marks 'as a meta tag was for the purpose of diverting or luring members of the public to a site that was not in fact connected with the business'²⁰ associated with the plaintiff's trade marks. Like the German court, this

¹⁷ *ibid* [721].

¹⁸ *ibid* [722].

¹⁹ *Pandi v Fieldofwebs.Com Ltd* (2007) CanLII 27028 (ON SC) <<http://canlii.ca/t/1s2z1>> accessed 12 October 2019.

²⁰ *ibid* [41].

Canadian court did not cite any evidence on the ability of metatags to actually influence search results and, again as with the German case, there was no analysis of the implications of such an interpretation in an action for revocation on the ground of 'nonuse'.

In a subsequent Canadian decision rendered in *Red Label Vacations Inc. v 411 Travel Buys Ltd.*,²¹ there was no dispute that the defendant was in fact using the plaintiff's trade marks as metatags. On the claim of passing off, after referencing both the English decision in *Reed* and the Canadian decision in *Steve Pandi*, the Federal Court concluded that the defendant's use of the metatags would not cause confusion among the users and therefore was not passing off. In pertinent part, the court stated the following:

The use of metatags in a search engine merely gives the consumer a choice of independent and distinct links that he or she may choose from at will, rather than directing a consumer to a particular competitor. Rankings may affect the choice to be made, but nevertheless, such a choice exists. Even if a searcher is looking for the website connected with a particular trade name or trademark, once that person reaches the website, there must be confusion as to the source of the entity or person providing the services or goods. If there is no likelihood of confusion with respect to the source of the goods or services on the website, there is no support for finding this prong of the test for passing off.²²

The above conclusion of the court ignores its own prior observations on expert testimony which attested that metatags had no impact on search results for search engines such as Google. On the claim of trade mark infringement, the court ruled:

'Use' under section 22 requires use of the plaintiff's trademarks, as registered. There has been no such use here and accordingly, section 22 does not apply. Moreover, even if it could arguably be said that there is at least some use of redtag.ca by use of red tag, that use was not in any visible portion of 411 Travel Buys' website, it was in the metatags.²³

In the very last line, the court does briefly touch on the issue of lack of visibility of the trade mark as a reason to conclude that there was no trade mark infringement, but the reasoning is sparse. Once again there is no analysis on the consequence of such an approach for claims regarding 'nonuse' of a trade mark. The Federal Court's ruling was upheld on appeal to the Federal Court of Appeals, although it appears that the appellate court left the door open to allow infringement claims on the basis of trademarks as metatags when it stated that 'in some situations, inserting a registered trade-mark (or a trade-mark that is confusing with a registered trade-mark) in a metatag may constitute advertising of services that would give rise to a claim for infringement'.²⁴

3.4 Australia

Australian courts have been similarly divided about whether metatags constitute trade mark 'use'. In at least one Australian judgment, in *Complete Technology Integrations Pty Ltd v*

²¹ *Red Label Vacations Inc. (redtag.ca) v 411 Travel Buys Limited* (411travelbuys.ca) (2015) FC 18 [22] (CanLII) <<http://canlii.ca/t/ggkhk>> accessed 12 October 2019.

²² *ibid* [115].

²³ *ibid* [124].

²⁴ *Red Label Vacations Inc. (Redtag.ca) v 411 Travel Buys Limited (411 Travel Buys Limited)* (2015) FCA 290 (CanLII) <<http://canlii.ca/t/gmw50>> accessed 12 October 2019.

Green Energy Management Solutions Pty Ltd,²⁵ the Federal Court of Australia categorically stated that trade marks as metatags do not constitute use of a trade mark as understood under trade mark law because the use is invisible. In pertinent part, the court states:

s 120(1) of the TMA requires ‘the person uses as a trade mark a sign that is substantially identical with, or deceptively similar to, the trade mark in relation to goods or services in respect of which the trade mark is registered’ before there can be an infringement. I do not accept that the use of any of CTI’s Registered Trade Marks in Green Energy’s metatags would constitute a trade mark infringement for the purposes of s 120(1). Metatags are invisible to the ordinary internet user, although their use will direct the user to (amongst other websites) Green Energy’s website. Once at the Green Energy website, then, in the ordinary course, the internet user will be made aware that the website is concerned with Green Energy’s services. It cannot, therefore, be said that the use in a metatag of CTI’s Registered Trade Marks is a use that indicates the origin of Green Energy’s services. Thus, metatag use is not use as a trade mark.²⁶

This judgment is one of the few to expressly tackle the threshold issue of ‘use’ under trade mark law and, it is respectfully suggested, reached the correct conclusion.

However, a more recent judgment from Australia came to a different conclusion. In *Accor Australia & New Zealand Hospitality Pty Ltd v Liv Pty Ltd*,²⁷ the plaintiff had produced a printout of the source code of the defendant’s website to establish that the defendant had used the plaintiff’s trade mark in the metatags. On the basis of this evidence the Federal Court of Australia concluded that the defendants had effectively ‘used’ the trade mark. The judge stated the ‘evidence satisfies me that the source data that he located was visible to those who know what to look for, underlay Liv’s website and influenced search results’.²⁸ The problem with this conclusion is that although the metatags are visible in the source code, it is hardly normal behaviour for internet users to access the source code of a webpage to view the metatags. If it considered otherwise, the court should at least have supported that conclusion with some evidence.

On an intracourt appeal to a larger bench, the Federal Court of Australia did not disturb this conclusion despite acknowledging that ‘[t]he meta-tag is not displayed on the screen’.²⁹ Like that of the single judge, this judgment of the appellate court presumes, without evidence one way or the other, that metatags are ‘used by a search engine (such as Google) to determine the search results to be listed before the person doing the search’.³⁰ More importantly, like the cases discussed earlier, this judgment does not delve into the issue of how invisible use of a trade mark may qualify as ‘use’ under trade mark law generally.

The judgments in *Complete Technology Integration* and *Accor Australia* (at first instance) were considered in a subsequent Australian case, *Veda Advantage Ltd v Malouf Group*

²⁵ *Complete Technology Integrations Pty Ltd v Green Energy Management Solutions Pty Ltd* [2011] FCA 1319 <www.austlii.edu.au/au/cases/cth/FCA/2011/1319.html> accessed 12 October 2019.

²⁶ *ibid* [62].

²⁷ [2015] FCA 554 <www.austlii.edu.au/cgi-bin/sinodisp/au/cases/cth/FCA/2015/554.html> accessed 12 October 2019.

²⁸ *ibid* [432].

²⁹ *Accor Australia & New Zealand Hospitality Pty Ltd v Liv Pty Ltd* [2017] FCAFC 56 [321] <www.judgments.fedcourt.gov.au/judgments/Judgments/fca/full/2017/2017fcafc0056> accessed 12 October 2019.

³⁰ *ibid*.

Enterprises Pty Ltd,³¹ when dealing with the issue of trade mark infringement by the use of keywords in the Google AdWords programme. The *Veda* case endorsed the view taken by the court in *Complete Technology Integration* on the ground that since the use of trade marks as keywords is invisible, it is not possible for the consumer to make a connection between the competing services involved in the action before it. The court stated:

But the proposition that using words which are invisible and inaudible, indeed imperceptible, to consumers is using them as a trade mark makes no sense. How could the keywords be understood to be used to distinguish the services of one trader from those of another when the keywords are indiscernible? How could it appear to consumers that, by Malouf's designation of the Veda keywords to Google, the words are used to denote a connection in the course of trade between Malouf's services and the services provided by another trader, or to distinguish its services from the services of others, when the consumers have not seen or otherwise perceived the keywords?³²

The court concludes by making the pertinent observation that the use of a trade mark can never be 'a metaphysical relationship, no matter how expansive the concept of use was intended to be'.³³

3.5 New Zealand

In (relatively) nearby New Zealand, the issue of trade marks as metatags was examined in significant detail by the Court of Appeal of New Zealand in *Tasman Insulation New Zealand Ltd v Knauf Insulation Ltd*.³⁴ The plaintiff in this case sued the defendant for using as its metatags certain words that had been registered as trade marks by the plaintiff. The High Court of New Zealand found the use to be an infringement,³⁵ but this was overturned on appeal.

The New Zealand trade mark statute is clear that prior to the infringement analysis, it is necessary to establish 'if the sign is used in such a manner as to render the use of the sign as likely to be taken as being use as a trade mark'.³⁶ This clause has been interpreted by New Zealand courts to require evidence that 'a significant number of normally informed and reasonably attentive internet users are likely to take the use of the sign as being used as a trade mark'.³⁷

According to the Court of Appeal, the matter had to be judged from the perspective of a 'normally and reasonably attentive internet user'; evidence would be required to prove whether consumers would try to access the source code to view the metatags, and whether the consumers considered the use of the words as metatags as serving the purpose of trade marks. On the facts of the case, the court concluded that the plaintiffs had failed to provide sufficient evidence on either of these issues, holding:

There was no evidence as to why consumers might endeavour to access the HTML code and how that would be achieved. Just as important, there was no evidence as to what, if anything, the impugned

³¹ [2016] FCA 255 <www.austlii.edu.au/au/cases/cth/FCA/2016/255.html> accessed 12 October 2019.

³² *ibid* [127].

³³ *ibid* [128].

³⁴ [2015] 3 NZLR 145; [2015] NZCA 602 <www.nzlii.org/nz/cases/NZCA/2015/602.html> accessed 12 October 2019.

³⁵ *Tasman Insulation New Zealand Ltd v Knauf Insulation Ltd & Others* [2014] NZHC 960.

³⁶ Trade Marks Act 2002, s 89(2) (NZ).

³⁷ [2014] NZHC 960 [187].

words would mean to them. It is evident that the impugned words appear in a single line of source code along with numerous other lines of code of a highly disjointed nature and are unlikely to have any meaning or significance to a prospective purchaser. Even assuming the notional internet user might for some unexplained reason access the source code, the words would appear to be entirely random and essentially meaningless.³⁸

This judgment is a useful illustration of the high evidentiary burden that should be placed on the plaintiff to prove ‘use’ in the case of a trade mark infringement claim based on metatags. It also provides a useful framework to consider whether a trade mark was in fact ‘used’. However, it should be remembered that this reasoning flows from the wording of the New Zealand trade mark law. Therefore, it may not be able to follow *mutatis mutandis* this reasoning in other jurisdictions – although, whether expressly in the law or not, it is an issue that should underlie trade mark law.

3.6 India

The issue of trade mark infringement in the context of metatags has been raised before Indian courts on several occasions. Somewhat strangely, in most of these judgments, the courts failed to address the infringement claims based on metatags despite having recited the plaintiff’s arguments on the question, choosing instead to dispose of the case on other grounds.³⁹ Two judgments in which metatagging was discussed in relatively more detail were *Samsung Electronics Company v Kapil Wadhwa*,⁴⁰ and *People’s Interactive (I) Pvt. Ltd v Gaurav Gerry*.⁴¹

In the *Samsung* case, the plaintiff sued the defendant for trade mark infringement before the Delhi High Court because it was involved in parallel imports of Samsung’s products. A second claim was made with regard to the defendants’ use, as metatags, of words that were registered as trade marks by the plaintiff. Before the Single Judge and the Division Bench (on appeal), the defendants argued that the use of the words registered as trademarks was fair use because they were selling genuine goods. This argument failed before the Single Judge as the court ruled that parallel imports were not allowed under the Trade Marks Act 1999. On appeal, it was held that parallel imports were permitted but the ruling of the trial court with respect to metatags was not overruled. The court did not provide any reasoning for this conclusion apart from agreeing with the decision of the Single Judge. This decision is currently on appeal to the Supreme Court of India.⁴²

In the *People’s Interactive* case, the Bombay High Court examined in detail the workings of metatags before coming to rather sweeping conclusions. Without citing any authority or

³⁸ *ibid* [193].

³⁹ *World Wrestling Entertainment v Savio Fernandes & Ors* (2015) (62) PTC 573 (Del) (court records arguments with regard to metatagging but doesn’t provide conclusive answer in this regard); *Mattel, Inc. & Ors. v Mr. Jayant Agarwalla & Ors* (2008) (38) PTC 416 (Del) (court restrained using the trademark as metatags without giving any reason); *The Himalaya Drug Company v Sumit* (2006) (32) PTC 112 Del (records arguments in relation to metatagging but does not rule in this regard); *Christian Louboutin Sas v Nakul Bajaj & Ors* (2014) (60) PTC 8 (Del) (records detailed arguments on metatags but no conclusive ruling on the issue).

⁴⁰ 2012(49) PTC 571 (Del) (Single Judge); 2013(53) PTC 112 (Del) (Division Bench).

⁴¹ 2016 SCC OnLine Bom 6641.

⁴² CA No 008600 (2013) before the Supreme Court of India.

evidence, the court concluded that metatags did in fact influence the search results on search engines and, as a result, traffic was being diverted from the plaintiff's website to the defendant's website. (The plaintiff had provided some evidence to this effect although the court did not consider it in detail.) The judgment did not explore the issue of whether invisible use of the words amounted to 'use' under Indian trade mark law and the consequence of such an approach on other aspects of trade mark law, such as nonuse challenges. As is often the case with metatag-related judgments, the court adopted a consequentialist line of reasoning which presumes that the marks are used from the fact that some users got confused between the websites.⁴³ It should be noted also that the judgment was delivered *ex parte*.

3.7 United States

The United States was one of the first jurisdictions to tackle the issues of metatagging and has generated much case law on the issue. However, the US approach is as confused as that in other jurisdictions. Indeed, it would be reasonable to say that the US approach is even more confused because of the application of the doctrine of 'initial interest confusion' – a distinctly American doctrine,⁴⁴ which has been rejected expressly in jurisdictions such as Singapore.⁴⁵

One of the most cited US precedents on the issue of metatagging is the decision of the United States Court of Appeal for the Ninth Circuit in *Brookfield Communications Inc. v West Coast Entertainment Corporation* in 1999.⁴⁶ Delivered in the early days of the World Wide Web, before Google became the search engine of choice in most parts of the world, the *Brookfield* decision presumed that metatags directly affect search engine results but it does not cite any evidence to support this. Without really considering the issue of whether the use of the words in the metatags constitutes use under US trade mark law, the court proceeded directly to evaluating whether metatags contribute to initial interest confusion.

Under this doctrine, even if the confusion caused by the use of a trade mark does not result in a sale of a product and financial loss, the mere fact that the customer's attention has been diverted to the defendant's products is sufficient to meet the threshold required to prove trade-mark infringement. The court drew an analogy of a sign board placed by the defendant on the highway informing drivers that the plaintiff's shop was at the location of the defendant's shop. This would cause the customers to be diverted to the defendant's shop in the hope of finding the plaintiff's shop, and when they discovered the absence of the plaintiff's shop they would likely just make purchases from the defendant's shop despite knowing that it was not associated with the plaintiff's shop. Thus, although there was no confusion at the time of the sale, the initial interest confusion contributed to the sale. However, the analogy misses the point that metatags, unlike a signboard, are not visible to the consumer. The court should thus have determined as an initial step whether the use of the words as metatags constituted 'use in commerce' as required by the Lanham Act. In fact, at an earlier point in the judgment, when deciding the

⁴³ 2016 SCC OnLine Bom 6641 [12], [13].

⁴⁴ Jennifer E Rothman, 'Initial Interest Confusion: Standing at the Crossroads of Trademark Law' (2005) 27 Cardozo L Rev 105; David M Klein and Daniel C Glazer, 'Reconsidering Initial Interest Confusion on the Internet' (2003) 93 TMR 1035.

⁴⁵ *Staywell Hospitality Group Pty Ltd v Starwood Hotels & Resorts Worldwide, Inc and another* [2013] SGCA 65 [116].

⁴⁶ 174 F.3d 1036 (9th Cir 1999).

issue of seniority of the competing trade marks, the court stressed the importance of visibility of the mark to the general public in order to meet the threshold of being used in commerce. This was necessary because one of the parties tried to argue that it had used the trademark, earlier in time, by registering the disputed phrase as a domain address with a service provider. The court rejected this argument, stating:

The purpose of a trademark is to help consumers identify the source, but a mark cannot serve a source-identifying function if the public has never seen the mark and thus is not meritorious of trademark protection until it is used in public in a manner that creates an association among consumers between the mark and the mark's owner.⁴⁷

The court, however, failed to apply this same reasoning to assess whether use of a word as a metatag, invisible to the normal internet user, can be considered 'use' under trade mark law. Notwithstanding this logical gap in its reasoning, the *Brookfield* judgment has been cited with approval for more than a decade by US courts.⁴⁸ Most of these courts have found that use of trade marks as metatags did amount to infringement because of the initial interest confusion doctrine. In so doing, these courts have repeated the evidentiary and legal errors seen in other jurisdictions. From an evidentiary viewpoint, most of the judgments that cite *Brookfield* have not assessed evidence of whether metatags in fact influenced the search results. The legal error in these cases is their failure to examine whether metatags can be considered to be 'use in commerce', which is a threshold issue under the Lanham Act.

The one exception to this trend, although not in the specific context of metatags, was the judgment of the United States Court of Appeals for the Second Circuit in *1-800 Contacts, Inc. v Whenu.com, Inc. and Vision Direct, Inc.*,⁴⁹ where the court held a particular invisible use of a third party trademark as not constituting trademark infringement because it did not amount to 'use in commerce' under the Lanham Act. The defendant's software program in this case consisted of a proprietary directory, comprising different keywords that were not visible to users. It was not possible for advertisers to pay for keywords to be inserted into the directory. When a search was conducted using the program, it would display the plaintiff's website address and also show popup advertisements displaying the websites of the plaintiff's competitors. The plaintiff alleged that both the incorporation of its trademarks in the defendant's proprietary directory and the popups of its competitors in response to its trade mark being entered into the program infringed its trademarks. The district court ruled in favour of the plaintiff; the Court of Appeals overruled it on appeal.

The Court of Appeals stated:

We hold that, as a matter of law, WhenU does not 'use' 1-800's trademarks within the meaning of the Lanham Act, 15 U.S.C. § 1127, when it (1) includes 1-800's website address, which is almost identical to 1-800's trademark, in an unpublished directory of terms that trigger delivery of WhenU's contextually relevant advertising to C-users; or (2) causes separate, branded pop-up ads to appear

⁴⁷ *ibid* 1051.

⁴⁸ *N. Am. Med. Co. v Axiom Worldwide Inc.*, 522 F.3d 1211 (11th Cir 2008); *Austl. Gold, Inc. v Hatfield*, 436 F.3d 1228 (10th Cir 2006); *Promatek Indus., Ltd. v Equitrac Corp.*, 300 F.3d 808 (7th Cir 2002).

⁴⁹ 414 F.3d 400 (2d Cir 2005).

on a C-user's computer screen either above, below, or along the bottom edge of the 1-800 website window.⁵⁰

The court came to this conclusion on the ground that private internal use of a trademark by a company in a manner that does not communicate it to the public cannot result in a finding of trademark infringement. The court held:

A company's internal utilization of a trademark in a way that does not communicate it to the public is analogous to a [sic] individual's private thoughts about a trademark. Such conduct simply does not violate the Lanham Act, which is concerned with the use of trademarks in connection with the sale of goods or services in a manner likely to lead to consumer confusion as to the source of such goods or services.⁵¹

The court also emphasised that 'use' is a threshold issue in a trademark infringement analysis: only once use has been established can the court proceed to consider whether the trademark was used 'in commerce' and whether such use resulted in 'confusion'. As pointed out by the *1-800* court, very often in the case of alleged trademark infringement on the internet, courts have wrongly presumed infringement on the teleological ground that consumers were getting confused, regardless of whether the trademark was in fact 'used'. On the facts before it, the *1-800* court ruled that the plaintiff's trademark was never 'used' because it was never displayed (the website address displayed by the plaintiff was different from the registered trademark and the directory was scrambled and not visible to the users). The court explained:

1-800 also argues that WhenU's conduct is 'use' because it is likely to confuse C-users as to the source of the ad. It buttresses this claim with a survey it submitted to the district court that purportedly demonstrates, inter alia, that (1) a majority of C-users believe that pop-up ads that appear on websites are sponsored by those websites, and (2) numerous C-users are unaware that they have downloaded the SaveNow software. 1-800 also relies on several cases in which the court seemingly based a finding of trademark 'use' on the confusion such 'use' was likely to cause. See, e.g., *Bihari*, 119 F. Supp. 2d at 318 (holding that defendant's use of trademarks in metatags constituted a "use in commerce" under the Lanham Act in part because the hyperlinks 'effectively act[ed] as a conduit, steering potential customers away from Bihari Interiors and toward its competitors'); *GEICO*, 330 F. Supp. 2d at 703-04 (finding that Google's sale to advertisers of right to have specific trademarks trigger their ads was 'use in commerce' because it created likelihood of confusion that Google had the trademark holder's authority to do so). Again, this rationale puts the cart before the horse. Not only are 'use', 'in commerce', and 'likelihood of confusion' three distinct elements of a trademark infringement claim, but 'use' must be decided as a threshold matter because, while any number of activities may be 'in commerce' or create a likelihood of confusion, no such activity is actionable under the Lanham Act absent the 'use' of a trademark. 15 U.S.C. § 1114; see *People for the Ethical Treatment of Animals v. Doughney*, 263 F.3d 359, 364 (4th Cir. 2001). Because 1-800 has failed to establish such 'use' its trademark infringement claims fail.⁵²

Notwithstanding the clarity of the above reasoning, there have been several judgments post 2005 in which US courts have delivered conflicting opinions on the issue of metatags and trademark infringement. The Courts of Appeals for the First Circuit and the Tenth Circuit

⁵⁰ *ibid* 403.

⁵¹ *ibid* 409.

⁵² *ibid* 412.

have both held that use of trademarks in metatags result in trade mark infringement.⁵³ Both opinions, however, fail to analyse whether use in a metatag amounts to ‘use in commerce’.

On the other hand, there are a string of judgments from district courts in New York which have categorically held that use in metatags does *not* amount to ‘use in commerce’. For instance, in 2007 in the case of *S & L Vitamins Inc. v Australian Gold Inc.*,⁵⁴ the District Court cited *1-800* and held that “‘use’ must be decided as a threshold matter, because while any number of activities may be ‘in commerce’ or create a likelihood of confusion, no such activity is actionable under the Lanham Act absent the ‘use’ of a trademark.” The court ultimately concluded that use of a mark in a metatag did not amount to ‘use in commerce’.

Similarly, in 2011, a United States district court in Louisiana ruled as follows:

with internet metatags, keywords, and hidden text the user never actually sees the trademarks or knows that they are in use. The customer is not likely going to be confused by the similarity in a mark whose presence is completely hidden from view. It would seem logical then that mark similarity in a metatag or hidden text case is not going to be a digit that will weigh heavily in the plaintiff’s favor when assessing likelihood of confusion.⁵⁵

It should, however, be mentioned that litigation associated with the use of trade marks as metatags before US courts appears to have fallen significantly over the past few years.

4. CONCLUSIONS: LESSONS FROM THE LITIGATION ON TRADE MARKS AND METATAGS AROUND THE WORLD

The above discussion of judgments from across the world illustrates how difficult it can be for courts and the legal profession to understand trade mark infringement in the context of new technologies like the internet. While this chapter has focused on the manner in which different courts have tackled trade mark infringement in the context of metatag keywords, the more important question perhaps is: why have lawyers been advising clients to sue over metatags when it has been known for more than a decade that metatags do not influence the search results of Google, the most influential search engine? These cases are a good reminder of why it is important for the legal profession to do a better job of understanding technology. The other important lesson to be learnt from a review of these cases is the need for both judges and the legal profession to be careful to avoid a teleological approach to decisionmaking: trade mark law is not an all-embracing law against competition. It has important functions but also important limits if right owners are not to be given *carte blanche* to stop competitors. In any action for infringement of a registered trade mark, the first step must be to assess whether a particular use is ‘use as a trade mark’ and if therefore the trade mark law is properly engaged. If not, it should not be.

The policy question that is unanswered at this stage is whether the law *should* protect against the use of third party trade marks in metatags, when innovation by different search

⁵³ *Australian Gold Inc. v Hatfield*, 436 F.3d 1228 (10th Cir 2006); *Venture Tape Corporation v McGills Glass Warehouse*, 540 F.3d 56 (1st Cir 2008).

⁵⁴ 521 F. Supp. 2d 188 (EDNY 2007).

⁵⁵ *Southern Snow Manufacturers Co. et al. v Sno Wizards Holdings Inc. et al.*, (No 2:2006cv09170) (Document 371) (ED La 2011).

engines has rendered metatags practically irrelevant? As the saying goes, 'If it ain't broke, don't fix it'. However, even if policy makers feel tempted to tackle these issues, it is preferable to do so under a general advertising law rather than a law as specialised (and specific) as trade mark law. There have been cases in Europe where the EU's directives on misleading and comparative advertising have been used to tackle the use of trade marks in metatags,⁵⁶ as have broadbased unfair competition laws; this is surely the proper approach, because neither of these areas requires an assessment of whether a trade mark has been used or was visible.

⁵⁶ For example, see Case C-657/11 *Belgian Electronic Sorting Technology NV v Bert Peelaers* [2013] ECR 516.

21. Keyword advertising and actionable consumer confusion

Robert Burrell and Michael Handler

1. INTRODUCTION

One of the core features of the online environment is that a website's position in search results is determinative of how many users are likely to access that site. Competition for placement is often fierce and can pitch operators of websites against one another even though their underlying businesses are not in competition. This is true, for example, when manufacturers of goods and authorised repairers of such goods are competing for the highest visibility in search results. In much the same manner, distributors, retailers and reviewers of products can all end up competing against the manufacturer.¹ This feature of the internet has encouraged website operators and search engine providers to employ creative tactics to increase the visibility of sites in search results. Conversely, it has led to brand owners trying to use trade mark law in an attempt to exercise as much control as possible over third parties using their marks for that purpose. The two behaviours that have caused brand owners most concern have been the use of trade marks in metatags and in keyword advertising.² Both behaviours have now generated a significant body of case law in a range of jurisdictions. However, over recent years, the keyword advertising cases have come to the fore.

The practice of keyword advertising has arisen as a result of some search engines, particularly Google, selling 'keywords' consisting of trade marked words to third parties, including competitors of the trade mark owner.³ The consequence of this practice is that searches using such keywords will bring up advertisements in the form of sponsored links to websites operated by those third parties. Often these will consist of a hyperlinked title, a URL and a brief description of the advertiser's website, from which goods bearing the trade mark (which could be genuine or counterfeit), or competing goods bearing only the competitor's mark, might be sold.⁴

There can be no question that courts around the world have at times struggled with keyword advertising cases. It is, however, important to distinguish between two different types of

¹ Eric Goldman, 'Online Word of Mouth and Its Implications for Trademark Law' in Graeme B Dinwoodie and Mark D Janis (eds), *Trademark Law and Theory: A Handbook of Contemporary Research* (Edward Elgar 2008).

² See D Llewelyn and Prashant Reddy T, 'Metatags "using" third party trade marks on the Internet' in ch 20 of this volume.

³ It should be noted, however, that empirical work has indicated that most keywords are purchased by the trade mark owner or by a party selling the trade marked goods: David A Hyman and David J Franklyn, 'Trademarks as Search-Engine Keywords: Who, What, When?' (2014) 92 Tex L Rev 2117.

⁴ For a detailed description, see Amanda Scardamaglia, 'Keywords, Trademarks, and Search Engine Liability' in René König and Miriam Rasch (eds), *Society of the Query Reader: Reflections on Web Search* (Institute of Network Cultures 2014) 165–68.

problem that courts have encountered. One problem is determining whether any given third party use of a trade mark in the course of keyword advertising should be permissible or not. It is now almost universally accepted that there is a strong pro-competition case for allowing *some* unauthorised uses of trade marks in the online environment. If, for example, we allow the use of trade marks in comparative advertising in the analogue world, then it must be the case that closely related uses ought to be permitted online. On the other hand, there are some types of use of trade marks as keywords that would seem likely to create a significant risk of harm and therefore ought to be prohibited. Distinguishing between these two types of use can, however, be difficult. A court may experience real doubt as to how consumers will respond to any given advertisement generated by a search using a purchased keyword. Most obviously, the court might struggle to decide whether consumers would either (i) understand the advertisement as promoting the goods or services of a rival trader and thus not experience confusion, or (ii) treat the advertisement as suggesting that the defendant's business is operating with the licence or endorsement of the trade mark owner, such that they will be confused. Still further difficulty can arise in jurisdictions that give trade mark owners rights that go beyond the prohibition of uses that are likely to cause confusion. For example, even if a court in Europe determined that the defendant's use fell within category (i), it might nevertheless be called on to consider whether the defendant's use was actionable because it took 'unfair advantage' of the plaintiff's mark.

A second, rather different, problem lies in mapping uses of trade marks as keywords that we do or do not want to allow onto existing legal frameworks. For instance, a court may determine that a particular use ought to be allowed since it is of a pro-competitive type, closely analogous to comparative advertising. If, however, the legislation only permits comparative advertising, the court may struggle to find a way of permitting the use. Conversely, a court may be confronted with a type of use that it regards to be sharp practice, but where it may be difficult for the brand owner to establish infringement, for example because the defendant's use as a keyword remains invisible to the public. There can be no question that some difficult technical legal questions have been thrown up by keyword advertising cases, especially in the EU. But it is important not to overstate the problems that have arisen, and it should be borne in mind that most jurisdictions have found ways of accommodating keyword advertising within existing legal frameworks. This is largely because courts have been able to use flexible legal doctrines (standards), such as nominative fair use or 'use as a trade mark', to draw a line between uses they think should and should not be allowed.

In section 2 of this chapter, we explore how courts in four jurisdictions – the EU, the US, Australia and New Zealand – have applied existing doctrines to keyword advertising disputes. We demonstrate that the technical legal problems encountered by courts have, in fact, been less significant than sometimes imagined. Even in the EU, where the courts have faced the most serious problems of fit, the actual outcomes in the cases are broadly defensible. In section 3, we turn to consider a broader set of normative questions raised by the keyword advertising cases, which relate to the types of harm that ought to be recognised within the trade mark system. Most obviously, one question that would seem to arise squarely in this context is whether the law should recognise harms other than confusion, such as blurring, tarnishment and free riding. This is not, however, an issue we intend to explore in this chapter: we have argued at length elsewhere that antidilution protection is neither morally nor economically

defensible,⁵ and that existing mechanisms for conferring antidilution protection sit very uncomfortably within registered trade mark systems.⁶ Instead, the focus of our analysis in section 3 is on when an actionable form of harm is likely to occur in cases involving advertising *generally*. It is usually taken for granted that a trade mark owner should be able to prevent at least some uses of its marks in advertising, but exactly why this is the case is not nearly as straightforward as is normally assumed. Using the keyword advertising cases as a springboard, we consider a number of complexities involved in determining when an unauthorised use of a trade mark in the course of advertising ought to be actionable.

2. KEYWORD ADVERTISING AND THE FLEXIBILITY OF EXISTING LEGAL DOCTRINES

2.1 United States Case Law

When analysing how courts around the world have addressed the legal issues posed by keyword advertising, the most useful starting point is the US. In 2004, Google, as part of its AdWords policy, permitted parties to purchase keywords consisting of others' trade marks so that those parties' advertisements would appear when searches were undertaken using such keywords.⁷ From this point on, US federal courts have been required to consider a substantial number of legal challenges brought by trade mark owners against both advertisers and search engine operators. More specifically, courts have had to confront two legal issues. The first is whether the sale and purchase of a keyword consisting of a trade mark involves a 'use in commerce' of the mark, this being a threshold requirement for infringement under sections 32 and 43(a) of the Lanham Act.⁸ If so, the second issue is whether the advertiser or search engine operator's conduct (both in relation to the sale and purchase of the keyword, and the display of the advertisement generated as a result of the user search) constitutes infringement, which turns on the existence of a likelihood of consumer confusion and the availability of any defences. Although the body of US case law that has developed since 2004 is complex, it is important to be clear about the reasons for this complexity. Building on a point we made in the Introduction, US courts have, for the most part, shown themselves to be adept at fitting keyword advertising within existing legal frameworks, and have not been persuaded to invent new principles, or even stretch existing doctrines, to deal with the novel fact patterns presented

⁵ Dev Gangjee and Robert Burrell, 'Because You're Worth It: *L'Oréal* and the Prohibition on Free Riding' (2010) 73 MLR 282; Robert Burrell and Dev Gangjee, 'Trade Marks and Freedom of Expression: A Call for Caution' (2010) 41 IIC 544; Michael Handler, 'What Can Harm the Reputation of a Trademark? A Critical Re-Evaluation of Dilution by Tarnishment' (2016) 106 Trademark Rep 639; Michael Handler, 'Recoding Famous Brands in Advertising and in Entertainment Products: Case Studies on the So-Called Harms of Trade Mark Dilution' in Megan Richardson and Sam Ricketson (eds), *Research Handbook on Intellectual Property in Media and Entertainment* (Edward Elgar 2017), ch 11.

⁶ Robert Burrell and Michael Handler, 'Dilution and Trademark Registration' (2008) 17 Transnat'l L & Contemp Probs 713.

⁷ Greg Lastowka, 'Google's Law' (2008) 73 Brook L Rev 1327, 1359–60. Google changed the name of its keyword advertising business from 'AdWords' to 'Google Ads' on 24 July 2018.

⁸ For present purposes, the key difference is that s 43(a) applies to both registered and unregistered marks, while s 32 applies only to registered trade marks.

by keyword advertising. Instead, the complexity is more to do with the highly fact-specific nature of the task the courts have been required to undertake, namely determining whether the specifics of a particular defendant's conduct will generate actionable confusion. This has required courts to make certain assumptions about consumer behaviour, creating problems that are by no means exclusive to cases in the online environment.

Turning to the US case law, the first issue that courts have been required to address is whether a search engine operator 'uses' a trade mark by selling a trade marked keyword to a prospective advertiser. Search engine operators have argued that this sort of transaction involves only a technical, internal reference to the mark rather than a display or communication of the mark to the consuming public, and thus cannot amount to 'use' for the purposes of infringement. After a short period of uncertainty,⁹ caused in part by an ambiguous statutory definition of 'use in commerce',¹⁰ this argument was decisively rejected by the Court of Appeals for the Second Circuit in *Rescuecom Corp v Google, Inc* in 2009.¹¹ It is now clear that both the sale of trade marked keywords, as well as the purchase of them by prospective advertisers,¹² constitutes use in commerce. While this fact scenario prompted vigorous debates as to the merits of the US adopting a requirement that only use 'as a trade mark' constitutes infringing use,¹³ the reasoning of the Court of Appeals is consistent with the broad interpretation that has been given to the 'use in commerce' requirement in infringement cases more generally.¹⁴ Such an approach has also forced courts to deal squarely with the more challenging second issue, namely whether the search engine operator or advertiser's use of the trade mark gives rise to an actionable likelihood of confusion.

In considering this second issue, courts have been confronted with a range of fact patterns, involving different types of advertisement. The earliest cases involved arguments that keyword advertising could amount to infringement in the absence of the plaintiff's trade mark appearing *anywhere* in the defendant's advertisement. That is, it was contended that when consumers undertake a search using the plaintiff's trade mark, the mere presentation of the defendant's advertisement on a search results page will result in 'initial interest confusion' and thus constitute infringement, even if the defendant's brand name is dissimilar to the plaintiff's mark. More specifically, it was claimed to be enough that searchers might experience some initial confusion as to the existence of a commercial connection between the defendant advertiser and the trade mark owner, even if such confusion were to be dispelled on the searcher visiting the defendant's site and before any transaction with the defendant were concluded. Notwithstanding that cases in the late 1990s involving online trade mark use (namely, use by

⁹ This resulted from *1-800 Contacts, Inc v WhenU.com, Inc*, 414 F 3d 400 (2d Cir 2005), a case involving the defendant's use of URLs containing trade marks in an internal directory to generate 'pop-up' advertising.

¹⁰ *Rescuecom Corp v Google, Inc*, 562 F 3d 123, 131–40 (2d Cir 2009).

¹¹ *ibid* 127–30.

¹² *Network Automation, Inc v Advanced Systems Concepts, Inc*, 638 F 3d 1137, 1144–45 (9th Cir 2011).

¹³ See, for example, Stacey L Dogan and Mark A Lemley, 'Trademark and Consumer Search Costs on the Internet' (2004) 41 Hous L Rev 777; Margreth Barrett, 'Internet Trademark Suits and the Demise of "Trademark Use"' (2006) 39 UC Davis L Rev 371; Graeme B Dinwoodie and Mark D Janis, 'Confusion over Use: Contextualism in Trademark Law' (2007) 92 Iowa L Rev 1597.

¹⁴ See generally J Thomas McCarthy, *McCarthy on Trademarks and Unfair Competition* (5th edn, Thomson Reuters 2018), vol 4, para 23.11.50.

defendants in metatags¹⁵) had helped crystallise the doctrine of initial interest confusion, courts in keyword advertising cases were reluctant to extend the doctrine. For example, in a 2007 district court decision, it was held that in the keyword advertising context, where the defendant's advertisements appear as distinct links on the results page, no possibility of confusing the plaintiff's and defendant's goods or services arises.¹⁶ A similar, but more circumspect, view was subsequently adopted by the Court of Appeals for the Ninth Circuit in *Network Automation, Inc v Advanced Systems Concepts, Inc* in 2011,¹⁷ and the Tenth Circuit in *1-800 Contacts, Inc v Lens.com, Inc* in 2013.¹⁸ While not rejecting the possibility of confusion, the latter court emphasised that, provided the defendant's advertisements are clearly differentiated from the search results, it would be an 'unnatural' response to assume the defendant was commercially linked with the plaintiff.¹⁹ Such an approach reveals a healthy scepticism towards an expansive notion of initial interest confusion, which has been criticised as potentially allowing liability to turn on whether searchers are merely distracted by defendants' advertisements, rather than genuinely confused as to a commercial connection between the parties.²⁰ It is also consistent with more recent empirical work that has recognised that consumers have heterogeneous expectations in undertaking searches using trade marks and are frequently not looking for specific information about the trade mark selected, which supports the courts' dismissive attitude towards arguments that 'diversion' can amount to actionable confusion.²¹

The more challenging fact patterns have involved advertisements that incorporate the plaintiff's trade marks. Early cases involving such uses are relatively rare, since Google's 2004 AdWords policy prevented advertisers from using purchased trade marks in their advertisements, and it is unsurprising that courts took a dim view of advertisers that violated this policy.²² Even so, courts in this period took care to ensure that the advertisements, as presented, did in fact misleadingly suggest that the defendant's goods and services were those of, or affiliated with, the plaintiff mark owner. In 2009, Google changed its AdWords policy to permit certain purchasers of trade marked keywords to use such marks in 'sponsored link' advertising text. These purchasers included resellers of the trade marked goods, makers of component or compatible parts and reviewers of the trade marked products²³ – the clear intention being that such parties would be making non-infringing use of the marks in their advertising. Since this time, courts have found overwhelmingly in favour of both defendant advertisers and Google.²⁴ Even where there has been some evidence of confusion, courts have found in favour of defend-

¹⁵ *Brookfield Communications, Inc v West Coast Entertainment Corp*, 174 F 3d 1036 (9th Cir 1999).

¹⁶ *JG Wentworth, SSC Ltd Partnership v Settlement Funding LLC*, 85 USPQ 2d 1780 (ED Pa 2007).

¹⁷ *Network Automation (n 12)*, especially at 1147–48, approving the views of Berzon J in *Playboy Enterprises, Inc v Netscape Communications Corp*, 354 F 3d 1020, 1034–35 (9th Cir 2004).

¹⁸ 722 F 3d 1229 (10th Cir 2013).

¹⁹ *ibid* 1245.

²⁰ McCarthy (n 14) para 25A.8. For a recent illustration, see *Alzheimer's Disease & Related Disorders Association, Inc v Alzheimer's Foundation of America, Inc*, 307 F Supp 3d 260 (SDNY 2018).

²¹ David J Franklyn and David A Hyman, 'Trademarks as Search Engine Keywords: Much Ado about Something?' (2013) 26 Harv JL & Tech 481. See also Eric Goldman, 'Deregulating Relevancy in Internet Trademark Law' (2005) 54 Emory LJ 507.

²² Examples include *Government Employees Insurance Co v Google, Inc*, 77 USPQ 2d 1841 (ED Va 2005) and *Storus Corp v Aroa Marketing, Inc*, 87 USPQ 2d 1032, 1036 (ND Cal 2008).

²³ *Rosetta Stone Ltd v Google, Inc*, 676 F 3d 144, 151–52 (4th Cir 2012).

²⁴ There are, of course, exceptions, such as in situations where the alleged resellers were selling counterfeit goods: *ibid* 158.

ants where the plaintiff's mark was being used in a descriptive manner,²⁵ or in a comparative advertisement.²⁶ In doing so, courts have been merely applying known trade mark doctrines – most notably 'nominative fair use', which is a defensive doctrine that permits a defendant to use the plaintiff's mark to indicate that it is dealing with the plaintiff's trade marked goods or services²⁷ – in a new, online environment.²⁸

In summary, although it took a number of years for the position to become clear, the legal techniques that US courts use in approaching keyword advertising cases are now well settled. Likelihood of confusion remains central to the analysis of infringement, with liability likely to turn on whether and how a trade mark is deployed in the defendant's advertising.²⁹

2.2 Australian and New Zealand Case Law

Litigation concerning the use of registered trade marks in keyword advertising is more recent in Australia and New Zealand. In large part, this is because Google's AdWords policy initially applied more restrictively in these countries than it did in the US. Until 23 April 2013, the owner of an Australian or New Zealand registered trade mark could object to a competitor bidding for or using the trade mark as a keyword under Google's policy, meaning that disputes were managed privately. From that date, Google has no longer intervened to prevent a trader from purchasing or using another party's trade marked term as a keyword.³⁰ This has led to a burst of litigation in Australia and New Zealand, with the most notable feature of the decisions reached in both countries being that the courts have shown themselves to be comfortable applying the established doctrine of 'trade mark use' to deal with the novel challenges posed by keyword advertising.

The requirement that infringing use be use 'as a trade mark' forms a core part of the law of many British Commonwealth countries. The doctrine started to take form in the UK in the 1920s;³¹ it was firmly entrenched by the House of Lords in 1934 in *Irving's Yeast-Vite Ltd*

²⁵ *Alzheimer's Foundation of America, Inc v Alzheimer's Disease & Related Disorders Association, Inc*, 2015 WL 4033019 (SDNY 2015).

²⁶ *General Steel Domestic Sales, LLC v Chumley*, 2013 WL 1900562 (D Colo 2013).

²⁷ Although well established in numerous Circuits, the precise contours of the doctrine remain unclear: see McCarthy (n 14) para 23.11 (noting the different approaches taken in *New Kids on the Block v News America Publications, Inc*, 971 F 2d 302 (9th Cir 1992); *Pebble Beach Co v Tour 18 I Ltd*, 155 F 3d 526 (5th Cir 1998); *Century 21 Real Estate Corp v Lendingtree, Inc*, 425 F 3d 211 (3d Cir 2005) and *International Information Systems Security Certification Consortium, Inc v Security University, LLC*, 823 F 3d 153 (2d Cir 2016)).

²⁸ See also *Tiffany (NJ) Inc v eBay Inc*, 600 F 3d 93 (2d Cir 2010) (on nominative use in eBay search results).

²⁹ Ronald C Goodstein and others, 'Using Trademarks as Keywords: Empirical Evidence of Confusion' (2015) 105 Trademark Rep 732, 747–57.

³⁰ Elizabeth Godfrey, 'Significant Policy Change to Google's Trademark AdWords in Australia' (22 April 2013), <www.davies.com.au/ip-news/significant-policy-change-to-googles-trademark-adwords-in-australia> accessed 12 October 2019. The change occurred shortly after Google's success in litigation brought by the Australian statutory authority responsible for fair trading, in which it had been argued that Google's failure to differentiate sufficiently between organic results and sponsored links was misleading or deceptive: see *Google Inc v Australian Competition and Consumer Commission* [2013] HCA 1, (2013) 249 CLR 435 and, for critique, Amanda Scardamaglia and Angela Daly, 'Google, Online Search and Consumer Confusion in Australia' (2016) 24 IJLIT 203.

³¹ *Edward Young & Co Ltd v Grierson, Oldham & Co Ltd* (1924) 41 RPC 548, 577 (CA).

v Horsenail, where the use of a registered mark in a comparative advertisement was held to be non-infringing because the use was not as a trade mark.³² The requirement was embraced by courts and subsequently became an explicit part of the statutory test for infringement in a number of Commonwealth countries, including Australia and New Zealand. The underlying principle of trade mark use as it has come to be reflected in the laws of these countries is simple enough to state. As the High Court of Australia confirmed in *Shell Co of Australia Ltd v Esso Standard Oil (Australia) Ltd*, it is only use of a sign by the defendant as a badge of origin that will infringe.³³ That is, the use must indicate ‘a connection in the course of trade between goods and the person who applies the mark to the goods’.³⁴ This is to be judged objectively, by reference to likely consumer reaction, taking into account the particular manner and context of the defendant’s use.³⁵ The converse of the trade mark use requirement is that other types of use, such as nominative or descriptive use, will not infringe.

The first Australasian case in which liability for keyword advertising was directly considered was *InterCity Group (NZ) Ltd v Nakedbus NZ Ltd*,³⁶ a decision of the New Zealand High Court involving competing long distance bus companies. Nakedbus had purchased a number of Google AdWords, including the term ‘inter city’, which were used to generate advertisements that appeared in Google search results for ‘intercity’ and ‘intercity bus’ as in Figure 21.1.

inter city buses from \$1 - We'll beat any inter city fare
www.nakedbus.com/cheap_bus_fares
Free WiFi, Regular, Nationwide
Cheap Bus Tickets from \$1 conditions apply
Free WiFi on board

Figure 21.1 *Nakedbus Google advertisement*

InterCity Group argued that Nakedbus’s purchase of the keywords and its advertisements infringed InterCity Group’s registered INTERCITY trade mark under section 89 of the Trade

³² (1934) 51 RPC 110 (HL). We return to this decision in section 3.

³³ (1963) 109 CLR 407, 422.

³⁴ *Coca-Cola Co v All-Fect Distributors Ltd* [1999] FCA 1721, (1999) 96 FCR 107 [19]. This reasoning was approved by the High Court of Australia in *E & J Gallo Winery v Lion Nathan Australia Pty Ltd* [2010] HCA 15, (2010) 241 CLR 144 [43].

³⁵ For a recent rearticulation of the principles, see *Nature’s Blend Pty Ltd v Nestlé Australia Ltd* [2010] FCAFC 117, (2010) 87 IPR 464 [19]. On the relevance of Australian authorities in interpreting ‘trade mark use’ under New Zealand law, see *Tasman Insulation New Zealand Ltd v Knauf Insulation Ltd* [2015] NZCA 602, [2016] 3 NZLR 145 [162]–[163]; Paul Sumpter, ‘Some Observations on Trans-Tasman Trade Mark Law’ (2017) 27 AIPJ 88, 90–93.

³⁶ [2014] NZHC 124, [2014] 3 NZLR 177. In *Mantra Group Pty Ltd v Tailly Pty Ltd (No 2)* [2010] FCA 291, (2010) 183 FCR 450, a case involving infringement by use in domain names, the court’s orders extended to preventing the defendant from using the plaintiff’s registered mark as part of a search engine keyword. It has been pointed out that this part of the orders does not appear to have been the subject of debate between the parties: Warwick Rothnie, ‘Of Keywords, Adwords and Trade Mark Infringement’ (2010) 83 IP Forum 32, 33–34.

Marks Act 2002 (NZ). This provision requires both ‘use in the course of trade’ of a sufficiently similar sign to the registered mark,³⁷ and for that sign to have been used in such a manner that it is ‘likely to be taken as being use as a trade mark’.³⁸

On the issue of the defendant’s purchase of the keywords, Asher J had no difficulty finding that this involved use of the ‘inter city’ signs in the course of trade.³⁹ However, since the question of whether or not a use would be likely to be taken to be use ‘as a trade mark’ is to be determined from the perspective of potential consumers, the fact that the purchase involved a use that was not seen by consumers doomed the plaintiff’s argument to failure.⁴⁰ On the more contentious issue of Nakedbus’s advertisement, Asher J was convinced by the plaintiff’s evidence that the reputation of its INTERCITY mark was such that internet users searching for ‘intercity’ would be looking for the plaintiff’s business, rather than long distance bus services generally.⁴¹ On this basis it was thought that consumers would be likely to see the defendant’s advertisement, and in particular its prominent references to ‘inter city’, through a particular lens.⁴² Given that the advertisement would appear in the context of organic search results for the plaintiff’s business, and was presented in a manner that did not make clear that the business operating at nakedbus.com was unrelated to InterCity Group, Asher J held that consumers would consider that ‘inter city’ was being used in the advertisement as a trade mark, rather than in a descriptive sense.⁴³

A similarly fact-specific approach to keyword advertising and trade mark use has been adopted in Australia. In *Veda Advantage Ltd v Malouf Group Enterprises Pty Ltd*,⁴⁴ a Federal Court decision from 2016, the plaintiff was a data analytics company that provided credit reports to lending institutions, and was the registered owner of VEDA for financial services. It brought infringement proceedings against a party that had purchased Google AdWords containing the term ‘veda’, which were used to generate advertisements for its credit repair services, some of which also used the term ‘veda’. An example of the defendant’s advertising is set out in Figure 21.2.

Katzmann J gave a number of reasons as to why the defendant’s selection and nomination of the keywords did not constitute use of ‘veda’ ‘as a trade mark’ for the purposes of section 120 of the Trade Marks Act 1995 (Cth), but spent most time justifying her decision that trade mark use requires the use to be perceptible by consumers. Her Honour did so because there was conflicting Federal Court authority as to whether metatag use constitutes trade mark use (arising from the fact that the source data of websites in which metatags can be ‘hidden’ is potentially visible to those who know how to look for it).⁴⁵ Katzmann J ultimately considered

³⁷ Trade Marks Act 2002 (NZ) s 89(1).

³⁸ *ibid* s 89(2).

³⁹ *InterCity Group* (n 36) [66].

⁴⁰ *ibid* [82], [85]. The High Court refused to re-open this issue in the later case of *NZ Fintech Ltd v Credit Corp Financial Solutions Pty Ltd* [2019] NZHC 1210, [14]–[19].

⁴¹ *InterCity Group* (n 36) [108]–[130].

⁴² That the reputation of the plaintiff’s mark is relevant in considering whether the defendant’s use of its sign is use as a trade mark is well established: see Robert Burrell and Michael Handler, *Australian Trade Mark Law* (2nd edn, OUP 2016) 379.

⁴³ *InterCity Group* (n 36) [160]–[161]. It was also held that Nakedbus had engaged in passing off and was in breach of the Fair Trading Act 1986 (NZ).

⁴⁴ [2016] FCA 255, (2016) 241 FCR 161.

⁴⁵ Compare *Complete Technology Integrations Pty Ltd v Green Energy Management Solutions Pty Ltd* [2011] FCA 1319 [62] (no trade mark use since the metatags were invisible to the ordinary internet



Figure 21.2 *Veda Google advertisement*

that in the case of keyword advertising, the fact that the sign selected by the defendant would be ‘indiscernible’ to consumers meant that there was nothing being communicated to them that would denote a connection in the course of trade between the defendant and its services;⁴⁶ an approach entirely consistent with that taken in *InterCity Group*.⁴⁷ In contrast with *InterCity Group*, however, Katzmann J considered that the defendant’s use of ‘veda’ in its sponsored link advertising was not trade mark use, but rather a form of nominative use to indicate that the defendant’s business involved cleaning or repairing credit histories as contained in Veda’s files or reports.⁴⁸

Much like the US case law, what is striking about *InterCity Group* and *Veda Advantage* is that they involve relatively straightforward applications of the established doctrine of ‘trade mark use’, with the courts showing no interest in seeking to invent new principles (such as an idea of infringing ‘imperceptible’ use) to deal with the novel fact scenarios presented to them.⁴⁹ However, it is worth noting that courts in Australia and New Zealand have not yet had

user) with *Accor Australia & New Zealand Hospitality Pty Ltd v Liv Pty Ltd* [2015] FCA 554, (2015) 112 IPR 494 [432]–[435] (finding use in a metatag to be trade mark use, and thus infringing).

⁴⁶ *Veda Advantage* (n 44) [127]–[128]. More recently, in *Accor Australia & New Zealand Hospitality Pty Ltd v Liv Pty Ltd* [2017] FCAFC 56, (2017) 124 IPR 264 [323]–[325], [341] the Full Federal Court did not disturb the trial judge’s conclusion (n 45) that use in a metatag constituted trade mark use. This has caused some to query whether doubt has been cast on *Veda Advantage*: Tim Golder and Natasha Dixon, ‘Online Advertising and Trade Mark Use in Australia – Where Do We Stand?’ (2017) 12 JIPLP 986, 989. However, in *Accor* on appeal the defendants did not challenge the trial judge’s conclusion on metatag use, and the Full Court did not consider either *Complete Technology Integrations* (n 45) or *Veda Advantage*.

⁴⁷ For broadly similar reasons, we have argued elsewhere that a search engine operator would not be liable for infringement under Australian law for the mere sale of a trade marked keyword: Burrell and Handler, *Australian Trade Mark Law* (n 42) 390–91.

⁴⁸ *Veda Advantage* (n 44) [170]. The only exception related to a sponsored link with the heading ‘The Veda Report Centre’, which Katzmann J held involved the use of ‘Veda’ as a trade mark. Her Honour also held that, apart from this one exception, the defendant’s advertisements did not contravene the prohibition on engaging in misleading or deceptive conduct contained in the Australian Consumer Law (Competition and Consumer Act 2010 (Cth) sch 2).

⁴⁹ See generally Vicki Huang, ‘Liability for Invisible Use of Trade Marks on the Internet’ (2017) 28 AIPJ 51.

to confront more difficult fact scenarios involving the use of keywords to generate advertisements that contain the plaintiff's marks, where there is more uncertainty over how consumers might respond.⁵⁰

2.3 European Union Case Law

As indicated in the Introduction, the most complex technical legal questions have arisen in keyword advertising cases in the EU. Both the original Trade Marks Directive and the Community Trade Marks Regulation provided that a registered trade mark was infringed by the defendant 'using in the course of trade' an identical sign on goods or services identical to those covered by the registration,⁵¹ subject only to defences permitting certain descriptive or nominative uses in accordance with honest commercial practice.⁵² Before it came to decide the first keyword advertising cases in 2010, the Court of Justice had developed a complicated body of case law on what constitutes infringing use. In its earliest decisions, it held that use 'in the course of trade' need only be use 'in the context of commercial activity with a view to economic advantage and not as a private matter'⁵³ and that in order to infringe, such use must 'be liable to affect one of the functions of the mark'.⁵⁴ This was understood to mean that infringement could occur even if the defendant's use was not 'as a trade mark',⁵⁵ but that use that did not impact on the essential, origin function of the mark, such as use for descriptive purposes, would be permissible.⁵⁶ In its 2009 decision in *L'Oréal SA v Bellure NV*, the Court clarified that a use that affected *any* function of a registered mark – including the quality guarantee, investment, communication or advertising function – would infringe.⁵⁷ This approach had been hinted at in an earlier decision finding that a use of a registered mark in comparative advertising would not infringe provided that the use complied with the requirements of the Comparative Advertising Directive, which included that the advertisement not discredit, denigrate or take unfair advantage of the reputation of the registered mark.⁵⁸

Given how the law had developed by 2010, there was genuine uncertainty at that time as to the legal position of both keyword advertisers and search engine operators. In a series of cases, the Court of Justice helped to clarify the position of these parties, although in ways that are not unproblematic.

In its *Google France* decision, the Court held that Google, to the extent that it merely offered a paid service for the selection and storage of trade marked keywords, was *not* engaged in a use of those marks.⁵⁹ Notwithstanding that it was clearly undertaking a 'commercial

⁵⁰ Burrell and Handler, *Australian Trade Mark Law* (n 42) 391–92.

⁵¹ Directive 2008/95/EC to approximate the laws of the Member States relating to trade marks [2008] OJ L299/25 (Trade Marks Directive) art 5(1)(a); Council Regulation (EC) 207/2009 on the Community trade mark (CTMR) art 9(1)(a).

⁵² Trade Marks Directive, art 6; CTMR, art 12.

⁵³ Case C-206/01 *Arsenal Football Club plc v Reed* [2002] ECR I-10273, para 40.

⁵⁴ *ibid* para 42.

⁵⁵ Helen Norman, 'Time to Blow the Whistle on Trade Mark Use' [2004] IPQ 1.

⁵⁶ Case C-2/00 *Hölterhoff v Freiesleben* [2002] ECR I-4187.

⁵⁷ Case C-487/07 *L'Oréal SA v Bellure NV* [2009] ECR I-5185, para 58.

⁵⁸ Case C-533/06 *O2 Holdings Ltd v Hutchison 3G UK Ltd* [2008] ECR I-4231, para 45. See Directive 2006/114/EC concerning misleading and comparative advertising [2006] OJ L376/21 (MCAD), art 4.

⁵⁹ Joined Cases C-236/08 to 238/08 *Google France SARL v Louis Vuitton Malletier SA, Viaticum Lucetiel SA and Centre National de Recherche en Relations Humaines (CNRH) SARL* [2010] ECR I-2417, para 58.

activity with a view to economic advantage', the fact it was not proffering any such mark as 'its own commercial communication' was thought to be decisive.⁶⁰ This finding was perhaps surprising, given the Court's expansive reading of 'use' up to that time.⁶¹ In contrast, however, it was held that an advertiser would be using such a mark in the course of trade, and in relation to its goods and services, even if its resulting advertisement did not cause the selected mark to be displayed.⁶² This, in turn, gave rise to the question of whether the advertiser was using the mark in a manner that impacted on one of the mark's functions.

