
AUTOMATED ANTI-PIRACY SYSTEMS AS COPYRIGHT ENFORCEMENT MECHANISM: A NEED TO CONSIDER CULTURAL DIVERSITY¹

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Abstract:

This article demonstrates current copyright enforcement policies often seek to fight piracy while promoting cultural diversity by pushing towards the introduction of automated anti-piracy systems as a copyright enforcement mechanism. This article aims at demonstrating why cultural diversity is likely to be hindered by the introduction of such algorithmic decision-making if the latter is not carefully regulated.

Introduction: towards a privatisation of online copyright enforcement

Digital technologies are changing the way online uses of cultural works are monitored. Under the auspices of the *Digital Single Market Strategy*, the EU Commission has adopted proposals to promote ‘better choice and access to content online and across borders’ and ‘a fairer and sustainable marketplace for creators, the creative industries and the press’ by the means of a new copyright directive and intellectual property enforcement strategies.² For the EU Commission, this requires video-sharing platforms to embrace sophisticated technological tools, termed here as ‘automated anti-piracy systems’ (‘AAPSs’). AAPSs are capable of recognising content which right-holders have already identified as their own, and responding based upon standing instructions from the holder.³

¹ Jacques, Street and Hviid are all members of CREATE and financial support from CREATE is gratefully acknowledged. Garstka is now a member of CIPIIL at the University of Cambridge. The usual disclaimer applies.

² European Commission, 6/5/2015, *A digital Single Market for Europe: Commission sets out 16 initiatives to make it happen*, available at http://europa.eu/rapid/press-release_IP-15-4919_en.htm.

³ European Commission, 14/9/2016, *State of the Union 2016: Commission proposes modern EU copyright rules for European culture to flourish and circulate*, available at http://europa.eu/rapid/press-release_IP-16-3010_en.htm.

There are risks in the privatisation of decision-making when digital content is blocked, filtered or removed. For example, there is a lack of transparency in the design, implementation and use of AAPSs. This exacerbates the lack of accountability of intermediaries (e.g. video-sharing platforms), and raises concerns that they fail to respect fundamental rights compared to other cases where the judiciary, or other accountable public authority, would be involved in the decision-making process. Additionally, the reliance on AAPSs has consequences for the *type* of culture enjoyed in a particular society. Therefore, it is vital that society creates a sustainable environment benefitting established and new artists by guaranteeing fair remuneration of online exploitation of works, facilitating licensing possibilities and implementing appropriate tools to tackle infringement while taking due consideration of fundamental rights.⁴

In May 2014, the Council of the European Union issued new guidelines on freedom of expression reaffirming that obligations to respect human rights' principles apply equally in the offline *and* online environments.⁵ Therefore, the mere fact that mass communication and large-scale piracy is facilitated by the Internet, is not sufficient in itself to give rise to specific treatment. On the contrary, because new technologies and the Internet offer new ways of fostering freedom of expression, we should aim to reduce unjustified restrictions on freedom of expression.

⁴ Also supported by UNESCO, *Transforming our world, the 2030 agenda for sustainable development* available at <https://sustainabledevelopment.un.org/post2015/transformingourworld>, para 8 (last access date: 20/12/2017).

⁵ Council of the European Union, *EU Human Rights Guidelines on Freedom of Expression Online and Offline*, Foreign Affairs Council meeting of 12/5/2014, available at https://eeas.europa.eu/delegations/documents/eu_human_rights_guidelines_on_freedom_of_expression_online_and_offline_en.pdf (last access: 06/07/2017); *Fatullayev v Azerbaijan* (22/4/2010) application No. 40874/07; though the duties and responsibilities may differ for online intermediaries compared to traditional publishers. *MTE v Hungary*, (2/2/2016), ECtHR (para 45), available at <http://www.bailii.org/eu/cases/ECHR/2016/135.html> (last access: 06/07/2017); *Delfi AS v Estonia*, (16/6/2015), ECtHR (para 113), available at <http://hudoc.echr.coe.int/web/services/content/pdf/001-155105?TID=qowwttwprb> (last access: 06/07/2017); General Comment No. 34, CCPR/C/GC/34, adopted on 12/9/2011, para 12.

Freedom of expression is closely intertwined with the preservation and promotion of cultural diversity.⁶ Although the aim of fostering cultural diversity is widely recognised,⁷ challenges remain in analysing the relationship and interaction between cultural diversity and freedom of expression. These challenges loom large in the digital environment. Therefore, one may begin to wonder whether an obligation to deploy AAPSs on online-sharing platforms might run counter to the promotion of cultural diversity. Will requiring private entities to determine what unauthorised use is an ‘infringement’ (using a specific software), have an adverse effect on freedom of expression? Might an obligation to deploy AAPSs on online-sharing platforms run counter to the promotion of cultural diversity? After all, the digital environment enables distribution and communication of artistic and cultural expressions across borders and cultures in an unprecedented manner. While many may have very little economic value, they may, nevertheless, be indispensable for individual fulfilment and participation in a democratic society.⁸

This article reviews some of the reforms proposed for the use of AAPSs. Section 1 focuses on the regulatory framework in which these AAPSs arose. As private initiatives, these algorithms have often been characterised as going *beyond* what is prescribed under the current regulatory framework, including the safe harbour provisions, which go some way to relieve intermediaries from liability arising from infringing content shared by third parties.⁹ As the regulatory framework is linked to the rise of AAPSs, section 2 discusses algorithms as enforcement mechanisms for the identification and removal of online content by looking at the technology itself.

⁶ UNESCO, *Universal Declaration on Cultural Diversity* (2001) available at <http://unesdoc.unesco.org/images/0012/001271/127162e.pdf> and UNESCO, *Convention on the Protection and Promotion of the Diversity of Cultural Expressions* (2005) available at <http://unesdoc.unesco.org/images/0014/001429/142919e.pdf> (last access: 06/07/2017).

⁷ There is no agreement as to a definition of this dynamic concept. JS Curtis, ‘Culture and the Digital Copyright Chimera: Assessing the International Regulatory System of the Music Industry in Relation to Cultural Diversity’ (2006) 13 *International Journal of Cultural Property* 59, 62.

⁸ The importance of these cultural expressions is recognised in *Convention on the Protection and Promotion of the Diversity of Cultural Expressions* which notes that ‘cultural activities, goods and services have both an economic and cultural nature, because they convey identities, values and meanings, and must therefore not be treated as solely having commercial value’. UNESCO, *supra* footnote 6 (p.2).

⁹ Jennifer M. Urban, Joe Karaganis and Brianna L. Schofield, *Notice and Takedown in Everyday Practice* (March 29, 2016) UC Berkeley Public Law Research Paper No. 2755628.

Finally, section 3 elaborates on the need to protect and promote freedom of expression and cultural diversity to foster creativity, collaboration and fair remuneration in the online environment.

The Reign of Algorithms: DMCA, E-Commerce Directive and EU Proposed New Copyright Directive.

AAPs, such as YouTube's in-house 'Content ID' rights management system, were developed in response to two pieces of legislation, the US Digital Millennium Copyright Act 1998 ('DMCA') and EU Electronic Commerce Directive 2000 ('E-commerce Directive')¹⁰, but to the resulting 'whack-a-mole' played by online infringers and copyright enforcers in- and outside the courtroom.

The DMCA and its judicial interpretation

The DMCA was enacted by US Congress to strike a balance between the demands of copyright holders for more online protection against the demands of online service providers ('OSPs') to be shielded from liability for infringing third-party content on their sites.¹¹ This led to the introduction of the 'safe harbor'¹² provisions in section 512 of chapter 17 of the U.S. Code. Under these safe harbour provisions, OSPs are not liable for the actions of their users, if certain steps are taken; most notably, if infringing content is taken down promptly upon notice from the right-holder. To benefit from this protection, an OSP must correspond to one of the categories of online services and meet the attached requirements.¹³

Legal requirements for the safe harbour to apply in relation to hosting activities

Amongst these,¹⁴ section 512 (c) relates to hosting activities. The OSP will be protected if (i) its involvement is limited to 'storage at the direction of a user of material that

¹⁰ Directive 2000/31/EC of the European Parliament and of the Council of 8/6/2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, OJ L 178, 17/7/2000, 1-16.

