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Copyright and the Two Cultures of Online Communication

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Abstract: According to the prevailing view, the purpose of digital copyright is to balance conflicting interests in exclusivity on the one hand and in access to information on the other. This article offers an alternative reading of the conflicts surrounding copyright in the digital era. It argues that two cultures of communication coexist on the internet, each of which has a different relationship to copyright. Whereas copyright institutionalizes and supports a culture of exclusivity, it is at best neutral towards a culture of free and open access. The article shows that, depending on the future regulation of copyright and the internet in general, the dynamic coexistence of these cultures may well be replaced by an overwhelming dominance of the culture of exclusivity.

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I. Communication Cultures on the Internet

The relationship between copyright and the internet is often described as a conflict between exclusivity and access. Depending on whether one views this conflict from the perspective of copyright or of the internet, copyright optimists (or pessimists) stand in incontrovertible opposition to cyber optimists (or pessimists). The solution then called for is 'fair balance'. This article presents an alternative interpretation. It takes as a starting point the reality of online communication, which is characterized by two cultures of communication that relate to copyright in different ways.

1. Exclusivity Culture

- Let us call the first of these two cultures the culture of exclusivity. It is primarily a business model whereby an entrepreneur provides paid access to works and other subject matter according to technical and contractual conditions. In 1994, Paul Goldstein predicted the advent of such a 'celestial jukebox' on the internet that would provide everyone at any time in any place with the desired content though of course after automatically transferring a certain amount from the consumer's bank account to the copyright holder. Today examples of this model can be found in all copyright-related areas: the e-book market, access-controlled databases of academic publishers, newspapers behind pay-walls, proprietary software, music platforms such as Apple iTunes and Spotify, pay-TV and video-on-demand providers like Netflix and so on.
- 3 Such business models implement a culture of exclusivity in the image of the analogue world. In a hierarchical model, information flows from one source to a great number of users whose activity is essentially limited to choosing and

Goldstein, Copyright's Highway: From Gutenberg to the Celestial Jukebox, 10 (2d ed. 2003).

² ECJ, Case C-275/06, paras 60, 70 – Promusicae; Geiger, "Constitutionalising" Intellectual Property Law? The Influence of Fundamental Rights on Intellectual Property in the European Union, 37 IIC 371 (2006).

³ Lehman, Intellectual Property and the National Information Infrastructure, The Report of the Working Group on Intellectual Property Rights, http://www.uspto.gov/web/offices/com/doc/ipnii/, at 14 (accessed 11 Nov. 2014); Benkler, The Wealth of Networks, 395 (2006) (enclosure vs. openness); Lessig, Remix: Making Art and Commerce Thrive in the Hybrid Economy, 105 (2008) (read-only vs. read-write-culture); Cohen, Configuring the Networked Self, 6 (2012) (information-as-freedom vs. information-as-control).

⁴ Goldstein, supra n. 1, at 22; Benkler, supra n. 3, at 41 (rights-based exclusion).

consuming the digital product. Many of the providers who operate in this mode today were already in the business of providing content before the advent of the internet.⁵

2. Access Culture

- The main characteristic of the access culture, in contrast, is that information is available without technical barriers and is not directly marketed in exchange for money. Certainly, the recipient normally may not do what he or she pleases with the data received. Indeed, many authors of works who make their works openly available in this way reserve certain rights, particularly moral rights. Still, temporary and permanent copies as well as hyperlinks are permitted free of charge in any case. In this way, at least the exchange of unaltered data can take place without consideration of copyright in the sense of a prior consent requirement. The ideal of the open-access culture is not Goldstein's celestial jukebox, but the wiki. It allows information to flow through a network in which everyone who is connected to the net can, may and should take part as a sender and receiver of information under equal conditions and without central control: heterarchical hypertext.
- This model of communication can also be found in all copyright-related branches of the internet. There is text freely available on Wikipedia and on fan fiction platforms, in open databases like openjur.de for German legal information or in repositories for scientific and academic information⁸ and, not least, in blogs. Free and open-source software has become a serious rival of proprietary software in some fields. Finally, there are countless photos, audio and video files available on individual web sites and platforms like YouTube und Flickr which range from professional works to amateurish 'user generated content'.⁹

⁵ Litman, *Digital Copyright*, 171 (2001).

⁶ See infra, 12.2.2.

⁷ http://de.wikipedia.org/wiki/Wiki (accessed 11 Nov. 2014).

⁸ Peukert, *Das Verhältnis zwischen Urheberrecht und Wissenschaft: Auf die Perspektive kommt es an!*, Goethe-Universität Frankfurt a.M., Fachbereich Rechtswissenschaft, Arbeitspapier Nr. 5/2013, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2268906 (accessed 11 Nov. 2014).
⁹ See Naughton, *From Gutenberg to Zuckerberg*, 144, 245 (2012).

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Unlike the exclusivity culture, the access culture cannot be reduced at the outset to a market transaction (content for money). While some open-content offers are connected to commercial services, especially advertising and complementary offers, and are thus indirectly commercialized, ¹⁰ for the most part, the access culture is fed by non-commercially motivated contributions that are financed in part by public funds (science, research, archives), and in part by private means (donations, not-for-profit hobby activities). The bulk of the necessary infrastructure is provided by companies like Google and Facebook, which, with their structuring and linking of the information, have developed the most dynamic, and presumably most profitable, business models on the internet.

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The open, participatory and mostly non-commercial character of the access culture reflects the technical structure and the historical genesis of the internet. The net of nets came into being in the 1960s in a unique military-scientific context that was shaped by the Cold War. The original impulse was the desire of the US military to possess a communications system that would survive an atomic attack. The desired structure therefore had to have three features: stability, flexibility and de-centrality. If one or more nodes of the net failed, this should ideally not impact communication. To meet this challenge, the Advanced Research Projects Agency (ARPA) provided scientists with virtually unlimited funds and likewise unlimited intellectual leeway. The scientists, in turn, used the net they were generating, ARPANet, with its strictly de-central conception, for their work, developing innovative forms of information exchange. If one working group reached a dead-end, it sent out a 'request for comments' and in this way put into practice the idea of the interactive network. It went without saying that the researchers disclosed all source codes.

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Scientific interests and communication norms became even more significant after the National Science Foundation succeeded the US military in the early 1980s as the primary source of funding for network research and development. It was scientists who programmed the underlying network protocols and

¹⁰ Benkler, supra n. 3, at 41. (nonexclusion-market vs. nonexclusion-nonmarket).

Wielsch, Zugangsregeln. Die Rechtsverfassung der Wissensteilung, 243 (2008); Lessig, Code, 59 (2d ed. 2006); Abbate, Inventing the internet, 145 (1999).

¹² Abbate, s*upra* n. 11, at 43.

Abbate, *supra* n. 11, at 56, 74.

¹⁴ Abbate, *supra* n. 11, at. 70.

applications like E-Mail and the World Wide Web, primarily for their genuinely non-commercial purposes. They even expressly waived all copyright protection for their computer programs.¹⁵ Up until the early 1990s, the National Science Foundation's guidelines prohibited the use of the internet for non-scientific, in particular commercial, purposes. The state control of the infrastructural backbone of the net did not officially end until 30 April 1995.¹⁶

The result of this highly improbable, military-scientific genesis was a technology that is fundamentally different from previous means of communication: First, there exists no central authority to act as speaker or controller, and second, the network has a neutral relationship to the applications and contents located at the ends of the network (end-to-end principle). Its function consists solely in transferring any and every binary data set from computer A to computer B as quickly and reliably as possible. Even technologies like packet switching and the multi-layer structure of network architecture are oriented fully towards the principle of a most efficient and stable transmission of data, while making it much more difficult to monitor those data for security reasons. Is

Thus, the story comes full circle. A project that was increasingly driven by scientific interests brought forth a technology that facilitates means of communication that are ideally found in research groups, later in 'cyberspace', and now, finally, in much depleted amounts, in the access culture. These communication practices are characterized by the active involvement of all participants, openness towards new contributions and the lack of a central entity of control. Further, communication rules differ depending on the community at hand (i.e. military or science), whereas the culture of exclusivity is characterized by the formal, standardized legal rules of property and contract.

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¹⁵ Abbate, *supra* n. 11, at 111, 143, 214 ff. Cf. Statement Concerning CERN W3 Software Release Into Public Domain, 30.4.1993, http://tenyears-www.web.cern.ch/tenyears-www/declaration/page1.html (accessed 11 Nov. 2014).

¹⁶ Abbate, *supra* n. 11, at 196, 199.

¹⁷ Post, *In Search of Jefferson's Moose*, 82 (2009); Naughton, *supra* n. 9, at 46.

¹⁸ Lessig, *supra* n. 11, at 144; Benkler, *supra* n. 3, at 412. This security shortcoming is not inconsistent with the military origin of the internet. The US military, indeed, thought in categories of a hermetic military network that was controlled by its hierarchically structured ends. If the authorization to participate in communication is dependent on military rank, and the content of the communication dependent on an order, any additional control of data transfer in fact seems superfluous. Security flaws did not become virulent, at any rate, until long after the US military had withdrawn and the internet was on its way to becoming the global net of nets.

¹⁹ Hoeren, *Das Internet für Juristen - eine Einführung*, Neue Juristische Wochenschrift 3295, 3298 (1995).

