# Free Speech by Design

## Algorithmic protection of exceptions and limitations in the Copyright DSM directive

by **Maxime Lambrecht***

**Abstract:** Article 17 of the Directive for Copyright in the Digital Single Market imposes on certain platforms an indirect obligation of algorithmic filtering, while providing a plethora of textual safeguards and guarantees for freedom of speech and legitimate uses. We argue however that this traditional approach of formal safeguards and procedural remedies has proved its inability to effectively protect users' rights to benefit from exceptions and limitations to copyright on digital platforms. We suggest an alternative approach, "free speech by design", aimed at embedding a concern for freedom of expression in the design of algorithmic copyright enforcement systems. Informed by CJEU case law (notably the recent Spiegel Online, Funke Medien and Pelham trio), we will assess how such approach can be leveraged to include, in the implementation of the DSM directive, an algorithmic protection for the exceptions for quotation and parody, which are of particular importance for the right to freedom of expression.

Keywords: Copyright; DSM Directive; Digital Single Market; Freedom of expression; exceptions and limitations; by design; Fair balance; Fundamental rights; parody; quotation

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## A. Introduction

**1** The recently adopted Directive for Copyright in the Digital Single Market (hereafter "DSM Directive")[1], and its controversial article 17, has triggered many concerns about its impact on fundamental rights, particularly freedom of speech. How can we ensure that online content-sharing service providers, when implementing (algorithmically assisted) preventive measures imposed by article 17, will preserve the users' right to effectively benefit from exceptions and limitations on copyright?

**2** While the directive provides safeguards to address these concerns, experience with such formal guarantees in earlier legislation provides reasons to doubt their effectiveness. We will discuss the merits of an alternative approach: free speech by design.

**3** With the increasing reliance by private and public actors on algorithmic decision systems[2], a growing

* Maxime Lambrecht is a FNRS researcher at JurisLab ULB, invited lecturer at UCLouvain (Chaire Hoover) and at the Ecole de Recherche Graphique. ORCID: <https://orcid.org/0000-0001-8909-7547>; The author wants to thank Julien Cabay, Andrée Puttemans, and the anonymous reviewers of this article for their very helpful feedback on this article.

1 Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market (hereafter DSM directive).

2 Algorithmic decision systems can be defined as systems relying on the analysis of large amounts of data to infer

number of researchers, public servants, and lawmakers have embraced the approach of regulation "by design", the idea of embedding public values such as fundamental rights in the design of these systems[3]. There has been much interest in this "by design" approach in the field of privacy studies (privacy by design)[4] and of nanotechnologies (safe by design)[5]. Comparatively, it has received relatively little attention in the context of copyright law (except in the debate on anti-circumvention provisions[6]), but interest in the idea has grown with the increasing reliance by online platforms on automatic content recognition technologies for algorithmic copyright enforcement[7].

**4** In the context of the ongoing transposition of the DSM directive, we will argue that such algorithmic guarantees of freedom of speech are the best way for Online Content Sharing Providers (OCSSPs)[8] to achieve the twofold obligation from article 17 to make best efforts to "prevent the availability" of unauthorized works[9] while also not preventing "the availability of works (...) which do not infringe copyright" such works covered by an exception or limitation[10]. This interpretation derives from a contextual reading of the directive as well as from recent developments in the CJEU case law and its central paradigm of the fair balance between fundamental rights, which has gradually recognized that exceptions and limitations "confer rights on the users of works or of other subject matter"[11] and that their effectiveness is especially crucial for those exceptions which aim to "ensure observance of fundamental freedoms"[12].

Since the exception for quotation or parody are designed as built-in preservations for the right of freedom of speech in our copyright law[13], it is especially important that preventive measures taken under art. 17(4) do not systematically interfere with the benefit of such exceptions, so as to strike a fair balance between the fundamental rights at stake[14].

**5** Among commentators, it is commonly held that algorithmic systems "are incapable of (...) applying

correlations or, more generally, to derive information to make or influence decision making. Cf. C. Castelluccia and D. Le Métayer, Understanding algorithmic decision-making: Opportunities and challenges (2019) Study for the European Parliamentary Research Service.

3 A. Cavoukian, "Privacy by Design. The 7 Foundational Principles. Implementation and Mapping of Fair Information Practices" (2009) available at: <https://perma.cc/CZ37-NZQT> ; D. K. Mulligan, & K. A. Bamberger "Saving governance-by-design" (2018). Calif. L. Rev. 106, 697.

4 Ibidem.

5 Cf. notably M. Hildebrandt, "Saved by Design? The Case of Legal Protection by Design" (2017) *NanoEthics* 11(3), p. 307; I. van de Poel & Z. Robaey, "Safe-by-Design: from Safety to Responsibility" (2017) *Nanoethics*, ,11(3), p. 297.

6 For a critique of this idea of algorithmic fair use in digital right management systems, see D. L Burk & J. E. Cohen "Fair use infrastructure for rights management systems" (2001) *Harv. JL Tech*, *15*, 41; see also S. Dusollier, "Fair use by design in the European copyright directive of 2001" (2003) *Communications of the ACM*, *46*(4), p. 51. The title of the present article is an homage to Dusollier's article, as we will try to learn the lessons from the "empty promise" of the InfoSoc directive in this regard, and will be especially concerned attentive to the effectiveness of our proposals.

7 N. Elkin-Koren, "Fair Use by Design" (2017) UCLA Law Review 64. *Contra* Burk, D. L. (2019). Algorithmic Fair Use. *U. Chi. L. Rev. 86*, p. 283; see also P. K. Yu "Can Algorithms Promote Fair Use?" (2020) FIU Law Review, p. 14.

8 According to art. 2(6) of the directive, an online content-sharing service provider is a "provider of an information society service of which the main or one of the main purposes is to store and give the public access to a large amount of copyright-protected works or other protected subject matter uploaded by its users, which it organises and promotes for profit-making purposes".

9 DSM Directive, art. 17(4) b.

10 DSM Directive, art. 17(7) para 1; DSM Directive, art. 17(9), para 2: "This Directive shall in no way affect legitimate uses, such as uses under exceptions or limitations provided for in Union law". See below, section 4.

11 CJEU, C117/13, *Eugen Ulmer* (11 September 2014) para 43; CJEU, C-516/17, *Spiegel Online v. Beck* (29 July 2019), para 54, CJEU, C-469/17, *Funke Medien v. Germany* (29 July 2019), para 70.

12 CJEU, C-516/17, *Spiegel Online c. Beck* (29 July 2019), para 57.

13 CJEU, C-145/10, *Painer c. Standard VerlagsGmbH e.a.* (1st december 2011), para 134; CJEU, C-516/17, *Spiegel Online v. Beck*, (29 July 2019), para 57. CJEU, C-201/13, *Deckmyn v. Vandersteen et al.* (3 September 2014), para 27; DSM Directive, recital 70.

14 For a discussion of the many links between the proportionality principle and the "fair balance" between fundamental rights, see J. Cabay & M. Lambrecht "Les droits intellectuels, entre autres droits fondamentaux: la Cour de justice à la recherche d'un" juste équilibre" en droit d'auteur" (2019) in J. Cabay & A. Strowel (eds), *Les droits intellectuels, entre autres droits*, Bruxelles, Larcier; Angelopoulos, C. "Sketching the outline of a ghost: the fair balance between copyright and fundamental rights in intermediary third party liability" (2015) Info, 17(6), 72-96.

context-dependent limitations and exceptions"[15], especially in the context of the exception for parody. Even providers of content recognition technologies seem to agree: "Copyright exceptions require a high degree of intellectual judgment and an understanding and appreciation of context. We do not represent that any technology can solve this problem in an automated fashion. Ultimately these types of determinations must be handled by human judgment"[16].

However, even algorithmically informed human review can create challenges for the effective protection of exceptions and limitations, and there is a risk that legitimate uses will be suspect by default. For this reason, we will examine the possibilities of leveraging these algorithmic systems not only for detecting infringing content but also for preserving uses covered by exceptions and limitations. This will allow us to summarize and try to apply the conditions for the exceptions for quotation and for parody, clarified in the recent CJEU case law[17].

**6** "Free speech by design" should not be taken as a plea for technological solutionism: it is above all a set of principles to integrate a concern for free speech in the design of algorithmic systems. Therefore, if it turns out that algorithmic systems are incapable of reliably arbitrating the values at stake, such an approach could recommend that they be appropriately curtailed, so as to avoid a systematic interference with the right to freedom of speech.

**7** As the directive seems mostly intended towards regulating video sharing platforms such as YouTube[18], we will mostly focus on OCSSPs for video content. However, the general approach that we suggest should be relevant for speech-affecting algorithmic decision systems concerning all types of content.

**8** After a very brief summary of the goal of article 17 of the DSM directive, we will argue that it is unlikely that it leads to (voluntary) licensing agreements that cover all works (B). This leads to the inevitable application of the "indirect filtering obligation" of article 17(4), which raise many concerns regarding its impact for freedom of expression (C). However, we will show that the numerous formal safeguards and procedural remedies provided by the directive exemplify the traditional approach for protecting exceptions and limitations which, as we will show, has long proved its ineffectiveness (D). We will outline an alternative approach, which we label "Free speech by design" (E). We then discuss how such a Free speech by design approach can inform a more effective protection of exceptions and limitations under the DSM directive, by providing a protection by default in the design of algorithmic systems (F). Finally, we touch upon a few additional points of attention for ensuring the effectiveness of such a free speech by design approach (G).

## B. The unlikeliness of all-encompassing licensing agreements

**9** Article 17 of the DSM directive is intended to address the so-called "value gap" issue[19] but does it in a confusingly complex and oblique way. It

15 A. Bridy, "The Price of Closing the "Value Gap": How the Music Industry Hacked EU Copyright Reform" (2020) *Vanderbilt Journal of Entertainment and Technology Law 22(2), p. 356.*

16 Fourth meeting of the Stakeholder Dialogue on Article 17 of the Directive on Copyright in the Digital Single Market, *Presentation by Vance* Ikezoye (Audible Magic) (16 December 2019), available at: <https://webcast.ec.europa.eu/copyright-stakeholder-dialogues-16-12>; However, the representative added, "identification technologies can supply data, which can be used to supply more informed copyright exception analysis (...)".

17 Notably CJEU, C-516/17, *Spiegel Online v. Beck* (29 july 2019); CJEU, C-469/17, *Funke Medien v. Germany*, (29 july 2019); CJEU, C-476/17, *Pelham et Haas v. Hütter et Schneider-Esleben* (29 July 2019).

18 See A. Bridy, "The Price of Closing the "Value Gap": How the Music Industry Hacked EU Copyright Reform" (2020) *Vanderbilt Journal of Entertainment and Technology Law 22(2).*

19 The "value gap" (sometimes "value grab") refers to the alleged market distortion created by safe harbours provisions for user generated content platforms, leading these platforms to pay less than the market rate for copyright permission; see the study commissioned by the *International Confederation of Societies of Authors and Composers* defending the claims on the existence of a value gap: S. J. Liebowitz (2018). "Economic Analysis of Safe Harbor Provisions". *CISAC, February, 27.* This "value gap" logic has notably been criticized for relying on a flawed comparison between closed music streaming services and UGC platforms (A. Bridy, "The Price of Closing the "Value Gap": How the Music Industry Hacked EU Copyright Reform" (2020) *Vanderbilt Journal of Entertainment and Technology Law 22(2), p. 327), or* for its lack of backing by empirical evidence (see G. Colangelo, & M. Maggiolino (2018) "ISPs' copyright liability in the EU digital single market strategy". *International Journal of Law and Information Technology*, *26*(2), 142-159). Others have challenged the underlying idea that "the creation of value should lead automatically to transfer or compensation payments" ("EU Copyright Reform Proposals Unfit for the Digital Age" (24 February 2017), available at: <https://perma.cc/ZQ3M-XUN5>.

begins by providing that when OCSSPs give access to the public to protected works, they perform act of communication to the public (17(1)). The text also states that the liability exemption provided by the E-commerce directive should not apply to this act (17(3)), which implicitly requires them to attempt to secure adequate licensing from right holders for any work that could be uploaded by their users.

**10** If a work not covered by a licensing agreement is nonetheless communicated, OCSSP can only escape liability by demonstrating that they satisfy the three conditions set forth by art. 17(4), namely that they have:

*(a) "made best efforts to obtain an authorisation, and*

*(b) made, in accordance with high industry standards of professional diligence, best efforts to ensure the unavailability of specific works and other subject matter for which the rightsholders have provided the service providers with the relevant and necessary information; and in any event*

*(c) acted expeditiously, upon receiving a sufficiently substantiated notice from the rightsholders, to disable access to, or to remove from their websites, the notified works or other subject matter, and made best efforts to prevent their future uploads in accordance with point (b)."*

**11** While the final text of the directive cleverly omits the words "effective technologies[20]" mentionned in the original proposal, in practice, preventive measures provided by art. 17(4) b) and c) constitute an indirect algorithmic filtering obligation for OCSSPs, as the massive amount of content uploaded on these platforms every day makes such duties exceedingly costly to carry out through human review[21]. Moreover, as Frosio and Mendis aptly point out, the fact that the best effort obligation must be assessed by reference to industry standards imply that "OCSSPs may even be legally required to employ algorithmic monitoring and enforcement systems" due to evolving technologies or business practices[22]. Therefore in essence, article 17 is a form of algorithmic regulation[23] for copyright enforcement on OCSSPs, delegated by public authorities through a liability regime[24].

**12** However, in principle, preventive measures provided by art. 17(4) b) and c) are only a last resort, and would not apply at all if OCSSPs were able to secure complete, all-encompassing licensing agreements with all right holders. But what are the odds of this happening? According to some observers, attaining such comprehensive licensing scheme through separate voluntary negotiations between OCSSPs and right holders "is an unobtainable ideal, a myth" as for many types of copyrighted content, very few (if any) Collective Management Organizations exist, and OCSSPs would be faced with the impossible task of licensing with all right holders for any work that could be uploaded by their users[25]. And it is for this reason that article 17 only imposes a "best efforts" obligation on OCSSPs to obtain such authorization. In other words, preventive measures under 17(4) will most certainly apply to a range of works, for which no authorization has been granted.

**13** It should be noted that alternative mechanisms were available to avoid the application of these preventive measures: introducing in the directive a compulsory license for non-commercial uses on online platforms[26], or an exception for non-

20 Cf. recital 38 of the Proposal for a directive on copyright in the Digital Single Market, 14 september 2016, COM(2016) 593 final.

