



Digital technologies and copyright: international trends and implications for developing countries

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This paper is part of a series of papers on technology policy and regulation, bringing together evidence, ideas and novel research on the strengths and weaknesses of emerging practice in developing nations. The views and positions expressed in this paper are those of the author and do not represent the University of Oxford.

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1. Overview

Information, knowledge and technology are central to organising contemporary societies, and economic and political power are increasingly connected to intangible assets.¹ Their enclosure and legal protection through intellectual property (IP) has been at the heart of this process. As of mid-2019, four digital technology corporations are at the top of the global market values list (Apple, Microsoft, Amazon, and Alphabet), and digital giant Facebook occupies the sixth position.² Microsoft and Apple were founded in the late 1970s, and benefited from different forms of IP: patents for hardware, copyright for software, and protection for trademarks and designs.³ These legal tools had a central role in shaping the current economic and technological scenario, but they have not always existed. Rather, they were the outcome of global disputes involving corporations, developed and developing countries, and civil society organisations. The development of these conflicts sets the background for the current global trends around IP policy and digital technologies – including copyright, patents and trademarks – and whether or how these policies address the interests of developing countries.

In the field of copyright, recent developments are connected to advancements in digital technology and also to relevant changes in how the digital services market is structured. After almost two decades of experiencing financial losses and fighting against file sharing, the music industry has been able to establish streaming platforms as the new normal for music consumption. Along the same lines, but under different regulations and disputes, platforms that allow for the distribution of user-generated content (UGC) have flourished and paved the way for the emergence of new markets and new stakeholders (such as video bloggers – or vloggers – and multi-channel networks inside YouTube). These emergent business models have been characterised by significant market concentration (there are only a few players in the market), and by being global in nature, but mostly based in the US and Europe,⁴ while counting on large user bases in developing countries.⁵

Two contemporary regulatory processes illustrate how IP policies are being strategically deployed. First, since the celebration of the TRIPS Agreement (Trade-Related Aspects of Intellectual Property Law, 1994), there has been a clear tendency to further link IP and trade – maximising IP protection through bilateral, regional and multilateral trade agreements. Second, when it comes to the digital environment, regulations enacted by developed countries are prone to demonstrating extraterritorial effects, particularly in the developing world. The recently adopted European Directive on Copyright in the Digital Single Market is a good example.

This paper argues that, as a result of demands from multinational industries, recent policy developments and negotiations are expanding copyright protection related to digital technologies. The research draws on literature and interviews with civil society stakeholders to question whether this expansion reflects the economic interests of developing nations or whether they could deepen geopolitical inequalities. It also considers how, in a connected world, policymaking in one country or region that holds economic power in the digital environment can be enforced by others, and in particular, how the effects of this might be felt in developing nations.

2. Intellectual Property (IP) and Trade Agreements

In March 2019, the World Trade Organization (WTO) launched conversations for a new agreement on e-commerce. The scope of these negotiations goes far beyond what one would generally understand as e-commerce and expands towards a liberalisation of the digital economy, especially in what refers to control over data, limiting public oversight and power (James, 2019, p.8). E-commerce negotiations encompass far more than Amazon, MercadoLibre, Alibaba and eBay; they are about a broader digital economy that includes the so-called 'sharing economy', the trade in digital goods such as e-books and digital music, and hybrid areas such as digital design of physical products, web platforms, and artificial intelligence (AI) applications (Burch, 2018). Moreover, in regulating the ability to control data, they also affect other sectors that are becoming highly digitised, such as agriculture and food production, mining, and fisheries (Kelsey, 2019).⁶

Among the provisions being discussed is the requirement that countries protect each other's source codes and algorithms through trade secrets – the 'hidden IP right', as well as other IP provisions. The basis for negotiating e-commerce at the WTO has been built over decades of experience in the negotiation of free trade agreements. These negotiations have also contributed to the maximisation of IP rights in several countries around the globe.⁷

Around the world, IP rights are negotiated in the realm of trade agreements as the result of a strategy pushed by industrialised nations. In the context of growing outsourcing of manufacturing and in the transition to service and information-based economies, these developed nations have exported goods and technologies to developing countries, as well as regulatory approaches.⁸ This strategy includes unilateral coercion and negotiating higher levels of IP in bilateral, regional and multilateral agreements, as will be discussed in the subsections that follow.

2.1 Bringing IP to the trade arena: the TRIPS Agreement

The first milestone of this process was the TRIPS Agreement.⁹ TRIPS was signed on 15 April, 1994, as the Annex 1C of the Act that founded the WTO, with significant implications for the development of industries based in high-end technologies and their markets worldwide. All countries that are members of the WTO must be signatories of TRIPS. The industries that the TRIPS primarily impacted were those related to digital technology (through copyright, patents, and protection for layout designs) and biotechnology (through patents and trade secrets) – industries that, at the point of signing of the Treaty, were dominated by the US (and to a lesser extent, by Europe and Japan). The negotiation of TRIPS is an inescapable symbol of the imbalance of power between developed and developing countries, and of the power multinationals exert in the global arena; and there is a large body of scholarship on the relationship between IP and development (Deere, 2008, pp.1-2).

TRIPS was the broadest international IP treaty ever signed.¹⁰ In addition to covering all areas already regulated by others, it was innovative in that it required copyright protection for software and databases, rental rights (which enable copyright holders of computer programs and films to license the rental of their works and claim remuneration for this), and extended terms of protection

for performers and producers of phonograms (from 20 years, in the Rome Convention, to 50 years after the fixation or the performance, for performances not incorporated in a phonogram). In the field of patents, it required countries to grant patents in all fields of technology with no discrimination, and even though a few exceptions were included, the one on pharmaceuticals that developing countries had insisted on was not part of the final text (Art. 27).¹¹ The most significant novelty of TRIPS, however, was not the subject matter, but the creation of enforcement mechanisms hitherto non-existent in the international legal order (Gervais, 2008, p. 3).

When the TRIPS negotiations began, most of the international agreements in place were managed by the World Intellectual Property Organization (WIPO), and IP was generally treated as a *hindrance* to trade – but a necessary evil.¹² The inclusion of IP in the trade agenda was the outcome of efforts led by a few US corporations from the software and pharmaceuticals sectors. Over the course of the 1980s, these industries were able to convince the US Trade Representative that higher, globally enforceable IP standards should be a priority in order to protect the country's interests.¹³ At that time, more than 25% of US exports were based on a high IP component, such as chemicals, books, movies, and computers – figures that had grown from only 10% in post-war times (Drahos & Braithwaite, 2003).¹⁴

In multilateral forums such as WIPO, some developing countries had been arguing against the maximisation efforts that the US was pushing for.¹⁵ They resisted TRIPS fiercely as well; a group of ten developing countries, led by Brazil and India, expressed concerns about its potential effects on technology transfer and the rising cost of pharmaceuticals. In many developing countries, high levels of IP rights protection had not been a part of the legislation. These countries were concerned that, as IP rights would be predominantly owned by companies in developed countries, TRIPS would lead to a transfer of wealth to industrialised economies (Abbott, 1997, p. 41). In fact, that would be the case for the then emerging digital technology industries. However, IP was only one of the contentious points amidst the larger WTO negotiations. The process also addressed other central issues to developing countries' economies, such as subsidies for agricultural products. To enjoy the trade agreement's other benefits, developing countries ultimately conceded the IP issue.¹⁶

The TRIPS negotiation marked the beginning of an aggressive strategy led by developed nations to make developing countries meet their desired IP standards.¹⁷ Section 301 of the US Trade Act, in force since the 1980s, is an example of that. Section 301 allows the US government to adopt coercive trade measures as a unilateral instrument of pressure if they find that a country that benefits from preferential duties in their trade with the US is not complying with an adequate standard of IP protection – according to the US evaluation. This measure was the result of lobbying made by hi-tech industries, including thriving US software and computer corporate players. By threatening to lift commercial benefits (in the form of preferential duties) or effectively lifting them, the US was able to promote law reform and bring developing countries closer to the standards they desired to be met. As a side effect, opposition to the negotiations for treaties such as the TRIPS Agreement would lose meaning and be weakened. As one outstanding example, under threat of having preferential duties lifted by the US, in 1989, Brazil approved a law to protect its software through copyright law – a measure it had been opposing, and that later became obligatory for all signatories of TRIPS.¹⁸

The prolific scholarship about the negotiation and the worldwide effects of TRIPS supports the perception that the treaty marked the beginning of an era of unprecedented IP maximisation, which has not served developing nations in their path to industrialisation or to expanding their gains with immaterial production. Commentators' perspectives have been rich and diverse: arguing for the imbalance between property rights and social justice;¹⁹ challenging narratives that assert that stronger IP rights are important for development;²⁰ asserting that IP rights choke innovation through stifling competition;²¹ arguing that, through IP maximisation, the economic and social demands of the global majority of people go unmet;²² calling out the way developing countries' interests are not reflected due to their underrepresentation in the negotiations.²³ There is also debate surrounding the issue of developing countries being denied development strategies that were central to the development of the very countries now pushing against them – this is especially the case in learning through imitation, and is increasingly prominent in fields that did not have to be protected by copyright before (such as software and databases).²⁴ Moreover, discussions stretched to the narratives and rhetoric around the necessity of stronger IP, and whether they were crafted and manipulated (particularly through the development of the 'property rights' narrative), while it is actually a policy option – and a proper balance in the field of IP could lead to better development results.²⁵ Empirical studies have questioned the enforcement agenda inaugurated by the TRIPS Agreement, by questioning economic figures provided by copyright industries. They argue that infringement in developing countries is also related to high pricing or unequal burdening of citizens – and the economy as a whole in poor countries – by pushing for developed nations' pricing in places where the income is much lower (Karaganis et al ii, 2011).

