The Impact of Online Video Distribution on the Global Market for Digital Content

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Executive Summary

This study examines the impact of online video distribution platforms (OVDs), defined as applications and services that distribute video over the Internet, on the market for video content. The evidence and analysis it presents demonstrate that OVDs have expanded the market for video content of all types, providing content producers with new ways to reach audiences and consumers with new ways to identify and consume the content of their choice. These findings suggest that proposals to impose regulations designed for traditional platforms like broadcast television on OVDs are both unnecessary and undesirable. As an alternative, regulators could consider modernizing, simplifying, and/or lightening regulations for incumbents to increase competition and increase further the availability of quality content to consumers.

The study’s key findings include the following:

**OVDs are able to connect consumers with video content that most closely matches their tastes, including ethnic or niche content that would otherwise be unavailable or difficult to find.** Their ability to do so is the result of both extensive catalogues and sophisticated “matching” capabilities. As a result, the content distributed by OVDs is culturally diverse. For example, of the top ten YouTube video channels (by views), two originate in India, and one each in Brazil, Russia, Sweden, Turkey and the United Kingdom, while three originate in the U.S.

**Increased demand for video content is leading to an increased supply of diverse video content, including both professionally-produced and user-generated content (UGC).** OVDs are increasing demand for UGC — for example, in 2016 approximately 14.8 million Americans earned income totaling $5.9 billion from independent creations on online platforms, including Instagram, Twitch and YouTube. Meanwhile, the number of feature-length films produced worldwide grew by 11 percent from 2010 to 2015 (from 7,612 to 8,429).

**The growth in output is occurring in nearly every region.** The number of video content production companies in the European Union (EU) grew by 28 percent between 2011 and 2015, while video content sector employment grew by seven percent. Estimated revenues for Indian film producers increased by 38 percent from 2013 to 2017 (from INR 125 billion to INR 173 billion). Spending on Canadian film and television production grew by 40 percent between 2011 and 2016 (from CAD 6.0 billion to CAD 8.4 billion).

Generally accepted economic principles explain why **OVDs have economic efficiency advantages compared with traditional video distribution platforms.** By capturing economies of scale and scope, increasing the ability of consumers to discover and obtain content of their choice, and allowing content producers to reach larger numbers of interested viewers, OVDs increase economic welfare. Users value OVDs because the breadth of offerings allows them to find video content they wish to see, at any moment and from any connected device; content creators value OVD applications because of their large audiences and because they are easy and inexpensive to use; and, advertisers value them because the overlap between viewers and content creators...
generates an engaged audience to whom they can advertise their products and services. The more content OVD platforms can offer viewers, the greater the value to consumers. The upshot is that producers of all kinds of video content – professional or amateur, mainstream or niche – can reach more consumers, while consumers have access to content that more closely matches their tastes.

The concern that the growth of OVDs comes at the expense of domestic content distributors and producers is not supported by data. Subscription Video On Demand (SVOD) subscribership is rising fastest in developing countries, often led by local firms. In India, for example, Star India’s Hotstar has more than 75 million monthly active subscribers, compared with 11 million for Amazon and five million for Netflix. Fears that viewing behavior would shift away from local content to foreign-produced video have also proven unfounded. The data show that production of traditional video content – i.e., professionally-produced feature films, documentaries and television programs – is increasing throughout the world. Both video content producers and amateur producers (Internet users) are producing more content and films, earning higher revenues, and employing more people – and this growth is expected to continue.

Our analysis suggests that extending local content regulations designed for traditional video distributors to OVDs would hinder innovation and reduce choice for both consumers and producers of digital video. Such regulation would have the opposite of its intended effects, ultimately reducing both the quantity and the diversity of digital video content available to consumers.
I. Introduction

Video distribution platforms are “multi-sided” markets that create value by matching “upstream” (both amateur and professional) producers of video content with “downstream” consumers and, in many cases, with advertisers.¹ Traditional platforms like movie theaters and broadcast television are limited in the amount of content they can display (i.e., one program at a time) and the size of the audience they can reach. Online video distributors (OVDs), defined here as any application or service that distributes video over the Internet, face neither limitation: They can offer “on demand” viewing of large video content libraries to anyone with a broadband Internet connection, anywhere in the world.²

As a result, OVDs have expanded dramatically both the upstream and downstream sides of video distribution markets. And, just as economic theory would predict, more consumers are watching more video content than ever before. Content variety has also increased; consumers can now choose among applications that serve a variety of video consumption needs, including those that provide a wide array of long-form content like Amazon, ClaroVideo (in Mexico), iflix (focused on Asia) and Netflix, those that specialize primarily in user-generated content (UGC), like Facebook, Niconico and YouTube, and direct offerings from content producers like BBC, HBO, Televisa, and Walt Disney – while still having access to traditional linear offerings from theaters, terrestrial and satellite broadcasters, and cable operators.

Policymakers in several countries have expressed concerns about the impact of online distribution on the production and consumption of “local” content, or its impact on traditional video distribution channels such as broadcasting and cable TV. These concerns, in turn, have led to calls for government intervention, including proposals to impose on OVDs taxes and regulatory obligations designed for traditional distribution platforms (i.e., broadcasters). In this context, the purpose of this study is to assess the impact of online digital distribution platforms on the market for video content.

We begin by providing an economic framework for assessing the performance of video distribution markets. We apply that framework to show how OVDs increase economic efficiency relative to traditional video distribution platforms by capturing economies of scale and scope, by enhancing the ability of consumers to discover and obtain content, and by allowing content producers to more effectively reach interested audiences.

Next, we examine the actual performance of video distribution markets around the world, focusing on both output (that is, the amount and diversity of video content actually being produced and consumed) and inputs (that is, the number of people and amount of resources devoted to video content production). The data we

¹ Throughout this paper the word “market” refers to “an institution that facilitates the exchange of goods and services” and is not meant to imply the existence of a “relevant market” as that term is understood in the context of competition policy and antitrust enforcement.