3. Freedom of Choice and Hybrids

The technology of the digital network allows for both a completely uncontrolled dissemination of data and the maximally regulated use of data. ²⁰ Both variations co-exist on the internet, across which binary data are transferred without respect to their source, their destination or their content. This is how it can be that in some areas the access culture, and in others the exclusivity culture dominates. While Wikipedia has for the most part supplanted proprietary encyclopaedias, information in the legal field is primarily made available and consulted through access-controlled databases like Westlaw. This variety follows from the freedom right-holders enjoy in the digital world. They are free to market some subject matter exclusively while making other material available without any technical barriers. The status of a given work can change over time. ²¹ Even the simultaneous availability of content on closed and open platforms is technically and legally possible – consider for example so-called green open access in the academic area. ²²

The distinction between exclusivity culture and access culture draws upon the technology used. If someone makes a set of data unconditionally available, she is participating in the culture of open access. If however the access is technologically restricted, and dependent on an individual authorization, communication takes place in the exclusive mode.²³ The fact that digitized communication is by its nature technologically processed communication makes technology the definitive criterion: *Code is law.*²⁴ Accordingly, the legal protection of technical protection measures has always been a core feature of copyright regulation of the net.²⁵ The German *Bundesgerichtshof* refers to

²⁰ See National Research Council Committee on Intellectual Property Rights in the Emerging Information Infrastructure, *The Digital Dilemma: Intellectual Property in the Information Age* (2000); Litman, *supra* n. 5, at 12.
²¹ See Peukert, *A Bipolar Copyright System for the Digital Network Environment*, 28 Comm/Ent

²¹ See Peukert, A Bipolar Copyright System for the Digital Network Environment, 28 Comm/Ent L.J. 1, 36 (2005), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=801124 (accessed 11 Nov. 2014).

²² Peukert, supra n. 8.

²³ Efroni, *Access Right*, 490, 540 (Munich 2009).

²⁴ Lessig, *supra* n. 11, at 24.

²⁵ Wittgenstein, *Die digitale Agenda der neuen WIPO-Verträge*, 12 (2000).

technological criteria in deciding about the conformity of certain forms of online communication such as hyperlinks and search engines with copyright law.²⁶

The aspect of commercialization, instead, forms a merely subordinate distinguishing feature. It is true that an individual fee for the use of content can only be effectively enforced when access to that content is regulated by technology, which is why the fee-based, access-controlled online database is the paradigm of the exclusivity culture. And yet open content is also commercialized in many different ways. Suffice it to refer to the marketing of complementary products and services in the case of Open Source Software and online games, live performances and merchandising of music or, last but not least, advertising other products in the context of freely accessible content.

There are numerous business models that populate the spectrum between the culture of exclusivity and the culture of access. It is hybrids like these that evoke the explanatory power of the distinction made here.²⁷ These hybrids are, economically and legally, just as interesting as they are contradictory and controversial, because they cannot be placed in one or the other category. This observation provides an explanation, for instance, for the dispute over the new neighbouring right for press publishers in Germany, on both sides of which hybrids are involved. Press publishers have their roots in the exclusivity culture and run a business with a strict hierarchical organization, offline as well as online, with content that is in fact still for the most part freely accessible on the internet.²⁸ Commercial search engines and news aggregators, on the other hand, market freely accessible information in which, in their opinion, as few rights as possible should exist, whereas their centrally controlled search

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²⁶ See *Bundesgerichtshof*, Case I ZR 39/08, Gewerblicher Rechtsschutz und Urheberrecht 2011, 56 para 27 – Session-ID (permissibility of hyperlinks depends on whether technical measures are circumvented); *Bundesgerichtshof*, Case I ZR 69/08, Gewerblicher Rechtsschutz und Urheberrecht 2010, 628 paras 28, 33 – Vorschaubilder I (consent is implied for normal use if no technical measures are implemented to prevent it); on *Störerhaftung* see *Bundesgerichtshof*, Case I ZR 35/04, Gewerblicher Rechtsschutz und Urheberrecht 2007, 708 para 47 – Internet-Versteigerung II (the limits of *Störerhaftung* are reached in any case when no features are included that are suited for use on a search engine); *Bundesgerichtshof*, Case I ZR 57/07, Gewerblicher Rechtsschutz und Urheberrecht 2009, 841 para 34 – Cybersky (duties of care are normally reasonable if they can be automated. Otherwise the business model must be technically modified so as to no longer abet infringements.); Cf. Wielsch, *supra* n. 11, at 259 fn. 86.

²⁷ Lessig, *supra* n. 3, at 179 (hybrids).

As regards online archives of newspapers see *Bundesgerichtshof*, Case I ZR 127/09, Gewerblicher Rechtsschutz und Urheberrecht 2011, 415 paras 9 et seq. – Kunstausstellung im Online-Archiv.

algorithm – a business model cast into code – represents top-secret intellectual property. The newly implemented *Leistungsschutzrecht* for press publishers (Secs 87f-h German CA) is intended to help them to finally switch to the exclusivity camp to which they belong.²⁹

In contrast to press publishers and Google, the operators of Spotify and Wikipedia clearly operate in one or the other model. That is why they provoke much less irritation. This has to do, in good measure, with each one's relatively clear relationship to copyright, which will be the focus of the following sections.

II. The Role of Current Copyright Law

1. Copyright and Exclusivity Culture

The symbiosis alluded to above between the culture of exclusivity and copyright corresponds to the internal logic and the primary, historically developed purpose of this area of law. With exclusive exploitation rights,³⁰ copyright institutionalizes a market for the production and distribution of works and other intangible subject matter. Works, performances, phonograms, databases etc. become tradable goods whose use is subject to prior authorization and, as a rule, payment of a fee. The entire purpose of copyright, in other words, is to commodify the input and output of the literary, scientific and artistic domain, and further branches of the digital economy.³¹

In the analogue world, this market communication flowed hierarchically from the author through a commercial middleman (publisher) to the public. On the internet, new actors have appeared on the scene. In particular, digital author-entrepreneurs are able to largely market their works themselves through online platforms.³² And yet, even on the internet, they are able to operate in the exclusive mode, because this market model has been applied to network

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²⁹ §§ 87f para 2, 87g German Copyright Act.

³⁰ Peifer, *Wissenschaftsmarkt und Urheberrecht: Schranken, Vertragsrecht, Wettbewerbsrecht,* Gewerblicher Rechtsschutz und Urheberrecht 22 (2009).

³¹ Cohen, *supra* n. 3, at 81.

For Apple iBooks see http://www.apple.com/de/ibooks-author/ (accessed 11 Nov. 2014); on Kindle Direct Publishing see https://kdp.amazon.com/self-publishing/help?topicId=A3R2IZDC42DJW6 (accessed 11 Nov. 2014).

communication via four legislative measures:³³ First, the exclusive right of reproduction was extended such that even a transient or incidental digital copy, and thus every private enjoyment of a work on a computer, requires authorization.³⁴ Second, the making available of works and other subject matter was made subject to a separate exclusive right, irrespective of the location of the server.³⁵ Third, the option of online exhaustion, and thus a secondary market for used digital goods, was ruled out.³⁶ Fourth, technological protection measures (digital rights management systems) were given legal protection against circumvention.³⁷ With this expansion of digital copyright, a pay-per-use business model – the 'celestial jukebox' – has been institutionalized as the 'normal' means of exploitation.³⁸

This course was set by means of top-down regulation at a time when the internet was just emerging from the military-scientific context of its early development and was as yet barely commercialized.³⁹ As early as 1993, the Clinton administration appointed a working group to deal with questions of intellectual property in the context of the 'information highway'. In the fall of 1995, it presented its final report.⁴⁰ The legislative implementation of the four above-named pillars of digital copyright in the US failed in the following year, however, due in part to vehement criticism on the part of the US online community.⁴¹ And yet similar resolutions were attained shortly thereafter on the

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 ³³ European Commission, Green Paper on Copyright and Related Rights in the Information Society, 19.7.1995, COM(95) 382 final, at 44 ff.; Lehman, supra n. 3, at 19.; Wittgenstein, supra n. 25, at 49.
 ³⁴ See Agreed Statement on Art. 1 para 4 WCT; Art. 7 WPPT; Art. 2 Copyright Directive

³⁴ See Agreed Statement on Art. 1 para 4 WCT; Art. 7 WPPT; Art. 2 Copyright Directive 2001/29; CJEU Case C-360/13 – Public Relations Consultants Association.

³⁵ See Art. 8 WCT; 10, 14 WPPT; 3 Copyright Directive 2001/29; § 19a German Copyright Act. On the applicable law see CJEU, Case C-173/11, paras 18 et seq. – Football Dataco et al; Reinbothe/v. Lewinski, *The WIPO Treaties 1996*, Art. 8 WCT note 17 (2002/2007).

³⁶ See Art. 6 and 8 and agreed statement on Art. 6 and 7 WCT; recital 29 and Art. 3 Abs. 3 Copyright Directive 2001/29; *Oberlandesgericht Stuttgart*, Zeitschrift für Urheber- und Medienrecht 2012, 81; *Landgericht Bielefeld*, Case 4 O 191/11, Zeitschrift für Urheber- und Medienrecht 2013, 688 f. Contra with regard to the Computer Program Directive 2009/24 CJEU, Case C-128/11 – Usesoft.

³⁷ See Art. 11, 12 WCT; 18, 19 WPPT; 6 para 4 subpara 4 Copyright Directive 2001/29; § 95b para 3 German Copyright Act.

³⁸ Peukert, in: Hilty/Peukert (eds), Interessenausgleich im Urheberrecht, 11, 24 (2004); European Commission, supra n. 33, 22.

³⁹ Critical Hoeren, *Urheberrecht in der Informationsgesellschaft*, Gewerblicher Rechtsschutz und Urheberrecht 866, 874 (1997); Wittgenstein, *supra* n. 25, at 132.

⁴⁰ Lehman, supra n. 3, at 14; Litman, supra n. 5, at 90.

⁴¹ Litman, *supra* n. 5, at 128.

international level. ⁴² The European Council in July 1994 – even earlier than the Clinton administration – committed to a high level of copyright protection in the new networks. ⁴³ In January 1995, a resolution of the G-7 Conference ran along the same lines, expressly referring to the already initiated efforts of WIPO. ⁴⁴ The diplomatic consultations on applying copyright law to the internet lasted only three months. Already in December 1996, the agenda that had failed in the US was successfully implemented by the two WIPO 'internet treaties', the WCT and the WPPT. ⁴⁵ The four principles of digital copyright set out therein found their way via the EC Directive 2001/29 'on the harmonization of certain aspects of copyright and related rights in the information society' into the copyright laws of the Member States of the then European Communities.