21 In another paper, we made the very rough estimation that if YouTube wanted to ensure a human review of the 432.000 hours of video uploaded daily, it would have to hire roughly 70.000 full time (very efficient) employees ; M. Lambrecht "La directive européenne sur le droit d'auteur impose-t-elle le filtrage des contenus ?" (2019, May 14). The Conversation, url: <https://perma.cc/3WV3-TXK3>.

22 G. Frosio & S. Mendis, "Monitoring and Filtering: European Reform or Global Trend?" (2020) in G. Frosio (ed), Oxford Handbook of Online Intermediary Liability, Oxford University Press, p 562.

23 Algorithmic regulation can be defined as the use of computational algorithms to achieve "standard-setting, monitoring and behaviour modification". Cf. M. Hildebrandt, M. "Algorithmic regulation and the rule of law" (2018) *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 376, p. 2.

24 See M. Senftleben "Institutionalized Algorithmic Enforcement – The Pros and Cons of the EU Approach to UGC Platform Liability" (2020) FIU Law Review 14 (forthcoming).

25 T. Kreutzer "The EU copyright directive and its potential impact on cultural diversity on the internet – Part I" (2020, January 22) Kluwer Copyright Blog, <http://copyrightblog.kluweriplaw.com/2020/01/22/>.

26 Ch. Angelopoulos, and J. P. Quintais. "Fixing Copyright Reform." (2019) *J. Intell. Prop. Info. Tech. & Elec. Com. L.* 10, 147; M. Leistner, & A. Metzger, "The EU Copyright Package: A Way Out of the Dilemma in Two Stages" (2017) *IIC*, *48*, 381. Interestingly, the statement by Germany (which voted for the directive) annexed to the council vote also note that "In order to resolve this issue –of how licences can, as far as possible, be concluded for all content on upload platforms – copyright law provides for many other mechanisms besides 'traditional' individual licensing (e.g. exceptions and

commercial user-generated content[27], along with a fair compensation right, as some have suggested. Even after the adoption of the directive, solutions of this sort are not yet off the table, as the directive itself creates a mechanism of collective licensing with an extended effect (art. 12), and some have argued that member states have a broad margin of discretion to implement statutory licensing or mandatory collective management schemes in the context of art. 17[28]. While this would be a best-case scenario, the chances are slim that this is going to happen across EU member states, especially with some national implementation already under consideration[29].

## C. Concerns about the free speech impact of art. 17 indirect filtering obligation

**14** To say that the DSM directive was a controversial piece of legislation is an understatement. A considerable amount of criticism has centered on article 17 (formerly article 13) of the directive. During the legislative process, concerns about the impact of article 17 for freedom of expression have been raised on numerous occasions by researchers[30], NGOs, and observers[31], and the UN Special Rapporteur on the right to *freedom* of opinion and *expression*[32].

**15** A recurring criticism points that this indirect filtering obligation for all content uploaded on OCSSPs could be in violation with the ban on general monitoring obligations in EU law[33]. But

limitations, possibly combined with remuneration rights; the option of converting exclusive rights into remuneration rights; the obligation to conclude contracts on reasonable terms" Directive on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and2001/29/EC, Statement by Germany, 15 April 2019, 7986/19ADD 1 REV 2.

27 Cf. Senftleben, M. "Bermuda Triangle–Licensing, Filtering and Privileging User-Generated Content Under the New Directive on Copyright in the Digital Single Market" (2019) *EIPR, 41, 480*; M. Leistner, & A. Metzger, *op. cit.*; Lambrecht, M., & Cabay, J. "Remix allowed: avenues for copyright reform inspired by Canada" (2016). *Journal of Intellectual Property Law & Practice*, *11*(1), 21-36.

28 J. P. Quintais, M. Husovec, "How to License Article 17? Exploring the Implementation Options for the New EU Rules on Content-Sharing Platforms" (2019) Working Paper, available at: <http://dx.doi.org/10.2139/ssrn.3463011>.

29 In France and the Netherlands, an implementation bill is already under consideration in Parliament: Wetsvoorstel houdende wijziging van de Auteurswet, de Wet op de naburige rechten en de Databankenwet in verband met de implementatie van Richtlijn (EU) 2019/PM van het Europees parlement en de Raad van 17 april 2019 inzake auteursrechten en naburige rechten in de digitale eengemaakte markt; Projet de loi relatif à la communication audiovisuelle et à la souveraineté culturelle à l'ère numérique (5 December 2019).

30 S. Stalla-Bourdillon, E. Rosati et al., "A Brief Exegesis of the Proposed Copyright Directive" (24 November 2016), available at: <http://dx.doi.org/10.2139/ssrn.2875296>; "EU Copyright Reform Proposals Unfit for the Digital Age" (24 February 2017), available at: <https://perma.cc/ZQ3M-XUN5>; "Statement by EPIP Academics to Members of the European Parliament in advance of the Plenary Vote on the Copyright Directive on 12 September 2018" (10 september 2018), available at: <https://perma.cc/Q6F9-YSXX> ; J. P. Quintais, G. Frosio, S. Van Gompel, e.a. (2019), "Safeguarding User Freedoms in Implementing Article 17 of the Copyright in the Digital Single Market Directive: Recommendations from European Academics", JIPITEC 10 (3); Senftleben, M., Angelopoulos, C., Frosio, G., Moscon, V., Peguera, M., & Rognstad, O. A. (2018). The Recommendation on Measures to Safeguard Fundamental Rights and the Open Internet in the Framework of the EU Copyright Reform. European Intellectual Property Review, 40(3), 149-163; M. Kretschmer, C. Angelopoulos et al. "The Copyright Directive: Articles 11 and 13 must go, Statement from European Academics in advance of the Plenary Vote on 26 March 2019" (2019) IViR, <https://hdl.handle.net/11245.1/8c821080-b06f-4256-b10d-a01e3d0ee29d>; Romero-Moreno, F. (2019). 'Notice and staydown' and social media: amending Article 13 of the Proposed Directive on Copyright. *International Review of Law, Computers & Technology*, *33*(2), 187-210.

31 EDRI, Open letter (29 january 2019), <https://perma.cc/SQ87-DLU7> ; EDRI et al., Open letter (20 May 2019), available at: <https://perma.cc/23HT-KPRC> ; V. Cerf et al., " Article 13 of the EU Copyright Directive Threatens the Internet" (12 June 2018) <https://perma.cc/CZ3C-DYCG> ; La Quadrature du Net, " Directive Copyright : combattons le filtrage automatisé... et la centralisation du Web !" (12 juin 2018), available at: <https://perma.cc/3WHS-KBAM>.

32 D. Kaye, Mandate of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression (13 June 2018) *OL OTH 41/2018, available at:* < https://perma.cc/2GF8-2VXM >.

33 As some have argued, even if article 17 is not incompatible with the limited prohibition in article 15 of the E-commerce directive, it might be a violation of the broader ban on general monitoring obligations derived by the CJEU from the fundamental rights paradigm in its Scarlet and Netlog cases. Cf. K. Grisse, After the storm—examining the final version of Article 17 of the new Directive (EU) 2019/790, *Journal of Intellectual Property Law & Practice*, 14(11), p. 896; CJEU, C-70/10, *Scarlet Extended v SABAM (24 November 2011); CJEU, C-360/10, Netlog v SABAM (12 February 2012). On this*

even if it does not, preventive measures imposed by article 17(4) could also create a disproportionate interference with the freedom of speech of users of these platforms[34], which would amount to a lack of fair balance between relevant fundamental rights[35]. Indeed, a number of legitimate uses could be unduly restricted by overreaching algorithmic systems, such as uses covered by exceptions or limitations, or uses of works for whose public domain status cannot be assessed.

**16** In his opinion, the UN special rapporteur David Kaye raises concerns that the many uncertainties in the text of the directive are inconsistent with the requirement in human rights that restrictions on freedom of speech be "provided by law", and recalls that Article 19(3) of the International Covenant on Civil and Political Rights provides that to be permissible, they "must not confer unfettered discretion for the restriction of freedom of expression on those charged with its execution"[36].

**17** He adds: "Such uncertainty would also raise pressure on content sharing providers to err on the side of caution and implement intrusive content recognition technologies that monitor and filter user-generated content at the point of upload. I am concerned that the restriction of user-generated content before its publication subjects users to restrictions on freedom of expression without prior judicial review of the legality, necessity and proportionality of such restrictions"[37].

*subject, see also* G. Frosio & S. Mendis, "Monitoring and Filtering: European Reform or Global Trend?" in G. Frosio (ed), Oxford Handbook of Online Intermediary Liability, Oxford University Press.

34 Cf. G. Frosio & S. Mendis (2020), op. cit.; S. Schwemer and J. Schovsbo, "What is Left of User Rights? –Algorithmic Copyright Enforcement and Free Speech in the Light of the Article 17 Regime " (2020), in P. Torremans (ed), Intellectual Property Law and Human Rights, 4th ed, Wolters Kluwer, (forthcoming); F. Romero Moreno "'Upload filters' and human rights: implementing Article 17 of the Directive on Copyright in the Digital Single Market" (2020) *International Review of Law, Computers & Technology*.

35 For a thorough interpretation of article 17 in light of CJEU case law on fundamental rights, see J. Cabay, "Lectureprospective de l'article 17 de la directive sur le droit d'auteurdans le marché unique numérique : Vers une obligation defiltrage limitée par la CJUE, garante du « juste équilibre »",in J. De Werra, Y. Benhamou (eds.), Propriété intellectuelle àl'ère du big data et de la blockchain, Université de Genève(forthcoming 2020).

36 D. Kaye (13 June 2018) op. cit., p. 7.

37 D. Kaye (13 June 2018) op. cit., p. 7.

## D. The traditional approach: formal safeguards and procedural remedies

**18** To address the many concerns about users' rights and freedom of expression expressed during the legislative process, the final drafting of article 17 has gradually evolved to include several legal safeguards:

- Article 17(7), para 1 states that "The cooperation" envisaged by art. 17(4) "shall not result in the prevention of the availability of works or other subject matter uploaded by users, which do not infringe copyright and related rights, including where such works or other subject matter are covered by an exception or limitation". Unfortunately, the provision does not explicitly mention demonetization, which is a frequent measure taken by OCSSPs (especially YouTube) in case of matching of copyrighted content[38].

- Article 17(7), para 2 provides that "Member States shall ensure that users in each Member State are able to rely on any of the following existing exceptions or limitations when uploading and making available content generated by users on online content-sharing services: (a) quotation, criticism, review; (b) use for the purpose of caricature, parody or pastiche."

- Art. 17(9), para 3 repeats that " This Directive shall in no way affect legitimate uses, such as uses under exceptions or limitations provided for in Union Law"

- Article 17(8), para 1 states that "The application of this Article shall not lead to any general monitoring obligation" (although this looks more like a pre-emptive defense against complaints that art. 17(4) violates the ban on general monitoring obligation famously upheld by the CJEU in its two SABAM cases[39]).

- Art. 17(9), para 2 and 3 provide a "complaint and redress mechanism" available to users in the event of disputes over the removal or access disabling of the content they uploaded. But again, there is no explicit mention of demonetization, despite its potentially important effects on the income of small speakers and creators.

38 Under the "YouTube Content ID" system, in case of content matching, rightholders are offered a choice not only to takedown the video, but either disable its eligibility for advertising, or claim all advertising revenues.

39 CJEU, C-70/10, *Scarlet Extended v SABAM (24 November 2011); CJEU, C-360/10, Netlog v SABAM (12 February 2012).*

- The compliance of OCSSPs with their obligations under 17(4) must be assessed "in light of the principle of proportionality" (art. 17(5))

**19** Should all these guarantees be sufficient to allay the concerns that we mentioned[40] ? In themselves, these safeguards clauses are indeed welcome. In particular, the mandatory character given to the exceptions for quotation and parody is long overdue, as the lack of harmonization of exceptions and limitations has been a recurrent criticism[41] of the InfoSoc directive[42], an issue which the CJEU has repeatedly attempted to remedy in its case law[43]. Similarly, creating a complaint and redress mechanism for copyright takedowns is certainly a useful addition, which probably should have been included already in the liability regime created by the 2000/31 E-Commerce directive, as the US legislator did by providing a "counter-notice" system in the DMCA notice and takedown regime.

**20** To analyse the adequacy of these provisions to address concerns for the effective protections of exceptions and limitations, it is interesting to compare them with the safeguard provision in art. 6(4) of the InfoSoc on technical protection measures (TPM)[44], which – ironically for our argument – had been dubbed at the time as attempting to achieve a sort of "fair use by design"[45].

**21** The goal of Article 6(4), para 1 of the InfoSoc directive was to avoid technical overreaching by rightsholders, by protecting exceptions and limitations in the design of TPMs. However, this byzantine provision had many defects: it confined member states in a subsidiary role, only entitled to take "appropriate measures" "in the absence of voluntary measures taken by rightsholders", provided for arbitrary limitations to its scope[46], and failed to specify the sort of measures that were required, or provide any guarantee of effectiveness for these measures.

**22** Unsurprisingly, this provision proved to be nothing more than an "empty promise"[47]. Not only were voluntary measures by rightsholders rare (or non-existent), but implementation measures from member states were mostly toothless, such as the purely declaratory provision in the French DAVDSI law, stating that "Technological measures may not prevent the free use of the work or protected object (...)"[48]. Remarkably, even the ambitious Belgian transposition, which created a broad right of action against copyright holders to order them to allow the benefit of exceptions and limitations, open to consumer interest groups or the Minister responsible for copyright[49], proved ineffective: from all available records, fifteen years after its adoption, this extraordinary procedural remedy was never set in motion[50].

**23** So, the traditional approach for safeguarding freedom of speech mostly relies on either formal, declaratory guarantees, or procedural ones. Criticisms on the insufficiency of such formal and procedural safeguards are abundant in the last 15 years of literature on copyright takedown by digital intermediaries, under the European E-commerce

40 See *supra*, Section C.

41 B. Hugenholtz, *et al.* Why the copyright directive is unimportant, and possibly invalid. *European Intellectual Property Review*, 2000, vol. 22, no 11, p. 499; L. Guibault, "Why Cherry-Picking Never Leads to Harmonisation: The Case of the Limitations on Copyright under Directive 2001/29/EC", JIPITEC 1(2), p. 55; M.-C. Janssens "The issue of exceptions: reshaping the keys to the gates in the territory of literary, musical and artistic creation" (2009) In *Research handbook on the future of RU copyright. Edward Elgar, Cheltenhamp*, p. 317.