With the Court accepting that a defendant's use can infringe if it harms the mark's 'advertising function', in the sense of adversely affecting the owner's 'use of its mark as a factor in sales promotion or as an instrument of commercial strategy',⁶³ it might have been thought that keyword advertisers would have been on very shaky ground. However, the Court was not prepared to find that an advertiser's conduct, in paying to use another's mark to ensure its own advertisements were prioritised on search result pages, would harm the mark's advertising function, seemingly because the mark owner's websites would still appear high up in the list of organic search results.⁶⁴ While this is a welcome outcome, given the more general problems with the Court's attempts to assess infringement in double identity cases through a 'functions' analysis,⁶⁵ it cannot be pretended that the Court's reasoning on the advertising function is at all comfortable.

The more challenging issue for the Court was to provide guidance as to when an advertiser's conduct might harm the mark's origin function. The Court concluded that this was a question of fact, turning on whether the defendant's advertisement enables 'normally informed and reasonably attentive internet users . . . only with difficulty . . . to ascertain whether the goods or services referred to' originate from a party other than the owner of the mark.⁶⁶ It considered that the mark's origin function would be adversely affected if the advertisement 'suggests that there is an economic link' between the plaintiff and defendant, or if it is sufficiently 'vague' that the normally informed and reasonably attentive internet user would be unable to determine the nature of the economic relationship between the parties.⁶⁷

⁶⁰ *ibid* para 56. See also *Och-Ziff Management Europe Ltd v Och Capital LLP* [2010] EWHC 2599 (Ch), [2011] FSR 11 [55]–[66].

⁶¹ Martin Senftleben, 'Keyword Advertising in Europe – How the Internet Challenges Recent Expansions of EU Trademark Protection' (2011) 27 Conn J Int'l L 39, 61. For critique of the test set up by the CJEU, see Jane Cornwell, 'Keywords, Case Law and the Court of Justice: The Need for Legislative Intervention in Modernising European Trade Mark Law' (2013) 27 Int'l Rev L Computers & Tech 85, 88–91.

⁶² *Google France* (n 59) paras 51–52, 69, 71. See also Case C-558/08 *Portakabin Ltd v Primakabin BV* [2010] ECR I-6963, para 28.

⁶³ *Google France* (n 59) para 92.

⁶⁴ *ibid* para 94. See also Case C-278/08 *Die BergSpechte Outdoor Reisen und Alpinschule Edi Koblmüller GmbH v Guni* [2010] ECR I-2517, para 34; Case C-323/09 *Interflora Inc v Marks & Spencer plc* [2011] ECR I-8625, paras 54–57. For criticism, see Cornwell (n 61) 94.

⁶⁵ Audrey Horton, 'The Implications of *L'Oréal v Bellure* – A Retrospective and Looking Forward' [2011] EIPR 550; Martin Senftleben, 'Function Theory and International Exhaustion – Why It Is Wise to Confine the Double Identity Rule to Cases Affecting the Origin Function' [2014] EIPR 518.

⁶⁶ *Google France* (n 59) para 84. See also *Die BergSpechte* (n 64) para 35; *Portakabin* (n 62) para 34. A near identical version of this test also applies if the defendant has selected a keyword that is merely similar to the registered mark: *Die BergSpechte* (n 64) para 39.

⁶⁷ *Google France* (n 59) para 90. See also *Die BergSpechte* (n 64) para 36. Further, since it is possible for an advertiser to infringe in these circumstances, this raises the possibility of the search engine opera-

From this guidance from the Court of Justice, and subsequent case law in which it has been applied, the most that can be said is that there is a ‘consensus that keyword advertising using a competitor’s trade mark is not inherently or inevitably objectionable from a trade mark perspective’.⁶⁸ While it is clear that defendants will infringe when they are using the plaintiff’s mark in the course of advertising counterfeit versions of the plaintiff’s goods,⁶⁹ and are unlikely to infringe when their advertisements make clear they are selling the plaintiff’s actual goods or their own competing products, other cases are not so straightforward. This is particularly the case when the defendant’s advertisements do not make reference to the plaintiff’s mark, as exemplified by the English High Court’s 2013 decision in *Interflora Inc v Marks and Spencer Plc*.⁷⁰ Interflora, a flower delivery network operating through florists and some retail premises, including supermarkets, brought infringement proceedings against retailer Marks & Spencer, which had purchased the ‘interflora’ keyword to generate advertisements that took the following form:⁷¹

M&S Flowers Online
Beautiful Fresh Flowers & Plants.
Order by 5pm for Next Day Delivery.
www.marksandspencer.com/flowers

Arnold J found in favour of Interflora, emphasising that the unusual nature of the plaintiff’s business, and the absence of any disclaimers in the defendant’s advertisement, meant that searchers might reasonably infer that Marks & Spencer had joined the Interflora network, rather than setting itself up as a competitor to Interflora.⁷² On appeal, Marks & Spencer was successful in arguing that the plaintiff and not the defendant bore the onus of proof in determining whether the normally informed and reasonably attentive internet user would be misled, leading to the case being remitted to the trial judge,⁷³ at which point the case appears to have settled. The case thus remains a useful illustration of the factual challenges involved in determining how consumers will respond to specific advertisements, given their knowledge of the relationship between such advertisements and organic search results, and between the particular parties to the dispute.

tor being liable as a secondary infringer: see generally Annette Kur, ‘Secondary Liability for Trademark Infringement on the Internet: The Situation in Germany and throughout the EU’ (2014) 37 Colum JL & Arts 525.

⁶⁸ *Interflora Inc v Marks and Spencer Plc* [2013] EWHC 1291 (Ch), [2013] ETMR 35 [283].

⁶⁹ It is also clear that a defendant whose trading name is confusingly similar to the mark owner’s and who provides the same services as the mark owner will infringe by bidding on that mark as a keyword, causing an advertisement for the defendant’s business to be displayed when consumers undertake a search using that mark: *Victoria Plum Ltd v Victorian Plumbing Ltd* [2016] EWHC 2911 (Ch), [2017] ETMR 8 (in which Carr J also held that a defence of honest concurrent use was unavailable).

⁷⁰ *Interflora* (n 68).

⁷¹ *ibid* [136].

⁷² *ibid* [295]–[297].

⁷³ *Interflora Inc v Marks and Spencer Plc* [2014] EWCA Civ 1403, [2015] ETMR 5.

3. ACTIONABLE ADVERTISEMENTS

If there is a single message to be taken from section 2, it is that flexible standards have an important role to play in the trade mark field in enabling courts to craft appropriate outcomes when confronted with novel fact patterns. The use as a trade mark doctrine in Australia and New Zealand and the nominative fair use defence in the United States have allowed courts to focus relatively easily on what has rightly been identified as the core issue, namely, whether the trade mark owner is likely to suffer harm. If courts in the EU have found it more difficult to reach this point, this is because the extent to which functions analysis is capable of providing a policy driven safety valve has still not been established, in no small part because the protected functions of a mark remain poorly articulated and understood.

That trade mark law has proven to be sufficiently flexible to be adapted to the online environment ought not to come as a surprise. The spread of the telephone, the advent of radio and television broadcasting and the move to supermarkets and other stores where goods are selected by shoppers from a shelf or rack all required courts to think carefully about how to apply existing legal principles to a new business environment.⁷⁴ Indeed, given this history, a better question might be: why is there still so much interest in and controversy surrounding keyword advertising? To our minds, the answer lies in the fact that giving the trade mark owner the exclusive right to control the use of its mark in advertising is neither as obvious nor as straightforward as is generally assumed. This may well appear to be a surprising assertion, since there are advertising-type uses that can unquestionably cause consumer confusion. Consider, for example, an advertisement placed outside a retail outlet that states ‘we only sell [brand] products’. Any consumer going into that retail outlet will naturally assume that all the products he or she sees in that outlet do indeed come from the trade source identified in the advertisement. Moreover, the consumer may have no reason whatsoever to question that assumption up to and beyond the point of sale,⁷⁵ particularly if the goods in question are otherwise unmarked or are marked in a way that the consumer takes to be an unfamiliar subbrand.⁷⁶ There can be no argument within our existing trade mark paradigm that this type of use in advertising ought not to be allowed. But even if trade mark protection were to be cut back drastically to a right to prevent counterfeiting, there would be a strong argument that this type of use ought still to be prohibited.

It is therefore unsurprising that courts were prepared to intervene from an early stage to issue injunctions against some types of misleading advertisement. In the 1888 case of *Jay v Ladler* an injunction was granted to prevent the defendant’s use of a device consisting of a ‘lady and a bear’ in circulars advertising its business as a furrier, this being similar to the device used by

⁷⁴ In Australia see, for example, *Shell* (n 33) (use on television); *Taiwan Yamani Inc v Giorgio Armani SpA* (1989) 17 IPR 92 (ATMO) (clothing now selected from racks rather than being purchased over the counter following an oral request).

⁷⁵ That is, the problem is not necessarily confined to initial interest confusion.

⁷⁶ To illustrate further, imagine a beer tent set up at a street festival that has a sign outside saying ‘All of our beers come from the METROPOLIS microbrewery’. A consumer going into the tent will assume that all of the beers that he or she sees have indeed been brewed by Metropolis. Moreover, even if the consumer is familiar with some Metropolis products, he or she may well be unsurprised and untroubled to be confronted with a series of beers with unfamiliar names, since microbreweries tend to regularly innovate with their product lines.

the plaintiff and registered in relation to a limited range of furrier's goods.⁷⁷ The result in this case again seems uncontroversial. The problem, however, is that there are many other sorts of use in advertising where it is far less clear that the trade mark owner ought to have even a *prima facie* remedy. Consider, for example, the 1982 Irish case of *Gallaher (Dublin) Ltd v The Health Education Bureau*.⁷⁸ The background to that case was that the defendant, a public agency, distributed imitation packets of cigarettes containing rolled up pieces of paper that gave advice on how to quit smoking. The packets featured the mark CONQUEST in a prominent position. Unbeknownst to the defendant, the plaintiff had secured registration for this word as a trade mark and had produced and sold a small number of cigarettes under this brand. The court held that the mark had been used in relation to cigarettes (and not merely in relation to a health campaign) and consequently found for the plaintiff. *Gallaher* has never been entirely free from controversy in Commonwealth trade mark circles,⁷⁹ and in an age where cigarette manufacturers are required to sell their products in packages that are designed to be as unattractive as possible it is tempting to dismiss this case as being a product of a different time. In fact, however, *Gallaher* represents the natural consequence of bringing rights over advertising within the trade mark owner's exclusive domain.

The most striking feature of *Gallaher* is that there was and could be no suggestion that anyone was in danger of being confused. The defendant's health promotion packet was not for sale and no rival product was being touted. The defendant in this case was not intending to refer to the plaintiff's goods and the plaintiff was not required to lead evidence to demonstrate that consumers who saw the defendant's packet had the plaintiff's product brought to mind. Nor was the plaintiff required to demonstrate harm to its reputation or the value of its brand. What we see in this case therefore is the trade mark owner being given control over its mark as a free-floating signifier. But this feature of the case is not anomalous. Rather, it is the product of the normal mechanics of registration. The process of registration produces a bureaucratised species of property right that sits some way removed from the signs that are used and encountered by consumers in the marketplace. This abstraction away from the marketplace means that registered trade mark infringement often extends well beyond anything that a mere right against confusion would warrant. This is most obvious in cases where a defendant is using the same mark in relation to the same goods and services for which the mark has been registered. As we saw in section 2, in some jurisdictions, including the EU and New Zealand, this is conceptualised as 'double identity' infringement and attracts a form of strict liability, subject to the defendant being able to rely on a defensive doctrine.⁸⁰ Moreover, even registration-based systems, such as the Australian system, that do not formally separate out double identity cases tend to end up in much the same place: if the defendant has used an identical mark for identical goods, the burden will fall on the defendant to bring itself within an exception.

⁷⁷ (1888) 40 Ch D 649 (Ch). See also *Bourne v Swan & Edgar Ltd* [1903] 1 Ch 211 (Ch).

⁷⁸ [1982] FSR 464 (HC of Ireland).

⁷⁹ See DR Shanahan, *Australian Law of Trade Marks and Passing Off* (2nd edn, Law Book Co 1990) 337; Burrell and Handler, *Australian Trade Mark Law* (n 42) 375.

⁸⁰ On the notion of 'defensive doctrines' see Graeme B Dinwoodie, 'Developing Defenses in Trademark Law' (2009) 13 *Lewis & Clark L Rev* 99 (noting that some of the doctrines that allow defendants to escape liability in trade mark cases – such as use as a trade mark or use not affecting the functions of the mark – technically form part of what the trade mark owner has to establish, but in practice the burden falls on the defendant, such that these elements of trade mark law act much like defences).

Double identity type infringement appears largely unobjectionable when we are dealing with the branding of goods. The placement of an identical mark on identical products must give rise to a presumption of confusion, such that it should fall to the defendant to displace this presumption.⁸¹ Once one turns to advertising, however, it is far less clear that the same presumption should hold. The difficulty, as the keyword advertising cases illustrate, is that advertisements can carry a whole host of non-confusing messages. As we noted in the Introduction, the advertiser might be indicating that it is selling the registered goods, can repair those goods, provides reviews of those goods or is selling a rival product. Moreover, these are merely illustrations: there are many other types of use in advertising that will not give rise to confusion, as a case like *Veda Advantage* (the ‘credit repair’ case) illustrates. Yet registration systems do invariably apply the same presumption to advertising as they do to the branding of goods. Advertising is included in legislative lists of uses of signs that require the trade mark owner’s consent – lists that also include not merely use on goods, but also use on business papers, in catalogues and as letterhead.⁸² It might well be possible to be critical about equating a number of these other uses with use on the goods themselves, but in practice it is really only use in advertising that has caused problems.

This is not to suggest that advertising ought to be taken outside of the exclusive rights of the trade mark owner. Not only would such a reform be politically difficult, but it might well prove undesirable. ‘Use in advertising’ is not a fixed or stable concept and for service marks in particular there would be real difficulties in seeking to draw a line between use in advertising and use in immediate relation to the services (as where the mark is used on a shop front, on sandwich boards placed in close proximity to the premises, and so forth). Moreover, the key message from the previous section was that it is possible to apply flexible defensive doctrines (such as nominative fair use and use as a trade mark) in order to produce a set of broadly defensible outcomes. There is, however, still reason for approaching the extension of trade mark rights to cover use in advertising with caution. To our minds, there are three further interrelated issues that warrant attention and further study.

First, there is perhaps some need for caution in taking ‘keyword advertising’ as if it were representative of how trade mark law responds to use in advertising more generally. Use of a trade mark as a keyword has, as we have noted, attracted an extraordinary degree of attention over many years. There is widespread understanding of the potential problem within the trade mark community and it is not surprising that judges, aided by practitioners working for well-resourced parties and with a wealth of academic material to draw upon, have managed to craft a set of sensible principles. There is, however, a danger that particular uses become fetishised. There is a danger that we privilege uses such as keyword advertising (or uses such as parody) and fail to acknowledge that these are mere illustrations of types of use that are in general unlikely to cause the trade mark owner harm.⁸³ To illustrate, consider the position in

⁸¹ As, for example, where a sign has acquired secondary meaning, but the defendant is seeking to demonstrate that it is using the sign in its original descriptive sense. For an illustration of this type of case, see *Pepsico Australia Pty Ltd v The Kettle Chip Co Pty Ltd* (1996) 33 IPR 161 (FCA, Full Court) (plaintiff had acquired secondary meaning for the mark KETTLE for potato chips, but the defendant was able to avoid liability by demonstrating that its use of the phrase ‘Kettle cooked potato chips’ was merely descriptive of the cooking process and hence was not use as a trade mark).

⁸² See, for example, CTMR, art 9(3); Trade Marks Act 1994 (UK), s 10(4); Trade Marks Act 1995 (Cth), s 9; Trade Marks Act 2002 (NZ), s 121.

⁸³ This argument has been developed at length elsewhere. See Burrell and Gangjee (n 5).

the EU where, following *Google France*, it is clear that many uses by a trader of a competitor's trade mark in a keyword advertisement are unobjectionable. Simultaneously, however, the Court of Justice has told us that use of trade marks in product comparison lists may well be infringing.⁸⁴ The highly publicised keyword advertising problem gets addressed, but much of the rest of the system remains unsatisfactory.

Second, it should be noted that one of the things that is encouraging about the keyword advertising cases is that courts have generally been slow to accept that any and all instances of consumer confusion must be equated with trade mark infringement. There seems to be general agreement that if consumers have to spend an extra second or two reading the text underneath a link, that does not necessarily constitute actionable confusion. Similarly, there seems to be an acceptance that the mere fact that some consumers may erroneously click on a link is not necessarily determinative: having to click the back button on your browser is not, in fact, so onerous an imposition that the law needs to do everything within its power to prevent it. This is all very welcome, but rather than heaving a sigh of relief that courts have in the online context proven unusually willing to countenance the idea that legitimate traders may induce a degree of consumer confusion, we ought to be looking for more clarity generally about when we should tolerate some degree of confusion in order to maintain healthy levels of competition, to preserve freedom of expression or to further some other goal of public policy.⁸⁵

Third, account must be had of a slippage in reasoning that can occur within the current paradigm. If one starts from the position that trade mark owners have a right to prevent use in advertising and defendants must bring themselves within an exception, then it is all too easy to accept as a follow-on proposition that any such exception should be subject to 'reasonable' limits. We are therefore told that use for the purposes of comparative advertising 'must not present goods or services as imitations or replicas'⁸⁶ and must be in accordance with 'honest practices in industrial or commercial matters'.⁸⁷ Such legislative qualifications on the right of defendants to use a trade mark often pass without notice. After all, few of us would want to be seen to be supporting *dishonest* practices in industrial or commercial matters. But these qualifications can blind us to the fact that if the trade mark owner is not in danger of suffering a type of legally cognisable harm then the owner has only been given a right in the first place for expediency of regulatory design. Legislative restrictions on the scope of exceptions that allow defendants to use a mark in advertising that are unconnected to the likelihood of consumer confusion are thus by no means obviously desirable. In a similar vein, courts need to be cautious when giving the plaintiffs the 'benefit of the doubt' when dealing with cases where there is uncertainty as to how consumers would respond to the advertisement in question.⁸⁸ Such a pro-plaintiff starting point would of course make sense in the type of case that justifies

⁸⁴ *L'Oréal* (n 57) para 58.

⁸⁵ See further Graeme B Dinwoodie, 'Trademarks and Territory: Detaching Trademark Law from the Nation-State' (2004) 41 *Hous L Rev* 885; Graeme B Dinwoodie and Dev S Gangjee, 'The Image of the Consumer in European Trade Mark Law' in Dorota Leczykiewicz and Stephen Weatherill (eds), *The Images of the Consumer in EU Law* (Hart Publishing 2015); Robert Burrell and Kimberlee Weatherall, 'Towards a New Relationship between Trade Mark Law and Psychology' (2018) 71 *CLP* 87.

⁸⁶ *MCAD* (n 58) and see *L'Oréal* (n 57) for how this applies in the trade mark context.

⁸⁷ Trade Marks Act 2002 (NZ), s 94.

⁸⁸ See Burrell and Handler, *Australian Trade Mark Law* (n 42) 378, 383 where we discuss cases that have turned on the trade mark use enquiry in which it has been held that where the nature of the use is uncertain courts should err on the side of the plaintiff.

giving trade mark owners some degree of control over use of their marks in advertisements. In a case such as *Jay v Ladler* it seems entirely unproblematic to conclude that any uncertainty should be resolved in favour of the plaintiff. However, providing plaintiffs with the benefit of the doubt makes much less sense if the defendant has put out an advertisement in which it appears to have honestly tried to communicate that its business involved renting earth moving equipment manufactured and sold by the plaintiff.⁸⁹ Surely in such a case the burden should fall on the trade mark owner to establish to the court's satisfaction that consumers would have mistaken the advertisement to be suggesting that there was a sponsorship or licensing arrangement between the plaintiff and the defendant.

To further develop the points made in the above paragraph, it may be worth drawing attention to the now largely forgotten history of how the UK came to take a restrictive approach to comparative advertising. By the time the UK came to implement the harmonised European trade mark regime it was generally understood that under the Trade Marks Act 1938 'comparative advertising was trade mark infringement',⁹⁰ with that Act specifically overturning the House of Lords' decision in *Yeast-Vite*. However, the path to this outcome was not straightforward. What now tends to be forgotten is that following *Yeast-Vite* there was a period of uncertainty as to whether any form of use in advertising could amount to a trade mark infringement. This was a product of the way the cases on use in advertising had developed to that point in time. As was noted above, following the decision in *Jay v Ladler* there was a consensus that use in advertising could constitute an infringement. This was confirmed by the decision of Farwell J in *Bourne v Swan & Edgar Ltd* in 1903.⁹¹ Strictly speaking, the relevant part of Farwell J's decision was purely obiter (since the marks in question were held not to be deceptively similar), but this decision nevertheless appears to have attracted considerable attention as a use in advertising case. Importantly, however, Farwell J justified this outcome by saying that 'I do not think that it can be really necessary that the mark should be used by the defendants as a trade-mark'.⁹² But when the House of Lords subsequently decided in *Yeast-Vite* that use as a trade mark was a precondition for a finding of infringement this cast doubt on whether use in advertising could ever be actionable. The decision of the Court of Appeal in *Nicholson v Bass*, although dealing with an unusual fact pattern concerning a mark alleged to have been used continuously since before 1875, could be read as supporting the view that use in advertising could never infringe.⁹³ Consequently, when the Goschen Committee came to take evidence on this point, the question of whether comparative advertising should be permitted had become bound up with whether trade mark owners should have any degree of control over advertisements.⁹⁴

⁸⁹ cf *Caterpillar Loader Hire (Holdings) Pty Ltd v Caterpillar Tractor Co* (1983) 1 IPR 265 (FCA, Full Court).

⁹⁰ Helen Norman, *Intellectual Property Law Directions* (OUP 2014) 423, and see Ruth Annand and Helen Norman, *Blackstone's Guide to the Trade Marks Act 1994* (Blackstone Press 1994) 159.

⁹¹ *Bourne* (n 77).

⁹² *ibid* 229.

⁹³ [1931] 2 Ch 1. See, in particular, at 39: 'Advertisement of a trade mark in the press or on billheads, invoices and price lists is not a user of that mark. The only way in which a trade mark can be used is upon or in connection with goods' (Lawrence LJ). The subsequent decision of the House of Lords (*Bass, Ratcliff and Gretton Ltd v Nicholson and Sons Ltd* [1932] AC 130) left this point unresolved.

⁹⁴ Minutes of Evidence taken before the Departmental Committee on the Law and Practice relating to Trade Marks (HMSO 1934) 65–66.

Parliament intervened to address use of a trade mark in advertising with the passage of the Trade Marks (Amendment) Act 1937. This was unquestionably designed to allow trade mark owners to bring infringement proceedings in relation to *some* types of advertisement. Equally, however, Parliament was keen to ensure that at least one form of comparison remained permissible: there could be no question of 'a salesman, by saying that X goods are better than Y goods, bringing himself within the ambit of the Bill'.⁹⁵ The latter was achieved by taking oral use outside the ambit of the amending legislation.⁹⁶ What is less certain is whether Parliament intended to place all other (non-oral) use in advertising under the exclusive control of the trade mark owner. The parliamentary debate focused on questions of 'fraud' and 'abuse' in advertising and it is unclear whether Parliament imagined that courts would apply a blanket prohibition on use in advertising or a fact-specific analysis of the likelihood of consumer confusion.⁹⁷ When the 1937 amendments came to be subsumed into the comprehensive overhaul of trade mark law that took place the following year with the passage of the Trade Marks Act 1938, there was still some Parliamentary support for permitting comparative advertising. By this point, however, the principle that trade mark owners did have a right to control use in advertising had been established by the 1937 Act and the government was now prepared to state expressly that its intention was to overturn *Yeast-Vite*.⁹⁸ Even so, the 1938 Act persisted in employing vague language, such that there was still scope for considerable judicial disagreement as to whether the parliamentary intention really had been to prohibit all forms of comparative advertising.⁹⁹ Ultimately, though, the courts came down in favour of the view that comparative advertising constituted trade mark infringement: in the face of a right to control use in advertising and in the absence of an express comparative advertising exception, trade mark owners were entitled to the benefit of any uncertainty.

⁹⁵ Debates on Trade Marks (Amendment) Bill [Lords], Standing Committee D, 15 June 1937, col 1204.

⁹⁶ This limitation was enacted in s 15(1)(b) of the Trade Marks (Amendment) Act 1937, which required 'use upon the goods or in physical relation thereto or in an advertising circular, or other advertisement, issued to the public'.

⁹⁷ In this respect, it is worth emphasising that Parliament was not intending directly to implement the 1934 Goschen Committee's recommendations. The Committee had recommended overturning *Yeast-Vite*, but also that an expanded infringement provision 'should be made to allow the *bona fide* use of a mark by third parties for the purpose of describing such things as refills, accessories or spare parts specially adapted for use in or with goods of the registered proprietor': *Report of the Departmental Committee on the Law and Practice relating to Trade Marks*, Cmd 4568 (HMSO 1934) 49–50. In other words, the Committee had recommended the introduction of a strong right (that would have included oral use) that was subject to an express defence. From the sources available, it is impossible to discern a clear parliamentary intent, from the introduction of a weaker right subject to no express defence, to implement the Committee's recommendation.

⁹⁸ HC Debates (vol 324), 27 May 1937, col 515 (Dr Burgin, Parliamentary Secretary to the Board of Trade).

⁹⁹ See *Bismag Ltd v Amblins (Chemists) Ltd* [1940] Ch 667 (CA), in particular the dissenting judgment of MacKinnon LJ.

4. CONCLUSION

In this chapter we have tried to suggest that the law relating to keyword advertising can be regarded as settled in the jurisdictions we have examined. To be clear, this is not to say that difficult or borderline cases will not continue to arise or that the law will not continue to evolve; rather, it is to suggest that the overall direction and shape of the law's response to the use of trade marks in keyword advertising is now almost certainly fixed. Indeed, what is most interesting for us, now that the dust has settled, is how comfortable courts have been in applying and tweaking existing doctrines and how little difficulty they have encountered in reaching (broadly) sensible and defensible positions. But keyword advertising remains conceptually interesting. This is not because it provides a case study of whether trade mark law can cope with the challenges of new technologies and new business practices (it can and it has), but more because it provides a springboard for a reconsideration of what sort of advertising involving trade marks should ever be actionable. We argue that we should reorient ourselves to remember that there are many types of use in advertising that should never in principle be actionable. We may, nevertheless, choose to give trade mark owners broad control over use in advertising for reasons of regulatory convenience. However, this in turn means that seemingly benign ideas, like ensuring that there are 'reasonable' limits to the 'exceptions' that make some use in advertising permissible, must in fact be treated with great care. If there are generalisable lessons to be learned from the keyword advertising cases they are, first, that we need to remain firmly focused on the question of whether any particular use really is likely to cause the trade mark owner harm, and, second, of the importance of being circumspect when deciding whether causing consumers a few moments of uncertainty or some degree of puzzlement is to be equated with a likelihood of confusion.

22. Fit for purpose? 3D printing and the implications for design law: opportunities and challenges

Dinusha Mendis

Enforcement may become even more complex in the future with the emergence of 3D printing. This technology makes it easier to breach industrial designs and hence it is necessary to question exactly how rights will be enforced in the future . . . Enforcing infringement laws is likely to become a complicated process with the decentralised nature of 3D printing counterfeit and piracy . . . Furthermore, the anonymity and perception of safety that comes along with infringement inside private homes along with the ease and low-cost of 3D printers contributes to these complications.¹

The above quote captures the challenges presented by additive manufacturing, or 3D printing, as it is more commonly known. The term ‘additive manufacturing’ emanates from the process of creating a product layer by layer. The technology has come a long way from the days of thought leaders such as Arthur C Clarke, who first spoke about the possibility of something like this happening in 1964 to an article written in the *New Scientist* on 3 October 1974 outlining the concept,² and Charles Hull, who in 1988 was granted the patent for the first commercial 3D printer.³ Since then the technology has continued to develop significantly, and has led to the creation of various end products in the medical, transport, food, toy and hobby and fashion and cosmetic industries, to name a few.⁴ While this new technology has opened up new frontiers, there is a fear that ‘manufacturing and business as usual will be disrupted as regular people gain access to power[ful] tools of design and production’.⁵

Accordingly, the recent introduction of home-based 3D printing has enabled consumers to engage in the manufacture of products using digital data bought or ‘shared’ online, circumventing much of the traditional manufacturing and retail value chain.⁶ In turn, it has provided the potential for designing, sharing and reproducing physical objects. At the consumer level,

¹ *Economic Review of Industrial Design in Europe* (MARKT2013/064/D2/ST/OP, Europe Economics 2015) 13.

² D Jones, ‘“Ariadne” Column’ (*New Scientist*, 3 October 1974) 80.

³ Application no 06/638,905 (filed 8 August 1984) US Patent 4,575,330 ‘Apparatus for Production of Three-Dimensional Objects by Stereolithography’ (granted 11 March 1986).

⁴ European Parliament, ‘Working Document on Three-Dimensional Printing, a Challenge in the Fields of Intellectual Property Rights and Civil Liability’ (23 November 2017).

⁵ H Lipson and M Kurman, *Fabricated: The New World of 3D Printing* (John Wiley & Sons 2013) 7.

⁶ Innovate UK, *Shaping Our National Competency in Additive Manufacturing* (Materials KTN, September 2012) 4. As a digital technology, ‘additive manufacturing’ (more commonly called 3D printing) is progressively being integrated with the internet, enabling consumers to engage directly in the design process, and allowing true consumer personalisation.

there is the likelihood of disruption to certain business models as 3D printing is likely to allow much more precise customisation of products.⁷

While actual infringement of registered and unregistered designs through the use of 3D printers remains relatively low at present – due to limitations in technology, access to printing material and the cost of hardware⁸ – in a number of reports and studies,⁹ concerns surrounding the anticipated impact of such copying are confirmed.¹⁰ Moreover, given the decreasing cost of 3D printers, advancements in technology and greater access to online tools for consumer use, it is reasonable to anticipate that this may become a significant issue in the near future.¹¹ Therefore, in adapting to this technology, it is both prudent and timely to review the current design laws in order to adopt policy recommendations before the reproduction of physical objects does what MP3 files did for music and film.¹²

This chapter will commence by setting out a brief introduction to registered and unregistered design rights, from the perspective of the United Kingdom (UK) and considering the influence of the European Union (EU), before moving on to a consideration of the challenges posed by 3D printing. In this context, the chapter will first consider the legal status of a computer-aided design (CAD) file within the context of registered and unregistered design, before proceeding to consider the implications presented through infringement and possible exceptions available for users. Highlighting challenges and raising questions on design laws' ability to provide stringent enforcement for rights holders, the chapter will outline potential recommendations, drawn from patent and copyright laws, before concluding with some thoughts for the future.

1. DESIGN LAW: A MYRIAD OF LEGISLATION

The design law which applies in the UK is composed of four sets of design rights: Community registered design right (CRDR),¹³ Community unregistered design right (CUDR);¹⁴ UK reg-

⁷ *Economic Review of Industrial Design in Europe* (MARKT2013/064/D2/ST/OP Europe Economics 2015) 13; see also European Parliament (n 4).

⁸ D Mendis and D Secchi, *A Legal and Empirical Study of 3D Printing Online Platforms and an Analysis of User Behaviour* (UK Intellectual Property Office, 2015).

⁹ P Reeves and D Mendis, *The Current Status and Impact of 3D Printing within the Industrial Sector: An Analysis of Six Case Studies* (Intellectual Property Office, 2015); J Dumotier et al, *Legal Review on Industrial Design Protection in Europe* (MARKT2014/083/D, European Commission 2016); *Economic Review of Industrial Design in Europe* (MARKT2013/064/D2/ST/OP, Europe Economics 2015); T Margoni, 'Not for Designers: On the Inadequacies of EU Design Law and How to Fix It' (2013) 4 JIPITEC 225; P Malaquias, 'Consumer 3D Printing: Is the UK Copyright and Design Law Framework Fit for Purpose?' (2016) 6 QM Journal IP 321.

¹⁰ *ibid* 131.

¹¹ D Mendis, D Secchi and P Reeves, *A Legal and Empirical Study into the Intellectual Property Implications of 3D Printing* (Intellectual Property Office 2015). See '3D Printing Research Reports' (GOV.UK, 29 April 2015) <www.gov.uk/government/publications/3d-printing-research-reports> accessed 19 October 2019.

¹² D Mendis, "'The Clone Wars': Episode 1 – The Rise of 3D Printing and its Implications for Intellectual Property Law – Learning Lessons from the Past?" [2013] EIPR 155, 154–155.

¹³ Council Regulation (EC) No 6/2002 of 12 December 2001 on Community Designs [2002] OJ L3/1.

¹⁴ *ibid*.

istered design right (UK RDR);¹⁵ and UK unregistered design right (UK UDR).¹⁶ The CRDR and CUDR are almost identical in terms of substantive rules, with some disparities such as the term of protection or the scope of infringement. Additionally, Community registered design law is harmonised with the UK registered design law so that the latter is almost identical with the former, whereas the UK unregistered design right is not harmonised with the Community unregistered design right. As a corollary, the CRDR and CUDR have almost the same rules; the UK UDR has considerably different rules from the rest of design rights. Protection provided by these rights is accumulative and therefore a design can be protected by four different routes. Both CRDR and UK RDR protection lasts five years but can be renewed five times; thus the maximum length of protection amounts to 25 years.¹⁷ In contrast, CUDR protection only lasts three years from the point at which the design is first made available to the public,¹⁸ whereas UK UDR lasts 10–15 years depending on the point at which the design is made available for sale or hire.¹⁹

With such a myriad of legislation to contend with, the next part of this chapter will provide an overview of UK registered and unregistered design laws, before considering its application to new technologies such as 3D printing.

2. A BRIEF INTRODUCTION TO REGISTERED AND UNREGISTERED DESIGN IN THE UK: INFLUENCE OF EU LAW

2.1 Registered Design

The Registered Design Act (RDA) 1949 has been amended quite significantly over a period of time, particularly through the Design Directive of 1998 (DD).²⁰ The DD was particularly instrumental in bringing the UK closer to other Member States from the perspective of the substantive law.²¹

One of the more interesting elements of RDA 1949 is in relation to the *appearance* of a product and differs significantly from the definition provided by the Community Design Regulation.²² The position in the UK before 9 December 2001 was that for a design to attract protection it had to *appeal to the eye*, that is to say, it should possess some aesthetic quality.²³ However, Article 11 of the DD,²⁴ and its implementation in the UK, broadened the definition

¹⁵ Registered Design Act 1949 (hereinafter ‘RDA 1949’).

¹⁶ Copyright, Designs and Patents Act 1988 (hereinafter ‘CDPA 1988’), part 3.

¹⁷ Council Regulation (EC) No 6/2002 (n 13).

¹⁸ Council Regulation (EC) No 6/2002 (n 13).

¹⁹ CDPA 1988, s 216(1).

²⁰ Council Directive 98/71/EC of 13 October 1998 on the legal protection of designs.

²¹ However, the DD maintained national procedures for obtaining, enforcing and invalidating national registered designs. See also M Vitoria et al, Laddie, Prescott and Vitoria, *The Modern Law of Copyright and Designs* (4th edn, Butterworths Law 2011) 1867.

²² Council Regulation (EC) No 6/2002 (n 13).

²³ Vitoria et al (n 21) 1930.

²⁴ Council Directive 98/71/EC (n 20).

of designs in the UK and removed the condition of appealing to the eye.²⁵ Since then, it is fair to say that the UK has a sort of mixed system for pre-December 2001 designs.²⁶

Another interesting feature of the RDA since it was updated through the DD is that it is no longer a requirement for a design to be registered in respect of a specific product.²⁷ The implication of this is that any number of new designs can be incorporated into a single application (in contrast to previous UK practice).²⁸ Additionally, a declaration to the effect that the owner believes the design is new and has individual character must be signed by the applicants or their representative.

Interestingly, even if all of the above requirements are met, the design can only be protected if it satisfies the vital elements of novelty and individual character, which are paramount for protecting a design. Case law tells us that in defining novelty and individual character, what is required most is ‘clear blue water between the registered design and the prior art’, otherwise there is a real risk that design monopolies will or may interfere with routine, ordinary, minor, everyday design modifications – what patent lawyers call ‘mere workshop modifications’.²⁹ However, in relation to the scope of protection, the standard differs. In other words, it is sufficient to avoid infringement if the accused product is of a design which produces a different overall impression. There is no policy requirement that the difference be ‘clear’. If a design differs, that is enough as long as an informed user can distinguish between the two.³⁰

Furthermore, in a field where the requirements for protection are not examined during registration, granting protection to designs that show modest amounts of individual character will contribute to creating a system populated by high numbers of untested and potentially poor quality property rights. This could lead to negative consequences on innovation, especially in emerging fields such as that of 3D printing.³¹

Finally, in the context of this chapter, it is interesting to note the definition of a ‘product’ under RDA 1949. ‘Product’ is defined as ‘any industrial or handicraft item other than a computer program’.³² This is similar to Article 1(b) of the DD and Article 3 of the designs regulation. However, section 2(4) of RDA 1949 states that ‘in the case of a design generated by computer in circumstances such that there is no human author, the person by whom the arrangements necessary for the creation of the design are made, shall be taken to be the author’.³³ The chapter will return to this very relevant point in the following pages.

²⁵ Vitoria et al (n 21) 1888.

²⁶ *ibid* 1939 et seq.

²⁷ See also L Bently and B Sherman, *Intellectual Property Law* (4th edn, OUP 2014) 696.

²⁸ *ibid*.

²⁹ *Procter & Gamble Co v Reckitt Benckiser (UK) Ltd* [2007] EWCA Civ 936 [16]–[18].

³⁰ In this sense, *ibid*.

³¹ See T Margoni, ‘Not for Designers: On the Inadequacies of EU Design Law and How to Fix It’ (2013) 4 JIPITEC 225; see also ‘Design Rights and 3D Printing in UK: Balancing Innovation and Creativity in a (Dis)harmonised and Fragmented Legal Framework’ in D Mendis et al (eds) *3D Printing and Beyond: Intellectual Property and Regulation* (Edward Elgar 2019).

³² RDA 1949, 1(3) (as amended).

³³ Although not the focus of this chapter, this section also has implications for artificial intelligence (AI).

2.1.1 Unregistered design

The background to unregistered design is worthy of note in outlining the current landscape. In the years preceding the Copyright, Designs and Patents Act 1988 (CDPA 1988), Vitoria et al explained how copyright law was used as a mechanism to enforce industrial plagiarism.³⁴ In particular, copyright in industrial production drawings was used to prevent unauthorised copying of the articles made in accordance with them.³⁵ However, copyright's original function was not to protect industrial articles, which, while occasionally possessing artistic elements, often were trivial articles with a functional rather than aesthetic or original nature.³⁶ This led to much criticism of copyright being used as a vehicle for protecting creations outside its ambit. On the other hand, it left open the question of the protection for designs that were not registrable (due to the lack of eye appeal prior to the DD 2001), for which copyright crucially became the only form of protection.³⁷ At the same time, the type of protection granted by copyright laws could hardly be considered fit for purpose, particularly taking into account the duration of protection; allowing such a long term (life of the author plus 70 years) for functional items would unduly limit competition and innovation in the industrial field. At the same time, the absence of a registration requirement made copyright very attractive to some industrial sectors, namely those industries where designs change rapidly over time.³⁸

It is through these turbulent times that the unregistered right emerged in the CDPA 1988, carving out a dedicated design right. Taking inspiration from the – at the time – recently implemented European Directive on the protection of topographies of semiconductor products,³⁹ the UK legislator introduced a new statutory right for designs called ‘design right’ (Part III of the CDPA 1988), which, for systematic coherence and terminological clarity, is referred to as UK Unregistered Design Rights (UK UDR).

A design, within the meaning of the UK UDR, refers to the original design of any aspect of the shape or configuration (whether internal or external) of the whole or part of an article.⁴⁰ Excluded from protection are methods or principles of construction and features of shape which enable the article to be connected to another article (*must fit* exception) or that are dependent upon the appearance of another article (*must match* exception). Surface decorations are also excluded from protection, as they are usually within the realm of copyright law.⁴¹

The length of protection granted by a UK UDR is much shorter than its copyright counterpart, reflecting the policy reasons underpinning this right as a form of protection for industrial articles. A UK UDR lasts for a maximum of 15 years (although this is usually much shorter) from when the design was first recorded in a design document or when an article was first made to the design, whichever occurs first.⁴² This is still longer than the three years

³⁴ Vitoria et al (n 21) especially the case *LB (Plastics) v Swish Products* [1979] RPC 511, FSR 145 (HL) therein cited.

³⁵ *ibid.*

³⁶ Vitoria et al (n 21) 1770.

³⁷ *ibid.*

³⁸ The balance between protection and competition in the field of designs is outlined, *inter alia*, by G Davies et al, *Copinger and Skone James on Copyright* (17th edn, Sweet & Maxwell 2016) 1025–26.

³⁹ Council Directive (EC) 87/54/EC on the legal protection of topographies of semiconductor products [1986].

⁴⁰ CDPA 1988, s 213(2).

⁴¹ *ibid* s 213(3)(a), (b) and (c); *Dyson v Qualtex* [2006] EWCA Civ 166, RPC 31.

⁴² CDPA 1988, s 216 and 237; see also Vitoria (n 21) 1772.

of protection granted by a CUDR, thus offering designers an extra tool in the light of the EU unregistered counterpart.

Section 51 of the CDPA 1988 establishes that it is not an infringement of any copyright in a design document to make an article to the design or to copy an article made to the design (except for artistic works or typefaces).⁴³ Additionally, Section 52 limited the copyright term of protection to 25 years for artistic works exploited by an industrial process producing more than 50 articles, if all were produced as copies.⁴⁴ The section 52 defence became the object of a lively discussion as the government promoted its repeal, which was achieved in 2016.⁴⁵ The effect of these sections came to light, particularly from a 3D model's perspective, in the much discussed *Lucasfilm* case (relating to the *Star Wars* Stormtrooper helmets),⁴⁶ where it was held that the helmets were not sculptures and thus could not benefit from the full term of copyright protection. The court ruled that the *Star Wars* Stormtrooper helmets could benefit from the shorter protection offered by UK UDR, or by the term identified by section 52. As of 28 July 2016, all artistic works are granted the same length of protection, regardless of whether they are exploited industrially.⁴⁷

Having presented a brief overview of design rights in the UK, the chapter will now turn to consider the challenges posed by 3D printing and its impact for the future of design rights in the UK.

3. CHALLENGES POSED BY 3D PRINTING

A commissioned report published in 2016 by the European Commission concluded that at the most basic level,⁴⁸ 3D printing technology can be understood as being a low cost means of easily reproducing objects that could potentially be protected by intellectual property rights, including design rights.⁴⁹ If this is the case, the question then is whether the current legal regime offers a balance between innovation and misappropriation.

On the one hand, it is evidenced that additive manufacturing occurs in the fashion industries (to produce prototypes and models), and in consumer goods markets to manufacture products

⁴³ CDPA 1988, s 51(1).

⁴⁴ CDPA 1988, s 52. See also Copyright (Industrial Process and Excluded Articles) (No 2) Order 1989, SI 1989/1070, ss 2 and 3. See also Bently and Sherman (n 27) 684.

⁴⁵ For a detailed and critical account, L Bently, 'Return to Industrial Copyright? [2012] 34(10) EIPR 654–72; For details on the legislative history of this amendment see 'Copyright protection of industrially manufactured artistic works' (*GOV.UK*, 6 April 2017) <www.gov.uk/government/publications/copyright-protection-of-industrially-manufactured-artistic-works> accessed 19 October 2019.

⁴⁶ *Lucasfilm Ltd & Others v Ainsworth and Another* [2011] 3 WLR 487.

⁴⁷ Transitional arrangements for the repeal of section 52 CDPA (*GOV.UK*, 21 April 2016) <www.gov.uk/government/consultations/transitional-arrangements-for-the-repeal-of-section-52-cdpa> accessed 19 October 2019.

See also D Mendis et al, 'The Co-Existence of Copyright and Patent Laws to Protect Innovation – A Case Study of 3D Printing in UK and Australian Law' in R Brownsword et al (eds) *The Oxford Handbook of Law, Regulation and Technology* (Oxford University Press 2017) chapter 19.

⁴⁸ Dumotier (n 9).

⁴⁹ In relation to the challenges and opportunities presented by 3D printing in the EU region, see Opinion of the European Economic and Social Committee on Living tomorrow '3D Printing – A Tool to Empower the European Economy' CCMI/131 (Additive Manufacturing, Brussels 28 May 2015).

such as toys, games, home furnishings and sports equipment. Artists, jewellers and fashion designers are also deploying the technology in a range of ways to produce one off bespoke pieces.⁵⁰ Moreover, with affordable 3D printers and the emergence of online platforms dedicated to sharing 3D designs, it is possible for individual creators and consumers to share ideas and designs or have their own creation produced.⁵¹

The 2016 report also established that in the context of 3D printing and industrial designs, the most affected will be that of spare parts.⁵² A commissioned report for the UK Intellectual Property Office (UKIPO), authored by Reeves and Mendis and published in 2015, sheds further light on the point of spare parts. The report established that it is possible that parts such as ‘bumpers may one day be produced, in whole or in part using additive manufacturing technologies, but due to the safety of both passengers and pedestrians’, the report concluded that ‘this may not happen for a while’.⁵³ The report also went on to say that it is completely conceivable that component parts for systems such as exterior headlight casings could be made using current or near future additive manufacturing technologies.⁵⁴

As such, the studies carried out at both UK and EU level reveal the challenges which lie ahead for design law as a result of 3D printing. In exploring policy considerations, the next section of this chapter will identify issues pertaining to protection of rights holders, potential exceptions for users and challenges for service providers, before concluding with a consideration of the enforcement of design law in the context of 3D printing.

4. COMPUTER-AIDED DESIGN (CAD) FILES AND DESIGN RIGHTS RELATING TO 3D PRINTING: ELIGIBILITY AND PROTECTION

A design in the context of the Community registered and unregistered rights as well as in the context of UK registered design rights means ‘the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture or materials of the product or its ornamentation’.⁵⁵ The product can be any industrial or handicraft item and includes packaging, getup, graphic symbols, typographic typefaces and parts intended to be assembled into a complex product.⁵⁶ As mentioned above, within the

⁵⁰ AM Platform, ‘Additive Manufacturing: Strategic Research Agenda’ (2014) 30 <www.rm-platform.com/linkdoc/AM%20SRA%20-%20February%202014.pdf> accessed 19 October 2019. For a discussion on copyright law, see B Rideout, ‘Printing the Impossible Triangle: The Copyright Implications of Three-Dimensional Printing’ (2012) 5 JBEL 161, 163–64; H Dasari, ‘Assessing Copyright Protection and Infringement Issues Involved with 3D Printing and Scanning’ (2013) 41 AIPLA QJ 279; E Lee, ‘Digital Originality’ (2012) 14 JETLaw 919; M Weinberg, *What’s the Deal with Copyright and 3D Printing? Public knowledge* (Public Knowledge 2013); L Osborn, ‘Of PhDs, Pirates, and the Public: Three-Dimensional Printing Technology and the Arts’ (2014) 1 Tex L Rev 811.

⁵¹ Mendis and Secchi (n 8).

⁵² Dumotier (n 9) 117.

⁵³ Reeves and Mendis (n 9) 19 (based on interviews carried out with stakeholders in the automotive industry).

⁵⁴ *ibid.*

⁵⁵ RDA 1949, s 1(2).

⁵⁶ *ibid* s 1(3).

ambit of this definition, the meaning of a product includes ‘graphic symbols’ but not a computer program.⁵⁷ Section 4.1 discusses this point in more detail.

In order for a design to be successfully registered, the design must (a) be new and (b) have individual character.⁵⁸ ‘Novelty’ means that a new design should not be identical to another design and the difference between an existing design and the ‘new’ design should differ more than in immaterial details on what is made available to the public before the relevant date.⁵⁹ The assessment of the second criteria of ‘individual character’ is determined by applying the test of the ‘informed user’, by querying whether the overall impression of the new design conjures up other designs which have been made available to the public before the relevant date in the mind of the informed user. Where the design’s overall impression differs, the design will attract individual character.⁶⁰

In the context of 3D printing, the question then is whether a CAD file embodying the *appearance* of the 3D object is also protectable.⁶¹ In response it is submitted that the definition requiring the design to be ‘visible’, especially in the case of complex products, could pose a problem with 3D printing. If it is assumed that it will be possible to create and distribute the design on a solely digital basis, it is necessary that the requirement of ‘visible’ must be interpreted as also including being visible on computer screens. Otherwise, designs which are solely contained in CAD files could not be included in the general definition of ‘designs’, as this would result in the design lacking protection.⁶²

4.1 CAD Files and Designs as a ‘Product’ under Registered Design Law?

Another interesting question in this context, and one that needs further exploration, is whether the CAD file containing the design can be protected. This could be by virtue of protecting either the actual piece of software, that is, the source code, or the visual result of running the computer program. Or it could be through the protection of the ‘design’ contained in the CAD file. This would result in the actual design being protected and the CAD file merely serving as the vessel for carrying the design.

Either way, it should be pointed out that the computer program exception does not cover the ‘results of running a computer program’, that is, the displays on the computer screen or the graphic user interface (GUI), but only the programs themselves, that is, the code lines and the functionality.⁶³ The main reason for not excluding ‘results of running a computer program’ from protection is that the screen display is not protected by the Computer Program Directive.

⁵⁷ *ibid* s 1(3).

⁵⁸ *ibid* s 1B (1).

⁵⁹ *ibid* s 1B (2).

⁶⁰ *ibid* s 1B (3); for the meaning of overall impression, see *Procter & Gamble Co v Reckitt Benckiser (UK) Ltd* [2007] EWCA Civ 938; [2008] FSR 8, [23]–[25] (the overall impression stated herein means ‘what strikes the mind of the informed user when [the product in question] is carefully viewed’), and for how to assess whether overall impression is immaterially different, see *Dyson Ltd v Vax Ltd* [2010] EWHC 1923 (Pat); [2011] *Business Law Review* 232, [37].

⁶¹ RDA 1949, s 7(2) (It is infringement of registered design rights, *inter alia*, to make a product in which a design is incorporated or to which it is applied.)

⁶² Mendis (n 31).

⁶³ Legal Protection of Designs: A Consultation Paper on the Implementation in the United Kingdom of EC Directive 98/71/EC (UK Patent Office, 12 February 2001).

Therefore, such exclusion has been regarded as ‘unnecessary or harmful’.⁶⁴ In this context, it is worth noting that the EUIPO has already registered a number of ‘graphic symbols’ as registered designs that result from running a computer program.⁶⁵

Reflecting on this point, Margoni and Elam, in their respective articles, argue that a design generated by a CAD program should be protected as a design in the same manner as graphic symbols, such as computer icons or GUI.⁶⁶ However, it can be questioned whether a CAD file *embodying a physical product* can be seen in the same light as computer icons or GUIs. In relation to the registrability of computer icons, Jacob J (as he then was), in *Apple Computer v Design Registry*,⁶⁷ agreed with the notion that GUIs do not fall within the meaning of an ‘article’ under the old RDA 1949, which was not harmonised under EU design regulation at the time of the decision. However, Jacob J noted that a computer icon is protectable as a design insofar as it is inherently built into a machine, so as to *form part of an article*.⁶⁸ The reasoning implies that graphic symbols are protected on the basis that they could be ‘the appearance’ of a product rather than being considered as ‘a product’ itself. Accordingly, it is submitted that a more accurate view of designs generated by a CAD program consistent with the wording in RDA 1949 includes digital designs displayed on any computer interface which eventually form the appearance of a product.

This is so because a CAD file does not function like a computer icon or GUI, as CAD files do not presuppose to be a part of the appearance of an end product; instead, CAD files contain instructions or act as a blueprint to produce physical objects. Therefore, contrary to the argument presented by Margoni and Elam, a design generated by a CAD program *cannot be* protected as a design in the same manner as graphic symbols, such as computer icons or GUIs.⁶⁹ This view is further confirmed by Nordberg and Schovsbo in their assessment of CAD files.⁷⁰ They conclude that the underlying source and object code of a CAD file has to be considered a ‘computer program’ within the meaning of this definition and therefore will not qualify as a ‘product’ and hence as a ‘design’ which is consistent with section 1(3) RDA 1949.⁷¹

This argument leads to a corresponding question: if a CAD-based model cannot immediately be deemed a design, in the manner in which computer icons or GUIs are protected, what rights do design rights holders have when their CAD-based designs are copied and disseminated?

⁶⁴ D Musker, *Community Design Law: Principles and Practice* (OUP 2002) para 1-020.

⁶⁵ For example, RCD 930367-0002 for an icon for a portion of a display screen.

⁶⁶ T Margoni, ‘Not for Designers: On the Inadequacies of EU Design Law and How to Fix It’ (2013) 4 JIPITEC 225; V Elam, ‘CAD Files and European Design Law’ (2016) 7 JIPITEC 146.

⁶⁷ *Apple Computer Incorporated v Design Registry* [2002] ECDR 19 (Chancery Division).

⁶⁸ ‘It is important to appreciate that I am concerned only with icons which appear on a machine into which they are inherently built . . . They not only form part of the machine which the public buy and discover once they get the machine home and switch it on; in practice, the icons are likely to be shown in shops and in advertisements. The design icon is an important part of the appearance of the article which people buy. Manufacturers of operating systems to be installed on computers, as is common knowledge, proclaim that their icons are attractive’: *per* Jacob J [5]–[6].

⁶⁹ For a perspective on the protection of CAD files under copyright law, see D Mendis, ‘“Clone Wars”: Episode II The Next Generation – The Copyright Implications relating to 3D Printing and Computer-Aided Design (CAD) Files’ [2014] 6(2) Law, Innovation and Technology 265–81.

⁷⁰ A Nordberg and J Schovsbo in RM Ballardini, M Norrgård and J Partanen (eds), *3D Printing, Intellectual Property and Innovation – Insights from Law and Technology* (Wolters Kluwer 2017) chapter 13, para 3.2.

⁷¹ RDA 1949, s 1(3). See also Nordberg (n 70).

nated, thereby giving rise to potential infringement? Past case law from copyright law reveals the possibility of protecting blueprints for three dimensional industrial articles,⁷² which design rights holders could rely on. However, this is a cumbersome solution for designers, particularly in undermining the registered design system. Currently, the owner of a design enjoys absolute protection, without the need for proof of such copying.

In addressing this issue, Malaquias suggests a potential resolution,⁷³ drawn from section 226 of CDPA 1988, by recommending the recognition of ‘blueprints’ as a protectable subject in design law. This is discussed below.

4.2 The Legal Status of a CAD File under UK Unregistered Design Rights

Following the introduction of the Intellectual Property Act 2014 in the UK,⁷⁴ an unregistered design is now defined in the UK as the shape or configuration of the whole or part of an article, irrespective of whether it is internal or external.⁷⁵ There is no statutory provision that limits the nature of an article to being industrially manufactured or handcrafted, as with the Community registered and unregistered design rights and the UK’s registered right. Therefore, an article could, in theory, be more widely interpreted to encompass even a digital item. Nevertheless, it is worth noting Hacon J’s assumption that the definition of a design, including the meaning of an article, could, in future, be construed as closely as possible to that in the Community Design Regulation for policy reasons of consistency.⁷⁶

In similar terms to the other design rights, there is no exact mention in the UK UDR that a CAD file can be included within the scope of a design. However, section 226(1) of the CDPA 1988 in relation to infringement of the UK UDR reads as follows:

Primary infringement of design right

- (1) The owner of design right in a design has the exclusive right to reproduce the design for commercial purposes –
 - (a) (by making articles to that design, or
 - (b) by making a design document recording that design for the purpose of enabling such articles to be made.

As can be seen above, UK UDR explicitly defines ‘a design document’ as being any record of a design, whether in the form of a drawing, a written description, a photograph, data stored in a computer or otherwise.⁷⁷ Accordingly, it is submitted that a CAD file could fit within the definition of a design document, since it is essentially a computer file or data comprising

⁷² See *British Leyland Motor Corporation Ltd v Armstrong Patents Co. Ltd* [1986] 2 WLR 400; [1986] AC 577 (HL) (a design of exhaust pipes was protected by copyright as a drawing); *Autospin (Oil Seals) Ltd v Beehive Spinning (A Firm)* [1995] RPC 683 (Chancery Division) (the court held that a design of a three dimensional article can be protected by copyright as a literary work if it is in the form of a data file).

⁷³ P Malaquias, ‘Consumer 3D Printing: Is the UK Copyright and Design Law Framework Fit for Purpose?’ (2016) 6 QM Journal IP 321.

⁷⁴ Intellectual Property Act 2014, s 1(1).

⁷⁵ CDPA 1988, s 213(2).

⁷⁶ *DKH Retail Ltd v H. Young (Operations) Ltd* [2014] EWHC 4034 (IPEC); [2016] ECDR 9, [14]–[16].

⁷⁷ CDPA 1988, s 263(1).

the record of a three dimensional object. If so, can a CAD file be infringed, and under what circumstances would that happen? Section 4.3 explores these questions.