² This definition is somewhat broader than the term sometimes applied by regulators. See e.g., Federal Communications Commission, Communication Marketplace Report, GN Docket No. 18-231 (December 12, 2018) at n. 131 (defining an OVD as “an entity that distributes video programming (1) by means of the Internet or other Internet Protocol (IP)-based transmission path; (2) not as a component of an MVPD subscription or other managed video service; and (3) not solely to customers of a broadband Internet access service owned or operated by the entity or its affiliates.”) (available at https://www.fcc.gov/document/fcc-adopts-first-consolidated-communications-marketplace-report-0).
present show that the emergence of OVDs has been accompanied by an increase in the output of video content and in the revenues and employment of professional content producers, as well as making it possible for millions of platform users to generate and distribute their own independently produced videos, and monetize those videos if desired.

While proposals to extend local regulatory regimes developed for traditional broadcasters to OVDs may be well-intended, our analysis suggests that such regulation would be both unnecessary and undesirable. Furthermore, regulation would raise the costs and distort the incentives of OVDs and thus have the opposite of the intended effect, potentially hindering innovation and in turn providing less diversity of options for consumers.

The remainder of this study is organized as follows. Section II discusses relevant economic characteristics of the markets for digital video content and video content distribution, including the presence of strong economies of scale and scope and “multisided-ness.” It also explains how OVDs facilitate more efficient matching between consumers and content producers. Section III presents evidence on the growth of online video platforms and their impact on the market for video content. Section IV discusses the role of local content regulation in the online video era. Section V provides a brief summary.

II. The Economics of Video Distribution

Video distribution platforms constitute a classic example of a multi-sided market, serving content producers (who value the ability to reach viewers), viewers (who value the ability to access content) and, in many cases, advertisers, who value the ability to reach consumers by bundling their messages with other content.

Like other information markets, both video distribution and video content markets are subject to strong economies of scale and scope, meaning that costs decline (and value increases) as the market grows. Also, because content is differentiated (e.g., by genre and language) and consumers have heterogeneous tastes, the value of a distribution platform depends in part on how efficiently it can match consumers with the content of their choice.

A. Economies of Scale and Scope

One source of the economic value created by OVDs lies in their ability to achieve economies of scale and scope, which are inherent in markets for both video content and distribution.

In general, the term “economies of scale” refers to markets in which average costs decline as the volume of output increases, while “economies of scope” refer to circumstances where average costs decline as a result

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3 Readers who are mainly interested in our empirical findings rather than our economic framework may wish to skip ahead to Section III.

4 We use the term “video distribution platforms” to refer to both OVDs and to traditional platforms (i.e., movie theaters, broadcast and cable television, and physical distribution (e.g., DVDs)).
of diversity of output (e.g., when it is more efficient to produce multiple products through a single production process). Economies of scale and scope can exist on both the demand and supply side of a market. Demand-side economies of scale include “network effects,” which occur when the value of a product grows with the number of people who use it (e.g., fax machines, email, video game platforms). Demand-side economies of scope are closely associated with platform markets — that is, they refer to markets in which the value of the product grows with the diversity of its customers.\(^5\)

Compared with traditional video distribution platforms, OVDs increase economic efficiency in four ways: supply-side economies of scale, supply-side economies of scope, demand-side economies of scale, and demand-side economies of scope.

**Supply-side economies of scale:** In comparison to traditional video platforms, OVDs have enhanced ability to capture supply-side economies of scale. In other words, OVDs can enable video producers to reach more viewers at a lower cost. We focus on three ways this is true: increased geographic reach, decreased cost of video distribution infrastructure, and increased availability to consumers in the time, place, and manner of their choosing. First, unlike traditional video platforms, OVDs are not limited by the geographic reach of special purpose distribution infrastructures. Thus, whereas a broadcaster’s audience is limited by the reach of its signal, and a wireline cable operator by its infrastructure footprint, OVDs reach anywhere there is an Internet connection. Larger audience sizes exploit the “first copy” property of digital content — i.e., the fact that the costs of producing video content are fixed, while the costs of making it available to an additional customer are essentially nil.\(^6\) By expanding the size of the market, OVDs allow content producers of all sizes — from large movie studios to individuals posting local sporting events to “vloggers” posting a cooking series on social media outlets — to reach larger audiences.

Second, OVDs also allow for the achievement of economies of scale in video distribution infrastructure. Whereas a traditional video distributor must defray the fixed costs of building a distribution infrastructure (e.g., TV towers, cable systems, movie theaters) over just the audience for its own content, OVDs capitalize on the ability of the Internet to convey all kinds of digital information, allowing infrastructure costs to be defrayed over the entire universe of Internet users.

Third, OVDs facilitate increased per capita consumption of video by allowing viewers to access content at the time and place of their choosing, including while in transit. As 4G (and soon 5G) mobile technology proliferates,


\(^{6}\) The importance of economies of scale in video distribution is widely recognized. For example, the Motion Picture Association of America (MPAA) estimated that in 2007 the average cost of producing and distributing a studio film was about $107 million, of which only $3.7 million (about four percent) represented physical distribution costs. See Motion Picture Association of America, *Entertainment Industry Market Statistics* (2007) at 7, 15. Empirical estimates of the extent of economies of scale in television broadcasting show that smaller stations (e.g., as measured by total revenues) have significantly higher costs per unit of output than larger ones. See e.g., Jeffrey A. Eisenach and Kevin W. Caves, *The Effects of Regulation on Economies of Scale and Scope in TV Broadcasting* (June 2011) at 14 (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1894941) (finding that output rises 22 percent faster than costs over the relevant range).
mobile video consumption is growing rapidly both in the U.S. and globally, leading to increased demand for both short- and long-form video.