42 Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (hereafter InfoSoc directive).

43 R. Xalabarder, "The role of the CJEU in harmonizing EU copyright law." (2016): 635-639; J. Cabay, & M. Lambrecht (2019), op. cit., p. 304.

44 TPM are a form of algorithmic regulation implemented by rightsholders to control access to their work, prevent unauthorized copying or protect rights management information.

45 S. Dusollier, « Fair use by design in the european copyright directive of 2001: an empty promise », International Review of Intellectual *Property* and Competition Law 34(1), 2003, n°1, p. 62.

46 Indeed, not only did art. 6(4) only apply to certain exceptions and limitations (para 1), but it also excluded from its scope " works communicated online from its scope "works or other subject matter made available to the public on agreed contractual terms in such a way that members of the public may access them from a place and at a time individually chosen by them" (para 4), i.e. works communicated "on-demand", or online.

47 Ibidem.

48 Article L331-5, para 6, of the French Intellectual Property Code: « Les mesures techniques ne peuvent s'opposer au libre usage de l'œuvre ou de l'objet protégé dans les limites des droits prévus par le présent code, ainsi que de ceux accordés par les détenteurs de droits. »

49 Art. XI. 336 of the Code of Economic Law.

50 To the best of our knowledge, confirmed by private correspondence with the Ministry of Economy.

Directive[51] and the US DMCA notice-and-takedown mechanism[52]. To summarize, the main issues highlighted by the literature have been:

- The power imbalance between copyright holders and users has led intermediaries to be overzealous enforcers, often granting questionable (or even abusive) takedown requests by right holders to avoid litigation[53]

- Moreover, even when users have the right to challenge a takedown decision through private redress mechanism or a judiciary action, they tend not to use it, possibly through lack of information or through fear of the costs of potential litigation[54]

- Finally, some intermediaries have already set up algorithmic systems to detect and block copyright-infringing content (e.g. YouTube Content ID, Vimeo Content Match[55]), and those tend to be mostly designed efficiently to detect copyright infringement, without much (or at least not explicit[56]) concern for legitimate uses covered by L&E[57]

**24** Far from being solved, these issues are further exacerbated under art. 17 of the DSM directive for a number of reasons:

**25** First, the direct liability for copyright infringement stemming from art. 17, combined with the vagueness of the "best effort" obligations imposed by 17(4) will probably induce OCSSPs to set up stricter algorithmic monitoring systems than those already existing, to avoid costly litigation. This could go as far as automatically blocking all unauthorized uses

51 Directive 2000/31/EC on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ("E-Commerce).

52 17 U.S. Code § 512.

53 Although this field is difficult to study due to the "black box" effect of such takedown systems, a number of studies have identified evidence of significant erroneous or excessive takedown requests: J. M. Urban & L. Quilter, "Efficient Process or 'Chilling Effects'? Takedown Notices Under Section 512 of the Digital Millennium Copyright Act" Santa Clara Computer and High Technology Law Journal, Vol. 22, 2006, p. 621; J. M. Urban B. L. Schofield, & J. Karaganis (2017). Takedown in Two Worlds: An Empirical Analysis. *J. Copyright Soc'y USA*, *64*, 483; S. Bar-Ziv & N. Elkin-Koren, "Behind the Scenes of Online Copyright Enforcement: Empirical Evidence on Notice & Takedown", *Connecticut Law Review*, 50(2), 2017 (studying 10 000 google search removal request, and showing a 10% rate of questionable copyright request); J. M. Urban, L. Quilter, *"Efficient Process or Chilling Effects - Takedown Notices under Section 512 of the Digital Millennium Copyright Act", 22 Santa Clara High Tech. L.J.* 621 (2006); (2006); D. K. B. Seng, (2015). 'Who Watches the Watchmen?' An Empirical Analysis of Errors in DMCA Takedown Notices. Working paper, available at: <http://dx.doi.org/10.2139/ssrn.2563202> (although only examining substantive errors indirectly, the author sees evidence of "a "configure and forget" approach on the part of the reporters, an absence of manual review and a lack of rigorous oversight of the entire takedown process and its aftermath"); Nas, S. "The Multatuli project: ISP notice & take down". In 4th international system administration and network engineering conference, Amsterdam, (small scale study of bogus takedown of public domain works on Dutch ISPs) ; J. M. Urban & L. Quilter, "Undue Process: Challenges for Rightsholders and Service Providers Implementing Section 512's Notice and Takedown Provisions", 2009; Tushnet, R. (2016). "Fair Use's Unfinished Business". *Chi.-Kent J. Intell. Prop.*, *15*, 399 (showing anecdotal evidences of politically motivated copyright takedown request); R. Tushnet, "Power without responsibility: Intermediaries and the First Amendment", *Geo. Wash. L. Rev.* 76 (2007); S. Kreimer, "Censorship by proxy: the first amendment, Internet intermediaries, and the problem of the weakest link", *University of Pennsylvania Law Review* 155.1 (2006).

54 J. Urban, J. Karaganis, & B. Schofield, "Notice and Takedown in Everyday Practice" (March 22, 2017). UC Berkeley Public Law Research Paper No. 2755628, p. 44; Bridy, A., & Keller, D. (2016) "US Copyright Office Section 512 Study: Comments in Response to Notice of Inquiry". Available at: <http://dx.doi.org/10.2139/ssrn.2757197 > ; S. Bar-Ziv and N. Elkin-Koren. "Behind the Scenes of Online Copyright Enforcement: Empirical Evidence on Notice & Takedown" (2018) *Conn. L. Rev.* 50(2), p. 339; D. K. B. Seng, (2015)., op. cit.

55 Whereas YouTube has developed its own algorithmic solution, many other platforms, such as Vimeo or Facebook, have contracted with Audible Magic for their content matching systems Cf. Facebook, "What tools does Facebook provide to help me protect my intellectual property in my videos?", available at: <https://perma.cc/47V3-UACC>; "How to Register Content With Audible Magic" (28 May 2014) Audible Magic Blog, available at: <https://perma.cc/6QVF-D5HH> ; Cf. also A. Bridy, "Copyright's digital deputies: DMCA-plus enforcement by Internet intermediaries" (2016) In Research Handbook on Electronic Commerce Law. Edward Elgar Publishing.

56 As we will see, a recent modification by YouTube of its Content ID policy constitutes a step in disclosing some explicitly thresholds for admitted reuse of content, which could be seen as an implicit protection of certain uses covered by exceptions or limitations. See *infra*, 5.1, note 94 and accompanying text.

57 Solomon, L. (2015). "Fair Users or Content Abusers: The Automatic Flagging of Non-Infringing Videos by Content ID on YouTube", *Hofstra L. Rev.*, 44, 237; M. Perel & N. Elkin-Koren. "Accountability in Algorithmic Copyright Enforcement" (2015) *Stan. Tech. L. Rev.* 19, p. 473.

of copyright-protected works signalled by right holders under 17(4), regardless of whether such uses are covered by an exception or limitation.

**26** Second, OCSSPs, which are responsible for setting up the complaint and redress mechanism required by art. 17(9), lack the qualities of independence and impartiality and accountability for such private adjudication[58]. Due to the power imbalance between copyright holders and users, they are likely to continue to allow abusive takedown requests for fear of legal liability[59].

**27** Third, in any case, the complaint and redress mechanism provided by art. 17(9) will likely remain ineffective: given the rarity of user's appeal against takedown decisions, and the scarcity of NGOs capable of defending users' rights through litigation, it is plausible that they will mostly remain unchallenged.

**28** Fourth, even if users do exercise their right to appeal a blocking decision, the fact remains that they will suffer from an *ex ante* restriction on their freedom of speech. Such technically enforced prior restraint is the most extreme and problematic restriction on speech[60], as it avoids the public scrutiny incurred by standard judicial procedures, and shifts the burden of inaction on the speaker, as no communication can occur until permission is granted[61]. For some creators on UGC platforms, the blocking of their content during a month-long appeal process can have a substantial impact on their income[62].

**29** Fifth, even if algorithmic systems are only used for purposes of flagging suspect uses, and human review is guaranteed before any preventive measure is enforced, there are reasons to doubt that this will lead to a proportional application of the law. Indeed, not only would all quotative and transformative uses be considered suspect by default, a framing which might lead to excessively strict scrutiny, but such human review might be biased by the algorithmic assessment: according to recent research, it seems that under certain circumstances people tend to better trust algorithmic than human judgments[63].

**30** So, in theory, the principles and safeguards enshrined in the directive, such as the proportionality principle, the right to access to court or the acknowledgment of users' rights, are all perfectly sound. However, in practice, all these sound principles acknowledged in the text are likely to remain unheeded in its day-to-day application, unless the CJEU ends up clarifying or striking down the mechanism in its judicial review[64].

**31** But despite the risks it poses, this implicit filtering requirement by art. 17 of the DSM directive can also be seen as an opportunity to improve the effective protection of exceptions and limitations.

**32** Indeed, the effectiveness of exceptions and limitations is an important goal for EU copyright law. In a series of decisions, the CJEU stressed that "exceptions or limitations do themselves confer rights on the users of works or of other subject matter", and that it is of "particular importance" that the interpretation of such exceptions or limitations allow "their effectiveness to be to safeguarded and their purpose to be observed" where their aim is "to ensure observance of fundamental freedoms". This is notably the case for the quotation exception, which is "aimed at favouring the exercise of the right to freedom of expression by the users of protected subject matter and to freedom of the press"[65], or for the exception for parody, on which users rely to

58 D. Kaye (13 June 2018) p. 8.

59 Cf. S. Kreimer (2006), *op. cit.*

60 According to the European Court of Human rights "the dangers inherent in prior restraints are such that they call for the most careful scrutiny on the part of the Court"; European Court of Human Rights, Observer and Guardian v. United Kingdom (26 november 1991), para 60.

61 J. M. Balkin, "Old School/New School Speech Regulation" (2014) *Harvard Law Review*, Vol. 127, p. 2316-2317.

62 See S. Wodinsky. "YouTube's Copyright Strikes Have Become a Tool for Extortion" (11 Feb. 2019) The Verge, <https://perma.cc/GKS3-P59D>.

63 J. M. Logg, J. A. Minson, & D. A. Moore "Algorithm appreciation: People prefer algorithmic to human judgment" (2019) *Organizational Behavior and Human Decision Processes*, *151*, 90-103; Underhaug, M., & Tonning, H. *In bots we (dis) trust?* (2019) (Master's thesis, University of Stavanger, Norway), available at: < http://hdl.handle.net/11250/2618905> ; *Contra* B. J. Dietvorst, J. P. Simmons, & C. Massey "Algorithm aversion: People erroneously avoid algorithms after seeing them err" (2015) *Journal of Experimental Psychology: General*, *144*(1), 114 (however, according to Logg et al. : " in the control conditions of the Dietvorst et al. studies, participants chose the algorithm's judgment more frequently than they chose their own (or another person's)"); Accoding to Castelo et al., trust in algorithms depends on the perceived objectivity of a given task; however, such perceived objectivity is malleable, and framing can play an important role; cf. Castelo, N., Bos, M. W., & Lehmann, D. R. "Task-dependent algorithm aversion" (2019) *Journal of Marketing Research*, *56*(5), p. 809-825.

64 See e.g. the action brought by Poland seeking partial annulment of article 17: CJEU, C-401/19, *Republic of Poland v European Parliament and Council of the European Union*.

65 CJEU, C-516/17, *Spiegel Online v. Beck*, (29 July 2019), para 57; see also C.J.U.E., C-145/10, *Painer c. Standard VerlagsGmbH e.a.* (1st December 2011), para 134.

exercise their freedom of expression[66]. The preamble of the directive also explicitly recognize that certain exceptions and limitations "guarantee the freedom of expression of users", and the importance of the exception of quotation and parody for striking a fair balance between freedom of expression and freedom of the arts and the right to intellectual property[67].

**33** And since under the directive such filtering mechanisms are now legally required (although indirectly), rather than being mere voluntary measures, there is no question that they must strive to reach a fair balance between fundamental rights. This requirement includes respecting the effectiveness of the exceptions and limitations which are a condition of the effective exercise of fundamental rights, such as the exception for quotation and for parody. Therefore, we argue that national implementations of the DSM directive, as well as the Commission guidance for its application,[68] should ensure that such balance is effectively achieved in the design of their algorithmic decision systems, by requiring OCSSP to follow a "Free speech by design" approach.

## E. An alternative approach: free speech by design

**34** The "by design" approach, which inspired the GDPR[69], has been popularized by the work of the Privacy Commissioner of Ontario, which devised a set of principles aimed to "proactively embed privacy into the design specifications of information technologies, organizational practices, and networked system architectures"[70]. Transposing those principles to the issue at hand, we could formulate the following four principles[71]:

**Preventive, not Remedial**: anticipate and prevent free speech-invasive events before they happen.

**Free speech Embedded into Design**: Free speech should be embedded into the design and architecture of IT systems and business practices.

**Integrate all legitimate interests:** all interests should be balanced in a way that maximize their level of protection, such as the protection of the right to intellectual property and the right to freedom of expression and information[72]

**Visibility and Explainability:** ensure that the technology involved is in fact operating according to the stated promises and objectives, subject to independent verification. The use of speech-affecting technologies, such as algorithmic copyright enforcement systems, should be both visible and explainable (rather than merely transparent) to users and rightsholders.

**35** Of course, the idea is not to exclusively (or even primarily) protect freedom of speech, but to integrate all legitimate interests, and fundamental rights in particular[73]. Free speech by design is thus a subset of "human rights by design", but for the purpose of this article we want to emphasize the need to effectively protect freedom of speech in the DSM directive.

**36** These principles have many ramifications, but one direct implication of this approach is that embedding free speech in the design of copyright algorithmic systems means preventing systematic *ex ante* interferences with the benefit of exceptions and limitations, rather than just providing an *ex post* remedy. Indeed, the prevention principle should apply to both rightsholders against infringement of their rights *and* users against interference in their freedom speech .

**37** A free speech by design approach implies that algorithmic systems used for compliance with art. 17(4) should be designed not merely for detecting potentially infringing works, but also for minimizing the interference with potentially legitimate uses by users covered by an exception or limitation. In other words, algorithms should protect exceptions and limitations by default.