4.3 Design Rights and Infringement through 3D Printing

One of the greatest concerns about 3D printing in the context of design rights infringement is that it could facilitate infringement through reproduction and dissemination of CAD files, akin to past issues relating to copyright from the entertainment industry.⁷⁸ Up until now, designs have been excluded from the issues arising in a digital world,⁷⁹ as it has not been possible for the average consumer to manufacture products for commercial purposes.⁸⁰ While Mendis and Secchi, in their commissioned Report for the UKIPO, revealed that CAD file-sharing activity on major online 3D printing platforms has been exponentially increasing since 2008, Reeves and Mendis also confirmed that infringement of design rights remained relatively low.⁸¹ This view was reiterated in Dumotier and colleagues' report on industrial design commissioned by the European Commission, which established that the use of 3D printing by individuals to produce and reproduce designs in their homes is still very limited.⁸² For this reason, 'copying of products bearing protected designs has not yet become a significant issue. Rather, the concern is based on the anticipated impact of such copying.'⁸³ For example, what will happen when individuals with 3D printers in their homes have the capability to make a copy of a product bearing the design for their private use? Given the growing popularity of online 3D printing platforms,⁸⁴ it is reasonable to anticipate that this may become a significant issue.

At present, the registered proprietor of a Community or UK registered design enjoys the exclusive right to use their design.⁸⁵ The meaning of use of the design is described as 'the making, offering, putting on the market, importing, exporting or using of a product in which the design is incorporated or to which it is applied'⁸⁶ or 'stocking such a product for those purposes'.⁸⁷ Performing any of the aforementioned acts without the consent of the registered proprietor could infringe the right in a registered design,⁸⁸ and the registered proprietor could claim remedies, such as damages or injunctions, against the infringer.⁸⁹

As with registered design rights, the Community unregistered design right provides the right holders with the exclusive right to use unregistered designs, such as making or offering

⁷⁸ Mendis (n 12).

⁷⁹ Bently and Sherman (n 27).

⁸⁰ A Daly, *Socio-Legal Aspects of the 3D Printing Revolution* (Macmillan Publishers 2016).

⁸¹ Mendis and Secchi (n 8); and Reeves and Mendis (n 9) 21–22. For all reports, see '3D Printing Research Reports' (n 11).

⁸² Dumotier (n 9).

⁸³ *ibid* 131.

⁸⁴ Reeves and Mendis (n 9). The authors suggested that 3D printing technology is too immature to be a real concern to intellectual property rights holders for another decade. But they still emphasised that there were some indications of potential intellectual property infringement on online 3D printing platforms.

⁸⁵ RDA 1949, s 7(1).

⁸⁶ *ibid* s 7(2)(a).

⁸⁷ *ibid* s 7(2)(b).

⁸⁸ *ibid* s 7A(1).

⁸⁹ *ibid* s 24A(1) & (2).

a product in which a design is incorporated or to which a design is applied.⁹⁰ Notwithstanding this, the right holders of unregistered designs can only preclude the use of the unregistered designs by others insofar as such use is driven by copying of the protected unregistered designs.⁹¹

The owner of a UK unregistered design right has the exclusive right to reproduce the design for commercial purposes in a way to make articles to that design or to make a design document in which the design is recorded to enable such articles to be made.⁹² Reproducing the design to make articles to the design is construed as meaning that copying of the design in order to produce articles either to the exact design or to the substantial part of the design,⁹³ and the reproduction could be either direct or indirect.⁹⁴ Without legitimate grounds, such as the consent or licence of the rights holder, a person who performs any of the acts exclusively permitted for the rights holder, or authorises others to do those acts, infringes the unregistered design right.⁹⁵ Importing an article into the UK for commercial purposes; possessing an article for commercial purposes; or selling, letting for hire, offering, or exposing for sale or hire an article in the course of a business could constitute secondary infringement, provided that a person who does the abovementioned acts knows that the article was an infringing article or it is reasonable to believe that the person knows that the article was an infringing article.⁹⁶

In view of these rights available to proprietors of design rights, printing an item in which the appearance is protected by registered design right is likely to infringe the registered design right. However, can the making of a CAD file in which the protected design is stored also constitute infringement? This is something of a grey area since on the one hand it might be argued that making a CAD file does not amount to infringement, in the sense that a CAD file is neither an industrial nor a handcrafted item. On the other hand, where portraying an image of a product in which a registered design right subsists was held to amount to use of the design, thereby constituting infringement, it could also be argued that making a CAD file infringes a design right.⁹⁷ However, there is no case law in the UK that is directly concerned with how broadly 'use of a design' is interpreted, so clear guidelines are required for legal certainty in the UK.

Furthermore, it can also be questioned if sharing a CAD file of a product in which a registered design subsists could be infringing within the ambit of the RDA 1949. An interpretation of RDA 1949 reveals that sharing a CAD file is unlikely to infringe the right in the registered design, since it is unrelated to the making or using of a product to which the registered design is applied or in which it is incorporated. Unlike UK unregistered design law, where indirect infringement is prohibited,⁹⁸ there is no statutory protection against indirect or contributory infringing acts; accordingly, although sharing a CAD file could contribute to design rights

⁹⁰ Council Regulation (EC) No 6/2002 (n 13), art 19(2).

⁹¹ *ibid.*

⁹² CDPA 1988, s 226(1).

⁹³ *ibid* s 226(2).

⁹⁴ *ibid* s 226(4).

⁹⁵ *ibid* s 226(3).

⁹⁶ *ibid* s 227.

⁹⁷ Case I ZR 56/09 *Deutsche Bahn v Fraunhofer-Gesellschaft* [2012] GRUR 12/2011 (Bundesgerichtshof, 7 April 2011) 1117 in D Stone, *European Union Design Law: A Practitioners' Guide* (2nd edn, OUP 2016) 470.

⁹⁸ CDPA 1988, s 227.

infringement by enabling the public to do any of the aforementioned prohibited acts in section 7(2) of the RDA 1949, it is unlikely that it constitutes infringement. Nonetheless, it is still possible that such contributory acts could be prevented by the established case law, such as the law of joint tortfeasorship, insofar as the acts could meet the requirements.⁹⁹

However, some exceptions might be applicable with regards to the design rights discussed above. Most significantly, when an infringing use of a design is only performed privately without resorting to commercial purposes,¹⁰⁰ the right in a registered design or unregistered design is not infringed. Additionally, reproduction of a design is allowed if it is done for educational purposes,¹⁰¹ on the condition that it does not unduly prejudice the normal exploitation of the design and the source is acknowledged.¹⁰² Section 4.4 questions whether any such exceptions can be applied to the 3D printing scenario.

4.4 Potential Exceptions for Users of 3D Printing Technologies

As established above, it seems somewhat uncertain if making or sharing a CAD file could constitute infringement. On the assumption that it could infringe, such acts could still be exempted from liability if they are done privately and noncommercially.¹⁰³ For instance, making a CAD file at home by way of 3D scanning an existing product protected by design rights without any commercial rewards, such as commissioning fees, will not infringe the design. On the contrary, it is rather unclear whether sharing a CAD file could also be permitted under this exception, since whether the nature of sharing is commercial or noncommercial might be extremely ambiguous. Moreover, 3D scanning of an existing product protected by design right to create a CAD file could also be allowed at universities or schools for educational purposes.¹⁰⁴

Therefore, according to the current exceptions, individuals would have a strong claim that their actions are private and for noncommercial purposes. At the same time, an individual who 3D prints several copies for sale or distribution cannot rely on the exception, as his use will no longer be seen as ‘noncommercial’.¹⁰⁵

Further relevant exceptions arise from the repair of complex products which are not visible and those designs dictated by their technical function – all of which are directly applicable to spare parts and anticipated to make a positive impact in the 3D printing aftermarket. The ‘repair clause’, as it is known, states that the right of a registered design of a component part which may be used for the repair of a complex product to restore its original appearance does not infringe the registered design.¹⁰⁶ Similarly, ‘only the visible features of a component within

⁹⁹ *L’Oréal SA v EBay International AG* [2009] EWHC 1094; [2009] RPC 21, [343]–[358].

¹⁰⁰ RDA 1949, s 7A(2)(a); CDPA 1988, s 244A(a).

¹⁰¹ RDA 1949, s 7A(2)(c); CDPA 1988, s 244C(c).

¹⁰² RDA 1949, s 7A(3); CDPA 1988, s 244C(c).

¹⁰³ Making a three dimensional product out of a CAD file via 3D printers is also exempted from liability if done at home for noncommercial purposes.

¹⁰⁴ For example, a recreation of Henry VIII’s crown, in the form of a CAD file, was made available for download and 3D printing for noncommercial purposes by the Historic Royal Palaces in 2014. See HistoricRoyalPalaces, ‘Henry VIII’s Crown’ (*Thingiverse*, 19 May 2014) <www.thingiverse.com/thing:335960> accessed 19 October 2019.

¹⁰⁵ Dumotier (n 9); see also *Economic Review of Industrial Design in Europe* (MARKT2013/064/D2/ST/OP, Europe Economics 2015) 135.

¹⁰⁶ RDA 1949, s 7A(5).

a complex product can be considered for design purposes and it is those features which need to display the necessary novelty of design and individuality of character'.¹⁰⁷ The goal of this 'under the bonnet' provision, as it is known, is to exclude from protection the design of component parts of complex products that cannot usually be seen.¹⁰⁸

Section 1C(1) of RDA 1949 states that a right in a registered design shall not subsist in features of appearance of a product which are *solely dictated by the product's technical function*. The aim of the exception for features of designs solely dictated by technical function is to avoid protection for inventions more properly covered by patent law.¹⁰⁹ It is clear from the use of the words 'features of appearance of a product' that a product can have both features of appearance that are protected by design law, and features of appearance that are solely dictated by technical function (which are not protected by design law).¹¹⁰ It will be usual for some aspects of many products, particularly spare parts, to be dictated by technical function, and therefore not protected.¹¹¹

These provisions, which fall within the exceptions to design rights, have led to a thriving automotive aftermarket for spare parts. As such, it was anticipated that 3D printing would have a significant impact on the spare parts market, particularly in the supply of aftermarket parts to the consumer. '[L]ow prices for essential parts, a shorter waiting-time for the delivery of critical and specialist parts and being less dependent upon manufacturers to support aging products'¹¹² were seen as attractive features for the consumer. However, as mentioned above, this aspect has not been realised as yet, although the use of the technology for prototyping of automotive spare parts has continued. At the same time, car manufacturers continue to evaluate the use of 3D printing within the supply chain, with a focus on the adoption of the technology for production parts.¹¹³

As such, the interpretation of infringement provisions and the exceptions that exempt most liability in the case of noncommercial use of 3D printing in the domestic sector appear to create some structural bias against design rights holders.¹¹⁴ Though 3D printing may not expose imminent concerns at present,¹¹⁵ the supply of products in digital format will mean that there will be a shift within corporations from the role of manufacturer to that of service provider.¹¹⁶ In preparation for such a change, it is desperately required that provisions of design rights infringement and exceptions are reviewed, while the secondary infringement through intermediary liability should equally be evaluated.

¹⁰⁷ Stone (n 97) para 4.98.

¹⁰⁸ *ibid* para. 4.100.

¹⁰⁹ *ibid* para 6.05.

¹¹⁰ Case R 1114/2007-3 *Dr Oetker Polska Sp zoo v Zaklad Produkcyjno-Handlowy 'TROPIC'*, (Board of Appeal 12 November 2009).

¹¹¹ Stone (n 97) para. 6.06.

¹¹² Reeves and Mendis (n 9).

¹¹³ Mendis (n 31).

¹¹⁴ European Commission, *Legal review on industrial design protection in Europe: under the contract with the Directorate General Internal Market, Industry, Entrepreneurship and SMEs* (2016) (this structural problem could be hypothetical since, as the researchers emphasised, without more research on the impacts of 3D printing in the industries and in the domestic sector it is too early to decide to employ a new policy or law).

¹¹⁵ Reeves and Mendis (n 9).

¹¹⁶ J Kietzmann, Leyland Pitt and Pierre Berthon, 'Disruptions, Decisions, and Destinations: Enter the Age of 3-D Printing and Additive Manufacturing' (2015) 58 *Bus Horiz* 209.

5. ENFORCING DESIGN RIGHTS FOR 3D PRINTING: RECOMMENDATIONS FOR THE FUTURE

As with all intellectual property rights, a design right is only as effective as the ability of the holder to enforce it. As such, enforcement is clearly an area which needs attention, particularly in view of new technologies such as 3D printing. Anti-Copying in Design (ACID) – one of the interest groups representing design rights holders – has consistently shown great concern about the emergence of 3D printing. This is because 3D printing could be utilised for organised infringement theft of design, due to its mobility and convenience.¹¹⁷ In addition, reproduction and dissemination of a protected CAD file could become uncontrollable for design rights holders (whether relying on CRDR, CUDR or UK RDR) and thus unenforceable in the current landscape of design law, where the protection of a CAD file remains uncertain.

Against this background, it is worth noting that intentional copying of a registered design in the UK, carried out in the course of a business,¹¹⁸ was recently criminalised under registered design rights by virtue of Intellectual Property Act 2014.¹¹⁹ This is most certainly a firm step forward in enforcing design rights, although it should be pointed out that copying or circulating CAD files for private and noncommercial purposes does not fall within the ambit of this provision.¹²⁰

Dumotier and colleagues, in their 2016 report, point out that the two main areas for enforcement against unauthorised 3D printing are in fact ‘the end-user and the intermediaries involved in facilitating the download and eventual reproduction by the end-user’.¹²¹ However, the report goes on to recognise the fact that it can be challenging and costly to enforce rights against end users due to the decentralised nature of the activity. As such, the report suggests that ‘pursuing intermediaries, particularly online hosting sites, may provide a more streamlined enforcement option for rights holders’,¹²² through the mechanism of injunctions – although there are not yet any examples of such injunctions being granted in respect of 3D printing. With online platforms such as *Thingiverse* and *Shapeways* having already experienced court orders requesting the takedown of infringing files, it may become more relevant to focus on intermediaries which are positioned upstream of the ultimate domestic printing.¹²³

However, it is equally relevant to question whether a focus on intermediaries is the way forward. This question has come under intense focus recently as a result of the new Copyright

¹¹⁷ ACID, ‘About’ (*ACID*) <www.acid.uk.com/about/> accessed 19 October 2019.

¹¹⁸ RDA 1949, s 35ZA.

¹¹⁹ Intellectual Property Act 2014, s13.

¹²⁰ For how this provision has been applied, see *IP Crime Report 2015/16* (UKIPO, 2016) (a large number of design rights holders participating in the survey indicated that either that the level of infringement had stayed the same as before or that they did not know if the new provision had helped in any ways. From these responses, it might be assumed that the provision has not exerted any remarkable influence on deterring design rights infringement. One possible reason is that the registered design system in the UK is underutilised since many designers rely on unregistered design rights in preference to registered design rights).

¹²¹ Dumotier (n 9); see also *Economic Review of Industrial Design in Europe* (MARKT2013/064/D2/ST/OP, Europe Economics 2015) 131.

¹²² *ibid.*

¹²³ Mendis and Secchi (n 8) 43–44.

in the Single Market Directive,¹²⁴ particularly in the form of Article 17. Article 17, also known as the ‘upload filter’, requires all platforms to check for copyright infringement on uploaded content. This suggestion has been met with much criticism from various stakeholders, as it would significantly curtail freedom of expression and could lead to censorship.¹²⁵

Dumotier and colleagues also provide a number of suggestions and recommendations drawn from patent and copyright law, which they suggest could be relevant for design law as set out below.

Adopting a patent-like indirect design infringement: Unlike design law, European patent law provides against indirect third party patent infringement.¹²⁶ These provisions act as a trigger to prevent anyone uploading a 3D printing file onto a website, where the uploaded file has the potential to infringe patent or design laws in the final product. Accordingly, adopting such provisions against indirect design infringement ‘would facilitate enforcement as it allows enforcing design rights against the distributor of a 3D printer file as the “spider in the web”’.¹²⁷

Adopting a copyright-like direct design infringement by authorisation: Another solution for enforcing design rights in the 3D printing landscape can be drawn from copyright law, through the means of introducing a provision which sanctions authorisation of design infringements.¹²⁸ Such a provision is available under the CDPA 1988,¹²⁹ and will provide a means for capturing primary infringers. As Dumotier and colleagues state, ‘this has the advantage that neither actual nor constructive knowledge would be required for a positive finding of infringement as would be necessary in relation to secondary liability’.¹³⁰

This is an interesting suggestion and could prove to be useful in enforcing design law. However, its compatibility and consistency with other EU Member States – even following the UK’s departure from the EU – raises some concerns, which will need to be addressed if this suggestion is to be taken forward.

Encouraging creators to licence their work through an opt-out approach: Intermediaries encourage the use of licences such as creative commons, commons attribution and GNU public licence when using 3D printing online platforms. However, 65 per cent of users engaged in the activities of 3D printing online platforms do not license their work, leaving their creations vulnerable and open to infringement and losing the ability to claim authorship.¹³¹ Although a lack of licence attribution may be linked to a user’s ignorance or misunderstanding of the intricacies associated with each licence, it may sometimes be done intentionally as the file has been

¹²⁴ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC at <<https://eur-lex.europa.eu/eli/dir/2019/790/oj>>.

¹²⁵ See M Kretschmer, ‘The Copyright Directive: Misinformation and Independent Enquiry’ (*CREATE*, 29 June 2018) <www.create.ac.uk/blog/2018/06/29/the-copyright-directive-misinformation-and-independent-enquiry/> accessed 19 October 2019; T Margoni, ‘Why the Incoming EU Copyright Law will Undermine the Free Internet’ (*The Conversation*, 3 July 2018) <<https://theconversation.com/why-the-incoming-eu-copyright-law-will-undermine-the-free-internet-99247>> accessed 19 October 2019.

¹²⁶ Patents Act 1977, s 60(2) (UK) stemming from the Community Patent Convention 1975.

¹²⁷ Dumotier (n 9); see also *Economic Review of Industrial Design in Europe* (MARKT2013/064/D2/ST/OP, Europe Economics 2015) 132.

¹²⁸ *ibid.*

¹²⁹ CDPA 1988, s 16(2).

¹³⁰ Dumotier (n 9) 132.

¹³¹ Mendis and Secchi (n 8) 43–44.

uploaded in breach of intellectual property laws. To overcome such issues, online platforms can assign the most appropriate licence (such as GNU or Creative Commons) as a default with ‘opt-out’ as an option, which has the benefit of protecting rights holders while possibly acting as a deterrent for potential infringers.¹³² It will also strengthen the online platforms’ position of working within the parameters of the law.

Limiting the private use defence: A final solution would be to limit the private use defence by adopting the three step language provided under the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement.¹³³ This approach would permit sufficient flexibility to allow a balance to be struck between protecting the interests of the rights holders and paving the way for innovation. As Dumotier and colleagues argue, ‘although the introduction of additional criteria such as “normal exploitation” may create confusion, this may be easily resolved as there is already some guiding case law on this from the World Trade Organisation (WTO) Dispute Settlement Body’.¹³⁴

It is, however, important to recognise that 3D printing technology is developing rapidly. Therefore, ‘the strategy of targeting intermediaries could become obsolete if users have access to technology which enables them to make a scan of the object in their own home, and then print’.¹³⁵ With the future of 3D printing pointing in this direction, it would be useful to clarify what constitutes design infringement by including the creation of a design document as an infringing use, as discussed above.¹³⁶

6. CONCLUSION

The issue of 3D printing will become more acute as the technology improves and printers become able to reproduce perfect substitutes of the original design. At the same time, it is becoming increasingly clear that consumers will claim the right to use 3D machines, and claim private use privileges under fair dealing or private, noncommercial use defences.¹³⁷ These entitlements should be balanced against the rights of intellectual property owners. As mentioned

¹³² *ibid.*

¹³³ The proviso under Art 26, TRIPS Agreement reads as follows: ‘provided that such acts do not unreasonably conflict with the normal exploitation of the design, and does not unreasonably prejudice the legitimate interests of the owner of the protected design owner, taking account of the legitimate interests of third parties.’

¹³⁴ See Dumotier (n 9) 132. For example, see, Dispute Settlement Board decision WT/DS114 concerning the interpretation of the three step test as provided under Article 30 of TRIPS. The wording is similar to the wording in Article 5(5) InfoSoc Directive and it is useful to note that the CJEU has applied the three step test in copyright cases – see Case C-403/08 *Football Association Premier League Ltd and Others v QC Leisure and Others* ECLI:EU:C:2011:631; Case C-117/13 *Technische Universität Darmstadt v Eugen Ulmer KG* ECLI:EU:C:2014:2196.

¹³⁵ Dumotier (n 9) 133.

¹³⁶ A template for such a provision could be section 226 (1)(b) CDPA 1988 which extends primary design infringement to ‘making a design document recording the design for the purpose of enabling such articles to be made’. The definition of a design document is provided within section 263 CDPA 1988 and states that “‘design document” means any record of a design, whether in the form of a drawing, a written description, a photograph, data stored in a computer or otherwise’. This definition encompasses CAD created for the purposes of 3D printing.

¹³⁷ Dumotier (n 9) 132.

above, the current sentiment appears to be that 3D printing is a technology that will do for physical objects what MP3 files did for music and film.¹³⁸

In considering such issues, this chapter explored the implications of 3D printing for design rights in the UK. The chapter argued that the current design law might not be sufficiently inclusive and clear to embrace the issues that could derive from use of CAD files, bearing in mind that 3D printing has great potential to disrupt the landscape of design rights protection.

The protection of a CAD file embodying a protectable design should be clearer. It seems likely that the protection of a CAD file will fall within the ambit of copyright works. However, it is not desirable for design rights holders to be compelled to rely on copyright law at all times, rather than being able to use design rights to protect their designs. Thus, reviewing the law and introducing clear guidelines for dealing with CAD files is necessary for both rights holders and users.

Furthermore, infringement and exceptions provided in design law may require some reconsideration, in terms of striking a balance between the conflicting interests among design rights holders and users. Prior to the emergence of 3D printing, it was somewhat unthinkable that functional three dimensional objects could be fabricated at home, and thus the private and noncommercial exception might have not been a serious issue. However, home 3D printing has the potential to change the landscape of the future designer. It is, therefore, necessary to address the rights of the user and consider policy recommendations for the future.

Last but not least, revising the enforcement regime in design law is crucial before 3D printing becomes more pervasive. In particular, there should be measures adopted to take control of the dissemination of CAD files, so as to deter illegitimate online reproduction of protected designs. To that end, it might be necessary to consider the adoption of new digital rights that address management, production and infringement issues arising from 3D printing in the design landscape.¹³⁹ In response, this chapter outlined potential solutions drawn from copyright and patent laws, which could be reflected upon in the context of intermediaries, rights holders and end users. Ultimately, in looking ahead to the future of design laws, it is clear that a fine balance will have to be struck between protecting intellectual property rights and ensuring that designers retain incentives to invest in the development of new designs. The first step in this process will be to clarify specific areas of uncertainty in current European and national laws.¹⁴⁰

¹³⁸ Mendis (n 12) 154–55.

¹³⁹ *Economic Review of Industrial Design in Europe* (MARKT2013/064/D2/ST/OP, Europe Economics 2015) 8.

¹⁴⁰ *ibid* 133.

PART IV

COMPETITION AND ENFORCEMENT

23. Competition in digital markets

Shubha Ghosh

1. GOODS, DATA, AND MARKETS

Of all the freedoms unleashed by the internet and the World Wide Web, none has been more influential than the expansions in the domain of commercial transactions. Speech may be more free, content may be more readily copied, personal networks may be more expansive (at least among those who can leap across the digital divide), but there is no doubt that shopping has become much easier with advancements in information and communications technology. The digital marketplace opens up broad scope for freedom in transacting. Anything can be bought, anything can be sold, through a well-recognized set of clicks, taps, or swipes.

As the internet expands the freedom to transact, one might expect market transactions to become more efficient. Theory teaches us that as transaction costs are reduced to zero, willing buyers can find willing sellers and negotiate price, quantity, and other contract terms. Buyers and sellers each benefit from the sale, and gains from trade are realized throughout the economy. Furthermore, communications technology allows buyers to communicate with other buyers, improving information about products and services as buyers approach sellers. Opportunistic sellers and buyers are readily punished and excluded from the marketplace. Improved information further facilitates efficient transactions.

Do the freedoms made possible by the internet really support a regime of laissez-faire? This chapter argues that the freedom to transact at low cost does not necessarily lead to a deregulated frictionless market. The central insight is that transactions on the internet are inherently different from traditional bricks and mortar transactions. While a buyer and seller in a shop exchange money for a product or service, market exchange across the internet is multidimensional. A buyer not only gives up money and a seller does not give up only a product and service. Communications and information technologies allow the transaction costs for the exchange to fall, but these same technologies also lower the cost of collecting information. Sellers can keep track of previous sales by buyers, collect demographic and other information about buyers and, in many cases, measure usage of the product. Similarly, buyers can collect information about sellers, share the information with other buyers and use data analytic tools to negotiate more effectively with online sellers. Once transaction costs fall and freedoms to transact unleash, many dimensions of a transaction also become transparent and part of the deal.

This insight has implications for how we understand markets. Typical economic analysis focuses on price and quantity. Sellers and buyers interact in a market where prices are set through market forces and fueled by information, and transacting parties often are negotiating over quantity. Under these conditions, economic analysis would predict that with a large number of buyers and sellers, markets will be efficient in allowing all beneficial exchanges to occur.¹ Consumer and producer benefits are maximized. Competition law and other forms

¹ See Charles Wheelan, *Naked Economics* (Norton 2010) 17–18.

of regulation intervene in the market only when sellers or buyers collude to set prices in the marketplace or attempt to monopolize the marketplace.

However, internet transactions are different. When a buyer buys a desired product or service from a seller online, the buyer transfers not only money but also information about herself. Similarly, the seller transfers its product or service and information about itself. Every market transaction potentially produces a joint product. Even with anonymous exchange, metadata is still available and sellers can collect credit card and other payment information that would allow them to track and aggregate transactions. Economic analysis shows that markets for joint products are not efficient.² Contracts may be more complex and detailed, but the aggregate set of transactions across all sellers and buyers in the marketplace will be inefficient. The theoretical prediction is that markets may not maximize benefits to consumers and producers, as in traditional markets driven solely by price.

A classic example of joint production is from agriculture. A sale of a farm animal, such as a sheep, entails the transfer of at least two products: meat and wool. But the technology for separating wool and meat from sheep is fairly straightforward and two traditional markets for wool and meat can be derived from the sale of sheep. However in many cases,³ joint production can create problems for traditional markets, requiring some form of intervention into the market through law or administrative style regulation. Take the other classic example of joint production: pollution. The production of steel, for instance, yields the final processed steel that can be used as an input for various products and metal scrap and other waste that needs to be disposed of. The technology for generating pollution may not be cleanly mathematically related to the processing of steel as it is for wool and meat. Markets may be more difficult

² See Mishan (n 4).

³ Without getting lost in too many technical details, let me illustrate with some simple examples. Suppose an average sheep generates m units of meat and w units of wool. If sheep sell for p_s per unit and meat and wool sell for p_m and p_w respectively. Then, if markets are working perfectly, the revenue from selling sheep should equal the revenue from selling meat and wool, or $p_s = p_m m + p_w w$. The cost of producing and distributing sheep would be $c(s)$, where $c(\cdot)$ represents the cost function. The typical firm in this market would seek to maximize profits, or the difference between revenues and costs. For the typical firm, the profit maximization problem is invariant to whether we think of the market for sheep or the market for wool and meat separately. Joint production does not pose problems for traditional market analysis in this simple case.

Now, consider the steel example discussed later in this paragraph. Let the price of steel be designated as p_t and t units of steel. The cost of producing steel is $c(t)$. The problem is that producing steel also produces waste, which can be designated as g . The profit maximization problem for the firm does not take account the production of waste. Institutions have to be created to deal with the waste, otherwise it is produced jointly with steel at zero cost for the firm but positive cost for society. The analysis in the text illustrates the familiar ways to deal with waste: taxing its production, taxing the consumption of steel, mandating disposal of the waste so private entities have to bear the cost of waste, or creating markets so waste removal is priced effectively.

With respect to information, joint production is even more complex. Consider the market for any product or service. Under the analysis in the text, the transaction for the sale of a product or service on the internet also generates information about the parties to the transaction. However, such information may be impossible to quantify, unlike the other commodities discussed above, whether meat, wool, sheep, or waste. The challenge is to design institutions and transactions to accurately account for the information produced. This chapter analyses the transactional and institutional design issues when information is produced jointly with products or services.

to sustain because of the difficulty in pricing the two products.⁴ Rules would be required to generate such markets, such as the rule that all waste has to be cleaned and disposed of by the producer, creating the basis for markets in waste management.

The pollution example shows that another way to understand the issue of joint products is in terms of externalities. As with steel product, so internet transactions also yield externalities. When a buyer purchases an item from a seller, the transaction entails not only the transfer of the item but also the generation of information. This information externality may not be priced separately; essentially, the buyer and seller are generating the information for free. Because of this failure in pricing, markets will not be efficient. Some form of government intervention is necessary. Furthermore, for reasons we will discuss in section 2, information externalities can lead to market dominance due to economies of scale in product and distribution. Whether understood in terms of joint products or information externalities, online transactions occur in a different context than traditional markets for products and services in the offline world.

Of course, information is also generated in the bricks and mortar world. The point is that the lowering of transaction costs through information and communication technologies also lowers the costs of generating, collecting, and analyzing information. Economic analysis of traditional offline transactions can ignore the information externality or joint product issues, but analysis of online transactions cannot do so without leading to a false notion that markets are laissez-faire with no need for regulation or competition law.

Other scholars have identified the special market dynamics of online transactions. Lina Khan, in her study of Amazon, points to the irrelevance of Chicago School analyses of anti-trust that rely on outmoded models of price competition.⁵ Perfect competition models lead to misleading policy recommendations and legal interventions when applied to the wide range of digital markets made possible by Amazon. She advocates an antitrust analysis that is more attentive to the competitive dynamics and structural conditions of markets. Ariel Ezrachi and Maurice Stucke follow a similar line of analysis in their idea of virtual competition, a framework for assessing competition failures arising from internet platforms such as Amazon.⁶ This chapter is in the spirit of the work of these scholars, but with a more focused discussion of joint products and information externalities.

Starting with a reconceptualization of market competition for online transactions in section 2, in section 3 this chapter applies this approach to specific transactions: search, online purchases, and matching services. Novel theory and applications have implications for competition law and regulation, the topic of section 4. The last section concludes and sets forth a path for future research.

⁴ For economic articles on joint production and externalities, see EJ Mishan, "The Relationship Between Joint Products, Collective Goods, and External Effects" (1969) 77 *Journal of Political Economy* 329; Richard Cornes and Todd Sandler, "Easy Riders, Joint Production, and Public Goods" (1984) 94 *The Economic Journal* 580.

⁵ Lina M Khan, "Amazon's Antitrust Paradox" (2017) 126 *Yale Law Journal* 564.

⁶ Ariel Ezrachi and Maurice E Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy* (HUP 2016).

2. CONCEPTUALIZING MARKET COMPETITION

This section presents the ideas of two contemporary scholars who have analyzed digital markets. Their work serves as a necessary foil to my analysis of information externalities and joint production in digital technologies. The goal is to give readers a summary of current debates and a context for assessing my suggested approach to digital antitrust.

As the title of her article suggests, Lina Khan's "Amazon's Antitrust Paradox" is a challenge to Robert Bork's revolution in antitrust law set forth in his 1978 manifesto *The Antitrust Paradox*.⁷ Bork's famous insight is that allowing firms to engage in anticompetitive agreements can sometimes benefit consumers. For example, restrictions on resale price can create incentives for investment in service and quality by retailers, thereby benefiting consumers.⁸ As another example, alleged predatory behavior by large firms can benefit consumers through reduced prices.⁹ Bork resolves these paradoxes by pointing out that the goal of antitrust is to promote business practices that benefit consumers even if these practices are ostensibly anticompetitive.

Lina Khan, in her article, points to Amazon as a counterexample to Bork's claim. Amazon's low price strategies seemingly benefit consumers. But Khan describes the dominant companies as predatory. Low prices serve to maintain Amazon's dominance and allow it to obtain and sustain market power in a range of markets: books, appliances, movies, publishing, groceries. If Khan is correct, the question is what Bork got wrong. According to Khan, Bork's analysis rested on a simplistic model of price competition.¹⁰ This model ignored the many dimensions of competition among firms, including variations in quality, quantity, and tailoring to particular consumer needs and uses. Once competition is understood as multifactorial, and not simply about providing consumers with the lowest price, market dominance and the resulting ability of firms to extract rents from consumers can persist even in a world where consumers, on the surface, benefit from lower prices. Antitrust law must look beyond price to examine the dynamic effects of predation and the many dimensions of consumer satisfaction. Low prices, in other words, can come at a cost to consumers.

Khan's point is counterintuitive and raises many questions. She points to a need for alternative models of competition that capture consumer benefits more realistically than Bork imagined. These alternative models would be structural, identifying the informational and transactional environment against which markets function.¹¹ Although her article, limited to the example of Amazon, points us partially in the direction of these alternatives, there is still much work to be done. Ariel Ezrachi and Maurice Stucke fill in some of the gaps in their book *Virtual Competition*. Where Ezrachi and Stucke help is in presenting the technologies for competition in digital markets. One such technology is algorithms, which potentially allow firms to fix prices. Another is the platform access to which can be controlled through business strategies implemented by the platform's owner. On the last point, Amazon's competitive dominance comes from superior access to a retail platform. But Google also has an advantage

⁷ Robert Bork, *The Antitrust Paradox: A Policy At War With Itself* (The Free Press 1978).

⁸ *ibid* 280.

⁹ *ibid* 347.

¹⁰ Khan (n 5) 737.

¹¹ *ibid*.

through search. Ezrachi and Stucke provide the technical details to Khan's desired structural take on competition.

While Khan's main policy recommendation is to reject Bork's limited view of antitrust enforcement, she does not point to concrete interventions. Ezrachi and Stucke are equally tentative, ending each chapter of their book with a brief section entitled "Reflections" which set forth how policymakers perhaps, maybe, might respond to the potential threats to competition that could exist.¹² Both scholars share with their nemesis Bork a strong sense of caution in bringing antitrust tools to bear on the actual economy. However, the valuable lesson from the work of Khan, and Ezrachi and Stucke is that we should not adopt Bork's sanguine attitude that the market will work, even if we cannot be completely confident that the government will succeed either.

This chapter has a slightly more aggressive tone than the writings of Khan, and Ezrachi and Stucke. Ways are identified in which markets can be corrected. But there are a range of options which involve creative considerations of contract, property, and market regulation. This chapter contributes the model of information externalities, framed in terms of joint production, which allows some more nuanced predictions of market behavior that complement what is offered by Khan, and Ezrachi and Stucke. Sections 3 and 4 provide concrete illustrations and policy recommendations; this section concludes with a discussion of the conceptual framework.

The competitive dynamics identified in the work of both Khan, and Ezrachi and Stucke arise from the information externalities created through digital transactions. In a digital transaction, buyers and sellers receive information from each other as part of the sale of a product or service. This information can be metadata about the identity of the parties and financial information pertaining to the transaction. Whether or not this data is saved, it is generated and could be used absent legal or technological restrictions. While it is true that bricks and mortar transactions also generate information, digital transactions are different because the information can be generated, saved, and transformed at a lower cost. A reasonable starting point for analyzing digital transactions is recognizing the existence of information externalities.

The presence of externalities has implications for the competitiveness of markets.¹³ First of all, markets for digital transactions will not be efficient unless the externalities can be internalized in some way within the transaction. Absent such internalization, each transaction will be incorrectly valued because the benefits and costs of the information externalities will not be correctly assessed. Internalization of externalities requires the definition of property rights so that the seller and buyer can contract over pricing and use of the information. For example, suppose the buyer is given the right to keep others from using her information. The seller will then have to purchase these rights from the buyer, and the contract will contain terms on what uses the seller can make of the buyer's data and how much the seller must compensate the buyer. Alternatively, if the seller has the property right, the buyer would negotiate a lower price for the transaction. Once property rights are defined, contract terms can be more carefully tailored to meet the needs of the parties.

¹² Ezrachi and Stucke (n 6) 26.

¹³ Kenneth J Arrow, "The Organization of Economic Activity: Issues Pertinent to the Choice of Market versus Non-Market Allocations" in Kenneth J Arrow, *Collected Papers of Kenneth J. Arrow, Volume 2: General Equilibrium* (Belknap Press 1983).

Furthermore, property rights definition and negotiations over information will have implications for the competitive dynamics. It is on this point that the insights of Khan, and Ezrachi and Stucke become relevant. If each market transaction for a product or service also involves a transaction over use of information, then each transaction is potentially idiosyncratic. Markets for products and services would be thin as transactions would not be perfect substitutes for each other. Deviation from perfect substitutability means that the conditions for perfect competition will not exist. In a perfectly competitive market, an attempt by a single firm or a single buyer, acting unilaterally, to move the terms of trade more favorably in its direction will inevitably fail because a competing firm or buyer can offer better terms. A single firm attempting to charge a higher price or scrimp on quality will lose to a competitor. Competition provides discipline of anticompetitive conduct. Similarly, if firms or buyers band together and collude to move the terms of trade in their favor, competitive dynamics would make such collusion unstable, as there is incentive to cheat on the terms of the collusive agreement.

When there are externalities arising from the transfer of data, competitive pressures weaken. A buyer may be willing to trade off access to personal information for a lower price. A firm promising to respect privacy may charge a higher price to implement privacy guards, but will soon be undercut. Each transaction entails terms on price, quantity, and information generated and transferred between the two parties. Information from one transaction may not be as readily fungible with information from another transaction. The place where a buyer has chosen to purchase a product, the type of product, the quantity, all provide information that cannot be readily mimicked in another transaction. This lack of substitutability makes market dynamics less than perfectly competitive.

The challenge is determining how much these competitive dynamics deviate from that of a perfectly competitive market. Ezrachi and Stucke, for example, identify how the processing of information through algorithms allows for potentially collusive behavior.¹⁴ Furthermore, they point to monopoly power arising from ownership of platforms, whether for distribution or for search. Khan, with her focus on Amazon, focuses on pricing policies that are predatory, allowing a platform company like Amazon to branch out into a range of markets.¹⁵ How do these dynamics relate to the presence of information markets and thin markets for transactions?

The answer, in part, is one of scale. Companies that can collect information can do so at a decreasing average cost of collection and processing. The marginal costs of collecting and processing additional information are close to zero because of technologies such as bots that allow the aggregate collection and organization of data. These scale effects allow companies to grow as they can cheaply collect data with every transaction entered. Furthermore, companies can also charge a lower price for goods and services in exchange for collecting data from customers. This tactic is what makes companies such as Amazon successful in expanding while undercutting competitors, a dynamic that Khan describes as predatory. Ezrachi and Stucke's example of algorithms show how firms can converge on the same information processing technology for setting price, resulting in collusive behavior in pricing without explicit communication.¹⁶

In addition to the scale effects in collecting information algorithmically, assessing information and the costs of capitalizing and processing information can influence competitive

¹⁴ Ezrachi and Stucke (n 6) 56.

¹⁵ Khan (n 5).

¹⁶ Ezrachi and Stucke (n 6) 71.

dynamics. As Ezrachi and Stucke suggest, firms may converge on information algorithms that facilitate tacit collusion and anticompetitive conduct.¹⁷ Their example is one of interfirm information processing. But intrafirm information processing is relevant and may vary across firms. Consider Khan's example of Amazon. By creating a dominant platform for buying and selling merchandise, Amazon can collect information at relatively low cost from consumers. By extending this platform across a range of markets, the company can also collect and process information from a range of markets. A consumer buying a book on fishing may also buy fishing equipment or a trip to the Everglades or the Great Lakes. Amazon can create a complete profile of its consumers and project purchasing needs and wants. With this body of information, the company can price and advertise more precisely. Furthermore, Amazon offers an affinity credit card. With this entry into the world of finance, Amazon can further track purchases and expenditures, information that allows the company to assess the purchasing behavior of individual customers and pricing behavior in the aggregate market. Companies not only can converge on identical algorithms, as Ezrachi and Stucke suggest, but may also be able to engage in competition with respect to algorithms. As companies obtain scale advantages in collecting data, they can obtain advantages in processing as well.

As these two points show, competitive dynamics in digital markets is not solely about price. Competition is on quality of products, quality of information, and the collection and processing of data. These additional dimensions of competition are not captured within the traditional, Borkian framework of antitrust economics, as Khan shows. Although Bork and his followers might counter by pointing to the scholar's involvement against Microsoft in the antitrust case and his reliance on the antitrust classic *Lorain Journal* as the keystone for competition in information markets,¹⁸ the reliance on *Lorain Journal* is not responsive to the broader concerns of digital antitrust. At issue in *Lorain Journal* was a contractual restriction imposed by a newspaper on its advertisers preventing them from advertising with radio stations.¹⁹ This restriction is a refusal to deal or group-boycott provision that is without question anticompetitive. In the digital context, the competitive issue is not solely about one competitor preventing a customer from dealing with another competitor. Of equal, or perhaps greater, concern is predatory behavior that allows a firm to obtain dominance through behavior entailing a combination of pricing and information gathering. Bork's antitrust economics, with its focus on lowering prices for consumers, fails to address more complex competitive dynamics.

The complex competitive dynamics are as follows. Since every transaction in a digital marketplace has an information component and a traditional price/quantity component, the question is to what extent a competitor can identify the information component and process it for a competitive advantage. If a competitor is giving a customer a concession, can a firm identify the concession and match it in enough time to steal away the customer? This question is the corollary to the point about the failure of perfect competition raised above. To the extent that transactions are not transparent, this lack of information can make it more difficult to compete. However, if a company can obtain information about transactions more quickly than other competitors, this gained transparency would be a competitive advantage. One way for a competitor to obtain this advantage, of course, is to create shadow accounts with its competitors through which it gains information about transactions. On its face, there is nothing

¹⁷ *ibid.*

¹⁸ *Lorain Journal v United States* (1951) 342 US 143.

¹⁹ *ibid.*

illegal about this behavior. In the bricks and mortar world a firm might visit its competitors' stores and view its advertising. In the digital world, however, this form of snooping combined with the advantages in data gathering and processing can lead to big competitive advantages. A competitor can readily reverse engineer and implement its competitors' trading strategies with customers and compete more effectively.

However, this ability to snoop does not restore the perfectly competitive marketplace in which firms can respond instantaneously to a competitor's attempts to raise price. Information processing technologies and algorithms – or, put alternatively, hardware and software – may vary across firms because of differences in investments in research spending and technology. Competition in technologies may lead to a wide divergence across companies and serve to reinforce economies of scale within and across markets. Technology competition may lead to a dominant monopoly or to an oligopolistic market structure with firms of various sizes capturing different market shares based on their technological capacity.

Following from the market concentration that technology differences can bring is the ability of a firm to price discriminate. The traditional notion of perfect price discrimination entails a firm charging each separate consumer its willingness to pay, capturing the full consumer surplus from the market demand curve. While this basic notion is still relevant in digital markets, the concept of perfect price discrimination does not reflect the ability of firms to profile consumers through the gathering and processing of information. By profiling a customer, a firm can provide a tailored product along the dimensions of price, quality, timing, and other characteristics. We can think of the equivalence of perfect price discrimination in the digital market as bespoke products. Such products are not necessarily exactly custom made to fit a consumer's desires. A firm gleans information from consumers, shapes the characteristics of the products based on the information profile, and may come close to a customer's ideal.

Price discrimination has been criticized as an exercise of market power. But scholars have pointed to the economic efficiency of perfect price discrimination despite the ability of a firm to capture the full consumer surplus.²⁰ As a benchmark, price discrimination is desirable to the extent that more consumers are served in a market than would be if price discrimination were not allowed. This standard may be hard to gauge in practice, and may be harder in digital markets. Is society better off if consumers are given timely coupons for the purchase of a closely tailored coffee beverage or music MP3s based on past buying habits and predictions of future demand? Some may go so far as to claim these coupons as creating rather than meeting demand. Khan, and Ezrachi and Stucke would suggest that such tailoring can serve as a form of predation or other anticompetitive conduct as it may prevent consumers from switching to other suppliers. Bork, on the other hand, might conclude that the rapid response of a firm to consumer profiles is just satisfying the needs of customers in an efficient and proconsumer manner.

These four general points about digital markets, although fairly precisely set forth, lead only to tentative conclusions. Most antitrust analyses, however, are heavily contextual and dependent on conditions of the marketplace within which actual business practices occur. Per se rules may be hard to find for digital markets, but that should not be surprising. The next section of this chapter examines several examples from contemporary digital markets to show

²⁰ See Wheelan (n 1) 18–19.

the economic concepts in action. Before proceeding to these examples, a summary of two principles from this section is in order.

The first principle is the need to think beyond classic models of perfect price competition. Because of the multidimensionality of transactions in digital economies, focusing solely on price and quantity in the underlying contract between buyers and sellers is inappropriate. This section has demonstrated the many ways in which competition occurs in digital markets: competition over acquiring data by consumers and by firms; competition in processing data through information technologies and algorithms; competition in creating consumer profiles based on crossmarket and financial transactions; and competition in providing tailored products for consumers. The next section will provide several examples of these forms of competition and will identify potential antitrust concerns. The fourth section of this chapter will examine antitrust doctrine which may address these concerns.

The second principle is that the informational externality that marks transactions in digital markets can be resolved through property rights, usually in the form of intellectual property. This chapter will not explore these property rights issues in much depth. They are the subject of other scholarly work to which the reader can refer.²¹ But one point is that the property rights solution to the information externality might affect the competitive dynamics of the marketplace. Rights that are granted too broadly might limit competition just as rights drawn too narrowly can create too much competition. Although beyond the scope of this chapter, this second principle will be discussed tangentially in section 4, dealing with doctrinal responses to anti-competitive behavior in digital markets. The bottom line is that antitrust law might not hold all the answers, and more attention must be paid to the intersection of antitrust and intellectual property law.

These two principles, in conjunction with the analysis of competitive dynamics in digital markets, become more animated through study of actual controversies – the focus of the next section.

3. A LOOK AT TRANSACTIONS

“We’re paying with data all the time. But they’re not official transactions. So we don’t even realize we’re doing it.”²² So announced Kaspersky Lab as it launched its “Data Dollar Store” on September 7, 2017. At this store customers can buy swag, in the form of artwork by the street artist Ben Eine, in exchange for giving up personal data. “Money won’t get you anywhere. So, when you decide what the art is worth to you, don’t think what you’re willing to pay—think what you’re willing to share.”²³ The price tag includes email addresses, Facebook posts, mother’s maiden name, photos on one’s smartphone, text messages, and other pieces of “global currency.” Merchandise included Eine designed t-shirts, coffee mugs, and tote bags. “Just like art, data has value. But you can’t see or touch or hold that value. It’s intangible.”²⁴

Without pedantically picking at this last point (as a concept, value is needless to say intangible), I commend Kaspersky Lab for illustrating the central point of section 2 of this chapter.

²¹ See, for example, Shubha Ghosh, ‘Beyond Hatch-Waxman’ (2015) 67 RLJ 779.

²² ‘The Data Dollar Store’ <www.datadollarstore.com> accessed 10 October 2019.

²³ *ibid.*

²⁴ *ibid.*

Data is currency, and digital transactions often entail transfers of data as well as transfer of money or other manifestations of value. “A study about the value of data earlier this year,” Kaspersky Lab reminds us, “also showed that people would give away their emotionally valuable data for surprisingly little amounts.”²⁵ The Lab created this online store as a publicity stunt with the goal of promoting its internet security software (which itself has been the subject of scrutiny because of supposed connections to Russia and hacking). But its lesson is clear for the purposes of this chapter: data is a tradeable commodity. Beyond the narrow points made by Kaspersky, however, is the broader point that competition over data acquisition and processing defines digital markets.

This section builds on the previous one by presenting examples of potentially anticompetitive conduct in digital markets. The examples include investigations of keyword advertising, price collusion, and data privacy, and several white papers from the United States and European Union that diagnose anticompetitive conditions in the digital marketplace. Not only do these examples illustrate aspects of the theoretical assessment presented in the previous section, they also point to potential antitrust doctrines that might regulate the marketplace for the benefit of the consumers. The examples also add institutional details to the Khan, and Ezrachi and Stucke analyses beyond the examples of Amazon and platform technologies. A background normative assumption to these examples is the need to design markets for the benefit of consumers. This assumption will be examined in some detail in section 3.1, which assesses antitrust policies and responses.

3.1 Keyword Advertising

The internet facilitates one of the most important ingredients in the marketplace: consumer search for desirable products at affordable prices. Search engines lower the costs of this process by allowing consumers to identify potential sellers through terms that are keyed to the desired product. These terms could be generic names for the product (car, glasses, flowers) or specific trademarks that capture the brand being sought. When search engines execute consumer searches, they present the consumer with a menu of results that the consumer can read through. Sometimes these search results can be downloaded into a form that is suitable for the consumer to read, such as a spreadsheet. Often, the searcher must rely on the presentation template built into the search engine. The programming of this template allows for prioritization of the search results, favoring some sellers over others. Sellers could pay the manager of the search engine to place links to its website first or to exclude links to competitors’ websites. To what extent should this conduct be anticompetitive? That was the question in the Federal Trade Commission’s case against 1-800 Contacts.

According to the Commission’s complaint:

1-800 Contacts entered into bidding agreements with at least 14 competing online contact lens retailers that eliminate competition in auctions to place advertisements on the search results page generated by online search engines such as Google and Bing. The complaint alleges that these bidding agreements unreasonably restrain price competition in internet search auctions, and restrict truthful and

²⁵ *ibid.*

non-misleading advertising to consumers, constituting an unfair method of competition in violation of federal law.²⁶

These bidding agreements had been in place for more than a decade and were ostensibly justified in terms of protecting the company's trademarks as they were presented in the search results. But the Commission expressed skepticism of this trademark-related justification:

[the] bidding agreements are overly broad and not necessary to safeguard any legitimate trademark interest. The agency further argues that the bidding agreements hurt competition and reduce "the number of relevant, useful, truthful and non-misleading advertisements, by restraining competition among online sellers of contact lenses, and in some cases, by resulting in consumers paying higher retail prices for contact lenses."²⁷

Evidence of the anticompetitive effects of the blocking of competitors' sites is substantial, according to the Commission. Contacts lost sales when its "lower-priced rivals placed advertisements" that would have been otherwise blocked by the agreements. Furthermore, the agreements with its competitors also led to "artificially depressed prices in millions of auctions held by the major US search engines for the display of advertising, thus depriving search engines of significant revenues they would otherwise have earned."²⁸ Additionally, the agreements harmed the search engines "by degrading the overall quality of the product that offer to consumers." Finally, consumers pay higher prices for contact lenses as Contacts' prices are "on average higher than that of other online merchants, often by a substantial amount."²⁹ In conclusion, Contacts "is consistently the highest-priced seller on the Internet and consumers do not know it."³⁰

The FTC's complaint illustrates the role of data in the competitive dynamics of digital markets. It also offers some insight in the role of background property rights in defining such markets. As to the role of data, the Commission provides a useful description of the search engine process:

In effect, users are continuously "voting" (with their clicks) on what is useful to them and what is not, and Google is continuously reacting to those votes, revising its SERP [Search Engine Results Pages] accordingly. Ultimately, Google is able to predict, typically with a high degree of confidence, what SERP will be relevant to any given user base on how many *other users* have behaved in response to similar SERPs constructed in response to similar search queries.³¹

Searching on the internet is distinct from other types of search through broadcast or brick and mortar advertising. Engines provide unique value to both consumers and competitors in a marketplace.

²⁶ Eric Goldman, 'FTC Explains Why It Thinks 1-800 Contacts' Keyword Ad Settlements Were Anti-Competitive' (Technology & Marketing Law Blog, 18 April 2017) <<http://blog.ericgoldman.org/archives/2017/04/>> accessed 10 October 2019.

²⁷ *ibid.*

²⁸ *ibid.*

²⁹ *ibid.*

³⁰ *ibid.*

³¹ *ibid.*

Search advertising is uniquely valuable to advertisers because it puts an advertisement in front of a consumer at the precise moment that the consumer is signaling her interest or intent by telling the search engine what she is seeking: it is literally the *right* ad, for the *right* user, at the *right* time.³²

In other words, firms can respond to consumer demand and tailor advertising for products according to the needs of the searching consumer. To take full advantage of this tailoring of advertising, keyword search should offer a diversity of choices. “Consumers,” the Commission asserted, “not only understand that searches will bring ads from multiple companies, but have come to expect that variety.”³³

Trademarks can aid in the search process, but the Commission decisively rejected Contacts’ trademark protection justifications for its bidding agreements. Working against Contacts is its loss against Lens.com in a trademark infringement suit against a competitor that bid for use of a keyword search term contrary to the bidding agreement. In the Lens case, Contacts “lost decisively, twice. Lens.com is widely cited precedent on the limits of trademark’s infringement liability with regard to keyword bidding.”³⁴ Contacts’ trademark arguments were roundly rejected by the Commission:

A valid trademark invests the trademark owner with a far more limited right to bar only confusing uses of the trademark. On their face, the Bidding Agreements reach significantly beyond 1-800 Contacts’ property right by (i) barring non-confusing uses of the trademark; (ii) requiring negative keywords; and (iii) providing for reciprocal restraints on competition by 1-800 Contacts.³⁵

Background property rights, such as trademark rights, shape digital markets and can be important in assessing anticompetitive conduct. In this case, the Commission found that the company had exceeded its rights and entered into an anticompetitive agreement.

3.2 Price Bots and Tacit Collusion

A bot is a computer program that can be distributed across various websites to scour and collect data. The data scoured would include any publicly available information, such as email addresses, phone numbers, contacts, job histories, and economic information such as prices or income. As many scholars have argued, most prominently Ariel Ezrachi and Maurice Stucke, sharing of economic information can facilitate collusion among competitors.³⁶ Such collusion would in general be anticompetitive. Because of the ease with which information is generated in digital markets, collusion may be easier in the digital environment. The difficulty is establishing an agreement and intention on the part of the competitors. These legal requirements are the subject of the next section. Here, we can focus on the mechanics of information sharing as it facilitates collusion.

³² *ibid.*

³³ *ibid.*

³⁴ *ibid.*

³⁵ *ibid.*

³⁶ Ezrachi and Stucke (n 6).

Consider the offline environment first.³⁷ Often prices are posted. Petrol stations display their prices prominently. Retail outlets often advertise prices in the newspaper or distribute coupons to customers, offering price matching. With prices being so readily available, a competitor can see what prices others are charging and set them accordingly. Through this process, prices will generally be uniform in the marketplace, especially if the market is geographically constrained. From an antitrust perspective, the question is whether these prices are artificially high or set close to the marginal costs of production. Both are possible even without any express communication among competitors. If one firm sees another firm charging a price above marginal costs, the firm can try to undercut or set close enough to the price charged by the competitor. All firms acting in this way might result in a situation where prices are set at above market rate through tacit communication even without an express agreement to set price.

The online environment exacerbates these price dynamics, potentially making it easier for firms to gather information in the setting of prices. As described, bots can scour websites scrubbing off pertinent economic information. Agents of a firm can pose as customers to obtain information through snooping schemes. Once the competitors' pricing data is gathered, a firm can set its own prices accordingly either as a direct match and through reverse engineering pricing algorithms that can be further refined to meet the consumers' needs and compete for their business. As in the offline markets, such sharing and reuse of price information can lead to tacit collusion and pricing above competitive levels even without an express agreement to set prices. Working in the other direction is the use of nonprice factors to attract consumers, such as desirable contract terms on returns and warranties, and the ability of new firms to enter a market and undercut the pricing strategies of incumbents.

3.3 Mergers and Acquisitions

A key argument in this chapter is that the individualized and idiosyncratic nature of data makes it difficult to create perfectly competitive markets in digital environments. Online transactions necessarily create informative externalities which are difficult to price and allow for firms to trade products and services for data while charging a below market price. The corollary to this argument is the problem of creating a market for data itself. "Flows of data," it has been noted, "are not a commodity: each stream of information is different, in terms of timeliness, for example, or how complete it is."³⁸ Data itself may not be a commodity, but individualized datum can be traded for commodities, as the Data Dollar Store experiment demonstrates. However, datasets, collections of data, may be closer to a commodity in the sense that they can be valued. A potential buyer can compare datasets as to completeness, coverage, and ease of use. While pieces of data are not fungible, collections can be.

One way in which data is collected is within firms. Ronald Coase famously called a firm a nexus of contracts with internal relationships and agreements often substituting for market relationships and contracts.³⁹ Just as conceptually accurate is to view firms as a nexus of data.

³⁷ *The Economist*, 'Price-Bots Can Collude against Consumers' (*The Economist Online*, 6 May 2017) <www.economist.com/news/finance-and-economics> accessed 10 October 2019.

³⁸ *The Economist*, 'Fuel of the Future: Data Is Giving Rise to a New Economy' (*The Economist Online*, 6 May 2017) <www.economist.com/news/briefing/2017/05/06/data-is-giving-rise-to-a-new-economy> accessed 10 October 2019.

³⁹ RH Coase, 'The Nature of the Firm' (1937) 4 *Economica* 386.

Customer lists, trading formulas, employee contracts, knowhow, secrets – all are constitutive elements of a firm. The creation and agglomeration of a firm is the development of a database. A firm's acquisition is the purchase of a data set. In a 2015 bankruptcy involving a subsidiary of a gambling establishment, the most valuable asset was the data on the 45 million customers who had joined the customer loyalty program.⁴⁰ IBM also purchased the Weather Company to obtain the hardware infrastructure to collect weather data and the decades of weather data that had been collected.⁴¹ Health data also is a source of acquisition from government health services, private hospitals, and pharmacies that collect prescription data.⁴² While privacy regulations might protect individual patients, the value is in the aggregated, anonymized data based on customer profiles rather than discrete identities.