**Supply-side economies of scope:** Internet distribution also allows OVDs to achieve supply-side economies of scope by dramatically increasing the variety of both professionally-produced and user-generated content available to consumers. That is, OVDs can offer more variety than traditional providers at substantially lower incremental cost. Traditionally, cable and satellite operators have been limited to a finite number of channels, and even as they have transitioned to offering some content on a non-linear, on-demand basis, the volume of content in these offerings is typically constrained by limited capacity. By contrast, an OVD can distribute a nearly unlimited variety of content in parallel, and the costs of doing so are continually declining with the advance of online video compression technologies and better connectivity.7

This difference is vital. Simply put, the structure of linear video distribution is zero-sum; there are only so many slots that can be filled with programming, and when some of that capacity is used to deliver one title, no other title can use that spot. Once 24 hours of programming is being delivered, the television station cannot deliver any more programming in a day. In contrast, there is essentially no capacity constraint on digital distribution networks. No matter how much video programming is available on Facebook, Netflix, YouTube or others, there is always capacity available to include additional programming. Making one title available to customers does not limit the other titles an OVD can deliver to customers, nor does it limit the ability of different customers, all around the globe, to access different content at the same time.

One important consequence of OVDs’ ability to carry large libraries is to eliminate the scarcity that discourages traditional video distributors from carrying “niche” or specialty content. While the scarcity of capacity on traditional local video distribution platforms may make it uneconomic to distribute (for example) a Brazilian-produced video program to audiences in Portugal, or to Portuguese speaking viewers in other countries, OVDs can add such content to their libraries at minimal cost and make it available globally, increasing consumer choice around the world.8

**Demand-side economies of scale:** As noted above, demand-side economies of scale include network effects, and refer to the fact that consumers gain increased value from participating in larger networks. One type of network effect that occurs in video markets is that consumers prefer to watch programming that is also

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8 Some economists have likened the effect of OVDs on the economics of niche content to the Alchian-Allen effect, which posits that trade in “lower-quality” products increases with reductions in transportation costs. (For example, if it is costly to ship a bottle of wine from Australia to California, only more expensive wines will be shipped. Thus, California consumers will drink higher-quality Australian wines on average than Australian consumers do.) In the case of online video distribution, “lower quality” does not necessarily imply less desirable, but rather “less popular” (i.e., niche). Thus, the Alchian-Allen effect explains why the reduction in video distribution costs brought about by OVDs makes it economical to produce and distribute more niche content. See e.g., Jason Potts, “The Alchian-Allen Theorem and the Economics of Internet Animals,” M/C Journal 17;2 (February 2014). See also Chris Anderson, The Long Tail: Why the Future of Business is Selling Less of More (Hyperion, 2006) (hereafter Anderson 2006).
watched by their friends and acquaintances.\(^9\) The effect of OVDs on demand-side economies of scale include the value consumers gain from being able to participate in communities of interest that most closely mirror their own tastes, as well as the value advertisers gain from being able to reach larger audiences.

For example, YouTube is attractive to users due to the breadth of offerings, which allows them to find video content they wish to see, at any moment and from any connected device. Content creators value the platform more because the viewers who want to see their content are on the platform (and the platforms are easy and inexpensive to use, opening the platform to a broader population of content creators); and, advertisers value the platform because this overlap between viewers and content creators means that there are more engaged viewers to whom they can advertise their products and services. Even applications which do not involve advertisers, such as subscription-supported services or free educational services are able to increase the value of their platforms to content creators by offering larger customer bases which in turn increase the value to customers by offering large and diverse sets of video programming.

**Demand-side economies of scope:** Demand-side economies of scope arise from the fact that consumers on both sides of a multi-sided market value diversity on the other side. OVDs directly enhance demand-side economies of scope for all the platform participants. Consumers value the ability to access an almost unlimited variety of content and to sample new programming; content providers value the ability to reach new audiences; and, advertisers value the ability to better target their messages to interested consumers by presenting them in conjunction with content consumers find appealing.

As should be apparent, economies of scale and scope in video markets are self-reinforcing. Lower costs associated with supply-side economies lead to greater volume and variety of output, which in turn generates greater demand-side economies of scale and scope. These synergies have been present throughout the history of video content production. By dramatically expanding the size and scope of the market, however, OVDs have accelerated the process, leading to increased production and consumption of video content. We provide empirical evidence on these effects in Section III below. First, however, we explain how the ability of OVDs to solve the matching problem more efficiently than traditional video platforms generates economic value and thus further expands the market.

\(^9\) See e.g., Rohlfs 2003 at 21 ("In terms of bandwagon theory, a consumer’s demand depends on the number of users with whom that consumer has some community of interest. For example, communities of interest include for a telecommunications service, those persons with whom the consumer wants to communicate; for a computer operating system, those persons whose needs for applications software resemble the consumer’s; and for a machine that plays prerecorded programming, those persons whose tastes resemble the consumer’s."); Michael L. Katz and Carl Shapiro, “Systems Competition and Network Effects,” *The Journal of Economic Perspectives* 8;2 (1994) 93-115.
B. Platform Markets and the Matching Problem

As noted above, economists define platform markets as markets which bring together different types of economic actors, each of which values the presence of the others.\textsuperscript{10} In differentiated product markets with heterogeneous consumers — that is, markets with different types of products and consumers with different tastes — a central economic challenge is to efficiently match participants on each side of the market with their most desirable partners or products on the other side. This challenge has been studied extensively in a variety of markets, including employment markets (matching workers with employers), the “market” for marriage (i.e., the challenge of finding the optimal mate), and the market for Internet search.\textsuperscript{11}

Video distribution platforms bring together three types of economic actors: content creators, viewers and (for advertising-supported business models) advertisers, all of which are highly differentiated: No two video programs, viewers, or advertisers are identical. And all three types of participants value the ability to be matched with the best possible partner or product.