66 CJEU, C-201/13, *Deckmyn v. Vandersteen et al.* (3 September 2014), para 27.

67 DSM Directive, Recital 70.

68 See DSM Directive, art. 17(10).

69 Cf. recital 78 of the Regulation 2016/679 General Data Protection Regulation (GDPR).

70 A. Cavoukian (2009), op. cit.

71 Here we paraphrase A. Cavoukian (2009), op. cit.

72 Note that for the purpose of this article, we are avoiding dwelling into the highly contentious issue of which of the protection of free speech or of intellectual property rights are the principle, and which is the exception. We have developed elsewhere our answer to that question, based on a normative theory inspired by liberal egalitarian framework, as well as on the specific status of the right to property protected by international and European human rights instruments. Cf. M. Lambrecht, *Licences ouvertes et exceptions au droit d'auteur dans l'environnement numérique. Subvertir ou réformer ?*, Brussels, Larcier, 2018 ; for a similar approach, see A. Peukert, A Doctrine of the Public Domain, in J. Drexl and A. K. Sanders, The Innovation Society and Intellectual Property, 2019, Edward Elgar, p. 117.

73 Similarly, see D. K. Mulligan & K. A. Bamberger (2018) p. 704.

**38** This objective of protecting the effective enjoyment of exceptions and limitations by default can be justified by a contextual or systematic reading of the directive[74], which supports the idea that OCSSPs have a twofold obligation regarding preventive measures under 17(4) b. and c.

**39** Indeed, the "best efforts" obligation under 17(4) b. and c. should be read jointly with art. 17(7) para 1, which states that this "cooperation" between OCSSP and rightsholders "shall not result in the prevention of the availability of works or other subject matter uploaded by users, which do not infringe copyright, including where such works or other subject matter are covered by an exception or limitation", as well as art. 17(9), para 3, which states that "This Directive shall in no way affect legitimate uses, such as uses under exceptions or limitations provided for in Union law". Moreover, as we mentioned, the OCSSPs' obligation to ensure the unavailability, or prevent future uploads of infringing works must be assessed under the principle of proportionality, which notably entails that it should not unnecessarily limit the users' rights (necessity)[75] and that the harm for user's fundamental rights should be proportionate to the benefits of the measure for the protection of IP rights (proportionality *stricto sensu*)[76].

**40** It is also interesting to note that the second part of this twofold obligation is worded not as a mere best efforts obligation, but in much stronger terms, tending towards an obligation of results (art. 17(7), para 1 : "*shall not result* in the prevention of the availability" of non-infringing works). Finally, the phrasing of art. 17(7), para 2 suggests an obligation for member states not merely to implement the exception for quotation and parody, but an obligation to actively ensure the effectiveness of such exceptions in the context of uploading content on OCSSP: rather than using the phrasing of the InfoSoc directive, that certain acts "shall be exempted" from a given exclusive right, or that "Member States may provide for exceptions or limitations... in the following cases", art. 17(7), para 2 states much more actively that: "Member States *shall ensure* that users in each Member State *are able to rely on* any of the following existing exceptions or limitations when uploading and making available content generated by users on online content-sharing services (...)". Some have interpreted this wording as giving rise to a subjective right to enforce those exceptions or limitations[77]. Moreover, the Commission recently confirmed that "any obligation directed at OCSSPs should be properly implemented in national law", and therefore that the obligation provided by art. 17(7) and 17(9) "must be given effect to by Member States in their implementing legislation" and cannot be considered fulfilled "by Member States by seeking to rely on any general provision informing users about existing exceptions and limitations in the terms of use of the OCSSPs"[78], as was the case in the French implementation bill[79].

**41** Therefore, under such a contextual reading of article 17, where article 17(4) is read jointly with article 17(7), 17(9) para 3 and in light of the principle of proportionality, art. 17(4) should be understood as imposing a twofold obligation for OCSSP to both "prevent the availability" of unauthorized works while also not preventing "the availability of works[80] (...) which do not infringe copyright", such as uses covered by an exception or limitation.

**42** This line of interpretation is further reinforced by the relatively weak case for the necessity of the interference by article 17(4) with the fundamental rights of users of OCSSPs, since there were clearly other, less restrictive means available to the EU lawmaker to achieve the same purpose, among

74 See K. Lenaerts, " To say what the law of the EU is: methods of interpretation and the European Court of Justice" (2013), *Colum. J. Eur. L.* 20(3); see also K. Lenaerts, K., & J. A. Gutiérrez-Fons, (2020). *Les méthodes d'interprétation de la Cour de justice de l'Union européenne*, Brussels, Bruylant.

75 Or, under the strict necessity criterion adopted by the CJEU in its "Sky Österreich " case, that it should adopt the least restrictive (or "least onerous") means: CJEU, C-283/11, *Sky Österreich GmbH v. Österreichischer Rundfunk* (22 January 2013), para 50.

76 Cf. R. Alexy, "Constitutional Rights and Proportionality" (2014) *Revus* (22)51; R. Alexy, "Constitutional Rights, Balancing, and Rationality" (2003) *Ratio Juris* 16(2), p. 131.

77 G. Spindler, "The Liability system of Art. 17 DSMD and national implementation – contravening prohibition of general monitoring duties?" (2019) JIPITEC 10(3), at 130.

78 European Parliament, Answer given by Ms Gabriel on behalf of the European Commission, E-002681/2019(ASW), <https://perma.cc/3MTJ-6V9E>.

79 Cf. Projet de loi relatif à la communication audiovisuelle et à la souveraineté culturelle à l'ère numérique (5 december 2019), art. 16.

80 Taking inspiration from Garstka, we suggest here that the notion "preventing the availability" of works be interpreted broadly, so as to also include demonetization decisions, due to the significant impact such decisions can have on the freedom of expression and the right to intellectual property of small creators. See K. Garstka, "Guiding the Blind Bloodhounds: How to Mitigate the Risks art. 17 of Directive 2019/790 Poses to the Freedom of Expression" in P. Torremans (ed) Intellectual Property and Human Rights (4th ed), Wolters Kluwer Law & Business (forthcoming).

which are an UGC exception or compulsory license[81] or an obligation for member states to implement extended collective licenses for uses of copyrighted works on OCSSPs. Under such a scheme, there would have been no need for imposing a form of prior restraint on users' fundamental right to freedom of expression through the complex mechanism provided by art. 17(4) b. and c. So, an interpretation of article 17(4) in light of the fundamental rights paradigm[82] strengthens the importance of reading it as imposing a twofold obligation, which calls for protecting exceptions and limitations by default.

## F. Protecting exceptions and limitations by default

**43** As we argued, to avoid having to sacrifice effective protection of uses covered by exceptions and limitations for the sake of effective detection of infringing works uploaded on OCSSP, algorithmic systems used for copyright enforcement should be designed so as to protect exceptions and limitations by default. In other words, algorithmic systems should be designed to detect not only infringing uses, but also uses that should be considered as covered by an exception or limitation, and exclude them from any automated flagging or takedown.

**44** Ideally, Member states should explicitly provide in their national implementation of the DSM directive an obligation for OCSSPs to design their algorithms so as to avoid affecting content that could be considered as presumably covered by an exception. However, even if Member states fail to specify OCSSPs' duties in that regard, this "protection by default" approach for exceptions and limitations should nonetheless be followed by OCSSPs, as it can be interpreted as stemming from their twofold obligation to both "prevent the availability" of unauthorized works while also not preventing "the availability of works (...) which do not infringe copyright" under a contextual reading of art. 17(4) and 17(7) & (9).

**45** Of course, the fact that most exceptions and limitations provided by EU law are facultative is a challenge for applying this approach to OCSSPs with a pan-European audience. However, we will mostly avoid this difficulty since we will only focus on the quotation and parody exceptions, which have been made mandatory by art 17(7) para 2 of the DSM directive. Moreover, the CJEU has also largely harmonized these two exceptions in its recent case law[83]

**46** We will discuss two methods to achieve an algorithmic protection of exceptions and limitations: the first implies establishing "bright-line" rules for a deterministic assessment of uses presumably covered by an exception; the second involves training Machine Learning algorithms to assess the existing legal standards for the application of exceptions and limitations.

## I. Two methods for an algorithmic protection of exceptions and limitations:

**47** In her article on "Fair use by design", Niva Elkin-Koren envisages two different ways for achieving an algorithmic assessment of fair use: the first consist in "Programming [certain] factors into an automated process" by translating them "into a set of instructions that can be executed on certain data sources"[84], and the second in training machine learning algorithms to assess factors "which involves the exercise of judgment"[85].

**48** This distinction overlaps pretty well with the distinction between rules and standards. Simply put, a rule "binds a decisionmaker to respond in a determinate way to the presence of delimited triggering facts"[86], while a standard "allow the decisionmaker to take into account all relevant factors or the totality of the circumstances", turning decision-making into an application of the underlying policy to a factual situation[87]. However, this distinction should be seen more like a continuum than a binary dichotomy[88].

81 See supra, Section B, notes 21-22.

82 See J. Cabay & M. Lambrecht (2019), op. cit.

83 Cf. CJEU, C-201/13, *Deckmyn*, para 14 (considering the notion of parody as an autonomous concept of EU law); Cf. also Quintais et al, (2019) op. cit., arguing that the notion of quotation should also be interpreted as an autonomous concept of EU law, following the cases Painer (C-145/10), Funke Medien (C-469/17), *Pelham* (C-467/17) and Spiegel Online (C-516/17).

84 N. Elkin-Koren, "Fair Use by Design" (2017) *UCLA L. Rev.*, vol. 64, p. 1095.

85 N. Elkin-Koren, "Fair Use by Design", op. cit., p. 1097.

86 K. M. Sullivan (1992), op. cit., p. 58.

87 K. M. Sullivan (1992), op. cit., p. 58.

88 See K. M. Sullivan, "Foreword: The justices of rules and standards" (1992) *Harv. L. Rev.* 106, p. 22; M. J. Radin, "Presumptive Positivism and Trivial Cases" (1991) *Harv. JL &*

**49** The more rule-like a legal directive is, the easier is its transposition into a deterministic algorithm: a set of computer-executable instructions, which, given the same input, will always produce the same output. Some rules are so determinate that they can almost directly be automated, as speed limits (the classic example of rules[89]) have historically been. Others have to be rulified beforehand, in other to eliminate their indeterminacy into a set of more or less complex sub-rules.

**50** Of course, the more standard-like a legal directive is, the more difficult is its transposition into a deterministic algorithm. By definition, its indeterminacy precludes its rulification. In such a case, resorting to probabilistic deep learning algorithms appears like a more promising avenue. However, one should resist ceding to technological solutionism, and having excessive expectations in the ability of technology to resolve questions that have vexed lawyers (or philosophers) for a very long time.

**51** This leads to two conceivable methods for an algorithmic assessment of uses covered by exceptions and limitations: simplifying conditions for exceptions or limitations into easily-automated "bright-line" rules (which should ideally be set up by public authorities, as we will see later), or training machine learning algorithms to predict the correct application of standards used to define such exceptions or limitations. In other words, either providing a simplified version of legal norms for their algorithmic application, or training algorithms to try to emulate their correct application. As we'll see, these two methods, while conceptually distinct, can be used complementarily.

## 1. The deterministic method: rulifing exceptions and limitations

**52** The first method for an algorithmic protection of exceptions relies on spelling out "bright-line" easily assessed conditions to support a presumption that certain uses are covered by an exception or limitations.

**53** The expression" bright-line rules" echoes various efforts that have been made in the US to provide guidelines for the application of the US fair use doctrine[90], a notoriously flexible but also (not necessarily for this reason) rather unpredictable standard[91]. We readily acknowledge that these efforts have mostly been unsuccessful, notably due to a sceptical reception by courts, who considered such guidelines as contrary to the flexible nature of fair use, as they promoted a mathematical approach to fair use, rather than the case-by-case analysis favoured by courts[92].

**54** However, our proposal remains fairly modest, and therefore its acceptability should be an easier matter. First, because we are not proposing hard "safe harbours" that would definitely shield users from litigation, but merely thresholds that ground a presumption that automated detection system must respect; being a presumption, it could be reversed by "duly justified"[93] targeted human takedown requests[94]. Second, because we're not proposing guidelines for the application of exceptions and limitations in general, but only for a subset of uses i.e. works communicated to the public through OCSSPs. Finally, our endeavour seems more accessible because the closed systems of exceptions in article 5 of the InfoSoc directive is more specific, and arguably more rule-like, than the US fair use standard.

**55** Moreover, it is inevitable that platform operators rely on simplified rules approximating the application of the exceptions and limitations framework for the purposes of algorithmic systems, even if it is only implicitly. Indeed, the simple selection of a similarity threshold, to avoid generating too many false positives, implies relying on a particular reading of the law[95]. This is apparent from the recent

*Pub. Pol'y* 14, p. 823.

89 Cf. F. Schauer, "The Tyranny of Choice and the Rulification of Standards." *J. Contemp. Legal Issues* 14 (2004), p. 803.

90 See for example the "Classroom guidelines" negotiated by stakeholders and annexed to (but crucially not incorporated into) the 1976 copyright act Agreement on Guidelines for Classroom Copying in Not-for-Profit Educational Institutions with Respect to Books and Periodicals, H.R. Rep. No. 94-1476, at 68-70 (1976), as reprinted in 1976 U.S.C.C.A.N. 5659, 5681-83; More generally, see Parchmovsky, "Fair Use Safe Harbors", Virginia Law Review 93(6), 2007, p. 1483.

91 See e.g. B. Beebe, (2007). "An empirical study of US copyright fair use opinions, 1978-2005". *U. Pa. L. Rev.*, 156(3), 549.

92 US Court of Appeal for the 11th circuit, Cambridge University Press et al v. Carl V. Patton, e.a., 17 Oct. 2014, p. 57. Perfect 10, Inc v Amazon.com, Inc, 508 F3d 1146, 1163 (9th Cir 2007), quoting USC, Campbell v. Acuff-Rose, 510 US at 577 ('We must be flexible in applying a fair use analysis; it 'is not to be simplified with bright-line rules, for the statute, like the doctrine it recognizes, calls for case-by-case analysis.'");

93 Cf. art. 17(9), para 2.

94 Such as takedown requests under art. 17(4) c of the directive.

95 Cf. Lester, T., & Pachamanova, D. (2017). "The Dilemma

revision of YouTube Content ID rules (precluding monetization claims by rightsholders for very short musical excerpts)[96] which are seemingly intended to (partially) protect a range of uses that would be covered by the citation exception[97], the incidental inclusion exception[98] or the accessory reproduction theory in French case law[99].