This swift victory march of copyright is particularly remarkable because it preceded the spread of the internet as a mass phenomenon. The net had formally only just been released from the care of the National Science Foundation onto the free market on 1 May 1995. In 1996, even in industrialized nations only 11% of all households had internet access. The European Commission stated quite frankly in its green paper of July 1995 that the "issues which arise out of the development of an information society and its impact on systems of copyright and related rights" were "still uncertain", and the new market structures "largely hypothetical", as the development of the information society "is still only in its infancy". Unlike in the US, 48 legal scholarship on the internet was also still evolving: In this decisive phase, German copyright lawyers were still grappling with the difference between online and offline, 49 and

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On this forum shifting see Sell, *TRIPS: Fifteen Years Later*, (2011), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1900102 (accessed 11 Nov. 2014).

⁴³ EC Commission, Europes way to the information society. An action plan, COM(94) 347 final, 19.7.1994, p. 3, 9; European Commission, *supra* n. 33, at 6; cf. recital 2 Copyright Directive 2001/29.

⁴⁴ European Commission, *supra* n. 33, at 13.

⁴⁵ Wittgenstein, supra n. 25, at 36, 44.

⁴⁶ http://en.wikipedia.org/wiki/Global_internet_usage (accessed 11 Nov. 2014).

⁴⁷ EC Commission, *supra* n. 43, at 19, 22.

⁴⁸ See *Playboy Enterprises v. Frena*, 893 F.Supp. 1552 (M.D. Fla. 1993); Elkin-Koren, *Copyright Law and Social Dialogue on the Information Superhighway: The Case against Copyright Liability of Bulletin Board Operators*, Cardozo Arts & Entertainment L.J. 13, 345 (1995).

⁴⁹ Schardt, *Multimedia - Fakten und Rechtsfragen*, Gewerblicher Rechtsschutz und Urheberrecht 827, 829 (1996).

opined that legal questions on the "so-called" internet were not thoroughly researched.⁵⁰

20 This ignorance can be seen as the very condition for the success of the political agenda of digital copyright. In the mid-1990s, there was simply no relevant civil society interest group outside the US that was able to articulate the concerns of the access culture. 51 The exclusivity culture, on the other hand, was powerfully represented by right-holders. They had fully recognized the danger, but also the potential, of the internet for their business models. 52 And thus dominated an orthodox copyright perspective on the 'information highway', which was completely detached from the discourse on the technological, social and cultural issues the internet presented. The internet was conceived of as a global highway on which hundreds of television channels and other content would be transmitted, if only it could be guaranteed that not a single unauthorized copy would find its way into this medium.⁵³ That the internet might represent a disruptive technology just like writing or printing, and that it facilitates a completely different culture of communication, merited a footnote at best.54

21 The vision of a 'celestial jukebox', which in its basic features was thus already codified in 1996, further implies that copyright is changing from a tool to protect certain eligible aspects of communication only (namely 'works')⁵⁵ to a right that covers every potential asset and thus in the end every element of communication. 56 When it becomes possible to market every data set, then the law should provide for this possibility: if value, then right.⁵⁷

⁵⁰ Nordemann/Goddar/Tönhardt/Czychowski, Gewerblicher Rechtsschutz und Urheberrecht im Internet, Computer und Recht 645 (1996).

51 Hoeren, Urheberrecht 2000 – Thesen für eine Reform des Urheberrechts, Multimedia und

Recht 3, 6 (2000) (users have no lobby); Dreier, Urheberrecht an der Schwelle des 3. Jahrtausends, Computer und Recht 45 (2000). ⁵² Wittgenstein, *supra* n. 25, at 133.

⁵³ Europen Commision, supra n. 33, at 3; Lehman, supra n. 3, at 7-8.

⁵⁴ Lehman, supra n. 3, at 7-8. But see AG Cruz Villalón, Case C-314/12, para 21 - UPC Telekabel Wien ("Few inventions have changed our habits and our media consumption as completely as that of the internet."); Schmidt/Cohen, The New Digital Age, 1 (2013).

⁵⁵ Schricker/Loewenheim, in: Schricker/Loewenheim (eds.), *Urheberrecht*, Einl. note 7 (4th ed. 2010); Wielsch, supra n. 11, at 31.

⁵⁶ Schricker, in: Schricker (ed), *Urheberrecht auf dem Weg zur Informationsgesellschaft*, 5 (1997); critical Hoeren, supra n. 39, at 869; on scientific information see Hilty, Das Urheberrecht und der Wissenschaftler, Gewerblicher Rechtsschutz und Urheberrecht International 179, 181 (2006); Dreier/Leistner, Urheberrecht im Internet: die Forschungsherausforderungen, Gewerblicher Rechtsschutz und Urheberrecht 881 (2013).

⁷ Critically Peukert, Güterzuordnung als Rechtsprinzip, 132, 733, 765 (2008).

protectable subject matter was enlarged. Accordingly, every software marketed

is a copyrightable work. 58 In addition, automatic protection is enjoyed under

German copyright law by practically every piece of communication that is

produced and conveyed by means of copyrighted software, namely: every

photograph;⁵⁹ every particle, be it ever so small, of commercially produced audio and video recording;⁶⁰ texts consisting of at least two words;⁶¹ as well as

every part of a press product, unless this pertains to individual words or the

smallest of text excerpts. 62 Last but not least, the question of the copyrightability

of single elements of communication becomes irrelevant when the obtaining,

verification or presentation of these data or other independent elements

requires a substantial qualitative or quantitative investment. In this case, the

online database as such enjoys the three layers of digital copyright protection:

law, technological protection measures and anti-circumvention rules. ⁶³

Second, in the world of the 'celestial jukebox' there is no such thing as out-ofprint works, because the marginal costs of keeping digital content in stock are negligible.⁶⁴ As a consequence, the expiry of a term of protection is perceived as destruction of assets, drawing complaint. A way out of this quandary is provided by the expansion of copyright duration. Following this logic, copyright

⁵⁸ Bundesgerichtshof, Case I ZR 90/09, Gewerblicher Rechtsschutz und Urheberrecht 2013, 509 para 24 – UniBasic-IDOS.

⁵⁹ § 72 German Copyright Act.

⁶⁰ On §§ 94, 95 German Copyright Act see *Bundesgerichtshof*, Case I ZR 42/05, Gewerblicher Rechtsschutz und Urheberrecht 2008, 693 para 21 – TV-Total. On § 85 German Copyright Act see *Bundesgerichtshof*, Case I ZR 112/06, Gewerblicher Rechtsschutz und Urheberrecht 2009, 403 para 14 – Metall auf Metall.

⁶¹ ECJ, Case C-5/08, paras 30 et seq. – Infopaq I; *Bundesgerichtshof*, Case I ZR 12/08, Gewerblicher Rechtsschutz und Urheberrecht 2011, 134 para 33 – Perlentaucher; *Oberlandesgericht Frankfurt a.M.*, Case 11 U 75/06, BeckRS 2011, 27257 – Perlentaucher II (according to which such phrases as "esoterical cock-and-bull story" and "subsidized rediscovery" are protected by copyright, but not "publishers ... which need no longer pay royalties").

⁶² § 87f para 1 German Copyright Act.

^{§ 85}a et seq. German Copyright Act; ECJ, Case C-203/02, paras 28 et seq. – British Horseracing; ECJ, Case C-545/07, para 73 – Apis.

64 Chris Anderson, The Long Tail, 2007.

in the US⁶⁵ and the related rights of performing artists and music producers in the EU were extended by 20 years in 1998 and 2011, respectively. 66

Third, enforcement of copyright shall be such that an unauthorized exchange of data can only take place under a high risk of legal consequences, in the hopes that the majority of average internet users will stay away from the dark net and find their way to the celestial jukebox. In this initially underestimated respect, digital copyright actually meets with considerable resistance, some of which is grounded in law.⁶⁷ For example, the liability of host and access providers as well as search engine providers is still the subject of intense debate. EU Member States continue to have considerable leeway in establishing a 'fair balance' between the effective enforcement of copyright and the exclusivity culture on the one hand, and fundamental rights of users and intermediaries that tend to be associated with the access culture on the other hand.⁶⁸ Nevertheless, the German Bundesgerichtshof has done its part to improve the legal situation of right-holders. Irrespective of express statements to the contrary in the legislative history of the Copyright Act, the court granted rightholders a claim against internet access providers to reveal the identity of individual infringers, even if the infringement concerned only one single upload or download. 69 Further, service providers whose business model is based on copyright infringement or who promote the risk of an infringing use of their otherwise neutral software by, for example, advertising "free pay TV", are subject to extensive duties of care. Accordingly, a file hosting service can be under an obligation to search all external link lists that point to illegal files on the server of the company, 70 and the company that promoted "free pay TV"

⁶⁵ See Eldred v. Ashcroft, 537 U.S. 186 (2003); Hilty, Eldred v. Ashcroft: Die Schutzfrist im Urheberrecht - eine Diskussion, die auch Europäer interessieren sollte, Gewerblicher Rechtsschutz und Urheberrecht Int. 201 (2003).

⁶⁶ Art. 1 para 2 lit. b, 3 para 2 EU Directive 2011/77.

⁶⁷ See *infra* 12.2.2.

ECJ, Case C-275/06, paras 47 et seq. – Promusicae.
 Bundesgerichtshof, Case I ZB 80/11, Gewerblicher Rechtsschutz und Urheberrecht 2012, 1026 paras 22, 40 – Alles kann besser werden.

