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LAW 2020/07
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A Data-Driven Approach to Copyright in the Age of
Online Platforms

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Department of Law

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PLATFORMS**

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EUI Working Paper **LAW** 2020/07

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ISSN 1725-6739

© Giuseppe Mazziotti, 2020
Printed in Italy
European University Institute
Badia Fiesolana
I-50014 San Domenico di Fiesole (FI)
Italy
www.eui.eu
cadmus.eui.eu

Abstract

Copyright is an area of law where the need to ensure remuneration of creative labour has traditionally been addressed with the progressive establishment of distinct rights in favour of a broad range of creators. Despite its broad scope, copyright today is ultimately ineffective because creators' revenues depend mainly on the arbitrary and secret decisions a handful of technology companies make on prices and conditions of access to their social media and streaming services. Since platforms' commercial value lies much more in their data infrastructure than in the content they provide, creators would be likely to gain higher and fairer remuneration if they were granted rights to transparency and access to data on the exploitation of their works. EU online platform regulations and a recent US music copyright reform provide useful examples for how copyright can ensure remuneration for creators in the online environment.

Keywords

Copyright, creators, platforms, data, remuneration

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Acknowledgments:

Thanks to the participants in the 38th Annual Congress, International Association for the Advancement of Teaching and Research in Intellectual Property (ATRIP), Nashville (25-28 August 2019) and the 21st EIPIN Innovation Society Congress, Maastricht (22-24 January 2020) for their useful comments on preliminary drafts of this work.

The author would like to thank the Fulbright Commission in Belgium for the generous research support he received as a 2018/2019 EU Fulbright Scholar and Emile Noël Fellow at the Jean Monnet Center for International and Regional Economic Law and Justice, New York University School of Law.

This is a pre-publication version of a chapter forthcoming in Daniel Gervais (ed), *Recreating Copyright Law, Redesigning Design Law, Resourcing Trademark Law, and Reinventing Patent Law* (Edward Elgar 2021).

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Introduction

Copyright is the area of law and policy where the need to ensure remuneration of creative labour has traditionally been addressed, with the progressive establishment — partially through international agreements — of distinct rights in favour of authors, performers, content producers and broadcasters. However, copyright protection is not, as such, sufficient to guarantee an adequate level of remuneration across value chains of content production. This statement holds true even more so at a time when allocation of copyright revenues depends on arbitrary and secret decisions made by a handful of technology companies that impose prices and conditions of access to their platforms, for both content creators and their users or subscribers.

Copyright systems are generally neutral when it comes to levels of remuneration of right-holders and do not guarantee a given income, especially to right-holders with weak bargaining power. This is the case for average authors and performers or owners of works and repertoires with limited international appeal. These authors and performers can easily go unnoticed in scalable markets where the “winner takes-all” nature of success means that a select few works and authors have a disproportionately high share of the market. Moreover, freedom of contract for large content producers tends to better protect corporate interests than individual creators’ expectation to gain fair remuneration. This means that cultural industries gather as many entitlements as possible, often for the whole life of the copyright, whereas authors and performers transfer their rights in exchange for a lump sum or royalties. The rights granted under copyright law have thus become difficult to enforce and monetize. As this paper will show, social media platforms make it difficult or impossible for copyright owners to negotiate and earn a fee from commercial and non-commercial users of their works.

This paper draws upon a broad notion of ‘creation’ that includes the work of individuals, groups of individuals, small and medium-size enterprises, and major producers.¹ Although remuneration is not necessarily the main goal of content creation, especially for individual authors and performers, all professional creators expect to be compensated when the result of their work is disseminated and commercially exploited. The creative sector would not be able to produce new works without adequate economic incentives and rewards. Even though the value chains of content creation vary significantly between sectors, all production systems are based on the idea that the final output of content creation will be remunerated in one way or another.

This paper seeks to clarify why professional creators face increased challenges in seeking remuneration in the age of online platforms. Section Two identifies economic challenges for remuneration opportunities at a time when online piracy remains relevant and web-based platforms give access to content either for free or via a monthly subscription. Section Three briefly reviews the state of copyright law from a comparative and international law perspective, assessing whether and how the law helps creators exercise their online rights effectively. Section Four identifies the main reasons why a data-driven approach to copyright would allow creators’ remuneration to regain centrality. This section takes into consideration *(i)* secrecy and lack of data on how dominant online platforms extract value from content; *(ii)* absence of international standards of rights management and content-related information in each sector; and *(iii)* market power and origin of the largest online platforms. The paper examines recent examples of such an approach, including the EU’s attempt to regulate online platforms and a recent US law reform to music copyright.

¹ Under this definition, even Netflix, which produces an increasingly broad variety of original programming, can be viewed as a content creator. Consistently with its fast-growing film production business, Netflix joined the Motion Picture Association of America (MPAA) in early 2019: Ryan Faughnder, ‘Netflix Joins MPAA in a Sign of the Streaming Company’s Film Growth’ *Los Angeles Times* (22 January 2019).

Online Distribution Models and the Place of Creators

Digitisation of information and the rise of the Internet — an unprecedented, borderless and decentralised medium of expression and communication — revolutionised the way individuals and cultural industries produce and disseminate ideas and creative works.

Online Platforms

Until the launch of Apple's iTunes music store in 2001, unauthorised file-sharing was the most popular way to access creativity on the Internet. The rise of on-demand content stores and streaming services, together with the emergence of social networks and Web 2.0 technologies, triggered a process of re-intermediation in digital content distribution.²

On-demand services

On-demand content platforms act as intermediaries between traditional creative industries and consumers. Apple's iTunes was the first service of this kind. On-demand content platforms have varied features and business models. Some function as large retailers that sell permanent digital copies (downloads) of copyright works. These platforms often combine online catalogues with the sale of dedicated devices, such as the Kindle or iPhone, that allow consumers to access and enjoy the works they buy. Other platforms, such as Spotify, Netflix, and Amazon Video, work as subscription-based radio and television services that give access to collections of music, films, and TV programs.