**56** Therefore, since some rulification of exceptions and limitations is apparently already taking place[100], it seems that the choice is between unilateral and opaque (or implicit) rules set up by platforms, or publicly enacted or negotiated bright-line rules, as happened with the memorandum of agreement on the interpretation of French pedagogical exception[101]. It is likely that a unilateral rulification of exceptions and limitations by OCSSPs will be much more timid and defensive than the result of publicly negotiated agreement (which is already likely to be rather cautious), due to the strong legal liability incurred by platforms for copyright infringement under art. 17[102].

**57** These bright lines for assessing uses presumably covered by an exception should be minimal, uncontroversial ones. The point is not to encompass all uses covered by exceptions and limitations, but the clearest, most unambiguous cases. Ideally, they should be the result of a negotiation between the various affected stakeholders at the European level, such as representatives of right holders, users, OCSSPs, and public authorities. That this multi-stakeholder negotiation has not been more explicitly called for in the text of the DSM directive is a sign of how little thought went as to how to ensure the effective protection of exceptions and limitations during the legislative process. However, if we consider that such rulification of bright lines for exceptions and limitations is indispensable for their being preserved by algorithmic preventive measures, as mandated by art. 17(7) and 17(9) para 3, it should be taken as falling under the mandate of the stakeholder dialogue provided by art. 17(10), intended to "discuss best practices for cooperation between online content-sharing service providers and rightholders", especially considering the precision that "special account shall be taken, among other things, of the need to balance fundamental rights and of the use of exceptions and limitations"[103].

## 2. The probabilistic method: training machine learning algorithms for exceptions and limitations

**58** Another method for ensuring a protection by default of exceptions and limitations in algorithmic copyright enforcement by OCSSPs would be to train machine learning algorithms to assess the existing conditions for exceptions and limitations.

**59** One of the prominent areas in which the probabilistic method is currently applied in algorithmic law enforcement is the search for similarities in the context of copyright law. And, at first glance, the two fields seem like a good match. One of the primary things that a machine learning algorithm does is indeed to look for similarities or dissimilarities in a

of False Positives: Making Content ID Algorithms More Conducive to Fostering Innovative Fair Use in Media Creation", *UCLA Ent. L. Rev.*, *24*, 51.

96 Cf. YouTube Support, "Mise à jour de nos règles concernant les revendications Content ID manuelles" (20 August 2019), available at: <https://perma.cc/4RLM-J2HE>.

97 Directive 2001/29, Art. 5(3) d.

98 Ibidem, Art. 5(3) i.

99 On this jurisprudential theory which partially overlaps the EU incidental inclusion exception, see J. Cabay & M. Lambrecht, "Remix prohibited – How rigid EU copyright laws inhibit creativity" (2015) JIPLaP, 10(5), p. 375-376.

100 See also the presentation by Facebook representative : "we allow the rightsholder to determine the matching threshold, however, as is the case with all systems like these, we do require a certain amount of content in order to be able to make correct and accurate matches"; *Presentation by Facebook's representative* Fourth meeting of the Stakeholder Dialogue on Article 17 of the Directive on Copyright in the Digital Single Market, 16 December 2019, at 10:34:10, available at: <https://webcast.ec.europa.eu/copyright-stakeholder-dialogues-16-12>.

101 Protocole d'accord du 22-7-2016 sur l'utilisation et la reproduction des livres, des œuvres musicales éditées, des publications périodiques et des œuvres des arts visuels à des fins d'illustration des activités d'enseignement et de recherche (29 September 2016) Bulletin officiel de l'éducation nationale, n°35.

102 Cf. M. Senftleben, "Bermuda Triangle – Licensing, Filtering and Privileging User-Generated Content Under the New Directive on Copyright in the Digital Single Market", op. cit. p. 9.

103 In the absence of such discussion at the European level, member states should determine, in the context of their national transposition of the directive, the bright lines that should be respected in the design of algorithmic systems used for copyright enforcement. This obviously creates an issue of unharmonized interpretation of exceptions and limitations, but is probably preferable to entirely deferring such harmonization to multinational companies.

dataset, in order to generate an inference model to predict or recognize the presence of certain features in unknown pieces of content.

**60** Therefore, in theory, given sufficiently large, curated, and unambiguous datasets, applying these algorithms to predict the correct application of some legal standards should be possible.

**61** In her article, Niva Elkin-Koren suggests using existing American fair use decisions (supposedly along with the underlying facts of the decided fair use cases) as a dataset and supervising the training of algorithms based on parameters and clusters identified by scholars through empirical case law analysis[104].

**62** One possible theoretical difficulty with this approach is that to succeed, it must rely on a somewhat robust commitment to legal rationalism, i.e., the presupposition that the judicial reasoning relies on rational arguments, and that the law is not ultimately indeterminate[105], as legal realists and critical legal scholars have argued[106].

**63** However, even setting aside the legal theory debates, implementing such an approach requires being able to rely on a sufficiently rich dataset on the application of exceptions and limitations. However, since European copyright law is not fully harmonized, the available case law is still significantly heterogeneous[107], as national court decisions are still highly determined by national legal systems. Consequently, empirical studies of European IP case law are also still relatively scarce[108]. Therefore, even if the US case law is also affected by its inconsistencies and circuit splits, it seems even more challenging to attempt to build the sort of dataset for training Machine Learning algorithms to recognize the application of exceptions and limitations in the case of European copyright law.

**64** However, we should note that current content matching algorithms in search of similarities are probably not applying *the law* on copyright-relevant similarities, but merely a common-sense notion of a similarity, implicit in the mathematical model used by their developers. Therefore, for our purposes, it does not seem impossible to have lawyers curating datasets that rely on *one* interpretation of the law, even if it does not come straight from the judge's mouth. In any case, such legal interpretation, made by OCSSPs or their subcontractors, should be explicit and be made public, for legal predictability and accountability purposes.

**65** Whether such an approach will succeed in providing useful results depends on the state of the art of machine learning technologies, as well as the degree of indeterminacy and context-dependency of the legal standards at stake, as we will see in the case of the exception for parody (F.III.)

**66** Let us now see how these methods can be applied to the algorithmic protection of the exception for quotation F.II.), before considering the more challenging task of applying it to the parody exception (F.III.). We will then consider an even more radical step, aiming at curtailing the scope of preventive measures to literal copies of protected works (F.IV.).

## II. Designing quotation-sensitive algorithms

**67** The exception for quotation seems like a good entry point for attempting to design algorithms susceptible to detect and preserve uses covered by exceptions and limitations. Indeed, its conditions have been clarified in a fair number of CJEU cases[109] and mostly feature rules (rather than standards) that should be technically easy to assess. The only difficulty for such a transposition into algorithmic regulation is to be able to objectify these rules in a more specific

104 N. Elkin-Koren, Fair Use by Design (2017), p. 1097. For such studies, cf. notably B. Beebe, "An Empirical Study of U.S. Copyright Fair Use Opinions, 1978–2005, (2008) 156 U. PA. L. REV. 549; B. Beebe, "An Empirical Study of the Multifactor Tests for Trademark Infringement" (2006) 95 California Law Review 1581; M. Sag, "Predicting Fair Use" (2012) 73(1) Ohio State Law Journal, p. 47.

105 For a defence of such position, see E. J. Weinrib, Ernest J. "Legal formalism: On the immanent rationality of law" (1987) *Yale LJ* 97, p. 949.

106 See for example B. Leiter (1995) "Legal indeterminacy" *Legal Theory*, *1*(4), 481-492; B. Leiter "Legal realism and legal positivism reconsidered." *Ethics* 111.2 (2001) p. 278-301; D. Kennedy, *A Critique of Adjudication [fin de siècle]*. Harvard University Press, 2009.

107 As the CJEU made clear in the case of some exceptions and limitations: cf. CJEU, *Spiegel Online*, para 39; CJEU, *Funke Medien*, para 54.

108 M. Favale, M. Kretschmer, P. Torremans, "Is There a EU Copyright Jurisprudence? An Empirical Analysis of the Workings of the European Court of Justice", Modern Law Review 79(1): 31-75 (January 2016).

109 CJEU, C-145/10, *EvaMaria Painer v. Standard VerlagsGmbH and others* (1st December 2011); CJEU, C-516/17, *Spiegel Online v. Beck* (29 july 2019); CJEU, C-469/17, *Funke Medien v. Germany*, (29 july 2019); CJEU, C-476/17, *Pelham et Haas v. Hütter et Schneider-Esleben* (29 july 2019).

and measurable way. This requires agreeing on some minimal, uncontroversial "bright-line rules" for uses presumably covered by the exception for quotation.

**68** In a recent trio of court decisions handed in the same day[110], the CJEU has significantly clarified the conditions applying to the exceptions for quotation. Defining the word "quotation" according to its usual meaning, the Court stated: "the essential characteristics of a quotation are the use, by a user other than the copyright holder, of a work or, more generally, of an extract from a work for the purposes of illustrating an assertion, of defending an opinion or of allowing an intellectual comparison between that work and the assertions of that user"[111]. Let us discuss the conditions of the exception one by one[112].

**69** As we mentioned, such bright-line rules should ideally be the result of a multi-stakeholder negotiation at the EU level. However, by way of example, we could try to imagine what such compromises could look like. We will outline a few tentative suggestions, drawing from an analysis of the CJEU case law on the exceptions for quotation and parody. For each case, we will begin by reviewing the legal conditions of the exception, and then propose a simplified bright-line rule that could be used by automated systems to approximate the conditions of the exception.

## a) Purpose of the use

**70** An essential condition of the quotation exception is that it must be made for certain purposes. The text of the InfoSoc directive provides a non-exhaustive list of purposes("such as criticism or review")[113]. In the Spiegel Online case, the CJEU mentioned other admissible purposes such as "illustrating an assertion, of defending an opinion or of allowing an intellectual comparison between that work and the assertions of that user"[114].

**71** This purpose could possibly be analysed by means of text analysis (and in case of video or audio content, combined with speech recognition technologies already in place on some platforms[115]), for example by checking whether the name of the quoted work is mentioned in the citing work.

**72** However, this purpose could be much more easily verified by OCSSPs by having their users flagging excerpts of protected works during the upload process, and clicking to confirm that such uses are made "for purposes authorized by the exception for quotation, such as criticism, review, illustrating an assertion, defending an opinion, etc"[116]. Such a proactive declaration from the citing user, although not technically required by the quotation exception, would weigh in favour of its good faith[117], and could constitute good evidence in favour of a presumption of coverage by the exception for quotation.

## b) Indication of the source

**73** Art. 5(2) d. of the InfoSoc directive provides as a condition for the benefit exception of quotation that "unless this turns out to be impossible, the source, including the author's name, is indicated".

**74** Again, although this condition is not always required, an indication of the source by the uploading user should weigh in favour of its being presumably covered by the exception for quotation. Moreover, if platforms provide easy means for the users to indicate such information, they could not only make their assessment easier but make it a *de facto* compulsory condition, as it would be difficult to argue that such an indication of the source is impossible.

110 CJEU, *Spiegel Online v. Beck*; CJEU, *Funke Medien v. Germany*, ; CJEU, *Pelham et Haas v. Hütter et Schneider-Esleben.*

111 CJEU, *Spiegel Online*, para 71.

112 We will notably rely on our comprehensive study in J. Cabay & M. Lambrecht, "Remix prohibited – How rigid EU copyright laws inhibit creativity" (2015) JIPLaP, 10(5).

113 InfoSoc directive, art. 5(2) d.

114 CJEU, *Spiegel Online*, para 80. Moreover, in Funke Medien (para 43), the Court explicitly stated that article 5(3)(d) of the InfoSoc directive sets out "merely an illustrative list of such cases". However, immediately after, the court sets out a number of limits of Member States' discretion in that regard. It might be that further harmonization is to be expected in that regard.

115 Liao, H., McDermott, E., & Senior, A. "Large scale deep neural network acoustic modeling with semi-supervised training data for YouTube video transcription" (2013) IEEE Workshop on Automatic Speech Recognition and Understanding.

116 On this idea of users voluntary flagging uses as covered by exceptions or limitations, see G. Spindler, "The Liability system of Art. 17 DSMD and national implementation – contravening prohibition of general monitoring duties?" (2019) JIPITEC 10(3), at 134.

117 Of course, false declarations could be subject to sanctions in case of repeated abuses.

### c) Accessory character

**75** In its Spiegel case, the CJEU clarified one of the conditions of the exception for quotation, which is its accessory character to the user's own reflections. This can be decomposed in two sub-conditions: first, that the user must "establish a direct and close link between the quoted work and his own reflections, thereby allowing for an intellectual comparison to be made with the work of another"[118], and second that "the use of the quoted work must be secondary in relation to the assertions of that user"[119].

**76** The first condition could be interpreted as requiring that the quoted work be somewhat loosely integrated into, or linked to (without necessarily being "inextricably integrated"[120]) a quoting work or object, so as to allow an intellectual comparison"[121] (or "entering into dialogue"[122]) with that work. Such quoting object does not necessarily need to be protected by copyright[123], but it needs to exist.

**77** How to implement this in an algorithmic decision system? It is relatively easy for digital fingerprinting systems to identify whether the quoted work is itself a part of a larger work, by analyzing the amount of content that does not match the quoted work: is a video clip followed, preceded, or supplemented with a voiceover commentary? Is a quoted image part of a document with human-readable text? In the affirmative, the use should be interpreted as presumably satisfying the condition of a "direct and close link" for the purpose of making an "intellectual comparison" between the quoted work and the quoting object[124].

**78** The second condition, that the quotation "must be secondary in relation to the assertions of that user", could be emulated by some threshold of the relative length of the quotation compared to the length of the quoting work or object. An example of such a threshold could be the following:

> *The amount of use of a given quoted work must not be larger than 15% of the quoting work or object*

**79** Such a 15% threshold would give sufficient leeway for allowing meaningful quotations in relatively short works while supporting a fairly good presumption that the quotation is accessory to the quoting work or object.