⁷⁰ Bundesgerichtshof, Case I ZR 80/12, Gewerblicher Rechtsschutz und Urheberrecht 2013, 1030 paras 36 et seq. - File-Hosting-Dienst (a 17-member abuse team is not sufficient). Afterwards, the defendant modified its business model, introducing a cap on the amount of data transferable at maximum speed in the premium mode as well. The defendant lost many customers as a result; cf. http://www.heise.de/newsticker/meldung/Rapidshare-entlaesst-drei-Viertel-aller-Mitarbeiter-1865665.html (accessed 11 Nov. 2014)).

software had to modify the computer program so that it could no longer be used in infringing ways.⁷¹

2. Copyright and Access Culture

While copyright thus represents the legal basis for the exclusivity culture, its relationship with the access culture is at best neutral. The latter has its roots in a predominantly military-scientific 'cyberspace' that largely ignores core copyright norms of authorship, property and bilateral transactions. It is not that copyright in any way prohibits an open communication culture. Rather, it merely creates the requirement of authorization by the right-holder regarding whether, how and with which of her works she would like to participate in network communication. However, copyright does not have the purpose of creating or stabilizing conditions and norms of communication beyond commodity transactions. Therefore, it is not surprising that the regulatory milestones in supporting and protecting the internet's original dominant culture of access are to be found outside copyright law.

This is true, first, of the limited liability of access and host providers pursuant to Arts 12-15 of the E-Commerce Directive 2000/31. These provisions are not intended to impact the effective enforcement of copyright on the internet. And yet the EU legislature thereby privileges technologies and commercial services whose purpose is to save and transmit third-party content without consideration of copyright protection. Thus different layers of the internet are subject to divergent, if not downright opposing, principles of regulation. The infrastructure and provider markets are supposed to function according to the principles of the open, heterarchical internet. The content markets, on the contrary, are regulated according to the hierarchical model of producing cultural goods in the

⁷¹ Bundesgerichtshof, Case I ZR 57/07, Gewerblicher Rechtsschutz und Urheberrecht 2009, 841 paras 21, 32 – Cybersky (distribution of the software Cybersky TV is prohibited if it can be used to send or receive a decrypted pay-TV content in the framework of a peer-to-peer system).

⁷² Supra 12.1.2. ⁷³ Dreier, supra n. 51, at 45.

⁷⁴Wielsch, *Relationales Urheberrecht*, Zeitschrift für Geistiges Eigentum 274 (2013).

⁷⁵ Recital 50 E-Commerce Directive 2000/31.

⁷⁶ Recitals 40 et seq. E-Commerce Directive 2000/31.

analogue world. This contradiction plagues the 'networked continent' to this day.⁷⁷

27 Second, communication on the open internet enjoys the protection of fundamental rights. These result in partly insurmountable hurdles for the effective enforcement of copyright and the culture of exclusivity. A complete capture of online communication for preventive or repressive purposes would run counter to the constitutional identity of Germany and therefore could not be lawfully implemented, even via the roundabout route of international or EU law. 78 Processing dynamic IP addresses in order to identify an internet user as the infringer of copyright interferes with the fundamental rights of telecommunications privacy and informational autonomy. 79 The CJEU has held that access and host providers may not be obligated to install as a preventive measure a system for filtering all electronic communications, indiscriminately to all their customers, at the provider's expense and for an unlimited period.⁸⁰ As the Court bases its holding not only on current secondary law, but also on the Charter of Fundamental Rights, such a regulatory measure, which obviously would be especially favourable to right-holders, is not feasible even for the future. Even after the UPC Telekabel decision, German courts deny blocking orders⁸¹ and data-preservation orders against access providers.⁸²

But it is not only data protection law that continues to stand in the way of digital copyright. Specifically, both EU and German high courts recognize that the business models of access and host providers, as well as other information society services (e.g. search engines), are allowed under the law, and that their providers enjoy the protection of the fundamental right to freely conduct a business (Art. 2(1) and Art. 12(1) German Basic Law, Art. 16 Charter). Their indirect liability for copyright infringements of third parties is therefore limited

⁷⁷ See *infra* 12.3.1.

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⁷⁸ Bundesverfassungsgericht, Case 1 BvR 256/08, Neue Juristische Wochenschrift 2010, 833 paras 216, 218 – Vorratsdatenspeicherung.

⁸² Oberlandesgericht Düsseldorf, Case I-20 W 121/12, I-20 W 5/13, Multimedia und Recht 2013, 392 – IP-Daten-Speicherung.

⁷⁹ Bundesverfassungsgericht, Case 1 BvR 256/08, Neue Juristische Wochenschrift 2010, 833 para 258 – Vorratsdatenspeicherung; Bundesverfassungsgericht, Case 1 BvR 1299/05, Neue Juristische Wochenschrift 2012, 1419 paras 116, 122 – Bestandsdatenspeicherung; Bundesgerichtshof, Case I ZB 80/11, Gewerblicher Rechtsschutz und Urheberrecht 2012, 1026 paras 43, 45 – Alles kann besser werden.

⁸⁰ CJEU, Case C-70/10, para 29 - Scarlet Extended; CJEU, Case C-360/10, para 26 – SABAM. ⁸¹ Oberlandesgericht Köln, Case 6 U 192/11, BeckRS 2014, 15246 (both highly efficient as well as less efficient blocking technologies unreasonable).

business models are not called into question such that their disproportionately hampered. 83 This means, first and foremost, that the measures required of the defendant must be automatable: Code is law.

As a consequence, the means and norms of communication that the internet makes possible do in fact influence digital copyright.⁸⁴ These opposing forces have as yet shown very little impact on black-letter copyright law, however. The first mention of the access culture in German copyright law was made in 2002 in the so-called Linux provisions. According to these, the author may "however" thus as a departure from the copyright-law standard - grant an unremunerated non-exclusive exploitation right for every person. 85 With these provisions, the legislature acknowledges that open content models represent new and effective structures of communication and co-operation for which classical copyright contract law requirements of remuneration and written form are ill suited.86 As a matter of fact, licensing networks like open source and Creative Commons do not serve to secure equitable remuneration for the exploitation of the work, 87 but the widest possible dissemination of the respective work while preserving some rights, specifically, the moral rights of the author.88

However, only a fraction of the freely accessible content on the internet has a formal licence attached.⁸⁹ On personal home pages, but also on commercial platforms, there are countless texts, images, films etc. whose copyright status is not clarified, or at best signalled with a ©. Since every text, audio or video file in case of doubt enjoys automatic legal protection, and every click encroaches on the exclusive reproduction right, the question arose whether the informal branch

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Bundesgerichtshof, Case I ZR 304/01, Entscheidungen des Bundesgerichtshofs in Zivilsachen vol. 158, 236, 251 – Internet-Versteigerung I; Bundesgerichtshof, Case I ZR 121/08, Entscheidungen des Bundesgerichtshofs in Zivilsachen vol. 185, 330 para 24 - Sommer unseres Lebens; Bundesgerichtshof, Case I ZR 80/12, Gewerblicher Rechtsschutz und Urheberrecht 2013, 1030 para 44 - File Hosting-Dienst; CJEU, Case C-324/09, para 139 -L'Oréal. ⁸⁴ Wittgenstein, *supra* n. 25, at 133; Peukert, in: Bieber/Eifert/Groß/Lamla (eds), *Soziale*

Netzwerke in der digitalen Welt, 225 (2009).

^{85 §§ 31}a para 1 s. 2, 32 para 3 s. 3, 32a para 3 s. 3, 32c para 3 s. 2 German Copyright Act. See Bundestags-Drucksachen 14/6433, 15; Bundestags-Drucksachen 14/8058, 19; Bundestags-Drucksachen 16/1828, 37; Bundestags-Drucksachen 16/5939, 44. § 11 German CA.

⁸⁸ Wielsch, *supra* n. 11, at 213.

⁸⁹ On closer look, however, formal open-content licences prove to be at least partly anachronistic hybrids, as they intend to put a dynamic access culture into operation by means of classic, that is, two-sided and inflexible, licensing agreements, whose effect is partially disputed; see Peukert, Der digitale Urheber, Festschrift für Wandtke, 455 (2013) = http://dx.doi.org/10.2139/ssrn.2268916 (accessed 11 Nov. 2014).

of the access culture operated by constantly infringing the copyrights involved. This possible conclusion of orthodox copyright thinking was already ruled out in the mid-1990s by the Paperboy decision of the Bundesgerichtshof. The Court held that hyperlinks to freely available copyright-protected content do not infringe copyright or run afoul of unfair competition law. 90 It reasoned that the right-holder herself makes the work available and that this access is merely facilitated by the hyperlink. She who takes advantage of the possibilities of the World Wide Web to offer her own content cannot complain when others also use this technology. After all, there exists a "public interest in the wellfunctioning of the internet", the expedient use of which is practically impossible without search engines and hyperlinks.91 In developing this point further, the Bundesgerichtshof decided in 2010 that a right-holder who makes texts or images available on the internet without access or copy controls implicitly consents to the "normal uses according to the circumstances". It follows that non-commercial reproductions (downloads, printouts) and commercial image search engines are lawful on the basis of an implied consent.92

predominantly critical opinions the Contrary to in literature. the Bundesgerichtshof deserves due respect for this courageous legal innovation. 93 With the doctrine of implied consent, the Court legalizes the social, inherently reciprocal norms of the access culture - and with them the public interest in their observation – by means of an informal, flexible and globally effective legal instrument. The Bundesgerichtshof likewise earns acclamation for making the validity of the access norms dependent upon there being no contradicting technical measures activated that make it recognisable on a technical level that the provider of the content does not want to participate in this mode of

⁹⁰ Bundesgerichtshof, Gewerblicher Rechtsschutz und Urheberrecht 2003, 958, 961-2 – Paperboy; CJEU, Case C-466/12 – Nils Svensson.

