Challenged by technology: the audiovisual landscape and the evolving regulatory framework in Europe

Jean-Paul Simon, Pierre-Jean Benghozi

Challenged by technology: the audiovisual landscape and the evolving regulatory framework in Europe

by Jean-Paul Simon[*] and Pierre-Jean Benghozi[**]

Summary

Over the last decades, media, IT and telecoms have been transitioning away from siloed markets dominated by legacy players. New entrants have been the engines of disruptive changes and the media sectors have witnessed new dynamics, opening up a phase of increased competition with competing business models. The context of convergence thus differs deeply from 20 years ago. The first section of the paper presents a picture of the European audiovisual markets, stressing its main features. It concentrates on the audiovisual service markets, describing its streams of revenue and structure. The second section tracks the way the European Commission has been dealing with the regulation of content over the last three decades. It sums up its main initiatives, goals and rationales. It shows how the European Commission has been catching up with technology with the progressive setting up of a two-pronged framework: sectoral (broadcasting-telecommunications) on the one hand, information society (e-commerce now digital services) framework on the other hand The paper concludes with an assessment of the design and effectiveness of the policies, particularly DSA/DMA, and a view on the transition of the audiovisual markets. Based on a series of reports and research updated by desk research, the article reviews some of the existing literature, official publications and industry and consultancy data.

Keywords: digital economy, audiovisual industry, convergence, European regulation.

JEL code:

1. A global view. The coming of a new world

Over the last three decades interrelated markets (media, IT and telecoms) have been transitioning away from siloed markets dominated by legacy players. The three sectors have been merging into a mobile-driven multiscreen-oriented telecom/media/technology ecosystem (De Prato *et al.*, 2014; Fransman, 2010; Simon, 2014). This progressive integration within a broader ecosystem has often been described as convergence. While broadcast and telecoms convergence has been mooted for many years, as exemplified by the notorious case of merge/demerge of AOL/Time Warner, it now appears to be happening in earnest. As stressed by Benghozi and Benhamou (2021: 210), "*the context of convergence differs deeply from 20 years ago*". Eventually, the vision of the European Commission in its 1997 *Green Book on Convergence* (EC, 1997) came to fruition (see Figure 1). The Commission stated: "*Internet*

[*] **Director, JPS Public Policy Consulting, C/ San Vicente 14, 41002, Seville, Spain, jpsmultimedia@hotmail.com**

[**] **Research Director CNRS (I3-CRG, Ecole Polytechnique, CNRS) and Professor at Geneva University (Geneva School of Economics and Management),** Bt Ensta 828, Boulevard des Maréchaux 91762 Palaiseau Cedex, France), pierre-jean.benghozi@polytechnique.edu

technology is leading to platform independence" (EC, 1997: p.3). Indeed, Evens and Donders (2018) describes now a "*platformization*" of the services[1].

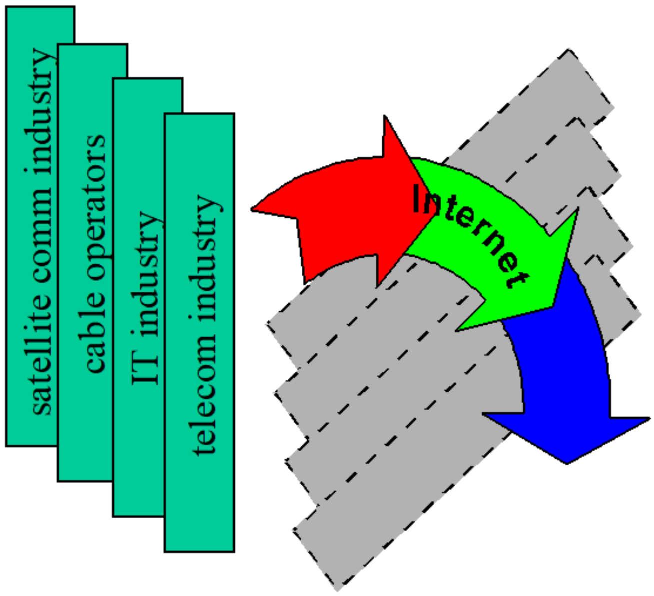

FIG. 1 - The 1997 vision of convergence
Source: EC, 1997.

The transition had not been smooth as the upheaval of the media and content industries initially came from outside; legacy media players were highly defensive and not in the driver's seat to manage their digital transformations (Benghozi and Salvador, 2013; Benghozi and Lyubareva, 2014; Benghozi *et al.*, 2015, 2017; Simon, 2019a). It should be noted that the issue has not only concerned the media sector but also other contents, notably sport events, which has also been subject to similar movements of convergence.

New entrants or players from other sectors have been the engines of these changes toward multitasking, multi-screening behaviours. Media and content activities are gliding from push to pull, from consumption on a single device to multi-screen/multi-device consumption, from mass communication to one-to one services. In a five screens world - TV, PC, game consoles, connected TVs and mobile devices (smartphones, phablets, and tablets) (Simon, 2012, 2014) - an increasing array of digital media are now vying for the attention of consumers.

Digital media now comprised audio-visual media contents and applications that are distributed directly over the Internet. This includes digital video contents (e.g. movies, series and TV shows), digital music provided as download or internet-stream as well as digital

[1] A trend which "*refers to the rise of the platform as the dominant infrastructural and/or economic model in media, electronic communications and information, communication and technology (ICT) sectors*". The notion was introduced by Ballon (2009) to account for the third wave of mobile.

games for different devices and electronically published content such as eBooks, eMagazines or ePaper.

We identified three waves of changes in the media and content industries (Simon, 2012, 2014). During a first phase, in the 1990ies, telecom operators started offering other services when deploying their broadband networks (ADSL then fiber), adding data and video services in bundles (triple or quadruple play) to voice communications and access. The telecom industry was looking for new streams of revenues to mitigate losses of its more traditional revenues from fixed networks (voice telephony).

In a second phase, after 2000, Information Technology (IT) companies (search engines, e-dealers like Amazon and eBay, then social networks and manufacturers like Apple) took over and led the digitization process of the Media and Content Industries (MCI). Mobile became central for the dissemination and consumption of content (De Prato and Simon, 2015; Feijóo, 2014). As of 2017, approximately 70 percent of consumers were watching videos on a smartphone, double the amount from 2012 (Ericsson, 2017: 7)[2]. The mobile industry turned into an innovation platform for new content services as the Internet was going mobile, driven by data, mostly video.

The arrival of apps ushered in a raft of new behaviors and consumption patterns: new ways of sharing have been emerging with social networks, first on line then shifting to mobile (Simon, 2014). Not only users are posting pictures or circulating the pictures they took through their favorite social networks (Facebook) or specialised provider (Instagram), but they started circulating videos as well. The role of User Generated Content (UGC) intensified sharply, since the creation of a channel dedicated to amateurs' short videos, You Tube, in 2005 (Simon, 2016, 2018). The way of accessing and interacting with contents has changed drastically. This new dimension of interacting with content is often underestimated, oblivious of the highly significant audiences now reached by some YouTubers or so-called influencers (Busson *et al.*, 2016; Simon, 2016)

As a result of the rise of aggregation platforms as well as of new forms of consumption, all the media sectors have witnessed new dynamics over the last few years, opening up a third phase of less defensive, more proactive strategies from legacy players. Legacy media players are establishing new relationships, and signing commercial agreements with new entrants to become more proactive players in the 'apps' age, each concentrating further on its own

[2] No available data since 2017 as Ericsson discontinued its "TV and Media" reports.

specific assets. Pay TV and Subscription Video on Demand (SVOD) players have also entered distribution agreements.

However these fast evolving relationships between players were characterized by increased competition with competing business models based on different, often clashing business cultures. The new players grant access to their distribution platforms under their own terms (sharing of revenues, prescribed retail prices, type of sales), circumventing the traditional industry through their direct access to the consumer (re-intermediation). These new intermediaries are now the main access providers in a global market where scale matters. They spearheaded the introduction of the new devices and the roll out of ever-faster networks both fixed and, increasingly, wireless.

The current media market has witnessed unprecedented solutions for producing, aggregating and distributing content. However, the impact of the digital shift and induced transformations has been highly uneven across sectors. Some are faring better than others. This is the case of segments of the audiovisual sector where new services have been the engines for growth.