And yet, for the stakeholders who were pushing for TRIPS, the treaty was understood as only a starting point for IP-related issues, which would be deepened by the popularisation of the internet and digital technologies. By the end of the 1990s, the concern of copyright industries to maintain control over their assets in the digital environment had already gone far beyond asserting copyright over software or databases: they were insisting on the creation of new rights to contain and control online uses of copyrighted works, on longer copyright terms, and on legal schemes to make internet intermediaries liable for third-party non-authorized uploading of such works. Thereby, they burdened developing countries with foreign enforcement agendas that favoured already established industries and limited their policy space around crafting copyright laws to balance protection and the access that is essential to innovation.

The developed nations have not given up obtaining higher IP standards in the multilateral arena, for instance, at WIPO or even the WTO. They have been faced, however, with limited success. For instance, though the so-called Internet Treaties agreed at WIPO in 1996 were the result of pressure from US industries to obtain in the international arena what they had been struggling to approve at the national level – such as protection for temporary copies, legal protection of 'digital rights management' technologies and so forth – most of their proposals were rejected or significantly watered-down in the final text. The whole process also fuelled unprecedented civil society co-operation against IP maximisation (Samuelson, 1996).

After 1994, efforts to push for higher IP standards were also unsuccessful at the WTO – 'the WTO seems frozen in time' (Baldwin, 2016, p.112). The US, EU and the European Free Trade Association (EFTA) then pushed for higher protection standards through bilateral and regional arrangements (most between developed and developing countries) and efforts at the multilateral level.

2.2 Regional Trade Agreements (RTAs)²⁶

Over the last 25 years, a growing number of RTAs have come into force, and the IP chapters in these treaties have become longer and more encompassing.²⁷ RTAs are progressively including 'new themes' beyond free trade itself,²⁸ and the provision of new standards regarding copyright and digital technologies has been an integral part of that movement. Among the 525 RTAs concluded between 1991 and 2016, 107 included provisions on copyright protection (Morin & Thériault, 2019, p.2). The EU (particularly Switzerland) and the US are the countries that have included the largest number of IP provisions in their RTAs. Some developing countries, such as Mexico, follow the lead and have been including copyright provisions in their RTAs.²⁹

Some of these treaties require countries to ratify other existing IP multilateral treaties. In others, the provisions of previous multilateral treaties are simply repeated.³⁰ In doing so, however, these arrangements subject the participant countries to the RTA dispute settlement mechanism. Many of the RTAs are indeed TRIPS-*plus*, which means they include IP protection rules that go beyond the existing provisions of TRIPS. A clear example is the provision for more extended copyright protection than TRIPS (50 years after the death of the author): 30 different RTAs, involving a total of 63 countries, contain a provision of at least 70 years after death; 36 RTAs determine it to be illegal to break technological barriers that limit the uses of copyrighted works ('anti-circumvention measures') (Morin & Thériault, 2019, p.3) – which is required by the 1996 WIPO Copyright Treaty but not by TRIPS. Other TRIPS-*plus* provisions include requirements around the moment and geographical limits for when the rights of the copyright owner 'exhaust' (and can therefore be sold, rented, and so on, without interference from them), intermediary liability rules, protection of moral rights, restrictions on private use exception, protection of videograms (audiovisual works such as videotapes or DVDs)³¹ and against the practice of camcording, the burden of proof, and collective management issues.

It would seem natural that not only cultural industries, but also tech industries would have their stakes in negotiation IP provisions in RTAs. Some of the so-called 'big tech' industries are considered 'fair use industries',³² that is, they would be advocating for limitations and exceptions to copyright.³³ They have tried to influence the negotiations of the large RTAs negotiated to date, but with no success, partly because of not being as experienced as 'big media' in international negotiations.³⁴ Big tech are, however, learning their ways, and their influence in the WTO negotiations is much more felt, the effect of which is yet to be seen.

While TRIPS established a hyper-harmonised international copyright regime, a fragmented body of other treaties is emerging, with a clear tendency towards higher standards more stringent IP protection and enforcement in the face of technological developments. This process is largely the result of developed countries' demands.³⁵ The Trans-Pacific Partnership (TPP) was a prominent case, due to the amount of controversy it generated, and the economic impact it promised.³⁶ The TPP also put concerns about transparency and participation upfront when issues beyond trade are negotiated in trade forums.³⁷ In its final version, the TPP expanded the copyright term to 70 years; all language directed to rights holders was binding, while language referring to the public domain, access to information, and limitations and exceptions was non-binding; it banned the circumvention of digital rights management independently of copyright infringement; it included

provisions for criminal enforcement of copyright; and criminalised obtaining unauthorised access to trade secrets in a computer system. The IP chapter also included rules obliging domain-name registrants to keep online public access to a database of contact information regarding registrants, and intermediary liability rules creating a system akin to the US notice-and-takedown from the 1998 Digital Millennium Copyright Act (DMCA).³⁸

After the US withdrew from the TPP treaty in January 2017, the negotiations were revamped into the Comprehensive and Progressive Agreement for TPP (CPTPP) for the remaining parties. At that point, some of the controversial IP provisions that had been pushed by the US were dropped, including: the copyright term of 70 years after the death of the author or first publication, the extensive protection for technological protection measures, the protection for satellite and cable signals, and the provisions around ISPLiability.³⁹ Furthermore, the CPTPP established an 'appropriate balance' clause [Article 18.66] concerning copyright and related rights, as well as limitations and exceptions. Some of them were particularly directed to uses of works under copyright in the digital environment, though with non-mandatory language. Even if using looser 'shall endeavour' wording, such a provision had never been included in an RTA before. The 'appropriate balance' clause might benefit data-intensive tech industries, since those exceptions are important for training data (that could be under copyright) for AI, since this data needs to be copied and used – the so-called text and data mining (Meltzer, 2019, p. 22–23).

However, it was the TPP, not the CPTPP, that set the standards for the following RTAs – particularly the United States–Mexico–Canada Agreement (USMCA), 'the most extensive of all trade agreements when it comes to copyright' . . . 'Every FTA is TRIPS-*plus*', argued Kilic, 'but they are also FTA-*plus*: they build on the previous one.'⁴⁰ The primary importance of the TPP lies, therefore, in how its standards shaped several subsequent RTAs (Thorstensen & Nogueira, 2017). Similar text started to be presented in other agreements: for instance, the Japan EU, Japan Mongolia, and EU–Mercosur agreements (Kelsey, 2019). IP provisions also started to appear in other chapters, such as the e-commerce chapters of different RTAs.

But why have developing countries agreed to expand their commitments to IP in RTAs when this has not been in their best interest? This is for the same reason they agreed to sign the TRIPS Agreement: copyright and other IP rights (with the exception of health-related patents) are usually not among the top priorities of trade negotiators from developing countries.

2.3 The e-commerce agenda at the WTO

Discussions around IP and digital technologies have recently made a comeback into the multilateral trade agenda. On 25 January, 2019, 49 delegations from developing and developed countries,⁴¹ plus the EU, signed a *Joint Statement on Electronic Commerce* in support of negotiating issues in digital trade ('trade-related aspects of electronic commerce').⁴² In previous years, several developing countries and civil society organisations argued against the e-commerce negotiations: in December 2017, African governments backed by civil society organisations blocked them at the WTO 11th Ministerial meeting in Buenos Aires;⁴³ and, in April 2019, after the Joint Statement was agreed, more than 315 civil society organisations from over 90 countries signed a letter urging WTO members to abandon their push for digital trade negotiations.⁴⁴

The terms of the dispute are not clear cut because the e-commerce language can be misleading: in these negotiations, it is not just the trade in goods sold online that is on the table, but also (and foremost) liberalisation of global data flows. Pushing for an e-commerce agreement is also a corporate response to governments (mostly developing country governments) increasingly restricting those data flows – for instance, by implementing digital localisation requirements for cybersecurity, privacy concerns or protectionist goals.⁴⁵ This account is deeply related to the understanding of data flows as sources of wealth⁴⁶ and to the understanding that they drive innovation and competitiveness.⁴⁷

As a response, developed nations started framing the e-commerce agenda at the WTO around the 'e-commerce for development' argument, in which developing countries would be the true beneficiaries of the agenda because it would impact on micro, small and medium enterprises (MSMEs). Digital platforms benefit MSMEs by allowing them to be overseas without the need of a physical presence. They also diminish the need for upfront investment through the use of reliable data-based services based abroad, such as online advertising, communication services, cloud computing and information on foreign markets (Meltzer, 2019; for a critical account, James, 2018). Defences of free data flows also include that data localisation might increase data vulnerability, and that big data and technologies such as the Internet of Things require global collection of local data sets, and processing in multiple jurisdictions. In that context, even a policy like the European General Data Protection Regulation (GDPR) can be considered a barrier to the free flow of data, in that it restricts cross-border transfers to countries that do not present an equivalent level of data protection.

In the free flow of data framework, developed countries are arguing against data localisation, and also forced transfers of technologies – the requirement that corporations have a local presence or a local copy of financial records, requirements of disclosure of source codes, requirements of deploying local technologies, and custom tariffs on digital products, which the WTO has already been applying as an agreed moratorium (Burch, 2018; James, 2019).⁴⁸ These dispositions had already been included or at least negotiated in the e-commerce chapters of different RTAs.⁴⁹ Some developing countries, such as South Africa and India, have been at the frontline of the opposition to these measures. They understand that, as net importers of digital products, and without a proper definition of what digital products or electronic transmissions are, developing countries might be adversely affected by the measures – for example, by losing important sources of revenue, or being unable to properly tax or enforce judicial orders to companies without a local presence or local transparency obligations. Regardless of the different possible arguments around these subjects, it seems reasonable to side with those who assert that it is still too early to understand the full consequences of these liberalisation rules. Binding developing countries to them before proper assessments are made can deepen inequalities, not only in the digital sector, but in different sectors affected by digitisation and platformisation – and this will be virtually irreversible.