¹¹ Benjamin Boroughf, 'The next great YouTube: Improving Content ID to foster creativity, cooperation and fair compensation' (2015) 25(1) *Alb. L.J. Sci. & Tech.* 95, 102.

¹² In the EU, these are referred to as 'safe harbour', from here onwards the authors refer to 'safe harbour' interchangeably.

¹³ 17 U.S.C § 512(a) - (d).

¹⁴ For more, see Urban and al., footnote 9.

resides on a system or network controlled or operated by or for the service provider'; and (ii) that the OSP has neither *actual knowledge* that the information stored infringed copyright¹⁵ nor *constructive knowledge* (resulting from the awareness of 'facts or circumstances from which infringing activity is apparent'¹⁶) of this fact. Furthermore, as soon as the OSP has acquired such knowledge, it must act *expeditiously* to remove or disable access to the alleged infringing content.¹⁷ Placing the responsibility for identifying infringing content on the copyright holder, the Act further protects OSPs by specifying what a valid notification of infringement should contain.¹⁸ For example, a notification is only valid if it is communicated in writing to the OSP and includes a statement that the complaining party believes in good faith that 'use of the material in the manner complained of is not authorized by the copyright owner, its agent, or the law'.¹⁹ Finally, the OSP must not 'receive a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity'.²⁰ Yet, the DMCA does not impose any obligation upon an OSP to actively monitor the use made of its service or to be pro-active in searching for content which may infringe copyright.²¹

In addition to these specific conditions, OSPs are subject to two general requirements which oblige them to implement 'a policy that provides for the termination in appropriate circumstances of subscribers and account holders of the service provider's system or network who are repeat infringers', and to notify subscribers and account holders of that policy.²² Secondly, OSPs must accommodate the 'standard technical measures' used by right-holders to identify their copyright works.²³ Section 512(i)(2) refers to technical measures which have been developed pursuant to a broad

¹⁵ 17 U.S.C § 512(c)(1)(A)(i) (emphasis added).

¹⁶ 17 U.S.C § 512(c)(1)(A)(ii) (emphasis added).

¹⁷ 17 U.S.C § 512(c)(1)(C).

¹⁸ 17 U.S.C. § 512(c)(3).

¹⁹ 17 U.S.C. § 512(c)(3)(A)(v).

²⁰ 17 U.S.C. § 512(c)(3)(B).

²¹ 17 U.S.C. § 512(m)(1).

²² 17 U.S.C. § 512(j)(1)(A)(ii).

²³ *ibid.*

consensus of copyright owners and service providers in an open, fair, voluntary, multi-industry standards process.²⁴

Active role of US courts

The meaning of these provisions came to be tested in a lengthy line of judicial decisions. In a brief summary, several patterns emerge as a result. First, following the landmark dispute in *Viacom v. YouTube*²⁵ (settled in 2014) and the decisions in *Capitol Records v MP3Tunes*²⁶ and *Veoh*²⁷ it became sound and clear that the DMCA does not impose a duty on the OSPs to monitor content on their platform, without a notification – the said burden rests on the right-holders, even if fingerprinting technology is available.²⁸ The OSP can still be liable for contributory copyright infringement, if it fails to respond to valid takedown requests – as it happened in *Capitol Records v MP3 Tunes*.

The situation seems to be less clear in situations where there is evidence that the human representatives of an OSP saw or interacted with the contested content before the notification. In *Capitol Records v Vimeo*,²⁹ the Second Circuit stated that the mere fact that a video reproduced a recognisably protected song did not mean that it would be obvious to an employee of the OSP that the use might be infringing – and safe harbour protection was maintained.³⁰ On the other hand, the Ninth circuit might be heading in the opposite direction, as in *Mavrix Photographs v LiveJournal*, the volunteer moderators were found to be of similar status to the OSP's employees – hence, in the

²⁴ 17 U.S.C. § 512(i)(2).

²⁵ *Viacom International v YouTube* (2010) 07 Civ. 2103 (LLS); appeal Second Circuit: 10-3270-cv, 2012 WL 1130851 (5/4/2012); District Court ruling: 940 F. Supp. 2d 110 (18/4/2013).

²⁶ (2011) 821 F.Supp.2d 627.

²⁷ *UMG Recordings v Shelter Capital Partners* (2013) No. 09-55902, at [25, 30].

²⁸ At [117] and [120]. The Second Circuit and District Court consequently disagreed with the Ninth Circuit's *UMG v. Shelter Capital* ruling and distinguished the *Viacom* case from the *Grokster* decision. Yet, the Court of Appeal in 2012 had found that a reasonable jury could find YouTube had actual or constructive knowledge of specific infringements which led to the case being remanded for factual determinations before Justice Stanton found again that YouTube could not be held liable. *Viacom International v Youtube* (2012) 676 F.3d 19, at [73].

²⁹ (2016) 14-1048 2d Cir.

³⁰ *ibid*, at [39]. In March 2017, the Supreme Court rejected to hear an appeal.

upcoming judgement, the line of interpretation from *Vimeo* might come to be challenged.³¹

Additionally, it is worth mentioning that with the 2016 decision in *Lenz v. Universal Music Group*³² saga (revolving around a home video of a baby dancing to Prince's 'Let's go crazy' hit for less than 30 seconds), it was determined that before sending a notice, the right-holder should verify whether the material is authorised by law, under the fair use doctrine.³³ However, as right-holders only have to demonstrate the subjective good faith belief that the material infringes copyright, there is no imposed obligation on right-holders to determine the application of fair use *in casu*. The Court also noted that AAPSs could be used to pre-screen material and filter out clear-cut cases of infringement,³⁴ while leaving the remaining material to human review.

Finally, there is an uncertainty associated to the rules implemented by the US Copyright Office. Since December 2016, it is necessary for online intermediaries who wish to take advantage of the safe harbour to register themselves with the Copyright Office, and this registration requires renewal every three years.³⁵ One might question whether this new procedure is compatible with section 512, as the registration and renewal process seems tantamount to adding a new requirement before the liability exemption applies, which is not explicitly provided for in the legislation.

The E-commerce directive and its judicial interpretation

Across the pond, the EU legislator found inspiration in the DMCA when similar safe harbour provisions were introduced in the E-Commerce Directive³⁶ (implemented in the E-Commerce Regulations 2002 in the UK)³⁷. This includes three intermediary

³¹ (2017) 14-56596 9th Cir.

³² *Lenz v. Universal Music group* (2016) No. 13-16106.

³³ At [11].

³⁴ At [19].

³⁵ US Copyright Office, Copyright Office announces electronic system for designating agents under the DMCA (31/10 2016) Issue no. 640, available at <https://www.copyright.gov/newsnet/2016/640.html>

³⁶ Supra footnote 10.

³⁷ The Electronic Commerce (EC Directive) Regulations 2002 No. 2013. Considering Brexit, the UK's legal framework regarding safe harbour provisions and AAPSs is burdened by the surrounding uncertainty tied to the country's decision to leave the EU. Yet, it is reasonable to imagine that the EU legal framework will still be influential as the relevant directives are of EEA relevance.

liability regimes, mimicking the three categories of intermediaries covered in the DMCA. Articles 12 to 14 of the E-Commerce Directive refer, respectively, to mere conduit, caching and hosting harbours.

Like its US counterpart, article 14 only permits the hosting intermediary to benefit from the liability exemption, if they do not possess ‘actual knowledge of illegal activity or information’.³⁸ As far as claims for damages are concerned, the intermediary is only immune if they are not ‘aware of facts or circumstances from which the illegal activity or information is apparent’.³⁹ Yet, once such knowledge is obtained, the intermediary must act *expeditiously*⁴⁰ to remove access to the alleged infringing content.⁴¹ As in the US, article 15 does not oblige an intermediary to monitor the content hosted on its platform.⁴²

The hosting provision⁴³ is the one which attracted the most attention from the Court of Justice of the European Union (‘CJEU’), as well as the English courts. The jurisprudence confirms that the threshold to qualify as a ‘host’ is low.⁴⁴ As such, most online platforms, including social media websites, will be hosting service providers for the purposes of article 14.⁴⁵ Instead, difficulties arise when assessing when the role played by the intermediary extends beyond ‘mere hosting’, meaning that they might no longer benefit from the exemption.