Thus, within the creative industries and media sector itself, two different forms of reaction and adaptation to the dynamics of digital technology can be distinguished. On the one hand, adaptation strategies are seeking to adjust forms, content and economic models to the new opportunities and risks opened up by digital technology. On the other hand, proactive strategies aim to take advantage of these same technologies to rethink and disrupt the very basis and structures of the offering, the ecosystem, the value chains and the business model (Benghozi *et al.*, 2021). These two complementary dynamics have contributed shaping the new audiovisual landscape as well as influencing the regulators' public policy responses.

2. The European audio-visual markets

In order to better understand the impact of digital technology and how it has shaken the audiovisual sector, a brief reminder of some of the main features that characterize the economic nature of the sector and the major transformations that have recently taken place is useful. The first is obviously the combination of the dematerialization of media with the delinearization of content, both of which contribute to the destabilization of the central role of broadcasters and to a radical change in the forms of consumption of contents. A second characteristic has to do with the way different types of programme are blended within audiovisual supply: with the standard distinction between stock and flow programmes. Stock or catalogue programmes retain their value regardless of the number of viewings (a film or a TV series, for example). Flow programmes are meant to be broadcast only once or at a specific time as they then lose their primary value (a news bulletin or a weather report). The distinction is important because it could, a priori, underpin a sharing of roles between linear television broadcasters and platform operators. A third characteristic relates to the historical structuring of the value chain, which was built around a division of labour in the technical supply chain between content producers, the television channel that edits/aggregates programmes, the technical transmitters of the signal (terrestrial or online), and the television equipment manufacturers. However, beyond the content markets as such, it is also this entire chain that is being redefined today by convergence: through the porosity between the various components and the ability of players to position themselves simultaneously in several roles. Finally, a last important characteristic concerns the redefinition of the historical forms of monetization of audiovisual. Indeed, if the basics of these models remain the same (free of charge and/or advertising v. payment per unit and/or subscription) the way they are implemented and enforced online changes profoundly. As the evolution of this monetization shows, it is by mobilizing all the characteristics we have just mentioned that the new structuring of the audiovisual sector in the digital age is being played out today.

All the players are now competing to become the main point of access for consumers in search of TV and video programming. As a result of all these transformations that took place over the last decades, on demand media services – and particularly subscription video on-demand (SVOD) - have experienced a huge market growth over the last years. Video-on-demand services (i.e. Netflix, Amazon Prime, Disney+, HBO Max, Tim Vision and Apple TV) are all growing quickly, with Netflix reaching almost 208 million subscribers worldwide at the end of March 2021, up from 183 million a year earlier (Hewlett-Packard/GSMA, 2021: 4). The global market for digitally streamed video on demand (sVOD) content was around 50 billion $ globally[3] in 2020 (Retail X, 2021: 1). In 2019, the number of subscribers to subscription video on demand (SVOD) in Europe significantly exceeded 100 million for the first time (Rokša – Zubčević and Hatfield, 2020: 4). The number reached 140 million in 2020 (EAO, 2021: 51). The migration toward streaming has been accelerated by the pandemic (EAO, 2021: 6; Preta, 2021; Retail X, 2021: 33).

2. 1. *The changing patterns of consumption in the European national markets*

As a consequence of these changing patterns of consumption, as noted by the EAO (2021: 28), SVOD erodes linear TV viewing: "*Average daily television viewing per person continues*

[3] The report does not break up this amount between regions but the figure p.31 reveals that Europe could stand for 25-30% of the total.

to decrease at a pace faster than anticipated". If TV viewing continued its downward trend, Internet use is going up. For instance in the UK, as of 2019, internet users on average spend 3 hours 29 minutes using the internet per day but only 3 hours 3 minutes on daily TV viewing (Ofcom, 2020a: 3, 5). However, in the same country, live TV accounts for 53% of the daily viewing time (4 hours and 52 minutes), followed by YouTube with 13%, SVOD with 12%, recorded playback with 5%, games console 4%, and DVD 1% (Ofcom, 2020b: 4). In Germany, the public broadcasters are still the most popular television stations[4]. Besides, as highlighted by Ericsson (2017: p.6), on-demand viewing is significant for everyone, but its share of viewing time decreases among older age groups: for consumers aged 60–69, where live and scheduled linear TV content still represented almost 80 percent of the total viewing time.

Diversity is still the rule for media and content across the EU member states. The content market is structurally fragmented. Based on various cultural and political backgrounds, the communications industry is highly unevenly developed. This diversity strongly impacts the EU content industries and especially the audiovisual sector: a highly heterogeneous sector. **As highlighted by the European Audiovisual Observatory (EAO) researches[5],** Europe looks more like a mosaic of markets, that a single unified market. **Within this continental context,** gaining a share of a European domestic market is mainly a national business. The size of the domestic market matters, large countries differ from smaller ones. Market size explains the strong presence of nationally-operating groups originating from the largest audiovisual markets in Europe. On the opposite, in smaller audiovisual markets a significant part of national market shares is held by foreign groups (Schneeberger, 2019: 41). These foreign groups are often US groups that can account for the majority of non-domestic audience shares in a national market.

Patterns of consumption are not identical across member states although the recent trends toward streaming and on-demand services may contribute to somehow reduce the differences, at least for the mode of access, if not for the content. Domestic markets are characterized by an uneven access to content and channels: e. g. for on demand audiovisual media services, there are strong variations between countries. The penetration ratio is high in northern Europe (Norway ranking 1st with 53%, Denmark, or UK), but much weaker in "Latin" countries (France, Italy, Spain around 10%) (CNC/CSA, 2018: 29).

---

[4] *Source*: https://www.deutschland.de/en/topic/culture/television-facts-and-figures-about-television-in-germany

[5] https://rm.coe.int/audiovisual-media-services-in-europe-market-insights/16809816d1

The European audiovisual market comprises, according to the EAO (2016), three major sub-markets, each with different business models: the audiovisual services market, the cinema market, and the physical video market (DVD and Blu-ray retail and rental) (see Table 1 for the distribution of revenues). The most important sub-market is the audiovisual services market (114.5 billion euros in 2019), composed of 5 categories: public funding, commercial (advertising-funded), pay TV services, on-demand pay services (11.6 billion euros in 2020) and advertising-funded radio services. Most segments have been declining (especially physical video[6]) or stagnating (mostly legacy TV, advertising and public funded), cinema went through some ups and downs[7]. Even if the economic weight of public service broadcasting is declining, the presence of public groups remains in most European markets. For pay-tv services, cord-cutting[8] did not hit as badly as in the US, and resisted comparatively well, partly linked to the fact that cable networks have been fully digitized. As stressed by the EAO (2021: 34): "*Over the last five years, on-demand services have been the growth engine of the audiovisual sector*". Even if the share of online video revenues, 7%, is still rather small, it has been offsetting the decline of other segments.

TAB. 1 - *The distribution of audiovisual market revenues: 114.4 billion euros in 2019.*

Segment	**Revenues (%)**
Public funding	23%
Commercial (advertising)	27%
Pay TV (IPTV, cable, satellite)	30%
On demand	7% (6% SVOD, 1% TVOD)
Advertising-funded radio Services	5%
Cinema gross box-office	6%
Physical video	2%

Source: Grece (EAO, 2021: 11).

One should add another segment to these sub-markets: User Generated Content (UGC) channels and YouTubers (also known as vloggers) already mentioned. The real economic weight of this segment may be difficult to assess properly as YouTube does not disclose its data, but some other sources are available (Social Blade, Statista). As noted with the case of the UK, YouTube ranks second for the viewing time. These channels provide new formats,

6 Even though physical sales are dwarfed by digital, DVDs and videos are still a multi-billion euros industry. Although difficult to assess a second-hand market is still burgeoning according to Retail X (Media 21, 2021: 19).
7 As of 2019, European theatrical markets showed the strongest results in over a decade (EAO, 2021: 41). Obviously, it did collapse in 2020.
8 Consumers switching from pay TV to Internet on demand services.

based on the interaction with the audience and ushering in new business models (see Box 1). YouTubers cover a wide range of topics to suit any kind of niches; but the most popular category is entertainment, which has 72 of the top earning YouTubers (Ang, 2020). The Swedish YouTuber, PewDiePie, operating from the UK[9], has over 110 million subscribers to his channel, as of June 2021 (https://socialbook.io/influencer/youtube/pewdiepie). YouTubers are active all across Europe[10], the channel main language being often English.

Box 1 - How do content creators monetize their content?

