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Tethered technologies, cloud strategies and the future of the first sale/exhaustion defence in copyright law

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ABSTRACT

With tethered technologies permitting the monitoring of consumer's use of copyrighted works and private copyright enforcement, copyrighted digital works are increasingly distributed solely through access-based schemes. This paper reviews the actual and potential implications of this development in light of consumer autonomies and copyright doctrine. It specifically evaluates the judiciary's opposing views in the European Union and the United States on the matter, drawing attention to the need to radically rethink the application of the first sale/exhaustion principle for the transmission of digital content, and proposes a novel approach balancing individual and social interests at a broader scale.

KEY WORDS

Ownership of digital content, digital exhaustion, software resale, first sale mechanism, private copyright enforcement, intellectual property, internet.

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**TETHERED TECHNOLOGIES, CLOUD STRATEGIES AND THE
FUTURE OF THE FIRST SALE/EXHAUSTION DEFENCE IN
COPYRIGHT LAW**

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1. INTRODUCTION

On 17 July 2009, the *New York Times* online edition wrote: ‘This morning, hundreds of Amazon Kindle owners awoke to discover that books by a certain famous author had mysteriously disappeared from their e-book readers. These were books that they had bought and paid for—thought they owned.’¹

What had happened? Amazon had deleted all books by the mentioned author from people’s Kindles. Amazon did so after discovering that it was not entitled to the copyright in that author’s books. Although the accounts of affected Kindle owners were credited for the price of the deleted books, an outcry was heard throughout the Internet. The best part of the story and a stroke of irony is that the author in question was George Orwell and the books were *1984* and *Animal Farm*. As you may recall, in *1984* it was the government censors who erased any news that Big Brother might have found disturbing. This time the censor was not the government but a private company acting through the long arm of tethered technology.

In a case adjudicated by the *Landgericht Bielefeld* in 2013,² the plaintiff, the Federation of German Consumer Organisations, argued that the use of language common to contracts of sale by a webpage trading in books, music, films etc. over the Internet raises consumers’ expectations of having acquired ownership of the downloaded product and thus entitlement to enjoy the rights granted under Article 17(2) of the German Copyright Act (GCA). Article 17(2) GCA provides that the right to distribute a particular copy of a work is exhausted after it has been released in the stream of commerce with the right owner’s consent. The defendant, the operator of the webpage at issue, argued that no ownership is acquired in the digital copies that the consumer downloads from the Internet. Since these copies are incorporeal, there is no exhaustion. Arguably, Article 17(2) GCA takes effect only when a physical copy of a work is transferred. The court found for the defendant and held that considering Article 4(2) of the Directive 2001/29³ of the European Union ‘exhaustion is limited to corporeal works’.⁴

The two cases are interesting because they point to a number of difficult questions regarding technology, online business and copyright law, which are central to this paper. In particular, the paper addresses the following points:

- 1) How should consumer expectations/autonomies be protected when the establishment of a novel online business model of copyrighted works

¹ David Pogue, ‘Some E-Books Are More Equal Than Others’, *New York Times* (17 July 2009), available online at: http://pogue.blogs.nytimes.com/2009/07/17/some-e-books-are-more-equal-than-others/?_php=true&_type=blogs&_r=0.

² LG Bielefeld, docket no. 4 O 191/11, 5 March 2013, available online at: http://www.boersenverein.de/sixcms/media.php/976/LG_Bielefeld_vom_05.03.13_Klage_Verbraucherzentralen.pdf

³ Directive 2001/29/EC of the European Parliament and the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (InfoSocDirective) (22 June 2001) OJ L 167, at pp. 10–19.

⁴ LG Bielefeld, *supra* note 2, at p. 20.

- involves a change in the contractual basis from a one-off sale to an access-based transaction?
- 2) What are the implications for the functioning of the exhaustion rule as an element of copyright balance?
 - 3) How does the picture change when tethering supported business models of copyrighted works kick in?

2. TETHERED TECHNOLOGY: KEY FEATURES

I would like to start my investigation with a description of some key features of tethered technology – a technology that may deeply impact online business, consumer autonomies and copyright doctrine. Well-known examples of tethered appliances include the 2013 PlayStation 4, which allows Sony to monitor the access and use of purchased games,⁵ or Amazon’s way of ‘selling’ e-books, showcased above. The functionality of tethering technologies includes two main features. First, it is ‘tethered’, as it establishes a permanent link between a platform and a computer. This enables the operators of the platform to reprogram the technology whenever they choose to do so.⁶ An example of this is the iPhone. When the iPhone was introduced in 2007, users who had added unauthorized software or ‘unlocked’ the iPhone for use with other networks than AT&T’s were penalized with a ‘bricked’ iPhone.⁷ The second feature of tethered technology is that it enables ‘trusted systems’. Trusted-system functionality provides ‘for a set of protocols for delivering stored content to users via authenticated devices and platforms’.⁸ Such functionality is appealing to consumers as it offers interoperability and safety. For companies such as Amazon or Apple it is interesting because it allows for the controlling of which software and hardware is used in the closed circuit. From a consumer perspective, the downside of this control is lock-in:⁹ in parallel with such functionality becoming more deeply embedded, consumers will find it more difficult to switch to alternative platforms, equipment or services.¹⁰

The technology can be used for a number of purposes, including the following. Firstly, it can be used for monitoring. In the case of a streaming business model, as

⁵ See Dan Graziano, ‘Gamers Plan Campaign to End DRM on Xbox One and PlayStation 4’, *bgr* (3 June 2013), available at <http://bgr.com/2013/06/03/xbox-one-playstation-4-drm/> (all online sources were accessed 11 May 2015).

⁶ Jonathan Zittrain, ‘Perfect Enforcement on Tomorrow’s Internet’, in in Roger Brownsword and Karen Yeung (eds), *Regulating Technologies: Legal Futures, Regulatory Frames and Technological Fixes*, Oxford: Hart, 2008, at pp. 131–132.

⁷ In 2007 Apple released an iPhone update via iTunes which was programmed to freeze those iPhones in which it discovered any unauthorized modifications to the iPhone software. See Katie Hafner, ‘Altered iPhones Freeze Up’, *New York Times* (29 September 2007), available online at www.nytimes.com/2007/09/29/technology/29iphone.html?_r=0.

⁸ Julie E. Cohen, *Configuring the Networked Self: Law, Code, and the Play of Everyday Practice*, New Haven, Conn: Yale University Press, 2012, at p. 162, mentioning Sony’s Digital Entertainment Content Ecosystem as a recent example of a trusted-system initiative incorporating cloud-based storage of digital content.

⁹ Aaron Perzanowski and Jason Schultz, ‘Digital Exhaustion’ (2011) *UCLA Law Review*, 58, pp. 889–946, at p. 891.

¹⁰ Cohen, *supra* note 8, at p. 180.

we will see below, tethering allows the copyright owner to closely monitor any use of a streamed work. Secondly, it is useful for rights enforcement. By endowing right holders with the power to closely monitor user behaviour, tethered technologies are proving to be a new-generation digital rights management (DRM) system, making the enforcement of copyright even more efficient.¹¹ Thirdly, tethered technologies serve to collect data. Every move that a consumer makes (within the closed circuit linking the platform owners, the protected work and the consumer) creates data that corporations can collect, mine with data from other sources and create user profiles or sell the data to 'data farms'.¹² The tendency is going in the direction of combining all three uses.