³⁸ Supra footnote 10, art. 14(1)(a).

³⁹ *ibid.*

⁴⁰ Supra footnote 10, art. 14(1)(b).

⁴¹ *ibid.*

⁴² C-360/10 *Société belge des auteurs, compositeurs et éditeurs SCRL (SABAM) v Netlog NV* [2012] ECLI:EU:C:2012:85, at [53]; C-324/09 *L’Oréal SA v eBay International AG* [2011] ECLI:EU:C:2011:474, at [139]; C-70/10 *Scarlet Extended SA v Société belge des auteurs, compositeurs et éditeurs SCRL (SABAM)* [2011], at [40]. That said, as Kulk and Zuiderveen rightly note, these provided little guidance on how article 15 would be applied to more specific preventive filtering schemes. S. Kulk and F. Zuiderveen, ‘Filtering for copyright enforcement in Europe after the Sabam cases’ (2012) 34(11) *E.I.P.R.* 791, 794.

⁴³ Mirroring section 512(c) of the DMCA.

⁴⁴ Supra footnote 42; C-236/08 *Google France SARL v Louis Vuitton Malletier SA* [2010] ECLI:EU:C:2010:159, at [112].

⁴⁵ See footnote 42, at [27].

In *Google v Louis Vuitton*⁴⁶ as clarified in *L'Oréal v eBay*⁴⁷ (both being trade mark infringement cases), the CJEU determined that for the safe harbour to apply, the hosting intermediary should not play an 'active' role and must remain neutral in the transfer of information.⁴⁸ Illustrating this, the CJEU indicates that an intermediary has an active role where it 'has provided assistance which entails, in particular, optimising the presentation of the offers for sale in question or promoting those offers'.⁴⁹ Similarly, spelling and grammar checking of third party content may amount to constructive knowledge, and trigger liability on the part of the intermediary.⁵⁰ In essence, the less interaction the intermediary has with the content it is hosting, the less likely it is that the intermediary will have constructive knowledge of any potentially infringing activity on the platform.⁵¹ Ergo, the online intermediary must be measured against the reasonable man, having a duty of care to remove content, which has been detected as illegal.

The CJEU's interpretation seems to depart from the objective standard usually attributed to the reasonable man, since it refers to the particular knowledge and expertise the intermediary should have in light of the facts. While notification letters from right-holders may inform the online intermediary that alleged infringing content is present on their platform, not all courts are ready to accept these letters alone as sufficient proof of knowledge. Indeed, in *Davison v Habeeb*,⁵² a case involving defamatory content, the English High Court commented that a notice of this kind does not automatically trigger liability, since said notice 'may turn out to be insufficiently precise or inadequately substantiated'.⁵³

⁴⁶ Supra footnote 44.

⁴⁷ C-324/09, footnote 42.

⁴⁸ See footnote 44, at [114] and footnote 41, C-324/09, at [116].

⁴⁹ See footnote 42, C-324/09, at [116].

⁵⁰ In a UK defamation case: *Kaschke v Gray* [2010] EWHC 690 (QB), at [86].

⁵¹ It is undeniable that actual knowledge is easier to prove. E.g. in *The Pirate Bay* case, the intermediary openly ridiculed the notice and takedown system by publishing the takedown letters on their home page. Failing to act expeditiously upon the takedown requests, The Pirate Bay could not benefit from the exemption. Case B-13301-06, District Court of Stockholm, judgment delivered on the 17th of April 2009.

⁵² [2011] EWHC 3031 (QB).

⁵³ *ibid*, at [122].

The fact that an online intermediary must have gained actual or constructive knowledge of the presence of infringing content on its platform constitutes one of the biggest challenges linked of this provision. As discussed, one way to bring the alleged infringing content to the attention of the intermediary is for the right-holder to notify by letter. As hinted by the court in *Davison v Habeeb*,⁵⁴ this has the potential to lead to abuses by the right holders, if intermediaries react and remove content based upon unsubstantiated allegations. In cases where infringement is contested by the end-user, an intermediary is aware that it may be excluded from the safe harbour, if it is not seen to respond expeditiously to the notification. While in many cases, the infringing nature of the online activity may be uncontentious, it is still reasonable to argue that an intermediary should not replace the role of the judiciary in decisions which remove or block content. And yet, the current state leads us to believe that the EU safe harbour regime has suffered from the courts' interpretation of these provisions, because in practice, national courts have still managed to find ways of holding an intermediary liable by stretching the 'actual or constructive knowledge' requirement.⁵⁵ This feeds the legal uncertainty surrounding the safe harbour provisions.⁵⁶ Similarly, Valgaeren and Roland suggest that some courts seem to operate from the starting assumption that intermediaries should be liable, especially if they profit from facilitating the infringing activities of their users, and then try to find justification as to why the safe harbour should not apply.⁵⁷

Building a bridge between both systems

There are three key differences between the US and the EU regime. Firstly, the US safe harbour provisions are part of copyright legislation whereas the EU E-Commerce Directive covers illicit content in general. Secondly, the US regime could appear more robust as the legislator included the obligation to notify the user about the notice for

⁵⁴ Ibid.

⁵⁵ Lilian Edwards, 'The Fall and Rise of Intermediary Liability Online' in Edwards L. and Waelde C. (eds), *Law and Internet* (Hart, 2009) 47, 84.

⁵⁶ Pekka Savola, 'Blocking injunctions and website operators' liability for copyright infringement for user-generated links' (2014) 36(5) *E.I.P.R.*, 285; Erik Valgaeren and Nicolas Roland, 'Youtube and social networking sites - new kids on the block?', in Strowel A. and Triaille J-P. (eds), *Google et les nouveaux services en ligne* (Larcier, 2008) 224.

⁵⁷ *ibid.*

takedown within the statute itself.⁵⁸ Thirdly, the US legal framework sets up a specific counter-notice procedure.⁵⁹ While EU legislation does not include these specific provisions, case law filled many of these gaps in a similar way in the years since the legislation was adopted.⁶⁰

The current legal framework is too burdensome for right-holders

Based upon the sheer volume of shared content on digital platforms, right-holders soon began to argue that the safe harbour provisions established an environment incompatible with copyright protection. This line of argument assumes that the procedures place too high a burden upon the right-holders to secure the removal of infringing content. With the advent of digital fingerprinting technologies and the like, right-holders argue that intermediaries are best positioned to combat online infringement, using the AAPSs becoming available.⁶¹ However, the counterclaim is that just because intermediaries are infrastructurally best-placed to deal with infringing content, it does not follow that they are best-placed to assess whether there is an infringement *in casu*. Indeed, it is doubtful⁶² that just because technological tools may be used to *detect* and *identify* content that is identical or similar to a protected third party work, intermediaries are equipped to *determine* which unauthorised use is an infringement. Despite these concerns, the safe harbour regime in both jurisdictions is currently undergoing review.

Looking at what lies ahead, the EU Commission's proposal for a Directive on Copyright in the Digital Single Market has already attracted a lot of attention. One aim of this new directive is to address the 'value gap'.⁶³ This describes the apparently

⁵⁸ 17 U.S.C § 512(g)(2)(A).

⁵⁹ 17 U.S.C § 512 (g)(2)(B and C).

⁶⁰ M Yakobson, 'Copyright liability of online service providers after the adoption of the E.C. Electronic Commerce Directive: a comparison to U.S. law' (2000) 11(7) *Ent. L.R.*, 144-152, 151.

⁶¹ Boroughf, footnote 11, 103.

⁶² Especially given potential conflict of commercial of interests between intermediaries and right-holders.