One of the distinctive features of online platforms is their ability to know and exploit user preferences and attention.³ These service providers collect and store personal data whenever a consumer buys a product or uses one of their service features. This extensive knowledge of their subscribers' preferences places online platforms in a position not only to earn revenue from online advertisers, but also to target commercial offerings at a single user. User profiling allows on-demand content suppliers to take advantage of and monetise known consumer preferences in an unprecedented way.

Social media

The rise of social major media platforms and dedicated platforms for photos and sound recordings has significantly expanded the opportunities for Internet users to access creative works.⁴ One essential feature of these platforms is that they are not designed to allow or to facilitate a distinction between original creations of the platform user and works created by someone else which are uploaded by the user without the right-holder's authorisation. From a legal perspective, access to and use of such platforms is conditional upon the acceptance of terms and conditions that oblige subscribers not to share and publish works created by third parties without their authorisation. However, from the outset, social media platforms have been reluctant to enforce this contractual requirement and to monitor the materials their subscribers upload.

² Jonathan Zittrain, *The Future of the Internet and How To Stop It* (Yale University Press 2008) 12, who explained how the rise of a network of proprietary platforms and applications progressively eroded the open Web, following the logic of the so-called 'Web 2.0': Tim O'Reilly, 'What is Web 2.0' (30 September 2005)

<<https://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html>> accessed 20 June 2020.

³ Thomas Poell, David Nieborg and Jose van Dijck, 'Platformisation' [2019] 8(4) *Internet Policy Review* <<https://policyreview.info/concepts/platformisation>> accessed 20 June 2020, whose literature review details the main features of platforms and explain their economic and business implications.

⁴ Danah Boyd and Nicole Ellison, 'Social Network Sites: Definition, History, and Scholarship' [2007] 13(1) *Journal of Computer-Mediated Communication* 210.

Protection of platforms' neutrality

It would be impossible to understand the conduct and policies of the social media industry without considering the special treatment and immunity that laws such as the 1998 Digital Millennium Copyright Act⁵ in the US and the 2000 e-Commerce Directive⁶ in the European Union granted to Internet service providers. Since the late 1990s, US and EU laws have created liability exemptions (“safe harbours”) that made service providers not liable for activities carried out by their users if, after gaining knowledge of unlawful conduct, the service providers promptly removed illegal materials. These regulations exempted providers of certain online services (including content hosting) from liability for activities carried out by their users. The widely shared policy goals of these measures was to foster the development of a solid digital communication infrastructure, encourage innovation, and maintain a principle of network neutrality. However, there have been significant differences in the ways these liability exemptions are applied to social media in the European Union and the US.

In Europe, the Court of Justice of the EU stressed and clarified that a liability exemption is applicable to online platforms only insofar as a platform confines itself to providing a hosting service *neutrally*.⁷ This means that the exemption does not apply when an online intermediary plays an *active role* that entails knowledge of (or control over) such content. For instance, the CJEU found that eBay played an active role in supplying assistance and optimising presentations of the customers' sale offers or promotion of these offers. In the domain of content-sharing platforms, this means that the service provider cannot escape copyright liability if it optimises the presentation of the uploaded works or promotes them.

The EU eventually codified this conclusion in an EU directive on copyright in the Digital Single Market.⁸ To remove inconsistencies in social media copyright liability among EU member states, Article 17 of this directive embodies a complex (and controversial) provision that explicitly qualifies user uploads on social networks as platform acts of making works available to the public. The same provision obliges providers of such services to seek and obtain licenses for copyright works that platform users share online.

In the US, instead, the 1998 Digital Millennium Copyright Act and its safe harbour provisions have a broader application that encompasses and covers almost any Internet entities.⁹ US courts have recently held that video-sharing platforms such as YouTube and Vimeo can seek safe harbour when they prove absence of knowledge or awareness of facts or circumstances from which infringing activity is apparent (so-called “red flag” knowledge).¹⁰ This approach is motivated by the original intent to protect all sorts of Internet service providers from the expense of monitoring user uploads, which was a specific concern of the US Congress when designing the safe harbour provisions.

Impact of Content Platformisation on Creators' Remuneration

As observed in economics literature, composers and performers work in an unequal environment where very few superstars have a disproportionately high share of the market, while the majority of artists earn below the average income of professionals with an equivalent level of education.¹¹ The algorithm-based

⁵ Digital Millennium Copyright Act (DMCA) 1998, which amended the US Copyright Act (17 U.S. Code), Sect. 512(c).

⁶ Directive 2000/31/EC on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market [2000] OJ L 178/1, Art. 14.

⁷ Case C-324/09 *L'Oreal and Others v eBay International AG and Others* [2011], paras 116-124.

⁸ Directive 2019/790 on copyright and related rights in the Digital Single Market and amending Directives 96/6/EC and 2001/29/EC [2019] OJ L130/92 (hereinafter “2019 Copyright Directive”).

⁹ *Viacom v YouTube*, 676 F.3d 19, 39 (2d Cir. 2012): see Jane Ginsburg and Luke Ali Budiardjo, ‘Liability for Providing Hyperlinks to Copyright-Infringing Content: International and Comparative Law Perspectives’ [2018] 41 *Columbia Journal of Law and the Arts* 153, 207 ss.

¹⁰ *Capitol Records v Vimeo*, 826 F.3d 78 (2d Cir. 2016).

¹¹ See Ruth Towse, ‘Copyright Reversion in the Creative Industries: Economics and Fair Remuneration’ [2018] 41 *Columbia Journal of Law and the Arts* 467, 474-475, who explains that this is the consequence of an excess of supply of labour, with

functioning of all digital content platforms exacerbates pre-existing inequalities in exposure, success and distribution of music works and disparities in income related to different genres and repertoire. In growing digital markets for creative works, the “winner-takes-all” nature of success, combined with self-reinforcing trends derived from platforms’ designs and network effects, means that a sustainable career is possible only for the most popular artists.¹²

Streaming services

On-demand content services act as intermediaries between traditional creative industries and consumers.¹³ Unlike social media, such services negotiate fees and obtain a licence for all works they make available to the public. However, it is hard to assess how much right-holders earn concretely because copyright licences normally contain non-disclosure clauses that allow service suppliers to keep this information secret. This situation of opacity is even worse for musical compositions, for which online services negotiate fees and conclude agreements with collecting societies that manage the rights of thousands of composers and lyricists in millions of works. The fact that, at least at the beginning of the Web 2.0 era, these bodies could not guarantee efficient and transparent use of their repertoire information did not allow a fine-grained allocation of revenues.