2.4 Algorithms and source code

While these discussions unfold, some RTAs' e-commerce chapters, and some proposals for the WTO e-commerce treaty, include banning governments from developing policies that require the disclosure of source code⁵⁰ – always with exceptions. Some of the proposals go as far as suggesting that countries protect algorithms through trade secrets (defined in Article 39 of the TRIPS Agreement). It is common for corporations to protect their algorithms through trade secrets. A frequently cited example is Google's algorithm PageRank – the process is patented,⁵¹ trade secrets protect the manipulation tools (or how the algorithm runs quickly on data sets), as well as the parameters for adjusting the relative weight of pages (Lindberg, 2008, p.130).⁵² However, Article 39 of TRIPS only requires WTO members to protect trade secrets insofar as the confidential information is used in a dishonest commercial manner.

The sort of protection that has been proposed in different RTAs, and now for an E-Commerce Treaty at the WTO, prohibits flexibilities currently allowed by TRIPS. It can preclude: measures for combatting algorithmic bias;⁵³ policies around transparency and accountability;⁵⁴ governments requiring the disclosure of the source code in the process of a patent application;⁵⁵ other anticompetitive measures; or the requirement to transfer the source code in technology transfer, in place particularly in developing countries (Smith, 2017).⁵⁶

The effects might be more intensely felt in developing countries, because they are primarily consumers rather than producers of digital technology. For instance, obtaining algorithmic transparency and accountability is already a challenge when the corporations behind them do not have a local presence, or when the size of the country's market is not relevant enough.

Protecting algorithms through trade secrets is one of the cases in which higher global IP protection is being seized in a fragmented fashion through RTAs.⁵⁷ In the context of the WTO discussions, the first manifestation of such a provision appeared in July 2016, when the US delegation circulated a document 'outlining a number of trade-related policies that can contribute meaningfully to the flourishing of trade through electronic and digital means'.⁵⁸ Among the examples listed were measures to ensure that companies do not have to share their source code (but no protection as trade secrets was put forth). During 2019, after the Joint Statement on Electronic Commerce in support of negotiating issues in digital trade was published, non-papers and proposals for exploratory work started being circulated by WTO members delegations. As of August 2019, 38 communications have been presented, including different text regarding the protection of source code.⁵⁹

The Japan proposal, for instance, includes an entire item on IP, with 'a) Prohibition of Disclosure of Important Information such as Trade Secrets including Source Codes and Proprietary Algorithms' and 'c) Prohibition of Improper Access to Trade Secrets by Governments', that is, fully endorsing the protection of source code by trade secrets.⁶⁰ Japan, Singapore, and Australia are said to be leading the talks.⁶¹ The US generally repeated their 2016 proposals,⁶² and the EU proposal includes a provision on prohibiting disclosure of source code but with more detailed and extensive text on the exceptions.⁶³

The e-commerce negotiations at the WTO have barely started, but it is clear that the issues go far beyond what one would connect to a narrow definition of electronic commerce, and that there is a significant trend towards IP provisions in the digital environment that restrict developing countries' access to key technologies, (including TRIPS-*plus*).

3. Extraterritoriality: raising global IP standards through local regulation

When it comes to governing digital technologies, the agenda-setting power of countries where those technologies are developed goes beyond their national borders. From a technical-only point of view, the internet knows no borders; however, data is being harvested and services are being offered locally. While that applies to all technology-intensive industries and therefore to all fields of IP, extraterritoriality of national regulation is particularly felt in the field of copyright, and potentially, in the future, will be felt in trade secrets law – due to their centrality to the activities developed in connection to the digital environment.

The territoriality rationale behind copyright systems has historical roots. Before such systems were developed, in the absence of international obligations, authors in a specific country did not enjoy protection in other countries; that was the reason for the negotiation of the first international IP treaties.⁶⁴ The territorial principle has, however, remained in place, under conditions: each country can develop their own system, as long as they apply minimum standards to foreign rightsholders and that they protect foreign rightsholders with at least the same level of protection that they offer their own nationals. There is, of course, no 'international' copyright law: treaties must be ratified and implemented as national laws. While there has been a substantial discussion on jurisdiction and the internet in the case of copyright enforcement,⁶⁵ it is established that a country's national rule is not directly enforceable in another jurisdiction.

There are cases in which a law or policy is designed to apply extraterritorially.⁶⁶ For example, the European GDPR – according to Article 3 (2)⁶⁷ – applies to actors outside the EU that offer goods or services to data subjects in the EU, even if they do not have a formal establishment in the EU, or if they engage in monitoring data subjects (a provision aimed at internet tracking).⁶⁸ The extraterritoriality of the GDPR, if the concept is understood broadly, goes even further: all around the world, internet users receive 'tracking consent' notices in their navigation – as websites comply to the GDPR (Articles 13 and 14), they do not necessarily do this only for users physically in the EU, but for all users globally, perhaps also to make sure that they do not run the risk of processing data from European citizens living abroad. Once established, perhaps it makes economic sense to apply the measure worldwide, also thereby avoiding infringing data protection regulations that might presently, or in the future, include such requirements.

The internet has added substantial complexity to the territorial dimensions of copyright law. In 1998, the US enacted the DMCA, which (among other provisions) created a safe harbour for online service providers (OSPs), as long as they comply with certain requirements and block access to alleged infringing material upon receiving notification of an infringement claim from a copyright holder or their agent. Users in Brazil are able to submit a DMCA notice on YouTube's platform, in Portuguese, to request the removal of copyright-infringing content.⁶⁹ It has been argued that DMCA notices are more effective in different jurisdictions for removing online content such as non-consensual intimate images, rather than other forms of reporting.⁷⁰ It can be reasonably assumed that jurisdictions where lawsuits will potentially provoke more damage, or where the user base is economically and politically more relevant (such as the US), will exert more influence in the terms of service and architecture of platforms. That makes this 'soft extraterritoriality' a geopolitical

issue, which adds to how IP regulation in developed countries affects developing countries. That is precisely the conclusion that Urban, Karaganis & Schofield reached, when interviewing OSPs for the report *Notice and Takedown in Everyday Practice*:

As a matter of day-to-day practice, the rise of global US-based OSPs has limited the role of this legal pluralism. Beyond its influence as a model, the DMCA also operates as *de facto* international law because the vast majority of notices are sent to US-based companies, which operate under it. Of the top ten global Internet destinations (in terms of unique monthly users), nine are US based. Of the traffic to those sites, around 80% comes from outside the US. The dominance of US companies in the ecosystem means that the different values that shape legislative or judicial outcomes in Canada, or Germany, or Chile—such as different conclusions regarding knowledge or intent or the liability attached to linking, for example—have so far had limited purchase on the behaviour of the core Internet intermediaries. Further, despite section 512's complex jurisprudence, several OSPs we interviewed as part of Study1—including OSPs with European operations—described the DMCA as a force for stabilizing liability and safe harbour requirements relative to other less-developed doctrines, such as the E-Commerce Directive, where national courts have produced inconsistent interpretations of many of the key provisions, including those on matters as important as the scope of safe harbour protection (2017, pp.22-23).

In May 2019, the EU enacted a Directive on Copyright in the Digital Single Market which significantly changed intermediary liability rules in Europe, and created new rights for the digital environment. It was a departure from the previous standard in Europe, the E-Commerce Directive, which exempted any OSPs who host or transmit illegal UGC from liability if they are considered passive internet intermediaries, and as long as they expeditiously take down infringing content upon obtaining knowledge of it. It also goes beyond the US DMCA in terms of the level of liability of OSPs relating to UGC.⁷¹ The negotiation of the Directive was filled with controversies, and, while it is yet to be implemented in the Member Countries, an important question is whether or how it can exert this soft extraterritoriality around the globe, and what it would mean for developing countries in particular.

3.1 The Directive on Copyright in the Digital Single Market: a brief history

In September 2016, the European Commission presented a legislative package that included a proposal for a Directive on Copyright in the Digital Single Market.⁷² The Digital Single Market strategy had been presented by the European Commission in May 2015 as an agenda for ensuring Europe's position as a world leader in the digital economy. Side by side with objectives such as preventing unjustified geo-blocking, affordable, high-quality cross-border parcel delivery and building a data economy was the promise of a more modern, more European copyright framework. It already included the idea that 'the rules applicable to activities of online intermediaries in relation to copyright-protected works require clarification, given in particular the growing involvement of these intermediaries in content distribution' (EC, 2015, p.7).

The 2016 proposal was highly controversial and was intensely discussed for more than two years before a final text was finally published in May 2019. Two provisions received the most attention: the creation, in Article 15 (formerly 11), of a right allowing press publishers to claim remuneration for the use of their publications on online platforms, and the determination, in Article 17 (formerly 13), that online platforms monitor UGC. The argument behind those two provisions was that there was a 'value gap' which needed to be addressed – that of the revenues made by online platforms and not distributed to rights holders.

Stakeholders were critical of the various versions of the text until its publication in May 2019.⁷³ Demonstrations against the (then) Articles 11 and 13 were seen all over Europe,⁷⁴ the Secretariat of the European Parliament was accused of impartiality for having celebrated the achievement of compromise before the proposal was voted in plenary⁷⁵ and the European Commission took back an aggressive blog post that dismissed the opponents of Article 13, calling them 'mobs' and 'bots'.⁷⁶

After the approval of the compromise texts by the European Parliament in plenary in March 2019 and by the European Council in April 2019, the directive was published on 15 May, 2019. All Member States must transpose the rules into national laws by 7 June, 2021.

3.2 A new right for press publishers

The publishing industry is shifting from print to digital. However, the increase in publishers' digital revenues does not compensate for the decline in print revenues. According to the Commission, this is due to various factors, including the inability of publishers to monetise their digital content (while using social media, news aggregators and search engines have become the main ways for consumers to read news online) and the difficulty they face in concluding licenses with online service providers for use of their content. (Madiaga, 2019, p.3).