Compared with OVDs, the ability of traditional video platforms such as broadcasters and cable systems to efficiently match platform participants is limited by significant technological constraints, two of which were discussed in Section II.A. above: (1) the variety of content available is constrained by the linear nature of the technology; and, (2) the size of the audience (and potential audience) is limited by the geographic reach of the distribution infrastructure. As a result, traditional platforms cannot rival OVDs when it comes to the choices available to content producers and advertisers (in terms of audience size and variety) and viewers (in terms of the amount and variety of content).

Another limitation of traditional platforms is related to information and search costs. Traditional video distribution technologies such as broadcast and cable offer consumers relatively rudimentary content discovery options, such as on-screen program guides (or, until relatively recently, printed “TV guides”). Similarly, providers of these traditional services are extremely limited in their ability to discover information about consumer preferences. On traditional platforms, information on what programs consumers watch, or what advertisements are effective, has generally been indirect, derived from consumer surveys or inferences about the relationship between sales and advertising efforts.\textsuperscript{12} OVDs, by contrast, apply sophisticated techniques to match consumers with the content of their choice and advertisers to interested consumers.


\textsuperscript{12} Traditional distributors are working to improve their ability to target advertising. See e.g., Sara Jerde, “With This New Deal, More Targeted Ads Are Coming to Your TV,” \textit{Adweek} (April 5, 2018) (available at https://www.adweek.com/tv-video/with-this-new-deal-more-targeted-ads-are-coming-to-your-tv/).
On the consumer side, OVDs use search algorithms to analyze a wide variety of information about consumer search patterns and present tailored recommendations. As Baye, De los Santos and Wildenbeest explain:

Leading media platforms (e.g., Netflix, Amazon, and iTunes) now provide users with recommendations for specific media titles based on sophisticated algorithms that account for a given user’s preferences as well as the ratings provided by other users. Consumers also receive recommendations through social networks such as Facebook; “friends” can indicate whether they “liked” a particular song, movie or book. Many of these recommendation systems operate in real-time and use purchase patterns of consumers with similar profiles to identify products consumer would be otherwise unaware of.\textsuperscript{13}

Baye \textit{et al} also note that, in addition to facilitating content discovery through recommendations, OVDs also allow consumers to directly access relevant information.

Additionally, advances in search technologies have made it easier for consumers to directly access information that is relevant for their purchase decisions…. These changes in search technologies allow consumers to find a greater breadth of products and make the long tail more accessible; it is now easier to find rare and obscure books, music and movies. And thanks to digitization, consumers can now view samples of book pages, listen to sample music tracks, and watch scenes from movies through a plethora of devices connected to the Internet. In short, finding the “right” product now takes less effort, and it is easier to compare the prices different sellers charge for that product.\textsuperscript{14}

OVDs compete actively to offer the best solutions to the matching problem. For example, YouTube famously changed its matching algorithm in May 2012 to incorporate measures of quality (i.e., viewing time) as well as popularity (i.e., number of views).\textsuperscript{15} Similarly, Netflix, whose initial success in the video rental business was attributed by many to its recommendations function, has also worked to improve and better personalize the search experience for its users. As a Netflix executive explained, “We have to make customers happy and that’s the single guiding light.”\textsuperscript{16} It has been reported that Netflix invests $150 million annually on its


\textsuperscript{14} Ibid.


recommendation system. Similarly, Facebook’s new Facebook Watch application contains several features to help users find content based on categories and discover new content and creators.

There is a substantial body of research suggesting that the improved search capabilities inherent in online markets, including video markets, lead consumers to purchase a wider range of products — the so-called long-tail effect. In the market for online video, researchers have also suggested that the increased demand for “niche” content spawned by OVDs may flow through to content producers, leading them to produce a greater variety of content than would otherwise be the case. The long-tail effect also extends the commercial life of video content, increasing the returns to production by making content available, and discoverable, for a longer period.

OVDs are also more efficient than traditional video distribution platforms in matching consumers with advertisers, allowing many OVDs to offer a wide variety of content at no charge to consumers. Empirical studies have demonstrated that the ability to better target advertising to consumers increases advertising efficiency and thereby supports the content creation ecosystem, and the same phenomenon is generally

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20 See Alejandro Zentner, Michael Smith, and Cuneyd Kaya, “How Video Rental Patterns Change as Consumers Move Online,” Management Science 59;11 (November 2013) 2622–2634, at 2633 (“Our results show that there is a change in consumption patterns caused by the characteristics of the Internet channel. As a consequence, our finding that online channels may shift DVD consumption away from blockbuster titles and toward more niche titles may have implications for movie studios and movie producers. Specifically, movie studios have typically faced a market where a small number of hits made up the vast majority of industry profits. Our results suggest that this historical pattern of highly concentrated transactions in a handful of titles might have been driven by the characteristics of the offline channel and that studios may wish to shift their resources relatively toward more long-tail titles as consumers move online.”). See also Oxera, “How Did Cats Get the Cream of the Internet?” Agenda (January 2018) (available at https://www.oxera.com/Latest-Thinking/Agenda/2018/How-did-cats-get-the-cream-of-the-Internet.aspx) (“The rise of matching algorithms means that consumers can now search for and find content that matches their interests and tastes much more specifically. Search boxes, shared content and algorithmically derived recommendations allow consumers to find and explore very specific genres, which would not have been possible for TV or film previously… the lower cost of production and distribution, as well as search and automated recommendations, now mean that previously unviable markets…may be able to thrive.”).