⁶³ Another problematic proposal concerns the introduction neighbouring rights for press publishers for digital uses. Christophe Geiger, Oleksandr Bulayenko and Giancarlo Frosio, *Opinion of the CEIPO on the European Commission's copyright reform proposal, with a focus on the introduction of neighbouring rights for press publishers in EU law* (28/11/2016) available at

unfair distribution of revenue between the various players which is generated from online uses of copyright-protected works, and which has arisen owing to the growth of the streaming market in both the US and the EU. Given that the ad-funded websites typically rely upon user-generated content ('UGC') to flourish, the perceived 'problem' is that their intermediary's activities go *beyond* those properly protected by the safe harbour.⁶⁴ Nevertheless, the intermediaries still invoke these provisions (especially article 14),⁶⁵ rather than reach agreements with right-holders to license the copyright-protected works.⁶⁶ While subscription-based services, such as Spotify, accept that they must be licensed by right-holders, ad-funded services do not. Initially, right-holders viewed such services as an effective promotional tool, which was expected to result in additional revenue from the authorised operators. However, it has transpired that many users seem satisfied to consume works via free streaming alone, meaning the anticipated revenue from downloads has not materialised. The advertising revenue generated by these ad-funded websites is thus presented as a loss of revenue for right-holders.

The solution in the (in)famous article 13 of the proposed new Directive

The proposed new article 13 is directly aimed at ad-funded online sharing platforms, such as YouTube, and is motivated by the problem of unlicensed protected content on these platforms. At this stage, the scope of this provision is hard to predict.⁶⁷ Some

http://www.ceipi.edu/fileadmin/upload/DUN/CEIPI/Documents/CEIPI_Opinion_on_the_introduction_of_neighbouring_rights_for_press_publishers_in_EU_final.pdf

⁶⁴ More worrying is the implementation and judicial interpretation of the E-Commerce Directive (especially regarding the knowledge required under article 14) which differ greatly from a member state to another. Thibault Verbiest, Gerald Spindler, Giovanni Maria Riccio & Aurelie Van der Perre, *Study on the liability of internet intermediaries* (2007) Markt/2006/09/E – Service Contract ETD/2006/IM/E2/69, available at http://ec.europa.eu/internal_market/e-commerce/docs/study/liability/final_report_en.pdf

⁶⁵ *Google v Louis Vuitton*, footnote 46.

⁶⁶ Yet, now major ad-funded online services are licensed in practice. See for example the PRS for music – YouTube deal: <http://www.prsformusic.com/aboutus/press/latestpressreleases/pages/prs-for-music-and-youtube-sign-licensing-deal.aspx>.

⁶⁷ Though clarity as to the existing categories of intermediaries and the need to add more have partly driven this new proposal. European Commission, *Synopsis report on the public consultation on the regulatory environment for platforms, online intermediaries and the collaborative economy*, available at http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=15877, 1; European Commission, Communication from the Commission to the European Parliament, the Council, the European

lobbying groups are advocating an alternative route which seeks to distinguish between the type of uses made of a protected work, instead of categorising online intermediaries.⁶⁸ For example, one could imagine that non-commercial online sharing triggers the safe harbour provision, whereas commercial uses require cooperation between the intermediary and right-holders. This appears sensible, since safe harbours, in any event, do not shield intermediaries from injunctions based on article 8(3) Infosoc Directive and article 11 of the Enforcement Directive (combined with recital 59).

Further concerns relate to the interaction between the proposed copyright directive and the safe harbour provisions included in the E-commerce Directive. Recital 38 of the draft directive states that article 13 does not impinge on the safe harbour regime of article 14 of the E-commerce Directive, meaning that online intermediaries falling under the categories of article 13 must enter contractual arrangements with right-holders. Here, the report of the Legal Affairs committee (JURI), following the efforts of rapporteur Michal Boni, tries to ensure that the new provision does not contradict the existing framework by upholding the principles enshrined in the E-Commerce Directive⁶⁹ and respecting the legal principle *lex specialia generalibus derogant*.⁷⁰

This suggests that *Google v Louis Vuitton*⁷¹, as clarified in *L'Oréal v eBay*⁷², and an 'active role' of the hosting intermediary sets the bar for the proposed article. While the original proposed article 13(1) by the Commission seemed to require (all) online intermediaries to prevent the availability of infringing content on their platforms, the amendments suggested by JURI are welcomed. In addition to establishing that article

Economic and Social Committee and the Committee of the Regions, *Online platforms and the Digital Single Market – Opportunities and Challenges for Europe*, COM(2016) 288/2, 9.

⁶⁸ Martin Doucha, Computer Scientist's Review of the EPRS 'InfoSoc' Directive' (25/11/2016) available at <https://medium.com/eu-copyright-reform/computer-scientists-review-of-the-eprs-infosoc-directive-review-ed7969ccbffb#.tzrjraqyl>

⁶⁹ European Parliament, *Draft Opinion of the Committee on Civil Liberties, Justice and Home Affairs on the proposal for a directive of the European Parliament and of the Council on copyright in the Digital single Market*, 2016/0280(COD), amendments 3 & 9.

⁷⁰ The EU Parliament is now considering the Commission's copyright package. Time will tell whether the Parliament is satisfied that self-regulation is adequately counter-balanced with a strong legislative framework.

⁷¹ See footnote 46.

⁷² See footnote 47.

13 does not impede on the safe harbour regime, it removes the reference to specific technologies such as content recognition technologies (aka AAPs). This newer version, by removing the imposition of filtering measures as part of the duty of care of *all* intermediaries, goes some way in softening the original text.

Finally, recital 45 boldly asserts that the draft directive respects fundamental rights and principles enshrined in the Charter of Fundamental Rights of the European Union ('EU Charter'). Recital 46 further acknowledges the need to protect personal data, in line with articles 7 and 8 of the EU Charter. And yet, despite this, the proposed article 13 seems to be prejudicial to an end-user's rights to freedom of expression and the protection of their personal data. In this regard, the proposal contained in article 13(2), that ISPs in cooperation with right-holders must give users an opportunity, *a posteriori*, to object to any blocking, filtering or removal of content is arguably inadequate.⁷³

While the current text does not refer directly to AAPs anymore, this legal reform clearly demonstrates a current trend towards the implementation of technologies, which sits uneasily with permitted uses of protected works under the law, such as for parody, quotation or education.⁷⁴ Especially, in the latest proposals from the Estonian presidency, the counter-notice (including the application of copyright exceptions) will be *decided* by right-holders only.

If the result of these legislative changes is that online sharing platforms do lose safe harbour protection, then we might anticipate that their business model will have to change. Either the intermediary must take responsibility and actively monitor all content shared on their platform, or they would need to ensure that they generate enough revenue, e.g. by introducing minimum guarantees on music streams such as those demanded from subscription streaming music services.⁷⁵

⁷³ Moreover given the proposals made by the Estonian presidency beginning of September 2017.

⁷⁴ This seems to overlook one of the goals of the EU Parliament. European Parliament resolution of 9/6/2015 on 'Towards a renewed consensus on the enforcement of Intellectual Property Rights: An EU Action Plan' ([2014/2151\(INI\)](#)), at 60.

⁷⁵ This model could push ad-funded intermediaries to ensure that advertising is not skipped or blocked by users anymore. In the case of YouTube, the platform will need to disable the 'TrueView Ad' where the user can skip the in-stream advertising. Music publishers and record labels might still not be

Consequently in the current proposed form, article 13 and its related recitals, has the potential to induce a significant chilling effect on freedom of expression, and thereby presents a risk of non-legitimate interference with fundamental rights and principles more broadly. The statement that the directive is *de facto* compliant with fundamental rights lacks substantive justification and seems reliant upon the blind trust placed in private commercial entities. Rather, like a ticking time bomb, article 13⁷⁶ has the potential to explode the fragile balance of the copyright paradigm, up-end the current intermediary liability regime and distort competition.⁷⁷

The rise of automated anti-piracy systems to fight online piracy.

Both the EU and the USA have established enforcement regimes which if not inviting are at least are compatible with automation.⁷⁸ This may be justified by the international intellectual property framework, since article 8 of the WIPO Copyright Treaty (together with its Agreed Statement) states: ‘mere provision of physical facilities for enabling or making a communication does not in itself amount to communication within the meaning of this Treaty or the Berne Convention’⁷⁹. As such, signatory parties must ‘permit effective action against any act of infringement of rights

satisfied with these measures. From their point of view, free or ad-funded services are unsustainable if they do not land to subscriptions. See <https://www.thinkwithgoogle.com/products/youtube-treueview.html>; <http://www.musicbusinessworldwide.com/warner-punches-above-its-weight-without-relying-on-pop-fads/>

⁷⁶ EDRI, *Deconstructing article 13 of the copyright proposal of the European Commission* (2016) available at https://edri.org/files/copyright/copyright_proposal_article13.pdf; Sophie Stalla-Bourdillon, Eleonora Rosati, Karmen Turk, Christina Angelopoulos, Aleksandra Kuczerawy, Miquel Peguera and Martin Husovec, *A brief exegesis of the proposed copyright directive* (2016) available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2875296

⁷⁷ The CJEU has previously held that filtering jeopardises the fair balance which must be struck between the protection of fundamental rights to property (including IP) and other fundamental rights (such as the freedom to conduct a business). See C-275/06, *Productores de Música de España (Promusicae) v Telefónica de España SAU* (29/1/2008) ECLI:EU:C:2008:54, at [68].