We know about creators’ remuneration because right-holders occasionally break contractual secrecy or leaks in the press reveal information on artist earnings. When this happens, figures show that platforms generate low remuneration for music right-holders. This situation penalises mostly authors and owners of niche and small repertoires. However, even music stars whose works reach dozens of millions of streams or viewings are reported to have been underpaid. For instance, in an article published by the Guardian in 2013, David Byrne disclosed that, for the biggest hit of that season (“Get lucky”), the two co-authors and members of French band Daft Punk earned approximately 13000 USD each, as a result of 104.760.000 Spotify streams.¹⁴

Although on-demand services pay licensing fees that, on average, are ten times higher than fees paid by social media, the remuneration these services pay to artists is proportionately very low. The example of composer and cellist Zoe Keating is very useful to get an idea about the levels of artist remuneration in this industry.¹⁵

Keating is an excellent example of musical independence because she is the (only) composer, performer and producer of her own music. Being free from record labels and collecting societies, she can license all rights and earn all royalties in her works and recordings. To do so, she only relies on a distributor,

the majority of artists being unable to find the type of work they had hoped to do after years of education. She recalls that only a portion of artists’ income comes from “arts” work, the rest coming from occupations that are both arts-related (e.g. teaching) and arts-unrelated.

¹² Andrea Renda, Felice Simonelli, Giuseppe Mazziotti, Alberto Bolognini and Giacomo Luchetta, *The Implementation, Application and Effects of the EU Directive on Copyright in the Information Society* (Centre for European Policy Studies 2015) 119, who refer to a so-called ‘Power Law’ described by Nassim Taleb, *The Black Swan: The Impact of the Highly Improbable* (Random House 2007). This ‘Law’ predicates that in the digital environment authors will be a population with “a very small number of giants and a huge number of dwarves”, due to scalability, self-reinforcing trends and global viral phenomena arising at any point on the global market. These authors also stress how Anderson’s ‘Long Tails’ mitigate the effects of the Power Law: Chris Anderson, *The Long Tail: Why the Future of Business is Selling Less of More* (Hyperion Books 2006), who emphasized how small niche repertoires, which would not have been profitable in the brick-and-mortar economy, can thrive and survive in the digital world.

¹³ See Andrea Renda, Felice Simonelli, Giuseppe Mazziotti, Alberto Bolognini and Giacomo Luchetta, *The Implementation, Application and Effects of the EU Directive on Copyright*, op. cit., 116 ss.

¹⁴ David Byrne, ‘The Internet Will Suck All Creative Content Out of The World’ *The Guardian* (11 October 2013).

¹⁵ Keating is well-known in the music industry for releasing her annual royalties from major music services. She directly disclosed this data to Business Insider on an exclusive basis: see Alissa Meyers, ‘A Music Artist Breaks Down Exactly How Much Money Spotify, Apple Music, Pandora and More Paid Her in 2019’ *Business Insider* (9 January 2020) < <https://www.businessinsider.in/finance/news/a-music-artist-breaks-down-exactly-how-much-money-spotify-apple-music-pandora-and-more-paid-her-in-2019/articleshow/73175296.cms>> accessed 20 June 2020.

who makes her works available to all music services and charges a commission on her royalties. From January to September 2019 Keating's music was streamed approximately 2 million times on Spotify; 617,800 times on Pandora; and 495,500 times on Apple Music.¹⁶ Pandora and Spotify were among the music services that paid her the lowest remuneration rates: Spotify's per-stream royalty amounted to USD 0.003; Pandora's was USD 0.002. Other services paid higher royalties: for instance, Apple's per-stream payment amounted to USD 0.012.¹⁷ As a result of these pay-outs, in the first nine months of 2019 Keating earned approximately USD 759.34 per month from Spotify; USD 642.16 per month from Apple Music; and USD 137.28 per month from Pandora.

Social media industry

Social media companies are not like an online store or a commercial service where consumers pay a fee to access content. Rather, their business model looks like that of traditional broadcasters, where money comes from advertisers willing to pay for consumer attention. However, unlike free-to-air broadcasters, social media platforms have neither content platform editorial responsibility nor an institutional mission to inform, educate and entertain. The fact that users create or choose all uploaded content makes it impossible for algorithm-based platforms to guarantee diversity of accessible works. What these services care about is to host appealing content that allows them to keep their users active on their platforms in order to collect and process their data and to target them with personalised advertisements.

Although this industry has existed for more than a decade, social media platforms developed in the absence of clear and internationally accepted norms on copyright liability. With the remarkable exception of YouTube and its 'Content ID' and partnership programs, user-generated content platforms were able to initially disregard copyright and ended up building media environments where creative works were shared and exploited for free, with no remuneration for content creators.

Meanwhile, YouTube's expansion and significant improvement in terms of content licensing policies and algorithmic copyright enforcement is one example of how social media platforms have evolved. Media and communication scholars explained how, in these new revenue-sharing businesses, amateur creators can grow inside of YouTube's platform to become "professionalizing amateurs."¹⁸ This new category of content creators acts solely as a social media company's partner, relying often on platform-affiliated firms that sign creators for the purpose of maximising value from their content and communities.¹⁹ These creators agree with each platform owner, directly or through their managers, on a split of advertising-based revenues generated by community development and network effects.

Recent studies show that, by the end of 2017, revenue-sharing businesses enabled more than 3 million YouTube partner creators to receive some form of remuneration from their uploaded content, worldwide.²⁰ Given that YouTube treats royalties paid to content creators as sensitive information subject to confidentiality, the only way to know (at least approximately) how much the company is paying to creators of original works is that of interviewing authors, agents, collecting societies and their respective lawyers.²¹ An investigation revealed that YouTube's advertisement-based royalties are in the range of USD 80 to 100 per million of viewings. This amounts to a per-stream average fee ranging from

¹⁶ *Ibidem*.