22 See e.g., J. Howard Beales and Jeffrey A. Eisenach, An Empirical Analysis of the Value of Information Sharing in the Market for Online Content, Navigant Economics (January 2014); John Deighton and Peter A. Johnson, The Value of Data: Consequences
recognized within the video content industry. Indeed, the ability of digital distribution platforms to improve advertising efficiency was cited by the U.S. District Court of the District of Columbia in its decision approving AT&T’s acquisition of Time Warner:

The classic model of television advertising is limited in two ways. First, in deciding the placement of commercials to be seen by a wide audience, programmers generally must rely on general demographic data, such as age range, about the typical audience for a given program. Second, and as a result, programmers have no choice but to saturate all viewers of a program with the same, undifferentiated ads – despite knowing that the selected ad will be of little interest to some number of those viewers.23

A third disadvantage faced by traditional distribution platforms is the relative homogeneity of the platforms themselves: Before the Internet there were four primary video distribution business models: movie theaters, cassettes and DVDs, over the air (ad supported) television, and pay TV.24 OVDs, by contrast, provide a variety of business models, including: ad supported applications like Facebook Live/Facebook Watch, Niconico, and YouTube; subscription applications (SVODs) like Claro Video and Netflix; single-play “rent or buy” applications like iTunes; direct delivery from content producers like BBC Online and HBO Go; and, a seemingly infinite variety of alternatives such as Amazon Prime (which bundles video with a wide variety of other “prime” benefits) and Hotstar (a “freemium” application that offers both ad-supported and subscription content). The multitude of available choices gives platform participants – including content providers, consumers and advertisers – the ability to “go to market” in whatever ways best match their needs.

All of these factors taken together provide a strong economic foundation for the hypothesis that the growth of OVDs should expand the market for video, raising both output and consumption.

III. OVDs and the Growing Market for Video Content

In this section, we present empirical evidence showing that as online video platforms have grown, the market for video content has grown across all sectors and regions. The data we analyze below are consistent with the

23 Memorandum Opinion, U.S.A. v. AT&T Inc. et al, No. 17-2511 (D.C. Cir., June 12, 2018) at 10; see also ibid. at 26 (“Why the rush away from television ads to digital ones? Simply put, digital ads are more efficient. Through their access to and use of consumer data, Google and Facebook are better able to discern the purchasing preferences and interests of individuals viewing particular online content. They can use that information to infer what types of ads would most interest those users. And they can tailor digital advertisements to those users based on those preferences. Best of all from an advertiser’s perspective, Google, Facebook and other entities engaged in digital advertising have confirmatory data that demonstrates whether particular ads were effective.” (citations omitted)).

24 Partially in response to competition from OVDs, “traditional” platforms have evolved to offer more flexible choices, including pay-per-view purchase and rental options. Some now offer OVD applications such as Hulu and Netflix as part of their offerings.
predictions of economic theory: Market expansion driven by OVDs has led to increased production and consumption of video content, including increases in the quality, quantity, and variety of video production.

Specifically, the growth of OVDs has expanded the market for professional video production while at the same time creating a market for UGC, primarily on social media platforms. Market expansion led to the entry of new studios and production companies, some of which are run by the distributors themselves: Amazon, Hulu, and Netflix, for example, have all enjoyed critical and commercial success in recent years with original mass-market programming. The growth in original mass-market programming, spurred by original content being produced for online distributors, has contributed to what is widely seen as more and better new content than ever before, a “golden age of television.” At the same time, OVDs have enabled an explosion in the production and availability of UGC on platforms like Facebook, Niconico and YouTube, which allow amateur and independent content creators to make their video productions available to audiences worldwide.

A. Growth in Video Consumption

Online video consumption has grown rapidly in recent years and is projected to continue growing over the next several years. As shown in Figure 1, global consumption of online video is projected to increase at an average annual rate of 31 percent from 2016 to 2021. The fastest growth is expected in the Middle East and Africa (56 percent per year) and Asia Pacific (35 percent per year).

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The growth of the online viewing audience is being driven by both growing Internet penetration and the availability of increasingly capacious broadband networks (both fixed and mobile) capable of transmitting high-quality video, and is occurring in both developed and developing countries. For example, Figure 2 shows the projected growth in the online viewing audience between 2012 and 2017 in eight developed countries, with the fastest growth occurring in countries like Australia, Austria, Singapore and the U.S., all of which have highly-developed broadband infrastructures.
As shown in Figure 3, SVOD applications are increasingly popular in developing as well as developed countries. While penetration remains highest in the U.S. (where 79 percent of consumers subscribe to at least one SVOD application), India (75 percent) and South Korea (65 percent) are not far behind, and penetration rates exceed 50 percent in all the countries surveyed except Singapore (48 percent) and France (45 percent).
As shown in Figure 4, as recently as 2013 three out of four Netflix subscribers were Americans; just four years later, by 2017, more than half were from outside the U.S. Netflix revenues reflected the shift: Netflix’s streaming revenue outside the U.S. increased from $83 million in 2011 to nearly $8 billion in 2018, or 91 percent per year.27

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The rapid growth of OVDs around the globe is by no means limited to U.S.-based platforms. In India, for example, Star India’s Hotstar has more than 75 million monthly active subscribers, compared with 11 million...
for Amazon and five million for Netflix.\textsuperscript{28} Malaysia based iflix, which has undercut Netflix on pricing and targeted the rapidly growing mobile device market, has 6.5 million active paying subscribers.\textsuperscript{29}

OVDs are also playing an especially important role in Africa, where video creators face high barriers to monetizing their creations due to a weak distribution system: movie theaters are relatively rare, television channels are fragmented at the national level, and counterfeited copies of movies arguably are easier to find than legal ones. Several online platforms such as AfricaFilms.tv and Buni TV have identified the potential of the Internet to overcome those limitations.\textsuperscript{30} In the words of Enrico Chiesa, co-founder of AfricaFilms.tv, “While the big players are implementing the infrastructure needed for individual legal film download in Africa (affordable [I]nternet broad band connections, cheap smart mobile screens, adequate payment tools), we are digitizing a wide catalogue and wish to market it to the audiences that are ready.”\textsuperscript{31}

AfricaFilms.tv uses the global reach of the Internet to pool together a number of formerly separate viewer segments to reach critical mass: “[W]orld wide audiences: diasporas, Western world-culture fans and movie-buffs, African upper-middle class, i.e.[,] 30 - 40 m people right now and tomorrow...African populations, who will be widely connected to the [I]nternet and mobileTV.”\textsuperscript{32} Their business model is based on bringing quality African content into their platform in all formats: feature films, series, documentaries, animated movies or TV sitcoms. To lure producers into the platform and stimulate the creation of new original content, they have designed the platform to address the main concerns of African content producers, as shown in Figure 5.