⁷⁸ For the EU: see proposed new copyright Directive (article 13 and recitals 38 & 39); in the US, the Office of US Intellectual Property Enforcement Coordinator (IPEC) also condoned these private arrangements. E.g. Office of the US Intellectual Property Enforcement, *Joint Strategic Plan*, 35 (2013) and *Role of Voluntary Agreements in the US Intellectual Property System: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. On the Judiciary* (113th Cong. (2013)).

⁷⁹ WCT Agreed Statement regarding article 8.

covered by this Treaty, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements'.⁸⁰

While the E-Commerce Directive and DMCA do not mention AAPSs explicitly, the trend towards the latter could be a path to practical compliance with the WIPO treaties. Firstly, the burden currently falls on the right-holders to prove that an intermediary does not meet the safe harbour requirements, which, in most cases, results in high costs for right-holders in proving that the intermediary does not meet the requirements to benefit from the harbour.⁸¹ Hence, there is pressure on both right-holders and intermediaries (who need to deal with the sheer volume of notices expeditiously) to develop technological tools which automatically *detect* online content without the need for any human oversight. Secondly, preparing a valid takedown notification every time an infringing copyright work is located is burdensome for the right-holders, given the possible sheer scale of online infringement. Therefore, it is reasonable that the right-holders will wish to automate the *sending* of notices to intermediaries. Indeed, neither the E-Commerce Directive nor the DMCA impose a limit on the volume of notices, which can be sent to a single intermediary with the expectation of expeditious removal. Thus, intermediaries faced with huge numbers of notices might wish to automate their *processing*. Finally, it is then a short step for intermediaries to automate the procedure of *notifying* users that some of their content is being taken down, resulting in fully automated systematisation of online copyright enforcement.

Consequently, for the processing of takedown notifications without jeopardising the competitiveness of their business, there is a commercial push for right-holders (typically represented by collecting rights societies) and intermediaries to collaborate. Yet, one might wonder whether such collaboration in a digital environment (which facilitates the connection of cultures) creates a danger that unique cultural differences

⁸⁰ Articles 14 WCT and 23 WPPT.

⁸¹ Some right-holders argue that these intermediaries should act as gatekeepers as the advent of technologies puts them in a better position to tackle online copyright infringement. Boroughf, *supra* footnote 11, 103; R. Alderfer-Rock R 'Fair Use Analysis in DMCA Takedown Notices: Necessary or Noxious?' (2014) 86(3) *Temple Law Review*, 694.

will be consumed by homogenisation, or be misappropriated owing to ineptitude on the part of the legal framework.

In the absence of any over-arching legal obligation, algorithms have been introduced because of voluntary private initiatives, built upon agreements between right-holders and intermediaries, which increase the right-holder's control over works shared online by third parties.⁸²

The birth and evolution of Content ID

YouTube is without doubt the most prominent video-streaming platform in cyberspace. YouTube also operates the most renowned example of a currently AAPS - the Content ID system - the result of US\$60 million of investment. This rights management system was first introduced mid-2007, contemporaneously with the dispute in the *Viacom* case, as the result of agreements between YouTube and a number of the major record labels and musical publishers, extended later to independent labels too. Ever since its launch, Content ID has been the subject of periodic changes. YouTube generates revenue to cover its operational cost by selling advertising which is viewed alongside the uploaded content when protected works are shared using YouTube. This money is shared between YouTube and the right-holder according to the agreed terms. Over time, as Content ID became more sophisticated, the agreements between YouTube and right-holders have evolved too, to the extent that Content ID is now on the path to creating monopolies for copyright-holders.

⁸² Qualified as 'DMCA Plus' intermediaries in the seminal empirical study from 2016, by Urban, Karaganis and Schofield. Later, Bridy distinguished two types of DMCA Plus intermediaries. DMCA Plus type 1 relates to intermediaries covered by the DMCA safe harbours and which voluntarily venture into private monitoring initiatives and type 2, comprising the intermediaries who venture into simile voluntary private initiative but which do not meet the safe harbour provisions' requirements. These intermediaries going beyond the DMCA (or E-commerce directive) measures, by implementing elements of enforcement infrastructure as filtering systems, direct takedown options for trusted right-holders, hash-matching "stay-down" systems and contractual agreements. Urban and al., footnote 9; Annemarie Bridy, 'Copyright's digital deputies: DMCA-Plus enforcement by Internet intermediaries' in John A. Rothchild (ed.), *Research Handbook on Electronic Commerce Law* (Edward Elgar, forthcoming 2016) available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2628827

Moving beyond being merely a way for right-holders to generate revenue, the next stage of development was a mechanism, which identified if a protected work was being shared. Using digital fingerprinting technology,⁸³ the complex algorithm cross-checks all newly-uploaded content against an established database of copyright-protected works based upon the collecting societies' repertoires and those of other partners. This sophisticated database⁸⁴ not only comprises a reference file for the copyright-protected work but also includes 'asset' metadata i.e. a wide range of the content's inherent properties. As a result, the fingerprinting algorithm is able to detect any part of audio or video content, even if modified, which is stored in the database repository. Uploading of any content which finds a 'match', in whole or part, results in an automated notification being sent to the relevant right-holders.

Content ID: a highly customisable tool

Right-holders are given five options (from least to most restrictive according to YouTube):

- (1) do nothing;
- (2) add advertising and collect the revenue;
- (3) monitor its viewing statistics;⁸⁵
- (4) block its content (the content will not be audible or viewable on YouTube); or,
- (5) issue a manual take-down request.

Right-holders may elect the course of action to be taken in advance, meaning that this course of action will be pursued automatically in the event that matching content is uploaded to the platform. The algorithm's operation has become increasingly faster and smarter. It is faster because the database now operates on short snippets, rather

⁸³ Digital fingerprinting is to be distinguished from watermarking. If both techniques allow the unique identification of content they differ in their aims and operation Dominic Milano, *Content control: digital watermarking and fingerprinting* (Rhozet White Paper) available at https://www.digimarc.com/docs/default-source/technology-resources/white-papers/rhozet_wp_fingerprinting_watermarking.pdf

⁸⁴ At the time of writing, Google indicates that within Content ID database, such files number to over 50 million, what can be equalled to over 600 years of audio and visual content.

⁸⁵ Added in 2009.

than the entire original file,⁸⁶ and content is checked against Content ID during the uploaded process, rather than waiting until the content has 'gone live'. The system is smarter because it can detect modified content through a match with the reference file stored in the database, and because the usage policy assigned can differ depending on the degree to which the detected file matches the original.⁸⁷ The customisation offers unique possibilities for right-holders. For example, Content ID partners can choose the type of content monitored (audio only, video only or both), the percentage or time of user-uploaded content matching the partner's content or the amount in percentage or time of partner reference file matched in the UGC.

The design flaws: copyright equilibrium endangered?

While being highly sophisticated, Content ID is not without flaws. The most severe limitation of AAPs is an inability to take account of the careful balance struck by legislators between the protection granted to right-holders to control uses of their works and uses which, while unauthorised, must be tolerated, as reflected in the copyright exceptions (i.e. whether the content is used in a manner which constitutes 'fair use', 'fair dealing' or other specific exceptions), the amount of the work used is insubstantial, or because the work is in the public domain. This shortcoming can easily be explained by how this technology works. Indeed, if the database was required to store full-length video or audio files of all protected works, the database would be immense and cumbersome to interrogate. Thus, in order to make the system efficient, the reference file created through Content ID only retains *parts* of the content using fingerprinting technology. As soon as this unique identifier is found, the usage policy chosen by the claimant is automatically applied without any consideration of lawfulness.