### d) Length of the quotation

**80** Finally, let us turn to the most difficult issue, the length of the quotation. According to art. 5(2) d. of the InfoSoc directive, the use of the quoted work must be limited "to the extent required by the specific purpose". As the Court recalls in Spiegel Online, the quotation "cannot (...) under Article 5(5) of Directive 2001/29 [the "three step test"], be so extensive as to conflict with a normal exploitation of the work or another subject matter or prejudices unreasonably the legitimate interests of the rightsholder"[125]. However, this general requirement doesn't preclude a quotation to be comprised of the entirety of the cited work. Indeed, according to the Court, it stems from a literal interpretation ("usual meaning") that a quotation is "the use, by a user other than the copyright holder, *of a work or, more generally, of an extract from a work*"[126]. So, one could cite an entire work, as long as such full-length use is "required by the specific purpose". In Spiegel Online, the court left it to the referring court "to ascertain whether the publication of the original versions of the manuscript and of the article published in the book at issue, in full (...), was necessary to achieve the informatory purpose."[127]

**81** However, the subtleties of such determination are clearly way beyond what any algorithm could achieve. Therefore, for the purposes of determining uses presumably covered by the exceptions for quotation, the minimal bright line should clearly be

118 CJEU, *Spiegel Online*, para 78.

119 CJEU, *Spiegel Online*, para 79.

120 CJEU, *Spiegel Online*, para 80.

121 CJEU, *Spiegel Online*, para 78.

122 CJEU, *Pelham*, para 71.

123 CJEU, *Painer*, para 136.

124 However, as the Court noted in the *Spiegel Online* case, it is not required for the application of the exception of quotation "that the quoted work be inextricably integrated, by way of insertions or reproductions in footnotes for example, into the subject matter citing it" (CJEU, *Spiegel Online*, para 80). How can we ensure, in that case, that the user who uploaded the quoted work is indeed using it as a quotation in another work? A fairly easy way to verify this would be to require the user to provide a link to that citing work or object (e.g. in the description or metadata of the content posted on the OCSSP), which could then be analyzed to look for the existence of a backlink from the citing work. This is entirely consistent with the CJEU's decision, which notes that "a quotation may thus be made by including a hyperlink to the quoted work" (Ibidem).

125 *Spiegel Online*, para 79.

126 *Spiegel Online*, para 78.

127 *Spiegel Online*, para 69.

less than the full work. However, beyond these basic principles, there are no objective and indisputable criteria for assessing the admissible length of excerpts which can be presumed to be covered by the exception for quotation.

**82** In the US debate, many bright-line rules have turned around what is often called "the ten percent rule", as an absolute cap of the amount of the use of the work. For example, Parchmovsky & Goldman[128] suggests the following rule for literary works: "for any literary work consisting of at least one hundred words, the lesser of fifteen percent or three hundred words may be copied without the permission of the copyright holder"[129]. For other types of works, the authors' proposals range from "the lesser of ten percent or ten seconds" for sound recordings and musical compositions, to "the lesser of 10 percent or thirty seconds" for audiovisual works[130]. However, these suggestions are made in the context of a fair use exception which includes among its criteria "The amount and substantiality of the portion used in relation to the work as a whole".

**83** In France, an agreement has been reached between representative of rightsholders and of the educative sector[131] for the application of the exception for education[132]. Interestingly, this agreement also allows teachers to use excerpts of works not normally covered by the exception for education, such as pedagogical works and musical works, as long as such excerpts are not longer than 10 % of the original work[133].

**84** Let us imagine that, when trying to agree on a minimal bright line for the purpose of our proposed presumption of coverage by the exception for quotation, stakeholders end up with an even more modest agreement, ten times lower than in the case of the French exception for education: 1% of the quoted work. Such rule would have to provide for minimum and maximum thresholds, since 1% can be excessively short (in case of very short works such as 17 syllables haikus[134]) or very long (in case of a 180 minutes feature film). Therefore, as an example of a possible compromise, we could consider the following proposal for literary works:

> *The citing work must not use continuous excerpts that are longer than 750 characters, or 1% of the length of the work for a maximum of 3000 characters*[135]

**85** Or for audiovisual works or sound recordings[136]:

> *The citing work must not use continuous excerpts that are longer than 20 seconds, or 1% of the length of the work for a maximum of 45 seconds*[137]

**86** The situation is more subtle in the case of graphical works[138]. But in the context of video-sharing

128 Parchomovsky, G., & Goldman, K. A. "Fair use harbors" (2007) Virginia Law Review, 1511-1518.

129 Ibidem, p. 1511.

130 Ibidem, p. 1512-1514.

131 Protocole d'accord du 22-7-2016 sur l'utilisation et la reproduction des livres, des œuvres musicales éditées, des publications périodiques et des œuvres des arts visuels à des fins d'illustration des activités d'enseignement et de recherche (29 september 2016) Bulletin officiel de l'éducation nationale, n°35.

132 Article L 122-5-3° of the French Code de Propriété Intellectuelle.

133 Protocole d'accord du 22-7-2016, op. cit., 4.2.1.

134 In case of such very short works, it seems that quotation in full must be allowed, as such practice is rather common, and doesn't run counter the usual meaning of the word "quotation".

135 750 characters is equivalent to a quarter of an A4 page, while 3000 characters is equivalent to a full A4 page..

136 To address issues of sampling, the stakeholders might want to limit the maximal length for quotation of musical works more drastically. However, not only would our suggested 15% relative length limit not be very attractive for sampling purposes, but more fundamentally it would be a mistake to consider that preventive measures taken under art. 17(4) b) and c) are an appropriate way to detect litigious sampling cases, if only because they are often highly contentious even for human judges. In any case, the sampling of an excerpt of a musical track would not fit with the authorized purposes of the exception for quotation. Moreover, the takedown of such unauthorized sampling would probably be better undertaken through a manual takedown notice, as heavily transformed and rearranged samples will not be easily detected by algorithmic systems (nor should they be, in our approach; Cf. *infra*, 5.4).

137 20 seconds is 1% of a 30 minutes short movie, and 45% is slightly less than 1% of a 50 minutes TV episode.

138 Indeed, a distinction must be made between works whose enjoyment must unfold in time, such as audiovisual works or sound recordings, and works which can instantly be enjoyed in full, such as graphical works work. For these works, it is generally necessary to be able to use the work in full for any meaningful citation. Therefore, rather than constraining the portion of the work that can be cited, some have suggested imposing a maximal resolution for the reused image, such as in the French agreement for use of works for illustration of teaching and research where a maximal resolution of 400x400 pixel is imposed

platforms, they can be considered as a still frame video clip, for which the same thresholds as audiovisual works should apply.

**87** Finally, for the purposes of this presumption of coverage by the exception for quotation, and to avoid making it excessively rigid, we suggest that no maximum limit be imposed on the cumulative total amount of the work cited. The requirement that the quotation must be made only by excerpts no longer than 1 percent of the work, combined with the aforementioned condition that the quotation must be accessory to the citing work, appears sufficient to presume that the quotations are necessary for the pursued purpose. These conditions are also enough to ensure that the secondary work will not be a market substitute for the first work (and so will not conflict with a normal exploitation of the work).

## III. Designing parody-sensitive algorithms

**88** The issue of designing algorithms that are able to recognize and protect parodies is clearly more challenging.

Legally speaking, the CJEU has considerably clarified (but not necessarily simplified) its necessary conditions in its landmark Deckmyn case[139], stating that the concept of parody should be regarded as an autonomous concept of EU law[140]. However, the appreciation of a parody lies on a very elusive legal standard for machines to assess: humor.

**89** Here, as we will see, there are only two possibilities: either it is feasible, under the current state of technological development, for companies to reliably comply with the twofold obligation to prevent unauthorized uses while also not "prevent[ing] the availability" of uses covered by the exception for parody; or, if it is not feasible, OCSSPs' best efforts obligation should not extend to achieving the impossible, and preventive measures should be curtailed in order to avoid applying to parodies.

Let us discuss whether designing parody-sensitive algorithms is achievable, by reviewing the different legal conditions for the appreciation of a parody under the current state of CJEU case law.

### a) Evoking an existing work while being noticeably different

**90** In the Deckmyn case, the CJEU upset many of the conditions required in some national case law on parody, such as the condition required in jurisdictions such as France or Belgium, that the parody should be original[141]. Explicitly dismissing this condition, the court replaces it by a much weaker condition, that the parody should "evoke an existing work while being noticeably different from it"[142].

**91** The first part of the condition, that the parody "evokes an existing work", is rather straightforward. If a parody did not evoke an existing work, but for example evoked an artistic genre in general (which would be closer to a "pastiche"), it would not borrow any original expression from a particular work, and therefore would not need to rely on an exception.

**92** The second part of the condition turns on the fact that the parody should be "noticeably different" from the original work. So, there should be more than merely technical, indiscernible alterations. Here we should distinguish between two possibilities: either the original expression which was borrowed has itself been transformed, so that the borrowed expression is noticeably different (let us call it a "transformative parody"), or it has been integrated without transformation in a larger work, and it is this larger work that is noticeably different from the original work ("quotative parody"). Some courts have admitted such untransformed use of a work for parodic purposes, as in the case of communication of a whole poem during a comedy radio program[143], or a photograph reproduced in a parodic collage[144].

for graphical works (Protocole d'accord du 22-7-2016, op. cit., section 4.2.3). However, setting such an absolute size in pixels seems overly rigid and clearly not future-proof, considering the continuing growth in image (and screen) resolution, and the availability of deep learning based upscaling technologies.

139 CJEU, C-201/13, *Deckmyn*, op. cit.

140 CJEU, *Deckmyn*, para 15.

141 Cf. J. Cabay, M. Lambrecht (2015) op. cit., p. 370; This shift eases up the assessment of the exception for parody since this means that it is not needed to assess whether the secondary work complies with the originality threshold , a concept whose contours are notoriously vague.

142 CJEU, *Deckmyn*, para 33.

143 Court of Appeal of Brussels, (29 July 2010) A&M 547. Cf. J. Cabay, M. Lambrecht (2015), op. cit., p. 373.

144 Court of Appeal of Ghent, (13 May 2013) A&M 352. Cf. J. Cabay, M. Lambrecht (2015), op. cit., p. 373.

### b) The secondary work must be an "expression of humour or mockery"

**93** The second criterion from the CJEU case law is the existence of an "expression of humour or mockery"[145]. Clearly, this second criterion poses a much greater difficulty for algorithmic assessment. There is no apparent way to simplify this criterion into a bright-line rule since it is essentially a standard whose appreciation cannot easily be formalized. Of course, humor is a complex cognitive, emotional and social phenomenon, which defies most theoretical attempts at defining and reducing it. Therefore, it seems that if algorithms must assess if a use constitutes "an expression of humour or mockery"[146], it must be through a general assessment of such standard. Under the current state of the art, could machine learning algorithms be up to the task?

**94** For example, could a machine learning algorithm be trained to detect uses for the purpose of parody, which under CJEU case law requires the existence of "an expression of humour or mockery"? Most studies about algorithms and humour have focused on training algorithms at identifying patterns in a corpus of jokes or reproducing these patterns in computer-generated humour [147].

**95** A number of studies have focused on sarcasm detection, an area of particular interest for companies willing to achieve a better knowledge of how consumer perceive their products through the analysis of user comments or microblogs[148]. While, as Mukherjee & Bala note, "[d]etecting sarcasm in online text is still in its infancy"[149], promising results have been achieved[150], notably by taking into account punctuation (e.g. exclamation points or quotes)[151], pragmatic features (e.g. emoticons)[152], or external features such as linguistic styles of authors[153]. A significant challenge for algorithmic recognition of sarcasm is the absence of context: in a study by Davidov, Tsur & Rappoport[154], the authors reach a much better F1 score[155] for their dataset of Amazon comments, where the context is known (the product being reviewed), than in an uncontextualized Twitter dataset[156]. And although certain features of the social context of a message can easily be extracted (i.e. where the message takes place, what does it respond to, etc.), the broader cultural context is infinitely more difficult for algorithms to integrate.

**96** Other studies on humour-recognition have focused on particular types of humoristic patterns[157], such as wordplay recognition in knock-knock jokes, or identification of features such as alliteration,

145 CJEU, *Deckmyn*, para 20.

146 CJEU, *Deckmyn*, para 20.

147 Cf. D. Bacciu, V. Gervasi & G. Prencipe (2016), *LOL: An Investigation into Cybernetic Humor, or: Can Machines Laugh?*, in E. D. Demaine and F. Grandoni, *8th International Conference on Fun with Algorithms*, Schloss Dagstuhl--Leibniz-Zentrum fuer Informatik; L. Gultchin, "Just for Laughs: Utilizing Machine Learning to Rate and Generate Humorous Analogies" (2017) Master thesis, Harvard University; BINSTED, K., and G. RITCHIE. 1997. Computational rules for punning riddles. Humor, 10(1):25–76.; STOCK, O., and C. STRAPPARAVA. 2003. Getting serious about the development of computational humour. In Proceedings of the 8th International Joint Conference on Artificial Intelligence (IJCAI-03), p. 59, Acapulco, Mexico.

148 Cf. S. Mukherjee & P. K. Bala, "Sarcasm detection in microblogs using Naïve Bayes and fuzzy clustering", Technology in Society Volume 48, February 2017, p. 19; D. Davidov, O. Tsur, & A. Rappoport, "Semi-Supervised Recognition of Sarcastic Sentences in Twitter and Amazon" (2010) in *Proceedings of the fourteenth conference on computational natural language learning.*

149 S. Mukherjee & P. K. Bala, "Sarcasm detection in microblogs using Naïve Bayes and fuzzy clustering", Technology in Society Volume 48, February 2017, p. 19.

150 See references in Thakur, S., Singh, S., & Singh, M. (2019). Detecting Sarcasm in Text. Intelligent Systems Design and Applications, p. 997.

151 Cf. D. Davidov, O. Tsur, & A. Rappoport, "Semi-Supervised Recognition of Sarcastic Sentences in Twitter and Amazon" (2010) In *Proceedings of the fourteenth conference on computational natural language learning*, p. 107.

152 R. González-Ibánez, S. Muresan, N. Wacholder, Identifying sarcasm in Twitter: a closer look. In: Proceedings of the 49th Annual Meeting of the Association for Computational Linguistics: Human Language Technologies: Short Papers-Volume 2, p. 581.

153 S. Mukherjee & P. K. Bala, "Sarcasm detection in microblogs using Naïve Bayes and fuzzy clustering", Technology in Society Volume 48, February 2017, p. 26.

154 D. Davidov, O. Tsur, & A. Rappoport "Semi-Supervised Recognition of Sarcastic Sentences in Twitter and Amazon" (2010) op. cit.

155 The F1 score is the harmonic mean of precision and recall, thus taking into account both the number of false positives and false negatives.

156 The F1 scores rapported in the article are respectively 0.826 for the Amazon comments dataset and 0.545 for the uncontextualized Twitter dataset.