The report commissioned by the European Parliamentary Research Service summarises the concerns that led to the approval of Article 15 of the Directive (formerly Article 11). The idea set forth by the European Commission from the beginning was that, similar to film producers, phonogram producers, and broadcasting organisations, that are granted 'neighbouring rights' by EU copyright law, press publishers should count on rights that reward their 'economic and creative contribution in assembling, editing and investing in content' (Madiaga, 2019, p. 5), and gain in bargaining power in negotiations with internet platforms. While this controversy has gained significant space in Europe, the sustainability of media outlets is a worldwide issue, affecting both developed and developing countries. For instance, in 2018 the Brazilian newspaper *Folha de S. Paulo* decided to refrain from posting content on Facebook.⁷⁷ In Nigeria and elsewhere, the discussion has also revolved around the virality of fake and violence-inducing content on social media, and its relation to a traditional media sector that struggles to survive.⁷⁸

The solution found by the EU Copyright Directive was to introduce a new right to press publishers, different to underlying copyright, exclusively for the online use of their press publications by service providers such as news aggregators, or other media monitoring services.⁷⁹ The right is granted for two years.

Much of the criticism around the press publishers right related to the obligations for platforms to pay for the use of hyperlinks themselves, or to the headlines, which is why the measure was baptised the 'link tax'. After much controversy, Article 15 expressly states that the new right does not encompass hyperlinks to news articles and to snippets, that is, very short extracts, or individual words. A general provision was included to establish that states must ensure that journalists themselves will benefit from the new right.

Part of that criticism, however, was directed towards the very granting of the new right. For instance, Senftleben et al (2017 p. 6) argue that, while copyright and neighbouring rights would be effective in the paper era, for the new forms of reading online that involve obtaining value through interaction, creating community, other instruments such as trade secrets, trademarks, and database protection could be more effective. The new right would adversely affect innovation in the very business of press publishing. Colangelo & Torti argue that the impact of such intermediaries in news consumption would have to be the 'result of the net effect of two opposing forces: a substitution and a market expansion effect', or, in other words, whether the referral traffic from those intermediaries to the publisher's website compensates for visits they lost by substitution (users consuming the snippets rather than clicking through to actually visit news sites). They claim that, where a similar scheme has been tried, such as in the German and Spanish cases,⁸⁰ it became clear that, before the legislative change, the impact of news aggregators on news publishers had actually been of market-expansion, and that the new right negatively impacted their economic interests, especially the smaller publishers (2019, p. 11).

As the traditional media tries to find policy options to address their loss in revenues and significance in different parts of the world due to the changes brought by the digital environment, the questions that need to be asked are: (i) whether the measure will prove positive or negative to news publishers, and to the availability of trustworthy information for citizens; and (ii) if positive, whether local newspapers in developing countries would have the same bargaining power as European outlets, and therefore harness the potential benefits of the measure or not.

3.3 Liability, filters and the 'value gap'

For a few years before the EU Copyright Directive was approved, rights-holders from the music and film industries had been pressing for rules that overturned what they have been calling the 'value gap'.⁸¹ This concept refers to the revenues made by online platforms on top of using copyrighted works, which, in this assessment, are not being distributed fairly along the value chain (Angelopoulos, 2016). As the argument goes, the authors and rights-holders are not being appropriately remunerated, especially in platforms that rely on UGC. The value gap does not refer to platforms such as Spotify or Netflix, whose business model is based on prior licensing;

in fact, the value gap argument compares revenues made by these different services, claiming that Spotify distributes relatively more than YouTube. Other concerns are related to the ability of creators to monitor the use and economic value of their works (Madiega, 2019, p. 3).

The value gap proposition has been brought forward by international entertainment industries not as a European issue, but as a global problem, and national media in different countries have been picking up on the argument as well. The one policy aspect being held to be responsible for the value gap is that of the immunity granted to online platforms in different jurisdictions, which would lead platforms to rely on notice-and-take-down-like systems instead of obtaining licensing agreements.⁸²

In the EU during the discussions around the Copyright Directive, those positions are undoubtedly fed by a growing anti-platform-giants sentiment, which refers to the understanding that platforms have become overly dominant and a new form of regulators (Reich, 2015; Klonick, 2017). That concern relates not only to copyright, but also to fake news, hate speech and terrorist propaganda (Elkin-Koren; Nahmias; Perel, 2019). Such an understanding and its related responses have been particularly influential in Europe – in Germany, for instance, the NetzDG from 2017 required platforms to remove clearly illicit content within 24 hours of a report.⁸³ This is also fed by a concern around loss of business and communications control due to the growth of US companies and the size of their markets in the continent. The value gap idea has, however, faced public and academic critique: for example, Elkin-Koren, Nahmias & Perel call it 'unsubstantiated and populist rhetoric', using empirical data to argue that safe harbours (legal protection against liability under given conditions) are not to blame for inadequate compensation of stakeholders but social and economic developments on the production and consumption of creative content, and that abolishing safe harbours could backfire (2019, p.5)

The European Commission first proposed that large UGC providers should take measures to allow rights-holders to detect when content is uploaded by their users and take action, using, for example, 'effective content recognition technologies' (that is, automated filtering measures).⁸⁴ This was legally very controversial, since one issue that crossed various jurisdictions with no proper ruling from the Court of Justice of the European Union was demanding the take-down of content and also targeted monitoring to prevent future infringement – the so-called 'notice-and-stay-down', and whether it was prohibited by the Article 15 of the E-Commerce Directive, which contains a general prohibition to monitoring obligations (Angelopoulos, 2013, p.21).

However, it has been argued that such monitoring was already being performed by technologies such as Content ID from YouTube. Hugenholtz claimed back in 2010 that 'copyright enforcement is gradually being shifted from the courts and put into the hands of intermediaries applying self-imposed 'codes of conduct' (2010, p. 303).⁸⁵ In Europe, those measures were being welcomed by national governments and the European Commission, since the safe harbour and prohibition of obligations to monitor limited their capacity to interfere.

While self-regulation can be desirable for tackling problems more precisely, and for being more flexibly revised and less costly to governments and other actors (since enforcement is also facilitated), they may lack transparency, legal certainty, and accountability. Codes of conduct will

often reflect the agreement of the stakeholders involved, excluding the interests of consumers, and rights such as privacy and freedom of expression (Hugenholtz, 2010, pp.307-308).⁸⁶ The geopolitical component of this discussion is that self-regulation will often reflect an agreement that refers to legal systems where internet corporations are headquartered, or where markets are large enough to commercially justify their laws, values and interests being considered. Also, smaller platforms from smaller markets may find that they are not in the position to self-regulate without running excessive risks.

The EC proposal on intermediaries was substantially amended at the EU Parliament, and became very complex before it was finally approved in April 2019. One of the most vocal critiques had been that, while targeting large platforms, the Directive was reaching smaller ones instead, since it is the internet giants who own the technology to comply with the rules. The agreed text tried to respond by differentiating the obligations of platforms of different sizes,⁸⁷ but critics considered it was not enough to really making sure that non-dominant platforms can be exempted.⁸⁸

One of the most controversial issues during the negotiations and beyond was filtering technology, which, civil society argued, would be the only possible means of making sure that a platform complies with the Directive (previously authorising UGC), or of differentiating licensed from unlicensed uses.⁸⁹

Critics say that the only possible way for UGC platforms to comply with the Directive is to develop upload filters and notice-and-stay down policies. If this is true, all platforms will either have to comply or, if only a few do so, concentration in the UGC platforms will further increase. Also, platforms may find that geolocating their services to comply with the Directive only in Europe is not economically viable, or they could decide that, since such policies are in place, it is easier or safer to just adopt them worldwide.

It has also been argued that, since countries in the EU will implement the measures differently, technological provisions developed by platforms would probably be built to meet all the different requirements, which would 'raise the bar' on filtering (Jensen, 2019, p.8).⁹⁰ If it is true that these standards will be 'exported', it is the higher standard that will be applied in developing countries, where online UGC will be strictly controlled. Civil society from within Europe, but also from other parts of the world, has also insisted that such filtering technologies are very prone to error, especially when it comes to recognising uses of copyrighted material that are allowed because of limitations and exceptions, or are in the public domain.⁹¹ Other critiques refer to the fact that, aiming to control the use of music and film, the Directive makes no differentiation and applies to text and image, which belong to different ecosystems, and that, if applied to cloud services, the measures could seriously hinder collaboration (Jensen, 2019).

Pre-authorised (therefore licensed) content can be of local or international character, but it is multinational entertainment industries that have been most able to organise and get better deals from platforms. These are concerns that need to be taken into consideration when the potential extraterritorial effects of this Directive are to be considered.

In fact, many issues are yet to be resolved. The trend of exporting rules from influential jurisdictions through terms of services and digital architecture should be closely monitored. As filtering algorithms set the standard for what is to remain online and what is to be blocked, Lawrence Lessig's motto from 1999 is indisputable still today: 'Code is law'.

3.4 Legislative influence

For different reasons, European law-making is often used as a standard in civil law developing countries.⁹² A more simple effect that the Directive could have in these countries is serving as a model for their legislative efforts. This hypothesis is all the more real if one considers that some of the stakeholders who lobbied for the Directive have an international presence, and act on the national and international level. For example, the Motion Picture Association of America has offices in Latin America (Brazil and Mexico) and China; the International Federation of the Phonographic Industry has national groups in a large number of countries. Regarding the publishers' rights established in Article 15, it might be that their coordination and lobbying has more of a local character.