\vspace{1cm}

\textsuperscript{28} See Hanish Bhatia, “Netflix Restricted to Premium Subscribers, While Hotstar Leads the Indian OTT Video Content Market in 2017,” \textit{Counterpoint} (December 27, 2017) (available at \url{https://www.counterpointresearch.com/netflix-restricted-premium-subscribers-hotstar-leads-indian-ott-video-content-market-2017/}). Hotstar is a “hybrid” (or “freemium”) application that offers both advertising-supported and subscription-based services.


\textsuperscript{32} See AfricaFilms.tv, \textit{AfricaFilms.tv: VOD 100% Africa} (hereafter \textit{AfricaFilms.tv}) (available at \url{http://www.casafrica.es/casafrica/Agenda/2011/02_FESPACO_Africa_Films.PDF}).
By 2018, AfricaFilms.tv addressed audiences in more than 50 countries and had more than 600 African films in its catalog, in addition to soap operas and other video content.33

Despite the rapid growth in online video applications (global SVOD subscriptions increased from approximately 100 million in 2013 to 446.8 million in 2017, or 45 percent per year), subscriptions to cable, satellite, and other video distribution platforms remained relatively stable.34 Even the original method of distributing video content, the movie theater, continues to prosper. As shown in Figure 6, global movie theater box office revenues have grown steadily in recent years, increasing by about 14 percent between 2013 and 2017.

33 See “AFRICAFILMStv,” Facebook (available at https://www.facebook.com/pg/africafilmstv/about/?ref=page_internal).
One likely explanation for the fact that the growth of OVDs is generally additive is that online video consumers have relatively strong tastes for watching video in all forms. For example, as shown in Figure 7, the MPAA reports that frequent moviegoers own more home entertainment devices (e.g., computers, smartphones, video-streaming devices) than average, suggesting that online entertainment overall is a complement for traditional viewing rather than a substitute. Thus, the primary effect of OVDs is to increase overall consumption, not simply shift consumption from one modality to another.
In summary, online video distribution is growing rapidly in every region of the world, and all of the available evidence indicates that growth is increasing consumer demand for video content. In the following section, we present data on the impact of that increased demand on video content output.

B. Global Growth in Video Production and Output

Increased consumer demand for online and traditional video content is leading to significant increases in output for all types of video content, from traditional video productions (i.e., “long-form” productions like TV shows and movies) to UGC, which takes a virtually unlimited variety of forms — from cat videos to documentaries to karaoke — and is growing at an explosive rate. Moreover, as the data presented below demonstrate, growth in both traditional video and UGC is occurring on a global basis. The first subsection below presents data on the growth of traditional video content; the second focuses on UGC.
1. Growth in Traditional Video Content

As discussed further in Section IV below, some policymakers have expressed concern that the growth of OVDs may be coming at the expense of domestic content producers, especially outside the U.S. The data does not support these concerns: As we demonstrate below, the output of “long-form” traditional content (i.e., movies and television programming) is rising throughout the globe, including Asia, Canada, Europe, and Latin America — as well as in the United States. Furthermore, much of the increased demand for such content is coming from OVDs, who are competing among themselves (and with traditional platforms).

SVODs like Amazon Prime Video, Hulu and Netflix have invested heavily in creating original content. For example:

- Amazon spent an estimated $512 million on original series in 2017, about $1 billion in 2018 and is projected to spend $2.6 billion in 2021. In 2017 Amazon’s spending on original content was 13.9 percent of its total content budget, which is allocated between licensing acquired content and original content. Amazon is predicted to spend 31.4 percent of its content budget on originals in 2021.35

- Hulu spent an estimated $136 million on original programming in 2017, approximately $218 million in 2018 and is projected to spend $447 million in 2021. Hulu’s original series *The Handmaid’s Tale* helped Hulu gain subscribers and won an Emmy for best drama in 2017.36

- Netflix spent more than $12 billion on content in 2018, with 700 original series worldwide, including 80 non-English language productions.37 Netflix’s full-length motion picture *Roma* was nominated for 10 Oscars, and won three, at the 2019 Academy Awards.38

In addition to these three major SVOD platforms, video sharing platforms and social media platforms Facebook, Twitter and YouTube are also investing in original content.

Facebook is “aggressively courting video creators” by offering incentives for producers for its Watch product. For example, Facebook now allows producers to publish native ads and videos paid for by brands or include product placement. In preparation for its launch, Facebook signed deals with companies such as BuzzFeed, Condé Nast and Vox Media to produce original shows and continues to invest in original content including critically-acclaimed dramas like Sorry for Your Loss and new interactive programming like Confetti. In an effort to create “more sophisticated, premium content,” Facebook is reported to be willing to spend up to $1 billion to produce original shows for Watch.

Twitter is expanding the breadth and depth of its premium video programming through collaborations with content creators such as BuzzFeed News, ESPN, NBCUniversal and Viacom. According to Twitter’s Global Head of Content Partnerships Kay Madati, “In the past year, we’ve really expanded our efforts with the best publishers and content creators in the world to bring a slate of programming that reflects those diverse content interests.”

YouTube started producing premium original content (YouTube Originals) that are available to consumers through its YouTube Premium subscription platform in 2016, releasing 30 films and series in the first year. In 2017 YouTube began producing seven unscripted original series available for free, with plans to invest several hundred million dollars in new content in the coming years.