⁹¹ Bundesgerichtshof, Gewerblicher Rechtsschutz und Urheberrecht 2003, 958, 963 – Paperboy.

 ⁹² Bundesgerichtshof, Gewerblicher Rechtsschutz und Urheberrecht 2010, 628 paras 28 et seq.
 Vorschaubilder I; Bundesgerichtshof, Gewerblicher Rechtsschutz und Urheberrecht 2012, 602 paras 16 et seq. – Vorschaubilder II.

⁹³ Wielsch, supra n. 11, at 257; Wielsch, Die Zugangsregeln der Intermediäre: Prozeduralisierung von Schutzrechten, Gewerblicher Rechtsschutz und Urheberrecht 665, 617 (2011); critical Leistner/Stang, Die Bildersuche im Internet aus urheberrechtlicher Sicht, Computer und Recht 499, 507 (2008); Spindler, Bildersuchmaschinen, Schranken und konkludente Einwilligung im Urheberrecht, Gewerblicher Rechtsschutz und Urheberrecht, 785, 791 (2010); Senftleben, Internet search results - a permissible quotation?, 235 Revue International du Droit D'auteur 2, 59 (2013).

communication. Again, network communication is automated and requires automatable rules: *Code is law*.

Recently, the legislative branch has finally begun paying greater attention to the access culture. While the new German neighbouring right for press publishers, on the one hand, pursues the goal of bringing press products into the model of exclusivity, ⁹⁴ its scope of application, on the other hand, has been limited to commercial providers of search engines and news aggregators, which moreover are still allowed to describe the linked content appropriately with single words and extremely short excerpts, so that "the flow of information on the internet ... is not impacted by the proposed regulation". ⁹⁵

Just a few months later, there followed the "Act on the Use of Orphan and Outof-Print Works and Another Amendment to the Copyright Act" of 1 October
2013, 96 containing three measures to actively promote the access culture. The
implementation of the EU Directive on orphan works is intended to benefit the
development of a German Digital Library, whose goal is to make as much of the
national cultural heritage as possible available online. 97 The provisions benefit
only public institutions in the fulfilment of their cultural and educational
objectives for the public good, however. These institutions may only charge fees
to cover the costs of digitalization and making the material publicly available.
The considerable effort needed for a thorough search for right-holders must be
paid for by public funds. It is highly doubtful whether these restrictive conditions
will at all result in the desired mass digitalization of works. 98 The decidedly noncommercial orientation of the EU regulation furthermore prevents Google or any
other company from making the digitized knowledge of the world accessible in
the EU. 99 Orphan works are considered as cultural assets, as res extra

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⁹⁴ Supra 12.1.3.

⁹⁵ See § 87f para 1 s. 1 German Copyright Act and Bundestags-Drucksache 17/11470, 5-6.

⁹⁶ Bundesgesetzblatt 2013 I, 3728.

⁹⁷ Bundestags-Drucksache 17/13423, 10.

⁹⁸ Favale et al, *Copyright, and the Regulation of Orphan Works: A comparative review of seven jurisdictions and a rights clearance simulation*, (2013), http://www.ipo.gov.uk/ipresearch-orphan-201307.pdf (accessed 11 Nov. 2014), 82.

⁹⁹ Bundestags-Drucksache 17/13423, 11. On the political economy of the EU orphan works regulation see Peukert, *Deutschland v. Google: Dokumentation einer Auseinandersetzung*, Archiv für Urheber- und Medienrecht 2010 II, 477. On U.S. law see *The Authors Guild, Inc. et al. v. Google Inc.*, 05 Civ. 8136 (S.D.N.Y., 14.11.2013).

commercium, under EU law. 100 This requirement made the promotion of the access culture politically acceptable. Google's hybrid business model, in contrast, meets with disapprobation, even though (or because?) it is technically and economically practicable. Here again, it becomes evident that hybrid forms between the cultures of exclusivity and access have a greater potential for conflict, but oftentimes also the better potential for solving problems than do approaches that can clearly be assigned to one culture or the other.

Seen in this light, the new German regulation of out-of-print works appears 34 more innovative but also more susceptible to dispute. According to these provisions, collective management organizations are endowed by means of a legal presumption with the legal power to allow public educational and cultural institutions to digitize and make publicly available all printed materials published before 1966 and now out of commerce for non-commercial purposes, if the right-holder does not object within six weeks after notification of the work's inclusion in a register of out-of-commerce works. This opt-out solution, which in the Google Books case was still vehemently fought by the German government, could in fact be an efficient instrument for mass digitization by public authorities, as it is possible to automatically determine a lack of availability and the expiry of the objection period. 101 The result will be an expansion of the pool feeding the access culture on both sides of the Atlantic. The only difference is in the parties benefiting from these changes: On the other side of the Atlantic, Google is attempting to snap up the world's collective knowledge, while in good old Europe, it is the public heritage institutions and collective management organizations that use tax money to generate tasks and income, each in its own interest.

35 Another goal of the amendment is to promote the open access movement in the academic field through a new copyright contract provision. According to Sec. 38(4) of the Copyright Act:

> The author of a scientific contribution which is the result of a research activity publicly funded by at least fifty percent and which has appeared

¹⁰⁰ If on the other hand a right-holder is present, no objections are raised to the commercialization of literature, science and art. ¹⁰¹ Bundestags-Drucksache 17/13423, 11-2, 18.

in a collection which is published periodically at least twice per year has the right, even if he has granted the publisher or editor an exclusive right of use, to make the contribution available to the public in the accepted manuscript version upon expiry of 12 months after first publication, unless this serves a commercial purpose. The source of the first publication shall be indicated. Any deviating agreement to the detriment of the author shall be ineffective.

36 This provision gives publicly funded academic authors the opportunity to publish their texts primarily in the databases of the still dominant academic publishing houses, but to make the same content accessible after an embargo period in the open access mode. 102 This prevents at least a drying up of the access culture in the academy, and could even herald the transition of the academic communication system from the paradigm of the peer-review journal in the hands of a publisher to the open access repository. 103

A striking feature of these measures is that the German legislature only 37 champions a non-commercial, ultimately tax-funded access culture and thus at rules out hybrid business models for the indirect same time commercialization of open content models. This approach institutionalizes only the hierarchical mode of commodification and thereby favours market participants, namely publishers, who operate on this basis. Innovative hybrids, on the other hand, have a rocky footing in Europe.

On the same day as the Orphan Works Act, the German parliament enacted another law, which can be taken as a kind of legislative admonishment to rightholders to develop network-compatible business models, namely, the Act Against Frivolous Business Practices. 104 The act sets a maximum attorney fee of approximately EUR 150 that private copyright infringers have to reimburse if they receive a warning letter. The measure is intended to prevent copyright enforcement from becoming a lucrative business model for attorneys because

102 Hansen. Zugang zu wissenschaftlicher Information - alternative urheberrechtliche Ansätze, Gewerblicher Rechtsschutz und Urheberrecht International, 378, 383 (2005).

¹⁰⁴Bundesgesetzblatt 2013 I, 3714.

Peukert, Ein wissenschaftliches Kommunikationssystem ohne Verlage - zur rechtlichen Implementierung von Open Access als Goldstandard wissenschaftlichen Publizierens, Goethe-Universität Frankfurt a.M., Fachbereich Rechtswissenschaft, Arbeitspapier Nr. 6/2013, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2268901 (accessed 11 Nov. 2014).

such behaviour undermines the legitimacy of copyright. One certainly cannot accuse the German legislature of wanting to make copyright infringement less risky and thus more attractive. And yet the act does send a signal to rightholders, in whose name the attorneys were, after all, acting, that they should provide more licensed services on the internet instead of simply invoking copyright. The attenuation of enforcement measures serves as an incentive to finally make the celestial jukebox a reality.

III. Perspectives

1. Further Promotion of the Exclusivity Culture

And yet such a negative sanction will likely remain an exception. More probable is a further promotion of the exclusivity culture by strengthening and reinforcing copyright protection. ¹⁰⁶

The first possibility in this respect is the expansion of the scope of copyright protection, whether in the form of a general related right for publishers, ¹⁰⁷ or a further extension of the duration of neighbouring rights, particularly in the audiovisual area. ¹⁰⁸ Further, the exclusivity model would become much more impervious if the notion of the "primacy of contractual relations" ¹⁰⁹ over the statutory limitations of copyright should prevail. According to this principle, all limitations and exceptions become inapplicable if the respective work can be licensed under equitable conditions via an access-controlled database. Lawful uses, for example for the purpose of research or studying, would not only fail due to technical protection measures, but would run idle before this stage for lack of necessity whenever the users have the celestial jukebox at their

¹⁰⁵ See Bundestags-Drucksache 17/13057, 10-1.

See e.g. Mazziotti, *Copyright in the EU Digital Single Market. Report of the CEPS Digital Forum*, (2013), http://www.ceps.be/book/copyright-eu-digital-single-market (accessed 11 Nov. 2014); Benkler, *supra* n. 3, at 439.

Kauert, *Das Leistungsschutzrecht des Verlegers*, 226 (2008); Szilagyi, *Leistungsschutzrecht*

Kauert, Das Leistungsschutzrecht des Verlegers, 226 (2008); Szilagyi, Leistungsschutzrecht für Verleger, 188 (2011); Rieger, Ein Leistungsschutzrecht für Presseverleger, (2013).
 Art. 3 EU Directive 2011/77.