157 J. Talor, & L. Mazlack. "Computationally recognizing wordplay in jokes" (2004) In *Proceedings of CogSci2004*, Chicago, p. 1315.

antonymy or adult slang in one-liners using automatic text classification[158].

**97** Authors often make the point that humour recognition is a task that is often hard even for humans, and thus also very challenging for machine learning algorithms[159], notably because (human-made) training datasets can often be biased and noisy[160].

**98** Moreover, for video-sharing OCSSPs, such algorithmic humour recognition would have to be combined with speech recognition algorithms, which would negatively affect their reliability.

**99** Therefore, it appears highly premature to attempt to apply this research to design algorithmic decision systems aimed at parody recognition. Parody is a rich and diverse genre that dates back to Antiquity. In his theory of intertextuality, Genette distinguishes between a parody, a travesty, a pastiche, a caricature, depending on whether the hypertext is "transforming" or "imitating", and whether the mood is "playful" or "satirical"[161]. Korkut, who distinguishes between parodies of texts and personal styles, genre parody, discourse parody, notes that if the presence of an "element of humour" is an essential characteristic of the concept of parody, it "has the potential to comprise all shades of the comic, from the most subtle and least discernible to the most explicit"[162]. As the advocate general noted in the Deckmyn case, before arguing for a broad discretion of Member States in that regard: "extreme seriousness (...) may underlie a humorous expression"[163].

**100** Bacciu, Gervasi and Prencipe consider that, in general, distinguishing a humorous from a serious statement is currently "way beyond the capabilities" of machines[164]. As we have seen, in the current state of research, machine learning algorithms are only capable of recognizing specific humoristic patterns with an acceptable level of accuracy. If it is at all possible, it will probably take many years of research before algorithmic recognition systems are capable of reliably recognizing the diversity of humoristic forms present in parodies.

**101** To recall, this was confirmed even by the representatives of a leading content cognition software companies during the stakeholder dialogue, Audible Magic: "Copyright exceptions require a high degree of intellectual judgment and an understanding and appreciation of context. We do not represent that any technology can solve this problem in an automated fashion. Ultimately these types of determinations must be handled by human judgment (...)"[165].

## IV. Curtailing preventive measures to identical or equivalent protected objects

**102** Since the current state of the art of machine learning algorithm does not allow to reliably identify parodies, preventive measures resulting from art. 17(4) b. and c. are highly likely to lead to systematic interference with the freedom of speech of creators of transformative works covered by the parody exception. To avoid such systematic interference, which would violate the twofold obligation to both "prevent the availability" of unauthorized works while also not preventing "the availability of works (...) which do not infringe copyright", preventive measures resulting from art. 17(4) b. and c. should be limited in application to works or protected objects that are *identical or equivalent* to those for which the OCSSP have received the "relevant and necessary information" from the rightsholders[166].

158 R. Mihalcea, C. Strapparava, "Learning to Laugh (automatically): Computational Models for Humor Recognition" (2006) Computational Intelligence 22(2), p. 126; D. Yang & al., *Humor Recognition and Humor Anchor Extraction*, In Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing, p. 2367.

159 D. Bacciu, V. Gervasi & G. Prencipe (2016), *LOL: An Investigation into Cybernetic Humor, or: Can Machines Laugh?*, in E. D. Demaine and F. Grandoni, *8th International Conference on Fun with Algorithms*, Schloss Dagstuhl--Leibniz-Zentrum fuer Informatik.

160 D. Davidov, O. Tsur, & A. Rappoport (2010) op. cit. p. 111.

161 G. Genette, Palimpsests: Literature in the Second Degree (1997) Lincoln: University of Nebraska Press.

162 N. Korkut, *Kinds of Parody. From the medieval to the postmodern.* (2005) Ankara, Middle East Technical University, p. 14.

163 CJEU, Opinion of Advocate General Cruz Villalón, Case C-201/13, *Deckmyn v Vandersteen.*

164 D. Bacciu, V. Gervasi & G. Prencipe, *LOL: An Investigation into Cybernetic Humor, or: Can Machines Laugh?* (2016) in E. D. Demaine and F. Grandoni, *8th International Conference on Fun with Algorithms*, Schloss Dagstuhl, Leibniz-Zentrum fuer Informatik.

165 Fourth meeting of the Stakeholder Dialogue on Article 17 of the Directive on Copyright in the Digital Single Market, *Presentation by Vance* Ikezoye (Audible Magic) (16 December 2019), available at: <https://webcast.ec.europa.eu/copyright-stakeholder-dialogues-16-12>.

166 In the same spirit, J. P. Quintais, G. Frosio, S. Van Gompel,

Here, an "equivalent" work must be understood as a work presenting such insignificant alterations that the target audience[167] would not distinguish it as a different work (e.g. mere technical alterations used to attempt to circumvent content matching algorithms). Conversely, any transformative work that is not identical or equivalent to another work should not be affected by preventive measures under 17(4)[168].

**103** A similar criterion was proposed in an open letter signed by dozens of academics[169], which judiciously notes that "[t]he concept of equivalent information should be interpreted strictly". This "identical or equivalent" criterion is also at the center of a recent CJEU decision (Glawischnig-Piesczek v Facebook) on judicial "staydown obligations"[170] for platforms in the context of defamatory statements[171]. The court notes that if the injunction was limited to "identical" information, it "could easily be circumvented by the storing of messages which are scarcely different from those which were previously declared to be illegal"[172]. The definition used by the Court cannot be directly transposed here[173], but its reasoning is worth emphasizing, as it states that the differences "must not, in any event, be such as to require the host provider concerned to carry out an independent assessment of that content"[174]. Similarly, our definition of an "equivalent" work should not require a complex legal assessment, but should be easy enough to determine for algorithmic systems.

**104** This interpretation, that preventive measures under article 17(4) b. and c. should be limited to identical or equivalent works or objects, also follows from the most straightforward, literal reading of art. 17(4), which doesn't impose OCSSPs to ensure the unavailability or prevent future uploads of "specific" or "notified" "works or other subject matter", and not all infringing content in general. So, the OCSSPs' filtering obligation would only apply to identical (or equivalent) works or protected objects as the ones communicated to them by rightsholders, and not adapted works. There is some logic to limiting preventive measures to such cases of literal copying since such exceptional measures must be intended to prevent imminent risk of harm (just as proceedings for interim relief in civil law jurisdictions are limited to assessing mere "appearance of rights"[175]) and

e.a. (2019), "Safeguarding User Freedoms in Implementing Article 17 of the Copyright in the Digital Single Market Directive: Recommendations from European Academics", JIPITEC 10 (3) (discussed below); see also R. Schwartmann and C. H. Hentsch, "Stufenkonzept zur Umsetzung von Art. 17 der DSM-Richtlinie" (2020, 17 March), <https://perma.cc/T6RB-ADX5>.

167 Here we take inspiration from Cabay's discussion of the relevant similarities for the appreciation of a copyright infringement, narrowing it by requiring that there are merely "insignificant alterations", and that the two works be indistinguishable by the target audience. See J. Cabay *L'objet de la protection du droit d'auteur: Contribution à l'étude de la liberté de creation* (2016), PhD thesis, Université Libre de Bruxelles.

168 Unless it also includes some degree of literal copying which does not meet the bright-line rules for the presumption of coverage by the exception for quotation (see *supra*, F.II).

169 Cf. J. P. Quintais, G. Frosio, S. Van Gompel, e.a. (2019), "Safeguarding User Freedoms in Implementing Article 17 of the Copyright in the Digital Single Market Directive: Recommendations from European Academics", JIPITEC 10 (3) . The co-signatories propose limiting the application of preventive measures under art. 17(4) b. and c. to cases of "prima facie copyright infringement", a notion that they define as "protected material that is *identical* or *equivalent* to the 'relevant and necessary information' previously provided by the rightholders to OCSSPs". While we are among the co-signatories of this important and timely text, we submit that a Free speech by design approach further alleviates the risks posed by the directive for the protection of exceptions and limitations. In particular, a salient difference between the two proposals is that the proposal exposed here avoids altogether flagging and blocking content that are not identical or equivalent to works for which OCSSP have been informed, , whereas Quintais et al. would only delay their blocking, in order to allow for a reasonable period of time for the user to justify its use.

170 Staydown obligations are obligations for intermediaries to "not only to take down the notified content, but also to prevent its further reappearance". Cf. M. Husovec, "The Promises of Algorithmic Copyright Enforcement: Takedown or Staydown: Which Is Superior: And Why" (2018) Colum. JL & Arts, 42, p. 61.

171 CJEU, C-18/18, *Eva Glawischnig-Piesczek v Facebook Ireland Limited* (3 October 2019).

172 CJEU, *Glawischnig-Piesczek v. Facebook*, para 41.

173 Indeed, the case concerned a message against a specific person subject to a court injunction: "it should be made clear that the illegality of the content of information does not in itself stem from the use of certain terms combined in a certain way, but from the fact that the message conveyed by that content is held to be illegal, when, as in the present case, it concerns defamatory statements made against a specific person" CJEU, *Glawischnig-Piesczek v. Facebook*, para 40.

174 CJEU, *Glawischnig-Piesczek v. Facebook*, para 45.

175 Cf. J. Englebert, « Le référé judiciaire: principes et questions de procédure », in Le référé judiciaire, Dir. J. Englebert et H.

should not apply generally to all, more debatable, cases of potential harms. This interpretation in no way leaves the authors or rightsholders without protection, as there remain ample means at their disposal to enforce their rights, through takedown requests or court injunctions.

**105** But even if it did not follow from a literal reading of article 17, this limitation of the scope of preventive measures would nevertheless be a logical consequence of a free speech by design approach, required by a contextual reading of the article. Indeed, the best way to prevent "free speech invading events" is to minimize the risk that algorithmic systems must assess uses that are in the grey zone between "possibly infringing" and "possibly covered by an exception or limitation". If we read the best efforts obligation under art 17(4) b. and c., as we have, as a twofold obligation to "prevent the availability of unauthorized works *while not preventing the availability of works covered by exceptions and limitations*", then it makes sense to trade-off some efficiency in detecting infringement for protecting some effectiveness of the users' right to quotation or parody.

**106** It is also justified by the longstanding CJEU case law, where the court repeatedly held that the right to intellectual property enshrined in art. 17(2) of the Charter of Fundamental Rights is not "inviolable" and must not be "absolutely protected"[176], but must be protected by measures that are "effective" and "dissuasive", but also "proportionate"[177], in line with a fair balance between relevant fundamental rights[178]. This is explicitly recognized by recital 66, para 2 of the DSM directive:

> *"it cannot be excluded that in some cases availability of unauthorised content can only be avoided upon notification of rightsholders. Any steps taken by service providers should be effective with regard to the objectives pursued but should not go beyond what is necessary to achieve the objective of avoiding and discontinuing the availability of unauthorised works and other subject matter"*[179]

**107** This is also clear in the statement by Germany annexed to the council vote, emphasizing its concern for "preventing 'upload filters' wherever possible, ensuring freedom of expression and safeguarding user rights"[180].

**108** Moreover, this interpretation, limiting the scope of preventive measures under art. 17(4) b. and c. to identical or equivalent works, is also supported by a proper definition of the scope of the right of communication to the public performed by OCSSPs, under the fair balance paradigm. As others argued, it seems that (despite dubious claims in the DSM directive that it merely clarifies existing law[181]) article 17(1) must be interpreted as creating a new right of communication to the public[182]. The scope of this new right need not be entirely distinct from the scope of article 3, and the two could have some overlap[183]. But the important point is that in cases such as this, where the need to strike a fair balance between competing fundamental rights (among which the user's right to freedom of expression and the OCSSPs' right to conduct a business) is essential due to the nature of the measure envisaged, it is plausible that the scope of right of communication to the public provided by art. 17(1) be much narrower than the right of communication to the public provided by art. 3 of the InfoSoc directive. This is in line with the reasoning followed by the CJEU in the GS Media case, where the need to strike a fair balance between fundamental rights (and freedom

Boularbah, éd. CJB, 2003, p. 5-64.

176 CJEU, *Scarlet v. SABAM*, para 43; CJEU, *Netlog v SABAM*, para 41; CJEU, C-314/12, *UPC Telekabel Wien v. Constantin Film et al.* (27 March 2014), para 61.

177 Directive 2004/48/ec on the enforcement of intellectual property rights, art. 3.

178 Cf. J. Cabay, & M. Lambrecht (2019) op. cit.

179 DSM Directive, recital 66, para 2.

180 Directive on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and2001/29/EC, Statement by Germany, 15 April 2019, 7986/19ADD 1 REV 2.

181 Cf. DSM directive, recital 64. As Husovec and Quintais point out, article 17 introduces such major changes in the law (such as the introduction of the liability mitigation mechanism of art. 17(4), "that it can hardly be said to clarify existing law". Husovec, M., & Quintais, J. (2019). "How to license Article 17? Exploring the Implementation Options for the New EU Rules on Content-Sharing Platforms". Working paper, available at: <https://dx.doi.org/10.2139/ssrn.3463011>.

182 M. Husovec, & J. P. Quintais (2019) op. cit.

183 This could be a way reconcile the acquis from the DSM directive with the case law of the CJEU, in case it decided, in the upcoming YouTube case, to extend its jurisprudence in Ziggo to interpret even more largely art. 3 of the InfoSoc directive as covering the activities of user generated content platforms, even when they don't have knowledge of the presence of infringing content. Cf. CJEU, request for a preliminary ruling, C-682/18, "LF v YouTube"; CJEU, C-610/15, *Stichting Brein v Ziggo et al.* (14 June 2017).

of expression played a large role here) is such that it leads the Court to limit the scope of the right of communication to the public[184], despite its explicit reliance on a broad interpretation of such right[185].

**109** Finally, to further reinforce this point, one could also argue, as some influential authors have[186], that the adaptation right has remained largely unharmonized in EU law, and that therefore, assuming that the DSM directive is grounded in the exclusive rights as defined by the InfoSoc Directive, art. 17(4) only applies to cases of reproductions or communications to the public of literal copies of works, and not to adaptations[187].

**110** However, even if we admit that the preventive measures of art. 17(4) only apply to identical or equivalent works or objects, this does not cover all use cases potentially covered by the exception of parody. Indeed, as we have noted, not all parodies are "transformative", in that they transform the borrowed expression. Indeed, the "noticeably different" condition in the Deckmyn case is compatible with what we have called "quotative parodies", that borrow an (untransformed) original expression into a larger work for humoristic purposes. And since algorithmic systems cannot reliably assess the presence of "an expression of humour or mockery", such allowed borrowings are therefore very hard to distinguish from so-called identical or equivalent content.