⁸⁶ Or statistical snippets based on full-length reference files. E.g. samples could be taken from the original work at random intervals. Additionally, it can also scan all previously uploaded content with a reference files fed into Content ID *a posteriori* via its 'legacy scan'. See YouTube's support page, available at <https://support.google.com/youtube/answer/3244015?hl=en-GB>

⁸⁷ E.g. the more if the use of the protected content is rather limited, the right-holder might choose to monetise it whereas if the use results in a 90% or more reproduction of the reference file, the right-holder might choose to block the video (proportion match).

YouTube introduced an internal dispute resolution system as required under section 512(g) DMCA. Once notified of a copyright 'strike', the uploader is given the option of challenging the claim.⁸⁸ If the claim is disputed, using the online procedure provided on the YouTube platform, the right-holder receives an electronic notification, and has 30 days to answer. At this point, if the right-holder agrees that the infringement claim is ill-founded, the claim can be released, and the uploader is able to restore the monetisation settings.⁸⁹ But, if the right-holder decides to maintain their claim, the block etc. will remain in place unless the uploader files an appeal.⁹⁰ Yet, there is no adjudication at this level either, placing all control in the hands of right-holders.⁹¹

Finally, the right-holder can decide to issue a manual takedown⁹² notification request which means that YouTube, as hosting intermediary, will have actual or constructive knowledge of the allegedly infringing content and will have to expeditiously respond to the notice as per the safe harbour provisions.

Consequences of dispute resolution automation for copyright enforcement

As is apparent from the preceding description, a disputed copyright claim can be accepted or rejected by the claimant *without* any independent human intervention. Indeed, it is understood that YouTube deliberately adopted and fully automated the process to avoid having employees' assessment of the legitimacy of the content jeopardise the platform's safe harbour eligibility. However, it is apparent that a fully automated process tilts the scale (sometimes unjustifiably) in favour of right-holders, rather than the individuals and creators uploading content. The latter may capitulate

⁸⁸ One might wonder the efficiency of this internal dispute resolution settlement as this platform heavily relies on UGC and yet, Content ID claims are disputed less than 1% per YouTube.

⁸⁹ Additionally, the right-holder receives the personal data of the alleged infringer. This has therefore a deterrent effect on the use of this internal dispute settlement system.

⁹⁰ <https://support.google.com/youtube/answer/7000961>.

⁹¹ Unless this is a clear-cut US fair use case that YouTube picked to defend.

⁹² In which case, the video displays the following statement: 'This video is no longer available due to a copyright claim by [right-holder]'. This can lead to a copyright 'strike' on the uploader's account. After three strikes, the account is terminated, its videos are removed, and the user's ability to create new accounts is impaired.

because they are unfamiliar with the dispute resolution process, or because they do not have resources to challenge the right-holder.

This process is not entirely inconsistent with the nature of copyright exceptions. Unlike a legal 'right', exceptions merely provide a *defence* in response to an allegation of infringement. This means that a user wishing to rely upon an exception to justify the use of a copyright work is unable to assert any right (e.g. by initiating legal proceedings via a declaration of non-infringement). The only way to determine definitively whether content is permitted (because of a copyright exception) is to wait to be sued by the right-holder for infringement, and to run the defence before the court. YouTube has sought to address this imbalance by offering to cover the legal costs of users in a limited number of clear-cut fair use cases in the USA.⁹³ It remains to be seen whether this initiative proves to be successful, but in any event, there has been no indication that the scheme is being extended into the EU.

Disputes may be multi-partied, and consequently, we must review the law on who might have a legitimate claim to ownership of content on YouTube. As we know from copyright law, a video is characterised by the multi-layering of protection. Copyright can subsist in each authorial works (literary, dramatic, musical) but also in the entrepreneurial works (sound recording or film). This multitude of potential right-holders does not seem to be reflected in the way Content ID works. The asset metadata of a video contains various information including content ownership. Whilst the default option assumes that a Content ID partner has worldwide rights over the content, multiple partners can decide to share the ownership of content in *different* territories.⁹⁴ Despite, the availability of 'embedded assets' to differentiate copyright right-holders linked with their work, Content ID can only accommodate *a single* right-holder per asset per country. There are currently four types of assets related to a piece of intellectual property following YouTube: (1) Music videos, referring to audiovisual

⁹³ Fred von Lohmann, *A step toward protecting fair use on YouTube* (19/11/2015) available at <https://publicpolicy.googleblog.com/2015/11/a-step-toward-protecting-fair-use-on.html>

⁹⁴ Possibility for the uploader to choose the 'block views outside ownership'. This will block the content from being accessible in a different territory. <https://support.google.com/youtube/answer/6303378?hl=en-GB>

content, often a promotional clip provided by a record label; (2) sound recordings, the audio recording usually provided by the record label; (3) compositions which here only refers to the musical score provided by music publishers; and, (4) art tracks, the YouTube automated version of the sound recording.⁹⁵ These assets inadequately reflect the categories of works protected under copyright. Not only does YouTube's categorisation ignore the multitude of creators involved in a work but it leaves out the authors of literary works and performers.

The situation becomes even more complex where more than one Content ID partner issue a claim over a video in the same territory. Currently, YouTube associates the match policy from each partner with the video per the agreement between YouTube and a Content ID partner - e.g. if there are multiple different valid policies, YouTube applies the most restrictive option.⁹⁶ If multiple monetising claims are made, the ad-generated revenue is split between the claimants except (apparently) in the case of music.⁹⁷

Efficiency of AAPSs for providing a sustainable environment for copyright works online

Despite its impressive structure, Content ID continues to face heavy criticism from both right-holders and the wider YouTube community.⁹⁸ Given the increasing reliance

⁹⁵ <https://support.google.com/youtube/answer/2822002?hl=en>

⁹⁶ This led YouTubers such as Jim Sterling, to trick the system with a 'copyright deadlock'. If a content creator knows that a particular content will be eventually picked up by Content ID and imposed a particular match policy such as monetising, the user can counter the application of the policy by including content from a right-holder who selected to not monetise, seen by the algorithm as more restrictive. See <http://www.thejimquisition.com/copyright-deadlock-the-jimquisition/>

⁹⁷ <https://support.google.com/youtube/answer/6300781?hl=en>

⁹⁸ Multiple examples can be listed, the following constitute a mere selection amongst plenty: the muting of the stream of the official Game Advertisements (1/12/2016) while the unofficial video of the award show remained viewable on the platform, see <http://www.thejimquisition.com/lets-take-a-moment-to-laugh-at-contentid-fucking-up-the-game-awards/>;

<https://www.theguardian.com/technology/2016/may/23/copyright-law-internet-mumsnet>; Team Four Star's channel being blocked (known for parodies of Dragon Ball Z); content creators having their content blocked by publishers of said content creators on their behalf (see <http://www.escapistmagazine.com/forums/read/7.837159-YouTube-Issued-Copyright-Claims-Against-Miracle-of-Sound>); the blocking of the NASA's mission to mars video. Parker Higgins, Mars Landing videos, and other casualties of the robot wars (8/8/2012) EFF, available at <https://www.eff.org/deeplinks/2012/08/mars-landing-videos-and-other-casualties-robot-wars>.

on AAPs, this section aims at revisiting the suitability of Content ID in tackling online copyright infringement and fostering creativity.

Firstly, the system relies on a 'first-come, first-served' policy insofar as the first party to create a Content ID reference file (usually a collecting rights society), will be assumed as the copyright owner. Furthermore, if a person claims ownership of a video, this claim is accepted at face value. Sadly, the proposed new EU regime does not provide any safeguards against such abuses. While several parties may claim entitlement to a video in different countries, there can be only one claimant over the same content in the same territory, meaning that the multi-layering of copyright protection is not reflected adequately in this system.

Secondly, some potentially infringing uses may never be detected, because Content ID does not detect a 'match' under a certain number of seconds. While many 15-second snippets of a protected work may be too insignificant to be an actionable infringement, what comprises a 'substantial part' of a copyright-protected work should be assessed both qualitatively and quantitatively. By adopting a quantitative criterion only (decided by the right-holder), Content ID is simply not equipped to detect substantial qualitative reproductions.