Bundesgerichtshof, Gewerblicher Rechtsschutz und Urheberrecht 2013, 503 para 18 - Elektronische Leseplätze with reference to recital 45 Copyright Directive 2001/29.

disposal. 110 Lawful access would only be possible via this portal, unless the respective licence conditions (including the price) are considered inequitable. 111 As explained, the enforcement of digital copyright still faces considerable legal and practical hurdles. 112 And yet many of these hurdles could be overcome by legislative action: The mass-prosecution of individual infringers would be made much easier if the law mandated that access providers were obliged to save dynamic IP addresses upon notice of an infringement for a certain period, and that this information had to be made available to right-holders without a prior court decision. 113 The anonymous use of public wireless local area networks in hotels or cafes could be prohibited. 114 Platform and search engine operators could be declared liable to delete illegal content or links to this content and to use automated filters to prevent it from cropping up again. 115 Finally, German courts still have to implement the CJEU decision UPC Telekabel, according to which a court may even grant an unspecified injunction prohibiting an internet service provider from allowing its customers access to an illegal website. 116 Access providers could also be forced to participate in a system of graduated response. 117 Finally, hard-core commercial piracy could be combated effectively if credit card companies and advertising agencies were prohibited from contracting with these actors. 118

¹¹⁰ See Berger, Die öffentliche Zugänglichmachung urheberrechtlicher Werke für Zwecke der

akademischen Lehre, Gewerblicher Rechtsschutz und Urheberrecht, 1058, 1064 (2010).

111 Critical Sprang/Ackermann, Der Zweite Korb aus Sicht der (Wissenschafts-)Verlage, Kommunikation & Recht 7, 9 (2008).

Supra 12.2.2.

Dreier/Leistner, supra n. 56, at 893; Czychowski/J.B. Nordemann, Grenzenloses Internet – entgrenzte Haftung?, Gewerblicher Rechtsschutz und Urheberrecht 986, 995 (2013); Bundesverfassungsgericht, Neue Juristische Wochenschrift 2010, 833 para 260 -Vorratsdatenspeicherung.

114 Czychowski/J.B. Nordemann, supra n. 113, at 993; contra *Landgericht Frankfurt a.M.*,

Gewerblicher Rechtsschutz und Urheberrecht-Rechtsprechungs-Report 2013, 507 et seq. -Ferienwohnung.

115 Art. 21 para 2 E-Commerce Directive 2000/31. On the liability of host providers see

Landgericht Hamburg, Zeitschrift für Urheber- und Medienrecht 2012, 596, 602 et seq. -GEMA/Youtube; Mazziotti (supra n. 106), at 24 f.; Dreier/Leistner, supra n. 56, at 895. On the liability of search engine operators see Czychowski/J.B. Nordemann, supra n. 113, at 992 (2013).

Supra n. 81. See also Senftleben, *Breathing Space for Cloud-Based Business Models*, 4

JIPITEC, 87, 94 (2013).

Graduated Giblin. Evaluating Response. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2322516 (accessed 11 Nov. 2014). Section 3 Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011 (Protect IP Act of 2011), p. 968, 112th Congress, 12.5.2011; Stop Online Piracy Act, H. R. 3261, 112th Congress, 26.10.2011. For EU law see Mazziotti (supra n. 106), at 23-4.

- 42 All of these measures would contribute to the perception that the 'celestial jukebox' is the normal and the only reliably lawful source of information on the internet. At the same time, they would call into question the conditions of communication of the open internet, and with them the access culture. If internet users can be de-anonymized, and their communication reconstructed, then types of activity that today flourish in the grey zone of legality – just think of remixes, mash-ups and fan fiction - could become victims of precautionary selfcensorship. 119 Automated procedures of "cleansing" search engine results and platform contents, uncoupled from the controls of the rule of law, in what would then be a "clean and safe" internet, 120 might also dispose of lawful content. 121 The significance of this automated and privatized enforcement is illustrated by a successful case that Lawrence Lessig and the Electronic Frontier Foundation filed in the wake of a purportedly ungrounded deletion of a lecture held by Lessig that had been available on YouTube. In the video at issue, Lessig presented several remix versions of a popular song to illustrate the creative potential of an access culture, and thus became a target of the enforcement activities of the holder of the copyright in the music. 122
- Despite their severe effects, the enforcement measures listed above likely fall within the large discretion the legislative branch enjoys. These instruments could become critical for the future of the open internet, and with it the access culture, if they were implemented on the technical layers of the network. This infrastructure is by no means a given. The anarchic internet as we know it can mutate to a perfectly controlled celestial jukebox. The complexity that flows from the countless ends of the network and that undermines all aspects of IT

¹¹⁹ Bundesverfassungsgericht, Case 1 BvR 256/08, Neue Juristische Wochenschrift 2010, 833 para 258 – Vorratsdatenspeicherung.

para 258 – Vorratsdatenspeicherung.

See http://ec.europa.eu/internal_market/consultations/2012/clean-and-open-internet_en.htm (accessed 11 Nov. 2014).

Bundesgerichtshof, Case I ZR 80/12, Gewerblicher Rechtsschutz und Urheberrecht 2013,

¹²¹ Bundesgerichtshof, Case I ZR 80/12, Gewerblicher Rechtsschutz und Urheberrecht 2013, 1030 para 62 – File-Hosting-Dienst (that duties of care can in individual cases lead to the deletion of lawful back-up copies does not make their fulfillment unreasonable); but see CJEU, Case C-314/12 para 56 – UPC Telekabel (injunctions against access providers must not affect internet users who are using the provider's services in order to lawfully access information).

Lessig v. Liberation Music PTY Ltd. (D. Mass. 2013), http://de.scribd.com/doc/162455224/Lawrence-Lessig-v-Liberation-Music-Pty-Ltd (accessed 11 Nov. 2014).

¹²³ ECJ, Case C-275/06, paras 61 et seq. – Promusicae; Peukert, *The Fundamental Right to (Intellectual) Property and the Discretion of the Legislature*, Goethe University Frankfurt am Main, Faculty of Law Research Paper No. 7/2013, http://dx.doi.org/10.2139/ssrn.2324132 (accessed 11 Nov. 2014).

²⁴ Lessig, supra n. 11, at 57, 123; Benkler, supra n. 3, at 383.

security (confidentiality, integrity, authenticity) could be subjected to prior authorization if all machines capable of sending and receiving files over the network were required to meet the standards defined by the Trusted Computing Group. That Trusted Computing is a real issue, is evidenced by a statement by the German government of August 2012. According to this document, an essential function of Trusted Computing consists in the permanent protection of digital content. The German government states very clearly, however, that such measures have to respect the legal and social conditions governing access to knowledge. Further, it demands that public and private owners of computers alike must be able to fully control any implemented security architectures and to deactivate them at any time without negative consequences.

But even if the network's ends remain open for all types of applications and content, the technical and legal bases of data transmission can be changed in such a way as to make the internet a medium of the exclusivity culture alone. In this respect, the future of net neutrality plays a crucial role. 127 The principle of net neutrality reflects the original technical structure of the internet: operators of telecommunications networks have to make the best effort to guarantee non-discriminatory data transmission and non-discriminatory access to content and applications. 128 Under this principle, the cultures of exclusivity and of access receive equal treatment on the level of data transmission. Competition between proprietary and open content models therefore does not depend on the speed and quality of data transmission, but primarily on the functionality of the respective application or content transmitted. In other words, the principle of net

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¹²⁵ See Bechtold, *Trusted Computing. Rechtliche Probleme einer entstehenden Technologie*, Computer und Recht 393 (2005); Benkler, *supra* n. 3, at 409; Zittrain, *The Future of the internet And How to Stop It*, 36 (2011).

Eckpunktepapier der Bundesregierung zu "Trusted Computing" und "Secure Boot", August 2012,

http://www.bmi.bund.de/SharedDocs/Downloads/DE/Themen/OED_Verwaltung/Informationsges ellschaft/trusted_computing.pdf?__blob=publicationFile (accessed 11 Nov. 2014).

127 Wielsch, *supra* n. 11, at 249; Levine, *Free Ride*, 238 (2011); Cf. Art. 8 para 4 lit. g Directive

¹²⁷ Wielsch, *supra* n. 11, at 249; Levine, *Free Ride*, 238 (2011); Cf. Art. 8 para 4 lit. g Directive 2002/21; Commission declaration on net neutrality, OJ 2009 C 308/2 ('The Commission attaches high importance to preserving the open and neutral character of the internet, taking full account of the will of the co-legislators now to enshrine net neutrality as a policy objective and regulatory principle to be promoted by national regulatory authorities"); § 2 para 2 s. 2 German Telecommunications Act.

¹²⁸ Vgl. § 41a para 1 German Telecommunications Act.

neutrality guarantees on the technical level equal competitive communicative conditions for all participants.

45 However, certain parties, specifically market-dominant access providers, have a strong vested interest in moving away from this principle. And indeed, Art. 20(1) lit. b of the Universal Service Directive 2002/22 expressly proclaims that "conditions limiting access to and/or use of services and applications" can be lawful. 129 Section 41a(1) German Telecommunications Act likewise merely prohibits "an indiscriminate deterioration of services and unjustified blockage or retardation of data transfer in the networks", 130 so that one could justifiably argue that certain services, for instance streaming services like Netflix, may be prioritized in order to guarantee their quality and security. In the Netherlands, in contrast, such measures are explicitly prohibited. Providers may only limit the data-transmission capacity in a non-discriminatory manner and are obliged to advertise 'special services' separately from the general internet access. 131

The currently pending EU regulation on a 'European single market for electronic communications and to achieve a Connected Continent' of 11 September 2013, 132 which is meant to overcome these differences, threatens to become a true 9/11 for the principle of net neutrality in the EU. In contrast to what the EU Commission in a press release alleges, ¹³³ it does not follow the Dutch example. Instead, end-users, providers of electronic communications to the public and providers of content "shall be free to enter into agreements with each other to transmit ... data volumes or traffic as specialised services with a defined quality of service or dedicated capacity." Although the provision of specialized services "shall not impair in a recurring or continuous manner the general quality of internet access services", this right to establish "specialized services" effectively does away with the principle of net neutrality in the EU. 134 If the Commission

¹²⁹ Brüggemann, Abkehr von der Netzneutralität – Fluch oder Segen. Managed Services: Ausweg aus dem Datenstau oder Einstieg in das Zwei-Klassen-Netz?, Computer und Recht 565, 569 (2013).