Contrary to some policymakers’ concerns, OVDs’ spending on new content is by no means limited to U.S. or “western” content producers. For example, Netflix planned to release 30 local language original series in

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40 Wagner 2016.
43 Ibid.
2018, and intends to soon have approximately 100 local language series in production. In Brazil, for example, Netflix launched several original films and series, including a highly-acclaimed Western film, a documentary film, a sci-fi dystopia series, a political corruption series, a supernatural thriller series, a biographical docu-series, a 1950s romantic period drama series, a Brazilian folklore murder series, a sitcom and stand-up comedy specials. In Japan, Netflix has acquired and commissioned 20 Japanese animation series that it exports across its global platform. In India, it has made significant acquisitions and is collaborating with local producers on original series, some of which it seeks to offer globally. In Europe, Netflix has invested more than $2 billion in content since its launch and is “one of the world’s biggest purveyors of French content.” Netflix will reportedly be ordering its first original series from Africa in 2019.

Amazon is also investing in geographically diverse markets. In India Amazon has earmarked $300 million for original content production and is currently producing 20 original series, offering “one of the largest Indian original line-ups on an OTT [over-the-top] platform.”

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50 Ibid.


Non-U.S. based platforms are taking a similar tack. Malaysia-based iflix, which is now available in 25 countries across Southeast Asia, the Middle East, and Africa, is investing in Malaysian and other local content. In India local video streaming platform Spuul will soon be producing original shows, and other local platforms like Hotstar, Sony Liv, and Voot have increased their content spending significantly since Amazon and Netflix entered the Indian market. Growth in regional content on Indian OVD applications is “fueled by demand from both local viewers and the international diaspora.”

Fears that viewing behavior would shift away from local content to foreign-produced video have also proven unfounded. For example, one analysis found that consumption of online video in Southeast Asia has shifted from “80% Hollywood/20% Asian” to “50% Hollywood/20% local/30% Korean.” In India, 75 percent of new Internet users consume content in their local languages, and industry analysts believe regional content is key to capturing share because a large percentage of OVD viewership is fragmented across states and languages. As one recent report explained, “multiple genres are fueling consumption” but “[l]ocal dramas…remain the most important ratings driver.”

One factor driving demand for local content is the desire of OVDs to differentiate themselves from competitors by varying their content mixes. Figure 8 shows the number of films available on major OVDs in France by country of origin. As the figure shows, UniversCiné’s catalogue is weighted towards local content (43 percent of the films in its catalog for which origin could be identified are French), while other platforms carry more content from the U.S. and other countries. However, while the iTunes catalog is comprised of only 21 percent French content, in absolute terms it offers more French films than any of the other platforms.

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55 “3 VOD Trends in India for 2017: Spuul CEO,” CXOToday (December 7, 2016) (hereafter CXOToday 2016) (available at http://www.cxotoday.com/story/three-vod-trends-to-observe-in-india-in-2017/). See also Hotstar, The India Watch Report 2018 (February 2018) at ii (available https://www.hotstar.com/indiawatchreport2018/20180219 INDIA_WATCH_REPORT.pdf) (“In a world that does not fear data charges, video is very often the first port of call for new data users. Familiar stories, whether TV shows, movies or sports, unconstrained by any language limitation, are acting as powerful triggers to light up their smartphones and their data connections.”); ibid. at 13 (“~70% of Premium users who watch English shows and movies also view multiple other genres and languages.”).


57 CXOToday 2016.

58 Content Asia 2017.

60 As noted above, many consumers subscribe to multiple OVDs.
As shown in Figure 9, it is common for major European Video on Demand (VOD) platforms to focus on EU-originated content.
Increased demand for video content is leading to increased output of all kinds. Figure 10, for example, shows the number of feature-length films produced worldwide, in the top ten film-producing countries and the rest of the world separately. The number of feature film productions increased from 7,612 in 2010 to 8,429 in 2015, or 11 percent. Notably, the only two countries among the top ten in which the number of feature films produced declined were the U.S. and the United Kingdom.
The expansion of the video distribution market is leading to growth in the video content sector. For example, as shown in Figure 11, the number of EU content production businesses (defined as enterprises involved in “motion picture, video and television programme activities”) grew by 28 percent between 2011 and 2015, from about 91,000 to over 116,000 in 2015.
Employment in the EU video content sector has also been on the rise. As shown in Figure 12, between 2011 and 2016 the number of employees working in the TV, video, and motion picture industries grew by more than 38,000, an increase of more than 10 percent.
The video content production sectors in other major film producing countries are also growing. In India, for example, film sector revenues were projected to grow from INR 125 billion in 2013 to INR 173 billion in 2017 – an increase of 38 percent – and to INR 238 billion in 2020.
Employment in the Indian film industry is growing even faster than revenues: It is estimated to have increased 55 percent between 2013 and 2017, from 160,800 to 248,600, as shown in Figure 14.
Similarly, spending on Canadian film and television production grew by 40 percent between 2011 and 2016, from CAD 6.0 billion to CAD 8.4 billion, as shown in Figure 15.

Figure 15:
Expenditures on Canadian Film and Television Production Expenditure
(CAD Billions; FY 2011-2016)


Over the same period, the Canadian video content production sector added about 15,000 jobs, an increase of about 28 percent.61

61 Fiscal Year (April 1 - March 31).
The U.S. content sector, in the meantime, is experiencing modest growth: Between 2011 and 2016, output increased by about 1.5 percent annually, from $144 billion to $156 billion, as shown in Figure 17.
To summarize, the data shows that production of traditional video content — i.e., professionally-produced feature films, documentaries and television programs — is increasing throughout the world. Video content producers are producing more films, earning higher revenues, and employing more people, and that growth is expected to continue.

2. **Growth in User-Generated Content**

As discussed in Section II above, supply- and demand-side economies of scale and scope provide video sharing and social media platforms like Facebook, Twitter, and YouTube with powerful incentives to increase the size of their ecosystems: The more content they can offer, the greater the value to consumers; the greater the value to consumers, the more consumers join the platform; the more consumers join the platform, the more content they generate; and so forth.