¹⁷ *Ibidem*.

¹⁸ Stuart Cunningham and David Craig, *Social Media Entertainment – The New Intersection of Hollywood and Silicon Valley* (New York University Press 2019) 11-14.

¹⁹ Stuart Cunningham and David Craig, *Social Media Entertainment*, cit., 115 ss.

²⁰ *Ibidem*, 5, where the authors report that, by 2017, the most successful 5000 YouTube channels reached an aggregate amount of 250 billion video viewings and 4000 professionalizing-amateur channels reached at least one million subscribers.

²¹ This is a conclusion reached on the basis of interviews the author conducted in Europe and in the US in the first half of 2019. Interviewees included individual artists, representatives of collecting societies (ASCAP, CISAC, GESAC, SIAE), tech companies (Google, YouTube), digital music services (Deezer), attorneys specialising in copyright in France, Belgium, Italy and USA, academics and governments (US Copyright Office, Canadian Heritage, EU Commission, French Ministry of Culture).

USD 0.00008 to 0.00011, which is approximately ten times lower than the per-stream fees Zoe Keating earns from services like Spotify, Pandora and Apple Music.

These figures show that, at least under default contractual conditions, the main reason why creators publish their work on a platform like YouTube is to acquire and enhance online exposure, and not remuneration. This does not mean that ads-based revenue of original works might not be *per se* very lucrative, such as in exceptional cases where YouTube paid out much higher per-stream fees to creators of very successful, viral content.²²

Are Existing Creators' Rights Effective?

At the international level, multilateral instruments such as the 1994 TRIPS Agreement,²³ the 1996 WIPO “Internet” treaties on copyright and the related rights of music performers and record producers,²⁴ as well as the more recent 2012 Beijing Treaty on audiovisual performances,²⁵ built up or consolidated a broadly protective system of creators’ rights. In particular, the incorporation of the most important and comprehensive agreement on the protection of literary and artistic property — the 1886 Berne Convention (last revised in Paris in 1971)²⁶ — into the TRIPS Agreement and, as a result, into the law of the World Trade Organization (WTO), strengthened reliance of the global economy on copyright.²⁷

From a legal perspective, the Berne Convention created a bridge between different copyright law traditions and established international minimum standards, obliging its contracting parties to protect authors’ economic and moral rights on condition of reciprocity. The extension of the binding effects of the Berne Convention to all the WTO members introduced a relevant author-centred approach in an eminently corporate-related framework and also made the obligations of the Berne Convention more easily and effectively enforceable against states through the arbitration-based dispute resolution system of WTO law.

Today’s international copyright system is the result of a cluster of agreements that, since the late 19th century, have prescribed an “author-centred” and multi-level mechanism of protection for literary and artistic works. In this framework authors’ rights constitute primary rights. This approach has been progressively expanded through the addition of “secondary” rights granted to music and audiovisual performers, record producers, and broadcasters with the aim to make content production economically sustainable.²⁸

As a result of agreements, such as the 1996 WIPO treaties that specifically target online content exploitations, creators’ primary and secondary rights became enforceable in the vast majority of the world’s jurisdictions. However, due to the principle of copyright’s territoriality, these rights are ultimately shaped and enforced independently in each country. The fact that territoriality applies even in a technically borderless digital environment means that national governments (and courts) fill the gaps left by international conventions according to their own cultural, industrial and technology policies, each of which can give the exercise and enforcement of copyright a different connotation.

²² See, for instance, the case of one of the most-watched YouTube videos ever (“Gangnam Style”), created by popstar Psy. At least until January 2013, this video gathered 1.23 billion viewings, generating on average 0.0065 cents each time a user streamed the video (for a total of USD 8 million revenue, a half of which was paid to the content creator): see Christopher Mims, ‘Google: Psy’s ‘Gangnam Style’ Has Earned \$8 Million on YouTube Alone’ *Business Insider* (23 January 2013) <<https://www.businessinsider.com/google-psys-gangnam-style-has-earned-8-million-on-youtube-alone-2013-1?IR=T>> accessed 20 June 2020.

²³ Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) 1994.

²⁴ WIPO Copyright Treaty 1996 and WIPO Performances and Phonograms Treaty 1996.

²⁵ Beijing Treaty on Audiovisual Performances 2012.

²⁶ Berne Convention for the Protection of Literary and Artistic Works 1886.

²⁷ TRIPS Agreement, art 9 (‘Relation to the Berne Convention’).

²⁸ See also the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations 1961.

Trade v Cultural Policies in Copyright Law

From a comparative law perspective, there is a still unsettled tension and lack of uniformity regarding how the law can make authors' rights more effective and who should eventually benefit from them. A trade-related approach that is neutral and indifferent to how right-holders' revenues are allocated is predominant in the Anglo-American *copyright* model. A cultural policy dimension, in which copyright aims to protect individual authors' economic and moral interests and place them in a position to gain from exploitation of their works (both financially and in terms of reputation) is predominant in continental-European systems.

Copyright systems are based on a principle of free transferability of rights. Especially in the Anglo-American copyright tradition, freedom of contract is crucial in the creative industries. Such freedom is so broad that the US Copyright Act contemplates a category of works "made for hire." Under US law, a work is made for hire when it is created by an employee within the scope of his or her employment or is specially ordered or commissioned for certain uses.²⁹ In these cases, an employer or a client is considered the author even though the work is created by someone else.

In legal systems following the French tradition of *droit auteur*, instead, parties do not have such freedom. The notion of authorship in continental Europe systems entails also the acquisition, at the time of creation, of non-waivable moral rights to attribution and integrity that exist together with the rights of commercial exploitation. In these systems, a work "made for hire" agreement would be contrary to the concept of authorship as a personality right and would be effectively null or void.