Tethered technologies are likely to proliferate in the future since they provide for a perfect means to support 'cloud'¹³ strategies. The cloud is extremely appealing for both consumers and businesses in the online environment: music-lovers employ cloud strategies as an easy and cheap way to stream¹⁴ music from a very large repertoire over the Internet to their smartphones or computers.¹⁵ The biggest music streaming platforms in 2014 were Spotify, the Swedish giant counting 40 million users and 10 million subscribers, and Deezer, a French service, counting 26 million users and 2 million subscribers. YouTube and Amazon – the latter with a service called Prime Music – are both about to enter the market of music streaming and it is thus likely that the picture will change soon.¹⁶ Software companies are enthusiastic about the cloud since it provides for a service-based business model,¹⁷ enabling businesses to charge users a monthly subscription fee for accessing their applications online.¹⁸ Forecasts predict that by 2015 service-based software will account for

¹¹ For Zittrain, tethered technologies provide for 'perfect' copyright enforcement. See Zittrain, 'Perfect Enforcement on Tomorrow's Internet', supra note 6, at p. 136.

¹² On user monitoring and data mining see Cohen, supra note 8, at pp. 167–169 and 197–198; Ira Rubinstein, Ronald D. Lee and Paul M. Schwartz, 'Data Mining and Internet Profiling' (2008) *University of Chicago Law Review*, 75, pp. 261–285; Mireille Hildebrandt and Bert-Jaap Koops, 'The Challenges of Ambient Law and Legal Protection in the Profiling Era' (2010) *The Modern Law Review*, 73, pp. 428–460, at p. 442.

¹³ See Daniel J. Gervais, 'Copyright, Culture and the Cloud', in Sean A. Pager and Adam Candeub (eds), *Transnational Culture in the Internet Age*, Cheltenham, UK: Edward Elgar, 2012, pp. 31–54.

¹⁴ Streaming is a technology that is used for transmission of data packets on the Internet. It is attractive for consumers since it allows for an immediate display and playback of the content before the entire file is downloaded. Technically, this is possible because 'earlier packets can be re-assembled and processed before the entire file is downloaded' (Jay Anderson, 'Stream Capture: Returning Control of Digital Music to the Users' (2011), *Harvard Journal of Law & Technology*, 25 (1), pp. 160–177, at p. 166). The difference between streaming and downloading is that the former technology discards the downloaded files while the latter saves them.

¹⁵ See 'The Music Industry – Believing in Streaming', *The Economist* (22 March 2014).

¹⁶ On 26 September 2014 Amazon announced the acquisition of Twitch, a cloud streaming service for gamers, for 970 Million USD. See 'Streaming Down the Amazon', *The Economist* (30 August 2014).

¹⁷ Different labels, including infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS) and software-as-a-service (SaaS) have been used to describe the services that providers of cloud computing offer. See Michael Widmer, 'Application Service Providing, Copyright, and Licensing' (2007) *The John Marshall Journal of Information Technology & Privacy Law*, 25 (1), pp. 79–115.

¹⁸ See 'Adobe – Super Subs', *The Economist* (22 March 2014). In this article, Adobe is spotlighted as a vanguard firm having made a dramatic shift "from being a purveyor of pricey, shrink-wrapped software to one that charges users a monthly subscription fee to access its applications online via the computing 'cloud'".

around 24 per cent of all new business software purchases, and 13.1 per cent of worldwide software spending will go on software-as-a-service (Saas).¹⁹

While it is true that cloud strategies do not require a permanent downloading or fixation on a consumer's storage medium, one must not overlook that 'stream capture' technologies empower consumers to save audio or video streams in similar ways to downloads.²⁰ As a consequence, cloud strategies will depend on the support of tethered technologies to shield the business model from piracy or the first sale mechanism.²¹ Indeed, you do not need to be a computer geek to know how the cache of your PC can be set up so that it is large enough to save a transmitted file in its entirety. Free software (such as PandoraJam, Dar.fm or MPEG Streamclip) is available online, allowing consumers to extract those files from the cache and transfer them to other devices.²² Therefore, copyright owners fear that the new business model will spur a new wave of piracy.²³ Beyond combating piracy, right owners are eager to impose access-based service transactions rather than one-off contracts of sale. As will be shown in the next section, this is mainly because the effects of the exhaustion mechanism are triggered if the transaction at issue is considered a sale. As a consequence of new case law in the realm of computer software, this is imminent in the European Union. What is needed to impose an access-based transaction is a technology that would allow companies to technically inscribe such licensing terms. Technologies tethering copyright use to a certain device are doing precisely this, as they enable right holders to impose access-based terms of licence and allow for continued observation and enforcement.²⁴ Since they provide for a trusted system, they will also offer an efficient vaccine against piracy.

The multifaceted legal aspects of tethering-supported online business have not yet been the subject of much in-depth academic research. Neither has their impact on consumer autonomies and the functioning of the first sale and exhaustion mechanism been clarified by the judiciary. So far, courts have dealt with the problem of first sale and exhaustion in the digital environment mostly in the sector of computer software. Before analysing the effects of tethered technologies on individual and social autonomies, I would like to briefly review some leading cases on the first sale and exhaustion defence in the digital environment.

3. FIRST SALE AND EXHAUSTION: TENDENCIES IN CASE LAW

In the brick-and-mortar world, the principle of first sale or exhaustion provided for a trade-off between copyright law and general property law. According to the

¹⁹ See US Department of Commerce, 'Copyright Policy, Creativity, and Innovation in the Digital Economy', Green Paper 2013, at p. 79, available online at <http://www.uspto.gov/news/publications/copyrightgreenpaper.pdf>.

²⁰ Anderson, *supra* note 14, at p. 167.

²¹ Aileen Prill, *Webradio-Streamripping: Eine neue Form der Musikpiraterie? Eine Untersuchung des urheberrechtlichen Rahmens für Webradios und der Schranke der Privatkopie*, Frankfurt am Main: Peter Lang, 2013.

²² For an overview see Anderson, *supra* note 14, at pp. 167–168.

²³ See US Department of Commerce, *supra* note 19, at pp. 5–9.

²⁴ Perzanowski and Schultz, *supra* note 9, at pp. 904–907.

first sale doctrine, the owner of intellectual property rights in a work shall not be able to control the transfer of ownership in a particular copy after the first sale of that copy has occurred with their consent. The first sale defence was designed by the lawmakers (not only in the United States but also in Europe) as a limitation to the right of distribution. Accordingly, the right to prohibit distribution exhausts after the first sale of the particular copy.

In the digital networked environment, nothing is as it once was and a number of things have become uncertain in legal doctrine, including the domain of the distribution right, the legal status of a particular copy and the overall survival of the first sale defence. Higher courts have so far decided on these issues only in the realm of software and have come to radically opposed conclusions in Europe and in the United States.