It did not take long before this influence was felt: Alberto Fernandez, pre-candidate to Argentina's presidency in 2019, announced in July 2019 that, if elected, while he would not regulate the media (in reference to Cristina Kirchner, president of Argentina from 2007 to 2015, who enacted media regulation policies), he would foster regulation for Google and Facebook in similar terms to the European Directive. His campaign confirms to have been studying and discussing a law to protect copyright holders online (Cantando, 2019). In Brazil, a public consultation was launched at the end of June 2019, as 'the federal government's first step in the construction of a draft bill to reform copyright law'.⁹³ The text claimed:

Recently, for example, the European Union has adopted a Directive on Digital Single Market Copyright. 'The world is evolving, and it realizes that there is a need for other approaches to adapt to the new reality', evaluates the Secretary of Copyright and Intellectual Property of the Ministry of Citizenship, Mauricio Braga.

Conclusion

Global policymaking on IP rights has been following a clear trend towards maximisation over the last decades. That trend has found its place, especially in agreements in the trade arena, where developing countries often exchange gains in other commercial areas for higher IP standards. It is also the product of bilateral pressure, lack of information or evidence, international lobbies at the local level, and the normalisation of a discourse that stronger IP equals more innovation and development. Since 1994, developing countries have found themselves tied to tighter policy spaces around IP, and to international dispute resolution systems which changed the perspectives around enforcement of the international rules.

The digital environment has the potential to provide developing economies with new possibilities around knowledge, creativity around UGC, widening access to information and generating wealth. However, the world's divisions are repeated, and in some cases exacerbated, by the digital economy and there are considerable reasons to be concerned that protectionist views around technology and IP are feeding into this divide. From a general perspective, they limit countries' abilities to learn through imitation and limit access to knowledge that is central to innovating and developing. From the particular perspective of digital technologies and the recent policy developments around it, special attention must be given to the fact that, in international fora, developing countries are proposing increasing IP protection around algorithms and source codes. Those new rights could negatively affect technology transfer, anti-competitive measures, and the whole discussion around algorithmic accountability for issues such as discrimination or the right to revision of algorithmic decisions.

But as far as copyright and digital technologies are concerned, one must also look beyond the traditional policymaking fora and understand that the global nature of digital platforms, added to the underlying economic imbalances between developing and developed countries (the major producers as well as the most important markets for digital technologies), lead to new forms of political power and agenda-setting that might even go beyond the will of policymakers. The EU Copyright Directive, approved in 2019, is an example of a situation where policymaking in Europe may (directly or indirectly) affect developing countries, through the internationalisation of the implementation of the rules by the digital platforms. Local legislation, such as the US Digital Millennium Copyright Act, is finding its reach far beyond the borders of the country where it was negotiated. And, while the political considerations around this fact are crystal clear, economic considerations are also to be made: high standards of IP protection are enforced, not necessarily the ones that a country might find most appropriate for addressing the different needs of its economy, in systems where the interests of multinational rights-holders are more easily met. One more aspect of the new copyright rules at the EU level is that they are more easily complied with by big firms rather than small ones, which might entrench their dominance, which is felt worldwide.

Given the difficulties in political heft, technical support and international co-operation between developing countries to address these concerns, a few recommendations are provided.

Recommendations

1. Policymaking in IP should not assume that importing the IP tools from developed countries necessarily leads to development in the digital sector. Developing countries should **seek policy space** to develop IP policies suitable to their needs and objectives.
2. Developing countries should approach IP as a **central item** in their international agenda. A balanced IP system is central to a long-term development strategy in the digital arena, and agreeing to maximalist international obligations might rule developing countries out of significantly owning IP rights in the rising digital markets, or even being relevant stakeholders in digital services. Capacity building for foreign policy and trade negotiators is key, as well as gaining better bargaining positions through co-ordination with developing countries and co-operation with national and international non-governmental organisations (NGOs) that can help to bring the issue to the public sphere.
3. Developing countries should co-ordinate efforts to overturn the tendency to maximise international obligations around IP, through **advancing the 'limitations and exceptions' Agenda** at WIPO. They should ensure the inclusion of those items in the IP chapters of trade agreements and resist the maximisation of IP around digital technologies, such as extra IP protection for algorithms, at least until public discussion unfolds and reasonable safeguards, exceptions and other balance mechanisms are firmly established. They should deploy different national and international strategies to foster open and free software.
4. The current negotiations around a Limitations & Exceptions Treaty for education and research at WIPO involve the creation of a **text and data mining (TDM) exception**, which exists in the US, Korea (through fair use rules) and Japan. It appears in a limited version in the 2019 EU Copyright Directive. Developing countries should give special attention to this exception, nationally and internationally, because of its importance for local technology-based research, particularly artificial intelligence (AI). The TDM exception will be particularly relevant in contexts where the databases to be harvested belong to rightsholders in developed countries.
5. IP policy must be tailored to economic and social contexts, **based on evidence**, and informed by priorities related to public policy and development. When considering sources, governments should go beyond the figures produced by industry research, which are frequently biased. In that respect, the impact of IP rights to the development and use of digital technologies must be particularly considered, recognising that IP protection can produce benefits and costs.
6. Policymakers in developing countries should **consult with academia and civil society** actors when developing their IP policies. The position of users' rights or the public interest in a balanced system of IP rights is frequently taken for granted, in a one-sided understanding that the existing IP holders are the interested stakeholders alone.

7. Governments should **make full use of the existing limitations and exceptions** in the international system. Because human capacities and research and development are at the centre of economic development in an era of data-driven innovation, they should be at the centre of the development of balanced IP systems. Limitations and exceptions at the national level, especially around education and research, are central. Countries should not exchange uncompensated limitations and exceptions for compensated ones.

Endnotes

- ¹ To account for the profound shifts that took place in the occupational and labour profiles in the 1960s and 1970s, observers and analysts came up with diverse encompassing concepts. Fritz Machlup was among first economists to speak of a 'knowledge economy' and an information society (1962), which was further developed by Mark Porat (1976). Around the same time, Alain Touraine (1969) and Daniel Bell (1973) wrote about the emergence of a 'post-industrial society', one in which knowledge is central. From the 1990s on, when the internet popularised, and digital technologies developed at an accelerated pace, new all-encompassing descriptions were produced – from Castells' network society (1996), to Benkler's networked information economy (2006). Transformations in the marketplace and culture are thought to be so profound that some theorists will go as far as claiming that we live now under digital capitalism (Schiller, 1999), surveillance capitalism (Zuboff, 2018), or cognitive capitalism (Hardt and Negri, 2000), for which immaterial labour is vital.
- ² Forbes, 2019.
- ³ See Purkayastha, 2019.
- ⁴ The rise of the Chinese internet giants and what has been called the 'tech Cold War', referring to trade conflicts between China and the US, may shift the policy debates and the geopolitics around IP and technology. This geopolitical shift is yet to be more explicitly felt in the main forums for IP negotiations. The Trans-Pacific Partnership was an agreement that set important new standards for IP and was an attempt to build a trade block between the US and countries in the pacific area, to counter Chinese economic and tech power.
- ⁵ According to ITU data, 45.3% of individuals from developing countries were using the internet in 2018 (ITU, 2018). User bases of particular services are not easily measured, since that data is rarely released by companies. According to Statista, however, in July 2019, Facebook had 270 million users in India, 130 million in Indonesia, 120 million in Brazil and 82 million in Mexico (Statista, 2019). The US comes second place with 190 million users, but the first European country to appear in the list is the UK, with 37 million users. Even though it is a paid service, Netflix is said to have 8.5 million users in Brazil, 2.1 million in Mexico, and 1.6 million in India (Moody, 2019).
- ⁶ The United States International Trade Commission (USITC) defines digital trade as 'US domestic commerce and international trade in which the internet and internet-based technologies play a significant role in ordering, producing, or delivering products and services' (USITC, 2014). Some advocate for a still broader definition including data flows themselves (Meltzer, 2019, p.11).
- ⁷ Because of our concern with digital technology, we will mostly focus on copyrights and trade secrets – but patents are a separate issue as well.
- ⁸ 'Often regional and bilateral trade agreements encompass measures which the US and the EU have tried to get adopted in the WTO or other multilateral forums, but have failed' (Rodrik, 2011, p.123).
- ⁹ 'The TRIPS Agreement, together with the 1967 Stockholm Conference that adopted the revised Berne and Paris Conventions and created the World Intellectual Property Organization (WIPO), is undoubtedly the most significant milestone in the development of intellectual property in the twentieth century'. (Gervais, 2008, p. 3).
- ¹⁰ When the negotiation of the TRIPS began, most of the international agreements in place were administered by the WIPO. The Berne Convention on the Protection of Literary and Artistic Works, signed in 1886, which underwent successive revisions (and has been administered by WIPO since 1967); the 1961 Rome Convention for the Protection of Artists, Performers, Producers of Phonograms and Broadcasting Organizations; and the 1971 Geneva Convention for the Protection of Producers of Phonograms. The Universal Copyright Convention (UCC) of 1952 is an alternative agreement to the Berne Convention, signed by countries that did not want to commit to the full extent of this Convention. In relation to patents and trademarks, the main agreement was the Paris Convention from 1883, also successively revised. Both the Berne Convention and the Paris Convention were used as points of departure for the TRIPS Agreement.