Bundestags-Drucksache 17/7521, 112.

¹³¹ Art. 74A para 1 and 3 Telecommunicatiewet, available at http://wetten.overheid.nl/zoeken/.

¹³² Proposal for a Regulation laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, and amending Directives 2002/20/EC, 2002/21/EC and 2002/22/EC and Regulations (EC) No 1211/2009 and (EU) No 531/2012, COM(2013) 627 final, 2013/309 (COD).

See http://europa.eu/rapid/press-release_MEMO-13-779_en.htm (accessed 11 Nov. 2014). ¹³⁴ Art. 23(2) Proposal Regulation Connected Continent, *supra* n. 132.

proposal became law, ¹³⁵ the internet on the 'connected continent' would fundamentally change. In place of a uniform, non-discriminatory medium of communication, in which proprietary and open content and applications co-exist and compete on equal terms, two painstakingly separate digital worlds would arise: ¹³⁶ on the one hand, a premium internet, through which access-controlled services like IP-TV could be streamed with guaranteed quality and security, ¹³⁷ and on the other, an open but insecure and slow remainder internet. The premium net would be controlled by access providers and (potentially vertically integrated) content providers. ¹³⁸ For the rest, access providers would retain their current role as intermediaries. It would suit the logic of the Commission proposal if access providers competed primarily over "specialized services" and not over the heavily regulated transmission of the remainder internet. This competition could develop such a dynamic in favour of the premium internet and access-controlled 'specialized services'/'celestial jukeboxes' that the open internet, and with it, the access culture, would drift steadily into oblivion.

Current copyright law is one factor contributing to this scenario becoming reality. If access providers are, as under current CJEU jurisprudence, obliged to intervene in online traffic for the sake of copyright enforcement anyhow, 139 it indeed seems a logical step to allow them these measures as a business. Thereby, the current contradiction between the regulation of provider markets and the regulation of application and content markets would be dissolved in favour of the latter option, which means controlled security on all layers of the network.

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¹³⁵ But see Art. 23(2) European Parliament legislative resolution of 3 April 2014 – 2013/0309(COD) ("Providers of internet access, of electronic communications to the public and providers of content, applications and services shall be free to offer specialised services to endusers. Such services shall only be offered if the network capacity is sufficient to provide them in addition to internet access services and they are not to the detriment of the availability or quality of internet access services. Providers of internet access to end-users shall not discriminate between functionally equivalent services and applications.")

¹³⁶ Siehe Renner/Renner, *Digital ist besser*, 225 (2011).

¹³⁷ Recits 49-50 Proposal Regulation Connected Continent, *supra* n. 132; Levine, *supra* n. 127, at 238; critical Litman, *supra* n. 65, at 4 ("shopping mall for copyright-protected material"); Zittrain, *supra* n. 125, at 178.

¹³⁸ Brüggemann, *supra* n. 129, at 567.

¹³⁹ CJEU, Case C-314/12 para 56 – UPC Telekabel.

¹⁴⁰ See Frieden, Internet Packet Sniffing and Its Impact on the Network Neutrality Debate and the Balance of Power Between Intellectual Property Creators and Consumers, 18 Fordham Intell. Prop. Media & Ent. L.J. 633, 633 (2007-2008); Wielsch, supra n. 11, at 281; Brüggemann, supra n. 129, at 570.

2. Further Reinforcement of the Access Culture

In view of the commodification dynamic that radiates from the technically fulfillable wish to market and consume every binary element of potential value in a secure transaction, ¹⁴¹ the possibilities of reinforcing the access culture seem moot. Internet activists and their political offshoots like the Pirate Parties are for the most part fighting rear-guard battles, in which they defend the open internet and the access culture against restrictions. Where they succeed, as in the case of SOPA, PIPA and ACTA, it is celebrated as a great success. ¹⁴² Far-reaching proposals to weaken copyright immediately face the problem that they are incompatible with international copyright treaties and therefore require a rather utopian – global consensus. ¹⁴³ And even the call to boil down the EU copyright *acquis* to its international-law minimum is only expressed sporadically. ¹⁴⁴ A reinforcement of the access culture is thus at best to be expected from outside copyright or as an accidental side result of developments within copyright.

One impulse promoting the participatory communication culture could come from fundamental rights. In particular, an interpretation of copyright law in the light of the freedom of the arts could expand the scope of the remix culture. Since adaptations or other transformations of a work may be published or exploited only with the consent of the author of the original work (Sec. 23 German CA), this widespread, creative and playful practice is generally held to be illegal and therefore has to be taken and stay down. A lawful 'free use' of an existing work to create an independent work (Sec. 24 German CA) requires that the claimant's work was only used as a source of inspiration and that its

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¹⁴¹ See Cohen, supra n. 3, at 268; Zittrain. supra n. 125, at 101; Naughton, supra n. 9, at 285.
142 Lee, The Fight for the Future: How People Defeated Hollywood and Saved the internet - For

¹⁴³ Litman, supra n. 65, at 82 and Lessig, supra n. 3, at 254 (application of copyright to commercial uses only); on the question or reintroducing copyright formalities see van Gompel, Formalities in Copyright Law. An Analysis of Their History, Rationales and Possible Future (2011).

<sup>(2011).

144</sup> But see Hargreaves/Hugenholtz, *Copyright Reform for Growth and Jobs - Modernising the European Copyright Framework* (2013), http://www.lisboncouncil.net/publication/publication/95-copyright-reform-for-growth-and-jobs-modernising-the-european-copyright-framework.html (accessed 11 Nov. 2014).

¹⁴⁵Lessig, supra n. 3, at 28; Naughton, supra n. 9, at 253; Cohen, supra n. 3, at 247.

protected elements are hardly recognisable in the independent creation. 146 Obvious borrowings of protected elements are only allowed if they concern parodies. 147

If such antithematic treatment is not apparent, courts consider it infringing to reproduce or adapt recognisable parts of works and to sample even smallest excerpts of audio and/or video recordings, with the rare exception that the respective fragment cannot be recreated. 148 Under these conditions, fan fiction, mash-ups and remixes as a rule qualify as unlawful, as their hallmark is the reuse of recognisable, protected works. 149 It is irrelevant whether the contested use is suited or intended to replace the older work. 150 According to this dominant view, the productive branch of the access culture must limit itself to material that has been licensed explicitly for this purpose 151 or for which the lawfulness of an adaptation follows from the implicit consent of the rightholder. 152 The thousand fold playful treatment of popular cultural material that knows no rules of prior consent therefore depends entirely on the generous and intelligent forbearance of right-holders like Ms Rowling. 153

¹⁴⁶ Bundesgerichtshof, Case I ZR 65/96, Gewerblicher Rechtsschutz und Urheberrecht 1999, 984 - Laras Tochter; Bundesgerichtshof, Case I ZR 12/08, Gewerblicher Rechtsschutz und Urheberrecht 2011, 134 para 36 – Perlentaucher.

Bundesgerichtshof, Case I ZR 117/00, Entscheidungen des Bundesgerichtshofs in Zivilsachen Vol. 154, 260, 268 - Gies-Adler; Bundesgerichtshof, Case I ZR 12/08, Gewerblicher Rechtsschutz und Urheberrecht 2011, 134 para 34 – Perlentaucher.

148 § 24 para 2 German Copyright Act and *Bundesgerichtshof*, Case I ZR 112/06, Gewerblicher

Rechtsschutz und Urheberrecht 2009, 403 para 21 – Metall auf Metall.

149 Alpert, Zum Werk- und Werkteilbegriff bei elektronischer Musik – Tracks, Basslines, Beats,

Sounds, Samples, Remixes und DJ-Sets, Zeitschrift für Urheber- und Medienrecht 525, 530 (2002); Knopp, Fanfiction - nutzergenerierte Inhalte und das Urheberrecht, Gewerblicher

Rechtsschutz und Urheberrecht 28, 29 (2010).

150 Bundesgerichtshof, Case I ZR 12/08, Gewerblicher Rechtsschutz und Urheberrecht 2011, 134 para 45 – Perlentaucher.

151 'Copyleft'.

¹⁵² This can only be referred to briefly here, and would have to be elaborated with regard to different circles of the public, in which different uses are "normal" (cf. Bundesgerichtshof, Case I ZR 69/08, Gewerblicher Rechtsschutz und Urheberrecht 2010, 628 para 36 – Vorschaubilder I). It seems obvious to distinguish between freely available artistic and other pictures, films and sound recordings, of which at least non-commercial adaptations can be viewed as implicitly legalized, on the one hand, and scientific works, where the scientific communication norms oppose such permission, on the other hand. See Peukert, supra n. 103.

See for example http://www.fanfiktion.de/FFs/c/103005001 (accessed 11 Nov. 2014). See also Erickson/Kretschmer/Mendis, Copyright and the Economic Effects of Parody: An Empirical Study of Music Videos on the YouTube Platform and an Assessment of the Regulatory Options, http://www.ipo.gov.uk/ipresearch-parody-report3-150313.pdf, 9 (2013) (accessed 11 Nov. 2014).