3.1 USEDOSOFT V ORACLE

The judgement of the Court of Justice of the European Union (CJEU) in *UsedSoft v Oracle*, of 3 July 2012, is one of the most controversial decisions of EU copyright adjudication in the last few years.²⁵ The case was referred to the CJEU for a preliminary ruling under Article 267 of the Treaty on the Functioning of the European Union (TFEU) by the German *Bundesgerichtshof* (Supreme Court). The main question that the *Bundesgerichtshof* asked the CJEU was ‘whether and under what conditions the downloading from the Internet of a copy of a computer program, authorised by the copyright holder, can give rise to exhaustion of the right of distribution of that copy in the European Union within the meaning of Article 4(2) of Directive 2009/24.’²⁶

As to the facts of the case, UsedSoft, a company selling used software over the Internet, was sued in Germany by Oracle, a producer of software, because of copyright violation under Directive 2009/24.²⁷ In its defence, UsedSoft argued that the resale of computer programs produced by Oracle was justified, since the distribution right exhausted after their first sale. Oracle contested the validity of the

²⁵ For some of the numerous reactions in the literature see: Lothar Determann and Bill Batchelor, ‘Used Software Sales and Copyright Exhaustion’ (2012) *Electronic Commerce & Law Report*, 17, 2149; Reto M. Hilty, Kaya Köklü and Fabian Hafenträger, ‘Software Agreements: Stocktaking and Outlook – Lessons from the UsedSoft v. Oracle Case from a Comparative Law Perspective’ (2013) *International Review of Intellectual Property and Competition Law*, 44, pp. 263–292; Emma Linklater, ‘UsedSoft and the Big Bang Theory: Is the e-Exhaustion Meteor about to Strike?’ (2014) *Journal of Intellectual Property, Information Technology, and Electronic Commerce Law (JIPITEC)*, 5, pp. 12–22; Louise Longdin and Pheh Hoon Lim, ‘Inexhaustible Distribution Rights for Copyright Owners’ (2013) *International Review of Intellectual Property and Competition Law*, 44 (5), pp. 541–568; Christopher Stothers, ‘When is Copyright Exhausted by a Software Licence? UsedSoft v Oracle’ (2012) *European Intellectual Property Review*, 34 (11), pp. 787–791. For comments in the German language, see Thomas Hoeren and Matthias Försterling, ‘Onlinevertrieb “gebrauchter” Software: Hintergründe und Konsequenzen der EuGH-Entscheidung “UsedSoft”’ (2012) *MultiMedia und Recht*, pp. 642–647, and Martin Senfleben, ‘Die Fortschreibung des urheberrechtlichen Erschöpfungsgrundsatzes im digitalen Umfeld’ (2012) *Neue Juristische Wochenschrift*, pp. 2924–2927.

²⁶ *UsedSoft GmbH v Oracle International Corp.* (3 July 2012) CJEU C-128/11, at para. 43 [hereinafter *UsedSoft v Oracle*].

²⁷ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (5 May 2009) OJ L 111, pp. 16–22.

exhaustion defence, claiming that it did not *sell* the computer programs at issue. Rather, a copy of the program was made available for its customers to download free of charge; customers were not entitled to use the downloaded copy ‘unless they have concluded a user licence agreement with Oracle’. According to Oracle, the licence provided its customers with ‘a non-exclusive and non-transferable user right for an unlimited period for that program’. Arguably, ‘neither the making available of a copy free of charge nor the conclusion of the user licence agreement involves a transfer of the right of ownership of that copy’.²⁸

The CJEU dismissed Oracle’s submission, stressing that ‘the downloading of a copy of a computer program and the conclusion of a user licence agreement for that copy form an indivisible whole’ since ‘downloading a copy of a computer program is pointless if the copy cannot be used by its possessor’.²⁹ Therefore, the transactions at issue must be seen as ‘the transfer of the right of ownership of the copy of the computer program’.³⁰ Comparing different technologies and modes of supply, the court held that it makes no difference ‘whether the computer program is made available to the customer by means of a download from the rightholder’s website or by means of a material medium such as a CD-ROM or DVD’.³¹

Although Oracle’s claim that it did not *sell* computer programs did not directly attack the exhaustion defence, it did so indirectly, since the term ‘sale’ is the hook of the exhaustion clause under Article 4(2) of Directive 2009/24. The provision reads as follows: ‘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’.

To be sure, the CJEU did not hesitate to make the connection to the exhaustion mechanism clear: recalling the Advocate General’s opinion in the case, the court stated that the term ‘sale’ in Article 4(2) of Directive 2009/24 must be given a broad interpretation ‘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’; this broader interpretation of the term is necessary to prevent the circumvention of the first sale and exhaustion clause.³² As the CJEU explicitly held in para. 55, the first sale and exhaustion defence must continue to function effectively under the conditions of digital technologies and the Internet:

On this point, it must be stated, first, that it does not appear from Article 4(2) of Directive 2009/24 that the exhaustion of the right of distribution of copies of computer programs mentioned in that provision is limited to copies of programs on a material medium such as a CD-ROM or DVD. On the contrary, that provision, by referring without further specification to the “sale ... of a copy of a program”, makes no distinction according to the tangible or intangible form of the copy in question.

²⁸ *UsedSoft v Oracle*, supra note 26, at para. 35.

²⁹ *Ibid.*, at para. 44.

³⁰ *Ibid.*, at para. 46.

³¹ *Ibid.*, at para. 47.

³² *Ibid.*, at para. 49.

Hence, the CJEU came to the conclusion that ‘digital exhaustion’³³ exists! It did so through prioritizing free-trade interests over IP-based contractual interests.³⁴ According to the court, a customer downloading a copy from the Internet expects to have acquired ownership in that copy. This expectation needs to be protected for the sake of the functioning of the EU’s internal market, irrespective of conflicting contractual terms (such as Oracle’s), stipulating that the download and the use of software are two separate business transactions. For the CJEU, the major point was that the copyright owner had received an appropriate remuneration with the first sale of the software program.³⁵

Its intention to prioritize free trade may have induced the CJEU to gloss over some tricky doctrinal questions that the adoption of digital exhaustion raises. For instance, to mould a transfer of ownership, an act of communication to the public (making available) is reinterpreted by the CJEU as an act of distribution.³⁶ Apart from the relationship between the distribution right and first sale, *UsedSoft v Oracle* raises doctrinal questions as to the distinction between work and copy, which the CJEU did not address.³⁷ Rather than looking into these intricacies of copyright doctrine, the court was more concerned about establishing an overall balance of interests between the licensor and the licensee of computer software.

3.2 VERNOR V AUTODESK

The question of whether contractual arrangements control the application of the first sale/exhaustion mechanism has been answered by courts in the US in radically different ways than in the EU. Whereas the CJEU found that exhaustion trumped contract terms, in *UsedSoft v Oracle*, the US Court of Appeals for the Ninth Circuit came to the opposite conclusion in *Vernor v Autodesk*.³⁸ According to *Vernor*, a producer of software programs may prevent the first sale defence from taking effect simply by designing the contractual relationship with the customer as a service rather than a sale.³⁹

As to the facts of the case, the defendant, Timothy Vernor, purchased unused copies of software produced by the plaintiff, Autodesk, from one of Autodesk’s direct customers and then resold them on eBay. The software was stored on CD-

³³ The term ‘digital exhaustion’ is used in this paper to describe issues of first sale in digital files that have been obtained by the consumer from the Internet. Hence the term does not cover issues of first sale or exhaustion of digital content that is embodied in a material object such as a CD or DVD.

³⁴ For a similar view see Senftleben, *supra* note 25, at p. 2926.

³⁵ *UsedSoft v Oracle*, *supra* note 26, at para. 63.