- ¹¹ Several developing countries did not protect pharmaceuticals with patents before TRIPS, and expressed concerns with public health and the pricing of drugs if they were subjected to such obligation.
- ¹² The GATT did not prohibit contracting parties from adopting IP protection measures to 'prevent misleading practices' (Article XX (d)) as an exception to the principle of promoting free trade, provided that they were non-discriminatory to countries under the same conditions (Gervais, 2008, p. 7), but it did not in any way oblige countries to protect IP rights, except for the 'marks of origin' (geographical indications) (IX (6)).
- ¹³ Considerable attention has been given to the fact that US trade associations such as the Business Software Alliance were successful in coming up with new sensibilities towards IP policy, through running campaigns linking piracy with moral discourse: 'stealing is simply wrong' – even when, in many of the countries the campaigns were directed at, these activities were not illegal (Sell and Prakash, 2004, p. 158). At the same time, they were concerned with the lack of enforcement mechanisms in the international arena – for example, in the 37 years where using the International Court of Justice was a possibility, the Berne Convention had not led to even one dispute (Drahos & Braithwaite, 2003, p. 111).
- ¹⁴ In the field of copyright, each generation of technological advances has affected authors' ability to protect their work; each of them was, as a rule of thumb that dates back to the end of the 19th century, accompanied by maximising the protection (Lessig, 1999, p.172; Litman, 2001).
- ¹⁵ In Stockholm (1967) and Paris (1971), rising co-ordination between developing countries had pressured WIPO to revise the Berne Convention for better access to textbooks. In 1980, in the Paris Diplomatic Conference to review the Paris Convention, the US failed to obtain higher standards of patent protection. Also, just two years after TRIPS was approved, the US suffered significant setbacks in negotiating, the so-called WIPO Internet Treaties (WCT and WPPT), which were finalised, but did not include the full extension of higher copyright standards that the US was pushing for (Samuelson, 1996). In all these processes, developing countries cannot be considered one monolithic block.
- ¹⁶ Multiple accounts hold that the text was actually drafted by a few developed countries, highly equipped with their corporate counsellors (Dreier, 1996). For a deeper account on the reasons why developing countries failed in rejecting TRIPS, see Abbott, 1997, and Pacón, 1996. Also, there was dissent among developing countries – Brazil and India held prominent positions in resisting the TRIPS Agreement, but Mexico, for example, was a passionate supporter of more IP as a strategy to access international markets, and others in Southeast Asia did not position themselves firmly, partly to avoid conflict with the US (Pacón, 1996, p. 332).
- ¹⁷ For a critical account of these strategies, see Deere, 2008; Drahos & Braithwaite, 2003; and Arslanian, 1994.
- ¹⁸ Brazil was investigated both for its protectionist National Computer Policy and for not granting patents for drugs and chemicals (by then not required by international conventions). In the first case, the investigation was closed in 1989, after years of tension that resulted in Brazil approving a law protecting software with copyright for 25 years (Arslanian, 1994, p. 44; Varella and Rocha de Silva, 2006; Vigevani, 1995, p. 245). In the second case, Brazil was effectively sanctioned in 1988, by US\$39 million in tariff penalties, which were finally lifted in July 1990, when the Brazilian president announced that the country agreed to go for patent protection in pharmaceuticals (Reis, 2015, p. 123).
- ¹⁹ These accounts have been deeply influenced by structural critiques of overbroad property rights of Lawrence Lessig, Siva Vaidhyanathan, and Jessica Litman. See Goodrich, P., Kayal, S. and Tushnet, R. (2013). Also, important discussions have been made around the racialised, genderised and Western-centred understandings around knowledge production, circulation, and the works and subjects protected by copyright law (Vats & Keller, 2018; Craig, 2014; Correa, 2010; Aoki, 1998; Okediji, 2019; Shiva, 2000; Deere, 2008; Quijano, 2007).

- ²⁰ Linking IP to development and to advances in technology is the dominant narrative (eg Alikhan, 1997), but it has been challenged by arguments of causality bias ('the level of development is likely to be a determinant for the strength of IPR [intellectual property rights] regime rather than the other way round', Kumar, 2003, pp.13-14), and by claims that the areas most associated with copyright law's objectives (promoting democratic governance, enabling a robust marketplace of ideas, improving literacy and providing access to educational resources) are the ones in which developing countries are faring the worst, even after the adoption of stronger IP institutions in the past decades (Okediji, 2019, p.693). Others argue that the essential ability to copy foreign technology and industrial imitation for 'economic catchup' has been negatively affected by IP rights (Rodrik, 2011; Stiglitz, 1999), or that IP rights would thus be serving the current international division of labour, as developing countries remain consumers of innovation generated in the North (Correa, 2000; Chang, 2003). A Development Agenda based on the idea of balance and refusing IP as an end in itself was pushed through WIPO in 2008 by developing countries, but to little effect (James, 2019).
- ²¹ As the argument goes, the IP regimes would have served industries in developed countries as a way to get around antitrust laws and avoid being a commodity market, through framing production and price control into exclusive and nonexclusive territories as a rightful exercise of one's private property, instead of cartelising (Draho & Braithwaite, 2003, p. 51; see also Boyle, 2003).
- ²² For example, through making consumers in developing economies pay higher prices, as businesses have an incentive to charge higher prices where the consumer surplus is higher (Stiglitz, 1999), or when pharma neglects medicines for tropical diseases that affect many, and prioritises expensive drugs for diseases such as mental illness, hypertension, and erectile dysfunction (Draho & Braithwaite, 2003, p. 167).
- ²³ Developing countries are threatened through bilateral pressure: they frequently lack information about systems they did not necessarily possess before such treaties, and they bargain on IP rights to obtain advantages in other sectors essential to their economies (Draho & Braithwaite, 2003, p. 190); the conventions that set the basis for the TRIPS Agreement (the Paris Convention and the Berne Convention) were concluded during the colonial era and, when implemented, many of the world's developing and least developed countries were colonies and accepted the agreements as such (Okediji, 2019, p. 691).
- ²⁴ Through investigating the history of IP, authors have shown that piracy was used by countries in different historical moments, such as by European countries and the US in the 18th and 19th centuries, for the printing of books from foreign authors as policy tools for a literate society (Draho & Braithwaite, 2003, p. 32; Okediji, 2019, p.704). That is also the central argument in Ha-Joon Chang's *Kicking Away the Ladder: development strategy in historical perspective*: 'Infant industry promotion (but not just tariff protection, I hasten to add) has been the key to the development of most nations [...]; preventing the developing countries from adopting these policies constitutes a serious constraint on their capacity to generate economic development'. (2003, p. 10).
- ²⁵ See Karaganis et al ii (2011) for a discussion around numbers presented by industries on piracy. Silbey (2015), Lemley (2014) and Cohen (2011) have criticised the narrative of the 'heroic creator' who responds primarily to copyright incentives, and Draho & Braithwaite (2003) and Litman (1987) have insisted that narratives around rewarding the creator or the inventor (in the case of patents) hides the reality that the bulk of IP rights are owned by corporations. Other authors have dwelled on the symbolic and policy effects of the reframing of IP rights from the idea of monopoly to that of private property (Draho & Braithwaite, 2003, p. 70; Dardot & Laval, 2017, p. 124; Xifaras, 2013). The language of private property conduces to metaphors such as that of 'stealing from the mind', the name of an op-ed piece published in the *New York Times* in July 1982, by Pfizer, in a move to say that certain governments were allowing stealing from US knowledge and inventions (Draho & Braithwaite, 2003, p. 61).
- ²⁶ Terminology note: from 2012 on, the WTO has been differentiating RTAs – bilateral or plurilateral treaties including free trade areas and customs unions, and Preferential Trade Agreements (PTAs), for unilaterally granted preferences (such as the General System of Preferences). The literature, however, frequently uses PTAs to refer to what the WTO defines as RTAs (Badin & Tasquetto, 2013). Here we adopt RTAs for both PTAs and FTAs (Free Trade Agreements), for cases where preferences are reciprocal.

- ²⁷ According to the WTO database of RTAs, as at September 2019, 301 RTAs are in force; the number was 72, in 1999 (WTO, n.d.). The US-Israel RTA, from 1985, had less than 8,000 words, 22 articles, and three annexes, and IP provisions occupied a third of a page. Almost 20 years later, the US-Singapore RTA that came into force in 2004 had nearly 70,000, 20 chapters with many articles each, and the chapter on IP is 23 pages long (Rodrik, 2018, p.75).
- ²⁸ Different RTAs cover government procurement, environment, competition, environment and the social clause, health and safety rules, investment, banking and finance, labour, among others, and progressively present a 'thickening' of legal obligations (Badin & Taschetto, 2013). See also Rodrik (2011; 2018) for a criticism around the tendency to hinder policy space for developing countries in particular, and around how trade negotiations long left being about preventing protectionism and became for influential firms to lobby for their interests.
- ²⁹ 77% of Switzerland's RTAs, and all the 18 RTAs signed by the US include copyright provisions (Morin & Thériault, 2019, p.6).
- ³⁰ An example is the Chile Mexico 1998 agreement, which provides protection for databases using the TRIPS Article 10(2) wording.
- ³¹ Videograms are audiovisual recordings – the physical objects containing an audiovisual work (e.g. a DVD), or the audiovisual works themselves, regardless of the medium.
- ³² B. Kilic (personal communication, 20 August, 2019) refers to industries that do not rely primarily or exclusively on professional licensed content.
- ³³ One would imagine they would be interested in protecting source code through IP.
- ³⁴ "Big media" knows the ropes to the negotiators, since they have been doing that for a long time, and, after all, it is all about whom you know'. B. Kilic, personal communication, 20 August, 2019.
- ³⁵ The stronger the interest that different negotiating countries in the RTAs have in copyright (based in their licensing revenues as a percentage of their GDP, and feature films produced per capita), the more likely that they will include copyright provisions in their RTAs. Political or economic asymmetry among negotiating parties increases the likelihood of copyright provisions being present in the RTA (Morin & Thériault, 2019).
- ³⁶ It included 12 Pacific Rim countries corresponding to 40% of the global GDP (McBride & Chatzky, 2019).
- ³⁷ On 5 October, 2015, the negotiating parties reached an agreement after five and a half years of negotiations, but the text was still secret, as were all steps of the negotiations so far. However, first in 2013, then in 2015 (after an agreement was reached) the IP chapter of the TPP negotiations was leaked by Wikileaks. The e-commerce chapter was never leaked and was only made public when the agreement was finished (Kelsey, 2019). Between the first leak and the final agreement, civil society was able to mobilise against specific provisions, and some of them were withdrawn, such as a 120-term protection for corporate works (Malcolm, 2015).
- ³⁸ Regarding patents, it lengthened, strengthened and broadened protection; it also established a five-year monopoly period on biologics (medical products deriving from living organisms) (Public Citizen, 2015). As has been the rule in RTAs, the TPP was not a deal on trade as the name would make it look like: it was an agreement on various monopoly rights over data, IP, spam, data localisation bans, minimising privacy and consumer protections (Krugman, 2015; Kelsey, 2019). It also included the controversial provision that corporations can sue governments over violations of the agreement (Investor-State Resolution, Article 9.19).
- ³⁹ The articles on copyright that were dropped were Articles 18.63, 18.68, 18.69 and 18.79, as well as footnotes (See: New Zealand Foreign Affairs and Trade, CPTPP vs TPP).