Although formal data markets have been proposed, data is traded through bilateral negotiations, usually in the context of a merger and acquisition. Antitrust law should take into account the value of databases and their potential misuse in assessing whether a particular merger should be approved. The next section addresses this point. Antitrust scrutiny might also turn to individualized data markets if they become implemented through the various institutions that have been suggested. Finally, antitrust attention should also turn to a recurrent theme in this chapter, the use of data as a term of consumer trade. As *The Economist* recently noted:

People give personal data away too readily in return for “free” services. The terms of trade have become to norm almost by accident, says Glen Weyl, an economist at Microsoft Research. After the dotcom bubble burst in the early 2000's, firms badly needed a way to make money. Gathering data for targeted advertising was the quickest fix. Only recently have they realized that data could be turned into any number of AI fixes.⁴³

Acquisition of data through acquisition of a company or via merger, much like gathering of data through direct transactions with consumers, can be a basis for instituting the potential anticompetitive practices described in the previous section.

3.4 Data Privacy

Contractual terms restricting competition, such as refusals to deal or restraints on resale, can be the basis for antitrust violations. These suspect terms are often imposed on direct competitors or other parties in the chain of distribution, such as retailers and distributors. Terms imposed on consumers, such as terms of delivery or payment obligations, are less suspect, but even in that domain, requirements to purchase a product or service as a condition of sale can be suspect as a tie-in or tie-out arrangement, particularly if the seller has market power. Controversial under antitrust are terms involving data collection and use. These offensive terms are viewed as a matter of privacy law, a matter of contract law, or at their worst a matter of deceptive or unfair business practice. To treat restrictive terms regarding data privacy as antitrust violations seems to contradict antitrust's domain over anticompetitive business practices.

⁴⁰ See n 38.

⁴¹ *ibid.*

⁴² *ibid.*

⁴³ *ibid.*

Nonetheless, Andreas Mundt, president of the Bundeskartellamt, Germany's competition policy agency, voiced concerns over unfair privacy terms as violative of antitrust laws.⁴⁴ The German office has launched an antitrust investigation into Facebook's policies on access and use of consumer data as an abuse of the company's dominant position in the marketplace. The legal theory for this claim seems to rest in questions of equity. While traditional antitrust principles focus on effects on economic efficiency as gauged by consumer welfare and prices, a more contemporary approach considers constituencies other than consumers and metrics other than prices and consumer welfare. Abuse of market dominance, the argument goes, has effects beyond those on aggregate consumer welfare. Distribution considerations should also come into play – a practice that hurts some consumers even though consumers as a group are better off is potentially anticompetitive. So are business practices that harm noneconomic interests. As one can imagine, Borkeans are suspicious of these expansions of antitrust enforcement, although some would argue that these adverse effects translate readily into harms to consumer welfare and to increases in prices.

The conceptual model presented in section 2 may help to make sense of Mundt's position. If the terms of trade in digital markets involve a set of variables with the actual price being only one attribute, then other attributes may serve as proxies for price and antitrust scrutiny may be necessary to address abuses in the setting of these nonprice terms. This scrutiny may be particularly relevant when the term of trade includes transfer of data from consumers to the seller. Just as price has been described as the central nervous system of the economy, so data is the central nervous system of digital markets. Manipulations of price give rise to antitrust scrutiny, and so should manipulations of data policy. If the consumer is uncertain as to what data is being given up and on what terms of use, or if the usage of data is compromised so that the consumer gives up more data than required under competitive conditions, then antitrust law has a role to intervene. The problem is operationalizing these concepts. In the case of price, for example, charging an excessive price is generally not actionable under the United States antitrust laws, although it can be in the United Kingdom and other member states of the European Union. If data is analogized to price, does the analogy mean that excessive collection and use of data by a company should not be actionable in the United States (while possibly actionable in Europe)? We will return to this question in section 4.

3.5 White Papers

Three white papers have addressed the issue of competition and data with application to digital markets: (1) The European Data Protection Supervisor (EDPS) Opinion on coherent enforcement of fundamental rights in the age of big data (from August, 2016),⁴⁵ (2) the Organization of Economic Cooperation and Development (OECD) document on Big Data: Bringing Competition Policy to the Digital Age (from November 2016),⁴⁶ and (3) NESTA's report *Me, My Data and I: The Future of the Personal Data Economy* (from September 2017).⁴⁷ This

⁴⁴ 'Digital Privacy Is Making Antitrust Exciting Again' (*Wired Online*, 4 June 2017) <www.wired.com/2017/06> accessed 10 October 2019.

⁴⁵ European Data Protection Supervisor, Opinion on Coherent Enforcement on Fundamental Rights in the Age of Big Data (23 September 2016).

⁴⁶ OECD, *Big Data: Bringing Competitors Policy to the Digital Era* (29–30 November 2016).

⁴⁷ NESTA, *Me, My Data, and I: The Future of the Personal Data Economy* (September 2017).

section of the chapter concludes by presenting key findings from each report as background to the analysis of antitrust regulation of digital markets, the subject of section 4.

The EDPS Opinion seeks to develop a Digital Single Market Strategy to aid in coordinating the efforts of data policy enforcers in the several member states of the European Union. With that goal in mind, the Opinion identifies several areas where harmonized strategy is desirable. One key concern is competition:

Dominant companies in these [information-based] markets may be able to foreclose new entrants from competing on factors which could benefit the rights and interests of individuals, and may impose unfair terms and conditions which abusively exploit consumers. An apparent growing imbalance between web-based service providers and consumers may diminish choice, innovation and the quality of safeguards for privacy. This imbalance may also raise the effective price—in terms of personal data disclosure—far beyond what might be expected in fully competitive markets.⁴⁸

The Opinion echoes the principal concerns of Khan and of the general analysis in section 2 of this chapter:

[S]ervices priced at zero by profit-maximizing firms are as much a concern for authorities as services offered at any other price, though until recently investigations were rare. Where information is extracted for some purpose other than improving the quality or decreasing the cost of a zero-priced product, the amount of information extracted, and the adverts which take up their attention are in effect a cost to consumers . . . Enforcement should aim to ensure that where there are zero priced services, customers get the best possible quality and choice at the lowest possible cost in terms of information and attention.⁴⁹

The “digital dividend” describes the benefit firms obtain from harvesting data in online transactions. The digital dividend should be shared between consumers and firms, meaning the firm should not be allowed to extract all the value of the information from consumers. One way to do this is provide consumers with meaningful choices about the terms of trade with firms in the marketplace. Meaningful choices entail allowing consumers to trade off price and data sharing in their transactions with digital sellers. Transparency of data policy is the key to providing meaningful choices by correcting information asymmetries between consumer and firms, especially large companies that “can rely on flows of information to price and risk management profiles in order to maximize their ability to extract surplus from consumers.”⁵⁰ Another way to cure such imbalance is to control agglomeration of companies through mergers and acquisitions. The Opinion recognizes and supports “greater scrutiny of proposed acquisitions of less established digital companies, which may have accumulated significant quantities of personal data that have yet to be monetized.”⁵¹

The OECD White Paper echoes many of the recommendations of the EDPS Opinion. One key difference is the OECD’s focus on big data as distinguished from the smallscale individualized data collected in traditional bricks and mortar transactions. Big data involves economies of scale and network efforts that tend to favor dominance in a platform. Competitive entry becomes difficult in the collection of big data: “As a result of such data-driven network

⁴⁸ EDPS (n 45) 3.

⁴⁹ EDPS (n 45) 13.

⁵⁰ *ibid.*

⁵¹ EDPS (n 45) 7.

effects,” the OECD concludes, “users may become reliant on the dominant platform even though they prefer a different platform model. For instance, while online users may prefer the privacy options promised by some search engines, the larger search engines provide better targeted results.”⁵² As a result, competitive dynamics lead to dominance and the difficulty of new entry. Against these market dynamics, the OECD also points to the need for closer merger review, especially when the acquisition of a company entails acquisition of big data, paralleling concerns of the EDPS. However, the OECD separately advocates the application of the essential facilities doctrine to provide better access to big data. The question of access is also critical for big data collected by the government. The OECD recommends broad access to public data in order to prevent the government from having an unfair advantage relative to private companies in competing in the digital marketplace.

Like the EDPS Opinion, the OECD report recommends greater protections for consumer privacy through transparency of contract terms, but also advocates for ownership rights over data and data portability by consumers. In addition to greater scrutiny of mergers and acquisitions involving big data, the OECD warns against the possibility of digital cartels through the sharing of big data. Collusive behavior as well as abuse of dominance is of critical concern in antitrust enforcement in digital markets.

Finally, the NESTA report identifies many of the same issues of data privacy and misuse set forth in the other white papers and discussed throughout this chapter. But the authors of the report adopt a more decentralized consumer-oriented approach.⁵³ The report has consumers as the primary audience and urges them to take charge of their data. Consumer activism requires recognizing the data policies of various websites and internet vendors and the need to be circumspect about what data is shared and with whom. Just as one solution to market dominance is consumer voice and joint activism in identifying and countering anticompetitive policies, so abusive information policies need to be taken out of the shadows by consumers. Online outrage at Facebook and Google policies is one example of such activism, which becomes effective through the work of educated consumers. The NESTA report serves an educational function.

Digital markets offer challenges for both theory and business practice. The next section turns to potential antitrust law and policy responses to failures in digital markets.

4. COMPETITION POLICY AND LAW’S RESPONSE

A tone of hesitancy and qualification runs throughout this chapter, for good reason. The theories presented are novel and the applications are without direct factual precedent. A strong argument exists to rely on laissez-faire as markets develop absent strong empirical evidence of anticompetitive effects. However, waiting too long can result in economic harm that may be difficult, if not impossible, to correct. Caution may be wise, but an excess of caution is also troubling.

A point of potential common interest would be the best place to begin the antitrust prescription. Bork and many of his followers seem to agree with more progressive antitrust thinkers that the Supreme Court’s 1951 decision in *Lorain Journal v United States* was correctly

⁵² OECD (n 46) 12.

⁵³ NESTA (n 47) 6–7.

decided.⁵⁴ Discussed briefly in section 2, the *Lorain Journal* decision seems to provide some analogy for antitrust intervention in the digital economy because of the context of information markets. An established newspaper with clear market power refused to deal with advertisers who advertised with the new, up and coming radio station. At issue are competitive dynamics in an information market involving dueling platforms. In order for the radio station to compete, it had to cultivate a critical mass of advertisers. But the newspaper was concerned that it would lose a significant source of revenue if current advertisers switched to the new audio platform. Although some scholars have argued that *Lorain Journal* is about essential facilities,⁵⁵ there is only a weak argument that either the radio platform or the newspaper platform is essential. Many of the advertisers might have had other channels if both platforms vanished. The Supreme Court's unanimous ruling against the newspaper – finding a violation of section two of the Sherman Act, which criminalizes monopolistic behavior – rested on a dominant firm using its strong market power (90 percent of the advertising market in Lorain, Ohio) to block an emerging and competing platform. *Lorain Journal*'s actions are an example of the classic, and illegal, refusal to deal.

The precedent set by *Lorain Journal* has application to markets for competing platforms in digital markets. Agreements limiting searching on trademarked keywords can fit readily into the facts of *Lorain Journal*, especially if there are no business justifications for the restrictions. Protection of trademark rights may, as seems to be the case in the *Contacts* case, not be a legitimate business justification. However, some jurists read *Lorain Journal* as requiring a strong showing of specific intent to exclude in order to impose liability. In *Lorain Journal* itself, there was evidence that the newspaper had as its primary goal the exclusion of the radio station from the market.⁵⁶ Many refusals to deal in digital markets may indicate mixed motives. Certainly in most competitive situations, a firm would like its competitors to go away. But such a motive would not transform a business transaction into an antitrust violation. One could make the case that the exclusionary conduct in *Lorain Journal* should be a strict liability offense. But then we are confronted once again with the fundamental problem: how intrusive should antitrust law be in the emerging environment of digital markets? While platform competition can lead to monopolization because of network effects, perhaps the consumer does benefit from this form of competition, especially if the monopoly effects are short term and contestable.

Khan advocates greater antitrust scrutiny of allegedly predatory conduct in digital markets. While traditional predation theories fail to show that a monopolist can recoup the lost profits from below average cost pricing, Khan points out that a monopolist in a multimarket setting, such as Amazon, can cross-subsidize below cost pricing in one market with normal or extra-normal pricing in other markets.⁵⁷ Furthermore, she seems to be arguing that antitrust enforcers, whether agencies or courts, should look beyond consumer friendly pricing to example other terms of a contract that might impose hidden privacy and other information-sacrificing costs on consumers. This total transaction approach, meaning one that looks beyond price,

⁵⁴ *Lorain Journal* (n 18).

⁵⁵ See Robert Pitofsky et al, 'The Essential Facilities Doctrine under U.S. Antitrust Law' (2002) 70 Antitrust LJ 443, 462. An essential facility is a technology or infrastructure that firms in an industry need in order to operate. One firm's dominant control of this technology or infrastructure may give to antitrust liability.

⁵⁶ *Lorain Journal* (n 18).

⁵⁷ Khan (n 5) 791–92.

would support more aggressive enforcement and intervention in the contract terms set by firms in digital markets. Khan's position would justify, for example, antitrust scrutiny of contract terms and business practices that compromise consumer privacy.⁵⁸

Ezrachi and Stucke also recommend more antitrust scrutiny of digital markets although he is more cautious about aggressive intervention. Antitrust theories have to be more fully developed and digital markets, better understood.⁵⁹ But as the economic understanding improves, there seems to be a case for investigations into collusive behavior among firms in their use of algorithms and exclusionary unilateral conduct by dominant firms seeking to maintain dominance. Consumer benefits may arise in the aggressive competition of digital markets, Ezrachi and Stucke seem to suggest, but these benefits might come at a cost to innovation and distribution.

One can conclude only on a cautionary note given the current state of the law and of economics. There is much to be concerned about, but also much to embrace, in digital markets. While antitrust doctrine needs to be reconsidered in the new market environment, so must intellectual property doctrine. Much of the structure of digital markets, the existence of network effects, and the rise of dominance can be traced to patent, copyright, and trademark laws that created a fairly wide scope of protection. How antitrust and intellectual property laws coordinate will be of continuing concern in digital markets. The Court's recognition that patent rights and antitrust conduct need to be assessed together in gauging reverse payment settlements extends beyond the specific context of generic drug entry. How the two areas of law need to be coordinated has been the subject of recent scholarship. What should not be forgotten is that competition in digital markets is the product not only of antitrust rules but also of the property rights that attempt to resolve the information externalities that arise in digital transactions.

5. CONCLUSION

Digital markets pose many tantalizing puzzles for scholars, practitioners, and policymakers. In such a dynamic setting, caution is perhaps the best advice. But caution should not imply deference and complete forbearance to laissez-faire markets. The competitive threats in the digital environment are real. However, the legal tools to meet the threats are still in the making. This chapter has documented the threats, but also set forth realistic paths for how antitrust and related doctrines can evolve to protect many interests in the emerging digital economy.⁶⁰

⁵⁸ Khan (n 5) 737–39.

⁵⁹ Ezrachi and Stucke (n 6) 27.

⁶⁰ For an example of the global context of digital markets, see Anupam Sanghi, 'Competition in the Digital Economy: How to Assess Emerging Tech Markets?' (2016) LexisNexis 3.

24. Exhaustion of rights on digital content under EU copyright: positive and normative perspectives

Stavroula Karapapa

1. INTRODUCTION

Over the past decade, transmission of copyright works over digital networks has become the norm in copyright content distribution. Delivery via download and streaming of online content are the leading business models in the digital marketplace, with Amazon selling more ebooks than hardbacks since 2010,¹ and the revenue from digital music downloads outnumbering earnings from CD sales.² The transition from the distribution of copyright protected works via physical format to transmission in the form of digital data has marked an important shift in copyright: rightholders not only remain in control of the availability and pricing of their works, but can also dictate certain uses consumers can carry out in respect of them.³ The scope of this authorial entitlement to the exploitation of copyright protected works on the internet is broad and has implications for consumer welfare and market efficiency: consumers are not allowed to resell lawfully purchased digital products and the creation of secondary markets for such products is hindered.

These concerns were historically addressed through the application of the exhaustion principle, according to which placing the embodiment of a copyright protected work on the market exhausts the rightholder's entitlement over the subsequent dissemination of that copy of the work. Exhaustion applies to the distribution right only,⁴ however, and European copyright expressly excludes its application to the right of communicating works to the public. Indeed, it is expressly stated in article 3(3) of the Information Society Directive 2001/29/EC that exhaustion does not cover the communication or otherwise making available of works to the public.⁵

¹ Dylan F Tweney, 'Amazon Sells More E-Books than Hardcover' (*WIRED*, 19 July 2010) <www.wired.com/epicenter/2010/07/amazon-more-e-books-than-hardcovers> accessed 14 October 2019.

² IFPI, 'Digital Music Report' (Recording Industry in Numbers 2017) 11, 12; the same report indicates that digital revenues made up 50 per cent of the share of total recorded music industry revenues for the first time in 2017.

³ Jonathan Zittrain, *The Future of the Internet – And How to Stop It* (Yale University Press 2008) 102–03.

⁴ Council Directive 2001/29/EC of 22 May 2001 on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society (Information Society Directive) [2001] OJ L 167/10, art 4(2): 'The distribution right shall not be exhausted within the Community in respect of the original or copies of the work, except where the first sale or other transfer of ownership in the Community of that object is made by the rightholder or with his consent.'

⁵ *ibid* art 3(3): 'The rights [of communication and making available to the public] shall not be exhausted by any act of communication to the public or making available to the public as set out in this Article.'

Despite the restricted position the Information Society Directive adopts, ‘digital’ exhaustion remains an open question. This is so for two reasons. First, there are certain acts of communicating works to the public that are functionally equivalent to the distribution of tangible copies of works. This issue was raised in the *UsedSoft* case, which famously held that the right to disseminate software online is subject to the exhaustion rule because of the very nature of the transaction. In that case, the Court of Justice interestingly noted that ‘[t]he on-line transmission method is the functional equivalent of the supply of a material medium’.⁶ Even though the same case instructs that exhaustion – as incorporated in the Computer Programs Directive – is *lex specialis* in relation to the Information Society Directive,⁷ and as such is not applicable to digital works in general, the affirmation that distribution and communication can at times be functionally equivalent has had an impact on national cases.⁸ Indeed, while national courts have found that ‘digital’ exhaustion can apply to software only,⁹ other courts have relied on the ‘functional equivalence’ argument to exempt an online intermediary of sales of used ebooks from infringement, with this latter case having reached the Court of Justice for a preliminary ruling.¹⁰ What is more, uncertainty is illustrated in the 2003 ‘Public Consultation on the review of the EU copyright rules’, where the Commission asked whether the exhaustion rule can apply where an act of online transmission is functionally equivalent in its effect to distribution, which is the case where the purchaser ‘acquires the property of the copy’.¹¹

⁶ Case C-128/11 *UsedSoft GmbH v Oracle International Corp* ECLI:EU:C:2012:407 (‘*UsedSoft*’), para 61.

⁷ This was affirmed in Case C-355/12 *Nintendo Co. Ltd and Others v PC Box Srl and 9Net Srl* ECLI:EU:C:2014:25 (‘*Nintendo*’) para 23.

⁸ *UsedSoft* (n 6) para 60.

⁹ See *Landgericht Bielefeld* (5 March 2013) 4 O 191/11; *Oberlandesgericht Hamm* (15 May 2014) 22 U 60/13.

¹⁰ See Case C-263/18 *Nederlands Uitgeversverbond and Groep Algemene Uitgevers v Tom Kabinet BV* (‘*Tom Kabinet*’). The questions are:

Is Article 4(1) of the Copyright Directive to be construed as meaning that ‘any form of distribution to the public by sale or otherwise of the original of their works or copies thereof’ as referred to therein includes making available remotely by downloading, for use for an unlimited period, e-books (being digital copies of books protected by copyright) at a price by means of which the copyright holder receives remuneration equivalent to the economic value of the work belonging to him?

If question 1 is to be answered in the affirmative, is the distribution right with regard to the original or copies of a work as referred to in Article 4(2) of the Copyright Directive exhausted in the Union, when the first sale or other transfer of that material, which includes making available remotely by downloading, for use for an unlimited period, e-books (being digital copies of books protected by copyright) at a price by means of which the copyright holder receives remuneration equivalent to the economic value of the work belonging to him, takes place in the Union through the rightholder or with his consent?

Is Article 2 of the Copyright Directive to be construed as meaning that a transfer between successive acquirers of a lawfully acquired copy in respect of which the distribution right has been exhausted, constitutes consent to the acts of reproduction referred to therein, in so far as those acts of reproduction are necessary for the lawful use of that copy and, if so, which conditions apply?

Is Article 5 of the Copyright Directive to be construed as meaning that the copyright holder may no longer oppose the acts of reproduction necessary for a transfer between successive acquirers of the lawfully acquired copy in respect of which the distribution right has been exhausted and, if so, which conditions apply?

See also in this regard *NUV v Tom Kabinet* ECLI:NL:RBDHA:2017:7543 (Court of Hague); *NUV v Tom Kabinet* ECLI:NL:GHAMS:2015:66 (Court of Appeal of Amsterdam).

¹¹ The two difficult issues that the Commission identifies in this context are the so-called forward and delete question, that is, how to avoid resellers keeping their own copy, and the economic impact of the

The second reason that casts doubt as to whether some form of digital exhaustion does indeed apply to the right of communicating works to the public is the controversial ruling of the Court of Justice in *Svensson*. This ruling has been said to introduce a ‘waiver *erga omnes*’¹² that has ‘the unfounded and illegitimate effect of exhaustion of the communication to the public right or, rather, the scope of that right is *reduced* by the court from the outset’.¹³ In this case, the court was called on to address the question of whether hyperlinks constitute an act of communication to the public within the meaning of article 3(1) of the Information Society Directive. It observed that there is no infringement unless there is an act of communication and this communication is addressed to a ‘new public’, that is, an audience that the rightholders did not have in mind when authorizing the initial communication.¹⁴ What arguably introduced a limited form of exhaustion was the affirmation that once rightholders have placed their works on the internet with no restrictions on access (such as technical measures or paywall), they lose control over subsequent communications to the public by means of hyperlinks. This is because that subsequent communication is not addressed to a ‘new public’.¹⁵

Functional equivalence and hyperlinks raise the question whether ‘digital’ exhaustion should apply and, if so, whether this is normatively feasible. This question is important, as the issue of exhaustion is one that not only relates to the realization of the fundamental freedoms of movement within the EU but also enhances competition in the market, innovation in the creation of novel goods and an economy that accommodates secondhand markets. What is more, there are benefits from not having double standards in content distribution that impact the autonomy of EU citizens when interacting with copyright protected content. Moreover, there is a need to preserve ease and clarity in transactions, which cannot be easily achieved in a digital marketplace in which what can and cannot be done with copyright content is determined by unilaterally imposed licensing terms and conditions.

Despite these benefits, there are normative impediments to the application of exhaustion in the online context, and these mostly have to do with its central premise – namely, tangibility. This was very recently upheld in two cases at the Court of Justice: *VOB* and *Allposters*. In *Allposters*,¹⁶ the court linked the application of exhaustion to tangibility by affirming that ‘exhaustion of the distribution right applies to the tangible object into which a protected work or its copy is incorporated if it has been placed onto the market with the copyright holder’s consent’.¹⁷ This meant that the unauthorized reselling of copies of works in an altered version

creation of secondhand digital goods that never deteriorate in quality. See European Commission, Public Consultation on the Review of the EU Copyright Rules (2003) 16 <https://wiki.wikimedia.it/images/7/74/Consultazione_europea_sul_diritto_d%27autore.pdf>, accessed 14 October 2019.

¹² Association Littéraire et Artistique Internationale (ALAI), Opinion on the Criterion ‘New Public’, developed by the Court of Justice of the European Union (CJEU), put in the Context of Making Available and Communication to the Public (17 September 2014) 16.

¹³ *ibid* 15–16.

¹⁴ See in general Stavroula Karapapa, ‘The Requirement for a “New Public” in EU Copyright Law’ (2017) 1 E L Rev 63.

¹⁵ Case C-466/12 *Nils Svensson, Sten Sjögren, Madelaine Sahlman, Pia Gadd v Retriever Sverige AB* ECLI:EU:C:2014:76 (*Svensson*).

¹⁶ Case C-419/13 *Art & Allposters International BV v Stichting Pictoright* ECLI:EU:C:2015:27 (*Art & Allposters*); for an analysis of the case see Eleonora Rosati, ‘Online Copyright Exhaustion in a Post-Allposters World’ (2015) 10(9) *JIPLP* 673; Maša Savič, ‘The CJEU Allposters Case: Beginning of the End of Digital Exhaustion?’ (2015) 37(6) *EIPR* 378.

¹⁷ *Art & Allposters* (n 16) para 40.

through a canvas transfer process was not covered by exhaustion, as these were *new* objects and not subject to the initial authorial consent. In *VOB*,¹⁸ a case that has the indirect implication that libraries cannot e-lend digital materials, the court held that it was necessary to interpret ‘the concept of “rental”, in article 2(1)(a) of Directive 2006/115, as referring exclusively to tangible objects, and to interpret the concept of “copies”, in article 1(1) of that directive, as referring, as regards rental, exclusively to copies fixed in a physical medium’.¹⁹

This chapter will argue that a limited form of digital exhaustion is normatively desirable and there would be much to be gained from the application of an equivalent concept, that is, one ensuring that the benefits traditionally arising due to the exhaustion principle are preserved in the online environment. Exhaustion brings significant benefits to the market economy and society as a whole, and there are a number of cases, mostly from national courts, that have addressed the beneficial effects of the application of exhaustion. Because there are normative impediments towards the application of digital exhaustion, however, mostly arising due to the attachment of the notion of exhaustion to tangibility, it will also be argued that those could be overcome to a certain extent, should a purposive interpretation of tangibility be adopted, leading in certain cases to a meaningful equivalent of content ownership in the online environment.

2. BENEFITS OF THE EXHAUSTION PRINCIPLE TO SOCIETY AND THE MARKET

The benefits of exhaustion throughout the European Economic Area (EEA) are not well documented in literature, and – as case law from the various Member States indicates – they are also largely diverse. Yet the concept is meaningful to the copyright system for various reasons.

The concept of exhaustion in Europe was originally developed in German scholarship, and more specifically in the work of Kohler as early as the nineteenth century.²⁰ It was fundamentally premised on the insight that intellectual property rights are ‘consumed’ after the first act of exploitation, following an understanding of intellectual property as a bundle of commercial rather than personality rights.²¹ The German Supreme Court (then called *Reichsgericht*) adopted this concept for trade marks, patents and copyright, upholding the property rationale underlying Kohler’s theory:²² the distribution right of the intellectual property rightholder has to give way to the property right of the purchaser of the copy – without, however, other powers of the rightholder having to be exhausted, such as the exclusive reproduction right.

¹⁸ Case C-174/15 *Vereniging Openbare Bibliotheken v Stichting Leenrecht* ECLI:EU:C:2016:856 (*VOB*).

¹⁹ *ibid* para 35.

²⁰ Josef Kohler, *Das Autorrecht: eine Zivilistische Abhandlung: zugleich ein Beitrag zur Lehre vom Eigentum, vom Miteigentum, vom Rechtsgeschäft und vom Individualrecht* (Jena Fischer 1880) 267.

²¹ Guido Westkamp, ‘Exhaustion and the Internet as a Distribution Channel: The Relationship between Intellectual Property and European Law in Search of Clarification’ in Irene Calboli and Edward Lee (eds), *Research Handbook on Intellectual Property Exhaustion and Parallel Imports* (Edward Elgar 2016) 498.

²² Herman Cohen Jenoram, ‘Prohibition of Parallel Imports through Intellectual Property Rights’ in David Vaver (eds), *Intellectual Property Rights: Critical Concepts in Law*, vol 5 (Routledge 2006) 101, 103.

This justification of exhaustion can be seen as the natural result of the distinction between two overlapping forms of property that can subsist simultaneously on a copyright protected work: the intellectual property right(s) in the ‘intellectual creation’ (work, invention, brand) and the personal property in the embodiment thereof, that is, the tangible medium (copy, product).²³

In this light, it is tangibility, its essential qualities and its impact on the modalities of disseminating works that become the central hypothesis underlying the applicability of exhaustion. Tangibility of the medium in which the intellectual property rights are incorporated means that there is a product, namely an item of goods, that can be sold in hand to hand transactions, bearing the effect of property transfer and thereafter property alienation. This understanding of exhaustion, along with the property alienation argument, seems to justify exhaustion as a concession to the practical difficulty – or even impossibility – of controlling subsequent acts of distribution of a tangible object. Transaction costs in identifying possible infringements arising due to the unauthorized distribution and resale of used copies of works would be considerable, if not prohibitively expensive. Such a justification, however, can no longer be plausible, with the dematerialization of the intellectual object on the internet and the possibilities rightholders have to control every act of exploitation of their works online and to enforce their rights.

Indeed, the historical evolution of the concept on the legislative and judicial level indicates that exhaustion serves purposes that enhance the objectives of copyright law and that correspond to the objectives of other legal disciplines, such as consumer law, protection against unfair competition, contract law and competition law, as well as EU law more broadly. Yet, unlike the US, where the normative rationales of the so-called first sale doctrine have been subject to wider scrutiny,²⁴ the social and policy arguments in favour of the application of exhaustion have not been well documented in Europe.²⁵

2.1 Free Movement and the Objectives of EU Law

An important benefit of regional exhaustion applicable within the EEA is that it ensures that the freedom of movement of goods remains unrestricted.²⁶ This is supported by references to various Directives that stress the instrumental role of exhaustion towards the realization of this fundamental freedom.²⁷ There are also cases from various national courts,²⁸ and from the Court

²³ Stavroula Karapapa, ‘Reconstructing Copyright Exhaustion in the Online World’ (2014) 4 IPQ 304, 308.

²⁴ See for example, Joseph P Liu, ‘Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership’ (2001) 42 Wm & Mary L Rev 1245, 1303, 1310–11, 1320–21, 1330–33, 1336; also see R Anthony Reese, ‘The First Sale Doctrine in the Era of Digital Networks’ (2003) 44 B C L Rev 577, 584.

²⁵ At the time this chapter was written and published in draft form in the Social Science Research Network, the benefits of the exhaustion principle were not subject to systematic analysis in Europe; they were discussed in US scholarship and sporadic national case law from EU Member States. Since then, Advocate General Szpunar has offered his Opinion in Case C-263/18 *Nederlands Uitgeversverbond and Groep Algemene Uitgevers v Tom Kabinet BV* ECLI:EU:C:2019:697, which outlines approvingly in [80]–[85] the benefits of the exhaustion rule, discussed in this chapter, and offers the first systematic judicial affirmation of all of these benefits.

²⁶ Treaty on the Functioning of the European Union (TFEU) OJ C 326 arts 26, 28–37.

²⁷ For an analysis see Jarrod Tudor, ‘Intellectual Property, the Free Movement of Goods and Trade Restraint in the European Union’ (2012) 6(1) JBEL 45, 87.

²⁸ See for example, *OEM-Vertrieb* Bundesgerichtshof (6 July 2000) I ZR 244/97.

of Justice,²⁹ affirming this point. A particular aspect of the internal marketbuilding rationale of exhaustion was developed in a Dutch case, *Tom Kabinet*, where the Court of Appeal of Amsterdam held that with exhaustion, the rights of the rightholders, in the interest of the free movement of goods, should not go beyond what is necessary to ensure that they receive reasonable compensation.³⁰

Although the primary focus of the exhaustion principle by reference to free movement has been in the context of goods, the Court of Justice has also discussed it by reference to the freedom to provide services in at least one case.³¹ This was *FAPL*,³² where the Court of Justice held that national legislation that confers legal protection to licences that prohibit foreign decoders – that is, devices that give access to satellite broadcasts of football games from another EU State – from being imported into, sold and used in the national territory, amount to a restriction of the freedom to provide services.³³ The decoder cards in the case at issue were, in effect, a parallel import: they were not counterfeits, but were authorized and legal goods in another jurisdiction. In her Opinion, Advocate General Kokott linked the discussion to exhaustion, finding that the exploitation of the transmission of football matches took place by charging a fee for the decoder cards that ought to be capable of being sold on freely within the EU. The Advocate General did not see a difference between the sale of goods and the provision of services, opining that restrictions on fundamental freedoms must, as a rule, be justified by reference to the same principles,³⁴ and that certain services do not differ significantly from goods – including computer software, musical works, ebooks, films, and so on – which are downloaded from the internet and can easily be passed on in electronic form.³⁵ Even though the court did not uphold this view and did not focus its discussion on the exhaustion doctrine, concentrating instead on free movement, it did reach the same conclusion as the AG, leaving open the question of digital exhaustion.

2.2 Competition and Innovation

Related to the free movement of goods and services is the argument that the exhaustion principle also enhances competition and the improvement of goods and services through

²⁹ Case 78/70 *Deutsche Grammophon v Metro* ECLI:EU:C:1971:59 (*‘Deutsche Grammophon’*); Case C-62/79 *SA Compagnie Générale pour la diffusion de la télévision, Coditel SA v CinéVog Films SA and others* ECLI:EU:C:1980:84 (*‘Coditel I’*); Case C-200/96 *Metronome v Music Point* ECLI:EU:C:1998:172 (*‘Metronome’*); Case C-61/97 *Videogramdistributoren v Laserdisken* ECLI:EU:C:1998:422 (*‘Laserdisken’*); Case C-395/87 *Ministère Public v Jean-Louis Tournier* ECLI:EU:C:1989:319 (*‘Tournier’*); Case C-456/06 *Peek & Cloppenburg KG v Cassina SpA* [2008] ECR I-02731 (*‘Peek & Cloppenburg’*); Cases C-403/08 *Football Association Premier League Ltd and Others v QC Leisure and Others*/C-429/08 *Karen Murphy v Media Protection Services Ltd* ECLI:EU:C:2011:631 (*‘FAPL’*).

³⁰ *Tom Kabinet*, Court of Appeal of Amsterdam (n 10) [3.5.2], [3.5.3].

³¹ TFEU (n 26) art 56.

³² *FAPL* (n 29).

³³ See in general Tanya Aplin, “‘Reproduction’ and ‘Communication to the Public’: Rights in EU Copyright Law: *FAPL v QC Leisure*” (2011) 22(2) *KLJ* 209.

³⁴ Cases C-403/08 *Football Association Premier League Ltd and Others v QC Leisure and Others*/C-429/08 *Karen Murphy v Media Protection Services Ltd* ECLI:EU:C:2011:43, Opinion of AG Kokott, para 183.

³⁵ AG Kokott (n 34) 185.

increased innovation.³⁶ Indeed, because exhaustion exists, it is possible to offer innovative ways of content distribution, which either have to do with new versions of the product, such as computer software updates, or with the creation of new business models, such as online auction services.³⁷

Perzanowski and Schultz have elaborated on the competition benefits that result from the application of the US equivalent to exhaustion, the first sale doctrine.³⁸ They explain that platforms can acquire multiple copies of works at low cost because of the first sale rule, experiment with it, and possibly innovate. In this regard they give the examples of Netflix and Redbox, which managed to build substantial distribution services partially because they could rely on the first sale doctrine and acquire DVDs without the approval of movie studios.³⁹ Users, too, could innovate under the protection of the first sale doctrine by developing new uses for products, modified versions of the tangible support incorporating works, simply because it is easier and less costly to create and distribute their innovations in secondary markets.

The second way in which exhaustion enhances competition in the digital marketplace is by reducing lock-in effects generated when the costs for switching to a new supplier or seller are high enough to discourage consumers from moving to a more competitive model.⁴⁰ Lock-in raises concerns from a competition law perspective as it does not allow new players to enter the market and thereby hinders innovation. Exhaustion has the effect of limiting lock-in by allowing consumers to resell their own goods and recoup some of the costs they encountered when switching platforms. This could include a software user who decides, for instance, to swap from Microsoft Windows to Apple's iOS or vice versa.

2.3 Marketability, Access, Preservation

Exhaustion also enhances the marketability of copyright protected works. In 2000, the German Federal Court of Justice decided that reselling digital software is permitted, irrespective of restrictive licensing terms and conditions, when the software is put on the market by or with the consent of the rightholders.⁴¹ In that case, the court elaborated on the benefits of exhaustion and its impact on the public interest through enhancement of the marketability of products.

Indeed, exhaustion enhances the marketability of works at two levels. First, it ensures availability and affordability of works through secondhand markets.⁴² Second, it ensures accessibility and preservation of works that are no longer available through the normal distribution channels. Indeed, exhaustion fosters secondary markets by ensuring that consumers will have wider and more affordable access to works, occasionally through different modes of distribution (such as through rental or product sampling),⁴³ pressuring the rightholders to reduce the prices of the original works and to expand their availability. This is particularly so because secondary markets are reportedly more efficient in price discrimination than the

³⁶ Aaron Perzanowski and Jason Schultz, 'Digital Exhaustion' (2010) 58 UCLA L Rev 889, 897.

³⁷ Mark Anderson, 'New CD-Swap Site Hooks Music Fans' (*WIRED*, 8 June 2006) <www.wired.com/culture/culturereviews/news/2006/06/71106> accessed 14 October 2019.

³⁸ Perzanowski and Schultz (n 36) 897.

³⁹ *ibid* 898.

⁴⁰ *ibid* 899.

⁴¹ *OEM-Vertrieb* (n 28).

⁴² Reese (n 24) 584–94.

⁴³ Perzanowski and Schultz (n 36) 587.

primary market of copyright holders.⁴⁴ Exhaustion also enhances access to copyright protected works that are no longer available from the rightholder.⁴⁵ In this light, out of print (and orphan) works can remain publicly accessible,⁴⁶ which has important benefits for society as a whole.

2.4 Functional Equivalence, Transactional Clarity and User Autonomy

An important aspect of exhaustion that has been addressed in a number of cases is the functional equivalence of material and immaterial distribution, and the benefits that come with it, mainly the advantage of clarity in transactions. This was notably affirmed in *UsedSoft*,⁴⁷ a case which—as already mentioned—planted the seeds of doubt about the possibility of digital exhaustion. Further, in *Tom Kabinet*, the Amsterdam Court of Appeal stressed that the importance of functional equality of material and immaterial distribution of copyright protected works has to be maintained through the application of exhaustion.⁴⁸

That material and immaterial distribution are functionally equal serves the needs of transactional clarity and ease in transactions. Exhaustion ensures that the free distribution of products on the market is not inhibited with users having to seek permission each and every time a digital good is meant to be resold. Legal uncertainty could also arise from the fact that licences of goods sold online may vary in their terms and conditions; there is no universal standard by which consumers have to abide. Exhaustion, therefore, serves as a standard rule covering the distribution of works, and consumers do not have to be wary of diverse, fragmented and possibly confusing terms and conditions. Such transactional clarity not only simplifies the transfer of copyright protected materials, but also creates legal certainty and enhances market efficiency.⁴⁹

What is more, exhaustion ensures user autonomy over subsequent uses of the work and preserves user privacy. If exhaustion did not apply, consumers would have to request permission from the rightholders for every subsequent resale of the work. Exhaustion, therefore, not only enhances user autonomy and privacy; it also preserves the user right to read anonymously without interventions from third parties.⁵⁰ Yet the inapplicability of exhaustion in the digital marketplace shrinks what is considered as acceptable private use with regard to the use of copyright protected materials in tangible form.⁵¹

Despite its undisputed benefits to society and to the market, the application of exhaustion is normatively foreclosed by reference to the communication right because of the differences

⁴⁴ Reese (n 24) 585.

⁴⁵ *ibid* 594–95, 599.

⁴⁶ See for example Maurizio Borghi and Stavroula Karapapa, *Copyright and Mass Digitization: A Cross-Jurisdictional Perspective* (OUP 2013) 70, 88.

⁴⁷ *UsedSoft* (n 6) para 61.

⁴⁸ *Tom Kabinet*, Court of Appeal (n 10) [3.5.2].

⁴⁹ Perzanowski and Schultz (n 36) 896. See for example the US case *Straus v Victor Talking Mach. Co.* 243 US 490, 501 (1917): ‘[I]t must be recognized that not one purchaser in many would read such a notice, and that not one in a much greater number, if he did read it, could understand its involved and intricate phraseology’.

⁵⁰ Julie E Cohen, ‘A Right to Read Anonymously: A Closer Look at “Copyright Management” in Cyberspace’ (1996) 28 Conn L Rev 981.

⁵¹ On the link between exhaustion and personal use, see Stavroula Karapapa, *Private Copying* (Routledge 2012) 16.

between material and immaterial distribution – at the heart of which rest assumptions of tangibility.

3. DISTRIBUTION AND COMMUNICATION: FUNCTIONALLY EQUIVALENT OR FUNDAMENTALLY DIFFERENT?

The focus of the discussion regarding the inapplicability of exhaustion in the online context has mainly revolved around the normative impediments to digital exhaustion, attributable mainly to the essential differences between the distribution right and the right of communicating works to the public.⁵² Those differences are accountable for the fact that exhaustion does not apply to the right of communicating works to the public, as the legislative and judicial development of the rights indicates. These differences are threefold and have to do with the scope of the act of content dissemination, the qualities of the object that is transferred and the particular nature of the transaction that takes place via distribution and communication.

3.1 Scope of Rights

According to international law – and in particular article 6(2) WIPO Copyright Treaty (WCT) and articles 8 and 12 WIPO Performances and Phonograms Treaty (WPPT) – the question of exhaustion is left to be dealt with under national legislation.⁵³ Contracting states are under no obligation to choose national, regional or international exhaustion – or even to regulate on the exhaustion – of the distribution right, after the first sale or other transfer of ownership of the original or copy of the work with the consent of the rightholder.

As the 2003 WIPO Guide explains, the scope of the (then introduced) right of communicating works to the public was meant to be broader compared to its analogue equivalent, the distribution right. The distribution right was a right to authorize the *first* act of distribution, whereas the right of communicating the works to the public conferred on rightholders an entitlement to control each and every act of transmission of their works through electronic networks. The historical development of the distribution right supports the view that the right covers only the *first* act of distribution: during the 1967 Stockholm review of the Berne Convention the discussion was about introducing a limited distribution right and not a general right to circulate copyright protected materials.⁵⁴ Indeed, as the Guide explains, even though the English translation of the Berne Convention makes reference to the distribution right, the French version, which is the original version, refers to the right of ‘mise en circulation’, namely the right of putting the work in circulation for the first time. By virtue of article 37(1)(c) of the Berne Convention, the French text prevails, however, and this has the practical

⁵² See for example Karapapa (n 23) 309.

⁵³ See Committee of Experts on a Possible Protocol to the Berne Convention (document) 22–24 May 1996 BCP/CE/111/3.

⁵⁴ WIPO, ‘Guide to the Copyright and Related Rights Treaties Administered by WIPO and Glossary to Copyright and Related Rights Terms’ (2003) BC-14.17.

implication that the minimum standard set under the Treaties is to provide for a distribution right that is exhausted after the first act of distribution.⁵⁵

3.2 Object of Distribution and Communication

The distribution right covers the physical embodiment of a protected work, which, due to tangibility, is a very specific object. Exhaustion applies to the right to further distribute tangible works and in particular *the right to distribute the exact same copy that has been placed on the market with the rightholder's consent*. This cannot be assumed by reference to the right of communicating works to the public in an electronic network, as dematerialization signifies the coincidence of the intellectual work and its tangible embodiment. This means that it is no longer possible to readily ascertain whether it was the exact same copy that was subsequently disseminated, which can be problematic to the extent that multiplications of a digital file do not necessarily come with property alienation. Indeed, most of the transactions on the transfer of digital goods offer a licence to use the work: they do not technically amount to a sale of the said material, meaning that the rightholder does not relinquish the right to subsequent acts of dissemination.

Tangibility in the context of the distribution right has a twofold meaning. First, when copies come in physical form they qualify as goods. While it is easy to see how a tangible medium qualifies as goods, electronic copies of works, such as TV broadcasts, music files or online video games, are often accessed as services, with the result that end users cannot have property claims on the content they purchase. Second, exhaustion covers only the exact same copy of a work that has been placed on the market with authorial consent, meaning that reproductions of the work, such as second generation copies or adaptations thereof, are not subject to the exhaustion of rights.

The emphasis on tangibility as a prerequisite for the application of exhaustion emerged from the Computer Programs Directive.⁵⁶ Affirmative in this respect is the observation of the EU Commission in its report on the implementation of this Directive, where it is stated that exhaustion 'only applies to the sale of copies, i.e. goods, whereas supply through on-line services does not entail exhaustion'.⁵⁷ This position was repeatedly upheld during the preparatory work for the introduction of the Information Society Directive, where the important quality of tangibility is its necessary effect, namely the distinction between hand to hand transactions and

⁵⁵ Another important aspect by reference to the limited scope of the distribution right is that this right exists as an indispensable corollary to the reproduction right (WIPO *ibid* BC-14.18) and there is indeed no minimum obligation for a general distribution right on a copy that has been sold with the exception of the resale right. See Berne Convention for the Protection of Literary and Artistic Works, 1886 (as amended on 28 September 1979), art 14ter.

⁵⁶ Council Directive 91/250/EEC of 14 May 1991 on the Legal Protection of Computer Programs [1991] OJ L122/42 (Computer Programs Directive), art 4(c) reads: 'The first sale in the Community of a copy of a program by the rightholder or with his consent shall exhaust the distribution right within the Community of that copy, with the exception of the right to control further rental of the program or a copy thereof.'

⁵⁷ Commission, 'Report on the Implementation of the Software Directive of April 10 2000' COM (2000) 199, s VII.1, 17, fn 17.

services.⁵⁸ In the Proposal to the Information Society Directive,⁵⁹ exhaustion to the distribution of the ‘object’ was allowed,⁶⁰ this was also referred to as ‘tangible article’, ‘material copy’ or ‘material medium, namely an item of goods’.⁶¹ This means that there was an effort to draw a line between physical copies and the online delivery of content that qualifies as a service.⁶² This justifies the inapplicability of digital exhaustion and is reflected in a large body of case law from the Court of Justice, which has been focused on the nature of the legal transaction and the way in which tangibility impacts on the modalities of dissemination.⁶³ Where the nature of the dissemination of works to the public is such that the work and the copy coincide, as is for instance the case with public performances, exhaustion does not apply. This was affirmed in *Tournier*,⁶⁴ where the court held that exhaustion does not apply ‘where the act of making a work available to the public is inseparable from the circulation of the physical medium on which it is recorded’.⁶⁵ This is also the case where a tangible copy exists but the mode of its dissemination to the public does not result in the permanent transfer of property entitlements over the copy (such as in lending).⁶⁶

Because the Information Society Directive has assimilated the online delivery of content to services and has excluded the application of exhaustion to the right of communicating works to the public,⁶⁷ lawful purchasers of online digital content, such as subscribers to streaming services, cannot resell that content without seeking permission from the relevant rightholders, and may even face difficulties returning content to the vendor within a specific timeframe.⁶⁸ Other users too – for instance, those who download copyright protected content to embed on specific devices, such as software applications or digital music libraries stored on mobile phones – may not be able to resell that content or the device without having to erase the content first.

The emphasis on tangibility in the Information Society Directive is based on an expansive interpretation of article 6(1) of the WIPO Copyright Treaty and article 8 of the WIPO

⁵⁸ The Follow-Up to the Green Paper on Copyright also clarified that the exhaustion of rights cannot occur by reference to works and other subject matter exploited online ‘as this qualifies as a service’. See Commission, ‘Follow-Up to the Green Paper on Copyright and Related Rights in the Information Society’ COM (96) 568 final, ch 2, 19, §4: ‘a large consensus exists that no exhaustion of rights occurs in respect of works and other subject matter exploited on-line, as this qualifies as a service.’

⁵⁹ Commission, ‘Proposal for a European Parliament and Council Directive on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society’ COM 628 final 98/C 108/03 97.

⁶⁰ *ibid* art 4.2.

⁶¹ *ibid* recitals 18, 19.

⁶² Information Society Directive (n 4) recital 29.

⁶³ See indicatively *Coditel I* (n 29); *Metronome* (n 29) paras 18–19; *Laserdisken* (n 29) para 17; *Tournier* (n 29) para 12.

⁶⁴ *Tournier* *ibid*.

⁶⁵ *ibid* para 12.

⁶⁶ See *Metronome* (n 29) paras 18–19; *Laserdisken* (n 29) para 17.

⁶⁷ André Lucas, ‘International Exhaustion’ in Lionel Bently, Uma Suthersanen and Paul Torremans (eds), *Global Copyright Three Hundred Years since the Statute of Anne, from 1709 to Cyberspace* (Edward Elgar Publishing 2010) 304, 309; see also Pierre-Emmanuel Moyse, *Le droit de distribution: Analyse historique et comparative en droit d’auteur* (Cowansville, Québec Les Editions Yvon Blais 2007) 559–62.

⁶⁸ Amazon, for instance, allows for the return of Kindle books in Europe but the returns policy is not as clearly visible as with the return of physical copies.

Performances and Phonograms Treaty, which allegedly apply to tangible copies only.⁶⁹ However, as mentioned earlier, the WIPO Treaties do not link exhaustion to tangibility and leave signatory countries the discretion to decide on the particularities of the application of exhaustion.⁷⁰

It is not only the EU, however, that has expressly premised exhaustion on tangibility and foreclosed its application to digital transmissions of content, with the exception of software. The US too has adopted a very similar approach. In *Capitol Records v ReDigi*,⁷¹ the District Court for the Southern District of New York distinguished between sound recordings and phonorecords, with the latter being physical objects in which sounds are fixed.⁷² The court in *ReDigi* found that ‘when a user downloads a digital music file or ‘digital sequence’ to his ‘hard disk’, the file is ‘reproduce[d] on a new phonorecord within the meaning of the Copyright Act’.⁷³

3.2.1 Exact same copy

Exhaustion applies to the exact same copies that have been placed on the market in the EEA with the consent of the relevant rightholders. This principle was first developed in the context of trade mark law, where consent for distribution covers only the exact same goods that have been placed on the market, namely to ‘each individual item of the product in respect of which exhaustion is pleaded’.⁷⁴ The Court of Justice in *Sebago v G-B Unic* developed a doctrinal interpretation of consent, meaning that where a rightholder has consented to an item being on the market, they cannot oppose further marketing of the exact same item.⁷⁵ This interpretation of consent is also applicable in copyright law;⁷⁶ such a reading is supported by a grammatical interpretation of article 4(2) of the Information Society Directive,⁷⁷ as well as by a purposive reading, according to which distribution that also involves reproduction or adaptation may not be consensual as it is not the exact same copies being placed on the market.

With regard to the distribution of previously adapted copies of copyright protected works, the Court of Justice has adopted a restrictive position. In *Art & Allposters International BV*

⁶⁹ Commission, ‘Proposal for a European Parliament and Council Directive on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society’ COM (97) 628 final 97/0359 (COD) 40, comment to article 4. The agreed statements concerning articles 6 and 7 WCT specify that copies that are subject to the distribution right be ‘fixed copies that can be put into circulation as tangible objects’. See WIPO Copyright Treaty (WCT) 1996.

⁷⁰ Karapapa (n 23) 312.

⁷¹ *Capitol Records LLC v ReDigi Inc* No 12 Civ 95 (RJS) 2013 WL 1286134 (SDNY 30 March 2013).

⁷² *ibid* 5 citing HR Rep No 94-1476, 56 (1976).

⁷³ *ibid* 6.

⁷⁴ Case C-173/98 *Sebago Inc. and Ancienne Maison Dubois & Fils SA v G-B Unic SA* [1999] ECR I-04103 (‘*Sebago*’), para 22.

⁷⁵ *ibid* § 21. This has also been affirmed in Case C-337/95 *Parfums Christian Dior v Evora* [1997] ECR I-06013 (‘*Evora*’), §§ 37–38; Case C-63/97 *BMW v Deenik* [1999] ECR I-00905 (‘*Deenik*’), para 57.

⁷⁶ See for example Stefan Behtold, ‘Directive 2001/29/EC – on the harmonization of certain aspects of copyright and related rights in the information society’, in Thomas Drier and P Bernt Hugenholtz, *Concise European Copyright Law* (Kluwer Law International 2006) 366; Silke von Lewinski, *International Copyright Law and Policy* (OUP 2008) 17.66.

⁷⁷ Case C-479/04 *Laserdisiken AS v Kultuministeriet* ECLI:EU:C:2006:549 (‘*Kultuministeriet*’) para 20.

v Stichting Pictoright,⁷⁸ the court held that, according to article 4(2) of Information Society Directive, the distribution right covers the tangible object incorporating a work. This means that exhaustion is not applicable to copies of protected works that have been marketed in the EEA having undergone alterations of their medium and having been placed on the market in an altered form. The case concerned reproductions of famous paintings in the form of canvases and, in particular, the transfer of images from a paper poster of the work to a canvas by means of a chemical process where the original poster form was destroyed. In 2010 the Roermond District Court (Rechtbank Roermond) dismissed the action, but two years later the Court of Appeal overturned that decision, finding in favour of Pictoright. Following the doctrine established by the Hoge Raad in 1979 in *Poortvliet* (NJ 1979/412), the Court of Justice concluded that canvas transfers amount to a new publication due to the major alterations that the paper posters had undergone, giving Allposters new exploitation opportunities, such as reaching a different audience or charging a higher price.

Examining the referral from the Hoge Raad that decided to stay proceedings, the Court of Justice followed a grammatical interpretation of article 4(2) of the Directive ('that object') and recital 28 ('tangible article') to conclude that the use of those particular words meant that the exhaustion of the distribution right applies only to the tangible object into which a copyright protected work is incorporated, to the extent that such a tangible object was placed on the market with the rightholder's consent.⁷⁹ The court had to consider whether subsequent alterations to the tangible object had a bearing on the exhaustion of the distribution right. Allposters' claim that the canvas transfer did not amount to an act of reproduction – because it did not involve the multiplication of copies of the original work, as the original was destroyed during the canvas transfer process – failed. What mattered, according to the court, was whether the altered object was indeed the *actual object* that was placed on the market with the consent of the rightholder. This was not the case in the present proceedings because the rightholders had not given their consent to the distribution of the canvas transfers and because such acts of exploitation did not offer the rightholders an appropriate reward for the commercial exploitation of their works, particularly so because the economic value of canvas transfers was significantly higher than that of paper posters. In this light, the court upheld the position of Advocate General Cruz Villalón,⁸⁰ who opined that exhaustion could not apply because Art & Allposters distributed a 'different object', due to the alteration of the material support.

Allposters could be criticized for the conclusion it reaches, namely that 'exhaustion of the distribution right applies to the tangible object into which a protected work or its copy is incorporated if it has been placed onto the market with the copyright holder's consent'.⁸¹ This point seems flawed in two respects. First, exhaustion of the distribution right does not apply to the tangible object as such but to the right to distribute the tangible object in which the work or its copy is incorporated, subject to the fulfilment of the consent requirement. Exhaustion cannot apply to the tangible object because the distribution right does not cover the tangible object as such: it is not a right to the material support – for instance, a right to distribute a canvas, pages

⁷⁸ *Art & Allposters* (n 16).

⁷⁹ See commentary offered in Eleonora Rosati, 'E-books/Mass Digitization Projects – The Role of Licensing' in this book.

⁸⁰ Case C-419/13 *Art & Allposters International BV v Stichting Pictoright* ECLI:EU:C:2014:2214, Opinion of AG Cruz Villalón.

⁸¹ *Art & Allposters* (n 16) para 40.

bound together or blank CDs – but a right to its exploitation, even though personal property can subsist on the material support, with each transfer having the effect of property alienation.

A second aspect in which the *Allposters* decision could be criticized is the discussion on the reproduction right. With regards to the canvas transfer process, the court noted:

What is important is whether the altered object itself, taken as a whole, is, physically, the object that was placed onto the market with the consent of the rightholder . . . [T]he consent of the copyright holder does not cover the distribution of an object incorporating his work if that object has been altered after its initial marketing in such a way that it *constitutes a new reproduction of that work*. In such an event, the distribution right of such an object is exhausted only upon the first sale or transfer of ownership of that new object with the consent of the rightholder.⁸²

This is in line with the Opinion of the Advocate General, who opined that ‘Allposters does not merely distribute on paper an image originally embodied in canvas and . . . instead it in fact reproduces the entire artistic creation. In short, Allposters does not commercialize the *image of a painting* but rather an *equivalent of the painting itself*.’⁸³ Although this could be plausible from the perspective of patent law, and the ‘doctrine of equivalents’ in particular, in terms of copyright law the argument seems flawed. This argument seems to uphold that the redistribution of a copy of the work is lawful under the exhaustion doctrine, but it is not so once the exact same copy is transformed into something ‘equivalent’. In a case with similar facts that reached the Canadian Supreme Court, transferring a work from paper to canvas was not found to amount to infringement of the reproduction right, because this did not involve the creation of new copies.⁸⁴ Similarly, in the US case *Paula v Logan*,⁸⁵ there was no copying and no infringement in redistributing copyright designs from greeting cards and notepads that had been affixed to ceramic plates by use of a ‘transfer medium’.⁸⁶ On substantially similar facts, *Allposters* reaches the exact opposite conclusion, and the broad notion of reproduction in this context will likely have a negative impact on user innovation.

⁸² AG Villalón (n 80) paras 45–46 (emphasis added).

⁸³ *ibid* para 74.

⁸⁴ See *Théberge v Galerie d’Art du Petit Champlain Inc.* [2002] 2 SCR 336, 2002 SCC 34.