³⁶ *Ibid.*, at para. 52. See Senftleben, *supra* note 25, at p. 2927.

³⁷ For a critique of the CJEU’s interpretation of the terms ‘copy of a program’ and ‘first sale’ in *UsedSoft v Oracle* see Hilty et al., *supra* note 25, at pp. 275–276.

³⁸ *Vernor v Autodesk* 621 F 3d 1102 (9th Cir. 2010) [hereinafter *Vernor v Autodesk*].

³⁹ For comments on this case see Raymond T. Nimmer, ‘Copyright First Sale and the Overriding Role of Contract Law’ (2011) *Santa Clara Law Review*, 51, pp. 1311–1346; Perzanowski and Schultz, *supra* note 9; Stephen B. Popernik, ‘The Creation of an “Access Right” in the Ninth Circuit’s Digital Copyright Jurisprudence’ (2013) *Brooklyn Law Review*, 78 (2), pp. 697–738. See also Longdin and Lim, *supra* note 25.

ROMs.⁴⁰ The contractual arrangement between Autodesk and its direct customer involved a single-payment perpetual software licence. The terms of licence contained a number of limitations on the licensee's use of the software and their right to transfer the software.⁴¹ Vernor did not use the software and did not agree to the terms of licence.⁴²

The Court of Appeals found that Vernor had infringed Autodesk's distribution right. With regard to first sale, the court considered it to be critical that Vernor received the software copies from an Autodesk customer who was merely allowed to use them according to specific terms of licence. Since the Autodesk customer did not acquire ownership in the copies, he was not entitled to sell them to Vernor. Vernor, for his part, was not entitled to invoke the first sale defence, as he had not purchased the software copies from an owner.⁴³

The court adopted a general rule allowing determination of whether a software user is a licensee or an owner of a copy. According to this rule, 'a software user is a licensee rather than an owner of a copy where the copyright owner (1) specifies that the user is granted a license; (2) significantly restricts the user's ability to transfer the software; and (3) imposes notable use restrictions'.⁴⁴ If these three requirements are met, as they were in the case at issue, the first sale defence cannot be made effective by a software user.

The Court of Appeals rejected Vernor's argument that the Supreme Court decision in *Bobbs-Merrill* established his entitlement to the first sale defence in the case at hand. In *Bobbs-Merrill*, the Supreme Court had adopted the first sale doctrine in 1908,⁴⁵ before Congress codified it in the US Copyright Act in 1909.⁴⁶ The Ninth Circuit clarified that in *Bobbs-Merrill* the Supreme Court 'noted that its decision solely applied to the rights of a copyright owner that distributed its work without a license agreement'.⁴⁷ Hence, the first sale doctrine does not prevent parties from agreeing on terms of contract that restrict the transferee's rights to dispose of the copy of a work that they are licensed to use.

In comparison with the CJEU's decision in *Oracle*, one must emphasize that in *Vernor* the software was on a CD-ROM. The far-reaching consequence of this is that US case law allows the resale of software to be contractually excluded even if it is stored on a physical data carrier.

3.3 THE CJEU'S ENCOURAGEMENT TO USE TECHNOLOGY

From the analysis of the two leading cases on first sale and exhaustion in the digital environment so far we have received the impression that 'contract trumps first sale' is established in US copyright law whereas in the EU the exhaustion principle outbalances contradicting terms of licensing. The impression of

⁴⁰ *Vernor v Autodesk*, supra note 38, at para. I.A.

⁴¹ *Ibid.*, at para. 1104.

⁴² *Ibid.*, at para. 1105.

⁴³ *Ibid.*, at para. 1104.

⁴⁴ *Ibid.*, at para. 1111.

⁴⁵ *Bobbs-Merrill Co. v Straus* (1908) 210 US 339, at pp. 350–351.

⁴⁶ See 17 U.S.C. § 41 (1909).

⁴⁷ *Vernor v Autodesk*, supra note 38, at para. 1107.

diametrically opposed views of the relationship between contract and copyright exhaustion in the two jurisdictions is thwarted by a very interesting aspect of the *UsedSoft* case that has not received sufficient attention in academic literature so far. In para. 87 the CJEU noted: '[A] copyright holder such as Oracle is entitled, in the event of the resale of a user licence entailing the resale of a copy of a computer program downloaded from his website, to ensure by all technical means at his disposal that the copy is made unusable.'

This paragraph can be understood as a recommendation from the CJEU to use technology to prevent the person who resold the software copy from further using the sold copy herself. Does this mean that, for the CJEU – although first sale trumps contract – technology trumps everything? Howsoever, companies embracing cloud strategies may read this as an encouragement to use tethered technologies as a means of imposing access-based contractual schemes and also avoiding exhaustion under conditions where exhaustion would prevail over contradicting terms of licensing.

4. TETHERING, CONSUMER AUTONOMY AND OPEN MARKETS

The two cases reviewed in the previous section dealt with conventional download/distribution situations. The interesting question is how the picture will change once tethering-supported online business strategies kick in. As mentioned, this is a likely consequence in the EU in order to avoid the exhaustion mechanism taking effect in the digital environment. Beyond the EU, tethering may become attractive to support cloud strategies due to its other advantages for companies, including the promise of 'perfect enforcement' or the possibility of collecting data and preventing users from switching to other software or hardware. An important element of the technology's great potential is the seductive appeal that cheap and easy, temporarily and geographically unrestricted access to the 'celestial jukebox'⁴⁸ has for millions of consumers worldwide. However, the flip side of the coin for consumers is that tethered technologies enable right holders to exert continued hands-on control over how copyright-protected materials are used. Hence, they allow the overriding of the exhaustion mechanism to a far greater degree than technical protection measures or digital rights management systems, which confine to controlling access and/or copying. As a consequence, right owners are empowered to exercise greater control not only over uses but also over users.⁴⁹ Perzanowski and Schultz emphasised '[t]hat control constrains consumer welfare on a number of levels. It prevents consumers from acquiring or reselling works via secondary markets; it impinges on their privacy and limits their opportunities for innovation; and it threatens market efficiency and competition by increasing transaction costs and the risk of consumer lock-in.'⁵⁰ Indeed, for consumers and society at large, tethered technologies may result in a number of costs, including the following:

⁴⁸ Paul Goldstein introduced this term in 1994 when the Internet was still in its infancy. See Paul Goldstein, *Copyright's Highway*, 1st edn, New York: Hill and Wang, 1994.

⁴⁹ Zittrain, 'Perfect Enforcement on Tomorrow's Internet', supra note 6. See also Jonathan Zittrain, *The Future of the Internet and How to Stop it*, New Haven Conn: Yale University Press, 2008, at pp. 102–126.

⁵⁰ Perzanowski and Schultz, supra note 9, at p. 891.