In jurisdictions that do not follow the Anglo-American "market knows best" model, the intersection of copyright and contract reveals a paternalistic approach aimed at protecting individual authors or performers in risk and volatile markets. The policy goal of these measures is not allowing excessively lengthy or imbalanced transfers of rights in order to mitigate conflicts between individual creators and publishers. This is a clear attempt to remedy a situation where copyright is concentrated in the hands of the cultural industries.

Good examples of limitations of freedom of contract can be found in countries where the law seeks to help individual authors benefit from the economic value of their works at a time when their commercial success is very uncertain or impossible to estimate.³⁰ Moreover, in Europe specific types of transfers are regulated in depth. Publishing contracts, in particular, can be rigidly regulated in terms of formalities, duration and non-waivable rights of writers to have access to information concerning the revenues generated from the exploitation of the work, the quantity sold and the rights transferred for each exploitation of the work.

Empowering Creators Through Transparency of Information

Policy makers have tried to strengthen authors' and performers' bargaining power to help them increase their remuneration, especially from online exploitations of their works. A prominent example comes from the 2019 EU Copyright Directive, where a binding provision for all EU members targets the opacity of conditions under which creative works are accessed and licensed on social media and on-

²⁹ US Copyright Act (17 U.S. Code) Sect 101.

³⁰ For instance, in countries such as Germany and the Netherlands there is a principle of fair or adequate remuneration whose concrete determination is achieved also via collective bargaining (Germany) or through a government intervention (for instance, the minister of education, culture and science in the Netherlands), or on a sector-by-sector basis: see Martin Senfleben, 'More Money for Creators and More Support for Copyright in Society - Fair Remuneration Rights in Germany and the Netherlands' [2018] 41 Columbia Journal of Law and the Arts 413, 422. This principle restricts parties from stipulating a transfer of the author's rights in exchange for a lump sum and oblige them to share market risks. In civil law jurisdictions such as Italy, France, Belgium, Germany and Spain parties are not free to transfer rights in future works of an author or in future modes of commercial exploitation: see Severine Dusollier, Caroline Ker, Maria Iglesias and Iolanda Smits, *Contractual Arrangements Applicable to Creators: Law and Practice of Selected Member States* (European Parliament 2014) 36 ss.

demand services (Art. 19). This directive creates a right for authors and performers to receive timely, accurate, relevant, and comprehensive information on modes of exploitation of their works, direct and indirect revenues generated, and remuneration due. This right to transparency is actionable, via voluntary dispute resolution procedures, not only against content producers —traditional contractual partners of authors and performers — but also against further licensees or assignees, including the owners of online platforms that buy online exploitation rights from collecting societies (music sector), and record and film producers and broadcasters (TV content).

In the architecture of the EU directive, transparency is functional to the enforcement of newly codified authors' and performers' rights, each of which will trigger a significant reform of national copyright and contract laws. The first is a right to contract adjustments when an author or performer's remuneration is disproportionately low when compared to the subsequent relevant direct or indirect revenues deriving from exploitation (Art. 20). The second is a right to revocation of licences or transfers of copyright where there is an absence of exploitation of the work or there is a continuous lack of reporting of information on revenues and the remuneration due (Art. 22). Both rights already exist in several EU member states. The Copyright Directive aims to make them mandatory on an EU-wide basis.³¹

Modernisation of Collective Rights Management

Other remedies to opacity and inefficiencies affecting content creators concern the functioning of collective rights management. Policy makers sought to empower content creators by improving the governance of collecting societies in order to ensure a more efficient, transparent and quick response to the challenge of digital music services. Collective organisations traditionally worked as authors' unions, helping them solve conflicts arising with music publishers. One of the historically most significant achievements of collecting societies in the music sector has been to allow authors, through collective bargaining, to keep and co-own with publishers the rights these societies administer. This means that music composers, because of their membership in collective organizations that manage their rights under a mandate, never transfer their rights to music publishers in their entirety. This deal has clearly protected their right to fair remuneration and allowed composers to earn more, sharing commercial risks with their publishers.³²

Unfortunately for authors and the entire creative sector, collecting societies were slow in launching licensing schemes for online uses at a time when file-sharing and online piracy dramatically affected the music industry and legitimate content services struggled to emerge. For example, in 2005 the European Commission introduced best practices with a goal of enhancing efficiency and transparency of these bodies and encouraging them to provide better services to their members and to potential exploiters.³³ After years of reluctance to intervene through mandatory provisions in a sector where national governments wanted to preserve their autonomy and cultural policies, these best practices were implemented in a 2014 directive that established a common legal framework for collecting societies in Europe.³⁴

³¹ A right to revocation (or termination) of contractual transfers is a creator's right that is common across a variety of jurisdictions. For instance, under US law a non-waivable right to termination of the grant of an author's rights replaced a previous system (of "reversion") where rights were automatically reassigned to the author after expiration of the first term of copyright protection (this right was based on a pre-1976 two-term copyright system). In Europe, at least until the entry into force of Directive 2019/790, termination rights also applied in several countries, but to a more limited extent and with specific regard to types of regulated deals, such as publishing contracts in France and Spain. In the UK, instead, although the law no longer provides reversion rights (it used to do so until the adoption of the 1956 Copyright Act) an automatic reversion of rights can be created contractually while transferring copyright.

³² For example, French collecting society SACEM explains on its website that standard contractual splits reserve 2/3 of the copyright royalties deriving from performing rights (radio, TV, concerts and all public performances) to authors and composers: <<https://createurs-editeurs.sacem.fr/en/Sacem-and-i/royalty-distribution>> accessed 20 June 2020.

³³ Commission Recommendation 2005/737/EC of 18 May 2005 on collective cross-border management of copyright and related rights for legitimate online music services [2005] OJ L 276/54.

³⁴ Directive 2014/26/EU of 26 February 2014 on collective management of copyright and related rights and on multi-territorial licensing of rights in musical works for online use in the internal market [2014] OJ L 84/72.

This directive guarantees authors freedom to entrust their rights to a society of their choice, irrespective of their country of residence, and to split the assignment of their rights between different societies (Article 5). Furthermore, Title II of the directive harmonised the criteria of governance and the main obligations of collecting societies, imposing high standards of transparency and efficiency, especially in the domain of cross-border online uses.