**111** A compromise solution could be that such quotative parodies be treated in the same way as uses for purposes covered by the parody exception, and they should comply with the same maximal thresholds regarding their length[188]. This solution could prove a reasonable way to accommodate such parodies, without impeding too much on the effective detection of infringing uses.

## G. Ensuring the effectiveness of Free speech by design

**112** In reflecting on how to ensure effective protection of exceptions and limitations, we should strive to learn the lessons from past attempts. This includes the U.S. DMCA counter-notice system, as well as the InfoSoc art. 6(4) safeguard provision on TPMs, which arguably both failed to effectively protect uses covered by exceptions and limitations.

**113** As we mentioned, one reason for such failure was that the traditional approach for safeguarding exceptions and limitations mostly rely on providing procedural remedies, to which users rarely resort. For this reason, we argued that protecting exceptions and limitations by default is a better guarantee of some level of effective protection against systematic interference by algorithmic systems.

**114** However, the ineffectiveness of the traditional approach is probably related to two additional issues, which we will briefly touch upon: lack of proper incentives, and lack of accountability.

First, it is important to fix the skewed incentive structure faced by online platforms, in order for them to strike a better balance between the competing claims by rightsholders and users[189]. Unfortunately, the directive isn't of much help in this regard, as it merely provides declaratory guarantees for preserving uses covered by exceptions and limitations, without much in the way of ensuring that they are respected.

**115** One incentive that platforms currently have to preserve exceptions such as the quotation or parody exception under article 17 is financial: such

184 Although the court does not describe this as a "limitation", we would argue that, by conditioning the application of the right of communication to the public to circumstances such as the knowledge of the user and its for-profit or non-for-profit purpose, this interpretation must be considered as such.

185 Cf. J. Cabay & M. Lambrecht (2019) op. cit., p. 201-206.

186 See S. von Lewinski and M. Walter, "Information Society Directive" in Walter and von Lewinski (eds) European Copyright Law, Oxford University Press, 964 and 1479; P Goldstein and B Hugenholtz International Copyright. Principles, Law, and Practice (3rd edn OUP Oxford 2013), 322; L. Bently "Exploring the Flexibilities available to UK Law" (2011) Exploring the Flexibilities Available to UK Law. Submission to Hargreaves Review. url: <https://webarchive.nationalarchives.gov.uk/20140603125508/http://www.ipo.gov.uk/ipreview-c4e-sub-bently.pdf>; P. B. Hugenholtz & M. Sentleben, "Fair Use in Europe. In Search of Flexibilities" (2012), available at: <http://dx.doi.org/10.2139/ssrn.2013239>.

187 Although this interpretation might appear to be at odds with the broad definition of the right of reproduction under the CJEU case law(cf. CJEU, C-5/08, *Infopaq International* (16 July 2009)), this need not be a fatal objection for the argument that Member-States remain competent for the right of adaptation : see E. Rosati, "Copyright in the EU: in search of (in)flexibilities", *JIPLaP* 9(7), 2014, p. 596-597. In any case, the fact remains that there is a difference between literal reproduction and adaptation, and under a literal interpretation of the text, the right to communication to the public under art. 17 does not covers the latter.

188 See G. Spindler (2019) op. cit., at 134.

189 Cf. S. Kreimer (2006) op. cit.

uses are exempted from the communication to the public undertaken by OCSSPs, and are not subject to any obligation of licensing nor remuneration. Therefore, it may be in the platforms' financial interest to detect uses covered by these exceptions and limitations, even for works that are covered by licensing agreements with rightsholders, as such uses should not lead to the payment of remuneration to rightsholders.

**116** Moreover, it is also important that OCSSPs strike a balance in their preventive measures and complaint and redress systems. Obligations under article 17(4) should not prevent platforms from sanctioning repeatedly abusive claimants (nor, of course, repeatedly abusive defences by a bad faith user), for example by suspending or restricting their access to copyright claims mechanisms, as some currently do[190]. They should indeed be encouraged to police abusive claims, due to the plausible dearth of litigation on such issues[191].

**117** However, it will probably not prove sufficient, and it may be that effective protection of exceptions and limitations could require states to introduce, in their national implementation of the directive, independent supervision and penalties if OCSSPs fail to implement their obligations under art. 17(4) in a way that prevents systematic interference with the right to freedom of speech, and notably the exercise of the right to quotation and to parody.

**118** Getting incentives right for OCSSPs to strike a balance between the interests and fundamental rights of rightsholders and users is a difficult task, due to the power imbalance between the parties at stake, and it may require a comprehensive rethinking of notice and takedown systems (which obviously goes beyond the scope of this article)[192]. Until this can be figured out, a "protection by default" approach might shield many uses covered by exceptions and limitations from a skewed legal mechanism, and avoid further undermining the effective protection of users' rights, compared to the situation under the E-commerce Directive (2000/31).

**119** The second issue regarding the effective protection of exceptions and limitations is the lack of accountability for private enforcement of copyright law, either by technical protection measures or by algorithmic systems. Too often, algorithmic regulations or other technical decisions that affect the public are made in private fora, without much (if any) public accountability[193]. Indeed, given that the European lawmaker carefully avoided mentioning the "effective technologies" implicitly required by article 17(4), and given the rather superficial character of the discussions in the stakeholder dialogue so far[194], it is likely that most decisions on the technical implementation of art. 17(4), and as to how to protect exceptions and limitations according to 17(7) and 17(9) para 3, will be left at the discretion of OCSSPs.

That is why we have pleaded for a more active role of public authorities into fostering this discussion, on issues such as the rulification of minimal thresholds for the exception for quotation. But more generally, the concrete implementation of delegated algorithmic regulation should not be left entirely at the OCSSP's discretion but should be set according to precise principles adopted and supervised by a publicly accountable authority[195].

190 Cf. *Presentation by Facebook's representative* Fourth meeting of the Stakeholder Dialogue on Article 17 of the Directive on Copyright in the Digital Single Market (16 December 2019), available at: <https://webcast.ec.europa.eu/copyright-stakeholder-dialogues-16-12>; see also Cf. P. Keller, "Article 17 stakeholder dialogue (day 5): It all depends", Communia, <https://www.communia-association.org/2020/01/21/article-17-stakeholder-dialogue-day-5-depends/>.

191 Indeed, some national laws do provide a judicial remedy against abusive takedown notices (art. 6. I-4 of the French Loi n° 2004-575 of 21 June 2004, «LCEN law»), but their effectivity is questionable. See however L. P. Loren (2011). «Deterring Abuse of the Copyright Takedown Regime by Taking Misrepresentation Claims Seriously». *Wake Forest L. Rev. 46*, p. 745.

192 On this subject, see Fiala, L., & Husovec, M. "Using Experimental Evidence to Design Optimal Notice and Takedown Process" (2018) TILEC Discussion Paper n°2018-028, available at: <http://dx.doi.org/10.2139/ssrn.3218286>; see also A. Kuczerawy, "The Power of Positive Thinking: Intermediary Liability and the Effective Enjoyment of the Right to Freedom of Expression" (2017), 8(3) JIPITEC, p. 226.

193 D. K. Mulligan, K. A. Bamberger, *Saving Governance-by-Design* (2018) Calif. L. Rev. 106(3), p. 697.

194 Cf. P. Keller, "Article 17 stakeholder dialogue (day 5): It all depends", Communia, <https://www.communia-association.org/2020/01/21/article-17-stakeholder-dialogue-day-5-depends/>; Recordings and documents from the stakeholder dialogue can be consulted on <https://ec.europa.eu/digital-single-market/en/stakeholder-dialogue-application-article-17-directive-copyright-digital-single-market>.

195 See generally M. Perel, & N. Elkin-Koren. "Accountability in Algorithmic Copyright Enforcement" (2015) Stan. Tech. L. Rev. 19, p. 473. Cf. also the proposal for creating independent, multi-stakeholders "social media councils" with human rights and freedom of expression as guiding principles. GDPi, ARTICLE 19, David Kaye, "Social Media Councils: From Concept to Reality" (2019), conference report, available at: <https://perma.cc/4AYE-WDNN>.

**120** Such mechanism has been implemented in the recently adopted French law on cyberhate, in which the "Conseil Superieur de l'Audiovisuel" is tasked with overseeing the proactive duties imposed on internet platforms to take down hate speech. In case of breach of their obligations under the law, notably by committing "excessive takedown of content", platform operators can be fined up to 20 million euros or 4% of the company's worldwide turnover[196]. Unfortunately, such administrative oversight for excessive takedowns is – so far – absent from the French implementation bill of article 17 of the DSM directive[197].

## H. Conclusion

**121** What if the new Copyright in the Digital Single Market directive, despite the concerns for its impact on fundamental rights, was in fact an opportunity to ensure a more effective protection of the users' rights to benefit from exceptions and limitations on online platforms? In this article, we have suggested that this could be the case, provided that we move beyond the traditional approach of formal and procedural safeguards, and take inspiration from a "Free speech by design" approach to embed a concern for free speech in the design of algorithmic copyright enforcement systems. One implication of this approach, we argued, is that exceptions and limitations should be protected by default in any algorithmic copyright enforcement system, such as the ones taken in compliance with art. 17(4) of the DSM directive. We argued that such an approach was required by both the duty for member states not just to provide for but to actively protect the exceptions for quotation and for parody[198], as well as the twofold obligation for OCSSP to prevent the availability of works for which it has received the relevant and necessary information, while at the same time not preventing legitimate uses, such as uses covered by exceptions and limitation[199].

**122** We then went on to discuss how to design quotation- and parody-sensitive algorithms. Regarding the exception for quotation, we concluded that the difficulty is not so much technical, but legal (or political), as the deterministic method we proposed required a rulification of standards in the exception, in the form of "bright-line rules" for assessing minimal uses that can be fairly safely presumed to be covered by the exception. We devised a few examples of what such bright-line rules, which should ideally be negotiated or adopted at the European level, could look like. As to the exception for parody however, our brief survey of the literature leads us to conclude, in line with the common view, that an algorithmic assessment was way out of reach under the current state of the art, if at all possible. Therefore, we argued that a way to attempt to comply with the twofold obligation of article 17(4) with regard to parodies was to curtail the application of preventive measures resulting from art. 17(4) b. and c. to cases of identical or equivalent works or protected objects as those reported by rightsholders. This is also supported by a contextual reading of the text of the directive, supported by the need to ensure a fair balance between fundamental rights.

**123** Undoubtedly, this approach will raise objections. The idea of adopting bright lines for the application of exceptions and limitations has been criticized for the risk that they become a ceiling, rather than a floor"[200]. And there is a risk that embedding exceptions and limitations assessment in algorithms will shape human expectations and behaviour in problematic ways[201]. However, considering that the alternative option is either systematic interference, or at best much lower (and opaque) thresholds of tolerance for quotation and parody, and considering that algorithmic copyright enforcement on digital platforms is already shaping users' behaviour, we think this endeavour is well worth the risk.

**124** Of course, OCSSPs should also ensure that other exceptions could be protected under this approach, such as, crucially, the incidental inclusion

196 Loi du 13 mai 2020 visant à lutter contre les contenus haineux sur internet, article 7, para 8 and 9.

197 Projet de loi relatif à la communication audiovisuelle et à la souveraineté culturelle à l'ère numérique (5 december 2019). To this day, the text of the bill under consideration does not implement article 17(7) para 1, and only requires OCSSPs to inform their users of existing exceptions and limitations to copyright, which seems clearly insufficient to guarantee their effective protection. However, as we mentioned (*supra*, note 70) the European Commission, in an answer to a parliamentary question, confirmed that the obligation provided by art. 17(7) "must be given effect to by Member States in their implementing legislation" and cannot be considered fulfilled "by Member States by seeking to rely on any general provision informing users about existing exceptions and limitations in the terms of use of the OCSSPs".

198 Art. 17(7) para 2 : "Member States shall ensure that users in each Member State *are able to rely on* any of the following existing exceptions or limitations" (emphasis ours).

199 Art. 17(4) b. and c., read in light of art. 17(7) para 1 and art. 17(9) para 3.

200 G. Parchomovsky, "Fair Use Safe Harbors", *Virginia Law Review 93(6), 2007*, p. 1483.

201 D. L. Burk, "Algorithmic Fair Use" (2019), op. cit.

exception[202] or freedom of panorama[203]. We chose to focus on the exceptions for quotation and parody because these are the two exceptions which the DSM directive made mandatory in light of their special role in the protection of freedom of expression, which, along with an increasingly harmonized CJEU case law, greatly eases up OCSSPs' task to protect them uniformly across the EU.

**125** However, to ensure a fair balance between fundamental rights, all exceptions and limitations should be effectively guaranteed. And of course, as we noted, an optimal guarantee of the effectiveness of exceptions and limitations on digital platforms will likely require rethinking the incentive structure faced by such platforms, as well as their accountability when they exercise such algorithmic copyright enforcement delegated by the lawmaker. However if we simply give OCSSPs free rein in implementing preventive measures following from art. 17(4), without requiring them to safeguard exceptions and limitations by default, it is likely that concerns for cost-efficiency and avoiding legal liability will "encourage the adoption of cheap and unsophisticated filtering tools that lead to excessive content blocking"[204].

**126** More generally, this article should be taken as a call to go beyond both technological solutionism and legal formalism, and get involved in discussing and framing the practical conditions of algorithmic copyright enforcement on online platforms, in order to ensure an effective fair balance between fundamental rights of rightsholders and users.

**127** Now that exceptions and limitations to copyright have finally been recognized as users' rights[205] after years of uncertain status, it is about time that their legal guarantees move beyond the declaratory, and be given effect. Providing means of *ex ante* (over-) enforcement for rightsholders, while only providing *ex post* remedies for users' rights cannot be called a fair balance. If we are to rely on algorithmic decision systems for *ex ante* copyright enforcement on OCSSP, we need to make sure that these algorithms are designed to prevent and minimize interferences with fundamental rights such as the right to freedom of speech, by protecting exceptions and limitation by default. In other words, freedom of speech should be guaranteed not merely by remedies, but by design.

202 InfoSoc directive, art. 5(3) i.

203 InfoSoc directive, art. 5(3) h.

204 M. Senftleben, "Bermuda triangle..." (2019), op. cit. p. 8.

205 See CJEU, *Eugen Ulmer*; CJEU, *Spiegel Online*; CJEU, *Funke Medien*, *supra*, note 12.