Advertisements
YouTubers get paid when a viewer watches the full ad, or clicks on it. YouTubers can start to monetize their account with advertisements when they reach 1,000 subscribers and 4,000 watch hours within a year.
You Tube Premium
YouTubers get a cut of subscription profits, based on how many views their channel attracts.
Corporate Sponsorships
Also known as influencer marketing: brands pay content creators to promote their product.
Merchandise Sales
Followers buy the displayed products on impulse. It becomes a form of livestreaming commerce. It is an updated version of the teleshopping channels that popped up on cable TV in the late 70ies.
Purchases as encouragement or appreciation of a streamed live event
Users make purchases in-app to show their appreciation for a particular performance or as encouragement for the streamer.
Tipping:
Users pay to show gratitude or demonstrate satisfaction for the content generated. Tipping is also used to support favorite artists as with Patreon or the French Tipee.
Virtual gift selling
The dominant revenue driver for all independent live streaming platforms in China.

Source: Ang (2020), authors.

Part of the innovation in the audiovisual sector thus stems as much from the forms of monetization as from the original design of new associated viewing formats: live streaming, podcasts, seamless multi-terminal viewing, collective and family subscriptions (based on the friends & family model invented several years ago in the telecoms sector).

Thus, live streaming, with "*consumers entertaining consumers*" (Newzoo, 2015: 11), is another dimension of this phenomenon. Smartphones has also lowered technical barriers to live streaming (or "video selfie") (Chan, 2016), especially for streamers. If live streaming became a mainstream form of entertainment in Asia (in China and South Korea) (Liu and Li, 2016; Simon, 2017), it is still an emerging market segment in the EU where there is still no clear leader (Hallanan, 2019). In September 2017, Line Live partnered with German media company ProSiebenSat.1 to enter the German market. It was followed by YouNow in Germany and in several other European countries including the UK, Switzerland, and Sweden. In mid-2018, the popular German dating app LOVOO, offered live streaming

[9] His company is registered as a US company.
[10] Ang (2020) provides a comprehensive map of "Who's the Most Popular YouTuber in Every Country?" Clement, (2020) selected a sample of 8 popular YouTubers in Europe.

functionality on its platform. Live-streaming services of content provided by users are acknowledged as content services by EU policy makers and now falling under the proposed regulation as we will see in the next section

And last, the still recent development of podcasts highlights the changes triggered by digitization in the field of audio. It started with online radio and catch-up radios that are also growing, as well as with the progressive deployment of audio-books. In Europe, *Arte* launched a first "on demand radio" as of 2002 (Simon, 2020). *The Guardian* first produced a daily news podcast in 2006, "Newsdesk", later renamed "Guardian Daily". The Spanish digital platform iVoox was created in 2008 as a web service, it opened its mobile service in 2014. However, in countries like France, Germany and the UK, most users have been listening to podcasts for less than two years. It is nevertheless another growing segment of the audiovisual markets.

At the end of 2020, there was a total of 13 638 audiovisual media services[11]: 10 839 TV channels (6036 TV channels and 4803 local channels) and 2799 on-demand services (Schneeberger, 2021: 6). In actual fact, Europe is a market characterized by a large number of TV channels with relatively small market share: as of 2017, "*two thirds of TV channels (67.8%) in one given country in Europe had an audience market share of 1% or less*" (Schneeberger, 2019: 35). This is "*due to a continued loss of shares by market players over time*" (Schneeberger, 2019: 7). 51% of the TV channels are freely available. Over-the-air distribution accounts for 34%, leaving 66% for other forms of transmission (cable, satellite, IPTV, mobile and others). However, different distribution technologies prevail in different countries: cable is dominant is Belgium and the Netherlands, IPTV competes with over-the-air in France, and Italy is an over-the-air driven market where free TV (4.7 billion euros) outweighs pay TV (3.2 billion euros, satellite) (AGCOM, 2020: 97).

Box 2 - On-demand audiovisual services: an all-encompassing notion.

"On-demand" includes many different categories of services: Video-on-demand, branded channels of broadcasters, Catch-up TV, News, Video, Portals Video, Film or TV archives, Sport events, Films trailers.
On-demand audiovisual media services that are available in a country comprise those that are available on platforms of television operators (e.g. DTT, cable, satellite or IPTV) offered as their own or third party services, and on-demand audiovisual media services targeting the country on the open Internet (OTT, e.g. Apple's iTunes, Netflix, Google Play, Megagogo.net).
In most cases, however, there is no centralized information available. OTTs per se are even more difficult to track.

[11] As defined by the European Audiovisual Media Services Directive (AVMSD) 2018/1808. See Box 1. Based on the EAO's MAVISE database that covers the EU27, Albania, Armenia, Bosnia and Herzegovina, Georgia, Iceland, Liechtenstein, Montenegro, North Macedonia, Norway, the Republic of Serbia, the Russian Federation, Switzerland, Turkey, the United Kingdom and Morocco.

The different markets in the European Union for on-demand services are not homogenous, and a pan-European analysis, is rendered difficult as each market presents different market conditions favoring or not the emergence of different on-demand services.

Source: compiled by authors.

Out of the 2 799 on-demand channels, 1179 were pay on-demand services: 764 subscription video on demand (SVOD) and 415 transactional video on demand (TVOD)[12]. The Film &TV fiction genre accounts for 63% of on-demand services. Ireland is the leading country for the supply of pay on-demand services, followed by France and the UK. The three countries accounted, at the end of 2020, for 41% of the services (Schneeberger, 2021: 17). Unsurprisingly, these fast-growing services are dominated by new players ("Tech"[13] and pure VOD players) that offer the highest number of films and TV seasons: 82% for TVOD and 66% for SVOD (EAO, 2021: 19). Theses popular items originate mostly the US (55%), followed by European content (around 30%) (Grece, 2021: 38). In addition to SVOD and TVOD, Grece (2021: 48) considers that advertising-financed video on demand (AVOD) and broadcaster video on demand (BVOD) services are "*set for a rapid rise*". One may remain somewhat skeptical about the future of AVOD as these services have been around for a while without finding the appropriate conditions to grow.

Finally, among content, sport events played a major role. The European Commission has considered such content (premium sports media rights and movie blockbusters) as a vital input and a stand-alone driver content for media operators to enter and to compete (Lefever and Van Rompuy, 2009).

Most economic players have thus sought to use media and sports content for their TV offerings, to create a diversity of content, to consolidate their market positioning and to reinforce users' loyalty locking in customers in a closed ecosystem. But in a second stage, especially in online platforms, the intention of such strategies has been to hook users by making them captive subscribers, exploiting the opportunity to increase the Average Revenue Per User (ARPU) while creating a competitive advantage mainly against pay TV channels, which can mainly propose a global subscription to their channel's bouquet.

Thus, broadcasting has become the main pillar of funding for audiovisual as well as professional sport in Europe today (**Bourg and Andreff, 2006**). As a result, a very tough competition has been created first between television broadcasters, then with bouquets and

[12] "*TVOD is the transposition of buying or renting content (film, TV content) into the digital landscape*" (Grece, 2021: 3).

[13] Wording used in the EAO report but not defined. One can assume it refers to companies such as Apple or Amazon. Grece (2021: 40) gives: Apple, Google, Microsoft, and Amazon.

eventually with online platform operators. The overall result has been a considerable increase in broadcasting rights. In sport, such price escalations started as well in the 1990's, with the liberalization of TV market and the emergence of a market for exclusive TV-sport rights (Solberg and Gratton, 2000).

This steady increase in prices over several decades has contributed on the one hand to a dynamic of concentration in rights acquisition, and on the other hand to a fragility and a strong dependence of producers and clubs on revenues from online broadcasting as it became the main source of income.

2.2. *The structure of the market: concentration,* ***delivery*** *infrastructure and nation-based organization.*

One consequence of the oversupply situation we just described is also the beginning of a process of concentration that can already be observed in most markets, especially the most mature ones, to the benefit of the most powerful platforms and players. Several factors are contributing to this development. The first[14] is the phenomenon of network externalities, well known in the digital economy and which results in a strengthening of the most powerful and most attractive players. Another reason is the considerable increase in the price of rights due to the increased competition in the market, with two mechanical consequences. On the one hand, it strengthens the most powerful players, vertically integrated, with the necessary resources for the acquisition of these rights (the case of Amazon, for example, in its recent moves to buy MGM or to acquire European football rights). On the other hand, it enables to partnership or merger strategies (the Salto audiovisual portal common to the European public players, or the French merger project of TF1 and M6, the two main private television players). Finally, one of the last engine of concentration in the market is linked to the very heavy technical investments necessary to respond to the increase in the online audiovisual consumption. As noted by the French electronic communications regulator (Arcep, 2021[15]), 50% of the traffic to the customers of the main internet service providers in France comes from four providers: the first three content providers (Netflix, Google, Facebook), and the leading Content Delivery Network (CDN) services provider for media and software delivery (Akamai), the forth. Furthermore, the gap is widening between the volume of traffic coming from Netflix and that of the other content providers.