Black Boxes and the Creative Sector Value Chains

In today's platform age there are obstacles to the attainment of conditions in which content production could thrive not only in terms of dissemination but also regarding creators' expectation to be fairly remunerated. This section shows why creators need access to data that is currently undisclosed or unavailable in order to effectively exercise their statutory rights.

Secrecy and Scant Data on Content Value

In the platform economy, the value of digital works is difficult or impossible to estimate. Dematerialization and disintermediation of content and the subsequent rise and exponential growth of social media platforms has blurred the distinction between professional and amateur creativity. Business models that have emerged in the last decade via social networks, user-generated content platforms and on-demand services have cut off or reduced the power of previous retailers and commercial intermediaries and changed the value chains of content distribution.

A quick transition from markets where consumers purchased physical copies of creative works to services where subscribers pay to access collections of works (or to freely access large amounts of user-uploaded content) has placed online platforms in a unique position to exploit content creation. Considering their market power, large platforms can determine and impose the conditions and price of the works they make available in environments where a significant portion (or all) of their profits come from advertising and exploitation of their users' personal data.

As noted above, secrecy and confidentiality cover all the information on revenues generated by copyright works and the levels of remuneration paid to creators or to their representatives. It is impossible to estimate fairness of remuneration and diversity of content online without data showing what the preferences of Internet users are. As we have seen, considering this structural problem of asymmetric information, in 2019 the EU codified a right to transparency that imposes disclosure of vast arrays of data for authors and performers to be aware of the revenues generated by their works on a sector by sector basis. However, it has yet to be seen how realistic this unprecedented duty of disclosure will be, especially in jurisdictions where national governments have no incentive to place such a heavy administrative burden on tech companies.

Absence of Rights Management and Repertoire Information Standards

Obliging online exploiters to disclose relevant data on revenues generated by copyright works, on a sector by sector basis, does not seem to be sufficient to ensure fair remuneration of the majority of content creators. Effective monitoring and measurement of access to digital works presupposes the implementation of content identification technologies and repertoire databases containing all necessary information about the relevant rights as well as who owns and controls them. Unfortunately, at the moment there are no fully interoperable standards giving content licensors and licensees access to rights management and repertoire-related information. Availability of such data would greatly facilitate the operative elements of licensing agreements and would promote the creation of a level playing field for all contributors to the content value chains in different sectors.

In particular, the global music sector would need uniform and standardised repertoire information in order to enable collecting societies and platforms proprietors to clear a multiplicity of rights in musical

compositions and sound recordings and to enter into smooth transactions ensuring fair and proportionate right-holder remuneration. An institutional framework where such a global music repertoire infrastructure could be developed already exists and entails cooperation among authors' collecting societies. Traditionally, these bodies have operated on a strictly national basis and, in the vast majority of countries, they are *de facto* or legal monopolies that license the entire global music repertoire via mutual representation agreements developed by their international umbrella organization.³⁵

The music rights collecting societies manage are — according to an old-fashioned subdivision of trade in two separate sectors — mechanical rights and performing rights.³⁶ Mechanical (or reproduction) rights traditionally covered production and distribution of physical formats embodying musical compositions. Performing rights are much broader and include concerts and other public performances of a copyright work as well as transmissions via TV and radio broadcasting.

In spite of the blurred distinction between copying and content transmission on the Internet, collecting societies have maintained and relied upon this distinction in their licensing activities, especially in a jurisdiction like the US, where a right of making content available to the public has not been codified. Mechanical and public performance rights have been transposed and applied to online uses to cover, to different extents, both download and streaming services.

The so-called “Global Repertoire Database” (GRD) was a first attempt to build a single information infrastructure in this sector. This ambitious project sought to create a comprehensive database of the global ownership and control of musical works that was openly available to composers, publishers, collecting societies, and commercial users of global repertoires. The GRD would have enabled cost savings — by eliminating duplication in activities of data management and processing — and would have allowed a more efficient management of digital works by lowering administrative barriers for companies wishing to distribute music online.

An open, reliable and fully interoperable database would also have ensured a quicker and more efficient compensation to content creators. Despite the support and involvement of all the big music publishers and some of the digital players (including Google) who would have needed access to the data, the project failed in 2014 because of lack of financial support from collecting societies that would have ended up benefiting from the initiative without having contributed to it.³⁷ PRS For Music (UK) and Swedish collecting society STIM, which formed a joint venture to work as technology provider, were the only societies involved in this project.

The GRD failure showed that a proprietary approach to the development of a standard database might not be the right solution. An alternative could be requiring music publishers and collecting societies to put their databases into the public domain to enable third parties to develop a database. This kind of alternative could derive from a legislative requirement for music publishers and collecting societies to freely disclose and make available their repertoire information to a third party wishing (or being institutionally mandated) to build a single, standard database.

In a market-driven version of this solution, such a duty of disclosure would allow several companies or organizations to freely draw upon available data to build their own databases; the market then would

³⁵ International Confederation of Societies of Authors and Composers (CISAC, from the original French acronym): <<http://cisac.org>>.

³⁶ Authors' societies in Anglo-American systems — unlike their continental-European sister societies — emerged and historically developed for the sole management of performing rights. In the UK, for instance, music publishers have historically been the sole proprietors of mechanical rights through their own trade organisations, after having acquired them from the authors. In continental Europe, instead, authors and music publishers usually co-own the same rights under the shield of their respective collecting societies: Giuseppe Mazziotti, 'New Licensing Models for Online Music Services in the European Union: From Collective to Customized Management' [2011] 34(4) *Columbia Journal of Law and the Arts*, 757, 777-779.

³⁷ PRS for Music, 'Statement on the GRD' (9 July 2014)

<<https://www.prsformusic.com/press/2014/statement-on-the-grd>> accessed 20 June 2020.

decide what database is the best. In a public sector-driven system, on the other hand, such a database could be built under the supervision and control of a public body and be accessible to everyone, as a free resource.