⁸⁵ *C.M. Paula Co. v Logan* 355 F. Supp. 189 (ND Tex 1973); see however *Mirage Editions, Inc. v Albuquerque A.R.T. Co.* (where the defendant was found to infringe the plaintiff’s copyright through the creation of derivative works. The defendant in the present case purchased compilations of the plaintiff’s works, removed selected pages from the books, mounted the removed pages onto ceramic tiles and then offered the tiles for sale).

⁸⁶ According to the court: ‘Each ceramic plaque sold by defendant with a Paula print affixed thereto requires the purchase and use of an individual piece of artwork marketed by the plaintiff. For example, should defendant desire to make one hundred ceramic plaques using the identical Paula print, defendant would be required to purchase one hundred separate Paula prints. The Court finds that the process here in question does not constitute copying.’ See *C.M. Paula Co. v Logan* 355 F. Supp. 189 (ND Tex 1973) 191.

Even though it is not possible to identify a trend in the available US decisions, cases of ‘repackaging’ included, among other things, the rebinding of copies of literary works for purposes of restoration (*Harrison v Maynard, Merrill & Co.* 61 F. 689 (2d Cir 1894); *Doan v American Book Co.* 105 F 772 (7th Cir 1901); *Kipling v G.P. Putnam’s Sons* 120 F 631 (2d Cir 1903)), the recompilation of journals (*National Geographic Society v Classified Geographic* 27 F Supp 655 (D Mass 1939); see contra, however, a case with very similar facts: *Fawcett Publications v Elliot Publishing Co.* 46 F Supp 717 (SDNY 1942)), or, on the use of hard copies of works with a view to produce derivatives, *C.M. Paula Co. v Logan* 355 F Supp 189 (ND Tex 1973).

3.2.2 Property alienation (or ‘forward and delete’) and nonsubstitutability

The emphasis on tangibility as a premise of the application of exhaustion is misleading and the *Allposters* case seems to imply a very restrictive understanding of exhaustion. A useful understanding of tangibility could emerge by bringing forward two important qualities that are *incidentally* associated to this notion and that represent, in essence, the normative impediments to the application of exhaustion. These are property alienation (or, otherwise put, the ‘forward and delete’ question) and nonsubstitutability, in the sense that the secondhand copy should not come into conflict with the dissemination of the original.

In order to see how these two qualities function by reference to works in material and immaterial form, it may be worth focusing on the distinction between the intellectual creation and its tangible embodiment. There are, broadly speaking, three categories of works which relate to the need for a tangible carrier. First there are works in analogue form where the intellectual object and its physical form are distinct and clearly separated. Examples include intellectual creations as incorporated in a tangible medium, such as a book, CD or DVD. It is by reference to the distribution of this first category of works that exhaustion applies. Second, there are works, mostly artistic works, where the intellectual creation and its physical presence coincide; we can name this phenomenon unique materialization. For example, a sculpture is both an artistic work and an object. Although exhaustion applies, rightholders remain entitled to receive profit from subsequent sales, subject to the conditions of the resale right,⁸⁷ meaning that further distribution of these works is subject to some control from the relevant rightholders. Finally, there are works that can be circulated without the need for tangible support and that can be merely transmitted through electronic networks as a bundle of data in binary form with no degradation of quality. Often these exact same intellectual creations can be marketed also in analogue form, as copied in material support media.

In the first two categories of works, since a physical carrier exists, resale comes with the obvious effect of property alienation. This takes us back to one of the very basic premises of copyright law, which is the distinction between the two overlapping forms of property, namely the intellectual property right in the intellectual creation and the personal property in the tangible embodiment. As already mentioned, such a distinction cannot be safely assumed by reference to works in digital form.

In order to create a digital equivalent of property alienation, in a way that blockchain technology could, in principle, achieve, some corporate users have envisaged technical possibilities to ensure that the copy that is subject to resale is deleted from the seller’s hardware upon transfer. An example is *Redigi*,⁸⁸ the online marketplace for preowned digital products that used to enable sales of used digital goods directly from one user to another. This company had in place a forward and delete mechanism ensuring that the only remaining copy at the end of the transaction was the one with the buyer. This would artificially recreate the conditions of property alienation online. The District Court of New York held that the transfer of the electronic file required making a copy and that this reproduction could not be covered by the first sale doctrine and hence amounted to infringement.⁸⁹ As the court stated, ‘it is the creation

⁸⁷ See in this regard Council Directive 2001/84/EC of 27 September 2001 on the Resale Right for the Benefit of the Author of an Original Work of Art [2001] L272, 32–36 (‘Resale Right Directive’).

⁸⁸ See <www.redigi.com/> accessed 14 October 2018 (website on countdown in anticipation of the appeal verdict).

⁸⁹ *ReDigi* (n 71).

of a *new* material object and not an *additional* material object that defines the reproduction right'.⁹⁰ This argument seems in line with the position adopted by the Court of Justice in *Art & Allposters*, even though the facts of both cases differ.

The element of nonsubstitutability, namely this quality of tangibility according to which the resale of the 'used' copy should not substitute a sale of the original, is linked to tangibility in the sense that a work in material form tends to degrade in quality and, when resold, does not come into direct competition with the market for 'new' copies. By reference to works of unique materialization – even though they may be 'used' and in possible need of restoration – the work and the copy coincide in the same artefact and the discussion on substitutability becomes irrelevant. The discussion on substitutability affects works embodied in material support, which inevitably degrade in quality over time. It is very difficult, however, to see how digital works can meet the condition of nonsubstitutability, as they do not degrade in quality and their resale could come into direct competition with the sale of originals. And because exhaustion serves as a limitation to exclusive rights, it ought to be in line with the three step test,⁹¹ where considerations on the conflict of a use with the legitimate interests of rightholders are extremely relevant.

Although these intrinsic qualities of tangibility could help in understanding why the application of digital exhaustion is difficult to affirm, their artificial recreation in the online context may be seen as simplistic. This is so because tangibility has an important impact on the nature of the transaction, which is less likely (although not impossible) to qualify as a sale when dissemination does not involve goods in material form. It is that element – namely the nature of the transaction, according to *UsedSoft* – that could possibly trigger the application of digital exhaustion, to the extent that distribution and communication could qualify as functional equivalents.

3.3 Nature of Transaction

The absence of a physical carrier in content disseminated online, and the customary application of – often standard, unilateral and generalized – terms and conditions upon the transfer of such content,⁹² leaves open the question of the legal nature of the transaction: is it a sale or a licence? This is an important question, as sales can result in a personal property entitlement of the purchaser, whereas licences often result in a mere right to use that content for a defined purpose or limited time. How to characterize such transactions remains an open question,⁹³ with most of the literature having addressed the issue of software licences, which in some

⁹⁰ *ibid* 6.

⁹¹ Berne Convention (n 55) art 9(2); Agreement on Trade-Related Aspects of Intellectual Property Rights (1994) art 13 (TRIPS Agreement), WIPO Copyright Treaty (n 69) art 10(1).

⁹² See for example Molly S Van Houweling, 'The New Servitudes' (2008) 96 Geo LJ 885.

⁹³ In France, for example, it is an open question whether software licences should be characterized as sales contracts, as rental agreements or as of a *sui generis* nature. See Marco BM Loos et al, 'Analysis of the Applicable Legal Frameworks and Suggestions for the Contours of a Model System of Consumer Protection in Relation to Digital Content Contracts' (2012) Final Report, Comparative analysis, Law & Economics analysis, assessment and development of recommendations for possible future rules on digital content contracts, 33.

Member States qualify as *sui generis* contracts.⁹⁴ The Information Society Directive takes a strong position in favour of licensing, indicating in its Preamble that online transmissions of content qualify as a service.⁹⁵

3.3.1 Software

Despite this blunt position, the jurisprudence of the Court of Justice in *UsedSoft* has elaborated on some parameters of what makes an online licensing contract result in a sale. In this case,⁹⁶ the Court of Justice interpreted article 4(2) of the Computer Programs Directive to mean that the distribution right is exhausted by reference to electronic versions of digital works. The court found that it is immaterial whether the copy of the computer program was made available by means of download from a website or by means of a material medium.⁹⁷ It hence offered a broad interpretation to the requirement of a sale in article 4(2) of the Computer Programs Directive and, upholding the AG's Opinion, held that if sale was not interpreted

as encompassing all forms of product marketing characterised by the grant of a right to use a copy of a computer program, for an unlimited period, in return for payment of a fee designed to enable the copyright holder to obtain a remuneration corresponding to the economic value of the copy of the work of which he is the proprietor, the effectiveness of that provision would be undermined, since suppliers would merely have to call the contract a 'licence' rather than a 'sale' in order to circumvent the rule of exhaustion and divest it of all scope.⁹⁸

There were three important elements to the legal classification of the commercial transaction: first, the downloading of the copy onto a data carrier took place with the consent of the copyright holder; second, there was a one-off fee that corresponded to the economic value of the copy of the program; third and, finally the rightholders had granted access to the copy for an indefinite duration.⁹⁹ Downloading a copy of a computer program hence amounted to transfer of ownership,¹⁰⁰ with the online transmission being 'the functional equivalent of the supply of a material medium'.¹⁰¹ The court therefore concluded that the transfer of a copy of a computer program constitutes a first sale of that copy within the meaning of article 4(2) of Directive 2009/24, irrespective of whether that copy was made available in tangible or intangible form.

Even though the court stressed that article 4(2) of the Computer Programs Directive constitutes a *lex specialis* in relation to article 3 of the Information Society Directive, the reasoning developed in this case draws valuable insights about the transmission of digital content in general. Transactions that do not meet the three *UsedSoft* requirements,¹⁰² such as

⁹⁴ In the UK, software license agreements were found to be of a *sui generis* nature: *Beta Computers (Europe) Ltd v Adobe Systems (Europe) Ltd* [1996] SLT 604 (Outer House).

⁹⁵ See Information Society Directive (n 4) art 6 and recital 29.

⁹⁶ *UsedSoft* (n 6); for an analysis see Reto Hilty and Kaya Koklu, 'Software Agreements: Stocktaking and Outlook – Lessons from the *UsedSoft v Oracle* Case from a Comparative Law Perspective' (2013) 44(3) IIC 263.

⁹⁷ *UsedSoft* (n 6) para 47.

⁹⁸ *ibid* para 49.

⁹⁹ *ibid* para 45.

¹⁰⁰ *ibid* paras 44–49.

¹⁰¹ *ibid* para 61.

¹⁰² Similar conditions are often discussed in the United States. See for example *Softman Products Company, LLC, v Adobe Systems Inc.* 71 F Supp 2d 1075; *Vernor v Autodesk Inc* F 3d 2010 WL 3516435 (9th Cir 2010). In Canada too, Abella and Moldaver JJ found that 'there is no practical difference

performances, lending or rental, are more likely to qualify as licences and hence cannot trigger exhaustion.¹⁰³ The *UsedSoft* decision follows a long line of authority developed in national courts across the EU,¹⁰⁴ all of it holding that the resale of computer programs can benefit from the exhaustion principle.¹⁰⁵

The important contribution of *UsedSoft* to case law on software exhaustion is that it lays down the parameters for distinguishing between sales and licences, the latter being the typical way of communicating software to the public.¹⁰⁶ Even though many software companies have changed their licensing terms post-*UsedSoft*,¹⁰⁷ applying the *UsedSoft* principles to copyright protected materials that are disseminated online means that not all acts of communication amount to a service and, regardless of the emphasis on tangibility, it is the nature of the transaction that matters. In this light, in very particular instances, consumers may be able to justify personal property over digital content to the extent that they have been given the option to download it indefinitely subject to the payment of a fee. All these conditions are cumulative, meaning, for instance, that downloading materials from peer to peer networks that is done without the rightholders' consent is not subject to exhaustion. Also, it is customary practice for some rightholders to offer access to materials that their users can download subject to particular time constraints; this cannot lead to a property entitlement of the users, even though they may possess the content for a certain amount of time. The criterion of assessing whether a sale has taken place can therefore be synopsized into the ability to exercise unrestricted autonomous control over the copies of the protected materials after the payment of a fee that corresponds to the value of the said materials.¹⁰⁸ This depends on the notion of property alienation, discussed above, as a normative impediment in the application of the exhaustion doctrine.¹⁰⁹

between buying a durable copy of the work in a store, receiving a copy in the mail, or downloading an identical copy using the Internet. The Internet is simply a technological taxi that delivers a durable copy of the same work to the end user.' See *Entertainment Software Association and Entertainment Software Association of Canada v Society of Composers, Authors and Music Publishers of Canada* 2012 SCC 34 [2012] 2 SCR 231 [5].

¹⁰³ See Information Society Directive (n 4) recitals 28 and 29 and the relevant provisions of Council Directive 2006/115/EC of 12 December 2006 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property [2006] OJ L 376, 28–35. See also *Metronome* (n 29) paras 18–19; *Laserdisken* (n 29) para 17.

¹⁰⁴ '*Used*' *OEM-Software* Landgericht Düsseldorf (26 November 2008) 12 O 431/08 (District Court Düsseldorf) (where it was lawful to resell software separately from the hardware it was originally sold with, insofar as the first purchaser had deleted the software from their own system – that is, exhaustion could apply insofar as 'forward and delete' mechanisms are in place); *OEM-Vertrieb* (n 28) (where the resale of software was found to be free, irrespective of restrictive licensing terms and conditions, when the software is put on the market by or with the consent of the rightholders); District Court Hamburg (Landgericht Hamburg) (29 June 2008) 315 O 343/06; *Gebrauchtssoftware*, Hanseatisches Oberlandesgericht Hamburg (7 February 2007) (Court of Appeal Hamburg).

¹⁰⁵ See however the position of the Court of Justice in *Ranks*, where backup copying was said to be limited to merely meeting the needs of the person having the right to use that computer program, which did not include copying the program to resell it to a third party. Case C-166/15 *Aleksandrs Ranks* ECLI:EU:C:2016:762 ('*Ranks*').

¹⁰⁶ On post-*UsedSoft* jurisprudence, see: Maša Galič, 'The Legality of Resale of Digital Content after *UsedSoft* in Subsequent German and CJEU Case Law' (2015) 37(7) EIPR 414.

¹⁰⁷ See for example Andrew Nicholson, 'Old Habits Die Hard? *UsedSoft v Oracle*' (2013) 10(3) SCRIPTed 389.

¹⁰⁸ Karapapa (n 23) 311, 319.

¹⁰⁹ Some insight is offered in *Peek & Cloppenburg* (n 29).

3.3.2 Ebooks

Such unrestricted autonomous control cannot be justified by reference to the lending of ebooks, for instance. In *VOB*,¹¹⁰ the Court of Justice held that the concept of ‘rental’ within the meaning of article 2(1)(a) of Directive 2006/115 referred exclusively to tangible objects,¹¹¹ but it ruled out the possibility that exhaustion would be relevant in that case, and hence excluded its application by reference to the possible library lending of digital materials. The court, however, did indicate *obiter* that exhaustion covers sales of ‘the *physical* medium containing the work’,¹¹² even though Advocate General Szpunar in his Opinion in the same case held that case law on exhaustion, and in particular *Allposters*, ‘neither calls into question nor limits in any way the conclusions which follow from the *UsedSoft* judgment’.¹¹³

It is unclear whether the resale of used ebooks is covered by exhaustion under the principle of autonomous control discussed earlier. The Court of Hague (Rechtbank Den Haag) has referred a set of questions regarding this matter to the Court of Justice.¹¹⁴ The case concerns Tom Kabinet, a Dutch company that – inter alia – hosts a website allowing the resale of used ebooks. This activity was found lawful at three instances in the Netherlands, with the Court of First Instance affirming that – given the uncertain scope of *UsedSoft* – the business model at issue did not come into conflict with copyright law. Even if it did, Tom Kabinet’s website included measures to ensure that the illegal circulation of ebooks would be prevented: a hash code stored on the website and a unique watermark embedded in the ebook at the time of the sale, which enabled tracing of the copy, to prevent the same copy being uploaded twice on the system. The Court of Appeal of Amsterdam upheld this ruling,¹¹⁵ and relied on *UsedSoft* despite the fact that *UsedSoft* concerned secondhand software. The court reiterated the *UsedSoft* conditions, namely that the license would be granted for an unlimited duration in exchange for the payment of a fee that sufficiently remunerates the rightholders. Most importantly, however, the court stressed that there are benefits and useful effects from the application of exhaustion. These are the functional equality of material and immaterial distribution of copyright protected works and the rationale of exhaustion, namely that protection of the rightholders in the interests of the free movement of goods must not exceed reasonable compensation.¹¹⁶ On the basis of these advantageous effects and the *UsedSoft* principles, it was held that digital exhaustion could apply on the resale of ebooks.

Despite this affirmation, Tom Kabinet was found liable as an internet intermediary for enabling the resale of illegal content. The defence that the activities were of a technical and automatic nature according to article 6:196c of the Dutch Civil Code (implementing articles 12 to 15 of the e-Commerce Directive)¹¹⁷ failed, and it was found that the website facilitated infringement by enabling users to resell illegally obtained ebooks. On appeal, the Court of Hague (Rechtbank Den Haag) found in favour of Tom Kabinet, but – as it was unclear whether

¹¹⁰ *VOB* (n 18).

¹¹¹ *ibid* para 35.

¹¹² *ibid* para 59 (emphasis added).

¹¹³ Case C-174/15 *Vereniging Openbare Bibliotheken v Stichting Leenrecht* ECLI:EU:C:2016:459, Opinion of AG Szpunar, para 54.

¹¹⁴ *Tom Kabinet* (n 10).

¹¹⁵ *Tom Kabinet*, Court of Appeal of Amsterdam (n 10).

¹¹⁶ *ibid* [3.5.2], [3.5.3].

¹¹⁷ Council Directive 2000/31/EC of 8 June 2000 on Certain Legal Aspects of Information Society Services, in particular Electronic Commerce, in the Internal Market (‘e-Commerce Directive’).

exhaustion could apply – it referred a number of questions to be addressed by the Court of Justice.¹¹⁸ The referral should offer clarification on the contested issue of digital exhaustion and whether it can cover subject matter other than computer programs.

The first two questions that have been referred to the Court of Justice request interpretative guidance on whether making e-books available remotely by downloading,¹¹⁹ expressly for use for an unlimited period, at a price which ensures that copyright holders receive remuneration that corresponds to the economic value of their work, falls within the scope of the distribution right and hence is subject to the exhaustion rule. In particular, the questions focus on the legal classification of the sale of ebooks, following closely the conditions developed in *UsedSoft*,¹²⁰ namely that the content download was made with the consent of the rightholder, that the price paid was equivalent to the economic value of the work and that the right to use the work is granted for an unlimited duration. In essence, what the referring court asked is whether the offer for sale of ebooks qualifies as a sale instead of a licence, and, depending on its legal classification, whether the exhaustion rule can apply.

Although software exhaustion under *UsedSoft* is meant to be a *lex specialis* by reference to computer programs, it will be interesting to see in which regard computer programs (and their online sale) differ from ebooks (and their online sale), especially in cases where all the doctrinal requirements developed by the Court of Justice in *UsedSoft* are met. Another compelling point would be the extent to which the distribution right and the communication right can qualify as functionally equivalent, and hence what the relevance of article 3(3) of the Information Society Directive would be.

Interestingly, the last two questions of the referring court focused on acts of reproduction that inevitably take place in online transfers of ebooks. In this sense, the court sought guidance on the legitimacy of the ‘forward and delete’ mechanisms, asking whether a transfer between successive acquirers of a lawfully acquired copy in respect of which the distribution right has been exhausted constitutes consent to acts of reproduction that are necessary for the lawful use of that copy and, if so, under which conditions. A purposive construction of the reproduction right in this context and under specific conditions, such as a strict interpretation of the necessity principle, would be welcome in allowing some flexibility on the law towards broader objectives, such as those that traditionally emerge from exhaustion. However, the prospects of a positive stance in this examination are thin, particularly in light of the court’s reasoning

¹¹⁸ *Tom Kabinet*, Court of The Hague (n 10). It is noteworthy that the court in this ruling focused on certain important controversial aspects. First, it noted that the resale of used ebooks does not amount to an act of communication to the public, notably so because there the books were not resold to the public but to the particular user who proceeded with the transaction. See [5.14]. This is an interesting argument that was also raised as a defence in the US case *Aereo*, without however being upheld by the US Supreme Court, as *Aereo* communicated the same contemporaneously perceptible images and sounds to a large number of people that were unrelated and unknown to each other: *American Broadcasting Companies Inc. et al, Petitioners v Aereo Inc. FKA Bamboom Labs, Inc.* 134 S. Ct. 2498. Another interesting aspect is that *Tom Kabinet* was found not to have an obligation on the basis of *UsedSoft* to check whether the copy has actually been erased. See [5.21]. This point seems to negate the relevance of ‘forward and delete’ mechanisms on the basis of the fact that *UsedSoft* did not address this issue. Finally, the court indicated that the price of the ebooks, even at 50 per cent less than the physical copies, would still justify a property entitlement on an ebook. See [5.27].

¹¹⁹ Case C-263/18 *Tom Kabinet* (n 10).

¹²⁰ *UsedSoft* (n 6) para 47.

in *Art & Allposters*,¹²¹ as well as the insights that can be drawn from *Redigi* about *new* and *additional* copies.¹²²

The last question asked of the Court of Justice is whether article 5 of the Information Society Directive has to be interpreted as meaning that the copyright holder may no longer oppose such acts of reproduction that are necessary for the subsequent transfer of a lawfully acquired copy. This last question effectively asks whether an exception for such acts of reproduction can be construed in light of the three step test included in article 5(5). It is not clear to which stage, legislative or judicial, this question refers, and it is very likely that it will not receive an affirmative response in light of the principle of strict interpretation of copyright exceptions and limitations that the court has developed in earlier case law.¹²³ In his Opinion on the *Tom Kabinet* case, the Advocate General took a negative stance on the application of the exhaustion rule to ebooks. In particular, he identifies three positivist and normative impediments, according to which digital exhaustion cannot be affirmed. First, according to the Advocate General, downloading falls under the right of communication to the public as indicated in the Preamble to the Information Society Directive.¹²⁴ Secondly, although distribution takes place by means of a transfer of ownership, this cannot be claimed by reference to the right of communication to the public.¹²⁵ Finally, reselling ebooks involves acts of copying via downloading; however, the exhaustion rule does not cover acts of reproduction.¹²⁶ On the basis of these considerations, the Advocate General opined that the supply of ebooks by downloading for permanent use is covered by the right of communication to the public instead of the distribution right. It is very likely that the Court of Justice will follow a very similar approach.

The *Tom Kabinet* referral is expected to offer the definitive response regarding digital exhaustion under EU copyright law. Although it will be hard for the court to depart from its established position in *UsedSoft* on the legal classification of the transaction, it is not unlikely that a conjunctive reading of articles 2 and 3 of the Information Society Directive will limit the application of exhaustion by reference to the sale of ebooks, especially if these provisions are read in light of the desire to offer a high level of protection to copyright holders.¹²⁷ However, a purposive interpretation of these rules in cases where the transaction results in property-like entitlements on digital copies would be important for the fulfillment of broader policy objectives relating to consumer welfare, transactional clarity and the development of ecommerce, including the achievement of the rich and longstanding benefits that traditionally arise due to the exhaustion principle.

¹²¹ *Art & Allposters* (n 16).

¹²² *ReDigi* (n 71) 6.

¹²³ See in this regard Case C-5/08 *Infopaq International* EU:C:2009:465 (*'Infopaq I'*) para 55; Case C-302/10 *Infopaq International* EU:C:2012:16 (*'Infopaq II'*) para 26; Case C-527/15 *Stichting Brein v Jack Frederik Wullems* ECLI:EU:C:2017:300 (*'Filmspeler'*) paras 61–62.

¹²⁴ Information Society Directive (Directive 2001/29/EC), Recitals 24, 25, 28 and 29; also see Case C-263/18 *Nederlands Uitgeversverbond and Groep Algemene Uitgevers v Tom Kabinet BV* ECLI:EU:C:2019:697, Opinion of Advocate General Szpunar, [36]–[42].

¹²⁵ *ibid.*, [44].

¹²⁶ *ibid.*, [45]–[48].

¹²⁷ Information Society Directive (n 4) recitals 4 and 9.

4. CONCLUSION

It could be argued that digital exhaustion will soon become irrelevant with the growing popularity of new forms of content dissemination, such as streaming on demand.¹²⁸ It is indeed likely that even before policy makers address the issue—or even the Court of Justice itself has the chance to decide on the applicability of exhaustion—consumer habits online, and the notion of ownership itself,¹²⁹ may have altogether changed. With the exception of *Tom Kabinet*, which has recently reached the Court of Justice, the issue of digital exhaustion is not on the table at the EU level, despite the numerous questions on digital exhaustion in the 2003 Public Consultation on Copyright.

The artificial recreation of tangibility, purposively understood as property alienation and nonsubstitutability, has not resulted in an affirmation of digital exhaustion in most – although not all – cases.¹³⁰ The application of the so-called forward and delete mechanisms aspire to produce an effect of property alienation similar to that which occurs in hand to hand transactions of tangible goods,¹³¹ even though this was not found to be a *UsedSoft* requirement according to the Court of The Hague in *Tom Kabinet*. While the Court of Justice may offer further insights on this matter, it is likely that the bigger obstacle to digital exhaustion will be the broad scope of the reproduction right, and the fact that new – although not additional – copies may be necessary for the digital transfer.¹³²

The second normative impediment to the application of digital exhaustion is the fact that digital content does not degrade in terms of quality, meaning that a secondhand market for digital goods could come into direct conflict with the legitimate interests of the rightholders. That said, the first disintegrating ebook has recently been created by use of blockchain technology, namely the technology behind Bitcoin, enabling ebooks to ‘be “owned” and borrowed like a physical book, while still being readable by all’.¹³³ Notwithstanding this technological development, if digital exhaustion were to be affirmed, it would only have to be in limited instances, subject to the *UsedSoft* conditions, which clarify when a licence qualifies as a sales contract. Such a sales contract could create a property-like entitlement on digital copies, offering consumers unrestricted autonomous control over that content. This means that in very limited cases, digital exhaustion may apply where the distribution and electronic communication of works qualify as functional equivalents.

¹²⁸ See in this regard Eleonora Rosati, ‘Ebooks/mass digitization projects – the role of licensing’ in this book.

¹²⁹ Empirical studies on the consumption of digital goods demonstrate that the notion of ownership is quickly changing: for example Rebecca D Watkins, Janice Denegri-Knott and Mike Molesworth, ‘The Relationship between Ownership and Possession: Observations from the Context of Digital Virtual Goods’ (2016) 32(1–2) JMM 44.

¹³⁰ See, however, *Tom Kabinet* (n 10).

¹³¹ For example, Amazon’s patent to create an online marketplace for used digital goods. US Patent No 8,364,595 of 29 January 2013.

¹³² See in this regard Opinion of Advocate General Szpunar in *Nederlands Uitgeversverbond and Groep Algemene Uitgevers v Tom Kabinet BV*, Case C-263/18, 10 September 2019, ECLI:EU:C:2019:697, [44].

¹³³ Meg Miller, ‘This Disintegrating E-Book Cleverly Shows How Blockchains Work’ (*Co.Design*, 5 September 2017) <www.fastcodesign.com/90124578/this-disintegrating-e-book-cleverly-shows-how-blockchains-work> accessed 14 October 2019.

From a normative perspective there are longstanding benefits from the application of exhaustion. These often escape attention as they are diverse and have not been subject to systematic attention, with the exception of the internal marketbuilding rationale, which has been at the heart of EU-wide exhaustion of intellectual property rights.¹³⁴ Case law often elaborates on the advantageous effects of exhaustion – not the least of which relate to freedom of movement within the EU – but also more broadly on its effects on society and the market, enhancing product marketability, competition and innovation, but also enabling user autonomy and clarity in transactions. Should it be affirmed that in limited instances the material and immaterial forms of dissemination of copyright protected works are functionally equivalent, there would be much to be gained from the availability of a form of personal property on digital goods consistent with established user expectations and the historical benefits that result from the exhaustion rule.

¹³⁴ Advocate General Szpunar, however, in his Opinion on the *Tom Kabinet* case, seems to have developed relevant insights for the first time in EU copyright law.

25. Enforcement in a digital context: intermediary liability

Ben Allgrove and John Groom

1. INTRODUCTION

When it comes to enforcing intellectual property (IP) (and other rights),¹ one of the core battlegrounds of the past 15 years has been the scope and meaning of the various internet safe harbours that were enacted around the world in the early 2000s.² The legislative intention of these safe harbours was to provide a safe space for intermediary platforms and communications providers, thereby encouraging them to invest in new digital business models and foster the development of ecommerce. Recital (2) to the EU's E-Commerce Directive puts the policy objective in the following terms:³

The development of electronic commerce within the information society offers significant employment opportunities in the Community, particularly in small and medium-sized enterprises, and will stimulate economic growth and investment in innovation by European companies, and can also enhance the competitiveness of European industry, provided that everyone has access to the Internet.

But this opportunity for new markets and new trade came at a cost. The scale and rapid ubiquity of the internet reduced the marginal cost of infringing third party IP to near zero, resulting in a well-documented surge in infringement, starting with music and evolving into counterfeit and grey market goods and more recently (with greater bandwidth) film and video. At the same time, infringement became global and democratised – everyone could do it, from anywhere – and its centre of gravity moved from fixed line to mobile.

In parallel, rights holders complained that the safe harbours offered to internet intermediaries disincentivised those intermediaries from taking reasonable steps to combat infringement. The allegation was that the intermediaries benefited from the infringement occurring on their platforms/via their pipes, directly or indirectly encouraging it (or at the very least tolerating it) in order to earn revenue in adjacent spaces (advertising dollars, for example). As digitisation has gathered pace and the economic power of these intermediaries has grown, this argument has intensified, with increasing calls for the safe harbours to be modified so as to remove some

¹ This chapter will focus on intermediary liability in the context of IP rights enforcement. However, many of the same issues and debates apply equally to defamation, harassment and other illegal content.

² The others being (1) the scope of the communication to the public right in EU law and (2) the volitional act debate in respect of the reproduction right in copyright law, often coined the *Cablevision* argument.

³ Council Directive 2000/31/EC of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce) [2000] OJ L 178, 17.7.2000, p. 1–16 ('E-commerce Directive').

of the economic (and social) power held by technology companies. Most recently, a call to action has been based around three main issues:

- copyright infringement and the economic pressures on the traditional creative industries (such as journalism, film and music);
- fake news; and
- terrorism and hate speech.

With major internet intermediaries playing a fundamental role in electronic communications and media distribution, questions of liability and how rights holders can protect and enforce their rights are increasingly important and politically charged.

In this chapter we will explore the application and scope of the EU's safe harbour regime, contrasting it with the other major global safe harbour regime, the US's combined framework incorporating the Communications Decency Act ('CDA') and Digital Millennium Copyright Act ('DMCA').⁴ We will end by looking at the key EU proposals for legislative change (as at the time of writing) and what the future may hold for intermediaries and rights holders alike.

2. THE UNDERLYING LAW

2.1 The EU Framework for Intermediary Liability

We find the EU framework in the E-Commerce Directive. Articles 12, 13 and 14 (together with key recitals) set out the core requirements for three different safe harbour regimes based on intermediary activity type: (a) mere conduit, (b) caching and (c) hosting. The defences provide a shield for the intermediary from being found directly liable in respect of user activity which their services facilitate. Importantly, they do not prevent an injunctive court order against an intermediary service to terminate or prevent infringement by users. They also do not operate as a shield against all indirect liability. While secondary liability is not harmonised at EU level, it is oxymoronic that if a service provider meets the conditions for secondary liability, they will very likely no longer be able to benefit from the safe harbour: if this is the case they will no longer be an intermediary. This legislative framework is supplemented by case law from the Court of Justice of the European Union ('CJEU'), which provides significant additional colour to these defences, especially the mere conduit and hosting defences (less so on caching).

2.2 Step One: Are We Dealing with an Information Society Service?

The EU safe harbours are only available to qualifying 'information society services'. The definition of 'information society service' is found in Article 1 of Directive 98/34/EC and covers 'any service normally provided for remuneration, at a distance, by means of electronic equipment for the processing and storage of data, and at the individual request of a recipient of a service'.⁵ It is broad and technologically neutral. In practice, the requirement that a service

⁴ Communications Decency Act 1996 47 USC § 230; Digital Millennium Copyright Act 1998 17 USC § 512.

⁵ Council Directive 98/34/EC of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services [1998] OJ L 204, 21.7.1998, p. 37–48.

is ‘normally provided for remuneration’ is not a hard hurdle to jump. It effectively includes any commercially offered online service, whether or not that service is monetised directly or indirectly.⁶

The scope of the definition has only been directly addressed in a handful of cases. Indirectly, though, the CJEU has indicated that qualifying information society services include internet service providers (‘ISPs’),⁷ domain registrars,⁸ social media networks,⁹ keyword search ad services,¹⁰ and online marketplaces.¹¹

Some services are expressly disqualified in the legislation. Annex V to Directive 98/34/EC specifically identifies (traditional) television and radio broadcasting services as being excluded from the definition of ‘information society service’. Recently, the CJEU concluded that Uber was excluded because it was a transport service.¹² ‘Therefore, the Court finds that that intermediation service must be regarded as forming an integral part of an overall service whose main component is a transport service and, accordingly, must be classified not as “an information society service” but as “a service in the field of transport”’.

2.3 Step Two: Is the Information Society Service an Intermediary?

Once we have identified a qualifying information society service, the next step in the analysis is to ask whether or not that service is an intermediary. The EU defences do not apply to principal actors. For example, an advertising platform might host ads for third parties and for its own goods and services. The EU safe harbours potentially apply to the former, but not the latter. In the case of the latter, the platform is acting as the advertiser, the principal, and not the intermediary.

The fundamental criteria for the safe harbours to be *prima facie* available is that the service has to involve a third party, *the user*, carrying out the key actions. The user has to initiate and control the activities in question. If the service itself is posting or promoting content, curating or otherwise controlling content, or using content for ancillary purposes not at the request of the source user, it will have difficulty asserting that it is an intermediary.

⁶ The CJEU clarified that a website which ran ads satisfied the requirement that it is ‘normally provided for remuneration’ in Case C-291/13 *Sotiris Papasavvas v O Fileleftheros Dimosia Etairia Ltd, Takis Kounnafi, Giorgos Sertis* ECLI:EU:C:2014:2209, para 30 (‘Papasavvas’).

⁷ Case C-70/10 *Scarlet Extended SA v Société belge des auteurs, compositeurs et éditeurs SCRL (SABAM)* ECLI:EU:C:2011:771 (‘Scarlet Extended’).

⁸ Case C-521-17 *Coöperatieve Vereniging SNB-REACT U.A. v Deepak Mehta* ECLI:EU:C:2018:639, para 42. In this case the CJEU left it to the national court to determine if, in fact, the defendant met the definition, but accepted that a registrar could be an information society service.

⁹ Case C-360/10 *Société belge des auteurs, compositeurs et éditeurs SCRL (SABAM) v Netlog NV* ECLI:EU:C:2012:85 (‘Netlog’).

¹⁰ Joined Cases C-236/08, C-237/08, C-238/08, Case C236/08 *Google France SARL, Google Inc. v Louis Vuitton Malletier SA*; Case C-237/08 *Google France SARL v Viaticum SA, Luteciel SARL*; and Case C-238/08 *Google France SARL v Centre national de recherche en relations humaines (CNRRH) SARL, Pierre-Alexis Thonet, Bruno Raboin, Tiger SARL* (‘Google France’) ECLI:EU:C:2010:159.

¹¹ Case C-324/09 *L’Oréal SA and Others v eBay International AG and Others* ECLI:EU:C:2011:474 (‘L’Oréal v eBay’).

¹² This is how the CJEU summarised its finding in Press Release No 136/17 (20 December 2017), Judgment in Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* ECLI:EU:C:2017:981 paras 39–40.

The Uber case referred to above also offers guidance on the sorts of things to be considered:¹³

The Court takes the view, first of all, that the service provided by Uber is more than an intermediation service consisting of connecting, by means of a smartphone application, a non-professional driver using his or her own vehicle with a person who wishes to make an urban journey. Indeed, in this situation, the provider of that intermediation service simultaneously offers urban transport services, which it renders accessible, in particular, through software tools and whose general operation it organises for the benefit of persons who wish to accept that offer in order to make an urban journey. The Court notes in that regard that the application provided by Uber is indispensable for both the drivers and the persons who wish to make an urban journey. It also points out that Uber exercises decisive influence over the conditions under which the drivers provide their service.

Similarly, in *Sotiris Papasavvas v O Fileleftheros Dimosia Etairia*,¹⁴ the CJEU held that a newspaper website did not qualify for any of the safe harbour defences. The newspaper operated the website itself; it published the main content on the website and it exercised control over the reader comments. As such, it could not be considered, at a threshold level, to be an intermediary.¹⁵

Importantly, though, a service provider can have a different relationship or role in respect of different parts of the same service and/or different pieces of content on the service. The most recent example we have of this in the UK is the *Tixdaq* case. Arnold J suggested that the hosting defence would not apply where the platform had carried out a manual and editorial role, but that it was not tainted in respect of user generated content ('UGC') which it had not reviewed or promoted (the majority of content on the site).¹⁶ This was consistent with the earlier *Newsquest* case, where the High Court found that the hosting defence could apply to certain third party content even though the defendant had authorised other lawful comments on a webpage, and despite the fact that other content could be/had been moderated.¹⁷ Courts in France have taken a similar approach. In *TF1 v Dailymotion*, it was found that the hosting defence was not available for the editorial section of the site; however, it was available for the general UGC areas.¹⁸

2.4 Step Three: Is the Intermediary a Passive Intermediary?

It is important next to check whether the intermediary is a *passive* intermediary.

Recital 42 of the E-Commerce Directive provides that defences are only available where the service provider's activity is limited to a mere technical, automatic and passive nature.¹⁹ Recital 43 goes on to say that a service provider can only benefit from the defence if the service is in no way involved with the information transmitted, for example not modifying that information. That does not include modifications which might occur purely as a result

¹³ Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* ECLI:EU:C:2017:981 paras 39–40.

¹⁴ Case C-291/13 *Sotiris Papasavvas v O Fileleftheros Dimosia Etairia* ECLI:EU:C:2014:2209 ('*Papasavvas*').

¹⁵ *ibid* para 45.

¹⁶ *England and Wales Cricket Board Ltd v Tixdaq Ltd* [2016] EWHC 575 (Ch), [170] ('*Tixdaq*').

¹⁷ *Imran Karim v Newsquest Media Group Ltd* [2009] EWHC 3205 (QB) [15].

¹⁸ *TF1 v Dailymotion* 2 December 2014 [13/08052] (Paris Court of Appeal).

¹⁹ E-Commerce Directive (n 3), recital 42.

of the technology used to transmit the data or information, as long as those manipulations or modifications do not alter the integrity of the information contained in the transmission.²⁰ Recital 44 adds further limitations: a service provider who deliberately collaborates with users of the service in order to engage in illegal activity cannot benefit from the safe harbour (see point above regarding secondary liability).²¹ Passivity is an essential element of the defences. If the service takes an active role, having more than technical and automated input in relation to content, the defences will not be available.

The most authoritative judicial guidance on this question comes from the CJEU in *L'Oréal v eBay*.²² In that case the CJEU said:

As the United Kingdom Government has rightly observed, the mere fact that the operator of an online marketplace stores offers for sale on its server, sets the terms of its service, is remunerated for that service and provides general information to its customers cannot have the effect of denying it the exemptions from liability provided for by Directive 2000/31 (see, by analogy, Google France and Google, paragraph 116).

Where, by contrast, the operator has provided assistance which entails, in particular, optimising the presentation of the offers for sale in question or promoting those offers, it must be considered not to have taken a neutral position between the customer-seller concerned and potential buyers, but to have played an active role of such a kind as to give it knowledge of, or control over, the data relating to those offers for sale. It cannot then rely, in the case of those data, on the exemption from liability referred to in Article 14(1) of Directive 2000/31.²³

While the CJEU did not make a ruling of fact (and neither did the national court), the decision in *L'Oréal v eBay* shows that the courts will allow a reasonable level of 'activity' to occur while still entitling service providers to rely on the safe harbours. Equally, it shows that there is a line; where it is drawn will be highly fact dependent. The CJEU phrased it as follows in its latest consideration:

[the defence exists] in so far as the activity of such a service provider is of a merely technical, automatic and passive nature, implying that he has neither knowledge of nor control over the information transmitted or cached by his customers, and in so far as he does not play an active role in allowing those customers to optimise their online sales activity.²⁴

The threshold, passive intermediary requirement discussed above marks a fundamental difference between the EU and US safe harbour regimes. Under the US regime, once within the ambit of the DMCA or CDA, the first question is whether or not the service has 'red flag' knowledge of the alleged infringement. That question is relevant to the EU analysis, but we first have to establish that the service seeking to rely on it is an intermediary, and a passive one at that. Knowledge may be relevant to that initial analysis, but it is not determinative.

²⁰ *ibid* recital 43.

²¹ *ibid* recital 44.

²² *L'Oréal* (n 11).

²³ *ibid* paras 115–116.

²⁴ Case C-521-17 *Coöperatieve Vereniging SNB-REACT U.A. v Deepak Mehta* ECLI:EU:C:2018:639, para 52.

2.5 Step Four: Do the Specific Defences Apply?

Having established a *prima facie* candidate for the application of the EU safe harbours, the specifics of each of the three defences need to be considered.

2.5.1 Mere conduit

Article 12 E-Commerce Directive sets out the conditions that must be satisfied for the mere conduit defence to be available. It covers information society services which consist of the transmission of a communication network of information provided by a user of the service, or the provision of access to a communication network. In other words, the mere conduit defence is available to services which act as ‘the pipe’. The defence is available provided that the service:

- does not initiate the transmission;
- does not select the receiver of the transmission; and
- does not select or modify the information contained in the transmission.²⁵

For the most part the cases that have made it to the CJEU on Article 12 have involved ISPs and have focussed on the question of the scope of any injunction that can be issued to prevent infringement by its users. To date, the types of service which have come before the courts are ISPs,²⁶ and public wireless internet (wifi) providers.²⁷ However, Article 12 also logically covers over the top messaging/communications providers and the live user broadcast functionality of certain services.

Article 12 E-Commerce Directive is implemented in the UK by regulation 17 Electronic Commerce Regulations 2002.²⁸ Eady J noted in *Bunt v Tilley* that the mere conduit defence is not available to email service providers; the hosting defence is more appropriate to apply in that context because it involves permanent storage of information at the request of users, rather than the transient storage addressed by Article 12.²⁹

2.5.2 Caching

Caching relates to the temporary hosting of content (for example, website content) by an intermediary, in order to make it quicker for users to access that content (from the caching party, rather than direct from the host website). The ‘caching’ part of the process sits in-between the host website and the user’s personal computer system. It takes less time for the website to be served to the user from the web cache compared to the website being served to the user directly from the host. In times of high demand, the version of the website sitting in the cache may be served to the user, rather than directly from the host server.

²⁵ E-Commerce Directive (n 3) art 12.

²⁶ Case C-275/06 *Scarlet Extended; Productores de Música de España (Promusicae) v Telefónica de España SAU* ECLI:EU:C:2008:54.

²⁷ Case C-484/14 *Tobias McFadden v Sony Music Entertainment Germany GmbH* ECLI:EU:C:2016:689.

²⁸ Electronic Commerce (EC Directive) Regulations 2002 (SI 2002/2013) reg 17.

²⁹ *Bunt v Tilley* [2006] EWHC 407 (QB), paras 49–50. This was a case that concerned defamation, but applies equally to IP.

Article 13 E-Commerce Directive sets out the requirements of the safe harbour for ‘caching’ functionality. As part of transmitting data within a communication network, the service provider is not liable in respect of the automatic, intermediate and temporary storage of that data, provided that the storage is purely aimed at making internet transmissions and communications more efficient. In addition, the defence will be available only if the provider:

- does not modify the information;
- complies with conditions on access to the information;
- complies with rules regarding the updating of the information, specified in a manner widely recognised and used by industry;
- does not interfere with the lawful use of technology, widely recognised and used by industry, to obtain data on the use of the information; and
- acts expeditiously to remove or disable access to the information it has stored once it obtains actual knowledge of the fact that the information at the initial source of the transmission has been removed from the network, or access to it has been disabled, or that a court or an administrative authority has ordered such removal or disablement.³⁰

As with the mere conduit defence, recitals 42–44 also relate to the caching defence. Most importantly, in order for the caching defence to apply, the service must play an automated, technical and passive role. Caching was considered tangentially by the UK Supreme Court in *PRCA v NLA*.³¹ In that case – which involved Article 5(1) of the Information Society Directive,³² rather than the safe harbour – a question was raised by the claimant as to whether modern caches were truly ‘temporary’ (being one of the requirements of the Article 5(1) defence to copyright infringement). Relevant for present purposes is the technology-friendly approach which the Supreme Court has adopted to caching. It is clear from the decision that the judges, led by Lord Sumption, were cognizant of the important role played by caching in the internet’s architecture. They were reluctant to unnecessarily hamstring it. The policy that underlies the caching defence is consistent with that approach.

Article 13 E-Commerce Directive is implemented in the UK by regulation 18 Electronic Commerce Regulations 2002.³³ Again, *Bunt v Tilley* is our best reference point in the UK:

The purpose of Regulation 18 is to protect internet intermediaries in respect of material for which they are not the primary host but which they store temporarily on their computer systems for the purpose of enabling the efficient availability of internet material. Many ISPs and other intermediaries regularly cache, or temporarily store, commonly accessed web pages on their computer systems, so that those pages will be more quickly accessible to their subscribers.³⁴

2.5.3 Hosting

The hosting defence differs from the other two safe harbours set out in the E-Commerce Directive because it specifically relates to the *nontemporary* storage of content at the request

³⁰ E-Commerce Directive (n 3) art 13.

³¹ *Public Relations Consultants Association Limited v The Newspaper Licensing Agency Limited and others* [2013] UKSC 18.

³² Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [2001] OJ L 167.

³³ Electronic Commerce Regulations (n 28) reg 18.

³⁴ *Bunt v Tilley* [2006] EWHC 407 (QB) 51.

of a user, rather than the ephemeral or temporary transmission of data and information between users. Whereas the mere conduit defence is concerned with the ‘pipes’, the hosting defence has primary application to social networks, cloud storage providers, online marketplaces, online ad networks and review sites – that is, platforms that rely on UGC.

A service provider which hosts content and data at the request of a user will not be liable for illegality by the user provided that ‘[t]he provider does not have actual knowledge of illegal activity or information and, as regards claims for damages, is not aware of facts or circumstances from which the illegal activity or information is apparent’; or ‘[t]he provider, upon obtaining such knowledge or awareness, acts expeditiously to remove or to disable access to the information’.

The recitals in the E-Commerce Directive give insight into how the intermediary defences apply. Recital 42, as set out above, provides that any role played by the service in relation to hosting content at the request of a user must be technical, automatic and passive. Although recitals 43 and 44 are on their face limited to the mere conduit and caching defences, the CJEU has confirmed (see below) that they apply equally to the hosting defence. The omission of ‘hosting’ was simply an oversight in the drafting; it must be the case that a service provider cannot benefit from the hosting defence if it has either modified the information sent by the user (recital 43) or deliberately collaborated with a user to undertake illegal acts (recital 44).³⁵

The scope of the hosting defence has been explored and clarified by two major CJEU decisions, *Google France* and *L’Oréal v eBay* (referred to above). In *Google France*, the CJEU analysed whether Google’s Adwords programme could qualify for the hosting defence. The concern was trade mark infringement in ads. In *L’Oréal v eBay* the context was trademark infringement through the advertising and sale of counterfeit products on eBay’s platform. These two cases have largely shaped the market when it comes to the hosting defence, intermediary business models and takedown policies. They clarified that there are two stages to the analysis of whether the hosting defence applies: first, as discussed above, is the service sufficiently passive? Second, once it has been established that the intermediary in question is passive, does it have actual knowledge of illegal information?

Article 14 E-Commerce Directive is implemented in the UK by regulation 19 Electronic Commerce Regulations 2002.³⁶ A number of UK cases have discussed the potential applicability of the hosting defence and have generally followed the CJEU’s approach in *Google France* and *L’Oréal v eBay* closely. Although many of the cases relate to defamation, the principles they lay down are still relevant to IP enforcement. In *Tixdaq*, the High Court examined whether a service provider offering a cricket highlights platform to which users could upload short clips from cricket matches could claim the benefit of the hosting defence. Significantly, in this case, the High Court confirmed that a service could be both active and passive in respect of different content on the same platform: ‘My provisional view is that, in the light of *L’Oréal v eBay*, the Article 14 defence would be available to the Defendants in respect of user-posted clips which were not editorially reviewed, but not in respect of clips which were editorially reviewed.’³⁷

³⁵ E-Commerce Directive (n 3) recitals 42–44.

³⁶ Electronic Commerce (n 28) reg 19.

³⁷ *Tixdaq* (n 16) para 170.

In *Kaschke v Grey*, a defamation case, Stadlen J said that the hosting defence would only be available where the service simply stored information on behalf of the user, not if its activity goes beyond that.³⁸

The CJEU has at times linked the active/passive distinction to knowledge (that is, the more active a host is, the more likely it is that it will have actual knowledge). However, this confuses the two concepts. While knowledge can obviously be a factor in determining a lack of passivity, there is in fact a separate knowledge criterion even after that assessment is made.

Google France tells us that automated processing of data and information does not, of itself, generate actual knowledge. The CJEU ruled that if the service has a neutral role, and its conduct is merely technical, automatic and passive, that points to a lack of knowledge or control of the data which it stores.³⁹ The CJEU found that the concordance between the keyword selected by an advertiser and the search term entered by a user is not sufficient to say that Google has knowledge of, or control over, the data.⁴⁰ Following *Google France*, therefore, it seemed that automated measures were not sufficient to give the service actual knowledge. The logical conclusion from that was that a service could only have actual knowledge once it had been notified of, or had itself taken steps outside automated and technical measures in order to review, the content at issue. However, in *L'Oréal v eBay*, the CJEU muddled that position somewhat, suggesting that actual knowledge or awareness was not completely subjective; it could be imputed to a service. Even if a service had not taken an active role, it could still have knowledge or awareness of illegal content. The key question to ask is whether a 'diligent economic operator' would have identified the illegality in question.⁴¹ The CJEU did not discuss scenarios suggesting what a 'diligent economic operator' was, nor has it explored the concept further since; but it is clear that as technology and market practices evolve, the diligent economic actor must also be an evolving concept. It must also be subjective and relative; what a diligent economic actor would do is necessarily linked to that actor's resources and skills.

Usually knowledge will be provided to the platform via a complaint from a third party. In a digital IP context, that is most likely to be a third party rights holder who has issued some sort of infringement report via the service's reporting channel. However, following *L'Oréal v eBay*, it is possible that a court might conclude that a service has actual knowledge or awareness of illegality even without taking an active role and without notification by a third party. The scope of what a diligent economic operator should identify as illegal will differ depending on the specific content at issue, and on the sophistication and size of the service. A diligent economic operator would be less likely to be able to identify illegal information on the basis of a very complex trade mark infringement issue where there might be complicated open questions around 'use' and 'in the course of trade', in comparison to, say, full feature-length pirate films being uploaded by users for public consumption. This all leads to the fundamental requirement in relation to the knowledge criterion: if a service has actual knowledge of illegal activity or information, it must remove access to the relevant content expeditiously if it wants to rely on the safe harbour.

In *McGrath v Dawkins*, the High Court found that Amazon could claim the hosting defence in respect of a defamatory statement in one of the comments sections of its platform because it

³⁸ *Kaschke v Gray and Hilton* [2010] EWHC 690 (QB) 75.

³⁹ *Google France* (n 10) para 114.

⁴⁰ *Google France* (n 10) para 118.

⁴¹ *L'Oréal* (n 11) para 120.

did not have actual knowledge of unlawful information. The court investigated in some detail what actual knowledge means, and suggested that a corporation (which hosts content) could only have actual knowledge ‘through a human representative’.⁴² With the rapid advances in machine learning in recent years, a question must also arise about the longevity of the automated versus human intervention distinction we see in cases like *Google France* and *McGrath v Dawkins*. As our machines get smarter, one presumes that there will be a point where the courts look again at the inner workings and processes within the back end of these programmes when determining both passivity and knowledge.

In some European jurisdictions we see more variance between the approach in the CJEU and local decisions. A particular outlier is Italy. Its courts often take inconsistent (in some cases contradictory) approaches to analysing the scope of the active versus passive question and actual knowledge. One judgment from the Court of Appeal of Milan in 2015, for example, rejected the concept of active/passive outright, saying that the E-Commerce Directive provides no distinction between passive and active hosting (despite the express language in its recitals and how the two CJEU cases have conducted the analyses).⁴³ Other Italian cases have gone the other way, seemingly taking an inconsistent approach to assessing the application of the active/passive question.⁴⁴

2.6 Contrast with the US

Understanding EU safe harbour law and the market requires one also to understand the corresponding US regime. This is because the major online intermediaries operating in the EU are largely US players. The EU regime relates to all ‘illegal information’ from users, separated for different intermediary acts (though we will just focus on hosting for the purposes of this chapter).⁴⁵ In the US, there are two sets of provisions which together encompass the US safe harbours applicable to online service providers. The first is found in the CDA, which sets out a broad statement that service providers are not deemed to be publishers of illegal information posted by users.⁴⁶ The second is a specific safe harbour regime for copyright infringement and notice and takedown, contained within the DMCA.⁴⁷

⁴² *Christopher Anthony McGrath and MCG Productions Limited v Professor Richard Dawkins, The Richard Dawkins Foundation for Reason and Science, Amazon EU SARL (trading as Amazon.co.uk) and Vaughan John Jones* [2012] EWHC B3 (QB) [42] (*‘McGrath v Dawkins’*).

⁴³ *Reti Televisive Italiane S.p.A. (RTI) v Yahoo! Italia S.r.l. (Yahoo!) et al*, 7 January 2015 3821/2011 (Italy, Milan Court of Appeal).

⁴⁴ Even within one case, a first instance court in Turin seemed to change its mind within a month as to whether YouTube played a passive or active role. After rejecting Delta TV’s claim in May 2014, it then approved it once Delta TV challenged the initial order. *Delta TV Programs S.r.l. v YouTube et al*, 5 May 2014 and 23 June 2014 docket no 38113/13 (Italy, Tribunal of Turin). Other cases seem to involve courts oscillating between whether a service is passive or active at a first instance and appeal level, for example *TMT Enterprises LLC Break Media v Reti Televisive Italiane SpA*, sentenza 2833/2017 RG 4046/2016 (Italy, Rome Court of Appeal).

⁴⁵ E-Commerce Directive (n 3) arts 12–14.

⁴⁶ Communications Decency Act 1996 47 USC § 230.

⁴⁷ Digital Millennium Copyright Act 1998 17 USC § 512.

2.6.1 CDA

The CDA focuses on illegal content at a general level. Section 230 CDA sets out, simply, that a service provider will not be ‘treated as the publisher or speaker’ of third party content for claims brought in relation to that content.⁴⁸ No analysis of the actions that the service has taken is needed. In fact, the service provider can maintain the benefit of the safe harbour in respect of voluntary measures that it takes in good faith to restrict access to objectionable content.⁴⁹ That has produced a different legal and practical landscape compared to the EU. Proactive or voluntary measures likely render the platform ‘active’ in the EU regardless of the purpose, meaning that the hosting defence is not available. Ultimately, and most importantly to rights holders, that means that the platform is effectively discouraged from taking voluntary measures to remove illegal content of its own volition. In the US, however, the CDA offers platforms this ‘good Samaritan’ clause, removing that worry and encouraging service providers to police their own platforms.

2.6.2 DMCA

In order to be eligible for the safe harbour in s 512(c) DMCA, an online service provider:

- must not have ‘actual knowledge’ that material on the system is infringing; or
- must not be ‘aware of facts or circumstances from which infringing activity is apparent’.

When the provider obtains such knowledge or awareness, it must ‘act expeditiously to remove, or disable access to, the material’.⁵⁰ In addition, the service provider must not ‘receive a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity’.⁵¹ Although at first blush the core provisions of the copyright safe harbour look similar to the EU hosting defence, there are in fact some fundamental differences.

First, unlike the EU hosting defence, the DMCA safe harbour does not contain an initial ‘active/passive’ gate; it is entirely focused on knowledge. The additional aspects of ‘financial benefit’ and ‘right and ability to control’ are not equivalent to the analysis of a platform’s activity under the EU’s hosting defence. US case law suggests that it actually has a rather narrow application. The ‘right and ability to control’ requires ‘something more than the ability to remove or block access to material posted on a service provider’s website’, and is only relevant in relation to infringing activity, rather than generally.⁵² ‘Financial benefit’ must be ‘directly attributable to the infringing activity’, meaning that it ‘constitutes a draw for subscribers, not just an added benefit’.⁵³ In other words, the carveout from safe harbour eligibility is focused on services like The Pirate Bay, not, say, platforms who engage with user content. For example, in *Viacom Int’l, Inc. v YouTube, Inc.*, the court found that YouTube’s efforts to enforce its content rules did not rise to the level of participation in infringing activity such that YouTube would not have the safe harbour available.⁵⁴ The EU active/passive question

⁴⁸ 47 USC (n 46) § 230(c)(1).

⁴⁹ *ibid* § 230(c)(2) (A).

⁵⁰ 17 USC (n 47) § 512(c)(1)(A)(i)–(iii).

⁵¹ *ibid* § 512(c)(1)(B).

⁵² *Viacom Int’l, Inc. v YouTube Inc.* 676 F.3d 19, 34–38 (2d Cir 2012).