---

[14] This is sometimes referred to as the St. Matthew effect, after a passage in the Matthew Gospel which states that "*to him who has, it shall be given and he shall have plenty, but to him who does not have, it shall be taken away even what he has*".

[15] https://www.arcep.fr/uploads/tx_gspublication/rapport-etat-internet-edition-2021-juil2021.pdf

Arcep notes that the structure of consumption on the networks indicates an increasingly clear concentration of traffic among a small number of players whose position on the content market is strengthened. Thus, the platforms with the most significant resources, in particular Google and Facebook, are led to invest in the major technical components of telecommunications networks (fibre optics, cache servers, local networks, CDNs, and even satellites and submarine cables).

For these content players, the control of the delivery infrastructure appears to be central to avoid depending on telecommunications operators in terms of traffic costs, but also, and probably above all, to guarantee and control the quality of transmissions by managing part of the traffic themselves and by locating their servers as close as possible to the consumers.

But if these investments are not within the reach of the other content producers, all of them are led, from a certain size up (cf. Disney+), to rely on and invest in some network components, in particular the CDNs, which play a decisive role in the routing of Internet traffic (Benghozi and Simon, 2016).

Whether for economic reasons, strategic positioning or through their investment in delivery infrastructure, the emerging forms of dominance of the major platforms and the reorganisation of value chains under the pressure of the new digital players is correspondingly leading to tensions among the historical players themselves, with the risk of marginalizing them even further[16].

The structure of the market and competition is thereby organised vertically, as we have just indicated, through new relations between the upstream and the downstream of the value chain. However, it should not be forgotten that the market and competition are also organised on a national basis. The reasons for this are firstly the omnipresence of local languages and cultures which have traditionally shaped the organisation and consumption of content. But this weight of national structures also results from the weight of regulatory policies which have historically been built on strictly national bases, whether in the television and audiovisual sector or in the telecommunications sector.

The main players are thus concentrated among a few countries, but most of these groups (see Table 2) attain all or large parts of their audience market shares in their respective domestic markets, with the exception of Bertelsman (Schneeberger, 2019: 49). After Brexit, the UK is still the leading supplier of television channels[17] in Europe targeting other markets. However, since 2018 the number of UK-based TV channels dropped by 50% as a third of TV channels

[16] Cf. the recent conflicts in Europe over football rights and MediaPro's difficulties.
[17] Excluding local channels.

leaving the UK migrated to the Netherlands (18%) and to Spain (14%) (Schneeberger, 2021: 15). Indeed, UK-based US networks (Discovery, Viacom, Sony…) received licenses mostly in these two countries (EAO, 2021: 26). The combined totals of TV channels established in the UK, Netherlands and Spain accounted for 28% of all TV channels licensed in the Europe as of 2020 (Schneeberger, 2021: 12).

TAB. 2 - *Top 10 audiovisual groups active in Europe (2018, billion euros).*

Company	Revenue
Sky[18] (UK)	16.8
ARD (Germany)	6.5
RTL Group (Luxemburg)	6.5
BBC (UK)	5.5
Canal Plus (France)	5.2
Netflix International B.V. (US/ Netherlands)	4.7
Pro Sieben Sat.1 (Germany)	4.0
ITV (UK)	3.6
Mediaset (Italy)	3.4
France Télévisions (France)	3.2

Source: EAO (2020: 63)

In a nutshell, broadcasting groups operating across Europe are either multi- country broadcasters, and or pan- European channel brand groups. Multi- country broadcasters are pan- European actors with channels that play an important role in various national markets for example CEME (Eastern Europe), RTL, MTG, Sanoma (Nordic countries). They tend to be generalist free-to-air channels with a high domestic market share. Pan- European groups tend to have a range of specific niche brands that are available throughout Europe: for example, groups such as Discovery, Viacom, Time Warner, The Walt Disney Company, and 21st Century Fox

One finds a number of “hubs” of pan-European brand channels by large broadcasting corporations that serve other European markets, many of which are of American origin. In 2020, after UK left the EU, the countries where these “hubs” for linear and on-demand audiovisual media services are located are virtually identical e. g. UK (Amazon Prime), Czech Republic (HBO), Luxembourg (iTunes), Sweden (Viaplay, SF Anytime, CMor, and the Netherlands (Netflix).

Within the group of distributors of audiovisual services over cable, satellite or IPTV, there is a range of companies operating at a pan- European level. These multi-country groups operate in at least three countries: Altice, Deutsche Telekom AG, Liberty Global Group, M7 Group,

[18] US cable company Comcast acquired Sky in September 2018.

Orange, RCS/RDS, Sky Plc, Telefonica, Telekom Austria Group, Telenor, TeliaSonera, United Media Group, VIASAT/ Modern Times Group, Vivendi, and Vodafone Group plc.

This sub-group went through further consolidation at the national level, expansion of geographical scope and acquisition of major national players, cross consolidation between telecommunications and cable companies, vertical integration strategies i.e. moving through the value chain.

3. The EU and the free circulation of content

To the complexity grounded in the very peculiarities of the EU, to the features of each domestic audiovisual market, the new technological trends have been adding a further layer making the regulation of the overlapping sectors more and more difficult, with contradictions between various policy goals (e. g. protecting innovation or competition), and multiple tensions between players and vested interests. As noted by the body of the EU audiovisual regulators, ERGA, the "*constantly changing media reality challenges the effective and consistent enforcement of statutory obligations in some fundamental areas of content regulation*" (ERGA, 2019: 2).

One must bear in mind that the EU regulatory framework is a two pronged framework: sectoral (broadcasting-telecommunications) on the one hand, information society framework on the other hand. The public policy approach differs in each case, the former is vertical, the latter horizontal. The information society framework is more an enabler to ease out the adoption of new technologies than a monitoring device to prevent or curb abuses of dominant positions, or a tool to promote European content, plurality and diversity in the media.

One of the difficulties of the Commission's task has been to grapple with highly heterogeneous issues such as: access and transmission, signal integrity, content, including copyright protection and Digital Right Management (DRM), protection of minors, freedom of speech/expression, e-commerce including advertising and related areas such as sponsorship and consumer protection, cybercrime, data protection and security[19].

3.1. *Catching up with technology*

On the sectoral side, over the last three decades, the European Commission has been watching carefully the evolution of the media and content industries with the goal to foster growth and innovation of digital content services in the European Union, while at the same time

[19] For a comprehensive and detailed presentation see EC (2012).

protecting consumers in a harmonised fashion[20]. At a Community level, audiovisual regulation aims to achieve the free circulation of services in accordance with Article 59 of the Treaty. It is an example of the application of subsidiarity whereby Community legislation has been adopted solely when absolutely necessary to achieve the aforementioned Treaty objective.

The European Commission did not initially have any competence over traditional broadcasting, neither on its status. However, the Commission had the ability to intervene to deal with new technologies based on the Monnet doctrine: priority intervention at the European level for new fields. Besides, article 128 of the EC Treaty[21] provides that the Community "*shall contribute to the flowering of the cultures of the Member States*" including in the audiovisual sector, and that the Community shall also "*take cultural aspects into account in its action under other provisions of the Treaty*". The move started in the 1980ies with the development of cable networks and Pay-Tv, then digital television and the Internet were taken into consideration.

The major EU regulation is the 1989 "Television without frontier" (TSF) directive[22]. The directive aimed at removing barriers to the free movement of television programming across national European boundaries (art. 4 and 5), promoting European content production and circulation**,** and Europe's diversity of cultures. The directive draws a distinction between broadcast television and other types of audiovisual: content provided via the Internet and digital TV. Using the "country of origin principle", it required then EU broadcasters to reserve at least half of their airtime for audio-visual works that originate in the EU. In order to support independent producers, broadcasters were also compelled to provide 10 per cent of their air time or programme budget for those producers. This framework is completed with a strand of copyright regulations (both at EU and domestic level), broadcasting standards, and the liberalisation of the telecommunication sector.