Thirdly, Content ID may lead to over-blocking⁹⁹ of content. The working presumption is that a use is infringing to safeguard the eligibility under the safe harbour provisions.¹⁰⁰ Fourthly, this scheme relies on 'best practices' as negotiated between right-holders and the intermediary. This overlooks the third, and arguably most important, stakeholder i.e. the public. It can result in counter-intuitive policy decisions

⁹⁹ Especially when mirrored by automated systems adopted by right-holders as well. Though presumably, a claim for breach of contract could be brought against the intermediary under the DMCA (§ 512(g)(1)) as liability exemption under the US safe harbour provision is subject to the good faith of intermediaries. Such provision is not mandatory in the E-commerce Directive but left to the national legislator's appreciation. OECD, *The role of intermediaries in advancing public policy objectives* (OECD Publishing, 2011), 84; *Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression* (16/5/2011) A/HRC/17/27, para. 42.

¹⁰⁰ Resulting in 'false positives'. Ben Depoorter & Robert Kirk Walker, 'Copyright False Positives' (2013) 89(1) *Notre Dame Law Review*, 319 available at <http://scholarship.law.nd.edu/cgi/viewcontent.cgi?article=1704&context=ndlr>.

- e.g. that YouTube ranks 'monitoring viewing statistics' as a more restrictive right-holder's option than electing to monetise a protected video. Finally, adopting an entirely automated system to determine what is and what is not legitimate use, without human oversight, gives the last word to the right-holder.¹⁰¹ Especially with the increase of *bilateral automation*¹⁰², the customisation of desired protocols to be applied inevitably favours some interests over others, meaning that the whole system fails to respect the established principle of due process, unfairness, and lack of confidence in the system are the inevitable result. While early algorithms relied upon human decision-making rules, the increasing use of 'smart' algorithms, capable of learning from previous scenarios, currently sits uneasily with copyright law which developed on the premise that context is important, and outcomes are fact-dependent, meaning infringement must be determined on a case-by-case basis.

While the technology has its limitations and the future of its development is hard to predict,¹⁰³ currently, the crux of the problem lies in the willingness of intermediaries to introduce these AAPSs voluntarily, and to negotiate 'best practices' for tackling online infringement with copyright industries behind closed doors. It is unsurprising that the results favour commercial interests, and fail to take account of the public interest, freedom of expression and free flow of information.

Google would have us believe that only rarely do right-holders choose to block content, asserting that right-holders typically choose to monetise content instead. They suggest freedom of expression is allowed to flourish, while permitting right-holders' to accumulate a fair share of any revenue which results from the use of a protected work. However, this cosy picture of an ecosystem where everyone benefits begs competition-related questions, since the manner in which the algorithms are actually used seems to reinforce the market power of the right-holders,¹⁰⁴ while

¹⁰¹ Boroughf, *supra* footnote 11, 109.

¹⁰² Meaning that both right-holders and intermediaries rely on similar technology to identify content and notify the intermediary.

¹⁰³ This is reinforced by the fact that YouTube keeps Content ID algorithm secret, giving Google a competitive edge over competitors.

¹⁰⁴ Boroughf, *supra* footnote 11, 112.

disadvantaging new, smaller players on the platform. Although copyright protection is typically justified within a market economy as being pro-competitive, it might seem that the current operation is more likely to hinder competition, and to create a chilling effect on creativity and innovation, rather than promoting it.¹⁰⁵

The need to promote freedom of expression, innovation and cultural diversity

Whilst the previous sections highlighted how the current legal framework may be conducive to automation, giving rise to new business opportunities for right-holders to transact with alleged infringers, it simultaneously presents challenges for the preservation of fundamental rights and relatedly, the promotion of culture.

Failure to preserve and promote cultural diversity in the current state of play

One of the assumptions here is that diversity matters. If it did not, there would be less to worry about the effect of AAPs. Equally important is the assumption that there may be a tension between freedom of expression and cultural diversity, and that in promoting one it may be necessary to qualify, if not sacrifice, the other. These thoughts derive from a long tradition of political thought, stretching from John Stuart Mill in the 19th century to Nancy Fraser in the 21st, and these writers all highlight the need for, and difficulty of, reconciling cultural diversity with freedom of expression.¹⁰⁶

Despite the promise of promoting and protecting cultural diversity, the current legal framework fails to provide the incentives and remedies necessary to hold stakeholders

¹⁰⁵ Recital 1 Directive 2004/48/EC of the European Parliament and of the Council of 29/4/2004 on the enforcement of intellectual property rights (as opposed to the role of Internet intermediaries described in 2008 and repeated in 2011 by the OECD). OECD, *The role of intermediaries in advancing public policy objectives* (OECD Publishing, 2011), 61.

¹⁰⁶ Political stance arguing for the liberty of choices: John Stuart Mill, *'On Liberty'*, in *'On Liberty'*, *'Considerations on Representative Government'*, *'Utilitarianism'* (Everyman Edition, 1972); Economic theory supporting free market of ideas: F.A. Hayek, *The Road to Serfdom* (Routledge, 2001); Cultural argument pleading for multiculturalism: Will Kymlicka, *Multicultural Citizenship: A Liberal Theory of Minority Rights* (OUP, 1996); Charles Taylor, *Multiculturalism and The Politics of Recognition* (Princeton University Press, 1992); Nancy Fraser, *Redistribution or Recognition?: A Political-Philosophical Exchange* (Verso, 2004).

to this promise. This explains why the international legal framework rests on the links between culture and human rights.¹⁰⁷

Fuelled by the new opportunities offered by the Internet and the advent of technologies, a merciless struggle over the expansion of copyright claims has emerged, at the expense of freedom of expression and, more generally, the preservation of cultural diversity. On the one hand, freedom of expression grants every individual the right to impart, receive and seek information and ideas freely and is at the heart of diversity within cultural expression, creativity and innovation.¹⁰⁸ Consequently, this fundamental right is essential to preserve the individual's right to participate freely in the cultural life of society.¹⁰⁹ On the other hand, copyright legislation strikes a balance between ensuring incentives for authors to create and disseminate new original cultural expressions by granting them a bundle of exclusive rights¹¹⁰ in connection to their works, the public domain, and the breathing space necessary to allow further cultural expressions to flourish through the interplay of copyright requirements, duration and exceptions and limitations.¹¹¹

Inasmuch as the goals are freedom of cultural expression, promotion of creativity and facilitation of economic growth, both freedom of expression and copyright must be

¹⁰⁷ Article 27 UDHR, adopted by UN General Assembly Resolution 217A (III), 10/12/1948 subsequently mirrored in article 15 of International Covenant on Economic, Social and Cultural Rights (CESCR).

¹⁰⁸ Protection of Freedom of expression is widely recognised at international level: Article 19 of the Universal Declaration of Human Rights ('UDHR'); Article 19 of the International Covenant on Civil and Political Rights ('ICCPR'); Article 5(d)(viii) of the International Convention on the Elimination of all forms of Racial Discrimination ('CERD'); Article 13 of the Convention on the Rights of the Child; Article 6 of the Declaration on Human Rights Defenders - Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognised Human Rights and Fundamental Freedoms; article 6 of the Declaration on Human Rights Defenders - Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognised Human Rights and Fundamental Freedoms, at regional level: Article 10 ECHR; Article 11 of the EU Charter and in other international legal instruments: Article 13 of the American Convention on Human Rights; and, Article 9 of the African Charter on Human and Peoples' Rights.

¹⁰⁹ CESCR Fact Sheet, Fact Sheet No. 16 (Rev.1). The Committee on Economic, Social and Cultural Rights. This document is available online at <http://www.unhchr.ch/html/menu6/2/fs16.htm>.

¹¹⁰ Protected as human right under article 1 of the First Protocol ECHR; article 27 UDHR, article 15 CESCR and article 17(2) EU Charter.