Interestingly, especially for a jurisdiction that believes in capitalism like no other, the US Congress recently adopted this model when passing the 2018 Music Modernization Act (MMA) and, in particular, its Title I, the Musical Works Modernization Act (MWMA).³⁸ The MWMA contemplates a system of compulsory licensing of mechanical rights beneficial to online music services will come into effect on January 1, 2021.³⁹ From that time onwards, on-demand music services will be able to obtain an all-encompassing compulsory licence to clear mechanical reproduction of musical compositions that will cover activities defined as “making a digital phonorecord delivery of a musical work, including in the form of a permanent download, limited download, or interactive stream.”⁴⁰

A newly created, publicly owned and funded body, named ‘Mechanical Licensing Collective’ (MLC), acting under the supervision and control of the US Copyright Office, will administer this licensing scheme.⁴¹ The institutional mission of the new collective is to develop and maintain a musical works database containing information on musical works (and shares of such works) and, to the extent known, the identity and location of their respective copyright owners and the sound recordings in which musical works are embodied. The licence applies only to mechanical and distribution rights, and not to public performance rights, which will continue to be licensed separately by performing rights organizations such as ASCAP and BMI.⁴² Interestingly, this licence will be available only to music services that have a direct economic relationship with end-users and exert direct control over the supply of its service. This condition clearly excludes social media from the scope of application of the new mechanism.

Market Power and Origin of the Largest Online Platforms

Today’s largest online platforms, at least in the Western world, are all owned by dominant and very resourceful tech companies headquartered in the United States. The four most successful companies are often referred to as “GAFA” (Google, Amazon, Facebook and Apple) or “over-the-top” online suppliers. These online platforms are under increasing scrutiny all over the world.

A major concern is that Amazon, Facebook and Google have and exert too much economic power to the detriment of consumers, suppliers and competitors. In today’s political and legal discourse it has become common to hear that as Google, Facebook and Amazon become bigger and bigger, they are a threat to democracy and should be broken up under antitrust law.⁴³ However, American antitrust law does not currently seem to be an effective remedy against the extreme corporate power these tech giants exert, even if they were hypothetically found to be monopolising their own relevant markets. This conclusion is somehow dictated by a leading antitrust decision in which the US Supreme Court held that monopoly is an important element of a free-market economy and is desirable because it induces the risk-taking that produces innovation and economic growth.⁴⁴ Moreover, merger control is currently based on

³⁸ Musical Works Modernization Act (MWMA) 2018, which is part of a broader act, the Music Modernization Act (MMA) 2018, Public Law 115-264, 132 Stat. 3676. This legislation embodies a collection of three reform provisions on music copyright: see Jeanne Fromer and Christopher Jon Sprigman, *Copyright Law – Cases and Materials v. 1.0* (2019) 385 <<http://copyrightbook.org>>.

³⁹ US Copyright Act (17 U.S. Code), Sect 115(d)(1), as revised by the MWMA.

⁴⁰ US Copyright Act, Sect 115(e)(7).

⁴¹ The MWMA requires the US Copyright Office to supervise this new licensing scheme and the related database: cf. Sect 115(d)(3)(E)(i). Musical work copyright owners will have to provide the MLC with the information to build its database “to the extent practicable,” and engaging “in commercially reasonable efforts”: see Sect. 115(d)(3)(E)(iv).

⁴² The US musical works database aims to facilitate the matching of sound recordings to musical compositions and to support the ability of the new collective to identify music-right holders so that they can be remunerated: see Jeanne Fromer and Christopher Jon Sprigman, *Copyright Law*, cit., 386.

⁴³ Tim Wu, *The Curse of Bigness: Antitrust in the New Gilded Age* (Columbia Global Reports 2018) 132.

⁴⁴ *Verizon Communications Inc. v Trinko*, 540 U.S. 398 (2004).

a “consumer welfare” standard under which the US government is entitled to block a merger only if it can prove that the merger results in increasing prices for consumers. As Wu remarked, applying this standard in markets where large companies offer web-based services for free (in exchange for user personal data) makes antitrust scrutiny impossible.⁴⁵

What might be helpful to preserve competition is that the largest online platforms, despite their different business models, compete with each other in a potentially disruptive way, starting to offer services and products that are at the core of their competitors’ business. This happened, for instance, when Google started operating an eventually unsuccessful social network, Google+ in response to Facebook; another example is that Apple and Facebook have invested heavily in technologies which improve online search. As Hemphill emphasized, cross-market competition has the potential to reduce market power and influence these companies exert on web-based businesses.⁴⁶

In this domain, the EU is a completely different scenario because its competition law has been used against tech companies’ abuses of their dominant position. Acting as the EU antitrust authority, the European Commission recently targeted anticompetitive practices with the aim to protect competitors and not only consumers. Multi-billion fines issued against Google as of 2017 are a prominent example of the European approach to the platform economy.⁴⁷

Profoundly different approaches to antitrust and to potential restriction of anticompetitive conduct in the US and Europe show why it is difficult to develop a shared understanding of the need to regulate online platforms at international level. The European Commission has clearly shown its intent to establish a legal framework where the largest social media platforms will have enhanced responsibilities and decisive roles in preventing, removing and keeping offline a broad variety of illegal content, including copyright-infringing materials.⁴⁸

EU law is increasingly seeking to promote fair competition through ex ante regulation of the platform economy. Since July 2019, EU Regulation 2019/1150 ensures that online intermediation services and search engines make their terms and conditions easy to understand, easily available, transparent and fair for business users of such services.⁴⁹ This EU-wide legislation requires online platforms to provide their business customers with thorough information on how their intermediation services work. For example, the regulation seeks to ensure algorithmic transparency on how online intermediaries determine their ranking of search results (and the possibility of influencing such ranking through direct or indirect remuneration) and different conditions and channels through which platform users can offer their goods and services to the public.

In the US, on the other hand, broad implementation of provisions such as the DMCA safe harbours and persisting reliance on platform neutrality enshrined in legislation such as Section 230 of the 1996

⁴⁵ Tim Wu, *The Curse of Bigness*, cit., 120-123.