In order to adjust to the changes that took place since its adoption, the TSF directive has been amended twice. First, in 2010, with the adoption of the Audiovisual Media Services Directive (AVMS). The focus shifted to audio-visual media services to take into account the role of the Internet, hence establishing a distinction between "on-demand services" (or non-linear services) and the legacy broadcast services (linear services).

[20] Here we follow Busson *et al.* (2016).
[21] Maastricht consolidated version: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:11997E151
[22] See, in the same issue, "The existing EU framework: a cornucopia".

The 2016 proposal to review the directive was introducing a limited extension of its scope to video-sharing platforms which tag and organise the content, for example YouTube. National audiovisual regulators were left to determine the players which are covered. Some of the proposed extensions were not polemical; mostly the one dealing with societal goals (protection of minors, incitement to hatred…). Other triggered hot debates, especially around the issue of the promotion of European works and the "funding of content" (art.13), As debates hovered around the "funding of content", the issue of quotas took a central role[23]. As quotas are hardly promoting the open circulation of European content in the context of a single European market, it has been a highly debatable issue (Benghozi, 2017). Large SVODs were already in proportions close to the envisaged levels. Nevertheless the arguments to back the proposal were odds. The rapporteur Petra Kammerevert at the European Parliament even stated: "*To increase quotas for video-on-demand offers does not necessarily ensure a stimulation of new European audiovisual content, but it is a clear EU policy signal*" (Kammerevert, 2017).

The further 2018 revision was designed on the ground that "*convergence of media required an updated legal framework in order to reflect developments in the market and to achieve a balance between access to online content services, consumer protection and competitiveness*" (EC, 2020). The revised directive acknowledged that the importance of video-sharing platforms (VSPs) (YouTube being the largest) in the audiovisual landscape has grown rapidly over the last ten years; the revised directive brings them into its scope and contains provisions on VSPs[24]. Article 13 was maintained and the obligations to secure a share of European works increased from 20% to 30%. YouTubers and influencers have been thriving without being bothered by regulation. In theory what is illegal in the physical world is illegal in the virtual world, however some of the legal tools were lacking so far. Now, under the new regime YouTube may have to legally step in whenever a YouTuber such as PewDewPie is "*confronted about his anti-Semitic prank and his offhanded use of racist language*" (MacInnes, 2018).

In the 2000ies, the Commission took an array of initiatives (music-on-line, film-on-line…) to ease out the circulation of content on line. The accessibility of digital content was still a prime target on the EU Lisbon Agenda: "*Content industries create added value by exploiting and networking European cultural diversity*". The Commission stepped out its standard neutral approach by selecting a standard for mobile TV (DVB-H) in 2007. It was a failure and a clear

[23] Quotas exist in more than half of EU Member States.
[24] For an analysis of the implementation of the provisions, see: EC (2020).

example of the limitations of a supply side policy: promoting a push model, at a time when users were enjoying the opposite: using the new capacities of their device, the freedom to choose the content they wanted to view (pull model).

3.2. *Enabling the Information Society*

The launch of a coherent and comprehensive policy in the field of the Information Society came in 1994, in the wake of the EC's White Paper on “Growth, Competitiveness and Employment” published in 1993. The development of the Information Society is accompanied by the adoption of a regulatory framework meant to accomplish the internal market (therefore the country of origin is paramount for such directives) and focusing on consumer protection, business environment and business to business or business to consumer relationships, aiming at defining community-wide rules which take into account new technologies.

The E-commerce Directive (EC, 2000) was adopted after several years of enquiry and discussions at the European Commission on the challenges brought about for the information society by the emergence of the digital networked environment. The adoption of this directive triggered hot debates as it run parallel to the adoption of the Copyright directive. Right-holders were fighting against any liability exemption of the copyright regime, new entrants (mostly ISPs at that time) were seeking exemptions for the provision of a “mere conduit”.

The directive was complemented by other initiatives. In 1999, the EC launched an initiative entitled “eEurope: An Information Society for All”, which proposed ambitious targets to bring the benefits of the IS within reach of all Europeans. Typically this was blending IS policies and sector specific policies. The key objectives of the eEurope initiative were:

- bringing every citizen, home and school, every business and administration, on-line and into the digital age;
- creating a digitally literate Europe, supported by an entrepreneurial culture ready to finance and develop new ideas; and
- ensuring that the whole process is socially inclusive, builds consumer trust and strengthens social cohesion.

In 2002 the EC updated its initial plan and adopted its “eEurope 2005 action plan” which contains five objectives aggregated into two actions: services/ applications and content, and means (broadband and cybersecurity). As of 2005, the **i2010**[25] initiative (Information Society and the media working towards growth and jobs) introduced a pragmatic shift of focus from

[25] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:c11328&from=FR

the supply side (eEurope 1: focusing on access, eEurope 2: focusing on broadband) to ways to stimulate demand. It was based on a more cautious/ balanced approach. This initiative was trying not to lose momentum with Member States as occurred with eEurope where Members states were showing some 'eEurope fatigue'. i2010, together with previous policies, is a policy mix grounded in a vague concept but able to accommodate various goals. However, such a two-pronged framework was likely to generate not only overlappings but some conflicts as already noted for the debate about the regulatory regime and the scope of IPR, but also later with the proposed adoption of the Digital Service Act (DSA) and Digital Market Act (DMA).

However, even if it did create tensions with other policies, the framework allowed new services to bloom while at the same time creating an easier access to the EU markets for the mostly US IT companies.

3.3. *Managing Intellectual Property Rights (IPR)*

After the adoption of two World Intellectual Property Organization (WIPO) Treaties in 1996, the European Union launched a far-reaching policy debate on the need for new copyright legislation. The major goal of the 2001 Directive, "*on the harmonisation of certain aspects of copyright and related rights in the Information Society*" was to foster growth and innovation of digital content services in the European Union. In its 1995 *Green Paper on Copyright in the Information Society*, the European Commission already identified some legislative adjustments. A comprehensive[26] review of the issues around IPR is both complex and out of the scope of this paper, we focus on the evolving policy approaches followed by the Commission.

Basically, the Commission has been trying, through harmonisation measures, to remove disparities between national provisions that hinder the free movement of goods or distort competition. The EC displayed a strong willingness to intervene to correct what was considered as major inefficiencies of the internal market. As stressed by Renda *et al.* (2015: 20), seen from the Commission, there is a basic tension between copyright and the principle of free movement. Copyright is granted on a territorial or national basis thus hindering the progress of the internal market concept by sustaining frontiers. Second, it grants a monopoly right to the right holder. Company may partition the single market in order to prevent the free movement of goods on a cross-border basis The EC tried to address both and to deal with

[26] See Simon (2012b).

abuse of dominant positions through restrictive business practises like denial of sales to new entrants seeking access to national markets. The Commission was aiming both at facilitating the acquisition of rights on an EU basis, and at preventing abuses of dominant power stemming from any monopoly position. The policies are meant to provide harmonised protection of right-holders, lower transaction costs and greater choice for users of content.

In its July 2005 staff working document on the cross-border collective management of copyright, the Commission backed the option to give right-holders the choice to authorise one single collecting society to license and monitor all the different uses made of their works across the entire EU. Meanwhile, it opted for a soft law approach (recommendation) (EC, 2005) but nevertheless has been grappling with existing settlements: Barcelona, Santiago agreements[27] so as to enable multi-territorial and multi-repertoires licences.

The following 2011 document on the strategy for IPR, called again for the creation of a comprehensive framework for a digital single market, still noting that "*Europe remains a patchwork of national online markets*" (COM (2011) 287 final: 9). It was stressed: "*European IPR legislation must provide the appropriate "enabling framework" that incentivises investment by rewarding creation, stimulates innovation in an environment of undistorted competition and facilitates the distribution of knowledge*" (COM (2011) 287 final: 4). During a public consultation on the review of EU copyright rules was held from December 2013 to March 2014 around questions related to the territoriality of copyright, different groups of stakeholders explicitly raised the issue of cross-border portability.

On 6 May 2015, the European Commission released its 'Digital Single Market Strategy for Europe'. The goals were: to offer a better access to online goods and services for consumers and businesses across Europe; to set a framework conducive to digital networks and services; and to optimize the growth potential of the European digital economy. It revealed measures concerning access to digital content. A number of concerns were identified, such as cross-border access to content while respecting the value of rights in the audiovisual sector, greater legal certainty for the use of works for research, education, text and data mining, through harmonised exceptions, and the modernisation of the enforcement of rights in the event of infringements on a commercial scale.