⁵³ *Perfect 10, Inc. v CCBill LLC* 488 F.3d 1072, 1117–18 (9th Cir 2004).

⁵⁴ *Viacom Int’l, Inc. v YouTube, Inc.* 940 F. Supp. 2d 110, 121 (SDNY 2013).

is a more neutral analysis, where involvement and actions of the platform in relation to user content are relevant at a general level, rather than a narrow focus on activities dedicated to and encouraging infringement.

Second, the DMCA also sets out a prescribed format that notices must take, whereby third party rights holders warrant that they truly control the underlying rights in question, unlike the EU hosting defence. If a service provider receives statutorily adequate notice of infringing material, it must ‘expeditiously’ remove or disable access to such material.⁵⁵ In the EU, there is no prescribed reporting format; it is for member states to decide whether they will require certain formalities. In turn, that means that platforms must evaluate whether each notice is detailed enough to demonstrate the specific illegality in question, as well as whether the rights holder has demonstrated that it controls the relevant rights.

2.6.3 Impact on platforms and rights holders

For present purposes, it suffices to note three points. First, the equivalent intermediary provisions set out in the CDA and DMCA offer broader protection to platforms in comparison to the EU hosting defence.⁵⁶ The absence of the active/passive stage of the analysis (as in the EU) focuses all of the analysis on knowledge. And, as the cases have shown, that ultimately means that platforms can carry out activities that courts in the EU would consider ‘active’; however, they still obtain the benefit of the safe harbour, because it can be difficult to demonstrate that the platform had specific ‘actual knowledge’ of the illegal content. In most cases where infringement is obvious and the platform actually has actual knowledge of it, the content will usually be taken down before any sort of claim is filed. It is also difficult to demonstrate ‘awareness’, which is in fact treated by courts as ‘red flag’ knowledge, rather than ‘any’ awareness of the illegality. In *Capital Records, LLC v Vimeo, LLC*,⁵⁷ the court held that a platform that manually reviewed content for conformity with the site’s content guidelines, and not specifically for IP infringement, does not generate ‘red flag’ knowledge to the service provider, unless the infringement is ‘obvious to an ordinary reasonable person, who is not an expert in . . . the law of copyright’.⁵⁸ In the EU, manual reviews of content would mean that the hosting defence is unlikely to be available (because the platform has crossed the line from passive to active). What this also demonstrates is a high threshold for what constitutes ‘knowledge’ in the US. In the EU, there must be some sort of indication of illegality to generate actual knowledge and deprive the platform of the safe harbour, but knowledge can be imputed to the platform if a court decides objectively that a ‘diligent economic operator’ would have identified the illegality in question. In the US, plaintiffs have to demonstrate that the platform specifically had ‘red flag’ knowledge of infringement, arguably a higher standard. In *LiveJournal*, a key question was whether it was ‘obvious to a reasonable person’ that the content in question was infringing.⁵⁹ In comparison, a ‘diligent economic operator’ would surely be more likely to identify illegality or infringement than an ‘ordinary reasonable person’ (one who was not a copyright expert).

⁵⁵ 17 USC (n 47) § 512(c)(1)(C).

⁵⁶ 47 USC (n 46) § 230; 17 USC (n 47) § 512.

⁵⁷ 826 F.3d 78 (2d Cir 2016).

⁵⁸ *ibid* 94.

⁵⁹ *Mavrix Photographs, LLC v LiveJournal, Inc.* 853 F.3d 1020, 1033 (9th Cir 2017).

Second, the US has strong freedom of speech protections via the First Amendment. This results in pressure on platforms to default to leaving content up rather than taking it down, especially in the context of political speech.

Third, in respect of copyright, the US has a broader fair use defence to copyright infringement in comparison to the narrow, purpose specific fair dealing and other defences that exist in the UK and EU.⁶⁰ This might mean that certain user-generated works engaging certain protected rights are more likely to qualify as fair use in the US.

3. PRACTICAL IMPACT

Driven by the legislative and judicial intervention described above, market norms have developed around online intermediaries. First, the market in the EU has largely accepted that ‘passive’ does not necessarily equal totally ‘inactive’. CJEU case law contemplates that a platform can be a host and qualify for the hosting defence even if it does more than simply store data at the request of the user. Its jurisprudence allows room for complex, multidimensional relationships between platform and content. Consistent with the automated versus human distinction, the line is crossed when you have human review and editorialisation, cocreation and augmentation of user content or the platform otherwise ‘adopting’ user content as its own. After the early heavyweight battles in *Google France* and *L’Oréal v eBay*, the market has largely adjusted to this norm even as various online platforms have grown in complexity. We have not seen the CJEU or member state courts (outside of Italy and France) asked to opine on whether automated ‘trending’ functionality crosses the line from passive to active, or seen much exploration of a platform having different relationships to different pieces of content on the platform, such as ‘editorial’ sections of platforms, where the host takes a more hands on role in comparison to UGC (though these issues have been considered by some national courts: see *Tixdaq* above). One can map what activities might cause a platform to cross the line as indicated in Figure 25.1.

Second, platforms are not required to act as arbiters of whether content is legal or not, and carry out an indepth analysis each time. Just because a platform has been issued with a report of certain content on the platform, that does not mean it has knowledge of illegal information. In order for knowledge to be imputed, the illegality must be reasonably apparent. Actual knowledge does not simply refer to *any* human knowledge of content on the platform. It means that there must be some clear indication of illegality in the content at issue that a reasonable person would appreciate.⁶¹ In the context of IP claims, what if the content at issue could qualify for a fair dealing defence (such as parody, quotation or criticism and review)? Does a complicated trade mark notification actually involve ‘use’? Is that use actually ‘in the course of trade’? UK courts have said that there must be a clear *actionable* claim in order to generate actual knowledge. *Davison v Habeeb* set out that intermediaries are ‘in no position to adjudicate’ a complex factual and legal dispute between two users.⁶² This creates pressure between rights holders and platforms; rights holders believe their rights are being infringed but platforms are left questioning if the content is in fact illegal. At the moment, the market

⁶⁰ Copyright Act of 1976, 17 USC § 107 Limitations on exclusive rights: Fair use.

⁶¹ *McGrath v Dawkins* (n 42) para 48.

⁶² *Davison v Habeeb* [2011] EWHC 3031 (QB) [68].

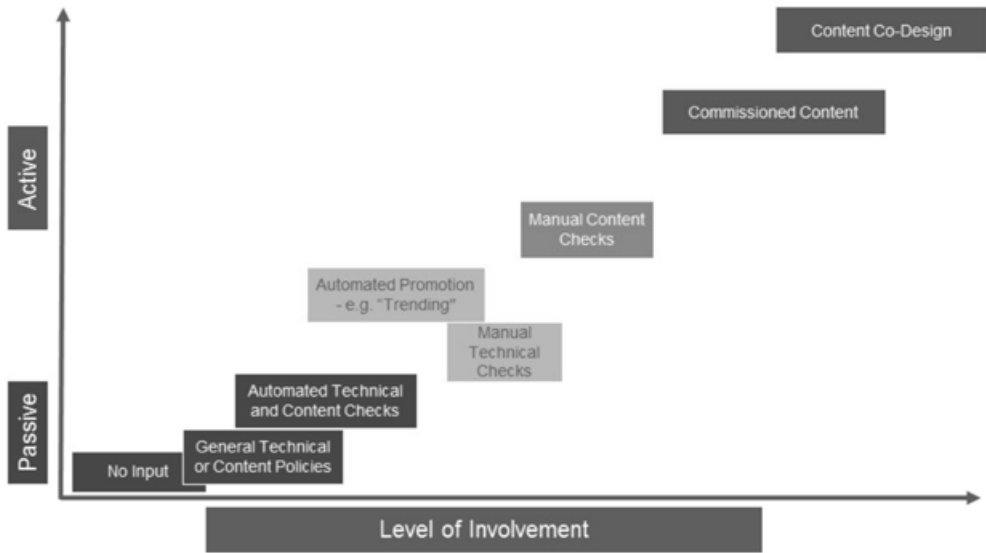


Figure 25.1 Platform activities

norm is to take down content so long as there is a credible claim presented. Where that is not the case, most platforms prefer to leave the content up.

Third, the defences (and especially the hosting defence) are tied to claims in respect of specific content. An oft asked question is whether a platform might lose the defence as a whole? However, that is not the right question. The right question is whether the platform is entitled to the defence in respect of the particular content that is the subject of the particular claim at issue. As we outline above, cases in the UK and France have found that just because the hosting defence was not available for editorial sections of services, this does not mean it is unavailable for general UGC areas of services.

4. ENFORCEMENT

4.1 Direct Enforcement

In the early days of online enforcement, rights holders tried targeting the user. However, this is not always straightforward. Many users who engage in IP infringement operate anonymously. There may also be many users infringing the rights holders' rights, making direct enforcement impractical. The user may ignore the rights holder. Often, the user in question will be located in a different jurisdiction to the rights holder. While it may be possible to track down the odd user, rights holders have also found that the public relations implications of direct enforcement made it unattractive.

4.2 Notice and Takedown

Legitimate services have dedicated reporting and review channels for parties to report illegal content. Once the service reviews the report, and the content in question relates to actionable illegal content, it will usually be taken down. That is not to say that notice and takedown is without issue.

First, there is no harmonised form or set of requirements that a notice must abide by across the EU. Certain member states have introduced specific requirements that all notices must take,⁶³ and others have limited that to specific causes of action or scenarios.⁶⁴ What that means is that it is not entirely clear exactly what is required in a notice of IP infringement in order to mandate a platform to remove content. Clearly, the notice needs to identify the illegal information in some way. However, there has to be some degree of specificity. A notification that simply says ‘my rights are being infringed on your platform’ will not be sufficient. There is an open question as to whether the specific URL is needed within the notice. In *McGrath v Dawkins* the court said that a URL may not necessarily be required, but it is essential for the notice to at least disclose the facts or circumstances to make it clear that the postings in question are unlawful (and at least where the postings are located).⁶⁵ The Court of Appeal of Rome has even said that a URL is not required.⁶⁶

Second, as currently structured, there is no ‘keep down’ obligation on intermediaries. Rights holders must notify intermediaries in relation to each separate instance of infringing content, even if it is an identical upload of infringing content by the same user. This is what most frustrates rights holders about the EU’s safe harbour regime. That is not to say that it is impossible for rights holders to mandate that intermediaries take down and then keep certain content down; the issue is that they must first obtain a court-ordered injunction against an intermediary in order to do so. Intermediaries are not legally required to take proactive action. Indeed, Art 15 of the E-Commerce Directive positively prohibits general obligations to monitor content (see below).

4.3 No-Fault Injunctions against Intermediaries

The safe harbours do not affect the possibility of a court or administrative authority requiring the service provider to terminate or prevent an infringement.⁶⁷ Given the frustrations rights holders have with the safe harbour regime, recently their efforts have been focused on developing this injunction jurisdiction. If a provider’s service is being used by users to disseminate illegal content or information, the provider can be ordered to take steps to bring it to an end.

The general jurisprudence on the availability of injunctions in the UK is rich and well developed. There is not room here to discuss the general requirements of, or limitations on, injunctions. We will instead focus on: (a) specific issues in relation to injunctions against intermediaries; and (b) the specific requirements for IP-related injunctions, which are most relevant in the context of digital enforcement against intermediaries.

⁶³ For example, France.

⁶⁴ See for example the Defamation Act 2013 (UK).

⁶⁵ *McGrath v Dawkins* (n 42) para 47.

⁶⁶ *TMT Enterprises LLC Break Media* (n 44).

⁶⁷ E-Commerce Directive (n 3), recital 45, arts 12(3), 13(2) and 14(3).

4.3.1 No general obligation to monitor

Article 15 E-Commerce Directive provides that service providers cannot be placed under a general obligation to monitor, nor a general obligation to actively seek facts or circumstances indicating illegal activity.⁶⁸ Any injunction must also comply with the normal limitations on the availability of injunctions, including proportionality.

In *Scarlet Extended v SABAM*, the main Belgian music collecting society wanted the CJEU to approve an injunction which mandated a Belgian ISP to implement a file scanning and filtering system against all online data and information transferred via its service, which would identify infringing activity (more specifically, illicit peer to peer file sharing). The CJEU held that the order requested by SABAM against Scarlet would run counter to Article 15. It effectively mandated a general monitoring obligation – or at least mandated Scarlet to actively seek facts or circumstances indicating illegal activity.⁶⁹ The CJEU confirmed in a later case, *Netlog v SABAM*, that an identical order could not be brought against Netlog, a Belgian social media network. As in *Scarlet Extended*, the order referred by the Dutch court was too broad and would have mandated a general monitoring obligation or mandated Netlog to actively seek out illegal activity.⁷⁰

By comparison, the CJEU in *L'Oréal v eBay* found that an order which required eBay to prohibit future infringements of the same trade mark by the same username was held not to breach the threshold protection against general monitoring; the court found that it was specific enough and fell short of general monitoring.⁷¹ An injunction need not specify exactly how a service should bring infringement to an end or prevent it.⁷² The order can be *general*, but must fall short of a *general obligation to monitor/investigate*. This is a fine balance that the courts have to strike. An order to prevent a user uploading the same infringing file to the platform is likely to be sufficiently specific. An order to prevent other users infringing rights in a similar way, is likely to be interpreted as a general obligation to monitor – or at least to investigate facts and circumstances indicating illegality. That said, there is certainly political pressure on the courts to move towards a narrower interpretation of Art 15.

4.3.2 Requirements for IP-related injunctions

Any injunction issued in relation to infringed IP rights must comply with the requirements of the Enforcement Directive. Injunctions must be effective, proportionate, dissuasive and fair:⁷³

Effective. Importantly, ‘effective’ does not mean ‘bulletproof’. Acknowledging that no remedy can have the effect of completely preventing all infringement, the CJEU in *Telekabel* clarified that in order to be ‘effective’, an IP-related injunction must have the effect of materially reducing the specific infringements discussed by the case at hand (and therefore contemplated by the injunction).⁷⁴

⁶⁸ E-Commerce Directive (n 3), art 15.

⁶⁹ *Scarlet Extended* (n 7) para 40.

⁷⁰ *Netlog* (n 9) para 38.

⁷¹ *L'Oréal* (n 11) para 141.

⁷² Case C-314/12 *UPC Telekabel Wien GmbH v Constantin Film Verleih GmbH and Wega Filmproduktionsgesellschaft mbH* ECLI:EU:C:2014:192, para 64 (*‘Telekabel’*).

⁷³ Council Directive 2004/48/EC of 29 April 2004 on the enforcement of intellectual property rights [2004] OJ L 195/16, art 3(2).

⁷⁴ *Telekabel* (n 72) para 58.

Proportionate. Proportionality is always a key question under EU law. Courts must examine suitability, necessity and alternatives to the order sought, and compare the costs and benefits between claimant and defendant. This will be fact specific in each case. The analysis hinges on the benefits to the rights holder (and the valid claim of protection of their IP), versus the cost on the service, the impact on its users and the duration of the order required. For example, in *Scarlet*, the CJEU found that, aside from its findings in relation to a general monitoring duty, the order to implement and maintain a file-scanning system should not be granted because it would be very costly to implement, would lead to excessive wrongful blocking of lawful material and would have operated perpetually.⁷⁵ However, the CJEU in *Telekabel* clarified that an order will not be disproportionate just because it is expensive. It would be disproportionate if the order ended up breaking the defendant's business model. What is clear is that the facts of each circumstance must be examined, especially the relative cost and effort required on the part of the intermediary in relation to the order in question.⁷⁶

Dissuasive. Any order must carry with it some sort of deterrent effect against further infringement. This was an important reason as to why the CJEU approved the injunction in *L'Oréal v eBay* to prevent specific future infringement by the same username: the CJEU felt that the order would act as an important deterrent against further infringement.⁷⁷

Fair balance. The court must consider a balancing act between the fundamental rights and freedoms set out in the EU Charter of Fundamental Rights. In an intermediary context, that means weighing up the need to protect the rights holders' IP (which is not an absolute right)⁷⁸ against the need to protect the service's freedom to carry on business,⁷⁹ and users' freedom of expression (which includes access to information and ideas, not just their own freedom of speech).⁸⁰ These are important limitations on the potential availability of an injunction against an intermediary.

4.4 Blocking Injunctions

A blocking injunction is a specific type of order in the intermediary context. It is an order which requires an ISP to prevent or disable access to a specified internet location. Blocking injunctions have been strongly advanced by UK courts in recent years. At the time of writing there have been 30 orders made requiring ISPs to block access to more than a hundred target websites/services (and mirror/successor URLs) representing thousands of IP addresses.⁸¹

4.4.1 Copyright infringement

The authority at an EU level for blocking injunctions to be brought against ISPs is found in Article 8(3) of the Information Society Directive 2001/29/EC and the third sentence of Article

⁷⁵ *Scarlet Extended* (n 7) para 36.

⁷⁶ *Telekabel* (n 72) para 50.

⁷⁷ *L'Oréal* (n 11) para 144.

⁷⁸ Charter of Fundamental Rights of the European Union [2000] C OJ 364/01, art 17 ('Charter').

⁷⁹ Charter, art 16.

⁸⁰ Charter, art 11.

⁸¹ The major UK ISPs display lists of the infringing websites and urls that they have been ordered to block on their websites. See, for example, the Virgin Media list 'List of court orders' (*Virgin Media*, 1 October 2018) <<https://help.virginmedia.com/system/templates/selfservice/vm/help/customer/locale/en-GB/portal/200300000001000/article/HELP-2374/Table-of-Orders>> accessed 21 October 2019.

11 of the Enforcement Directive 2004/48/EC.⁸² These provisions are transposed into UK law by s 97A Copyright Designs and Patents Act 1988.⁸³ In order to succeed with a blocking injunction, the applicant must demonstrate that four key elements have been satisfied:

- the respondent must be a ‘service provider’;⁸⁴
- there must have been primary infringement by a third party;⁸⁵
- that infringement must have taken place using the respondent’s services; and
- the respondent must have actual knowledge of the infringement via its services.

The first blocking order sought in the UK was brought in respect of Newzbin, a pirate site which enabled users to download infringing copies of films and television shows. The order was sought by rights holders against the website operators themselves. Kitchin J (as he then was) granted an injunction to prevent the future publication of files, software and links to infringing content hosted on third party servers.⁸⁶ Newzbin quickly relaunched at a different internet location. Film rights holders therefore changed approach and brought a blocking order case against the major ISPs in respect of Newzbin (*Newzbin2*).⁸⁷ Arnold J granted the blocking injunction. He found that users were actively downloading infringing material by accessing the Newzbin2 website, using the ISPs’ services to do so. Arnold J was satisfied that the ISPs had actual knowledge; it was sufficient that they had been notified that at least one person was using its service to infringe copyright.⁸⁸ Rights holders presented evidence of an enormous amount of infringement via Newzbin2, which convinced Arnold J of the appropriateness of the injunction under the general principles; however, this did not have any impact on the actual knowledge question. For Arnold J, one instance of infringement was sufficient for the actual knowledge portion under s 97A CDPA.

The second blocking order made against ISPs was brought by the music industry in respect of The Pirate Bay.⁸⁹ Once again, Arnold J found that the requirements for the blocking injunction were satisfied. Since the initial cases concerning Pirate Bay and Newzbin2, in practice these blocking orders have not been contested by the ISPs in the UK. Blocking orders have been brought by all sorts of rights holders in different industries – film, television, music, sports – in respect of a range of differing functionalities of the targets in question (downloading, streaming, peer to peer, torrents, and apps using extremely sophisticated software to serve up infringing content via an easy to use user interface).

⁸² Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society; Council Directive 2004/48/EC of 29 April 2004 on the enforcement of intellectual property rights OJ L 195/16.

⁸³ Copyright Designs and Patents Act 1988, s 97A (‘CDPA’).

⁸⁴ CDPA, s 97A(3). As defined in E-Commerce Directive (n 3) reg 2.

⁸⁵ CDPA, s 97A(2).

⁸⁶ *Twentieth Century Fox Film Corporation & Ors v Newzbin Ltd* [2010] EWHC 608 (Ch).

⁸⁷ *Twentieth Century Fox Film Corp & Ors v British Telecommunications Plc* [2011] EWHC 1981 (Ch). (‘*Newzbin2*’).

⁸⁸ *Newzbin2* (n 87) para 157.

⁸⁹ *Dramatico Entertainment Ltd & Ors v British Sky Broadcasting Ltd & Ors* [2012] EWHC 268 (Ch).

Blocking orders have now been made in many other jurisdictions around the world.⁹⁰ They are effective; statistics show that blocking orders often reduce access by 90 per cent.⁹¹ Those statistics also demonstrate that they are dissuasive. They are also proportionate; they are generally easy and cheap for ISPs to carry out (at least for fixed line). Finally, they represent a fair balance of fundamental freedoms; the services in question are all exclusively – or almost exclusively – pirate or counterfeit services, meaning that the services’ right to carry on a business and users’ freedom of expression are not legitimate counterweights to the need to protect rights holders’ IP.

4.4.2 Expansion of the jurisprudence

4.4.2.1 *Mirror or successor URLs*

An issue raised in the initial blocking injunction cases was the potential difficulties caused by the slippery nature of target websites – once blocked they often reappear under different domains or URLs. By the time that the final blocking injunction had been implemented following the *Newzbin2* judgment, the operators of *Newzbin2* had released software which allowed users to circumvent the blocks implemented by the ISPs.⁹² As a result, Arnold J allowed mirror or successor URLs of target sites to be included in the final order, even if they had not been specified initially at the time of judgment. An element of flexibility has been built in to the blocking injunction jurisprudence from the outset.

4.4.2.2 *Type of service*

The target services covered by each blocking order seem to have become more and more sophisticated. Initially, the orders targeted websites which allowed users to directly download content, or were at least extremely sophisticated aggregators and indexers of direct links to download or stream infringing content. The functionality and role of the target service in question is relevant in order to establish how infringement is occurring. The services in question seem to be further and further away from direct transmission of infringing content. Ultimately, as the CJEU’s application of the communication to the public right has expanded, so too has the scope of the blocking injunction jurisprudence. The sophisticated app/software services in *Popcorn Time* and the streaming servers in *FAPL* are good comparators to the initial *Newzbin2* website.⁹³

4.4.2.3 *‘Live’ and confidential orders*

In *FAPL*, Arnold J approved a new type of blocking order. It would only have effect at the time that Premier League football matches were being played. Also, the list of target services (streaming servers, as opposed to websites) was kept confidential. Arnold J has used this

⁹⁰ At the time of writing we understand that blocking orders have been approved by courts in at least 25 jurisdictions around the world.

⁹¹ These are generally accepted statistics by ISPs and rights holders, as set out in *Football Association Premier League Limited v British Telecommunications PLC and others* [2017] EWHC 480 (Ch) [50].

⁹² *Twentieth Century Fox Film Corporation & Ors v British Telecommunications Plc* [2011] EWHC 2714 [12].

⁹³ *Twentieth Century Fox Film Corporation & Ors v Sky UK Ltd & Ors* [2015] EWHC 1082 (Ch); *Football Association Premier League Limited v British Telecommunications PLC and others* [2017] EWHC 480 (Ch).

approach in a second FAPL order as well as one for UEFA.⁹⁴ This shows that the jurisprudence will, where appropriate, accommodate the specific nature of the rights held in order to be effective (in this case, supporting the temporal value of live copyright broadcasts).

4.4.2.4 Trade mark infringement

The most significant expansion of the jurisprudence came in the *Cartier* case.⁹⁵ A group of luxury brands, led by Richemont, applied for a blocking injunction against certain target websites which had been found to exclusively sell counterfeit products. Section 97A CDPA only covers copyright infringement. Arnold J found that ISPs could be ordered to block target websites on the basis of trade mark infringement under s 37(1) Senior Courts Act 1971, which allows the High Court broad powers to grant an injunction in any situation where it is just and convenient to do so.⁹⁶ Arnold J set out that the High Court has an ‘unlimited power’ to grant injunctions, and that a blocking injunction could be brought in respect of the counterfeit target sites. The Court of Appeal confirmed this judgment. The one question that was appealed to the Supreme Court was who should cover the costs of implementing the injunction. In June 2018, the Supreme Court found that ISPs do not have to cover the costs of implementing a blocking injunction.⁹⁷ It remains to be seen whether ISPs will use this case to challenge future copyright blocking orders, claiming that they do not have to cover the costs of implementing *any* blocking orders, not just blocking orders in respect of trade mark infringement.

5. THE FUTURE

It is not surprising that despite over 15 years of internet intermediary jurisprudence, conflict between platforms and rights holders remains. While the case law (Italy apart) is relatively stable, the legislative process is again looking at the balance between intermediary and rights holder.

5.1 Value Gap

Rights holders say that there is a ‘value gap’ on the major UGC platforms. Users upload content which infringes the rights holder’s rights. That content attracts hundreds/thousands/millions of views. All the while, adverts run before, during or adjacent to the content at issue, increasing the platform’s turnover. Platforms, however, maintain the shield of the safe harbours until they are put on notice and then remove access to the content. The platform faces no liability claim in relation to the infringement that occurs on its platforms. In the rights holder’s eyes, the platform has simply profited in the form of advertising revenue as a result of the infringement. Rights holders also believe that the intended functionality and desired user

⁹⁴ *Football Association Premier League Limited v British Telecommunications PLC and others* [2017] EWHC 1877 (Ch); *Football Association Premier League Limited v British Telecommunications PLC and others* [2018] EWHC 1828 (Ch). *Union Des Associations Européennes De Football v British Telecommunications Plc & Ors* [2017] EWHC 3414 (Ch).

⁹⁵ *Cartier International AG & Ors v British Sky Broadcasting Ltd & Ors* [2016] EWCA Civ 658.

⁹⁶ Senior Courts Act 1981, s 37(1).

⁹⁷ *Cartier International AG & Ors v British Telecommunications Plc and another* [2018] UKSC 28.

habits exacerbate the issue. Users of these platforms scroll, quickly. They consume content quickly. A video which touches upon third party rights lasts a few seconds, and the user continues to scroll the feed. Newspaper articles are not clicked on; the user reads the headline and snippet and moves on to the next post. From the rights holder's point of view, if a three second view is all it takes to engage ad revenue, why should platforms not treat their content in the same way? The rights holders argue that there is value in all of this for which they have not been reimbursed properly. They demand that either they are remunerated fairly or platforms do more to prevent exploitation of their rights.

5.2 Proposed Copyright Directive

As a result of the value gap, in September 2016 the European Commission proposed reforms to copyright law, while maintaining that they were not seeking to change the E-Commerce Directive safe harbours. The Parliament and the Council also issued their own versions of the draft Directive, and the three branches subsequently entered the rather murky process of "trialogue" negotiations and debates across late 2018 and early 2019 in an effort to try to find common ground and finalise the text of the draft directive. This was not an easy process and generated extensive debate, lobbying and controversy. The Directive was finally approved, and then published in the EU Official Journal on 19 May 2019.⁹⁸ The Directive is part of a wider reform effort by the EU Commission of copyright in the internet age, within its plans to create a digital single market. Member states are now in the process of consulting on, drafting and introducing implementing legislation. We will focus on the key intermediary liability aspects of the Directive, articles 15 and 17. The Commission's comments at the outset that it did not intend to change the liability position for intermediaries do not necessarily ring true.

5.2.1 Ancillary right: press publishers

Article 15 of the Directive introduces an ancillary copyright for European press publishers, separate from the copyright in individual articles and other content contained within the publication, providing them with the reproduction and communication to the public rights.⁹⁹ The right does not apply to private or non-commercial uses of press publications, "acts of hyperlinking", nor does it apply to the use of "individual words or very short extracts of a press publication".¹⁰⁰ Recital 57 clarifies that the right is not intended to protect "mere facts" reported in publications.¹⁰¹ The duration for the new right is two years.¹⁰²

Article 15 has been referred to in various ways since the Commission floated its potential inclusion in the Directive: "link tax", "news tax", "publishers' right", or "neighbouring right". It is unclear how the new right will actually apply in practice, and the final text seems to raise more questions than it answers. For example: How will "non-commercial uses" be interpreted? "Acts of hyperlinking" seems to cover something wider than simply pasting a hyperlink, so

⁹⁸ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC OJ L 130, 17.5.2019.

⁹⁹ Article 15(1), Directive (EU) 2019/790.

¹⁰⁰ Article 15(1), Directive (EU) 2019/790.

¹⁰¹ Recital 57, Directive (EU) 2019/790.

¹⁰² Article 15(4), Directive (EU) 2019/790.

what actions or functionalities actually fall within the scope of that exception? On the one hand, the carve out for “very short extracts” suggests that press publishers may not be able to enforce their right against use of snippets, however the recitals to the directive suggest that snippets are intended to be included within the right.

The underlying rationale of article 15 is to generate income for (European) press publishers who have struggled as traditionally analogue content practices have moved online. However, it is not obvious that article 15 will succeed in this aim. For the most part, press publishers authorise platforms and aggregation services to use their headlines and snippets; they operate as the essential basis of web traffic to the publishers websites. Critics point to two widely publicised failed reform efforts in this area in Germany and Spain. Both countries introduced ancillary news rights along the lines of the proposed article 15. In Germany, the effect was that news aggregation platforms became opt-in. And, since publishers relied so heavily on referral traffic from platforms and aggregators, they opted in to these services and waived their rights. Spain's version of the law did not allow the right to be waived. The major aggregators and platforms therefore ended their news-related services in Spain, resulting in web traffic to news publisher sites plummeting. A research study requested by the Commission actually strongly advised against introducing article 15¹⁰³, as did an open letter signed by many copyright academics,¹⁰⁴ both mentioning the attempts in Spain and Germany, however these warnings seemingly did not deter the EU from including article 15 in the final version of the Directive. Finally, another important motivation behind the introduction of article 15 was to counter fake news; however there is a very real danger that article 15 will only increase the problem, as publishers who create or report on false news and disinformation now have a new right and can directly monetise fake news content, and so those publishers become more established and secure, and fake news content gets wider and wider circulation.

5.2.2 ‘Online content sharing service providers’: requirements to license, employ protection measures, and prevent infringement

Equally controversial is the new article 17, which contains the operative provisions aimed to solve the “value gap”. Securing agreement on the key features and language was immensely difficult. For copyright content, article 14 of the E-Commerce Directive will not be available to ‘online content sharing service providers’ (OCSSPs) and they will have to comply with various new requirements in order to avoid liability for the actions of users.

5.2.2.1 *Communication to the public and licensing requirement*

Article 17 starts with a declaration that OCSSPs engage in an act of communication to the public as part of their normal operation (when users upload content), and as such must obtain an authorisation from rights holders in order to do so.¹⁰⁵ Rights holders say this is necessary in order to directly confront the value gap issue. Critics, however, say that it should be up to

¹⁰³ ‘Online News Aggregation and Neighbouring Rights for News Publishers’ European Commission Ref. Ares(2017)6256585-20/12/2017 (unreleased) (<<https://www.asktheeu.org/en/request/4776/response/15356/attach/6/Doc1.pdf>> accessed 21 October 2019).

¹⁰⁴ A letter from a group called ‘Academics Against Press Publishers’ Right’ has now been signed by 169 European academics, (<https://nexa.polito.it/academics-against-press-publishers-right/%23signatories?_sm_au_=iVVLnFF1vbbVHjJP> accessed 21 October 2019).

¹⁰⁵ Article 17(1), Directive (EU) 2019/790.

a court to examine whether there is a communication to the public on the facts of each case, not a blanket statement that platforms always do. The risk of deeming that a communication to the public occurs is that it removes the flexibility to adapt to novel circumstances (as the CJEU jurisprudence has done so to date).

5.2.2.2 *New liability position for OCSSPs*

In respect of copyright content, article 17(4) sets out the new mechanism for OCSSPs to avoid liability for the actions of users, in the event that no authorisation has been granted by rights holders in respect of its content that appears on an OCSSP service. In order to not be found liable for user actions, OCSSPs must demonstrate that they have:

- made best efforts to obtain an authorisation;¹⁰⁶ and
- made, in accordance with high industry standards of professional diligence, best efforts to ensure the unavailability of specific works and other subject matter for which the right-holders have provided the service providers with the relevant and necessary information;¹⁰⁷ and in any event
- acted expeditiously, upon receiving a sufficiently substantiated notice from the rightholders, to disable access to, or to remove from their websites, the notified works or other subject matter, and made best efforts to prevent their future uploads in accordance with point (b).¹⁰⁸

Each of these steps are subject to a proportionality assessment of the scenario and OCSSP in question.¹⁰⁹ They also invite a number of questions as to their scope and practical approach.

5.2.2.3 *Authorisation*

In relation to the requirement to use “best efforts” to obtain an authorisation, it is difficult to understand how this would operate (or be enforced) in practice. The licensing requirement is broad; in theory it covers any rights holder and all sorts of copyright-protected works. Do platforms have to have blanket licenses in place with every rights holder in the world? That cannot be the aim, since it would be totally unworkable. If it refers to specific instances of content on platforms, does the license only cover that piece of content? Do rights holders need to revisit the license every time that other content is identified? Most importantly, what does “best efforts” mean? Is the platform under a requirement to contact rights holders first? Or does the requirement only apply in relation to rights holders which request licenses? The mechanics of the OCSSP requirement to use best efforts in order to obtain an authorisation as drafted could be troublesome from a copyright perspective. Copyright subsists in works, and licenses are granted over specific works. Input from a rights holder is therefore essential in practice, in order to accurately particularise the license (authorisation) in question.

5.2.2.4 *Ensuring the unavailability of works*

The requirement to use best efforts to ensure that works are unavailable provokes many questions. It is not clear what “high industry standards of professional diligence” actually means.

¹⁰⁶ Article 17(4)(a), Directive (EU) 2019/790.

¹⁰⁷ Article 17(4)(b), Directive (EU) 2019/790.

¹⁰⁸ Article 17(4)(c), Directive (EU) 2019/790.

¹⁰⁹ Article 17(5), Directive (EU) 2019/790.

Most major platforms have fairly sophisticated measures to achieve that in place already, and it is immediately unclear as to whether those measures constitute appropriate and proportionate “best efforts”. In addition, the new provision also introduces a requirement for rights holders to provide “relevant and necessary” information in order for platforms to take action. That may not always be straightforward, and may present difficulties in practice in order for rights holders themselves to carry out their obligations, particularly where different rights holders claim rights in related works, or in the same works but in different territories, and there can be disputes over, or at least restrictions on access to and provision of reference files.

It is also not clear how the proposed provision squares with article 15 E-Commerce Directive and previous CJEU cases (*Scarlet Extended*¹¹⁰ and *Netlog*¹¹¹ which provided that an order to implement upload filters is a monitoring obligation counter to article 15 E-Commerce Directive). Critics fear that article 17 of the Directive will require the use of upload filters (otherwise how else can a major platform realistically demonstrate “best efforts” to ensure the unavailability of works). As such that effective requirement could run counter to those CJEU decisions. Critics also worry that in attempting to ensure compliance with article 17(4) (b), platforms will end up over-blocking legitimate content. Article 17(7) attempts to ensure that the measures put in place by platforms, in cooperation with rights holders, do not result in legitimate content being made unavailable.¹¹² However, the potential exposure to rights holders for allowing infringing content to stay live on the platform is likely to trump the potential exposure to users for blocking legitimate uploads. As the media has widely reported, this could also affect the sharing of satirical content and memes where these are based on copyright protected images, potentially impacting freedom of expression and user experiences.

5.2.2.5 *Takedown/Keepdown*

The Directive then extends the current requirements for platforms to disable access to content once put on notice; they will also have to ensure it stays off the platform, or at least demonstrate that they have used best efforts to do so in order to avoid liability for user actions. It is unclear how wide this obligation will stretch, and how it will comply with the prohibition on a general obligation to monitor or investigate facts and circumstances indicating illegality (article 15 E-Commerce Directive, and repeated at article 17(8) of the Directive).¹¹³ Supporters claim that this is necessary in order for rights holders to realistically tackle online infringers effectively, otherwise they are left having to use their resources in various games of “whack-a-mole” in order to bring an end to infringement of their rights. However critics worry that this runs counter to standard principles of IP enforcement law - that well-justified court orders are needed in order for rights holders to secure this level of protection, if it involves content being blocked online (ie preventing access to information).

¹¹⁰ *Scarlet Extended* (n 7).

¹¹¹ *Netlog* (n 9).

¹¹² Article 17(7), Directive (EU) 2019/790.

¹¹³ Article 17(8), Directive (EU) 2019/790.

6. CONCLUSION

For rights holders, the key to effective enforcement in the digital world is:

- A sophisticated and extensive notice and takedown programme;
- The use of targeted no-fault injunction to reduce consumer access to major sources of online infringement; and
- Mature commercial relationships with major legitimate intermediaries to encourage cooperation around enforcement needs.

The hope is that for copyright, the new Directive encourages more effective collaboration and engagement between rights holders and platforms to promote effective and focussed licensing models and content protection initiatives, via the requirement for key stakeholder and industry meetings and review sessions set out at article 17(10);¹¹⁴ however with such a fraught history the worry is that the passage of the new EU Copyright Directive will not be the end of the story and the battleground that is intermediary liability will simply continue into more and more rounds of case law, likely in increasingly fragmented ways as different member states pass and apply their own version of the directive in their country. The tensions between intermediaries and rights holders seem set to continue.

¹¹⁴ Article 17(10), Directive (EU) 2019/790.

26. Criminal sanctions as a tool against online infringement: national law, international treaties, transnational cooperation

Kimberlee Weatherall¹

1. INTRODUCTION

It may take a network to beat a network, but the interwoven lattice of national IP law, international treaty, general criminal law and transnational law enforcement cooperation that brings criminal sanctions to bear against online infringement has a complexity to rival that which it regulates. Changes in one area of the law reverberate through this network in ways that can be underappreciated and unexpected. Lengthening prison terms associated with IP offences can render such crimes ‘serious’ according to general criminal law, bringing into play a panoply of both national remedies (such as forfeiture of proceeds) and systems for transnational law enforcement cooperation. Changes to the scope of IP rights can turn commercial profits of one business into money to which an IP owner is entitled – and then keeping that money could be fraud, and dealing with it could be money laundering. These broader systemic implications arising out of the relationship between IP, the general criminal law and mechanisms for transnational cooperation are often unacknowledged in the course of IP law reform discussions. Understanding them can help us determine the full potential punitive implications of online infringement.

This collection explores ways in which digital transformation has challenged IP laws from an earlier era. The challenges in applying criminal offences mirror those in the civil courts. For reasons of space, this chapter focuses on a limited set of common law countries: Australia, the UK, New Zealand and (to a more limited extent) the US; and one area of IP (copyright). It first reviews offences in copyright law applying to online infringement, and how they have expanded to adapt to the online environment both in national and international law. Just as we have seen in civil litigation, the target of criminal sanctions for online infringement is often an intermediary such as a web host or software provider: the chapter therefore considers secondary liability in the criminal law. It then highlights the importance of often more capacious general criminal law offences in IP prosecutions. Finally, the chapter pans out to describe transnational enforcement cooperation that can seek out evidence, offenders and assets located across multiple jurisdictions. Here, we come full circle: changes in copyright law can have flow-on effects, making transnational cooperation mechanisms available. Equally, owing to the nature of online infringement and the ability of multiple jurisdictions to prosecute and even sanction *in absentia*, upwards harmonisation of national law relating to copyright offences

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is not always necessary to punish offenders spread across the globe. Unless we consciously engage with these external systems of law enforcement and the impact of general criminal law principles, we may find the shape of intellectual property law, as it is experienced by criminal defendants in particular, defined by one or more assertive jurisdictions prepared to use the tools and paraphernalia of transnational legal cooperation powerfully to extend their jurisdiction beyond their borders.

2. CRIMINAL PROVISIONS IN COPYRIGHT

Many piracies take place on the part of persons against whom it is useless to proceed for damages, or to take out an injunction, because, to put it in the vernacular, they are not worth powder and shot.²

From as early as the nineteenth century, criminal offences have been endorsed when IP owners faced amassed small-scale infringers not worth suing.³ On one view, this rationale applies with renewed force in the online era, where the marginal cost of infringement approaches zero. The online infringer has been the older man living with his parents,⁴ as well as the billionaire based in a farflung jurisdiction and with globally dispersed business and assets.⁵ On the other hand, because the technology of mass copying and online dissemination is in the hands of billions, including children, there are real risks in the overly enthusiastic application of this reasoning. The online infringer is also the student in their bedroom, threatened with extradition and federal prison in America, which can be difficult for the broader public to accept as appropriate.⁶ Criminalisation is no light matter. It imposes especially hard sanctions by depriving its subjects of liberty, and imposing moral stigma and lifelong consequences.⁷ We should take care, therefore, when attaching criminal liability, and seek legal clarity: people should know when their behaviour risks criminal sanction, and criminal penalties should bear some relation to societal attitudes.⁸ We should take care also not to undermine careful efforts to shield intermediaries from some liability in the civil sphere to provide space for technological innovation.⁹ Criminal liability, especially when it carries the potential for imprisonment, cannot be dismissed as a mere cost of doing business.

² Commonwealth of Australia, *Parliamentary Debates*, Senate, 24 August 1905 (John Keating) Second reading speech, Copyright Act 1905 (Australia).

³ Isabella Alexander, 'Criminalising Copyright: A Story of Publishers, Pirates and Pieces of Eight' (2007) 66 CLJ 625; Darren Spalding, 'Culpable Copying: The Criminal Offence Provisions of the Copyright Act 1968' (2003) 54 IPF 38; Isabella Alexander, *Copyright and the Public Interest in the 19th Century* (Hart 2010) 253–65.

⁴ Hew Griffiths, who was extradited from Australia to face criminal copyright charges in the US: *Griffiths v US* [2005] FCAFC 34 (2005) 143 FCR 182.

⁵ Kim Dotcom, whose extradition from New Zealand at the time of writing was still being sought: see further below.

⁶ Richard O'Dwyer, discussed below.

⁷ See generally Douglas Husak, *Overcriminalization: The Limits of the Criminal Law* (OUP 2008).

⁸ See generally Kimberlee Weatherall, 'A Reimagined Approach to Copyright Enforcement from a Regulator's Perspective' in Rebecca Giblin and Kimberlee Weatherall (eds), *What If We Could Reimagine Copyright?* (ANU Press 2017) 281.

⁹ See generally Graeme Dinwoodie (ed), *Secondary Liability of Internet Service Providers* (Springer 2017), outlining safe harbours for internet service providers in multiple countries.

But there is a tension between the desire for a certain and appropriately targeted criminal law and not to catch the innocent or unwitting or ordinary, on the one hand, and the desire to ensure that wrongdoers are punished, on the other. Prosecutors face significant challenges in securing conviction. This can tend to lead to pressure to lower the requirements set out in offences, and rely on prosecutorial discretion to ensure that only the ‘truly’ culpable are charged (perhaps blunting, in the process, the expressive effect of criminalisation). In reviewing even a range of closely comparable common law jurisdictions, we find quite strikingly different balances being struck between these competing demands.

3. PRIMARY LIABILITY

Criminal offences in copyright were drafted in the late nineteenth and early to mid-twentieth centuries to confront pirates and counterfeiters.¹⁰ Offences chiefly targeted commercial operators importing and selling infringing articles, and people distributing infringing material to an extent that prejudicially affected the copyright owner.¹¹ Criminal offences for largescale communication of copyright content were less necessary, especially as broadcast technology developed and the only people with broadcast capacity were worth far more than ‘powder and shot’.¹² But the digital revolution enabled more infringement at a significant scale, both with and without commercial objective. The nature of infringing activity also changed: 7200 users of a file-sharing service may, without commercial purpose, each contribute 1 second or less of a 1.5 hour film, and the most apparently culpable ‘kingpins’ may collate links and paint themselves as mere search engines. All these shifts test the boundaries of established criminal offences.

The legal response across jurisdictions has varied.¹³ The US moved relatively early, in 1997,¹⁴ to extend criminal liability to noncommercial activity – both to infringements above a certain (retail) value, and where there is private financial gain, including where the infringer expects to receive something of value in return, which can include other copyright works. The latter extension was designed to apply, for example, to online infringers exchanging files such as decrypted software.¹⁵

¹⁰ See sources (n 3). Criminal sanctions recently made their way into design law in some countries, targeted at design knockoffs: see for example Intellectual Property Act 2014 (UK). Criminal sanctions are unusual in patent law at least in the jurisdictions here considered.

¹¹ Copyright Act 1911 (UK) s 11 (adopted in much of the Commonwealth) for example Copyright Act 1912 (Cth); see Alexander (n 3).

¹² Although infringing public performances were an early focus in the US: Spalding (n 3) 61.

¹³ Spalding (n 3) traces this trend.

¹⁴ 17 USC 506(a)(1)(B) and (C), introduced by the No Electronic Theft Act 1997 (US). 17 USC 506(a)(1)(C) makes it a criminal offence to distribute, during any 180-day period, one or more copies of one or more copyright works with a total retail value of more than US\$1,000. The amendment was motivated by *US v LaMacchia* 871 F Supp 535 (D Mass 1994), involving an MIT student who facilitated infringement through a bulletin board; the court could not find him criminally liable because he lacked a financial motivation. See generally Miriam Bitton, ‘Rethinking the Anti-Counterfeiting Trade Agreement’s Criminal Copyright Enforcement Measures’ (2012) 67 Jnl Crim L & Criminology 67, tracing US domestic developments.

¹⁵ For example, *Griffiths v US* [2005] FCAFC 34, (2005) 143 FCR 182. In *Griffiths*, access to a secure website was secured by a person providing copyright protected files. In terms of US law, this

Australia, too, simply extended its existing offences to the new environment: it amended its definition of infringing ‘articles’ to include electronic files,¹⁶ thus unequivocally covering online activity, including activity that is noncommercial but is of sufficient extent that it prejudices the copyright owner.¹⁷ This move also ensured equivalent maximum penalties offline and online.¹⁸ In 2006 Australia went even further. First, Australia applied its general criminal law policy of having tiered offences, where the highest penalties attach only to intentional conduct (although one is taken to ‘intend’ outcomes that one is aware will occur in the ordinary course of events). But in this Australian model, less culpable mental states (such as criminal negligence) can be sufficient for a summary offence, and some conduct gives rise to strict liability offences (the latter carrying fines only, not imprisonment).¹⁹ This approach – an import from general criminal law into copyright – radically departed from criminal copyright offences in comparable jurisdictions, which have tended to criminalise only intentional (or, in the US, wilful) infringement. Combined with the holus-bolus extension of the criminal offences to the electronic sphere, the result is frankly ludicrous offences. There is, for example, a strict liability offence for making a single infringing copy (even electronic) for a commercial purpose.²⁰ The fact that prosecution is unlikely does not make this any less ridiculous.

Australia also introduced a broadly drafted offence proscribing conduct which results in infringements on a commercial scale which have a substantial prejudicial impact on the owner of the copyright, where the offender intends, or is criminally negligent as to, these outcomes.²¹ The offence overlaps oddly with the distribution offence,²² but also seems apt to capture people intentionally or recklessly supplying technology which enables widespread infringement.²³ There would be evidential challenges in applying the offence to individual infringers. Consider an Australian user of BitTorrent who acts as a seed, uploading small parts of *Star Wars: The*

constituted infringement ‘for private financial gain’ in that, although no payment was involved, individuals ‘bartered’ files and skills to enable all of them to gain access to significant numbers of copyright works. The US Department of Justice considers that such barter constitutes private financial gain: a theory that has been accepted at least in *US v Michael John Gilbert* No 5:93-CR-005-C (ND Tx Jan 28, 1993); discussed in US Department of Justice, *Criminal Resource Manual* [1851].

¹⁶ Copyright Act 1968 (Cth), s 132AA. The definition was introduced by the Copyright Amendment (Digital Agenda) Act 2000 (Cth).

¹⁷ Copyright Act 1968 (Cth) s 132AD. In *Griffiths v US* [2005] FCAFC 34, (2005) 143 FCR 182 an Australian court suggested that even single acts of infringement that deprive the copyright owner of income ‘prejudicially affect’ the owner.

¹⁸ Copyright Act 1968 (Cth) s 132AI.

¹⁹ See generally Kimberlee Weatherall, ‘Of Copyright Bureaucracies and Incoherence: Stepping Back From Australia’s Recent Copyright Reforms’ (2007) 31 *Melb U L Rev* 967, 1002–10.

²⁰ Copyright Act 1968 (Cth) s 132AD(5)–(6). The maximum penalty is 60 penalty units (currently AU\$12,600). Strict liability is defined in Criminal Code 1995 (Cth) s 6.1. The defence of mistake of fact applies.

²¹ Copyright Act 1968 (Cth) s 132AC(1). Intention makes the offence an indictable one; criminal negligence renders the offence a summary one with a lower penalty. Mental states applicable to Australian copyright criminal offences are not found in the copyright legislation, but are set out in the Criminal Code 1995 (Cth) s 5.6.

²² Presumably, where serious, distribution of electronic files that prejudicially affects a right holder (s 132AD) could also be considered conduct resulting in commercial-scale infringements causing substantial prejudice (s 132AC).

²³ Note that under 5.2(3) of the Criminal Code 1995 (Cth), intent includes ‘awareness that [the offence] would occur in the ordinary course of events’.

Force Awakens to other users. Has their behaviour resulted in commercial scale infringement causing substantial prejudicial impact? BitTorrent operates as a ‘swarm’, with most software clients engaged in constant up- and downloading, making it difficult to prove that any individual user themselves caused commercial scale infringement. Query also whether everyday users fully appreciate how BitTorrent works, such that they could be taken to intend (or be negligent regarding) any resulting widespread copying.

The UK has been more cautious. In 2003, the UK criminalised infringing communications to the public, including commercial communications of sufficient extent to prejudice the copyright owner. Initially this offence carried a lesser maximum sentence (2 years compared to ten years for other offences).²⁴ In 2017 the government moved to eliminate the ‘unjustifiable’ sentencing ‘anomaly’,²⁵ on the basis that online infringement could be equally harmful. In doing so, however, the government responded to concerns about overbreadth, and redrafted the offence to require that the offender either intended to make money or knew the communication would cause monetary loss.²⁶ New Zealand never explicitly extended its criminal offences to cover communication, although its distribution offences have now been interpreted not to apply to electronic files.²⁷

A similar pattern, which again positions Australia as an outlier, can be seen in the offences relating to possession and devices. In Australia there are tiered criminal offences (including a strict liability offence) for possessing an infringing article (including an electronic file) with the intention to distribute it to an extent that will affect prejudicially the owner of the copyright, or for possessing such an article in the course of such a distribution.²⁸ New Zealand and the UK only criminalise possession of an infringing article in the course of business with a view to committing an infringing act.²⁹ In the UK, the offender is liable if they know or have reason to know that article is an infringing copy; in New Zealand knowledge is required. In Australia, too, it is an offence to possess a device intending it to be used for making an infringing copy of a work or other subject matter,³⁰ or if the device is to be used for copying a work or other subject matter where the offender is negligent as to the fact that they intended to copy

²⁴ See Copyright, Designs and Patents Act 1988 (UK) s 107(2A), introduced by reg 26(1)(a)–(b) of the Copyright and Related Rights Regulations 2003 No 2498. Presumably, at least for now, ongoing uncertainty about the content of Europe’s communication right affects this offence.

²⁵ HM Treasury, *Gowers Review of Intellectual Property* (2006) 4.

²⁶ Copyright, Designs and Patents Act 1988 (UK) s 107(2A)–(2B), s 107(4A)(b), introduced by the Digital Economy Act 2017, s 32(2)–(3); for background see Intellectual Property Office (UK), *Criminal Sanctions for Online Copyright Infringement* (Government Consultation Response, 2016).

²⁷ Copyright Act 1994 (NZ) s 131(1)(f) interpreted in *Ortmann v United States of America* [2018] NZCA 233, [143]–[156]. Note that the New Zealand High Court held otherwise in *Ortmann v The United States of America* [2017] NZHC 189, [170]–[192]. The question at the time of writing was on appeal to the New Zealand Supreme Court.

²⁸ Copyright Act 1968 (Cth) s 132AJ. A finding of liability for the indictable offence also requires *recklessness* as to: 1. the infringing copy status of the article, 2. copyright subsisting in the relevant work at time of possession: Criminal Code 1995 (Cth) s 5.6(2). Liability for the summary offence requires that a person possess an article and be *negligent* as to facts 1–2.

²⁹ Copyright, Designs and Patents Act 1988 (UK) s 107(1)(c); Copyright Act 1994 (NZ) s 131(1)(c). The UK legislation again extends liability beyond persons who ‘know’ to also include persons who ‘have reason to believe’.

³⁰ Copyright Act 1968 (Cth) s 132AL(2) (Indictable offence). To be liable, the person must also be *reckless* as to copyright subsisting in the relevant work at time of possession: Criminal Code 1995 (Cth) s 5.6(2).

the work: it is hoped that this would be interpreted to mean some particular work, otherwise general purpose computers, mobile phones and tablets may cause their owners risk. This is the explicit rule in New Zealand and the UK, where it is a criminal offence if a person has in their possession a device specifically designed or adapted for making copies of a particular copyright work knowing that the object is to be used to make infringing copies for sale or hire or for use in the course of a business.³¹ Few general purpose devices used to access online material would pose problems under this provision.

4. THE DEVELOPMENT OF TREATIES

The widening scope of criminal liability for copyright infringement in domestic systems is reflected in the growing number of obligations created by important international agreements. These agreements have been aggressively advanced by nations seeking to secure copyright protection in export markets.³² The impetus for this has been not only online infringement, but also general concerns about the impact of counterfeiting.

The obligation relating to criminal enforcement in TRIPS is relatively slight. Article 61 of TRIPS only obliges signatories to create an enforcement regime which has criminal procedures and to address trademark counterfeiting and copyright piracy which occurs on a ‘commercial scale’.³³ Article 61 gives signatories a *choice* of applying imprisonment or fines or both, provided only that the punishment must provide a deterrent which corresponds to crimes of similar seriousness. The article creates a loose obligation to seize, forfeit and destroy infringing goods or tools primarily used to infringe copyright ‘in appropriate cases’. A signatory could comply with article 61 by creating a criminal regime which defines ‘commercial scale’ as high levels only of explicitly commercial activity, and by determining that under local conditions, relatively small fines will provide sufficient deterrence. This is confirmed by the panel decision in a WTO dispute initiated by the US against China, and finalised in early 2009.³⁴ China had set a numerical threshold for acts of copyright (and trademark) infringement to give rise to criminal liability.³⁵ The US argued that China had failed to honour its article 61 obligation by not providing criminal procedures and penalties in some instances of commercial scale copyright infringement. The panel agreed with China that article 61 was designed to be applied flexibly according to domestic conditions.³⁶

³¹ Copyright Act 1994 (NZ) s 131(2). Copyright, Designs and Patents Act 1988 (UK) s 107(2). The UK legislation again extends liability beyond persons who ‘know’ to also include persons who ‘have reason to believe’.

³² See generally Peter Yu, ‘Six Secret (and Now Open) Fears of ACTA’ (2011) 64 SMU L Rev 975.

³³ TRIPS allows, but does not require, the extension of criminal liability to other areas of IP.

³⁴ WTO, *China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights – Report of the Panel* (26 January 2009) WT/DS362/R. For a more detailed discussion of this dispute, see Kimberlee Weatherall, ‘Section by Section Commentary on the TPP Final IP Chapter Published 5 November 2015 – Part 3 – Enforcement’ (*bepress*, 2015) 47–49 <<https://works.bepress.com/kimweatherall/33/>> accessed 20 October 2019; see also Peter Yu, ‘The TRIPS Enforcement Dispute’ (2011) 89 Neb L Rev 1046.

³⁵ WTO, *ibid* [4.749].

³⁶ *ibid* 98 [7.481].

Without delving too deeply into the multitude of relevant bilateral, plurilateral/regional and multilateral texts, it is possible to identify four key expansions that have been seen in recent times, pushed in particular (but not only) by the United States and illustrated in the texts of the Australia–US Free Trade Agreement (as an illustrative bilateral agreement),³⁷ the (failed) Anti-Counterfeiting Trade Agreement;³⁸ and the (initially failed but recently revived *sans* United States) Trans-Pacific Partnership Agreement (now the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, or CPTPP).³⁹

The first is an attempt to reduce flexibility in the international legal provisions and extend criminal liability through expansive definitions of when infringement occurs at a ‘commercial scale’,⁴⁰ in a way that might make it more likely to capture online infringement. The CPTPP builds on TRIPS to define a lower threshold for criminal liability, defining ‘commercial scale’ infringement to include ‘acts carried out for commercial advantage or financial gain’.⁴¹ This embodies the most extreme version of the rejected US argument put in the WTO dispute with China, and appears to demand that single infringements in a commercial context be treated as criminal (regardless, for example, of whether the infringer plans to sell or distribute the infringement), although an earlier footnote at least allows parties to exclude private (noncommercial) financial gain – unlike the US domestic position, which includes private financial gain through, for example, exchange of infringing materials, discussed above.⁴² The second subsection goes much further than TRIPS, by requiring the criminalisation of ‘significant acts’ ‘that have a substantial prejudicial impact on the interests of the copyright or related rights holder in relation to the marketplace’.⁴³ While the first subsection defines ‘commercial scale’ by reference to actions taken by the offender, the second subsection defines ‘commercial scale’ according to the impact of an offender’s activity on the rights holder. The UK may not

³⁷ Australia–United States Free Trade Agreement (entered into force 1 January 2005, signed 18 May 2004) [2005] ATS 1 (AUSFTA).

³⁸ Anti-Counterfeiting Trade Agreement (signed 12 July 2012, not in force) ATNIF 2011 22 (ACTA).