- 1) Tethered technologies squeeze consumers into an access-based type of contract. Consequently, the first sale and exhaustion mechanism is circumvented and a potential downstream market is foreclosed: a consumer who buys an e-book for her Kindle or iPad is prevented by the technology from selling it via secondary markets without selling the device itself.⁵¹ In an EU-wide public consultation on the need for copyright reform conducted by the European Commission in 2014,⁵² many users complained about technical barriers preventing them from reselling digital media, including e-books, songs and computer games.⁵³ Tethered technologies prevent the emergence of markets where one can buy used e-books etc. at a reduced price. This will be deplorable from a consumer welfare perspective.
- 2) Tethered technologies prevent the buyer of a digital copy of a work from having a number of benefits that the buyer of a physical copy would enjoy. For instance, whereas the buyer of a hard copy of a book generally enjoys the possibility to add annotations, tinker with the copy or repair it, such benefits are not available to the buyer of an e-book. If the possessor of an e-book tinkers with her e-book reader to extract and transfer the book to other devices, she risks violating the rules of statutory law prohibiting the circumvention of technological measures. One result of the public consultation conducted by the EU Commission was that many consumers complained that physical products and digital media would generally be treated differently in trade. Such differences were considered particularly unjustified, since the physical and digital products are mostly sold at similar prices, even though the interoperability and portability of the digital version is reduced compared to the physical one.⁵⁴
- 3) Tethered technologies regulate user behaviour *ex ante*, since they preempt undesirable conduct of end-users before it happens.⁵⁵ Under a classical model of enforcement, right holders have reacted *ex post* to infringements of their copyrights by bringing the indicted user before a judge. The judge has then considered the case as a whole, hearing not only the arguments of the plaintiff but also the defendant's potential exculpation, based on the law's permission of a number of non-infringing uses. Taking account of the fact that the consumer is usually in the weaker position as far as knowledge and financial power is concerned, the burden of proof has been with the right owner. Under the new model, the range of permitted uses is determined by the platform owner from

⁵¹ Ruth Anthony Reese, 'The First Sale Doctrine in the Era of Digital Networks' (2003) *Boston College Law Review*, 44, pp. 577–652, at p. 612. See also Perzanowski and Schultz, *supra* note 9, at p. 904.

⁵² European Commission, Directorate General for Internal Market and Services, 'Report on the Responses to the Public Consultation on the Review of the EU Copyright Rules' (July 2014) [hereinafter EU Commission Copyright Report 2014]. In the consultation process the commission received more than 9500 replies to the consultation document and a total of more than 11 000 messages, including questions and suggestions.

⁵³ EU Commission Copyright Report 2014, *supra* note 52, at p. 20.

⁵⁴ *Ibid.*

⁵⁵ Zittrain, 'Perfect Enforcement on Tomorrow's Internet', *supra* note 6, at p. 133.

the outset – leaving no room for arguments based on fair-use considerations. In cases where consumers insist on fair use, there is a change in the burden of proof, from the right owner to the consumer.

- 4) Tethered technologies raise issues of data protection, as monitoring uses and collecting data is one of their main functionalities. Though the tracking, analysis and usage of network users' data, without their explicit consent, are questionable,⁵⁶ it is not clear what the legal status is of such methods. Privacy laws differ state-to-state, but more problematically the technologies are non-transparent and prone to change. Users may not be aware of the way that their network movements are being tracked and used. When surveillance is undertaken secretly, this is particularly problematic from the perspective of users' expectations of the integrity of the information technology system. In 2008, the German Constitutional Court (*Bundesverfassungsgericht*) adopted an unwritten fundamental right of the German Constitution (*Grundgesetz*) 'to the guarantee of the confidentiality and integrity of information technology systems' in a case involving the remote searching of computers by government authorities.⁵⁷ The court held that the government is not allowed to use spy or surveillance software to access/infiltrate information technology systems, precisely because of the newly adopted right of the German Constitution, except under extraordinary circumstances. Although the new right was developed out of the right of personality (Article 2.1 in conjunction with Article 1.1 of the *Grundgesetz*), it has been argued in the academic literature that the relevance of the integrity of information technology systems goes beyond the protection of individual autonomies,⁵⁸ reaching out to discursive aspects of communicative freedom online. This ruling was revolutionary, but the question is whether it is limited in scope due to being restricted to state actions. There is, though, an obvious similarity between the measures or software that the court was trying to protect against and the technologies that private companies use to monitor Internet users' online behaviour.
- 5) Tethered technologies distort platform competition since users are prevented from shifting content from one platform to another. If photos, music, videos, texts or other documents are stored on a cloud server, users may find switching to another platform or another service cumbersome, if not impossible. Since the data is no longer on a user's PC, problems relating to the interoperability of the software format are likely

⁵⁶ See Chris Jay Hoofnagle, Ashkan Soltani, Nathan Good, Dietrich James Wambach and Mika Ayenson, 'Behavioral Advertising: The Offer You Cannot Refuse' (2012) *Harvard Law & Policy Review*, 6, pp. 273-296; and Chris Jay Hoofnagle, Jennifer M. Urban and Su Li, 'Privacy and Modern Advertising: Most US Internet Users Want "Do Not Track" to Stop Collection of Data About Their Online Activities', *Berkeley Center for Law and Technology*, Research Paper (2012).

⁵⁷ BVerfG, 1 BvR 370/07, 27 February 2008, at paras 100 and 135; an English translation is available online at http://www.bverfg.de/entscheidungen/rs20080227_1bvr037007en.html.

⁵⁸ Vagias Karavas, 'Das Computer-Grundrecht: Persönlichkeitsschutz unter informationstechnischen Bedingungen' (2010) *WestEnd: neue Zeitschrift für Sozialforschung*, 7 (2), pp. 95-105.

to arise.⁵⁹ If the data was purchased from the cloud operator, problems regarding content ownership can arise, as occurred in the case of a Google video-purchasing service that was shut down in 2007. Over the service, customers were able to buy or rent a wide range of videos and watch them through a viewer on Google's site. If the content was bought, users were allowed to watch it without limitation. One year after Google acquired YouTube, it closed the video-purchasing system with the consequence that customers (who thought they owned them) were not able to access their purchased videos anymore. After an outcry, Google offered financial compensation but did not allow the shifting of the purchased videos to another online platform or to users' PCs.⁶⁰

5. SHOULD FIRST SALE SURVIVE IN THE CLOUD?

The analysis so far has enabled a better understanding of the impacts of tethered technology on copyright balance and the possible harmful effects on consumer interests and social autonomies. This brings us back to the practical question of what regulatory responses would be required to readjust the distorted equilibrium in copyright law. Should first sale survive in the cloud? A number of strategies are being discussed in the academic literature, including the following.

5.1 SHIFT FROM FIRST SALE TO FIRST USE

In a recent study, Hilty et al. proposed a reinterpretation of the first sale rule in a way that would implicate a shift from first sale to first use, at least with regard to computer software in the EU. Their study was written in light of the *UsedSoft v Oracle* judgement of the CJEU, breaking new ground in the understanding of consumer rights in software licensing deals, for the purpose of a thriving EU internal market.⁶¹ Adopting a functional interpretation of Directive 2009/24,⁶² Hilty et al. argue that for a customer it does not make sense to be allowed to *make a copy* of a software program (received via transfer of a physical data carrier, download or streaming from the Internet) without permission to *use* that program at the same time.⁶³ Because of this, most agreements for the licensing of software arguably contain an 'implied license' to use the software program in addition to being allowed to make copies thereof. Being mindful of this necessary link between copy and use, the authors claim that the word '*acquirer*' (as in Article 5(1) of Directive 2009/24, enumerating a number of uses that a 'lawful acquirer' of a copy is entitled to without permission from the right owner) would not make sense under conditions of the cloud.⁶⁴ Against the background of

⁵⁹ Zittrain, 'Perfect Enforcement on Tomorrow's Internet', supra note 6, at p. 154.