As of April 2019, the directive "*on copyright and related rights in the Digital Single Market*" (DSM Directive), was adopted by the European Parliament and the Council of the EU. The

[27] Settlement adopted by for on line exploitation: the 2000 Santiago agreement for the performing right and the 2001 Barcelona agreement for the reproduction right. It was preceded by the 1987 Sydney agreement for satellite and broadcasting extending the mandate to the territory of the footprint of the satellite. In both cases it enabled multi-territorial and multi-repertoires licenses.

directive introduces three new elements: mandatory exceptions and limitations to right holders' exclusive rights, press publishers' rights, and platforms' liability. Some of the proposals were highly controversial: the (then numbered) Article 11 (now 15) on a new right for publishers and Article 13 (now 17) on a 'transfer of value' for user-generated content sharing platforms.

These sets of legislation have been complemented by actions from the DG Competition that took a harsher approach[28]. DG Comp issued, for instance, statements of objections to collecting societies because of the anti-competitive effects of the territorial exclusivity clauses of the agreements. Formal complaints from broadcasting group RTL and Music Choice, a British online music provider, as well as other companies were filed. These companies all had similar problems: they wanted to obtain multi-territorial licenses instead of having to negotiate with 24 different collecting societies. As of July 2008, the DG Competition issued a decision alleging that the 24 collecting societies - members of CISAC ("International Confederation of Societies of Authors and Composers" - involved had violated European competition laws. Therefore, the collecting societies were required to end these infringements. In 2015, DG Comp has sent to some US studios[29] a statement of objections, attacking industry contracts that prevent people viewing movies and TV programs outside the country in which they are sold.

In contrast with the information society framework, the main outputs of this set of legislations looks more like a mixed bag, the balance between conflicting interests was difficult to achieve. Renda *et al.* (2015: 7) are highly critical of the first phases. They hold that "*only one out of the four initial objectives of the InfoSoc Directive can be considered as having been fully achieved*"[30]. They have "*serious doubts about cost effectiveness*" of the intervention. It is too early to reasonably evaluate the effect of the 2019 directive that has not been so far implemented properly. However, Ferri (2020) spotted "*some weak points*" and notes that: "*Unfortunately, since the very beginning of the procedure leading to the final version of Directive (EU) 2019/790 it appeared indisputable that the new set of rules on copyright would have failed to achieve a fair balance between competing interests*". This lack of balance is likely to trigger more conflicts and legal challenges.

[28] The track record of the media industries with antitrust is not particularly impressive. As noted, years ago by former DG Comp director Temple-Lang (1997: 81): "*In general, it seems that the media industry has not yet fully understood the implications of Community antitrust law*".

[29] Walt Disney, Time Warner's Warner Brothers unit, Comcast's NBC Universal Media, Sony Pictures, and Viacom's Paramount Pictures.

[30] For the objectives, see, in the same issue, "The existing EU framework: a cornucopia".

Finally, in the field of audiovisual, the absence of cross-border licensing may not be in fact the most significant barrier to a Single Market for digital cultural products in spite of the emphasis in the 2011 communication on the "*single market for intellectual property rights*". The available studies (EC, 2011; KEA/CERNA, 2010; Plum, 2012; EAO, 2016) remain careful about the impact of international licensing on the availability of audio-visual works across border. The KEA/CERNA study found that VOD did not lead to more circulation of European audio-visual works in the EU which they link to the fact that local distributors remain very important in the success of an audio-visual work (e. g. through the marketing strategy that is targeted to the national market). The Plum study came to similar conclusions about a low level of demand in a domestic for TV or video originating from other EU markets (Plum, 2012). The willingness to pay for subscription-based cross-border audio-visual seems rather low. This is in line with the EAO's analysis of the TVOD and SVOD catalogues: "*In terms of availability, EU27 films represented 21% in all TVOD catalogues and 21% in SVOD catalogues*" (Grece, 2020: 28). Unsurprisingly: "*The reliance on US films was also lesser for national services than multi-country services"* (Grece, 2020: 30).

4. Conclusion: still a mosaic of markets, with different consuming patterns

Over the last fourty years the EU audiovisual landscape went through major transformations, from a scarcity of over-the-air channels, mostly public, in each market to a proliferation of nearly 14 000 channels. The Internet brought more radical changes opening up the distribution of digital channels across different networks and devices.

Each technological change led to new formats or new forms of creation. HBO pioneered the new series format on the US cable systems. In satellite distribution, Canal Plus played a major role for the funding of cinema. OTT/ streaming companies have been receiving numerous award for their auidiovisual productions. Patterns of consumption changed drastically with consumers becoming producers (prosumers) of some of the digital content, thereby blurring the distinction between professionals and amateurs (Flichy, 2010; Simon, 2016).

The European Commission has been progressively building and updating a framework to catch up with technologies and taking into account the major shifts. The framework is two sided, blending a vertical/sectoral approach and an horizontal approach of the audiovisual and digital content sector. The two sides did not yield the same results. The horizontal enabling approach seems to have performed rather well fostering the creation of an array of services. As noted in the case of the issue of copyright, the achievements of the policies are not of the same magnitude. The balance between conflicting interests were more difficult to achieve.

IPR and funding remain controversial issues, areas where compromises are still difficult to build. In a way implementing the principle of free movement is easier within an horizontal approach, and much more aligned with the Commissions rationales to fulfill the common market.

Besides, the logic of the two approaches differs, generating some tensions and overlaps. The legal complexities of all the instruments may also be a problem, with the changing phrasing of the targeted activities: linear, on-demand, platforms, OTTs[31], online content-sharing service providers, gatekeepers, video-sharing platforms. Some of the conflicts will end up in courts as players may require clarifications. Paradoxically, the framework now combines an increased amount of ex ante regulation with, for instance, rules aimed at curbing the power of big technology companies, while at the same time levelling up or granting an increase flexibility, for instance for advertising.

As stressed by Busson *et al.* (2016: 19), the EU's television markets seem in better shape than the films ones, allowing to maintain diversity and choice for domestic programmes. At the same time it has been far more conducive for US companies. The further removal of legal barriers may smooth out the single market, but it may also offer increased opportunities to imported global products. The EU audiovisual market is still in transition but remains highly fragmented in spite of the numerous and often successful intiatives of the Commission to further harmonize.

Until the adoption of the most recent measures we presented, the new media and new players (search engines, social networks and manufacturers) have been usually exempt of the regulations mandated upon legacy players. The standard incumbent argument is that such an unequal regulatory regime will place incumbents under a competitive disadvantage. The strategy to deal with the new competitors through regulatory means may vary, from trying to stifle this competition as the US broadcasters did with cable[32], or simply to seize the opportunity to receive more flexibility (this was the case with advertising in the updated AVMS directive), asking for a “*level playing field*”.

The notion is pretty vague as it may mean extending an existing regulation to all players, or the opposite, reducing the regulation. There is some acknowledgment about the idea that services of the same type should preferably be subject to broadly the same regulatory obligations. The 2016 communication on “on-line platforms” stated: “*As a general principle,*

[31] OTT: Over-The-Top. In the fields of broadcasting and content delivery, OTT content means online delivery of video and audio without the Internet service provider being involved in the control or distribution of the content itself. The traffic is not managed.

[32] Usually a short-term tactic as the broadcasters eventually lost their case.

comparable digital services should be subject to the same or similar rules, duly considering opportunities for reducing the scope and extent of existing regulation." In the last part of the sentence the document was hinting at balance between the conflicting claims about extending or reducing the regulatory regime. However, if it looks simple enough, the implementation of "treating like as like" is not obvious. The association of European audiovisual regulators (ERGA, 2015) stated that it may not be easy to define, and that "*the vagueness of the notion of TV-likeness offers regulators a tool to include or exclude a whole bunch of services for pragmatic reasons*". By the same token, the association of telecom regulators (BEREC, 2015) claimed that there can also be "objective" reasons for different regulatory treatment of similar services.