³⁹ Trans-Pacific Partnership Agreement between the Government of Australia and the Governments of: Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States of America and Vietnam (signed 4 February 2016) [2016] ATNIF 2 (TPP); since replaced (without the US) by the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (entered into force 30 December 2018, signed 8 March 2018) [2018] ATS 23 (CPTPP). Some IP provisions of the TPP were suspended in the CPTPP; these did not include the provisions on criminal liability for IP infringement discussed here.

⁴⁰ CPTPP, art 18.77.1.

⁴¹ CPTPP, art 18.77.1. ACTA, art 23.1 defines the minimum threshold of activity which constitutes ‘commercial scale’ as ‘commercial activities for direct or indirect economic or commercial advantage’. AUSFTA, art 17.11.26 states that ‘commercial scale’ includes ‘significant wilful infringements of copyright, that have no direct or indirect motivation of financial gain; and wilful infringements for the purposes of commercial advantage or financial gain’.

⁴² CPTPP, chapter 18 fn 89, which states that ‘a Party may treat “financial gain” as “commercial purposes”, which modifies the threshold of criminal liability such that it captures “acts done for commercial advantage or for *commercial purposes*” (emphasis added).

⁴³ CPTPP, art 18.77.1(b). Fn 126 of chapter 18 of the CPTPP clarifies that signatories may address their obligation to extend criminal liability this second kind through ‘criminal procedures and penalties for non-authorised use’, probably to prevent the need for significant modification to preexisting domestic criminal enforcement regimes. Fn 127 allows signatories to stipulate that the ‘volume and value of infringing items’ are factors that can be taken into account determining whether an act of this nature has transpired.

be a CPTPP party, but is not clear that a provision such as the UK's new section 107(2A) offence for communications online would meet this requirement.

The second treaty expansion is the obligation for signatories' criminal enforcement regimes to include sentences of imprisonment as punishment for copyright or related rights piracy on a commercial scale.⁴⁴ The penalties must be 'sufficiently high to provide a deterrent to future acts of infringement, consistent with the level of penalties applied for crimes of a corresponding gravity',⁴⁵ although without elaborating on what a crime of corresponding gravity might be.⁴⁶ Additionally, a footnote specifies that there is no obligation on signatories to make possible both imprisonment and monetary fines in parallel,⁴⁷ indicating that while imprisonment must be available as a punishment, signatories have flexibility with regard to the threshold at which imprisonment is dispensed as a punishment, and whether fines are able to be substituted for imprisonment rather than mandating imprisonment for all offences.

The third is provisions for the seizure and forfeiture of infringing articles, devices, proceeds of crime and (traceable) assets. The CPTPP sets out that in cases of *suspected* infringement, signatories must empower judicial or competent authorities with the ability to seize, among other things, 'assets derived from, or obtained through, the alleged infringing activity' and 'any related materials and implements used in the commission of the alleged offence' – which would clearly include computers, servers and the like used in online infringement.⁴⁸ ACTA would have extended the pretrial seizure power to assets obtained directly or indirectly through infringement.⁴⁹ The CPTPP also requires that 'judicial authorities' have 'the authority to order the forfeiture, at least for serious offences, of any assets derived from or obtained through the infringing activity'⁵⁰ and 'materials and implements that have been predominantly used in the creation of pirated copyright goods or counterfeit trademark goods'.⁵¹ ACTA would

⁴⁴ CPTPP, art 18.77.6(a). ACTA, art 24 is almost identical to the CPTPP provision which creates this obligation. AUSTFA, art 17.11.27(a) mandates that imprisonment be a penalty which is available to judicial authorities.

⁴⁵ CPTPP, art 18.77.6(a).

⁴⁶ Shedding some light on what might be considered 'deterrent', in 2005 the European Union contemplated in a proposed IP enforcement directive COM (2005) 276 final (EN) 13 that a maximum of four years was appropriate for offences 'committed under the aegis of a criminal organisation', with 'criminal organisation' defined by what later became Framework Decision 2008/841/JHA on the fight against organised crime: Joanna Gibson, 'The Directive Proposal on Criminal Sanctions' in Christophe Geiger (ed) *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar 2012) 257. Art 1-2 of this Framework Decision states that 'criminal organization' means an association that is not randomly formed for the immediate commission of an offence, nor does it need to have formally defined roles for its members, continuity of its membership, or a developed structure: Art 2, established over a period of time, of more than two persons acting in concert with a view to committing offences: Art 1.

⁴⁷ CPTPP, Chapter 18, fn 132. ACTA, fn 12 is also almost identical to the CPTPP footnote. AUSFTA contains no such clarification.

⁴⁸ CPTPP, art 18.77.6(c); in identifying items prior to seizure, the CPTPP requires that assets shall not need to 'be described in greater detail than necessary': CPTPP, art 18.77.6(c); see also ACTA, art 25.2.

⁴⁹ ACTA, art 25.1. The AUSTFA goes even further by allowing for seizure and forfeiture of *assets traceable* to infringing activity (rather than assets 'derived from or obtained through' infringement): AUSTFA 17.11.27(b)–(c).

⁵⁰ CPTPP, art 18.77.6(d).

⁵¹ CPTPP, art 18.77.6(e).

have added the power of ‘forfeiture or destruction’ and attached to assets obtained ‘directly or indirectly’.⁵² The CPTPP and ACTA texts optionally provide for tracing: encouraging states to grant to their courts the authority to order seizure or forfeiture of unrelated assets to a value corresponding to the ‘assets derived from, or obtained directly or indirectly through, the infringing activity’; the CPTPP goes further by providing for judicial authorities to order a fine of corresponding value.⁵³ The full significance of both asset seizure and the requirement of imprisonment becomes more evident once we also take into account transnational law enforcement cooperation, considered later in this chapter.

Finally, and of significance in the online context, some recent treaties including the CPTPP have included an obligation to provide for accessorial liability – specifically, aiding and abetting (but notably not inciting or conspiring⁵⁴).⁵⁵ This is a significant expansion of international rules relating to criminal liability for copyright and trade mark infringement, with potential to capture a very wide range of possible offenders, depending on how it is applied. It is very important to note, however, that this provision does *not* require broad aiding/abetting liability, but only that some such liability exists. There is very considerable room to draft any provisions (and defences) very carefully to ensure that only active co-conspirators are captured, rather than innocent (or merely negligent) parties such as service providers. General principles of fairness and equity, proportionality and consideration of the interests of third parties elsewhere in the CPTPP text may also be relied on by an implementing member state wishing to limit more draconian implications of this provision.⁵⁶

While the potential *civil* liability of intermediaries and facilitators is often discussed in the academic debate around copyright’s adjustment to new technologies, accessorial liability in copyright is new to the international sphere, significant in the online environment and less often discussed – in part, no doubt, because it is governed by the principles of the general criminal law. We therefore turn to that now.

5. ACCESSORIAL LIABILITY

It is better to target kingpins, not foot soldiers. But who exactly are the kingpins, and where do we draw the line between legitimate commercial behaviour and culpable involvement or

⁵² ACTA, art 25.4.

⁵³ CPTPP, art 18.77.7; ACTA, art 25.5. The use of the words ‘directly or indirectly’ here but not elsewhere in art 18.77 supports the assertion that drafters intentionally limited the scope of the provision. The provision is optional in the CPTPP; past experience is that provisions optional in one treaty sometimes become compulsory in later treaties.

⁵⁴ The CPTPP does not come with *travaux préparatoires* which could explain why these choices were made. The failure to include conspiracy is particularly notable given that of all the accessorial offences it is the most often used. It may be that international obligations in other treaties, such as the UN Convention against Transnational Organised Crime, sufficiently provide for such liability: discussed below.

⁵⁵ CPTPP, art 18.77.5. ACTA, art 23.4 is almost identical to the CPTPP provision but differs in that it mandates these types of secondary liability be made available where a nation chooses to implement an optional obligation, whereas the CPTPP only requires this for mandatory obligations. No such obligation is created under AUSTFA, indicating how recently this has become a feature of the treaties.

⁵⁶ See generally Kimberlee Weatherall, ‘Safeguards for Defendant Rights and Interests in International Intellectual Property Enforcement Treaties’ (2016) 32(1) *Am U Int’l L Rev* 211.

indifference? When is a site a mere search engine or cloud storage, and when is it The Pirate Bay or Megaupload? In the civil cases addressing intermediary liability, the greatest judicial ire has been directed at players who build a business model on the back of large-scale infringement, and/or who encourage it in callous disregard of the rights of IP owners.⁵⁷ More difficult questions will arise around cases better characterised as involving negligence or recklessness, rather than intention. When a person establishes an online intermediary, does their awareness of, and failure to address, widespread infringement ever rise to the level where we might describe their behaviour as reckless, or criminally negligent? Is notification of some particular infringement sufficient to render inaction ‘intentional’ and criminally culpable?

To date, more attention, certainly in the literature, has been focused on civil enforcement against online intermediaries (and sometimes core individuals within intermediaries⁵⁸) for authorising infringement (or, in the US, for contributory or vicarious infringement). This is not very surprising: why should public authorities spend public funds on cases which are necessarily complex and resource intensive, especially where civil enforcement is an option which can still be used to impose remedies that shade into the punitive?⁵⁹ But in most of the common law countries which are the focus of this chapter, liability can arise for these secondary (or accessorial) offences under the general criminal law (statutory or common law), whatever the legislative source of the primary offence.⁶⁰ Key types of accessorial criminal liability which could be relevant in the context of online infringement include complicity, incitement and conspiracy, and as we will see below, it is not difficult to imagine situations where secondary offences apply in the online context – especially in Australia, where the breadth of the primary offences gives rise to a correspondingly broad penumbra of potential accessorial liability.

The distinction between secondary ‘aiding and abetting’ and primary liability approaches to establishing criminal liability for operators of file-sharing services was illustrated by the crim-

⁵⁷ See *Universal Music Australia Pty Ltd v Sharman License Holdings Ltd* [2005] FCA 1242, (2005) 222 FCR 465; *Cooper v Universal Music Australia Pty Ltd* [2006] FCAFC 187, (2006) 156 FCR 380; *Twentieth Century Fox Film Corporation v Newzbin Ltd* [2010] EWHC 608 (Ch), (2010) FSR 512; *Metro-Goldwyn-Mayer Studios Inc v Grokster Ltd* 545 US 913 (2005); *Public Prosecutor v Neij* Unreported 17 April 2009 TR (Swe); *Re Finreactor*, Unreported 30 June 2010 KKO (Fin).

⁵⁸ It is possible to attribute criminal liability to corporations, and Australia even attributes corporate criminal liability in cases of criminal ‘corporate culture’: Criminal Code 1995 (Cth) Part 2.5. However, a corporation cannot be imprisoned. One would not expect, therefore, the key targets of criminal liability to be firms, but rather individuals, with civil litigation imposing damages awards targeted at firms.

⁵⁹ In the US, statutory damages are available in civil lawsuits for copyright infringement of up to US\$150,000 per work infringed (18 USC §504). These awards are comparable to criminal fines: see Pamela Samuelson and Tara Wheatland, ‘Statutory Damages in Copyright Law: A Remedy in Need of Reform’ (2009) 51 Wm & Mary L Rev 439. In Australia, additional damages (Copyright Act 1968 (Cth) s 115(4)) can reach six figures: see for example, *Bailey v Namol* (1994) 125 ALR 228. Compare these awards to criminal fines. In Australia, the indictable offences discussed here are punishable by a fine of up to five years’ imprisonment, 550 penalty units or \$115,500 AUD (1 penalty unit = \$210: Crimes Act 1914 (Cth) s 4AA), or both: Copyright Act 1968 (Cth) ss 132AC(2), 132AI(3), 132AJ(2), 132AL(3). Summary offences are punishable by 120 penalty units, two years’ imprisonment or both: Copyright Act 1968 ss 132AC(3), 132AI(4)–(5), 132AJ(3), s 132AL(5). Corporations may be fined five times the maximum fine: Crimes Act 1914 (Cth) s 4B(3). In the UK, the availability of criminal fines has been one reason for treating additional damages as non-punitive: *Nottinghamshire Healthcare National Health Service Trust v News Group Newspapers* [2002] EWHC 409 (Ch), [2002] RPC 962.

⁶⁰ Criminal Code Act 1995 (Cth) (Australia); Serious Crime Act 2007 (UK); Crimes Act 1961 (NZ) s 66.

inal prosecutions in Sweden in 2009 in *Pirate Bay*,⁶¹ and in Finland in 2010 in *Finreactor*.⁶² With *Pirate Bay*, people involved in operating the website were liable for aiding and abetting copyright infringements committed by users.⁶³ In *Finreactor*, copyright infringement was, as provided by Finnish law, able to be directly imputed to persons operating the service due to the finding that they had collaborated with users.⁶⁴ This was in part due to the court's decision to consider the file-sharing apparatus as a whole, and its finding that the operators intended and were aware of infringements, notwithstanding that they did not actually take the actions which infringed copyright.⁶⁵ However, both cases have been criticised for 'stretching' preexisting legal principles.⁶⁶ *Pirate Bay* has also been criticised for failing adequately to explore the technicalities of operators' interactions with file-sharing technology.⁶⁷

5.1 Complicity

In Australia,⁶⁸ New Zealand,⁶⁹ and the UK,⁷⁰ a person commits a criminal offence if their conduct assists the commission of a crime. There are some jurisdictional variations, so this section focuses in more detail on the Australian law and cites to Australian legislation, but it is broadly illustrative of the common law position. The core reason for liability for complicity is that a person 'is in some way linked in purpose with the person actually committing the crime'⁷¹ and their conduct brings about or makes more likely the commission of an offence,⁷² without needing to cause the crime.⁷³ Conduct giving rise to liability for complicity is further broken down into conduct which aids, abets, counsels or procures the commission of an offence,⁷⁴ with each of these words carrying a technical legal meaning.⁷⁵ 'Aid' is assistance

⁶¹ *Public Prosecutor v Neij* Unreported 17 April 2009 (Case No B 13301-06); (Swedish Court of Appeal) 26 November 2010 (Case No B 4041-09) (affirming liability).

⁶² *Re Finreactor*, Unreported 30 June 2010 (KKO:2010:47).

⁶³ Tuomas Mylly, 'Criminal Enforcement and European Union Law' in Christophe Geiger (ed) *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar 2012) 214–15.

⁶⁴ *ibid.*

⁶⁵ *ibid.*

⁶⁶ *ibid* 215.

⁶⁷ Jerker Edstrom and Henrik Nillson, 'The Pirate Bay Verdict – Predictable, and Yet. . .' [2009] 31(9) EIPR 483.

⁶⁸ Criminal Code Act 1995 (Cth) s 11.2(1).

⁶⁹ Crimes Act 1961 (NZ) s 66(1)(b)–(d).

⁷⁰ Serious Crime Act 2007 (UK) s 44–46.

⁷¹ Thomas Crofts and Arlie Loughnan, *Criminalisation and Criminal Responsibility in Australia* (OUP 2015) 143–44.

⁷² *Handlen v The Queen; Paddison v The Queen* [2011] HCA 51, (2011) 245 CLR 282, [6].

⁷³ This covers circumstances where the primary offender is not aware that a secondary offender has provided assistance to them: Stephen Odgers, *Principles of Federal Criminal Law* (3rd edn, Thomson Reuters Lawbook Co 2015) 173.

⁷⁴ Criminal Code Act 1995 (Cth) s 11.2(1); Crimes Act 1961 (NZ) s 66(1)(b)–(d). Note that the New Zealand statute differs from the Australian statute as it elects to separate into subsections aiding, abetting, counselling and procuring with only aiding being preceded by 'does or omits an act for the purpose of'. The Serious Crime Act 2007 (UK) ss 44–46 modernises the relevant language, using the words 'encourage or assist'.

⁷⁵ Jeremy Gans, *Modern Criminal Law of Australia* (2nd edn, CUP 2017) 235; *Handlen v The Queen; Paddison v The Queen* [2011] HCA 51, (2011) 245 CLR 282, [6]. Thus each word represents an alternative way to found liability: Odgers (n 73) 171.

(possibly minor) to a primary offender;⁷⁶ ‘abets’ means providing encouragement to a primary offender at the time of the offence.⁷⁷ This again may be minor, such as being present to be seen to provide encouragement,⁷⁸ although there is no reason to think that ‘abetting’ couldn’t occur by online communication used to signify approval.⁷⁹ Certainly conduct which ‘counsels’ and ‘procures’ need not be co-located with a crime.⁸⁰ For example, ‘a person is said to have ‘counselled’ if she urged or advised the commission of the crime, and ‘procured’ it if she used means such as payment to bring it about.⁸¹

Consider a person who supplies P2P software.⁸² Such software facilitates online copyright infringement, and making it available publicly could be seen as assisting infringement. If someone using the software goes on to engage in conduct that results in commercial scale infringement causing substantial prejudice,⁸³ does that make the distributor of the P2P software liable for complicity? If the network created by the software facilitates download of infringing material uploaded by the particular user who is in breach of section 132AC of Australia’s Copyright Act 1968 (Cth), it is clear that the supplier of P2P software has provided part of the means to perform distribution on a commercial scale. The mental state would likely be critical in distinguishing legitimate intermediaries from culpable actors. Liability only arises if it can be shown that the supplier intends to facilitate copyright infringement.⁸⁴ One can probably assume that specific intent, rather than general awareness of risk, would be required. In most cases software can equally be used for legitimate purposes and the distributor may intend for legitimate use only,⁸⁵ and could demonstrate this via disclaimers.⁸⁶ Specific culpable intent could be evidenced, for example, by incautious internal emails.⁸⁷

⁷⁶ Odgers (n 73) 172.

⁷⁷ Crofts and Loughnan (n 71) 143.

⁷⁸ Odgers (n 73) 172.

⁷⁹ Crofts and Loughnan (n 71) 144.

⁸⁰ Odgers (n 73) 172.

⁸¹ Crofts and Loughnan (n 71) 144.

⁸² An example where a person ‘aided’ another’s infringement is found in *Griffiths v US* [2005] FCAFC 34, (2005) 143 FCR 182. Griffiths was alleged to have aided copyright infringement by giving another person the password to a secure website that enabled them to download 1,899 copyright infringing files.

⁸³ Contrary to Copyright Act 1968 (Cth) s 132AC (discussed above).

⁸⁴ In Australia a person must *intend* that their conduct aid, abet, counsel or procure any offence of the type committed, and be reckless as to the commission of the offence that the other person in fact committed: Criminal Code Act 1995 (Cth) s 11.2(3), justified on the basis that ‘where A agrees with B to participate in a criminal enterprise, he or she should be liable for any offence committed by B so long as A foresaw that B might commit it (even if A did not want it to happen)’: Findlay et al, *Australian Criminal Justice* (5th edn, OUP 2014) 30–31, citing *McAuliffe v The Queen* (1995) 183 CLR 108; *Clayton v The Queen* (2006) 231 ALR 500.

⁸⁵ Andrew Simester, ‘The Mental Element in Complicity’ (2006) 122 LQR 578, 590.

⁸⁶ Mealy mouthed disclaimers have not always convinced courts to absolve civil defendants of liability for authorising infringement of copyright: see for example, *Cooper v Universal Music Australia Pty Ltd* [2006] FCAFC 187, (2006) 156 FCR 380.

⁸⁷ Incautious internal emails have been a factor in the Kim Dotcom litigation: see *Ortmann v The United States of America* [2017] NZHC 189.

5.2 Incitement

Incitement involves an accused who urges the commission of an offence.⁸⁸ Courts have interpreted the concept to mean ‘to rouse; to stimulate; to urge or spur on; to stir up; to animate’,⁸⁹ directed ‘to a particular person or generally’.⁹⁰ There are differences in opinion and across jurisdictions as to whether the fault element of incitement requires that the accused intended or was (merely) recklessly indifferent as to whether their incitement would be acted upon or was acted upon.⁹¹ The potential range of behaviour that counts as incitement is broad. A person may be found guilty of incitement even ‘though the person incited does nothing whatsoever in pursuit of the criminal purpose, provided the latter person has heard and comprehended the words of incitement’;⁹² indeed, there can be liability for attempting to incite even where the incitement does not come to the notice of the person to whom it is addressed.⁹³ With such wide scope, incitement has the potential to render liable persons who assume that their words or actions are less culpable because they do not know their audience or are merely issuing general exhortations to the world at large – including online.

It is not hard to think of examples from civil copyright litigation which might fit this paradigm. Consider for example the conduct of the providers of Kazaa,⁹⁴ a P2P file-sharing software and system widely used in the early 2000s to infringe copyright in commercial sound recordings. In the Australian civil copyright suit, Justice Wilcox found there was ‘evidence of positive acts by Sharman that would have had the effect of encouraging copyright infringement’,⁹⁵ including ‘exhortations to users to use this facility and share their files’⁹⁶ and ‘promotion of the “Join the Revolution” movement, which is based on file-sharing, especially of music, and which scorns the attitude of record and movie companies in relation to their copyright works’.⁹⁷

⁸⁸ For example, Criminal Code Act 1995 (Cth) s 11.4(1). Similarly, in New Zealand ‘[e]very one is a party to and guilty of an offence who incites . . . any person to commit the offence’: Crimes Act 1961 (NZ) s 66(1)(d). The UK’s secondary liability regime under the Serious Crime Act 2007 (s 44–46) encapsulates incitement through use of the word ‘encourage’ and abolishes the common law offence of incitement (s 59). For example, s 44(1) of the UK Act provides ‘[a] person commits an offence if he does an act capable of encouraging . . . the commission of an offence; and he intends to encourage . . . its commission’.

⁸⁹ *R v Eade* [2002] NSWCCA 257, (2002) 133 A Crim R 390, [59] citing *Young v Cassells* (1914) 33 NZLR 852.

⁹⁰ *Walsh v Sainsbury* (1925) 36 CLR 464, 476.

⁹¹ In Australia, for example, s 11.4(1) of the Criminal Code Act 1995 (Cth) requires that the accused intends that the offence urged be committed. See Waller and Williams, *Criminal Law Text and Cases* (13th edn, LexisNexis 2016) 775–77.

⁹² *ibid* 775.

⁹³ *ibid* 775 citing *R v Howe* [1987] 1 All ER 771, [1987] 2 WLR 568.

⁹⁴ *Universal Music Australia Pty Ltd v Sharman License Holdings Ltd* [2005] FCA 1242, (2005) 222 FCR 465. See also *Metro-Goldwyn-Mayer Studios Inc v Grokster Ltd* 545 US 913 (2005).

⁹⁵ *Sharman* (n 94) [405].

⁹⁶ *ibid*.

⁹⁷ *ibid*.

5.3 Conspiracy

The charge of conspiracy imposes liability for agreeing to commit a crime, irrespective of whether the crime is ultimately committed, and irrespective of whether it can be proved that the accused took part in committing the crime.⁹⁸ The key feature of conspiracy is ‘shared intention to commit [an] offence pursuant to an agreement’⁹⁹ between at least two people. In Australia, the defendant and at least one other conspirator must intend that ‘an act or acts be performed which, if carried out in accordance with the agreement, would amount to the commission of an offence’.¹⁰⁰ The concept of an ‘agreement’ is sufficiently broad to cover the rather inchoate relations that occur in online environments. An agreement amounting to a conspiracy can be demonstrated through acts or words and ‘may be express or tacit, formal or informal’;¹⁰¹ and a conspirator may ‘enter into an agreement with one or more persons without knowing how many people have previously entered the agreement or the identity of those other persons’.¹⁰² There is no requirement to identify, let alone prosecute, all parties.¹⁰³ This is potentially useful in the online environment, where not all the persons are every likely to be identified, let alone charged. Thus, for example, in 2012 the US authorities brought charges for conspiracy to commit copyright infringement against Kim Dotcom and various other people involved in Megaupload, a popular file hosting website. US authorities alleged that as founder, largest shareholder and former CEO, by overseeing the website, and creating financial incentives for users who uploaded particularly popular (mostly infringing) files, Kim Dotcom conspired with users of the site – a large, changing and partially anonymous group – to infringe copyright for purposes of commercial advantage and private financial gain.¹⁰⁴ Conspiracy to commit criminal copyright infringement was also a key charge in two significant extradition cases discussed further below: the Richard O’Dwyer case,¹⁰⁵ and the Hew Griffiths case.¹⁰⁶

One of the largest ongoing debates about IP generally, and copyright in particular, in the online context has been over when it is appropriate to make intermediaries responsible for infringement that occurs on their platforms and via their networks, and when the desire to promote innovation, the availability and accessibility of digital technology, freedom of speech and freedom to operate a business requires us to shield intermediaries from potentially overwhelming liability. Criminal liability – especially where it involves imprisonment – could be even more chilling. It could be that some articulations of accessory liability are potentially overbroad. The fact that technological development does not appear to be going into hibernation is likely due to a combination of factors: low levels of both awareness of the reach of accessory liability and of prosecution owing to challenges in proving offences and particu-

⁹⁸ Waller and Williams (n 91) 886.

⁹⁹ Criminal Code Act 1995 (Cth) s 11.5(2)(b); (Odgers n 73) 217.

¹⁰⁰ Odgers (n 73) 233 quoting *Ansari v The Queen* [2010] HCA 18, 241 CLR 299, [60]. Australia’s Criminal Code also requires an ‘overt act’ to have been committed pursuant to the agreement: preventing prosecutions purely for words or thoughts: Gans (n 75) 270.

¹⁰¹ Odgers (n 73) 221.

¹⁰² *ibid* 222.

¹⁰³ Gans (n 75) 271.

¹⁰⁴ *Ortmann v The United States of America* [2017] NZHC 189; upheld in *Ortmann v United States of America* [2018] NZCA 233.

¹⁰⁵ O’Dwyer (n 6) discussed below.

¹⁰⁶ Griffiths (n 4) discussed below.

larly intent to the requisite standard (beyond reasonable doubt), and the complexity and cost of such cases. Thus, perhaps, the surprise when a case like Richard O'Dwyer's comes up and members of the general population become aware of the risk, not only of criminal prosecution, but of prosecution and potential imprisonment overseas. We return to that point below, but first, we need to take account of another aspect of the general criminal law: overlapping offences.

6. SIMULTANEOUS LIABILITY FOR GENERAL CRIMINAL LAW OFFENCES

So far this chapter has discussed offences enacted in copyright law, and how they apply online. We have seen that despite broadening of criminal IP offences, they have limits, in some cases reflecting a cautious approach to criminalising conduct. But this story is incomplete. Often the same conduct will meet the requirements for criminal liability under a range of general law offences. In common law countries at least, prosecutors usually have the discretion to charge an accused under one or multiple different, overlapping charges (although the defendant can only be punished once).¹⁰⁷ Consistent with this position, in the UK for example, the Crown Prosecution Service's Prosecution Guidelines direct prosecutors considering IP-related crime to consider not only IP legislation but also the Fraud Act and the common law offence of conspiracy to defraud.¹⁰⁸ In New Zealand there is a general criminal offence for 'altering or reproducing a document with an intent to defraud',¹⁰⁹ with an earlier form of the provision being used to prosecute the production of copies of software on a CD ROM purchased in the US.¹¹⁰

Fraud is a particularly flexible offence. Uninformed by a deep knowledge of criminal law, one might expect that fraud involves deceit,¹¹¹ which, in the context of online infringement, may be quite difficult to prove: most people downloading a Bollywood movie, via BitTorrent, through a link found on a website called The Pirate Bay are not deceived as to the illicit nature of the source. But fraud can be established by proving the dishonest appropriation of another person's property,¹¹² or through proof that the defendant has deprived 'dishonestly a person of something which is his or of something to which he is or would or might but for the perpetration of the fraud, be entitled'.¹¹³ This has been applied to copyright infringement, which can dishonestly deprive a copyright owner of income or property to which they would otherwise be

¹⁰⁷ Interpretation Act 1889 (UK) s 33; Crimes Act 1961 (NZ) s 10; Crimes Act 1914 (Cth) s 4C.

¹⁰⁸ The Crown Prosecution Service, 'Intellectual Property Crime' (*The Crown Prosecution Service*) <www.cps.gov.uk/legal-guidance/intellectual-property-crime> accessed 20 October 2019.

¹⁰⁹ Duncan Laing and Ian Finch, *James and Wells Intellectual Property Law in New Zealand* (2nd edn, Thomson Reuters 2017) 346 citing Crimes Act 1961 (NZ) s 258.

¹¹⁰ Laing and Finch *ibid* 346 citing *Power Beat International Ltd v Attorney-General* [2000] 2 NZLR 288 (CA). For discussion in the UK context, see IPO (UK), 'Taking Forward the Gowers Review of Intellectual Property Report on the Outcome of Consultation on Penalties for Copyright Infringement' (IPO) <<https://webarchive.nationalarchives.gov.uk/20140603152129/http://www.ipo.gov.uk/consult-gowers36.pdf>> accessed 20 October 2019.

¹¹¹ *In re London and Globe Finance Corporation Ltd* [1903] 1 Ch 728, 732.

¹¹² Criminal Law Revision Committee, *Eighth Report: Theft and Related Offences* (Cmd 2977, 1969) [33]; *R v Button* (1848) 3 Cox CC 229; *R v De Kromme* [1892] 17 Cox CC 492; *R v Quinn* [1898] 19 Cox CC 78; *R v Sinclair* [1968] 1 WLR 1246.

¹¹³ *Scott v Commissioner of Police* [1975] AC 819, 834.

entitled. In the case of *Scott*, the accused had formed agreements with employees of cinemas which involved payment for unauthorised access to films in order to produce and distribute copies of the films commercially without permission of the copyright owners. On appeal, Scott's conviction for (*inter alia*) conspiracy to defraud was upheld, with the House of Lords holding that conspiracy to defraud was a valid charge, notwithstanding facts which indicated a conspiracy to breach a particular copyright law provision. Viscount Dilhorne, with whom the lords unanimously agreed, observed that '[t]heft always involves dishonesty'¹¹⁴ and "'to defraud" ordinarily means, in my opinion, to deprive a person dishonestly of something which is his or of something to which he is or would or might but for the perpetration of the fraud be entitled'.¹¹⁵ Lord Diplock observed that conspiracy to defraud with respect to private individuals involves economic loss by deprivation of a existent or future property right coupled with a dishonest means, with 'dishonesty of any kind [being] enough'.¹¹⁶

Under the Fraud Act 2006 (UK), a person is also guilty of an offence if they have in their possession or under their control any article for use in the course of,¹¹⁷ or in connection with, any fraud.¹¹⁸ This charge can also be used to prosecute possession of copyright infringements. In *Regina v Wayne Evans*,¹¹⁹ the defendant was sent cease and desist notices and finally apprehended operating three websites which pointed users to torrent websites where users could access infringing copyright material. One of the defendant's websites had more than 168,000 users and facilitated access to over 135,000 downloads of infringing material.

Another general law source of criminal liability of particular relevance to online infringement is found in computer-related offences required or inspired by the Council of Europe's *Convention on Cybercrime*.¹²⁰ The Convention obliges signatories to criminalise illegal access to a computer system, as well as computer-related fraud and forgery, as well as attempts and aiding and abetting such offences.¹²¹ An interesting use was made of these computer offences in a judgment of the New Zealand High Court in a case brought by the US seeking extradition of Kim Dotcom. The court held that conduct described in the US indictment as criminal copyright infringement could support prosecution of Mr Dotcom for the New Zealand crime of accessing a computer system for a dishonest purpose.¹²² This offence, which carries a maximum seven years' imprisonment, involves an offender who 'directly or indirectly, accesses any

¹¹⁴ *Scott v Commissioner of Police* [1975] AC 819, 836 (Viscount Dilhorne).

¹¹⁵ *Scott v Commissioner of Police* [1975] AC 819, 839 (Viscount Dilhorne).

¹¹⁶ *Scott v Commissioner of Police* [1975] AC 819, 841 (Lord Diplock).

¹¹⁷ 'Article' is defined to include any program or data held in electronic form: Fraud Act 2006 (UK) s 8.

¹¹⁸ *Regina v Wayne Evans* [2017] EWCA Crim 139, [2017] All ER (D) 73. The Crown Court at Liverpool found Mr Evans guilty of two offences of distributing an article infringing copyright contrary to the Copyright Designs and Patents Act 1988 (UK) s 107(1)(e) (12 months and 10 months), and possessing an article for use in fraud contrary to Fraud Act 2006 s 6(1) (6 months). The result was a (concurrent) sentence of 12 months' immediate imprisonment.

¹¹⁹ *Regina* (n 118). The case also went on (at [22]) to provide a guide for sentencing of similar criminal activity.

¹²⁰ Council of Europe, *Convention on Cybercrime* (23 November 2001) Europ TS No 185. This particular convention has been ratified widely beyond members of the Council of Europe.

¹²¹ *Convention on Cybercrime* *ibid* arts 2–8, 11. The Convention also requires criminalisation of infringement of copyright 'where such acts are committed wilfully, on a commercial scale and by means of a computer system', although this obligation is qualified: see art 10.

¹²² Crimes Act 1961 (NZ) s 249.

computer system and thereby, dishonestly or by deception, and without claim of right obtains any property, privilege, service, pecuniary advantage, benefit, or valuable consideration; or causes loss to any other person'. 'Access' is broadly defined to include 'instruct, communicate with, store data in, receive data from, or otherwise make use of any of the resources of the computer system'.¹²³ The New Zealand High Court construed this provision to cover operators of the Megaupload computer system, where data (copyright infringing files) was received from uploaders, stored and made available to access using the link provided by Megaupload using the computer system. This offence also potentially covered sending a deceptive email: for example, where Megaupload employees emailed copyright owners knowingly misleading them into believing their takedown notices would result in removal of the infringing file or the prevention of access to it when, at best, only the link specifically identified by the copyright holder would be disabled.¹²⁴ These findings were upheld on appeal.

The availability of these general offences has great significance for both criminal and civil IP law. Reliance on general law offences can circumvent limitations carefully drafted into the copyright law. For example, in the UK prior to 2017, differences in maximum penalties between criminal infringements involving physical and online reproduction (ten versus two years)¹²⁵ could be evaded by charging for common law conspiracy to defraud (ten years).¹²⁶ Similarly, liability under the Fraud Act 2006 (UK) for possession of an infringing article does not require proof of a commercial purpose, which is of use in prosecuting 'camcording' (illegally recording a film in a cinema), where it can be hard to prove an ultimate commercial purpose required by equivalent copyright offences. In the case of *Kim Dotcom*, the High Court of New Zealand held that the existence of general law computer offences was enough to satisfy requirements of double criminality despite holding that offences in the New Zealand copyright law did not extend to online communications; although the New Zealand Court of Appeal overturned the latter finding, it too held that the general law computer offences also applied.¹²⁷ The reach of criminal liability under general law offences is determined by how civil copyright law frames the scope of exclusive rights. The copyright owner is entitled to prevent, or license, acts falling within their exclusive rights. If someone else undertakes them without permission, they deprive the copyright owner of property, or income, to which they are entitled – creating the foundation for liability for fraud or the computer offences.

7. THE PARAPHERNALIA OF TRANSNATIONAL ENFORCEMENT

Infringement online almost invariably crosses borders, posing oft remarked upon challenges to effective IP enforcement. In theory, criminal law is territorial: extraterritorial punishment undermines an international legal order which divides the world into states with exclusive

¹²³ Crimes Act 1961 (NZ) s 248.

¹²⁴ *Ortmann v The United States of America* [2017] NZHC 189. According to the court, no proof that copyright owners were actually deceived was required. The judgment was upheld on appeal: *Ortmann v United States of America* [2018] NZCA 233.

¹²⁵ HM Treasury (n 25).

¹²⁶ Criminal Justice Act 1987 (UK) s 12(3).

¹²⁷ *Ortmann v United States of America* [2018] NZCA 233.

rights to regulate conduct within their borders.¹²⁸ Far from limiting criminal liability, the border crossing nature of online activity makes it potentially easier for multiple states to claim jurisdiction to prosecute on the basis that (some part of) the conduct constituting the crime occurred within their territory. Mechanisms for transnational criminal enforcement cooperation can then bring both an offender and their overseas assets within reach of national law enforcement. Thus, a wider range of individuals – even people who remain wholly within the borders of one country – may expose themselves to the risk of overseas prosecution.

This risk is not hypothetical. In 2005, Australian resident Hew Griffiths was indicted in Virginia for committing, aiding and abetting and conspiring to commit criminal copyright infringement.¹²⁹ Griffiths was part of DrinkorDie (DOD), a group of individuals who used DOD's password-protected server located in Virginia to reproduce and distribute to members commercial software, games, movies and music (especially those not yet commercially released) without the copyright owners' permission.¹³⁰ The Australian court had no difficulty characterising the conduct involved as occurring physically in the US, notwithstanding that Mr Griffiths himself was in Australia at all times.¹³¹ Griffiths was extradited and served 15 months in a US prison. In 2007 the US sought the extradition of Richard O'Dwyer, a UK student who set up the TVShack website which linked to programmes and films available for free online. Richard O'Dwyer was held to be eligible for extradition,¹³² but reached a deferred prosecution agreement, paid a fine and remained in the UK.¹³³ In 2012, the US commenced still ongoing efforts to extradite Kim Dotcom and others from New Zealand to face charges relating to Megaupload, a cyberlocker site operated on 1000 or so servers storing and making available approximately 25 petabytes of allegedly copyright infringing files. At its height Megaupload was estimated to generate 4 per cent of global internet traffic, with 50 million visits daily. A US court indicted Mr Dotcom and others intimately involved in the business for a range of offences including criminal copyright infringement, aiding and abetting and conspiracy to commit criminal copyright infringement, as well as general law offences such as conspiracy to commit racketeering and money laundering, and fraud by wire.¹³⁴

The exercise of extraterritorial jurisdiction to prosecute a person located in another country requires the cooperation of the state where a person is located, using a number of mechanisms of transnational law enforcement cooperation. Perhaps the most spectacular (and controversial) is extradition: the formal legal surrender, by one country to another, of a person who has been accused or convicted of a criminal offence in the jurisdiction of the second country,

¹²⁸ Alejandro Chehtman, *The Philosophical Foundations of Extraterritorial Punishment* (OUP 2010) 20.

¹²⁹ Mr Griffiths was charged with criminal copyright infringement. Under US law a person who aids and abets the commission of an offence is punishable as a principal: 18 USC §2(a).

¹³⁰ *Griffiths v US* [2005] FCAFC 34, (2005) 143 FCR 182, [58].

¹³¹ *ibid* [96].

¹³² *In the Westminster Magistrates' Court, The Government of the United States of America v Richard O'Dwyer* (13 January 2012) <www.judiciary.gov.uk/wp-content/uploads/JCO/Documents/Judgments/us-v-odwyer-ruling.pdf> accessed 20 October 2019.

¹³³ 'Richard O'Dwyer: Living with the Threat of Extradition' (*The Guardian*, 8 December 2012).

¹³⁴ This has led to extradition proceedings in New Zealand. There the High Court in *Ortmann v United States of America* [2017] NZHC 189 held that Dotcom and others were eligible for extradition. The decision was appealed unsuccessfully: *Ortmann v United States of America* [2018] NZCA 233. The New Zealand Supreme Court granted leave to appeal in December 2018, with the appeal set down to be heard in April 2019.

in order for the person to be tried or punished. Equally important in effective prosecution is mutual legal assistance: which grants police and prosecutors from State A access to a range of coercive processes within State B, ordinarily available only to law enforcement in State B, to investigate and prosecute crimes, including executing searches and seizures; freezing of assets; and identifying or tracing proceeds of crime, property, instruments or devices for evidentiary purposes or forfeiture.¹³⁵ Mutual legal assistance involves use of the domestic processes and is subject to any domestic limits.¹³⁶

There is insufficient space in this chapter to review the many technical aspects of both mutual legal assistance and extradition. To fully explore these issues, even with a focus entirely on their potential application in the online context, would take another chapter, or possibly several, not least owing to the case of Kim Dotcom. The US initially sought the assistance of New Zealand law enforcement to conduct surveillance and then a raid of Mr Dotcom's premises, seizing various assets and instruments, and then subsequently sought extradition of Mr Dotcom and others. No doubt because of the resources Dotcom has been able to deploy in his own defence, the case generated a remarkable stream of judgments in the years subsequent to these events, testing the limits of transnational law enforcement cooperation. It has highlighted the tools within the US for extraterritorial application of US criminal law and criminal law remedies, and how those tools interact with the international law enforcement framework.¹³⁷ Courts in New Zealand, Hong Kong and the US have had to decide on questions ranging from the appropriateness of the raid to the availability of assets for seizure (and of frozen assets for access by the defendants for living and legal expenses), as well as whether Kim Dotcom and his colleagues were eligible for extradition.¹³⁸

The Kim Dotcom proceedings highlight how the way in which both copyright and general criminal offences are framed have flow-on effects for the availability of transnational law enforcement cooperation. The system is, as stated in the introduction, a highly interconnected network. Changes to domestic offences, including those brought about as a result of obligations imposed by international bilateral and plurilateral trade and IP agreements, bring more activity within the transnational legal cooperation 'net'. For example, the eligibility of a person for extradition depends on proof of double criminality: whether the activities which are the basis for an indictment (or conviction) in the extradition-requesting country would also give rise to criminal liability where the alleged offender is located.¹³⁹ It also depends on

¹³⁵ For examples of areas covered by legislation see Mutual Assistance in Criminal Matters Act 1987 (Cth), Mutual Assistance in Criminal Matters Act 1992 (NZ); Crime (International Cooperation) Act 2003 (UK).

¹³⁶ These limits apply notwithstanding different rules in the requesting country. Thus, for example, in the Kim Dotcom case, when NZ and HK seized property in relation to the US legal proceedings, courts in both NZ and HK released some of the funds to cover the costs of the defence and living expenses, notwithstanding a US court refused to make a similar order: *Commissioner of Police v Dotcom* [2015] NZHC 458; *Commissioner of Police v Dotcom* [2015] NZHC 820; *Twentieth Century Fox Film Corporation v Dotcom* [2016] NZHC 1948.

¹³⁷ For an early discussion, see Darren Palmer and Ian Warren, 'Global Policing and the Case of Kim Dotcom' (2013) 2 Int'l Jnl for Crime, Justice and Democracy 105.

¹³⁸ The key decisions on extradition emanate from New Zealand (n 134). See also *Re Kim Dotcom* [2014] HKEC 2123; *Re Kim Dotcom* [2017] HKEC 1840; 833 F 3d 414 (4th Cir 2016). In each jurisdiction there have been numerous individual judgments on various procedural points.

¹³⁹ For example, Extradition Act 1988 (Cth) s 19(2)(c); Extradition Act 1999 (Can) s 3(1)(b); Extradition Act 1999 (NZ) s 4(1)(b); 18 US Code § 3181 (b)(1); Extradition Act 2003 (UK) s 137; UN

the relevant offence being an extraditable offence as set out in any international agreement between requesting and requested state. Extraditable offences may be specified in an extradition treaty.¹⁴⁰ Alternatively, the treaty may set out that offences punishable by a certain term of imprisonment are extraditable offences: for example, the 2003 Extradition Treaty between the US and UK provides that offences punishable by 12 months' imprisonment or longer are extraditable offences.¹⁴¹ In addition, the United Nations Convention against Transnational Organised Crime (UNTOC) requires that extradition be available in the case of organised criminal groups committing serious offences,¹⁴² defined as those punishable by a term of imprisonment of more than four years, and where an organised criminal group is a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences in order to obtain, directly or indirectly, a financial or other material benefit.¹⁴³

Consider, then, the implications of other aspects of criminal IP and general law and international developments discussed earlier in this chapter. Imagine that State A does not imprison people for copyright infringement, or limits jail terms to six months. Or perhaps State A does not provide for criminal remedies for infringers of trade secrets, or designs. Nationals of State A engaged in online infringement will not, in general, be at risk of extradition for IP infringement to countries that do provide criminal remedies owing to the absence of double criminality – unless perhaps State A applies general law offences to equivalent conduct. And then imagine that, as a result of its IP treaties, State A is persuaded or required to adopt criminal liability, or increase its maximum terms of imprisonment to 12 months. This could immediately open up its population to the risk of extradition,¹⁴⁴ if that is the required level to make an offence extraditable. If prison terms are increased from less than four years up to more than four years – for example, from two years to ten years, as occurred in the UK in relation to online communication – then its citizens and residents may be at increased risk of extradition to any of the 189 UNTOC signatory countries which have equivalent offences. This, then, is one consequence – perhaps unintentional, and certainly not often remarked – of developments in international IP enforcement law, and one which is particularly important in the context of online infringement, where multiple countries may assert jurisdiction to engage in criminal enforcement. In thinking about criminalisation of IP and whether criminal liability

Model Treaty on Extradition, GA Res 45/116, UN GAOR (45th session) 68th pln mtg (14 December 1990) UN (Doc) A/RES/45/116 art 2.1.

¹⁴⁰ See for example, Treaty on Extradition between New Zealand and the United States of America (entered into force 8 December 1970, signed 12 January 1970) [1970] NZTS 7 specifying a long list of offences.

¹⁴¹ Instrument Amending the Extradition Treaty between the United States of America and the United Kingdom of Great Britain and Northern Ireland (signed 16 December 2004, entered into force 1 December 2010) TIAS 10-201.23 art 2.1; See also Protocol amending the Treaty on Extradition between Australia and the United States of America of 14 May 1974 [1992] ATS 43 (4 September 1990 entered into force 21 December 1992) art 1.

¹⁴² United Nations Convention Against Transnational Organized Crime (entered into force 29 September 2003, opened for signature 15 November 2000, 2225 UNTS 209) art 16 (extradition); art 3 (application).

¹⁴³ *ibid* art 2.

¹⁴⁴ Although note that some countries will not extradite their own citizens or will only extradite their own citizens in limited circumstances. The countries reviewed in this chapter do not limit extradition thus.

is appropriate for different kinds of IP infringement and consistent with the purposes and goals of IP law, it is important to engage with these broader impacts.

We also need to take into account other elements of transnational cooperation. This chapter earlier highlighted the growth in international treaties of provisions requiring seizure, tracing and forfeiture of assets derived from or used to infringe. The Kim Dotcom case also highlights the interconnectedness of these provisions and the cross-jurisdictional prosecution and punishment of online infringers. If a country adopts broader provisions relating to the forfeiture of proceeds of crime as a result of a convention such as the CPTPP, these procedures could also become available to overseas law enforcement via existing mutual legal assistance rules.¹⁴⁵ A US court has already made an order for forfeiture of Dotcom's assets,¹⁴⁶ Dotcom's Hong Kong assets were also put under restraint.¹⁴⁷ Under the US' domestic civil forfeiture provisions, property alleged to be associated with criminal offences can be seized via a claim *in rem*: only if the owner claims the property must the government show, by a preponderance of the evidence, that the property is liable to forfeiture.¹⁴⁸ But challenging a forfeiture order requires submission to the jurisdiction of US courts: a point of particular relevance for alleged online offenders who are not in the jurisdiction. Under the US doctrine of 'fugitive disentitlement',¹⁴⁹ a person who contests their extradition can be considered a 'fugitive' who can be denied the protection of the US courts, including from a civil forfeiture order. The 4th Circuit in *United States v Batato* affirmed the jurisdiction of the US District Court to make order for forfeiture of the property of Kim Dotcom and others in other countries, despite the fact that extradition challenges are ongoing.¹⁵⁰

8. CONCLUSION

This chapter has only scratched the surface of the interconnections between domestic copyright law, international copyright treaties, general criminal law and mechanisms in international law for transnational cooperation for criminal enforcement. A key purpose has been to show how general criminal law and law enforcement provisions – domestic and international – impact debates about criminalisation of IP infringement. Transnational legal cooperation can increasingly allow assertive jurisdictions, such as the US (and who knows who else in the future), to prosecute infringers located in other jurisdictions, seek their extradition and seize their assets, whether located within the asserting jurisdiction or elsewhere via mutual assistance mechanisms. As this chapter has demonstrated, the interactions between these systems are deep and complex, and can have unexpected and underappreciated outcomes. In an area of

¹⁴⁵ Agreements for mutual legal assistance include exceptions where assistance may be denied, such as where a request would compromise national security.

¹⁴⁶ *US v All Assets Listed in Attachment A* 89 F Supp 3d (ED Va 2015); *United States v Batato* 833 F 3d 414 (4th Cir 2016).

¹⁴⁷ *Re Kim Dotcom* [2017] HKEC 1840.

¹⁴⁸ Civil forfeiture is available under numerous US statutes but became part of the copyright enforcement repertoire with passage of the Prioritizing Resources and Organization for Intellectual Property (PRO-IP) Act of 2008 (HR 4279). The relevant provisions are incorporated across a range of IP titles in the US, including 17 USC 506(b). Procedures are set out in 18 USC 2323.

¹⁴⁹ 28 USC 2466.

¹⁵⁰ *United States v Batato* 833 F 3d 413 (4th Cir 2016).

policy as contentious as IP, it behoves us to have a discussion about just how far we consider it acceptable that foreign criminal prosecutions should reach people, property and assets within our borders, and what limits ought to be applied to ensure appropriate procedural protections for residents and support local policies and values – preferably before the next citizen is caught in the machinery of foreign justice.

27. Digital tools of intellectual property enforcement: their intended and unintended norm setting consequences

Frederick Mostert¹

1. INTRODUCTION

Digital tools have moved to centre stage in today's intellectual property world. Some would even argue that digital technology is deployed with more aptitude by counterfeiters and pirates than by right holders in most jurisdictions. The copy artists seem constantly to be one step ahead of the game in using digital smartly. The response to such digital copying has been spearheaded by social media and web platforms, intermediaries and right holders, who have responded by developing and adopting an array of technical tools to combat counterfeiting and piracy in surprisingly similar ways around the world.²

The question, though, is: what are the intended and unintended norm setting consequences of these digital tools? In many instances, such tools have been developed through voluntary collaboration efforts between social media and web platforms, intermediaries and right holders. These voluntary efforts are sometimes an outflow of legislation and judicial guidelines, but in many cases they are not. In the latter scenarios, who safeguards the proportionate balancing and the fine line-drawing between fundamental rights when neither legislators nor judges have developed any legal norms? How are the rights of third parties, such as customers, members of the digital public, micro intermediaries and tech startup intellectual property owners, taken into account? These third party players are virtually never part of the voluntary collaboration and balancing bargains. Data and privacy rights, free speech and the right to free expression, freedom to compete and intellectual property rights all require careful balancing in this equation. The outcome of the balancing bargains has both intended and unintended norm setting consequences in the digital space.

But let's take a step back and look at the big picture. The nub of the problem is one of technology and reality in the digital world. The volume and velocity of the digital sales of counterfeits and pirated copies are of enormous magnitude and tackling them is a Herculean task. To further exacerbate the dilemma, the digital listing of fakes and pirated copies is fleeting and, crucially, time sensitive – postings are typically online for only a few hours or, at most, days. This issue alone makes the timely online tracking and tracing of counterfeit listings very difficult. Given these inherent time constraints (together with cost considerations) it is near impossible to run to the High Court with each individual listing of a counterfeit or pirated

¹ I wish to express my gratitude to Roosa Tarkiainen (LLB University of Southampton, LLM King's College London) for her tremendously helpful research and substantial contribution to this chapter.

² Frederick Mostert, 'Study on Approaches to Online Trademark Infringements' (Document) COM (2017) WIPO ACE 12 9 REV 2.

copy. As much as one would wish a court of law to mete out individual justice in every single case, this ideal is unrealistic and makes no sense in the digital environment. The volume and velocity issue by its nature requires a proportionate response. Moreover, as anyone in charge of enforcement efforts will attest, the borderless digital environment and concomitant jurisdictional issues make matters even more challenging. These challenges prompt one to circle back to the solutions offered by digital technology. In turn, this leads to analyses and suggestions related to the development of balanced tools for the enforcement of intellectual property in the digital world. These are some of the great digital intellectual property challenges of the moment and bring a certain provocative element and excitement to this area of law.

The focus of this chapter is the analysis of a selection of contemporary *technical* tools employed to combat digital intellectual property infringements,³ notably blockchain, social media tools, blacklisting and whitelisting, follow-the-money tools, domain name tools, search engine deindexing, hack back and active defences and various notice actions. This chapter will also touch upon novel digital spheres posing challenges for intellectual property enforcement, such as augmented and virtual reality, and identify where potential exists for the use of technical tools and voluntary collaboration. The legal consequences of these tools will be analysed through the lens of online counterfeiting and piracy. The conclusion reached lies in the recognition that norm setting through the use of these technical tools is already *de facto* and *de lege lata*, underscoring the need to develop new principles surrounding digital due process.⁴

2. BLOCKCHAIN

Evidence lies at the heart of many challenges in enforcing intellectual property rights online. In the context of trade marks, when goods are sold on online platforms such as eBay or Taobao, it is often difficult for right holders and platforms to track the provenance of goods to ascertain whether they are counterfeits. Similarly, when a copyright work is made available online, it is often challenging for right holders to track instances of piracy.

Blockchain is emerging as a technology that is uniquely suited to address this challenge. In simple terms, blockchain, a form of distributed ledger technology, is a secure, transparent record of information that can be used to log and monitor transactions. In the context of intellectual property, this enables blockchain to be used to track the digital dissemination of copyright works online,⁵ as well as to record data about provenance and supply chains to authenticate the origin of products.⁶ In addition, the maintenance of a blockchain is relatively low cost compared to the cost of maintaining centralised databases.⁷ Blockchain technology is thus particularly suitable for the maintenance of registries, evidence and authentication of intellectual property rights.⁸

³ As compared with Chapter 25, Allgrove and Groom, which focuses on the legal tools relevant to intermediaries and Chapter 26, Weatherall, which focuses on criminal penalties.

⁴ Frederick Mostert, 'Free Speech and Internet Regulation' (2019) 14 *Journal of Intellectual Property Law & Practice* 607.

⁵ Hiroshi Sheraton, 'Blockchain and IP: Crystal Ball-Gazing or Real Opportunity?' (2017) 28(9) *PLC Mag* 41.

⁶ *ibid.*

⁷ *ibid.*

⁸ Arijit Chakrabarti, 'Blockchain and Its Scope in Retail' (2017) 4(7) *IRJET* 3053.

Far from being mere theory, promising blockchain-based intellectual property solutions have already begun to emerge. For instance, De Beers is using blockchain technology to track the movement of diamonds from the time at which they are mined to the time they reach customers.⁹ This secure digital record enables customers and retailers to ensure the diamonds they are dealing with are genuine and conflict-free. Similarly, blockchain technology is being used by the company Everledger,¹⁰ to record details of the origin of coloured gemstones for identification and authentication purposes.¹¹

Beyond the gemstone industry, blockchain is being used by BlockVerify,¹² to authenticate and track the origin of luxury goods and pharmaceuticals.¹³ Products are labelled with a unique tag which can be tracked on the blockchain, allowing products to be monitored as they travel along the supply chain. This facilitates the identification of counterfeit goods, fraudulent transactions and stolen merchandise, as consumers and retailers are able to easily examine a secure history of a given product. A similar system is being explored by Alibaba to address supply chain fraud in the food industry. The system, which is being piloted in Australia and New Zealand, aims to enable online shoppers on Taobao and Tmall to verify the authenticity of food products and avoid dangerous counterfeits.¹⁴

Blockchain is also being used to maintain registries of ownership rights. For instance, the Danish Customs and Tax Administration (SKAT) is exploring the use of blockchain to facilitate the registration and transfer of ownership of vehicles.¹⁵ Currently, when vehicles are sold, sellers must trust buyers to notify authorities about the change in ownership. Unscrupulous buyers who fail to reregister their vehicles expose sellers to liability for parking fines and speeding tickets, while avoiding paying tax. Blockchain provides a mechanism for sellers' transfer of ownership to be conducted securely and automatically, while allowing buyers to ascertain the authenticity of a vehicle and examine its history. It is easy to imagine an analogous system being applied in the context of intellectual property: a blockchain-powered copyright registry could record copyright transfers, reducing transaction costs and facilitating licensing. Indeed, ASCAP, the American Society for Composers, Authors and Publishers; SACEM, the Society of Authors, Composers and Publishers of Music; and PRS for Music – three of the largest collecting societies in the world – have partnered with IBM to adopt a shared decentralised database of musical works. An open sourced blockchain is then used to manage links between music recordings' International Standard Recording Codes (ISRCs) and

⁹ Barbara Lewis, 'De Beers Turns to Blockchain to Guarantee Diamond Purity' (*Reuters*, 17 January 2018) <www.reuters.com/article/us-anglo-debeers-blockchain/de-beers-turns-to-blockchain-to-guarantee-diamond-purity-idUSKBN1F51HV> accessed 13 October 2019.

¹⁰ Everledger, 'Our Technology' <www.everledger.io/#technology> accessed 13 October 2019.

¹¹ Gubelin, 'Provenance Proof Blockchain to Be Rolled Out and Open to the Entire Industry by February 2019' (*Gubelin*, September 2018) <www.everledger.io/pdfs/Press-release-Gubelin-Everledger-Provenance-Proof-blockchain-to-be-rolled-out.pdf> accessed 13 October 2019.

¹² BlockVerify, 'How BlockVerify Works' <www.blockverify.io/> accessed 13 October 2019.

¹³ Chakrabarti (n 8).

¹⁴ PwC, 'PwC explores blockchain solutions with Alibaba and food industry stakeholders to help address supply chain fraud and build trust in the food industry' (*PwC*, 25 March 2017) <www.bloomberg.com/news/articles/2017-08-06/spies-blockchain-and-alibaba-beating-china-s-fake-food-scourge> accessed 13 October 2019.

¹⁵ Nets.EU, 'Blockchain Technology Could Add Transparency to Buying and Selling a Car' (*Nets.eu*, 22 September 2017) <www.nets.eu/perspectives/Pages/Blockchain-technology-could-add-transparency-to-buying-and-selling-a-car.aspx> accessed 13 October 2019.

music works' International Standard Work Codes (ISWCs) to speed up licensing and reduce errors in the process of royalty matching.¹⁶

While blockchain technology has promising applications in the field of intellectual property, its entry into popular use could be hindered by the lack of legal governance and full understanding of the vulnerabilities behind the technology.