However, the prevailing restrictive reading of the principle of free use according to section 24 German CA¹⁵⁴ can no longer be upheld in view of the fundamental right to freedom of the arts. In a decision concerning the artistic technique of a collage, 155 text the German Federal Constitutional Court (Bundesverfassungsgericht) felt inclined to remind the Bundesgerichtshof of the 'fundamental' insight that a work once published is no longer at the disposal of its owner alone. Rather, over time it becomes intellectual and cultural common property. The social embeddedness and contextualization of a work is the prerequisite for its effectiveness and also the reason why artists are obliged to accept a "certain measure of interference in their copyright on the part of other artists representing society interacting with the work of art". To ascertain the permissible level of such interference, the limits of copyright must be interpreted in the light of artistic freedom, which protects the interests of other artists "in being able to enter into an artistic dialogue and a creative process regarding existing works without the risk of interference on the level of finance or content". These statements are likewise valid for fan fiction, mash-ups and remixes. The Bundesverfassungsgericht explicitly states that "the artistic adaptation of others' texts is not limited to a critical annotation of the statement contained therein, but can take diverse forms that the artist chooses according to his aesthetic conceptions." These adaptations are permissible as free uses pursuant to section 24(1) German CA if the recognisable borrowing of protected elements does not serve merely to enhance one's work with the intellectual property of another, but is an integral element of a new, artistic statement in its own right.

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Depending on the circumstances of the case, these requirements are met if fans continue fictional stories, in particular if they change perspectives and dominant narratives. The mixing of parts of other works and recordings into a new artistic whole, as well as the modification of digital works, can also qualify

Moreover, this exercise of artistic freedom must not entail the risk of

considerable economic harm (e.g. loss of profits).

¹⁵⁴ Bundesgerichtshof, Case I ZR 65/96, Gewerblicher Rechtsschutz und Urheberrecht 1999, 984, 987 – Laras Tochter.

Bundesverfassungsgericht, Case 1 BvR 825/98, Gewerblicher Rechtsschutz und Urheberrecht 2001, 149, 151 – Germania 3.

¹⁵⁶ Bundesverfassungsgericht, Case 1 BvR 825/98, Gewerblicher Rechtsschutz und Urheberrecht 2001, 149, 151 – Germania 3.

¹⁵⁷ Contra *Bundesgerichtshof*, Case I ZR 65/96, Gewerblicher Rechtsschutz und Urheberrecht 1999, 984, 987 – Laras Tochter.

as a permissible 'free artistic use'. Whereas German copyright practice has long accepted these practices only if they form part of a parody, the *Bundesverfassungsgericht* made clear that copyright law has to be read in the light of the freedom of the arts and therefore has to accept artistic practices like collage and compilation films. EU copyright law refers to such practices under the heading of *pastiche*. Precisely this positively connotated form of homage, of artistic emulation paying tribute to a masterpiece, characterizes the typical cases of fan fiction, mash-ups and remixes. Regardless of their aesthetic "value", they are permissible under copyright law if they respect the moral rights of the author and exert no considerable economic harm on the works concerned. 159

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If this approach prevailed, the open remix culture could finally become formal and extend to the entirety of cultural goods. This mode of open communication would, however, still be accused of contributing very little to cultural diversity, or in fact of representing its downfall, if it only comprised amateurish 'usergenerated content'. 160 An agenda favouring the access culture therefore has to comprise monetary incentives in order to increase the share of professional yet 'open' works. For also in an open internet, the investment of time and money requires amortization. Currently, professional authors finance their freely available works through sources of income not, or at best indirectly, related to copyright, such as income from other work, scholarships and prizes or complementary services, particularly live performances. 161 They have no share in the profits that hybrid business models - the Googles of the internet generate. The standard copyright answers to this dilemma tend either toward combating hybrids in the interest of the exclusivity culture, thus undermining the access culture indirectly (see above), or toward introducing an alternative compensation scheme, in Germany labelled 'cultural flat fee'. The latter model,

¹⁵⁸ See Art. 5 para 3 lit. k Copyright Directive 2001/29.

¹⁵⁹ See Erickson/Kretschmer/Mendis, *supra* n. 153, at 10 (no empirical proof that parodies of musical works are detrimental to the commercialization of the original).

¹⁶⁰ See Lanier, You are not a Gadget (2010); Theisohn, Literarisches Eigentum (2012).

Such sources of income have always been paramount for a majority of authors, even when they (want to) operate within the exclusivity model; cf. Kretschmer, *Does Copyright Law Matter? An Empirical Analysis of Creators' Earnings*, http://dx.doi.org/10.2139/ssrn.2063735 (2012).

however, arouses considerable international-law concerns and in the meantime enjoys only very little political support. 162

However, it is possible to conceive a model that avoids these pitfalls and nevertheless funds the access culture via copyright law. The basic idea of the concept is to leave it up to the right-holder to decide whether the work or the other subject matter of protection should be available in an exclusive or an open mode. Depending on this decision, uses would be remunerated either by individual license fees (exclusivity culture) or by a statutory levy (access culture). The levy would be reserved exclusively for subject matter that is available without technical barriers on the internet. If, instead, the author decided in favour of an exclusive marketing model, her copyright income would accrue only from individual royalties. ¹⁶³ In both cases, the remuneration has to be 'equitable'. ¹⁶⁴

In such a model, the competition between the exclusivity and the access culture would receive an important economic twist: the more authors and users opt for one alternative (say the access culture), the greater becomes the share of the respective alternative (in this case the levy-based revenues) in the total copyright value, and the greater is the financial incentive for professional authors to prefer this option. Which way the scale will tip, and whether network effects will lead to the drying up of the communication culture that is marginalized, depends in part on the other regulatory conditions addressed in this paper. The more beneficial the regulatory environment is for one or the other communication culture, the more likely it is to prosper.

IV. Conclusion

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This final observation confirms that the dominant discourse about digital copyright is, in descriptive as well as prescriptive terms, too shortsighted. According to this reading, antagonistic conflicts are to be solved by balancing all interests involved. An either-or scenario disappears after a mystical balancing

¹⁶² See Peukert, supra n. 21.

Peukert, Neue Techniken und ihre Auswirkung auf die Erhebung und Verteilung gesetzlicher Vergütungsansprüche, Zeitschrift für Urheber- und Medienrecht 1050 (2003); Peukert, supra n. 21.

<sup>21.

164 §§ 54</sup>h para 1, para 2 s. 1 and §§ 32-32c German Copyright Act.

exercise. This counterintuitive narrative fails to recognise rec the internet allows the co-existence of two paradigmatic communication cultures along with particularly interesting and contested hybrids between the two. Authors and users have the possibility to communicate in the copyright-secured, exclusive mode as well as the option to exchange information without technical and direct monetary access barriers. The preferred method can change at any time for every participant and content, which explains the unprecedented dynamic of online communication.

The approach taken here has also normative implications. First, it allows the analysis of copyright (and other) regulatory proposals according to their effects on one or the other culture of communication. Second, it releases from the ultimately fruitless quest for a harmonious solution on a higher level that will only trigger new conflicts in the future. Finally, the normative assessment of digital copyright can relax. Instead of professing to be pro or contra digital copyright, it suffices to take the considerably less demanding normative starting point that in the interest of individual freedom and cultural diversity both cultures of communication are of equal value, and that no regulation shall have the effect of threatening the existence of one of them. This approach is decidedly copyright affirmative, as it stresses the right of the original owner of copyright to choose the proper mode of communication. ¹⁶⁵

These observations are not limited to copyright law but apply to the regulation of the internet in general. As has become evident in this paper, copyright law cannot be viewed in isolation from data protection, telecommunications and other information law. Some of these rules are complementary (e.g. when access providers are liable for copyright infringements and are empowered by telecommunications law to commercialize specialized services; others create tensions (e.g. when the enforcement of copyright is strengthened irrespective of data protection laws). As a whole, they provoke the question of what the internet of the future should look like.

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¹⁶⁵ See Lehman, supra n. 3, at 14; Peukert, supra n. 89.

Komaitis, Internet Society Issues Paper on Intellectual Property on the internet, http://www.internetsociety.org/doc/internet-society-issues-paper-intellectual-property-internet, 1 (2013) (accessed 11 Nov. 2014); Wielsch, supra n. 11, at 254.

¹⁶⁷ Schmidt/Cohen, *supra* n. 54, at 126 (in ten years the relevant question will no longer be whether a society uses the internet, but which version it uses). For different scenarios, see Komaitis, *supra* n. 166.

In this context, digital copyright for the most part supports a secure, exclusively controlled communication medium along the lines of Goldstein's 'celestial jukebox'. Despite all advantages that such a vision might entail, particularly to rights-holders, long-term implications of historical dimensions must also be considered. The open, participative internet, which is rightly reckoned among "the few things humans have built that they don't truly understand", 168 would become a kind of television. It could be controlled, monitored and potentially manipulated much easier than the internet in its current form. Such a move would also bring to an end the innovative potential of the open internet and the access culture associated with it, manifesting itself in a stream of new applications, new business models, and last but not least countless new works. The age of printing came about in spite of all powerful resistance against the changes associated with that disruptive invention. The regulatory tendencies sketched out above make it seem plausible that the further development of the internet will take a different path.

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¹⁶⁸ Schmidt/Cohen, supra n. 54, at 1.

Lessig, supra n. 11, at xv; Naughton, supra n. 9, at 291 (Orwell-Huxley Scenario); Schmidt/Cohen, supra n. 54, at 162.

Cohen, *supra* n. 3, at 224; Lessig, *supra* n. 11, at 28, 146; Zittrain, *supra* n. 125, at 67; Brüggemann, *supra* n. 129, at, 568; Wittgenstein, *supra* n. 25, at 160; Litman, *supra* n. 5, at 102; Benkler, *supra* n. 3, at 63 91; Post, *supra* n. 17, at 204. The "copyright drag" is epitomized by the internet-based personal video recorder (PVR), whose admissibility under copyright law has been under dispute in Germany for eight years, outcome uncertain; cf. *Bundesgerichtshof*, Case I ZR 216/06, Gewerblicher Rechtsschutz und Urheberrecht 2009, 845 – Internet-Videorecorder I; *Bundesgerichtshof*, Case I ZR 152/11, Gewerblicher Rechtsschutz und Urheberrecht 2013, 618 – Internet-Videorecorder II.