Indeed, legacy players claim they are facing unfair competition from players that are not abiding by the same rules; that new comers benefit from these asymmetries of regulation in various fields. This has been pushed forward by the book publishing industry already against Amazon and by newspapers and other industries against Google. This is also the very debate between legacy telecom players (BT, DT, Orange, Telefonica…) and OTTs (Amazon, Facebook, Google, Netflix…). The incumbents will ask for regulatory rebalancing. Newcomers will claim they are bringing new services that were not possible or even blocked by incumbents acting as gatekeepers, as Netflix as argued vis-à-vis Hollywood. A significant number of newcomers are simply bringing new services or products or are updating older ones. They disrupt the legacy business models of incumbents, not the markets.

Broadly, the Commission is trying to strike a balance between innovation and consumers'protection. In its October 2015 Single Market Communication, the EC took the view that "*innovative business models must be encouraged and welcomed into the Single Market*", while at the same time referring to the need to respect consumer rules, as well as tax and labour laws. The newly proposed Digital Service Act (DSA) and Digital Market Act (DMA) are following the same goals and addressing similar issues. We find again a mix of vertical instruments (AVMSD) and horizontal ones (DSA/DMA) to regulate the platforms. The two horizontal instruments are meant to deal with the oversight of platforms which "*is particularly challenging given some of the key characteristics of the platform economy*" (De Streel and Ledger, 2021: 6). They are not dealing with any sectoral issue per se, however, as noted by ERGA (2021: 30)[33], the interplay between the AVMSD and the proposed DSA poses concrete challenges.

[33] See in the same issue The existing EU framework : a cornucopia? ».

Besides and as a final note, with this latest move, embodied in the proposal for the DSA and DMA, the Commission has sought to overcome the old divide between audiovisual regulation and telecommunications regulation, but without succeeding to escape the other divide that marks all regulatory actions: action on the economic ecosystem and competition v. action on content (diversity, quotas, fake news, etc.). This is all the more disturbing because, as we have seen above, one of the characteristics of the changes brought about by digital technology is precisely the convergence and porosity between economic, technical and content issues. We may therefore wonder whether it is still legitimate and sustainable to decouple the two aspects through another two-pronged model, DSA/DMA when the technological dynamics show that the content formats available and consumed are precisely as much a reflection of the choices of producers and artists as of the economic and technical forms in which they are deployed.

References

AGCOM (2020), *Relazione annuale 2020 sull'attività svolta e sui programmi di lavoro.* https://www.agcom.it/documents/10179/19267334/Documento+generico+06-07-2020/d0962b60-452c-4477-9677-0c7f447a425e?version=1.0

ANG, C. (2020), « Who's the Most Popular YouTuber in Every Country?". https://www.visualcapitalist.com/worlds-most-popular-youtubers/

ARCEP (2021), *L'état d'Internet en France*, tome 3, Juillet, 109 p. https://www.arcep.fr/uploads/tx_gspublication/rapport-etat-internet-edition-2021-juil2021.pdf

BALLON, P. (2009), "The Platformization of the European Mobile Industry", *Communications & Strategies*, No. 75, p. 15, 3rd quarter 2009, pp.15-33. Available at SSRN: https://ssrn.com/abstract=1559101

BENGHOZI, P. J. and F. BENHAMOU (2021), "Media and the Internet Access Providers in an Era of Convergence ", in M. Túñez-López *et al*. (eds.), *The Values of Public Service Media in the Internet Society*, Palgrave Global Media Policy and Business, https://doi.org/10.1007/978-3-030-56466-7_11 , pp.193-213.

BENGHOZI, P.-J. and E. SALVADOR (2013), "Investment strategies in the value chain of the publishing sector: how and where the R&D someway matter?". Presentation at the XII International Conference on Arts & Cultural Management (AIMAC), June 26 - 29, 2013, Universidad de los Andes, Bogotá, Colombia and at the XI international conference TripleHelix, 8-10 July, Birkbeck and UCL, London.

BENGHOZI, P.-J. and I. LYUBAREVA (2014), "When Organizations in the Cultural Industries Seek New Business Models: A Case Study of the French Online Press", *International Journal of Arts Management*, Volume 16, No 3, pp. 6-19.

BENGHOZI, P. J., SALVADOR, E. and P. J. SIMON (2015), *Models of innovation and R&D or non-R&D in the Creative and Content Industries: A focus on the cinema sector*. http://is.jrc.ec.europa.eu/pages/ISG/EURIPIDIS/documents/JRC95536.pdf

BENGHOZI, P. J. and J. P. SIMON (2016), "Out of the Blue, the rise of CDN Networks", *Communications & Strategies*, n° 101, 1st quarter 2016, pp. 107-128.

BENGHOZI, P. J., SALVADOR, E. and J. P. SIMON (2017), "The Race for Innovation in the Media and Content Industries: Legacy Players and Newcomers: Lessons for Policy Makers from the Video Game and Cinema Industries", (with P.J. Benghozi, and E. Salvador), *The Journal of Arts Management, Law, and Society*, Issue 5. Vol. 47, 2017. http://www.tandfonline.com/eprint/VWNKbMYdzfQGrKbZJhZT/full

BENGHOZI, P. J., SALVADOR, E. and J. P. SIMON (2021), "Strategies in the cultural and creative industries: static but flexible vs dynamic and liquid. The emergence of a new model in the digital age", *Revue d'Economie Industrielle*, N° 174.

BEREC (2015), Draft Report on OTT services. http://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/5431-draft-berec-report-on-ott-services_0.pdf

BOURG, J. F. and W. ANDREFF (**2006**), "Broadcasting rights and competition in European football", in Jeanrenaud, C. and S. Késenne (eds), *Sport and the Medias*, Cheltenham, UK, Edward Elgar Publishers.

BUSSON, A., PARIS, T. and J. P. SIMON (2016), "The European Audiovisual Industry and the Digital Single Market: Trends, Issues and Policies", *Communications & Strategies*, n° 101, 1st quarter 2016, pp.17-40.

CHAN, C. (2016), "16 Observations on Livestreaming in China". https://a16z.com/2016/09/27/livestreaming-trend-china/

CLEMENT, F. (2020), "Meet 8 of Europe's most popular tech YouTube influencers". https://www.eu-startups.com/2020/06/europes-10-most-popular-tech-influencers-on-youtube/

CNC/CSA (2018), *La vidéo à la demande par abonnement en France: marché et stratégies des acteurs*. https://www.csa.fr/content/download/249719/659930/version/6/file/Etude_VaDA_03052018_vdef_2.pdf

DE PRATO, G., SANZ, E. and J. P. SIMON (eds.) (2014), *Digital Media Worlds; The new media economy*, Oxford, Palgrave.

DE PRATO, G. and J. P. SIMON (2015), "Global trends in mobile: A new global landscape for supply and demand" in Aguado, J. M., Feijóo, C. and I. J. Martínez (eds), *Emerging Perspectives on the Mobile Content Evolution*, IGF, Hershey, Pennsylvania, pp.1-31.

DE STREEL, A. and M. LEDGER (2021), *New ways of oversight for the digital economy*, CERRE. https://cerre.eu/wp-content/uploads/2021/02/CERRE_New-ways-of-oversight-for-the-digital-economy_February_2021.pdf

EAO (2016), "VOD, platforms and OTT: which promotion obligations for European works?". http://www.obs.coe.int/documents/205595/8351541/IRIS+plus+2016-3+VOD%2C%20platforms+and+OTT+which+promotion+obligations+for+European+works.pdf/417220bb-eed3-4d82-94ce-da818a447ae7

EAO (2020), *EAO yearbook 2019/2020. Key Trends*. https://rm.coe.int/yearbook-keytrends-2019-2020-en/16809ce58d

EAO (2021), *EAO yearbook 2020/2021. Key Trends*. https://rm.coe.int/yearbook-key-trends-2020-2021-en/1680a26056

EC, (1997), *Green Paper on the Convergence of the Telecommunications, Media and Information Sectors, and the Implications for Regulation. Toward an Information Society Approach*. https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=7419

EC (2011), Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions A Single Market For Intellectual Property Rights boosting Creativity And Innovation To Provide Economic Growth, High Quality Jobs And First Class Products And Services In Europe
/* COM/2011/0287 FINAL */ HTTPS://EUR-LEX.EUROPA.EU/LEGAL-CONTENT/EN/TXT/?URI=CELEX%3A52011DC0287&QID=1628763669465

EC (2012) Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions The Digital Agenda for Europe - Driving European growth digitally /* COM/2012/0784 final */ https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52012DC0784

EC (2020), SMART 2018/0066 – Part D: Study on the implementation of the new provisions in the revised Audiovisual Media Services Directive (AVMSD). Final report. https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=73303

ERGA (2015), *ERGA report on material jurisdiction in a converged environment*. http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=13287

ERGA, (2019), "Implementation of the revised AVMS Directive", *Final Report*. https://erga-online.eu/wp-content/uploads/2020/01/ERGA_2019_SG3_Report-1.pdf

ERGA, (2021), "Proposals Aimed at Strengthening the Digital Services Act (DSA) With Respect to Online Content Regulation". https://erga-online.eu/wp-content/uploads/2021/06/2021.06.25-ERGA-DSA-Paper-final.pdf

ERICSSON (2017), *TV and Media 2017. A consumer-driven future of media*, An Ericsson Consumer and Industry Insight Report. https://www.ericsson.com/49e9a2/assets/local/reports-papers/consumerlab/reports/2017/tv-media-2017-consumer-and-industry-insight-report.pdf

EVENS, T. and K. DONDERS (2018), *Platform Power and Policy in Transforming Television Markets*. Palgrave Global Media Policy and Business.