⁶⁰ Michael Liedtke, 'Google to Stop Web Video Rentals, Sales', *USA Today* (8 October 2007), available online at http://usatoday30.usatoday.com/tech/products/2007-08-10-3490172038_x.htm.

⁶¹ See the discussion on *UsedSoft v Oracle* at supra note 25 and accompanying text.

⁶² Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (5 May 2009) OJ L 111, pp. 16–22.

⁶³ Hilty et al., supra note 25, at p. 276.

⁶⁴ *Ibid.*, at p. 277.

recent technological developments, they criticize the fact that reference to an *acquisition* is not in line with business models which do not involve the transfer of a physical copy, such as cloud computing. Consequently, they recommend a technologically neutral interpretation of the first sale defence in Article 4(2) of Directive 2009/24.⁶⁵

In essence, this assessment leads to the conclusion that Article 4(2) of Directive 2009/24 must be understood in a technologically neutral way. This means that instead of the “first sale”, the “first granting of the right to use” becomes relevant. Hence, the first granting of the right to use needs to be assessed as equal to a sale in the meaning of the “first sale doctrine”.

The recommendation of Hilty et al. may be welcomed by courts in Europe, which are trying to reconcile the exhaustion rules in Directive 2009/24 with new technologies and cloud-based business models.⁶⁶ The question is whether such an approach could be extended beyond computer software to include other copyright-protected works such as music, e-books and films.⁶⁷ Although Hilty et al. discuss these questions, they remain hesitant on this point.⁶⁸ In my view, it should be emphasized that the CJEU, when adopting the concept of ‘digital exhaustion’, insisted on the distinction between computer programs and other copyright-protected works. Whereas the former fall under Directive 2009/24, the latter are regulated in Directive 2001/29.⁶⁹ Although a first sale clause may be found in both directives, the court recalled that Article 4(2) of Directive 2001/29 must be interpreted in the light of recitals 28 and 29 in its preamble.⁷⁰ Recital 29 makes it clear that the exhaustion of the distribution right is limited to tangible objects and ‘does not arise in the case of services and on-line services in particular’.⁷¹ Recital 29 not only excludes exhaustion of the communication right but also ties exhaustion of the distribution right to tangible objects.⁷² Accordingly, the court’s finding regarding digital exhaustion is limited to computer software, as captured by Directive 2009/24, and does not extend to all other copyright-protected works falling under Directive 2001/29.⁷³

⁶⁵ See Hilty et al., *supra* note 25, at p. 281.

⁶⁶ See also Senftleben, *supra* note 25, at p. 2926.

⁶⁷ For views in favour of an extension see Hoeren and Försterling, *supra* note 25, at p. 647, and Senftleben, *supra* note 25, at p. 2927. For a view against see Linklater, *supra* note 25.

⁶⁸ Hilty et al., *supra* note 25, at pp. 284–289.

⁶⁹ Directive 2001/29/EC of the European Parliament and the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (InfoSocDirective) (22 June 2001) OJ L 167, pp. 10–19.

⁷⁰ *UsedSoft v Oracle*, *supra* note 26, at para. 60.

⁷¹ Recital 29 of Directive 2001/29.

⁷² For a similar view see Linklater, *supra* note 25, at p. 16, and Senftleben, *supra* note 25, at p. 2927.

⁷³ For a recent decision on the exhaustion rule in the realm of Article 4(2) of Directive 2001/29 see *Art & Allposters International BV v Stichting Pictoright* (22 January 2015) CJEU C-419/13. According to the CJEU in that case the distribution right as protected by Directive 2001/29 refers to ‘the tangible object into which a protected work or its copy is incorporated’ (at para. 40). As the CJEU stresses in its decision, this view ‘is supported by international law and in particular by the WIPO Copyright Treaty in the light of which Directive 2001/29 must be interpreted as far as possible’ (at para. 38). The CJEU refers to the Diplomatic Conference of 20 December 1996, at which the Treaty itself was adopted, and where also the significance of

5.2 EXTENDING FIRST SALE BEYOND THE DISTRIBUTION RIGHT TO ESSENTIAL USES IN THE DIGITAL ENVIRONMENT

In the United States, Perzanowski and Schultz have recently proposed a broad interpretation of the first sale defence reaching beyond the distribution right to also include reproduction, modification and circumvention.⁷⁴ They argue that copy owners need a reproduction right because courts in the US consider reading an e-book or listening to music in MP3 format as reproductions.⁷⁵ Moreover, platform shifting and access are essential uses that should also be available for consumers in the digital environment when they obtain content from the Internet.⁷⁶ Arguably, platform shifting and access would not be possible if users were not allowed to modify and circumvent. The two authors suggest that such uses would be permitted to copy owners if courts were to adopt a common law approach to interpret first sale as an element of a broader exhaustion principle.⁷⁷ Arguably, this would be possible because the codification of the first sale doctrine in the Copyright Act did not bring to an end a common law interpretation of the exhaustion principle in copyright law.⁷⁸ Perzanowski and Schultz document their thesis with a detailed analysis of the pertinent case law. They consider the flexibility provided by common law to be necessary for re-establishing a trade-off between the interests of rights holders and copy owners in an environment of new technologies and changing markets. As a guideline, justifications for allowed uses developed in software cases should be generalized beyond software digital copies.⁷⁹ Aspiring for proportionate solutions, courts should not strengthen copy owners' rights beyond what they really need in the online environment to satisfy their legitimate interests of access, privacy, interoperability, preservation, platform shifting and so on.⁸⁰

The study by Perzanowski and Schultz concludes by recommending that judges adjust copyright doctrine by way of a broader interpretation of first sale. As a key element they propose extending the effect of exhaustion beyond the distribution right, to reproductions and modifications. These are copyright limitations that would be essential for owners of digital copies for the purposes of platform shifting, reparation, preservation and transformative use. The authors do not leave it at abstract recommendations of first sale reform but engage in a detailed analysis of the practical consequences with regard to the transfer and modification of digital copies

the term 'copy' was explained by an agreed statement concerning Articles 6 and 7 of the Treaty. 'According to that statement, "the expressions 'copies' and 'original and copies' being subject to the right of distribution and the right of rental under the said Articles, refer exclusively to fixed copies that can be put into circulation as tangible objects'" (at para. 39).

⁷⁴ Perzanowski and Schultz, *supra* note 9.

⁷⁵ *Ibid.*, at p. 936.

⁷⁶ See Joseph P. Liu, 'Owning Digital Copies' (2001) *William & Mary Law Review*, 42 (4), pp. 1245-1366, at pp. 1361-1363, arguing against the abolition of the concept of the copy since this would be an overly radical change of copyright doctrine.

⁷⁷ Perzanowski and Schultz, *supra* note 9, at p. 925.

⁷⁸ *Ibid.*, at pp. 930-931.

⁷⁹ *Ibid.*, at pp. 935-936.

⁸⁰ *Ibid.*, at p. 937.

and access to digital media.⁸¹ They are mindful that the rights of right owners should only be limited as far as would be necessary for establishing copyright balance.