⁴⁶ Scott Hemphill, ‘Disruptive Incumbents: Platform Competition in an Age of Machine Learning’ [2019] 119(7) *Columbia Law Review*, 1973, 1993-1997.

⁴⁷ The European Commission found that Google violated EU competition law (i) for having suppressed search rivals by denying equal access to its platform in the context of shopping offerings (Euro 2.42 billion);⁴⁷ (ii) for having imposed illegal restrictions on Android device manufacturers and network operators to strengthen its dominant position on general online search market (Euro 4.34 billion);⁴⁷ and (iii) for having abused its market dominance by imposing several restrictive clauses in deals with third parties whose websites made impossible for Google’s rivals to place their own search advertisements on the same websites (Euro 1.49 billion). See, respectively, EU Commission, ‘Antitrust: Commission fines Google Euro 2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service’, Press release (27 June 2017); ‘Antitrust: Commission fines Google Euro 4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google’s search engine’, Press release (18 July 2018); ‘Antitrust: Commission fines Google Euro 1.49 billion for abusive practices in online advertising’, Press release (20 March 2019).

⁴⁸ Commission Recommendation 2018/334 on measures to effectively tackle illegal content online [2018] OJ L 63/50.

⁴⁹ Regulation (EU) 2019/1150 on promoting fairness and transparency for business users of online intermediation services [2019] OJ L 186/57.

Communications Decency Act⁵⁰ reveal a radically different policy. Needless to say, this also has implications for how online platforms remunerate content creators and support cultural diversity. The US is not only the GAFA's country of origin but is also home to the most successful creative industries in the world, including the biggest movie and television industries. This explains why US policy makers have traditionally shown no interest in fostering cultural or linguistic diversity, refusing to join agreements such as the UNESCO Convention on diversity of cultural expressions and to embrace a regulatory model such as the EU's (or Canada's) in the field of media law.⁵¹ From a US perspective, the fact that some of the online platforms might encourage large-scale use of unauthorised works, with a subsequent decrease of value for copyright, is more than compensated for by a continuous growth of the technology sector and development of industry-led solutions which allow the creative sector to control or monetize its productions.

Conclusion: Why a Data-Driven Approach to Copyright?

In the first half of 2020, many artists spontaneously started broadcasting live performances from their homes and recording studios in response to COVID-19. Lockdown regimes forced nearly everyone to stay at home in many parts of the world. This unprecedented situation showed how the creative sector might look if hundreds of millions of users had to simultaneously rely on a very small number of digital platforms in order to access arts, culture and entertainment.

While these services allow creators to keep building their digital audiences and to market their own image, the logic underlying online platforms systematically penalizes the vast majority of authors and cultural industries. Platforms' commercial value is not so much in the content as it is in their infrastructure of personal data and very sophisticated and secret algorithms. Platform owners, including highly appreciated content suppliers such as Spotify and Netflix, are ultimately tech companies whose content is a bait to keep their users' attention as much as possible and to collect, process and sell data on user preferences and behavior.

In a scenario where the logic of algorithms and of platforms' filter bubbles broadens the gap between superstars and other professional creators, digital services choose and curate their content, negotiating and paying remuneration based on the effective popularity and success of a certain track, album, film or TV series. The social media industry, instead, has benefited from a legal principle of technological neutrality and broad liability exemptions. Until recently, this industry has scaled up without having to worry, at least in advance, of what their users made available to the public. Even today, this long-term privilege is considered to be the main source of the compensation gap for content creators between subscription services and YouTube, where licensing fees are estimated to be ten times lower.

It would be incorrect, however, not to consider the remarkable evolution of social media over the past decade. For example, after Google acquired YouTube in 2007, it deeply transformed its platform in order to allow new forms of grassroots professional creation, cutting off intermediaries and developing a technology and legal infrastructure worthy of the world's largest content producer. This paper emphasized that an increasingly relevant number of today's artists consciously decide to partner with online platforms, with the purpose of monetizing their copyright in individual agreements that reserve to each artist (and their teams) more than half of the advertising revenue each piece of content generates.

For YouTube's ecosystem, for instance, Google developed its own proprietary technology, 'Content ID', to allow creators and copyright holders to enforce and monetise their rights inside of its platform. Facebook, instead, relies on a third party's set of technologies (Audible Magic's) to perform the same

⁵⁰ 47 U.S.Code Sect. 230 grants immunity to websites from liability for defamation arising from comments of their users. In the same way as the 1998 DMCA, Sect. 230 was based on the assumption that holding websites responsible for user-generated content would have hindered a fast development of the Internet, as we know it.

⁵¹ UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions 2005.

tasks. It is only through this kind of software and detailed rights management and repertoire information that all digital services might manage to reward individual creators in a fair and proportionate way.

Unlike the United States, whose economy benefits directly from the largest platforms' businesses, the European Union has decidedly moved towards progressive regulation of digital content services. By clearly distancing itself from a principle of platform neutrality, the EU recently adopted a higher standard of copyright accountability for social media to protect its legacy content industries. A May 2019 directive, which is being transposed into national laws, requires these services to obtain a licence for all contents uploaded by their users. Moreover, this European directive codified a principle of fair and transparent remuneration for individual authors and performers, granting them an access right regarding data on profits that traditional broadcasters and online platforms derive from different types of content exploitations.

When it comes to building repertoire information infrastructure, governments strongly encouraged investment in single music rights databases that are expected to play a crucial role in permitting nuanced and fair remuneration of content creators. The European Union pursued this goal indirectly, by passing a 2014 directive that granted authors the right to choose a licensing entity of their choice and obliged collective rights management bodies to comply with strict criteria of efficiency, transparency and accountability that suit the new technological reality. In the United States, instead, the Copyright Office is supervising the development of a musical works database to support the ability of a new collective to identify music-right holders and to remunerate them. These examples show that to strengthen creators' bargaining power and to make rights more effective, the law should increasingly grant rights to access data that so far has been kept secret in tech companies' black boxes or in collecting societies' records and archives. Without data on content exploitations and detailed rights ownership information, creators' rights are likely to remain just on paper, as an empty promise.