⁴⁰ Kilic, personal communication, 20 August, 2019.

⁴¹ 'The following communication, dated 25 January, 2019, is being circulated at the request of the delegations of Albania; Argentina; Australia; Bahrain, Kingdom of; Brazil; Brunei Darussalam; Canada; Chile; China; Colombia; Costa Rica; El Salvador; European Union; Georgia; Honduras; Hong Kong, China; Iceland; Israel; Japan; Kazakhstan; Korea, Republic of; Kuwait, the State of; Lao PDR; Liechtenstein; Malaysia; Mexico; Moldova, Republic of; Mongolia; Montenegro; Myanmar; New Zealand; Nicaragua; Nigeria; Norway; Panama; Paraguay; Peru; Qatar; Russian Federation; Singapore; Switzerland; Chinese Taipei; Thailand; the former Yugoslav Republic of Macedonia; Turkey; Ukraine; United Arab Emirates; United States; and Uruguay'.

⁴² WTO, 2019a.

⁴³ Right before the Ministerial, dozens of members from civil society organisations received notice from the Argentine government, rescinding their accreditation; only about half of such participants were able to reverse the situation and participate (James, 2018). Some of them were able to join their government delegations. The episode refers to one of the most vocal complaints from civil society in the negotiation of such rules at the WTO and trade agreements in general: the lack of transparency and how these negotiations processes are generally closed to global civil society participation. Moreover, trade fora are not traditional places for civil society action or expertise, and that turns these groups away from fully understanding and participating (Kelsey, 2019).

⁴⁴ Civil Society Letter Against Digital Trade Rules in the WTO, 1 April, 2019.

⁴⁵ For example, Turkey requires internet payment services, such as PayPal, to store data in Turkey for ten years. Vietnam requires domestic internet service providers (ISPs) to store all data originating within Vietnam for at least 15 days, and a recent Decree requires data localisation by over-the-top service providers. The Reserve Bank of India has proposed requiring payment system operators to store data locally, and is considering requiring localisation of data stored in the cloud. Developed countries are also implementing data localisation measures. For instance, Australia prevents health data being transferred overseas (Meltzer, 2019, p.14).

⁴⁶ Since they do not count as imports and exports, data flows are hard to measure; McKinsey, however, stated in 2014 that they were contributing US\$2.8 trillion to the economy globally, and that the figure could be as high as US\$11 trillion in 2025. In 2014, the UN International Trade Commission also stated that the US GDP had increased by 3.4% to 4.8% through increasing productivity, and the US Bureau of Economic Analysis determined that the US digital economy grew over four times the overall economy from 2006 to 2016.

⁴⁷ In a communication to the WTO Work Programme on Electronic Commerce in June 2019, the US draws from OECD reports and argues that, although a balance between free flow of data and regulatory measures must be found, international data transfers are driving innovation throughout the world. (WTO, 2019f.)

⁴⁸ In a UNCTAD account, the moratorium in place since 1998 on customs duties on electric transmissions has meant a loss of US\$10 billion for developing countries in 2017, due to their condition of net importers of 'physical digitisable products': their share in the global exports declined from 6% in 1998 to 5% in 2017 (Banga, 2019). That is the reason why India and South Africa circulated a communication, in June 2019, asking the WTO General Council to reconsider the moratorium at the end of 2019 (WTO, 2019e).

⁴⁹ At least 70 FTAs include an e-commerce chapter, most of them driven by the US, Australia, and Singapore (Meltzer, 2019, p. 21). The CPTPP and the updated North American Free Trade Agreement (NAFTA) – now the USMCA – include rules to avoid measures for data localisation and to allow the free flow of data; they include a prohibition of source code disclosure as a requirement to enter a market, and a provision to protect privacy and best endeavours to make domestic regulations compatible.

- 50 Due to the growing centrality of algorithms in contemporary lives, many situations of mandatory source code disclosure can be forecast. There are, however, many examples already in place. For instance, different competition laws (e.g. [Canada](#) and [Malaysia](#)) allow the competition authority to inspect anything, including source code; in some countries, (eg US), 'tax authorities have the power to access and analyse the source code of software used for accounting, tax return preparation or compliance, or tax planning in certain circumstances, such as if it cannot otherwise reasonably ascertain the correctness of any item on a return. The US tax authority also has the power to take the source code away and disclose it to certain persons.' (Smith, 2017, p.6).
- 51 US Patent No. 6,285,999.
- 52 In the EU, it has been understood that the Directive on Trade Secrets from 2016 does protect algorithms and does not impose algorithmic transparency, but it does not preclude it (Maggiolino, 2019, p.16).
- 53 Algorithms may produce unjustified results based either on bias in training data sets, biased data sets themselves, inappropriate data handling or model selection, or on machine learning with user-provided input that might be biased itself. See, for instance, the Upturn and Omidyar Network report on Public Scrutiny of Automated Decisions (2018). There is a network of researchers and practitioners called Fairness, Accountability and Transparency in Machine Learning, devoted to such subjects (fatml.org). See also the popular *Weapons of Math Destruction*, by Cathy O'Neil (2016).
- 54 'In a world where algorithms support or make an increasing number of public and private decisions, mistaken, unfair, discriminatory, or manipulated choices are not negligible details. On the contrary, they can produce serious impacts on citizens' lives, by undermining individuals' self-determination and free choice, or by preventing them from having access to key goods, such as financial products or health-related services. Therefore, to hold someone responsible for possible bad algorithmic outcomes, algorithms must be transparent as so to enable individuals, courts, and authorities to look inside them' (Maggiolino, 2019). There are already instruments in place for dealing with the accountability of a person or company behind an algorithm. One of them is Article 22 of GDPR (right to an explanation). Transparency can mean access upon request by public authorities, public posting of information, access by computer scientists, direct inspection of processes, delivery of subsystems and their data for testing by specific people and reports being delivered to authorities, and so on. (Koene, 2018, p.3). The idea of auditability goes beyond that of transparency, meaning not just access to the system but that it is also subject to meaningful review (Rieke, Bogen & Robinson, 2018, p.28).
- 55 According to Article 29.1 of the TRIPS Agreement, 'Members shall require that an applicant for a patent shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art [...].' There are controversies around when and in which cases the disclosure of source code could be a requirement for the sufficiency of disclosure requirement.
- 56 In her paper, Sanya Smith (2017) details the many opportunities for regulation for technological development or for other commercial or public interests that might be lost through these wide proposals around prohibiting disclosure or transfer or source codes.
- 57 According to Kilic (personal communication, 20 August, 2019), the US objective for the USMCA was to get the same level of protection that they get at home. The final text, however [Article 19.16], was made similar to the TPP [Article 14.17], with few differences: in the USMCA, signed November 2018, the 'algorithm expressed in the source code' is made an explicit object of protection, and the language on the exceptions to that rule was also made more explicit. There is considerable disagreement on the amount to which these two agreements actually preclude measures towards what has been called 'algorithmic transparency or accountability'. The USMCA makes clear that disclosure can be required by a regulatory body or judicial authority 'for a specific investigation, inspection, examination, enforcement action, or judicial proceeding'. One other concern is that research institutions and journalists are not included in the exception.
- 58 WTO, 2016.

59 WTO (n.d.) [online].

60 The intermediary proposal does not seem to be about IP: '(b) Prohibition of Use of Particular Technology including Encryption Technology'. (WTO, 2019b).

61 As reported in Stelly, 2019.

62 WTO, 2019c. A US proposal from around the same time is not on the WTO website, but has been made public by the media. The proposal is very similar to the text in the USCMA Digital Trade chapter (See Worldtradelaw.net, 2019).

63 WTO, 2019d. Some of the developing countries proposals are narrower in scope and focus on development and rights issues; Argentina, Colombia and Costa Rica (INF/ECOM/1) insisted on protecting privacy and promoting connectivity and bridging the digital divide. Brazil submitted text (INF/ECOM/3) including several human rights and development concerns, and (INF/ECOM/16), dated September 2018, includes a full range of provisions and discussions on copyright (subsequently signed also by Argentina, INF/ECOM/16.Rev1), and a later proposal containing a general text on source code and trade secrets: '1. Members shall ensure that sharing source code, trade secrets, or algorithms are not a condition for entering any national market. 2. Members shall ensure that requirements regarding transfer technology, trade secrets, or other proprietary information are not a condition for entering any national market.' (INF/ECOM/17). Yet another communication, without these and other provisions, was circulated in the end of April 2019 (INF/ECOM/27). As an example of developed countries making propositions in other directions, New Zealand has insisted on including consumer protection in the negotiations (INF/ECOM/2 and INF/ECOM/21).