¹¹¹ Maskus argues that intellectual property law promotes creativity and, as a side effect, increases cultural welfare. K. Maskus, *Intellectual Property Rights in the Global Economy* (Institute for International Economics Press, 2000), 55.

considered as complementary rather than in conflict.¹¹² But, the digital era has issued new challenges both to the preservation of freedom of expression and copyright protection. This is explained by the difficulty of enforcing property rights in a borderless world but also by AAPs giving copyright owners the means to control all uses made of their works, to derive revenues from any uses made of their works and to block undesired third party uses.

Attempts at recalibrating copyright theories

These challenges have urged scholars to rethink the purposes of copyright in the online environment. Three schools of thoughts can be distinguished. The pure economic property theory¹¹³ argues for broad property rights and maximum enforcement of these rights, whereas the incentive theory argues that one new creative expression is not inherently more valuable than any other, meaning there is a need to ensure enough enforcement to recoup the original investment made but maximum enforcement is not always required.¹¹⁴

This leads to the last school of thought which conceptualises copyright under a democratic paradigm. Following Netanel's seminal work,¹¹⁵ copyright law must be shaped to support a democratic civil society. Departing from the purely economic approach, Netanel argues that 'copyright may operate *in* the market' but 'copyright's goals are not *of* the market'.¹¹⁶ Therefore, strong copyright protection is required but not absolute exclusive rights. By suggesting a democracy-enhancing theory as a

¹¹² Daniel Gervais, 'Intellectual Property and Human Rights: Learning to live together' in Torremans, PLC (ed), *Intellectual Property and Human Rights* (3rd, Kluwer, 2008) 21; Paul Torremans, 'Copyright (and Other Intellectual Property Rights) as a Human Right' in Torremans, PLC (eds), *Intellectual Property and Human Rights* (3rd, Kluwer Law International, 2015), 224.

¹¹³ For partisan of this theory, see Wendy J. Gordon, 'Fair use as market failure: a structural and economic analysis of the Betamax case and its predecessor' (1982) 12 *Columbia Law Review*, 1600; Robert Merges, 'Of Property Rules, Coase, and Intellectual Property' (1994) 94 *COLUM. L. REV.*, 2655; Robert Merges, 'Are You Making Fun of Me? Notes on Market Failure and the Parody Defense in Copyright' (1993) 21 *AIPLA Q.J.*, 305 (summarising the economic view but arguing for flexibility in the case of parody in copyright law).

¹¹⁴ Graham Dutfield and Uma Suthersanen, *Global intellectual property law* (Edward Elgar, 2008), 51-52, 75.

¹¹⁵ Niel W. Netanel, 'Market hierarchy and copyright in our system of free expression' (2000) 53 *Vanderbilt Law Review* 1879; Niel W. Netanel, 'Copyright and a democratic civil society' (1996) 106 *Yale Law journal*, 283.

¹¹⁶ *Ibid*, 341 (emphasis from the original author).

palliative to pure economic theory, Netanel offers an opportunity to allocate more weight to copyright exceptions and limitations.¹¹⁷ Neither of these theories are optimal, and due consideration of their benefits and pitfalls goes beyond this research.¹¹⁸ This research builds upon the idea that copyright contribute to preserving democratic values in society. This implies that principles of democracy should operate within national territories, but also across territories at the regional or global level.¹¹⁹ One of the challenges being: to ensure that individuals can be heard beyond the borders of the nation-state and that this privilege is not confined to a few major, global players.¹²⁰ If the latter, the effect is likely to be detrimental to national cultures because of a convergence around certain predominant cultures.¹²¹ The incentive theory has a lesser deterrent effect and enables recalibration of the copyright paradigm reconciling this proprietary regime with freedom of expression, and fosters cultural identity.

Considering the promotion of cultural diversity as an end,¹²² freedom of expression and copyright become how we enhance the interaction between cultures and promote democratic values but equally economic growth and creativity.

Conclusion

One of the biggest challenges of algorithm-based decision-making relying on voluntary agreements between intermediaries and right-holders is to ensure due

¹¹⁷ Ibid, 347.

¹¹⁸ This one has been carried out by others, most prominently in Niva Elkin-Koren and Eli Salzberger, *The Law and Economics of Intellectual Property in the Digital Age: The Limits of Analysis* (Routledge 2013), 115.

¹¹⁹ What Norris and Inglehart refer to as 'cosmopolitan democracy', Pippa Norris & Ronald Inglehart, *Cosmopolitan Communications: Cultural diversity in a globalized world* (CUP, 2009), 8.

¹²⁰ S. Jacques, Krzysztof Garstka, Morten Hviid & John Street, An empirical study on the use of automated anti-piracy systems and the consequences for cultural diversity (2018) *SCRIPed*, forthcoming.

¹²¹ Referred to as the 'L.A. Effect' (cultural convergence) or the 'Bangalore effect' to refer to the fusion of cultures as opposed to the 'Taliban effect', meaning 'culture polarization' where people can access these popular messages, absorb and reject these or adapt these to their own local context. Ibid, 12, esp. 14-18.

¹²² CJ Craig, *Copyright, Communication and Culture: Towards a Relational Theory of Copyright Law* (Edward Elgar, 2011), 204.

process and compatibility with human rights. As pointed out in the OSCE Report,¹²³ the voluntary AAPSs implemented by private entities are in breach of the right to freedom of expression unless the three-pronged test is respected.¹²⁴ Indeed, any match & block policy applied without human scrutiny should be considered as a disproportionate restriction on freedom of expression due to the likely result of over-blocking.

Additionally, to respect the rule of law, recourse to courts or other independent bodies should be possible to guarantee the respect of fundamental rights.¹²⁵ As AAPSs rely on pre-selected policies applicable to any future matches identified, the resulting blocking of content could be incompatible with the right of freedom of expression, as the interference may be disproportionate to the legitimate objective pursued. Yet, this essential part of the three-pronged test, with which any restriction to the right to freedom of expression must comply, appears to be currently lacking. Based on how Content ID operates, claimants (self-proclaimed copyright owners) have the upper hand in the internal dispute resolution system. Therefore, the user and possibly content creator, has inefficient and insufficient means to exercise his/her right to freedom of expression even in the event where a copyright exception is applicable.¹²⁶ Finally, these pre-chosen match policies can amount to a form of censorship in the hands of claimants, resulting in a chilling effect on creativity, diversity and more generally, citizen participation in a democratic society.

¹²³ OSCE, *Report on Freedom of Expression on the Internet: Study of legal Provisions and practices related to freedom of expression, the free flow of information and media pluralism on the Internet in OSCE participating states* (15/12/2011), 38 & 267 available at <http://www.osce.org/fom/105522?download=true>

¹²⁴ Pursuant to this test, the restriction must be provided by law (principle of predictability), pursue a particular aim (principle of legitimacy) and be necessary (principles of necessity and proportionality). The latter is interpreted as requiring the interference to be 'necessary in a democratic society'.

¹²⁵ See *Yildirim* case where the ECtHR held that to be compatible with the convention, a robust national legal framework must exist and the guarantee to judicial review must be possible to prevent abuses. *Ahmet Yildirim v. Turkey* (no.3111/10) at [64].

¹²⁶ For a comprehensive comparative study on human rights aspects to blocking, see Institut Suisse de Droit Comparé, *Comparative Study on blocking, filtering and take-down of illegal internet content* (Lausanne, 2015 Part 2), 773-800.

Consequently, the fact that intermediaries may be held liable for third-party content is equally problematic. Besides the economic analysis and tort law,¹²⁷ there are also emerging concerns as to whether this liability model is compatible with human rights as it amounts to an interference. While the current EU legal framework and that proposed by the Commission do not require the involvement of the judiciary before the blocking or removal of content, the only way for the intermediary to be exempt from liability is to comply with the red flag or match detection by the algorithm. Under the current state of play, there is very little incentive for intermediaries to scrutinise human rights and more especially, freedom of expression compliance.¹²⁸ The threat of being liable deters intermediaries from challenging the unjustified blocking of specific content, leading to the automated over-blocking with no balancing mechanism and endangerment of cultural diversity in the long run.

¹²⁷ Martin Husovec, 'Accountable, Not Liable: Injunctions Against Intermediaries' (2016) (working paper, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2773768)

¹²⁸ P. Yu, 'Digital copyright enforcement measures and their human rights threats' in C. Geiger (eds) *Research Handbook on Human Rights and Intellectual Property* (EE Publishing, 2015), 456.