A key challenge to the use of blockchain in the area of intellectual property rights is determining the relevant jurisdiction and identifying the appropriate governing law in a dispute.¹⁷ In a blockchain, information is stored simultaneously across a peer to peer network of participants called nodes.¹⁸ As this is a decentralised database where the nodes can be located anywhere in the physical world, ascertaining the correct rules to apply is difficult.¹⁹ The risk is that transactions in a blockchain could fall under the jurisdiction of all of the nodes, and thus under a multiplicity of legal regimes.²⁰

Furthermore, where a blockchain stores personal data across multiple jurisdictions, difficulties with data protection compliance are exacerbated, given that it would be impractical to obtain the requisite consent from data subjects.²¹ In addition, one of the features that makes blockchain secure – the immutability of the information stored on it – may, however, further implicate data protection where personal data is retained and the data needs to be erased or corrected.²²

Another area of interest is the determination of how and when liability for mistakes or failure of the infrastructure of the blockchain will be triggered.²³ It is likely that, due to the automated operation of the technology, service providers will exclude assurances on performance, in turn posing concerns about the reliability and security of blockchain as a service.²⁴ Balancing the risks associated with the lack of control over distributed ledger technologies will thus be a relevant concern for operators and users alike.²⁵

It is of particular interest to note that some countries have begun circumventing the challenge of applying existing law to blockchain by enacting technology-specific legislation. Certain national regulators have introduced measures to require registration of companies operating distributed ledger technologies. For example, Gibraltar has introduced regulations that require companies using distributed ledger technologies (DLTs) for 'storing or transmitting value belonging to others' to register and obtain a DLT Provider's License from the Gibraltar

¹⁶ Cathy Halgas Nevins, 'ASCAP, SACEM, and PRS for Music Initiate Joint Blockchain Project to Improve Data Accuracy for Rightsholders' (ASCAP, 7 April 2017) <www.ascap.com/press/2017/04-07-ascap-sacem-prs-blockchain> accessed 13 October 2019.

¹⁷ John McKinley, 'Blockchain: Background, Challenges and Legal Issues' (2017) 33(5) CLS Rev 735.

¹⁸ *ibid.*

¹⁹ *ibid.*

²⁰ *ibid.*

²¹ Henry Chang, 'Blockchain: Disrupting data protection?' (2017) 150 PL&B International Report, University of Hong Kong Faculty of Law Research Paper No 2017/041 available at SSRN: <<https://ssrn.com/abstract=3093166>> accessed 13 October 2019.

²² *ibid.*

²³ McKinley (n 17).

²⁴ *ibid.*

²⁵ *ibid.*

Financial Services,²⁶ and then to follow certain principles when conducting the business, such as honesty, integrity and maintenance of security systems to appropriate high standards.²⁷

Beyond legal challenges, there are certain vulnerabilities inherent in blockchain technology that could be exploited in the future. An example of an inherent weakness is that while access to a public blockchain requires a private key, if this key is not secured, virtually anyone can take it and write on the ledger.²⁸ The result is that information input by malicious actors is stored on the ledger and becomes immutable. In another hypothetical scenario, the information and transactions stored on a blockchain eventually have to be converted into analogue forms such as a computer screen or an application. This analogue format can then be copied or attacked, potentially making it possible for anyone to subvert the system and gain access to the information on the ledger.²⁹ Ultimately, it is likely that the more rules and access rights are added to blockchains as their uses are developed for different purposes, the more vulnerabilities will be created in the system.

Most discussions over the legal issues stemming from blockchain will for now be in the abstract, and thus of limited use until tested. Nevertheless, blockchain's application in the field of intellectual property enforcement – and, more specifically, its role in the authentication of goods – shows great promise. Concerns have been raised, however, that blockchain, and notably its use in cryptocurrencies, may in fact be used by counterfeiters to hide the financial gains of their unlawful business.³⁰ It is still unclear, therefore, to what extent blockchain could enable the very activities it is intended to thwart. It is also down to the timeless race: who will be first to adapt new technologies to their advantage – the good guys or the bad guys? These are considerations to scrutinise when developing the technology itself, as well as the norms and legal framework needed to advance the progress of blockchain in the intellectual property space.

3. AUGMENTED AND VIRTUAL REALITIES

Like blockchain, augmented reality and virtual reality are new technologies that have entered the commercial mainstream but have been largely unexamined by the courts. Augmented reality refers to technology which provides an overlay of information onto the physical world, whereas virtual reality technology transports users into an interactive, simulated environment.³¹ Both technologies pose similar issues for intellectual property rights in the way they display and sometimes transform trademarks or copyright protected works.³²

²⁶ Gibraltar Gazette, 'Financial Services (Distributed Ledger Technology Providers) Regulations 2017' (Legal Notice no 204 of 2017, No 4401).

²⁷ *ibid* Schedule 2.

²⁸ Dr Henry Franks (personal communication, 31 January 2017).

²⁹ *ibid*.

³⁰ Intellectual Property Office, 'Share and Share Alike – The Challenges from Social Media for Intellectual Property Rights' (August 2017) 58.

³¹ Franziska Roesner, 'Augmented Reality: Hard Problems of Law and Policy' (2014) ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '14) Adjunct Publication 1283–88.

³² *ibid*.

In the copyright context, augmented reality creates novel issues with respect to derivative works. As Lemley and Volokh point out, when an augmented reality application applies filters which change the appearance of copyright works, or visually overlays and combines a copyright work with another protected work physically before a user, it creates a potentially infringing derivative work.³³ For instance, players of the popular augmented reality game Pokémon Go could potentially create an infringing derivative work when they place a virtual Pokémon character in a work of art in a museum or gallery.³⁴ While these works are transitory in nature, some courts in the United States have found temporary modifications of copyright works to be infringing in the context of video games.³⁵

Virtual or augmented reality applications may display third party trademarks in different contexts. For instance, augmented reality has allowed the creation of new forms of advertising whereby adverts are digitally imposed over preexisting physical ones, such as in TV broadcasts of sports games or through the use of mobile devices where physical billboards are replaced with other images.³⁶ Similar potential exists when adverts of one company are layered over, or displayed next to, a competitor's physical adverts.³⁷

As Ariane Takano points out, this could amount to trademark dilution, as a company could be using a competitor's mark to identify its own goods or services, rather than in a purely nominative sense.³⁸ Depending on how the adverts are displayed, this could also confuse customers into thinking that a relationship exists between the two companies, giving rise to trademark infringement and unfair competition issues, as well as potential concerns over the scope of comparative advertising in this new context.³⁹

Further complications may also arise, especially in the form of reputational concerns, where a third party trademark is manipulated in some way. In the wake of the BP Deepwater Horizon oil spill, an augmented reality smartphone app was created which altered the appearance of BP's logo. Upon pointing at the logo of a BP petrol station, an app user would see a digital image of a leaking oil pipe, serving as a reminder of the disaster.⁴⁰ This demonstrates how augmented reality technology can turn physical trademarks into mediums for digital expression, with clear reputational effects on brand owners.⁴¹ In this particular instance, a trademark infringement claim would be challenging: the app is noncommercial, and it is thus unlikely that the mark would have been used in commerce in US law,⁴² or in the course of trade in

³³ Mark A Lemley and Eugene Volokh, 'Law, Virtual Reality, and Augmented Reality' (2018) 166 U Pa L Rev 160.

³⁴ *ibid.* See also Rebecca Hawkes, 'Pokémon Go Highbrow: How to Find Them in Art Galleries, Theatres and Museums' (*The Telegraph*, 21 July 2016).

³⁵ *ibid.* 161.

³⁶ Brian Wassom, *Augmented Reality Law, Privacy and Ethics* (1st edn, Elsevier 2014) 118.

³⁷ *ibid.* 120.

³⁸ Ariane Takano, 'Diluted Reality: The Intersection of Augmented Reality and Trademark Dilution' (2017) 17 Chi Kent J Intell Prop 189, 205–06.

³⁹ *ibid.*

⁴⁰ Trevor Little, 'Pokémon GO Illustrates the Power of AR: What It Means for Trademark Counsel' (*World Trademark Review*, 20 September 2016) <<https://www.worldtrademarkreview.com/brand-management/pokemon-go-illustrates-power-ar-what-it-means-trademark-counsel>> accessed 13 October 2019. See also Takano (n 38) 210 and Wassom (n 36) 123.

⁴¹ Takano (n 38) 210. See also Little (n 40).

⁴² 15 USC §1125(c)(1).

EU law.⁴³ Furthermore, there could be countervailing interests of freedom of expression and parody which would protect this form of noncommercial use.⁴⁴ However, it is easy to imagine an alternative scenario in which commercial augmented reality apps could combine critical commentary with suggestions of competing products.

If anything, the augmented and virtual reality spaces are ripe for the creation of not only practical guidelines but also new legal norms.

4. SOCIAL MEDIA TOOLS

Identifying the high-risk environments for counterfeiting is paramount in achieving effective enforcement. A specific example of an online arena where enforcement technologies could be welcomed is social media. The reach and connectivity of platforms such as Facebook, Twitter and Instagram show potential for positive promotion of intellectual property rights and education of users on the problems of counterfeiting. However, in recent years various social media platforms have become hubs for the illegal sale of counterfeits.⁴⁵

Counterfeiters are benefiting from easy connectivity to potentially complicit consumers through open and closed groups, likes and retweets and flagrant advertising in the comments of brands' own social media pages.⁴⁶ Social media offers low barriers to entry for counterfeiters and makes it easy to put up and take down content very quickly. These pirates operate laterally across the pages of multiple brands at a large scale. For example, during one two week period, one pirate posted 114 comments advertising counterfeit goods on the official Instagram accounts of multiple internationally famous brands.⁴⁷

This exposure results in traffic being diverted to rogue online platforms selling counterfeits. Legitimate brands suffer not only from lost sales but also from serious reputational harm when their own social media pages are flooded with illegitimate advertising, and when customers get tricked into buying fake products.⁴⁸ Negative reputational effects are perpetuated when these disgruntled customers post damaging remarks on the brands' original pages.⁴⁹ Beyond public pages, counterfeiters have also turned to closed groups of platforms, and research has demonstrated that infringements are five times more likely in closed than in open groups.⁵⁰ This is problematic, especially given that right holders may often be excluded from these groups, and cannot avail themselves of, for example, any notice and takedown procedure.

As a result, there have been calls for increased efforts by platforms to facilitate their takedown policies, and to implement more proactive, as opposed to reactive, measures.⁵¹ In response, social media platforms have argued that the intellectual property system in the United Kingdom is fragmented, and enforcement is further complicated by the systems across

⁴³ Trade Marks Act 1994, s 10.

⁴⁴ Takano (n 38) 210–11.

⁴⁵ Mostert (n 2) 4.

⁴⁶ Intellectual Property Office (n 30) 7.

⁴⁷ Mostert (n 2) 4.

⁴⁸ *ibid.*

⁴⁹ *ibid.*

⁵⁰ Intellectual Property Office (n 30) 56.

⁵¹ *ibid.* 55.

150 other countries.⁵² The result has been a climate of distrust and a lack of collaboration between platforms and right holders.⁵³ As on other ecommerce platforms, notice and takedown procedures exist on social media platforms. As such, many of the legal implications involved in notice and takedown apply.

As has been noted in the context of ecommerce platforms, a *ius gentium* of common principles has emerged in relation to voluntary measures to address online counterfeiting.⁵⁴ A positive development could be for social media platforms to align themselves with these principles. For instance, social media platforms could voluntarily monitor public pages using key words and other indicia to flag questionable posts for review. Additionally, filtering systems that use machine learning and algorithms to automatically remove and prevent counterfeit listings could be employed.⁵⁵ This should be balanced by effective counternotice procedures and mechanisms to check the accuracy of algorithms such as human review through random sampling.⁵⁶ However, significant concern centres on micro and SME social media platforms which do not have the financial and technical resources to implement proactive monitoring. This issue was highlighted in an analogous context by the Supreme Court of the United Kingdom in *Cartier*.⁵⁷ The answer may lie in the ‘reasonable measures’ standard coined by Judge Sullivan in *Tiffany v eBay*, an inherently flexible standard that can be tailored to the specific parties in question.⁵⁸

However, tackling counterfeit sales which occur in closed social media groups presents a greater challenge. The private nature of the communications which occur in closed groups makes external scrutiny and enforcement efforts challenging and resource intensive.⁵⁹ Furthermore, unlike the deceptive nature of counterfeit sales which occur on public pages through brand impersonation, consumers in closed groups are five times more likely to knowingly purchase counterfeits.⁶⁰ In light of this, the UK Intellectual Property Office has suggested that new strategies be developed to disrupt the demand for counterfeits on social media, rather than focusing on supply.⁶¹ Yet, beyond price, there is little research on the drivers behind the demand for counterfeits and their social acceptance.⁶² In the analogous context of copyright infringement, the existing literature suggests that such demand could be fuelled by a perceived lack of harm caused by infringement and negative perceptions of right holders.⁶³ Should similar reasons be at play, a potential avenue to explore could be for right holders to employ

⁵² *ibid.*

⁵³ *ibid.*

⁵⁴ Mostert (n 2) 6.

⁵⁵ *ibid.*

⁵⁶ See text to n 175.

⁵⁷ *Cartier International AG & Ors v British Telecommunications Plc & Anor* [2018] UKSC 28 [33] (Lord Sumption) ‘In English law, the starting point is the intermediary’s legal innocence . . . There is no legal basis for requiring a party to shoulder the burden of remedying an injustice if he has no legal responsibility for the infringement.’

⁵⁸ Mostert (n 2) 16.

⁵⁹ Intellectual Property Office (n 30) 30.

⁶⁰ *ibid.* 5.

⁶¹ *ibid.* 54.

⁶² *ibid.* 18.

⁶³ Sabesh Asokan, ‘Demystifying the “Honest” Infringer: Reorienting Our Approach to Online Copyright Infringement Using Behavioural Economics’ [2018] 13(9) *JIPLP* 729.

community-building strategies to bridge the disconnect between consumers who deliberately purchase counterfeits and the creators they harm.⁶⁴

Clearly, there is a pressing need for the development of new legal norms in the area of social media tools.

5. BLACKLISTING AND WHITELISTING

Voluntary monitoring and enforcement of infringing activity is onerous given the volume of potential counterfeiters and pirates in the digital space, including across domain name registries, websites and ecommerce platforms. To facilitate the identification and swift removal of unlawful content, online actors involved in enforcement have developed blacklists and whitelists to catalogue both repeat offenders and legitimate vendors, respectively.

Blacklisting refers to the process of listing repeat offenders and their internet addresses, which are then shared between law enforcement authorities, right holders, platforms, domain name registrars and trademark registries.⁶⁵ For example, the New York Police Department led by former New York Police Commissioner Raymond Kelly demonstrated how successful blacklisting works in practice when sharing information on counterfeit sources which lead to counterfeit crime groups.⁶⁶ Similarly, in China, legislation has been introduced to blacklist businesses which have been engaged in anticompetitive behaviour or had their trademarks successfully opposed or revoked more than a certain number of times.⁶⁷ In principle, blacklisting could be used to target not just counterfeiters, but also overreaching right holders who are using the trade mark system abusively. As has been noted, ‘it is important that safeguards are in place to prevent misuse of trademark law to restrict lawful competition from non-preferred resellers of genuine products, and to control distribution channels’.⁶⁸

Beyond blacklists maintained by law enforcement and state entities, some online platforms have voluntarily introduced blacklists to combat the sale of counterfeits. For instance, Alibaba has employed big data technology to scan all of its platforms, and accounts identified as creating fake storefronts to sell suspicious goods are blacklisted and subjected to a range of contractual sanctions.⁶⁹

While blacklisting and whitelisting could, especially with the use of sophisticated digital fingerprinting and automation technologies, significantly speed up recognition, prevention and taking down of counterfeit vendors, there may be implications for data protection law, competition and the potential abuse of listings.⁷⁰

Blacklists typically record individuals’ details and identify them in connection to specific situations and facts. In the context of EU data protection law, the limits of what constitutes per-

⁶⁴ cf *ibid* 12.

⁶⁵ Mostert (n 2) 33.

⁶⁶ *ibid*.

⁶⁷ Wanhuida Peksung, ‘SAIC to Blacklist Businesses for Serious Trademark and Unfair Competition Law Violations’ (*Lexology*, 31 October 2016) <www.lexology.com/library/detail.aspx?g=369960af-6fb4-47b7-96e0-8375dc43aba1> accessed 13 October 2019.

⁶⁸ Mostert (n 2) 13.

⁶⁹ Mostert (n 2) 34.

⁷⁰ Article 29 Working Party on Data Protection, ‘Working Document on Blacklists’ (2002) 11118 final WP 65 6.

sonal data are wide, and can include information such as IP addresses.⁷¹ Therefore, platforms that keep blacklists containing information about alleged counterfeit vendors are regarded as processing personal data and are subject to obligations under the EU General Data Protection Regulation (GDPR).⁷²

Compliance with the GDPR requires information to be kept up to date and accurate,⁷³ and for it to be ensured that the information is erased when it is no longer necessary for the purpose for which it was compiled.⁷⁴ While data protection authorities have found the collection and processing of personal data on ‘undesirable customers’ in supermarkets by private companies impermissible,⁷⁵ counterfeiting is a starkly different situation as it often involves criminal activity. Under the GDPR, member states may restrict some of the data protection obligations and rights under the regulation to safeguard the prevention, investigation, detection or prosecution of criminal offences.⁷⁶ This includes processing of personal data carried out by private bodies.⁷⁷ Such derogation has been transposed, for example, in the United Kingdom, albeit under the EU Data Protection Directive, in the UK Data Protection Act.⁷⁸ It is suggested that maintaining blacklists to tackle intellectual property offences would fall within the scope of this derogation.

A further consideration relevant to blacklisting is the GDPR provisions on automated decision making. Article 22 prohibits individuals from being subject to decisions based solely on automated processing of data, where those decisions produce legal effects concerning them or significantly affecting them.⁷⁹ Therefore, where blacklists affect a potential vendor without human intervention, platforms should introduce straightforward mechanisms for vendors to challenge such decisions and request human review. These mechanisms could help platforms comply with their data protection obligations and minimise the risk of inaccurate listings. Given the importance of human oversight over anticounterfeiting initiatives, it is heartening that companies are taking steps to hire the required personnel.⁸⁰

Whitelisting has been proposed to facilitate the authentication of individual vendors,⁸¹ and has already been employed by major platforms. For example, Amazon uses a Brand Registry programme which allows brand owners to control which sellers are able to list their products, while ensuring stronger due diligence on sellers before they are permitted to list a registered

⁷¹ Case C-582/14 *Patrick Breyer v Bundesrepublik Deutschland* [2016] ECLI:EU:C:2016:779.

⁷² Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

⁷³ General Data Protection Regulation, art 5(1)(d).

⁷⁴ *ibid.*

⁷⁵ Article 29 Working Party on Data Protection (n 70), 6.

⁷⁶ General Data Protection Regulation, art 23(1)(d).

⁷⁷ *ibid* Recital 19.

⁷⁸ Data Protection Act 1998, s 29.

⁷⁹ General Data Protection Regulation, art 22.

⁸⁰ For instance, Alibaba employs 2,000 permanent staff and 5,000 volunteers in its anticounterfeiting activities. Jim Erickson, ‘The Latest in Alibaba’s War on Counterfeits’ (Alizila, 30 January 2015) <www.alizila.com/the-latest-in-alibabas-war-on-counterfeits-2/> accessed 13 October 2019.

⁸¹ Mostert (n 2) 34.

brand.⁸² Similarly, eBay has introduced a Verified Rights Owner (VeRO) programme,⁸³ which lists participating brands, to facilitate the authentication of goods and expedite the notice and takedown processes. Alibaba has developed a comprehensive online rating system to regulate sellers. The system is powered by Alibaba's data-processing engine and users are evaluated based on the following metrics, among others: identity verification results, user credibility assessment, compliance with platform policies, penalty records, positive user behaviour and collaboration efforts. This rating system enables Alibaba to enforce its rules and policies in a more targeted manner against counterfeit merchants, hence optimising overall governance efficiency.⁸⁴

In terms of whitelisting of authorised vendors, platforms must ensure that they are not subject to abuse. A 'positive' database of this kind may nonetheless have the effect of positive discrimination, in that anyone on the list is good, whereas anyone not on the list may be suspect.⁸⁵ Therefore, whitelisting should only be used as a reference point, so as not to deter new entries into the marketplace. Presumably in response to this concern, eBay has specified that its VeRO notice procedure may only be used to submit claims of alleged intellectual property infringements, but not by right holders to eliminate competition by alleging violations of selective distribution agreements, for example.⁸⁶ Ultimately, whitelisting in this manner should serve as a checklist of authentic versus counterfeit for platforms, domain name registrars, law enforcement and administrative authorities, and should not be used to distort competition, control distribution or interfere with the sale of genuine or grey goods.⁸⁷

De facto norms, as can be observed, have already emerged in the context of blacklisting and whitelisting.

6. FOLLOW-THE-MONEY TOOLS

Follow-the-money tools involve the introduction of measures to target payment processors for online counterfeit vendors.⁸⁸ The sale of counterfeits is lucrative, given that production requires no major investment and minimal risks compared to those faced by legitimate businesses and entrepreneurs.⁸⁹ All of this often depends on services provided by payment processors such as credit card companies and money transfer entities, resulting in the engagement of companies like Mastercard and Visa to fight against counterfeit sales by cutting off their revenue stream.⁹⁰ In recognition of this, a voluntary best practice agreement was formed by major payment pro-

⁸² *ibid* 20.

⁸³ eBay, 'Verified Rights Owner Program', <http://pages.ebay.com/seller-center/listing/create-effective-listings/vero-program.html#m22_tb_a1__9> accessed 13 October 2019.

⁸⁴ Mostert (n 2) 10.

⁸⁵ Article 29 Working Party on Data Protection (n 70) 4.

⁸⁶ eBay (n 83).

⁸⁷ Mostert (n 2) 34.

⁸⁸ Mostert (n 2) 10.

⁸⁹ The Office of the Intellectual Property Enforcement Coordinator, 'US Joint Strategic Plan on IP Enforcement' (FY2017–2019) <www.whitehouse.gov/sites/whitehouse.gov/files/omb/IPEC/2016jointstrategicplan.pdf> 61 accessed 13 October 2019.

⁹⁰ Giancarlo F Frosio, 'Why Keep a Dog and Bark Yourself? From Intermediary Liability to Responsibility' (2017) 26(1) IJLIT 27.

cessors and 31 right holders, and implemented by the launch of a payment processor initiative run by the International AntiCounterfeiting Coalition.⁹¹ The initiative created a simplified procedure to report counterfeit goods directly to payment providers, terminate the payment services to the rogue sellers, thus offering a cost efficient tool for rightsholders for online IP enforcement.⁹²

More recently, the US government, in its Joint Strategic Plan for Intellectual Property Enforcement, explicitly identified ‘follow the money’ as its first method by which to curb online counterfeiting.⁹³ According to the plan, counterfeit revenue should be cut off through voluntary collaboration measures between payment processors, advertisers and the banking sector.⁹⁴ The government’s recommended actions were as follows: to support efforts to enhance payment processor voluntary initiatives;⁹⁵ to encourage enhanced transparency in the operation of voluntary initiatives;⁹⁶ and to encourage benchmarking studies to strengthen best-practice initiatives.⁹⁷

The European Commission has also endorsed ‘follow the money’ in its communication ‘Towards a Modern, More European Copyright Framework’.⁹⁸ The action proposed by the Commission is to employ the mechanisms with all parties concerned, based initially on a self-regulatory approach but backed by legislation if required, to ensure their effectiveness.⁹⁹ In response, the Commission has agreed on the Guiding Principles for a ‘Stakeholders Voluntary Agreement on Online Advertising and IPR’.¹⁰⁰ The principles aim to dissuade the placement of advertising on IP infringing websites, and include commitments for signatories directly involved in the sale of advertising space to include safeguards in their contractual agreements, such as content verification tools.¹⁰¹ These measures again reflect the shift into voluntary enforcement of intellectual property rights by intermediaries, essentially delegating ‘online enforcement to algorithmic tools’, posing risks regarding due process, accountability and unintended legal norm setting.

7. DOMAIN NAME TOOLS

A continuing challenge in the online arena is the ease with which counterfeiters and pirates can register website domains for illegal trade. Illicit websites are suspended and removed through collaborations between law enforcement agencies and industry. Counterfeiters, however, are able to circumvent this obstacle by swiftly registering new domains, often under false

⁹¹ *ibid.*

⁹² International AntiCounterfeiting Coalition, ‘IACC RogueBlock’ (IACC, 2015) <www.iacc.org/online-initiatives/rogueblock> accessed 13 October 2019.

⁹³ The Office of the Intellectual Property Enforcement Coordinator (n 89) 63.

⁹⁴ *ibid.*

⁹⁵ *ibid* Action 2.1.

⁹⁶ *ibid* Action 2.2.

⁹⁷ *ibid* Action 2.3.

⁹⁸ Commission, ‘Towards a modern, more European copyright framework’ (Communication) COM (2015) 626 final 11.

⁹⁹ *ibid.*

¹⁰⁰ Frosio (n 90) 27.

¹⁰¹ Commission, ‘The Follow the Money Approach to IPR Enforcement – Stakeholders’ Voluntary Agreement on Online Advertising and IPR’ COM Ares (2016) 6107273.

registrant information.¹⁰² As a result, proposals have emerged to engage domain name system (DNS) operators at a global scale to prevent the registration of domain names by counterfeiters. However, as with other notice and takedown procedures, certain legal implications arise from restricting access to online content.

A type of notice and takedown system for domain names has been implemented in the context of copyright infringements, in a form of voluntary self-governance entitled the ‘trusted notifier’ programme.¹⁰³ The DNS operators involved in the programme receive takedown notices and those submitted by the Motion Picture Association of America are given a presumption of credibility, and are processed on an expedited basis.¹⁰⁴ The registry is then given discretion to suspend or terminate the domain, or to place it on registry lock, hold or similar status.¹⁰⁵ While the system is currently limited to online copyright infringements, it is designed to flexibly address a wide range of illegal or abusive activity.¹⁰⁶ Indeed, its application has been proposed in the realm of the online sale of counterfeit goods,¹⁰⁷ where the domains of websites selling counterfeits could be suspended upon valid notification. There has been a further proposal to create an online ‘opt out’ database which would maintain a whitelist of authenticated details of registrants. If an attempted registrant has opted out of the database, the registration would be locked or terminated, with the ultimate effect of preventing illegitimate registrations of domain names signalling unlawful activity on the website.¹⁰⁸

From the right holders’ perspective, engaging the domain name registries would be an efficient way to address the ‘whack a mole’ issue where, when a webpage is taken down, another online listing usually pops up under a different webpage almost instantly as the infringers themselves evade identification. However, for registrants and internet users, the blocking of access to entire websites would raise issues of transparency, fair process and freedom of expression.¹⁰⁹ The legal determination of content behind a domain name is left to the notifier and may be questionable. The cost of making an error in overblocking is low for intermediaries because they may be shielded from liability to their customers through disclaimers.¹¹⁰

However, without any counternotice procedure, the impacts on innocent businesses could be irreparable.¹¹¹ Furthermore, there is evidence that some notifiers given ‘trusted’ status in the copyright context have engaged in takedown practices that suggest intentional abuse.¹¹² Abuse of notice and takedown systems, under DNS or through platforms, is also obviously undesirable in the counterfeit and piracy prevention context, and should be addressed by intermediaries to avoid anticompetitive effects. In this regard, Urban, Karaganis and Schofield have laid out an excellent series of best practices which intermediaries could adopt to prevent

¹⁰² Mostert (n 2) 31.

¹⁰³ Annemarie Bridy, ‘Notice and Takedown in the Domain Name System: ICANN’s Ambivalent Drift into Online Content Regulation’ (2017) 74 Wash & Lee L Rev 1343, 1348.

¹⁰⁴ Mostert (n 2) 11.

¹⁰⁵ Bridy (n 103) 1375.

¹⁰⁶ *ibid.*

¹⁰⁷ Mostert (n 2).

¹⁰⁸ *ibid.*

¹⁰⁹ Bridy (n 103) 1380.

¹¹⁰ *ibid.* 1382.

¹¹¹ *ibid.*

¹¹² *ibid.* 1381.

abuse.¹¹³ These include subjecting random samples of notices to human review, making certain that trusted notifier systems require formal DMCA notices to be submitted, identification of the infringed work and notifying the target of the takedown request.¹¹⁴ A balanced approach to norm setting in the area of domain name tools is accordingly desirable.

8. SEARCH ENGINE DEINDEXING

Deindexing search results, or ‘online search manipulation’,¹¹⁵ refers to the practice of removing allegedly unlawful content from search results that is undertaken by online search engines and ecommerce platforms.¹¹⁶ This reduces the visibility of infringing content, deterring access and reducing advertising revenue, as fewer users are able to discover the page and click on advertisements.¹¹⁷

In the realm of trademark infringements and counterfeits, deindexing has been described as an ‘important weapon in the armoury of a trademark owner’.¹¹⁸ This is because consumers often find websites selling counterfeits through conducting searches online, and deindexing stops links to counterfeit sites appearing. While the counterfeit website can still be accessed using its URL or through third party links,¹¹⁹ removing the search result makes it more difficult for a consumer to access the website.

In this context, a balance must be achieved between the interests of right holders and the relevant freedoms on the internet, especially where the delisting occurs on a global scale.

Historically, search engine providers have been reluctant to deindex entire websites without a court mandated injunction. Additionally, the scope of these injunctions has been limited to the jurisdiction in which the injunction was sought.¹²⁰ However, in *Google v Equustek*,¹²¹ a worldwide injunction was successfully obtained against Google to deindex websites selling counterfeits.

In *Equustek*, a small technology company based in British Columbia had brought proceedings and obtained injunctions to prevent another company, Datalink, from distributing Equustek’s products and passing them off as its own. Despite the proceedings and warrant for the arrest of the company’s principal, Datalink continued to sell the counterfeit products online.

¹¹³ Jennifer M Urban, Joe Karaganis and Brianna L Schofield, ‘Notice and Takedown in Everyday Practice’ (2017) UC Berkeley Public Law Research Paper No 2755628 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2755628> accessed 13 October 2019.

¹¹⁴ *ibid* 136.

¹¹⁵ Frosio (n 90) 27.

¹¹⁶ eBay (n 83).

¹¹⁷ *ibid*. See also Intellectual Property Office, ‘Search Engines and Creative Industries Sign Anti-Piracy Agreement’ (*gov.uk Press Release*, 20 February 2017) <www.gov.uk/government/news/search-engines-and-creative-industries-sign-anti-piracy-agreement> accessed 13 October 2019.

¹¹⁸ *Cartier International AG & Ors v British Sky Broadcasting Ltd & Ors* [2014] EWHC 3354 (Ch) [211].

¹¹⁹ *ibid* [214].

¹²⁰ Case C-131/12 *Google Spain SL and Google Inc. v AEPD and Mario Costeja González* [2014] EU:C:2014:317.

¹²¹ SCC 34 [2017].

Equustek sought an interlocutory injunction to enjoin Google from displaying Datalink websites on any Google search results worldwide.¹²² The injunction was granted at first instance,¹²³ and upheld by the Court of Appeal of British Columbia.¹²⁴ The Court of Appeal concluded that there were no identifiable countervailing comity or freedom of expression concerns that would prevent the injunction from being granted.¹²⁵

Google appealed to the Supreme Court, arguing that the injunction was neither necessary nor effective in preventing the irreparable harm. In addition, it argued that granting the injunction would unduly limit freedom of expression, and, further, as a nonparty, it should be immune from the injunction.¹²⁶

The Supreme Court held that the injunction was necessary for Google to help prevent the ongoing harm to Equustek and would have to apply worldwide for it to be effective.¹²⁷ In terms of comity, the Supreme Court held that it was a 'theoretical' concern,¹²⁸ and that Google would have to provide evidence that the injunction would require it to violate the laws of another jurisdiction for the order to be varied.¹²⁹ In addition, the court held that facilitating the unlawful sale of goods was not protected by the right to free expression. Furthermore, the court was confident that this notion was universal and unlikely to offend the 'core values of any nation'.¹³⁰

This confidence was misplaced. In the United States, the District Court of California, San Jose Division held that by forcing intermediaries to remove links to third party material, the Canadian decision violated principles of international comity and threatened free speech on the global internet.¹³¹ In addition, it found that Google was not a publisher and enjoyed immunity as an interactive service provider under section 230 of the Communications Decency Act.¹³²

Some have argued that it is somewhat counterintuitive for Google to insist that it is not a publisher of information, while simultaneously claiming that it has the freedom to express certain information. It is also argued that it is well established that deceptive speech is not considered to be protected speech under the First Amendment.¹³³

In the European context, it has been argued that the right to freedom of expression protected in the European Convention on Human Rights includes the 'right to receive and impart information and ideas'. This suggests that delisting results could interfere with internet users' right to find and access information.¹³⁴ However, in the context of privacy injunctions under *Google Spain*, the Article 29 Working Party has stated that delisting would have a limited impact

¹²² *ibid* [17] (Abella J).

¹²³ *Google Inc. v Equustek Solutions Inc.* [2014] 374 DLR (4th) 537 (BCSC) (Fenlon J).

¹²⁴ *Google Inc. v Equustek Solutions Inc.* [2015] 374 386 DLR (4th) 224 (Groberman JA).

¹²⁵ *ibid*.

¹²⁶ *Google* (n 124) [27].

¹²⁷ *ibid* [41].

¹²⁸ *ibid* [44].

¹²⁹ *ibid* [46].

¹³⁰ *ibid* [45].

¹³¹ *ibid*.

¹³² *Google LLC v Equustek Solutions Inc.* 2017 WL 5000834 (ND Cal 2 November 2017).

¹³³ Counterfeits as a form of deception qualifies as 'deceptive speech' which the US Supreme Court has earmarked as unprotected speech under the First Amendment. See *Friedman v Rogers* 440 U.S. 1 (1979).

¹³⁴ *ibid*.

on freedom of expression and access to information.¹³⁵ It is suggested that delisting forms of deceptive speech such as counterfeit listings would have a similarly limited impact on these rights.

Across jurisdictions, the existing case law demonstrates that there are legitimate reasons to globally delist entire webpages. For right holders, global deindexing of webpages would provide a powerful avenue to combat counterfeits online. Major search engines have already developed the requisite technology to carry out deindexing, and offer a voluntary notice and takedown service to remove other types of harmful content.¹³⁶

However, this must be balanced by safeguards which prevent abuse or overblocking of information. In practice terms, an important safeguard could be the inclusion of a threshold condition requiring the court to examine whether granting a global deindexing order would antagonise the law of any jurisdiction whose citizens the order could affect.¹³⁷ The court would then proceed to carefully weigh and balance the competing legitimate interests at play using the definitional balancing principles devised by the inimitable Professor Mel Nimmer.¹³⁸ In this way, the right normative balance can be struck between the need to eradicate online counterfeiting and protecting fundamental rights on the internet. Nevertheless, it is clear that further development of legal norms in the area of deindexing is crucial.

9. HACK BACK AND ACTIVE DEFENCE

Hack back, or ‘active defence’,¹³⁹ has been recognised as a method through which to strike counterfeiting at its source.¹⁴⁰ While technologies like blockchain facilitate identifying authentic goods from counterfeits, hack back is a more proactive measure employed to retrieve stolen knowhow used in the creation of counterfeits. Preventing access to information required to create illegal goods from the outset would limit their proliferation. However, controversy over the legality and consequences of private retaliatory hacking challenges the current potential of hack back as a viable solution.

There is a worrying convergence between hacking to steal information and counterfeiting: in the United States alone, an estimated \$300 billion worth of US intellectual property is stolen each year,¹⁴¹ including that stolen by hackers illegally accessing right holders’ computer systems and stealing data. More traditional methods such as cease and desist letters,¹⁴² or even the involvement of law enforcement, may not be satisfactory to mitigate the consequences of intellectual property theft, given the velocity at which the theft of valuable information

¹³⁵ Article 29 Data Protection Working Party, ‘Guidelines on the Implementation of the CJEU Judgment on “Google Spain and Inc. v AEPD and Mario Costeja Gonzalez” C-131/12’ 14/EN WP 225 (26 November 2014) 2.

¹³⁶ Brief of Intervenor Electronic Frontier Foundation, Google (n 120) 6.

¹³⁷ Brief of Intervenor Electronic Frontier Foundation, Google (n 120) 6.

¹³⁸ Melville B. Nimmer, ‘Does Copyright Abridge the First Amendment Guarantees of Free Speech and Press?’ (1970) 69 17 UCLA L REV 1180, 1184–93.

¹³⁹ HR 4036 Active Cyber Defense Certainty Act.

¹⁴⁰ Frederick Mostert and Lianna Chan, ‘Hacked Off: Protecting Intellectual Property Online’ (2014) Intellectual Property Magazine 33.

¹⁴¹ *ibid.*

¹⁴² *ibid.*

occurs.¹⁴³ In response, there have been calls to allow right holders to actively defend themselves by hacking back into the intruder's network to retrieve stolen information or potentially even disable the intruder's computer or network.¹⁴⁴

One of the reasons why hacking back has not actively been employed as a form of defence for private companies and right holders is its lack of legal basis. In Germany, for example, hack back is illegal under section 202a of the German Criminal Code.¹⁴⁵ Retaliatory measures appear to have gained more traction in the United States, where the Commission on the Theft of American Intellectual Property explicitly put forward a measure to support American companies and technologies to identify and recover intellectual property stolen through cyber means.¹⁴⁶ Despite pushing for more aggressive measures, the Commission refrained from recommending specific revised laws to accommodate hack back.¹⁴⁷

Analogies for the legal basis for cyber retaliation have been drawn from traditional principles of necessity or self-defence.¹⁴⁸ For example, Volokh has argued that the common law defence of property defence could be applied to allow hacking back,¹⁴⁹ despite the lack of explicit defences or exemptions in the Computer Fraud and Abuse Act (CFAA) – the US legislation governing hacking which prohibits access to another's computer 'without authorization'.¹⁵⁰

Perhaps the most vocal proponent of hacking back has been Stewart Baker, the former General Counsel of the NSA in the United States. In Baker's view, delegating the task of fighting online threats to law enforcement agencies is inefficient and, as in the physical world, there should exist in the cyber sphere 'intermediate authorities between ordinary civilians hunkering down behind their firewalls and the police'.¹⁵¹ Baker posits that the current US law on hacking permits an interpretation that allows for hacking back.¹⁵² One of Baker's arguments is that since 'authorisation' has not been defined by the legislature, it could be construed as determined solely by title to the (stolen) data on the hacker's computer.¹⁵³

On the other hand, Orin Kerr submits that the statute is clear in its prohibition, and it protects access to computers, not access to stolen data.¹⁵⁴ For Kerr, Baker's interpretation would allow, in an overinclusive manner, any victim with a good faith belief that they can identify the perpetrator and minimise losses to gain requisite authorisation to hack back.¹⁵⁵ However,

¹⁴³ The IP Commission Report, 'The Report of the Commission on the Theft of American Intellectual Property' (May 2013) 81 <www.ipcommission.org/report/ip_commission_report_052213.pdf> accessed 13 October 2019.

¹⁴⁴ *ibid.*

¹⁴⁵ Paul Rosenzweig, 'International Law and Private Actor Active Cyber Defensive Measures' (2014) 50 *Stan J Int'l L* 103, 114.

¹⁴⁶ IP Commission Report (n 143).

¹⁴⁷ *ibid.* 81.

¹⁴⁸ Mostert (n 2).

¹⁴⁹ Anthony D Glosston, 'Active Defense: An Overview of the Debate and a Way Forward' (2015) Mercatus Working Paper, 12.

¹⁵⁰ Computer Fraud and Abuse Act, 18 USC § 1030 (2012).

¹⁵¹ Josephine Wolf, 'When Companies Get Hacked, Should They Be Allowed to Hack Back?' (*The Atlantic*, 14 July 2017) <www.theatlantic.com/business/archive/2017/07/hacking-back-active-defense/533679/> accessed 13 October 2019.

¹⁵² Steptoe & Johnson LLP, 'The Hackback Debate' (*Steptoe Cyberblog*, 2 November 2012) <www.steptoecyberblog.com/2012/11/02/the-hackback-debate/> accessed 13 October 2019.

¹⁵³ *ibid.*

¹⁵⁴ *ibid.*

¹⁵⁵ *ibid.*

both Baker and Kerr appear to recognise that there should be limitations, in that, for example, copyright holders would not be authorised to access a computer merely because it contains infringing information.¹⁵⁶

Beyond issues of legal basis, hacking back poses risks of collateral damage, for example at the identification stage, raising further issues of jurisdiction for claims by injured third parties.¹⁵⁷ Often these hacking scenarios will have an international element, and the international consequences of hacking back (should it become legal) would have to be considered.¹⁵⁸ Another speculated outcome is that privatised retaliation would result in ‘digital vigilantes’ and ‘electronic mob rule’.¹⁵⁹ Endorsements of private hacking back should be balanced with communication and collaboration with law enforcement.¹⁶⁰ To mitigate risks, public/private initiatives for hacking back to fight counterfeits have been proposed, in order to combine the specialised technology of the private sector and the enforcement and information of the public sector.¹⁶¹ Certain safeguards, such as establishing a special body to review hack back initiatives, have also been suggested, with a procedure to obtain permission to hack back subject to review of the accuracy of technology used, and to ascertain whether hack back is appropriate in a given situation.¹⁶²

At the time of writing, and since the Commission’s publication, a bipartisan bill – the Active Cyber Defense Certainty Act¹⁶³ – has been put forward in the United States Congress to amend the CFAA to allow for hacking back. The proposal consists of an addition to section 1030 stating that ‘it is a defense to a prosecution under this section that the conduct constituting the offense was an active cyber defense measure’.¹⁶⁴ The term ‘active cyber defense measure’ is defined as measures to access the computer of the attacker to establish attribution of the criminal activity, to disrupt the unauthorised activity or to monitor the behaviour of an attacker to develop future cyber defence techniques.¹⁶⁵ The defence measures do not, however, include conduct that destroys information that does not belong to the victim, causes physical or financial injury to another person, creates a threat to public health or safety or exceeds the level of activity required to allow for attribution of the origin of the persistent cyber intrusion.¹⁶⁶ To benefit from the exclusion, however, the ‘victim must notify the FBI National Cyber Investigative Joint Task Force prior to using the measure’.¹⁶⁷

The proposed bill could therefore provide an avenue for right holders to fight back and possibly – depending on whether the defence techniques in the bill permit it – to retrieve stolen information, with the positive impact in the intellectual property arena of limiting the proliferation of counterfeits. While the bill has been redrafted to include safeguards, such as the requirement to notify law enforcement, there are concerns that it would ignore the potential

¹⁵⁶ Glosson (n 149) 11.

¹⁵⁷ Mostert (n 2).

¹⁵⁸ Rosenzewig (n 145).

¹⁵⁹ Mostert (n 2).

¹⁶⁰ IP Commission (n 143).

¹⁶¹ Mostert (n 2).

¹⁶² *ibid.*

¹⁶³ HR 4036 Active Cyber Defense Certainty Act.

¹⁶⁴ *ibid* s 3(1).

¹⁶⁵ *ibid* s 3(2).

¹⁶⁶ *ibid* s 3(2)(B)(ii).

¹⁶⁷ *ibid* s 4(1).

consequences of private companies ‘doing it wrong’.¹⁶⁸ It remains to be seen whether hacking back, whether in its diluted or in its more destructive forms, will find legal backing elsewhere. Needless to say, the development of legal norms in the areas of hack back and active defence is paramount.

10. NOTICE AND TAKEDOWN

One of the most prevalent measures adopted by online platforms in intellectual property enforcement is the notice and takedown framework. Notice and takedown refers to procedures whereby a right holder notifies the platform of infringing activity and requests removal of the product offered for sale on the platform, usually by an independent vendor.¹⁶⁹

Despite the large number of successful takedowns,¹⁷⁰ concerns about effectiveness of notice and takedown procedures persist. Counterfeiters and pirates are becoming increasingly technologically savvy and are often able to restore goods and pages that have been taken down using a new location, leading to an interminable game of ‘whack a mole’.¹⁷¹ This makes it arduous for right holders to keep track of infringements and challenging for intermediaries to cope with increasing numbers of requests for takedowns.¹⁷²

In response, platforms are streamlining their processes for submitting takedown notices and employing technological tools to identify and remove illegitimate goods.¹⁷³ For instance, right holders with a proven track record of legitimate takedown requests are given a presumption of good faith, resulting in an accelerated takedown submission process.¹⁷⁴

Yet the turn towards streamlined and automated takedown processes has a ripple effect on the rights of individuals and platforms. As these measures are not subject to a specific regulatory framework, platforms are increasingly the ultimate arbiter over the legitimacy of online content, and make decisions through often opaque internal processes.¹⁷⁵ In effect, platforms act as enforcers of third party rights, and make delicate legal judgments about the legitimacy of online content – a phenomenon sometimes labelled the ‘privatization of the judiciary’.¹⁷⁶

In this context, concerns have been raised about the accuracy of automated systems and the risk that they could suppress legitimate speech and undermine due process.¹⁷⁷ For instance, Urban, Karaganis and Schofield found that about 30 per cent of automated copyright takedown

¹⁶⁸ Hannah Kuchler, ‘Push Back to Let Companies “Hack Back” after WannaCry’ (*Financial Times*, 22 May 2017) <www.ft.com/content/b5d1aa98-3cc9-11e7-821a-6027b8a20f23> accessed 13 October 2019.

¹⁶⁹ Knud Wallberg, ‘Notice and Takedown of Counterfeit Goods in the Digital Single Market: A Balancing of Fundamental Rights’ (2017) 12(1) *JiPLP* 923.

¹⁷⁰ Alibaba Group, ‘Re: 2016 Special301 Out-of-Cycle Review of Notorious Markets’ <https://www.alizila.com/wp-content/uploads/2016/10/P-Alibaba-Group-Comments-for-2016-Notorious-Markets-Report-2_FINAL_compressed.pdf?x95431> accessed 13 October 2019, 4.

¹⁷¹ Mostert (n 2) 7.

¹⁷² *ibid.*

¹⁷³ *ibid.*

¹⁷⁴ *ibid.*

¹⁷⁵ Wallberg (n 169) 924.

¹⁷⁶ *ibid.*

¹⁷⁷ Urban, Karaganis and Schofield (n 113) 3.

requests failed to accurately identify allegedly infringed works or material.¹⁷⁸ While the effects of automated takedown procedures on individual rights are ostensibly balanced by the existence of counternotice procedures, in practice these procedures are rarely used.¹⁷⁹

Rather than dismissing the potential of automated tools, the way forward could lie in establishing balanced normative standards for their use. These standards could emphasise the importance of protecting freedom of expression and due process by requiring the implementation of effective counternotice and putback procedures, enhanced mechanisms to check the accuracy of algorithms and more consistent human review.¹⁸⁰ In particular, where a high volume of notices makes human review of every notice impractical, automated systems could flag notices with questionable characteristics for review, such as notices from senders which are competitors of the target.¹⁸¹ Additionally, a random sample of notices should be routinely selected for review.¹⁸² This would be a step towards striking a proportionate balance between responding effectively to the volume and velocity of online infringement, and safeguarding core fundamental rights.

11. NOTICE AND STAYDOWN

One method to combat the effects of the ‘whack-a-mole’ pursuit of online counterfeiters has been the use of notice and staydown filtering procedures. Notice and staydown involves the online platform voluntarily taking down content and monitoring its own digital space for a specific period of time, looking for any subsequent reappearances of that content, which it will block again.¹⁸³ Notice and staydown has gained widespread support among right holders, and is sometimes viewed as a ‘magic wand’¹⁸⁴ solution for combatting counterfeits. Moreover, the European Commission has recently signalled support for this approach under the new Copyright in the Digital Single Market Directive (DSMD).¹⁸⁵ In effect, Article 17 DSMD requires ‘online content sharing service providers’ (OCSSPs) to implement a system of notice and staydown to remove infringing content.

However, for ISPs and platforms, it represents the ‘worst form of filtering systems’,¹⁸⁶ imposing costly burdens and risking the ‘automated quelling’¹⁸⁷ of user expression. As with notice and takedown, freedom of speech and access to information may be compromised, especially where lawful content is erroneously taken down.¹⁸⁸ Depending on how information is used to identify allegedly recurring infringing content, data protection rights may also

¹⁷⁸ *ibid* 2.

¹⁷⁹ *ibid* 44.

¹⁸⁰ *ibid* 3.

¹⁸¹ Urban, Karaganis and Schofield (n 113) 136–37.

¹⁸² *ibid*.

¹⁸³ Mostert (n 2) 8.

¹⁸⁴ *ibid*.

¹⁸⁵ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC [2019] OJ L130/92.

¹⁸⁶ Urban, Karaganis and Schofield (n 113) 60.

¹⁸⁷ *ibid*.

¹⁸⁸ Christina Angelopoulos, ‘Notice-and-Fair-Balance: How to Reach a Compromise between Fundamental Rights in European Intermediary Liability’ (2016) 8(2) *J Media Law* 266–301.

be implicated. Where notice and staydown involves systematic analysis of information, it could represent a ‘disproportionate interference’ with data protection rights.¹⁸⁹ Furthermore, introducing notice and staydown systems would impose significant burdens on small and medium-sized businesses, as they are less able to bear the technical costs involved.¹⁹⁰

While the practical outcome of notice and staydown is in similar to that of blocking injunctions sought against ISPs, blocking injunctions are far more targeted, focusing on specific URLs or IP addresses. Blocking injunctions also have a further safeguard of having a court carry out the necessary balancing act between different rights at stake,¹⁹¹ before ordering an ISP to block specific sites. A further distinction is in terms of costs: following the decision of the Supreme Court of the United Kingdom in *Cartier*,¹⁹² right holders bear the implementation costs of blocking injunctions, whereas notice and staydown systems have significant cost implications for intermediaries. Therefore, the breadth of the monitoring involved in notice and staydown and limited procedural safeguards presents a greater risk of antagonising data protection obligations and fundamental rights.

The initial legal response to notice and staydown was mixed. The French Cour de Cassation held that a judge-imposed requirement to prevent the reappearance of content that has already been removed would be equivalent to imposing a type of general monitoring obligation, contrary to Article 15 of the E-Commerce Directive.¹⁹³ Additionally, the Court of Justice of the European Union (CJEU) has held that a general monitoring obligation constitutes a disproportionate interference with the intermediaries’ and users’ fundamental rights.¹⁹⁴ Conversely, German courts demonstrated greater enthusiasm for notice and staydown, as evidenced in the *Rapidshare* case.¹⁹⁵ However, the CJEU has recently clarified that staydown obligations to remove identical or equivalent content do not violate the prohibition on general monitoring under Article 15 E-Commerce Directive.¹⁹⁶ This is aligned with the European Commission’s endorsement of notice and staydown under Article 17 DSMD.

On a normative level, while notice and staydown is attractive to right holders, it is difficult to implement in a manner proportionate with fundamental rights. Moreover, notice and staydown fails to address the core of the counterfeit problem – the counterfeiters

12. NOTICE AND TRACKDOWN

A further measure employed to address the source of online counterfeiting is notice and trackdown. Notice and trackdown involves the disclosure by intermediaries of the contact details of the online vendor of counterfeits, to assist the right holder in tracking the origin

¹⁸⁹ *ibid.*

¹⁹⁰ Mostert (n 2) 8.

¹⁹¹ See for example Case C-314/12 *UPC Telekabel Wien* ECLI:EU:C:2014:192 and Case C-275/06 *Promusicae* ECLI:EU:C:2008:54.

¹⁹² *Cartier International AG & Ors v British Telecommunications Plc & Anor* [2018] UKSC 28.

¹⁹³ *La société Google France c. la société Bach films* (L’affaire Clearstream) (2012) 11-13.669; *La société Google France c. La société Bac films* (Les dissimulateurs) (2012) 11-13666; *La société Google France c. André Rau* (Aufëminin) (2012) 11-15.165; 11-15.188.

¹⁹⁴ Case C-70/10 *Scarlet Extended v SABAM* ECLI:EU:C:2011:771.

¹⁹⁵ BGH *Rapidshare I* 2012 I ZR 18/11.

¹⁹⁶ Case C-18/18 *Eva Glawischnig-Piesczek v Facebook Ireland Ltd* ECLI:EU:C:2019:821.

of the counterfeits.¹⁹⁷ Notice and trackdown has recently been adopted in China, where the Ministry of Commerce has imposed duties on intermediaries and ecommerce operators to ‘improve accessibility to information on sellers, payments details, logistics, after-sale service, dispute resolution, compensation and process monitoring’.¹⁹⁸ These measures are also reiterated in the Administrative Measures for Online Trading (State Administration for Industry and Commerce of China, 2014). Notice and trackdown also gained recognition in the United Kingdom in a policy announcement by the Intellectual Property Minister in 2016 committing more efforts to battling online piracy and counterfeiting.¹⁹⁹

Beyond the legal issues identified in relation to notice and takedown, notice and trackdown may pose further implications for data protection. Its effect will depend on considerations such as the type of information collected, to whom it is passed and for how long it is retained. For example, Alibaba, in employing notice and trackdown, passes details of alleged infringers to law enforcement authorities. The extent to which information is passed on to right holders will also depend on the country. In the context of copyright, right holders in Belgium have pushed for ISPs to send cease and desist letters direct to users, whereas in the United States, ISPs have in the past been required to pass details of copyright infringers directly to music industry representatives without a court order.²⁰⁰ This has since been ruled unlawful in the *Verizon* case.²⁰¹

In Europe, the Article 29 Working Party has explicitly expressed concern that the use of technology to enforce intellectual property rights could compromise data protection rights.²⁰² Data detained and processed by platforms and ISPs for the purposes of performance of a telecommunication service cannot be transferred to third parties unless prescribed by law.²⁰³ Processing of information in the context of notice and trackdown (especially in collaboration with law enforcement) may be legitimate in the context of litigation or under relevant exemptions in data protection laws.²⁰⁴ Any processing of data, especially within the EU framework, must comply with the data protection principles of necessity, transparency, purpose limitation and limitations regarding storage of data.²⁰⁵

On a normative level, investigations of alleged counterfeiting should follow a clear legal framework to appropriately balance the competing rights to property and data protection, legitimising the information collected and subsequent enforcement measures.

¹⁹⁷ *ibid* 9.

¹⁹⁸ *ibid*.

¹⁹⁹ Baroness Neville-Rolfe, ‘Protecting Creativity, Supporting Innovation: IP Enforcement 2020’ (*gov.uk*, 10 May 2016) <www.gov.uk/government/speeches/launch-of-intellectual-property-enforcement-strategy> accessed 13 October 2019; ‘Protecting Creativity, Supporting Innovation: IP Enforcement 2020’ (*gov.uk*, 10 May 2016) <www.gov.uk/government/publications/protecting-creativity-supporting-innovation-ip-enforcement-2020> accessed 13 October 2019.

²⁰⁰ Article 29 Data Protection Working Party, ‘Working document on data protection issues related to intellectual property rights’ 05/EN WP 104 (18 January 2005), 4.

²⁰¹ *Recording Industry Association of America, Inc v Verizon Internet Services, Inc.* US 03-7015 (2003).

²⁰² Article 29 Data Protection Working Party (n 200) 4.

²⁰³ *ibid* 7.

²⁰⁴ *ibid* 6.

²⁰⁵ *ibid*.

13. OTHER NOTICE AND ACTION PROCEDURES

A persuasive proposal to restore the ‘fair balance’²⁰⁶ between competing rights in notice and takedown liability regimes has been to establish a vertical scheme whereby different harms are addressed by different actions.²⁰⁷ Within this framework, and in order of increasing gravity, notice and notice is applied to copyright infringement, notice wait and takedown to defamation, notice and suspension to hate speech, and automatic takedown to the most harmful and obviously identifiable offences, such as child pornography.²⁰⁸

On a normative level, these methods could be used to minimise the risks to fundamental rights of taking down alleged counterfeits or pirated goods. A solution could therefore be for platforms to adapt an incremental approach using a combination of these methods, and to better tailor responses to individual circumstances.²⁰⁹

14. CONCLUSION

De facto guidelines have already developed around the world where right holders, intermediaries, social media and web platforms and government law enforcement authorities have voluntarily cooperated with each other and across borders to effectively combat digital counterfeits and pirated goods. Given the volume and velocity of fake copies in the digital space, these voluntary measures are in need of further evolution and guidance because the digital world is by its nature global. Effective measures can only be implemented if voluntary technical and legal standards are developed and implemented uniformly on an international basis. As it stands now, the better option is for the further development of a *ius gentium* around joined up approaches on voluntary digital measures. A significant component of this development will be the set-up of principles for digital due process to ensure that privately controlled platforms, in their use of digital enforcement tools, can be held effectively to account.²¹⁰

In sum, the pressing, pivotal issue currently in the digital space is how best to develop a balanced approach to the implementation of new digital tools, to ensure the equanimity of underlying fundamental interests including free speech, private data, the freedom to compete and intellectual property.

²⁰⁶ *Promusicae* (n 191).

²⁰⁷ Angelopoulos (n 188) 266–301.

²⁰⁸ *ibid.*

²⁰⁹ *ibid.*

²¹⁰ Frederick Mostert, ‘Free Speech and Internet Regulation’ (2019) 14 *Journal of Intellectual Property Law & Practice* 607.

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