64 Berne Convention, 1896; Paris Convention, 1883.

65 See Matulionyte, 2015; Sanders, 2018.

66 The concept of extraterritoriality is disputed. Scott, for instance, differentiates between extraterritoriality – 'the application of a measure triggered by something other than a territorial connection with the regulating state'– and territorial extension – 'the application of a measure is triggered by a territorial connection but in applying the measure the regulator is required, as a matter of law, to take into account conduct or circumstances abroad', (2013, p.90). For example, the Dir. 2008/11 Aviation Directive takes into account emissions abroad, but it would be a measure of territorial extension since the trigger would be 'taking off from or landing at EU airport' (Scott, 2013, p.98). Also on extraterritoriality, Kuner, claims that 'beyond the disagreements about its meaning as a legal concept, the term has acquired political baggage that makes its use charged with emotion' (2015, p.2). Different authors have argued that, because of the internet, it might make no sense to distinguish between 'extraterritoriality in scope' and 'extraterritoriality in effect'.

67 Article 3: GDPR Territorial Scope. (See: <https://gdpr-info.eu/art-3-gdpr>).

68 Guidelines on the territorial scope of the GDPR were published for public consultation. (See: https://edpb.europa.eu/our-work-tools/our-documents/guidelines/guidelines-32018-territorial-scope-gdpr-article-3-version_en)

69 See Article 8 the Brazilian Portuguese version of YouTube's Terms of Service, which refers to the DMCA and presents a US address for notifications: <https://www.youtube.com/static?gl=BR&template=terms&hl=pt>

70 A lawyer working on violence against women, personal communication, 2015. DMCA notices apply where the images were created by the victims themselves.

71 While each model is applicable in their territories according to private international law rules, consequences may be felt in other territories – and the changes in the EU may reflect a trend.

72 Besides the Directive on Copyright in the Digital Single Market, the EU also approved a Directive on television and radio programmes. On 20 September, a Directive and a Regulation to implement the Marrakesh Treaty in EU Law was also published.

73 Consumers and users' associations were concerned with Article 13 (Article 17 in the final text), due to its potential to negatively impact on sharing and access to knowledge and culture, and freedom of expression (filtering would mean censorship). They also understood that the text would finally benefit big corporate rights-holders and dominant platforms like Google. Libraries, cultural heritage and research and scientific institutions criticised the new publishers' right and the filtering obligations but welcomed the new exceptions for text-and-data mining (TDM) and out-of-commerce works. Academics were generally concerned that the new press publishers' right could generate legal complexity and unintended consequences, and, as to the measures imposed on platforms, they were also generally sceptical and disapproving, while some dissents have been observed too.

Other sectors were strongly supportive of those provisions. Organisations of authors, publishers, and journalists argued that publishers would be better off to bargain with platforms. The International and the European Federation of Journalists, while welcoming the new norms, also required more clarifications on the new publishers' right, that guarantees that authors in the press sector get fair compensation. Platforms, on their side, were generally critical of the Directive, including Google, despite large platforms (like YouTube and Facebook) being progressively more satisfied with the filtering provisions. The aggregation of views is presented by Madiega, 2019.

74 Netzpolitik.org, 2019.

75 Penfrat, J., 2019.

76 Doctorow, C., 2019.

77 The argument was that the social network changed its algorithm to prioritise the visibility of personal interactions; however, upon announcing the decision, *Folha de S. Paulo* made it very clear that it was unhappy with how Facebook was trying to 'co-opt' newspapers to integrate their content in the social network without offering much in return. (*Folha de S. Paulo*, 2018.)

78 Emoruwa, A., 2019.

79 Academic publications and websites such as blogs, editorial responsibility, and control of news publishers are not covered by the right (Acosta-González, 2019).

80 A similar scheme had been approved in Germany in 2013 (Sections 87(f)(g)(h) of the German Copyright Act 1965), granting press publishers the right to receive a fee when search engines and news aggregators displayed digital excerpts from newspaper articles; in Spain, a modification of the Copyright Act in 2014 established a fee to be paid by online news aggregators when linking to their content (Article 32(2) of the Ley de Propiedad Intelectual 21 from 2014). In both cases, Google resisted – in Germany, by refusing to negotiate, leading publishers waived their recently gained right and continued being indexed by Google. In Spain, the law established that the right was compulsory and therefore could not be waived by the publishers, by closing down their Spanish version of Google News. The Spanish experiment was intensely criticised by academics and commentators (Madiega, 2019, p. 5).

81 For instance, the International Federation of the Phonographic Industry (IFPI) report *Fixing the value gap* (2017). The IFPI maintained a webpage in support of the Directive, referring to the value gap, with testimonials from different artists. See: https://www.ifpi.org/value_gap.php

82 According to the 2015 European Impact Assessment, some such services would refuse to negotiate agreements with rights holders, and the agreements that were in place (offering a share of revenues obtained from advertisement on content) would be unfair (EP, 2015).

⁸³ Bundesministerium der Justiz und für Verbraucherschutz. [online] <http://www.gesetze-im-internet.de/netzdg/>

⁸⁴ Recital 38 of the Proposal also declared that if information society service providers go 'beyond the mere provision of physical facilities,' such as 'optimizing the presentation of the uploaded works or subject-matter or promoting them', they perform an act of communication to the public (EC, 2016). Under the system before the copyright directive, UGC-based platforms were not directly liable for copyright infringement, only 'secondarily' or 'accessorily'. It had been generally understood that, in the online environment, the performer of such act was the one uploading the content, that is, the end-user (Angelopoulos, 2016). The 2000 EU E-Commerce Directive exempts from liability any information society service-providers who host or transmit illegal UGC if they are considered passive internet intermediaries (Articles 12–14). The limited liability regime applies horizontally, covering, therefore, civil, criminal and administrative liability (iLINC, 2016). Immunity is, however, conditioned to providers complying with expeditiously taking down infringing content upon obtaining knowledge of it. Article 15 of the E-Commerce Directive also prohibits the Member States from establishing monitoring obligations for online services. Under two separate cases (*Scarlet v. SABAM*, 2011 and *SABAM v. Netlog*, 2012), the Court of Justice of the European Union ruled that such prohibition derives from rights to privacy and freedom of expression and information, from the European Charter of Fundamental Rights (Articles 8 and 11).

⁸⁵ For further discussion on self-regulation, its typology, and particularly the role it plays on the internet, see M.E. Price & S.G. Verhulst (2005), *Self-Regulation and the Internet*. The Hague: Kluwer Law.

⁸⁶ Through a 'two-layered structure of private ordering', such norms may be imposed on consumers through contractual obligations (terms of service), where choice is not really present due to the oligopolistic nature of internet intermediaries (Hugenholtz, 2010, p. 309).

⁸⁷ The text is intricate and a sort of 'reverse engineering' is necessary to make the rules more intelligible. A detailed account of the rules it sets to Member States is helpful because of the potential extraterritorial effects of the Directive. They can be summarised as follows:

a. After many complaints about how the 'value gap' provisions would inadvertently affect stakeholders such as free and non-for-profit knowledge services, Article 17 establishes that providers of cloud services, online marketplaces, open-source software such as GitHub, and not-for-profit online encyclopaedias such as Wikipedia are exempted.

b. All other platforms perform acts of communication making available to the public, even if they are the means for users to publish content themselves. They need to obtain authorisation from rights-holders to do so.

c. If no licensing agreements are concluded, in order to avoid liability, they must perform specific actions.

(i) making best efforts to obtain authorisation, and

(ii) acting expeditiously to remove any unauthorised content following a notice received.

d. If the platform is a 'large provider', it must also (iii) make best efforts to ensure the unavailability of unauthorised content for which rights-holders have provided necessary and relevant information. Large providers are platforms available to the public in the EU for more than three years and with an annual turnover of over 10 million Euros. 'Small providers' only have to prove that they made their best efforts to obtain authorisation from rights-holders, and that they acted expeditiously to remove unauthorised works upon notification.

e. If the platform is 'more popular', where the average number of monthly unique visitors exceeds 5 million in a year, it must demonstrate its best efforts to ensure that works that have been notified are not uploaded again at a later stage – that is, the notice-and-staydown provision.

- ⁸⁸ João Quintais, a researcher and lecturer at the University of Amsterdam, opined in an interview that the possibilities for exemptions from certain measures are still overly narrow (personal communication, 23 August, 2019).
- ⁸⁹ In an interview, P. Keller from International Communia Association affirmed to be positive that the liability reversal and the notice and staydown provision can only be achieved through the implementation of filters, which will have to be either developed or licensed by platforms (personal communication, 28 August, 2019).
- ⁹⁰ João Quintais made the same point (personal communication, 20 August, 2019).
- ⁹¹ Examples abound. James Rhodes, a British-born performer, posted a clip of himself performing a Johann Sebastian Bach (undoubtedly in the public domain) on Facebook, and the video was muted by the platform because Sony Music Entertainment claimed ownership of 47 seconds of the clip. (See: <https://thenextweb.com/eu/2018/09/11/copyright-takedown-notices-are-completely-baroque-en/>.) A video containing white noise ('indistinct electronic hissing', used for helping to sleep) was hit by five copyright claims on YouTube (See: <https://www.bbc.com/news/technology-42580523>); another one of a cat purring was identified as [having content belonging to EMI](#); a Harvard Law School lecture on copyright was taken down because the professor used short extracts of pop songs to illustrate. (See: <https://juliareda.eu/2017/09/when-filters-fail/>) See also Lester and Pachamano, 2017, about the problem of 'false positives' and how they violate the fair use defence in the US.
- ⁹² Also called 'use of comparative law', much of its origin derives from European colonisers implanting their legal systems in the colonies; other political and socio-cultural reasons subsist in many countries. See, for instance, Tavares (1990).
- ⁹³ Gov.br, Ministerio da Cidadania abre consulta publica sobre reforma da Lei de Direitos Autorais, <http://portal-cultura.apps.cultura.gov.br/ministerio-da-cidadania-abre-consulta-publica-sobre-reforma-da-lei-de-direitos-autorais/>

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João Quintais, 22 August, 2019. 33 min. M4A file.

Lucas Taschetto, 22 August, 2019. 39 min. M4A file.

Paul Keller, 28 August, 2019. 46 min. M4A file.