FEIJÓO, C. (2014). "Next generation mobile networks and technologies: Impact on mobile media", in Goggin, G., & Hjorth, L., (Eds.), *The Routledge Companion to Mobile Media*. New York & London, Routledge.

FERRI, F. (2020), "The dark side(s) of the EU Directive on copyright and related rights in the Digital Single Market", *China-EU Law J* (2020). https://doi.org/10.1007/s12689-020-00089-5

FLICHY, P. (2010), *Le sacre de l'amateur*, Paris, Le Seuil, La république des idées.

FRANSMAN, M. (2010), *The new ICT ecosystem. Implications for Europ*e, Cambridge, Cambridge University Press.

GRECE, C. (2020), "Film and TV content in VOD catalogues", European Audiovisual Observatory. https://rm.coe.int/film-and-tv-content-in-vod-catalogues-2020-edition-final/1680a13537

GRECE, C. (2021), "Trends in the VOD market in EU28", European Audiovisual Observatory. https://rm.coe.int/trends-in-the-vod-market-in-eu28-final-version/1680a1511a

HALLANAN, L. (2019), "What it Will Take to Claim the European Live Streaming Market". https://medium.com/themeetgroup/what-it-will-take-to-claim-the-european-live-streaming-market-db519c02e969

HEWLETT-PACKARD/ GSMA (2021), *Broadcast-as-a-Service. How telcos can use 5G, edge and open standards to support broadcasters*, Whitepaper. https://www.mobileworldlive.com/wp-content/uploads/2021/06/MWL-HPE-whitepaper-Broadcast-as-a-Service.pdf

KAMMEREVERT, P. (2017), "EU needs prudent approach to audiovisual media services directive". https://www.theparliamentmagazine.eu/news/article/eu-needs-prudent-approach-to-audiovisual-media-services-directive

KERN EUROPEAN AFFAIRS/CERNA (2010), *Multi-Territory Licensing of Audiovisual Works in the European Union*. http://www.keanet.eu/en/multiterritory%20licensing%20study.htm

LEFEVER, K. and B. VAN ROMPUY (2009), "Ensuring Access to Sports Content: 10 Years of EU Intervention. Time to Celebrate?", *1*(2), 243-268.

LIU, R. and D. LI (2016), "The Pulse of Live Streaming in China: Understanding the new Chinese lifestyle and the business behind it", *China Tech Insights*, https://www.chinatechinsights.com/

MACINNES, P. (5 April 2018), "What's up PewdiePie? The troubling content of YouTube's biggest star". https://www.theguardian.com/tv-and-radio/2018/apr/05/whats-up-pewdiepie-the-troubling-content-of-youtubes-biggest-star

NEWZOO (2015), *Whitepaper: The Consumer as Producer. How Video & Games Converge to Drive Growth*. http://www.newzoo.com/wp-content/plugins/email-before-download/download.php?dl=3650622165063944781e6d4a7463fdae

OFCOM (2020a), *Communications Market Report 2020*. https://www.ofcom.org.uk/__data/assets/pdf_file/0026/203759/cmr-2020.pdf

OFCOM (2020b), Media Nations Report 2020. https://www.ofcom.org.uk/research-and-data/tv-radio-and-on-demand/media-nations-reports/media-nations-2020/interactive-report

PLUM (2012), "*The economic potential of cross-border pay-to-view and listen audiovisual media services.* http://ec.europa.eu/internal_market/media/docs/elecpay/plum_tns_summary_en.pdf

PRETA, A. (2021), "Streaming, la nuova normalità in tv". https://www.lavoce.info/archives/87822/streaming-la-nuova-normalita-in-tv/

RENDA, A., SIMONELLI, F., MAZZIOTTI, G., BOLOGNINI, A. and G. LUCHETTA (2015), The Implementation, Application and Effects of the EU Directive on Copyright in the Information Society, CEPS Special Report, No. 120 / November 2015. https://www.ceps.eu/wp-content/uploads/2015/11/SR120_0.pdf

RETAIL X (2021), *Sector Analyst Report, Media 2021*. https://content.internetretailing.net/AcuCustom/Sitename/DAM/050/RXSMedia21.pdf

REUTERS (2021), *Reuters Institute Digital News Report 2021*. 10th edition. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2021-06/Digital_News_Report_2021_FINAL.pdf

ROSKA-ZUBČEVIĆ, A. and WAGNER-HATFIELD (2020), "Understanding key market trends in times of Covid 19", European Platform of Regulatory Authorities (EPRA). https://cdn.epra.org/attachments/files/3672/original/Understanding_market_trends_introductory_paper.pdf

SCHNEEBERGER, A. (2019), *The internationalization of TV audience markets in Europe*, European Audiovisual Observatory. https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168094ea72

SCHNEEBERGER, A. (2021), "Audiovisual media services in Europe. Supply figures and AVMSD jurisdiction claims – 2020". European Audiovisual Observatory. https://rm.coe.int/mavise-report-2020/1680a2fc29

SIMON, J. P. (2012a), *The Dynamics of the Media and Content Industries*: A synthesis. http://is.jrc.ec.europa.eu/pages/ISG/MCI.html

SIMON, J. P. (2012b), *Changing Modes of Asset Management: IPR and Copyright in the Digital Age. A Complementary Report*. http://is.jrc.ec.europa.eu/pages/ISG/MCI.html

SIMON, J. P. (2014), "Media in the changing media-IT- telecom ecosystem", in De Prato, G., Sanz, E., Simon, J.P, (ed.), *Digital Media Worlds; The new media economy*, Oxford, Palgrave, 2014, pp.57-69.

SIMON, J. P. (2016), "User generated contents. Users, community of users and firms: toward new sources of co-innovation?" *Info*, Vol. 18, 4, 2016, pp. 4-25.

SIMON, J. P. (2017), « Le don, l'autre modèle économique des apps de streaming asiatiques ». https://larevuedesmedias.ina.fr/le-don-lautre-modele-economique-des-apps-de-streaming-asiatiques

SIMON, J. P. (2018), "Triggering the emergence of digital ecosystems. The role of mobile and video games in emerging economies: The case of China, India and Russia"; *Digital Policy, Regulation and Governance*, 2018. https://doi.org/10.1108/DPRG-03-2018-0008

SIMON, J. P. (2019a), "New players in the music industry: lifeboats or killer whales? The role of streaming platforms", *Digital Policy, Regulation and Governance Journal*, Vol. 21 Issue 4. https://www.emerald.com/insight/content/doi/10.1108/DPRG-06-2019-0041/full/pdf?title=new-players-in-the-music-industry-lifeboats-or-killer-whales-the-role-of-streaming-platforms

SIMON, J. P. (2019b), "5G: Fuel for the Media?", *Intermedia*, July 2019, Vol. 47 Issue 2, pp. 16-19.

SIMON, J. P. (2020), « En 11 dates clés: une brève histoire du podcast ». https://larevuedesmedias.ina.fr/en-11-dates-cles-une-breve-histoire-du-podcast

SOLBERG, H. and C. GRATTON (2000). "The Economics of the TV sports rights: the Case of European Football", *European Journal for Sport Management*, 68-98. Retrieved Jan. 2021.

TEMPLE-LANG, J. (1997), *Media, Multimedia and European Community Antitrust Law*, https://ec.europa.eu/competition/speeches/text/sp1997_070_en.pdf

WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty, adopted in Geneva in December 20, 1996. http://www.wipo.int/treaties