A shortcoming of this recommendation is that it is not sufficiently realistic about the precedence of contract over first sale, which appears to be a carved-in-stone rule in US case law. If contract trumps first sale, copyright owners will always be able to design the licensing agreement with customers in a way that circumvents copyright first sale, let alone broader limitations deriving from a stipulated common law of copyright exhaustion. Even if courts were to embrace the authors' recommendation, there would still be the problem that platform owners would be able to curtail gained flexibility through the use of tethered technologies. Moreover, these recommendations reflect the US perspective: in the Internet environment, we would need a solution that works globally.⁸²

5.3 USING TECHNOLOGY TO SIMULATE PHYSICAL DISTRIBUTION – IS THE MACHINE THE ANSWER?

The main reason for the crisis of the first sale and exhaustion doctrine in the digital environment is to be found in the new ways that content is received by consumers. Whereas in the brick-and-mortar world a transaction (of cultural content) involved a physical data carrier, with a copy of the work stored on it, changing hands from the seller to the acquirer, it is difficult to identify a step-by-step process of physical distribution in an online setting. Since the doctrine of copyright first sale is intrinsically tied to the transfer of a physical copy, adapting the doctrine to the online environment turns out to be extremely difficult, as the above discussion has demonstrated. Why not try an alternative avenue – true to Charles Clarke's aphorism that the answer to the machine is in the machine?⁸³ Using technology to provide for a continuation of the first sale mechanism might ensure that digital copies show 'quasi-physical' properties and thus the distribution of a tangible item could be 'simulated' for the purpose of the first sale doctrine.⁸⁴

Such a strategy was aspired to by ReDigi, the operator of an online marketplace where owners of digital music were able to sell their legally purchased songs to others for about half the price one would pay on the iTunes store.⁸⁵ Vendors had first to download software called Media Manager from ReDigi's website. Using metadata information identifying the source of the copies (to make sure that the content was not pirated), the software then combed through the vendor's computer and compiled

⁸¹ Ibid., at pp. 938–942.

⁸² See Niva Elkin-Koren and Eli M. Salzberger, *Law, Economics and Cyberspace: The Effects of Cyberspace on the Economic Analysis of Law*, Cheltenham, UK: Edward Elgar, 2004, at p. 120, questioning the use in cyberspace of contractual terms, which are only enforceable within a particular national jurisdiction.

⁸³ Charles Clark, 'The Answer to the Machine is in the Machine', in P. Bernt Hugenholtz (ed.), *The Future of Copyright in a Digital Environment*, The Hague: Kluwer Law International, 1996, pp. 139–145, at p. 139.

⁸⁴ Dan L. Burk, 'Legal and Technical Standards in Digital Rights Management Technology' (2005–2006) *Fordham Law Review*, 74, pp. 537–573, at p. 538 (discussing how digital technology can be programmed to mimic qualities of physical products).

⁸⁵ Jessica Leber, 'A Startup Asks: Why Can't You Resell Old Digital Songs?' *MIT Technology Review* (15 August 2012), available online at <http://www.technologyreview.com/news/428792/a-startup-asks-why-cant-you-resell-old-digital-songs/>.

a list of songs eligible for resale.⁸⁶ For the purpose of simulating a step-by-step transfer of digital files in conformity with first sale requirements, ReDigi employed software which provided for a forward-and-delete transfer process from the seller's computer to ReDigi's server. As claimed by ReDigi, this process 'involves "migrating" a user's file, packet by packet – "analogous to a train" – from the user's computer to the Cloud Locker so that data does not exist in two places at any one time'.⁸⁷ ReDigi charged 5 to 15 per cent of the sales price of the transferred file for this service.

However, ReDigi's business model was rejected by the United States District Court for the Southern District of New York in *Capitol Records v ReDigi*.⁸⁸ The court was not convinced that ReDigi's forward-and-delete technology was able to simulate the distribution of a physical copy, a premise of the first sale doctrine. The court found that ReDigi's upload process involved copying a file from the vendor's computer to the Cloud Locker, requiring an authorization from Capitol Records, being the owner of the rights in the work:⁸⁹

Because the reproduction right is necessarily implicated when a copyrighted work is embodied in a new material object, and because digital music files must be embodied in a new material object following their transfer over the Internet, the Court determines that the embodiment of a digital music file on a new hard disk is a reproduction within the meaning of the Copyright Act.

Hence, the court considered that transmission over the Internet required the creation of a new material object. In the absence of an authorization from the rights owner, the court judged the copying in question to be an unlawful reproduction of the original. Since the court was unwilling to broaden the scope of the first sale defence to include the transfer of digital files over the Internet, the first sale defence did not apply.⁹⁰ The court's assessment of the transfer process has been criticized by Perzanowski and Schultz, who argue that it 'is indistinguishable from the sale of a 45 or compact disc at a used record store. Both begin with a single copy owned by one party and end with a single copy owned by another. The only difference is that additional temporary copies were created to facilitate the transaction.'⁹¹

The question is whether these critics are right to say that there is only one copy at the beginning and one at the end of the process. Is ReDigi's forward-and-delete technology practically capable of assuring this? The court in *ReDigi* did not further elaborate on this. In the EU copyright consultation, mentioned above,⁹² the EU Commission reports that publishers/producers/broadcasters believe that 'current technology does not allow for proper implementation of forward-and-delete

⁸⁶ Theodore Serra, 'Rebalancing at Resale: ReDigi, Royalties, and the Digital Secondary Market' (2013) *Boston University Law Review*, 93, pp. 1753–1801, at p. 1757. See also Jorge Anguiano, 'Capitol Records, LLC V. ReDIGI, INC. 934 F. SUPP. 2D 640 (S.D.N.Y. 2013)' (2013) *DePaul Journal of Art, Technology & Intellectual Property Law*, 24, pp. 219–233.

⁸⁷ *Capitol Records, LLC v ReDigi, Inc.*, No. 12 CIV. 95 RJS, 2013 WL 1286134 (S.D.N.Y. 30 Mar. 2013), at p. 1.

⁸⁸ *Ibid.*

⁸⁹ *Ibid.*, at p. 6.

⁹⁰ *Ibid.*, at p. 11.

⁹¹ Perzanowski and Schultz, *supra* note 9, p. 938.

⁹² See *supra* note 52 and accompanying text on the EU Commission Copyright Report 2014.

schemes' and authors/performers argue that 'it is impossible to ensure that the reseller destroys the original copy or copies. In such situations there is no "transfer" of the copy, but a multiplication.'⁹³ Hence, a technological solution to the problem does not seem to be available – at least not for the time being.

5.4 FOR A FULLER PICTURE OF TETHERING-SUPPORTED ONLINE BUSINESS

The analysis so far has revealed a number of hurdles that the copyright doctrine faces when trying to adapt the first sale/exhaustion mechanism to the digital networked environment. It appears that the doctrine's precondition that a particular physical copy is transferred from a seller to a buyer cannot be fulfilled in the digital environment. On top of that, tethered technologies will bring into question the survival of first sale as they will enable online businesses to circumvent the defence simply by hardwiring suitable contractual terms. Beyond first sale circumvention, the functionality of tethered technology will have a number of further detrimental effects on consumer autonomies and welfare, as identified above. My conclusion, therefore, is that it is no longer sufficient to strive for equilibrium of interests *within* existing frameworks of IP and copyright doctrine. Hence I recommend ditching the first sale/exhaustion doctrine as a primary mechanism of copyright balance and rather seeking a trade-off between competing individual and social interests in a larger context. The challenge is to avoid things getting out of hand, once existing doctrinal frameworks are abandoned.

Due to the space constrictions of this paper I can only very briefly sketch what such an approach could look like. It is the CJEU that could lead the way as it did in *UsedSoft* when abandoning the narrow framework of copyright exhaustion and looking at the mechanism from the perspective of open markets. The court's externalization of the perspective allowed for a balancing of copyright exclusiveness against open markets, taking account of competing interests such as secondary markets and platform competition. However, this will not always be sufficient. In certain cases, one would need to go beyond that and study the implications for individual and social autonomies more comprehensively. Regarding individual autonomies, one should also consider interests in transactional transparency and consumer expectations,⁹⁴ the possibility to transform, issues of access and freedom of

⁹³ EU Commission Copyright Report 2014, *supra* note 52, at p. 21. In the *Art & Allposters* case, the CJEU had to decide whether the transfer onto canvas of an image printed on a poster and the disappearance of the image from the poster after its transfer would be compatible with the exhaustion rule in Article 4(2) of Directive 2001/29 since – as the defendant argued – there is no multiplication of copies of the protected work. The CJEU found that 'Article 4(2) of Directive 2001/29 does not apply in a situation where a reproduction of a protected work, after having been marketed in the European Union with the copyright holder's consent, has undergone an alteration of its medium, such as the transfer of that reproduction from a paper poster onto a canvas, and is placed on the market again in its new form.' (*Art & Allposters v Pictoright*, *supra* note 73, at para. 49).

⁹⁴ See Molly Shaffer Van Houweling, 'The New Servitudes' (2008) *Georgetown Law Journal*, 96, pp. 898–905. See also Liu, *supra* note 76, at p. 1307: 'If most consumers have strongly held beliefs about the rights they have when they obtain a digital copy of a copyrighted work, and if such beliefs are at odds with the underlying legal regime, then this may lead us to reevaluate the allocation of such rights.'

information and, last but not least, privacy. Beyond that, trans-individual interests should also be protected, as tethering-supported cloud strategies may also undermine cultural heritage preservation goals: if private parties have entire control of the supply of works, there is an enhanced risk that these works may become unavailable at some point (for example if the distributor loses commercial interest in the work).⁹⁵ These aspects should also be considered by courts in their decisions.

To be sure, we must be careful not to throw out the baby with the bathwater and sacrifice copyright exclusiveness entirely. I suggest taking a ‘constitutional’ approach in order to strike a fair balance between competing interests. Again, it is the CJEU who has shown in its recent case law what such a meta-level perspective could look like. A first case that is key in this regard is the court’s Grand Chamber decision in *Promusicae* (2008), holding that IP rights must be balanced against other fundamental rights.⁹⁶ According to *Promusicae*, the framework informing courts when implementing this requirement is provided by the Charter of Fundamental Rights of the European Union. It must be emphasized that the protection of the right to intellectual property is also enshrined in Article 17(2) of the Charter. As the CJEU specified in *Scarlet v Sabam* (2011), ‘there is, however, nothing whatsoever in the wording of that provision or in the Court’s case-law to suggest that that right is inviolable and must for that reason be absolutely protected.’⁹⁷ Rather, a balancing of interests is required. Among the interests that must be balanced is the freedom to conduct business that is enjoyed by companies providing services on the Internet pursuant to Article 16 of the Charter⁹⁸ and the fundamental rights of such companies’ customers, namely their right to protection of their personal data, as safeguarded by Article 8 of the Charter. Rights of data protection may be infringed when Internet service providers monitor user behaviour and collect data for the purpose of copyright enforcement.⁹⁹ Finally, the court held, in *Scarlet*, that IP rights must also be balanced against users’ freedom to receive or impart information. Freedom of expression and information, as protected by Article 11 of the Charter, can be affected, for instance, when filter technologies that are used for the purpose of rights enforcement are also blocking lawful communications because they are not able to properly distinguish between unlawful and lawful content.¹⁰⁰ The requirement to balance the protection of intellectual property against the freedom of communication, the freedom to conduct business and the right to privacy was confirmed in 2012 in *Sabam v Netlog*.¹⁰¹ Finally, when striving for a fair balance, the principle of proportionality, which is well established as a general principle of law in European

⁹⁵ Reese, *supra* note 51, at p. 599.

⁹⁶ *Productores de Música de España (Promusicae) v Telefónica de España SAU* (29 January 2008) CJEU C-275/06.

⁹⁷ *Scarlet Extended NV v Belgische Vereniging van Auteurs, Componisten en Uitgevers CVBA (SABAM)* (24 November 2011) CJEU C-70/10, at para. 43.

⁹⁸ *Ibid.*, at para. 46.

⁹⁹ *Ibid.*, at para. 51.

¹⁰⁰ *Ibid.*, at para. 52.

¹⁰¹ *Belgische Vereniging van Auteurs, Componisten en Uitgevers CVBA (SABAM) v Netlog NV* (16 February 2012) CJEU C-360/10.

countries, in the European Union and in the framework of the European Convention on Human Rights, could also provide guidance.¹⁰²

6. CONCLUSIONS

Tethering technologies are waiting in the wings to support novel online strategies for the distribution of 'cultural' works and software. Their functionalities establish a permanent link between an Internet platform and its user and provide for a trusted system, ensuring that the exchange of digital content happens between authorized platforms and devices only. These functionalities are advantageous for both platform owners and consumers. For platform owners they are attractive since they offer the possibility to reprogram the application at will. Moreover, they enable platform owners to closely monitor any use that a consumer makes of a licensed work – similar to an enhanced version of a DRM system. Monitoring of how content is being used enables the collection of consumer data. Such data can either be mined with data from other sources to generate fine-meshed user profiles or can be sold to companies active in the trade of big data. For consumers, tethered appliances are attractive since they offer safety, are easy to handle and – in the realm of entertainment – promise access to the riches of large repertoires.

However, the new technology also entails considerable copyright-related drawbacks for consumers as they are denied a number of benefits that they enjoyed when buying a physical copy of a book, CD or DVD etc. under the brick-and-mortar paradigm. Although the curtailing of the first sale and exhaustion mechanism carries particular weight from the perspective of copyright equilibrium, a number of proposals to readjust the copyright doctrine have not proven to be entirely satisfactory. Since a technological remedy is not (yet) available, and bearing in mind the above identified other dangers to user autonomy, I recommend abandoning the narrow framework of copyright exhaustion and considering the relationship of the various values and interests from a broader perspective. The recent case law of the CJEU, balancing IP rights against freedom of communication, freedom to conduct business and the right to privacy, promises an interesting approach that refers to the quasi-constitutional framework provided by the EU Charter of Fundamental Rights.

¹⁰² In EU law it is enshrined as a general principle in Article 5 of the Treaty on European Union which provides that action by the Union shall not go beyond what is necessary to achieve the objectives of the Treaty (Consolidated version of the Treaty on European Union, 2010 O.J. (C 83) 1, 15). See Paul Craig and Gráinne de Búrca, *EU Law*, 5th edn, Oxford: Oxford University Press, 2011, at pp. 526–533; Ueda, 'Is the Principle of Proportionality the European Approach?' (2003) *European Business Law Review*, 14 (5), pp. 557–593.