Thanks to recent technological advances, content on social media sites increasingly is dominated by user-generated video, and the amount of video being uploaded and accessed from such sites is growing rapidly.
The volume of both publisher- and user-generated video content posted on Facebook is also growing rapidly. For example, the number of videos posted by the top 10,000 Facebook video publishers increased from approximately 70,000 in April 2015 to 140,000 in June 2016, while sharing of those videos increased from an average of approximately 200 to approximately 500 shares per video over the same period. User-generated video has followed similar growth, as Facebook users globally posted 75 percent more videos in 2015 than in 2014 while U.S. users posted 94 percent more. In 2017 Facebook introduced Facebook Watch to organize video across Facebook pages in a single destination and in 2018 expanded it globally.

According to a survey conducted by the Interactive Advertising Bureau, by 2018 social media platforms had become the single most popular source for live video content. Social media analysts have also noted that, for brands, unpaid video posts have 135 percent greater reach than unpaid photo posts.

To accelerate the ability to capture scale and scope economies, content platforms engage in a variety of investments designed to facilitate user engagement. For example, Facebook’s Creators App is an example of investments to promote the production and distribution of videos through Facebook Live. As shown in Figure 18, the app gives creators tools to personalize their live broadcasts, such as intros, outros and graphic frames to create a consistent brand, and provides access to analytics about creators’ videos and fans to inform content creation.

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69 See e.g., ibid.
Facebook has recently launched new tools to help creators engage and interact with fans, manage content rights, connect with advertisers for branded content opportunities and receive monthly payments from supportive fans in exchange for exclusive content and other perks.70

Similarly, YouTube has launched “YouTube Spaces” in Berlin, Dubai, London, Los Angeles, Mumbai, New York, Paris, Rio, Tokyo and Toronto,71 which offer YouTube content creators “events, workshops, as well as the latest production resources” to produce video content. YouTube Spaces offer classes, as well as access to editing suites, production rooms, and soundstages.72

Twitter is also working on a video sharing tool to make it easier for users to post video on the platform and encourage users to share video clips of what is happening around them.73

Many social media platforms offer users the opportunity to share in advertising revenues generated by their content. A recent study found that 14.8 million Americans earned income totaling $5.9 billion in 2016 from

71 YouTube, “YouTube Space” (available at https://www.youtube.com/yt/space/).
72 See e.g., YouTube, “Access Program” (available at https://www.youtube.com/yt/space/rio/access.html).
independent creations on online platforms, including Instagram, Twitch and YouTube.74 According to this same study, in the U.S. alone, more than 260,000 Instagram creators, 6,000 Twitch creators and one million YouTube creators earned $500 or more, while 530 Instagram creators, 2,000 Twitch creators and 63,000 YouTube creators earned $10,000 or more.

As with traditional video, concerns that OVDs would favor Western- or U.S.-based UGC content are not supported by the data. As shown in Table 1, for example, the most popular YouTube channel (measured by total views) is Indian, and two of the ten most popular channels originate in Turkey (the 19th most populous nation in the world) and Sweden (the 89th).75 Only three of the top ten are based in the U.S.

**TABLE 1:**
**TOP TEN YOUTUBE CHANNELS BY TOTAL VIDEO VIEWS**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Channel</th>
<th>Total Video Views</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T-Series</td>
<td>37,281,310,066</td>
<td>India</td>
</tr>
<tr>
<td>2</td>
<td>WWE</td>
<td>22,562,146,395</td>
<td>U.S.</td>
</tr>
<tr>
<td>3</td>
<td>Ryan ToysReview</td>
<td>21,576,801,276</td>
<td>U.S.</td>
</tr>
<tr>
<td>4</td>
<td>netd müzik</td>
<td>20,907,799,582</td>
<td>Turkey</td>
</tr>
<tr>
<td>5</td>
<td>PewDiePie</td>
<td>17,737,167,755</td>
<td>Sweden</td>
</tr>
<tr>
<td>6</td>
<td>SET India</td>
<td>17,676,532,503</td>
<td>India</td>
</tr>
<tr>
<td>7</td>
<td>JustinBieberVEVO</td>
<td>17,315,358,081</td>
<td>U.S.</td>
</tr>
<tr>
<td>8</td>
<td>LittleBabyBum</td>
<td>16,574,263,405</td>
<td>U.K.</td>
</tr>
<tr>
<td>9</td>
<td>Get Movies</td>
<td>16,131,749,585</td>
<td>Russia</td>
</tr>
<tr>
<td>10</td>
<td>Canal KondZilla</td>
<td>16,009,862,522</td>
<td>Brazil</td>
</tr>
</tbody>
</table>


IV. OVDs and Local Content Obligations

Many governments have pursued national policies designed to promote domestic or “community-based” programming on traditional video platforms. Such policies have taken a variety of forms, ranging from licensing conditions requiring broadcasters to serve “the public interest” by covering community issues (as in


the U.S.) to more prescriptive regulatory regimes mandating the carriage of specific types of domestically-produced content or requiring content distributors to contribute to the funding of domestic content production. At the time these regulations were implemented, governments were making decisions about how to allocate scarce resources such as spectrum and access to rights of way, as well as regulating in an environment in which platforms decided what content to push to users, rather than users deciding which content to pull into their homes. The rise of OVDs has led policymakers to question whether such regulatory regimes should be extended to some or all OVDs. This section presents an overview of local content regulation as it has applied to traditional video platforms, reviews some of the current proposals to extend such regulation to OVDs, and explains why we conclude that applying traditional content regulation to OVDs is neither necessary nor desirable.

A. Local Content Obligations on Traditional Broadcasters

Local content regulation of video content distribution traditionally has focused on ensuring the availability of programming produced in the native language, reflecting domestic cultural norms and traditions, and promoting media freedom and pluralism. To achieve these goals, governments have enacted a variety of policies designed to support domestic content producers. The rights of governments to engage in such policies are explicitly recognized in the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions, and in certain instances, cultural industries have been exempt from international trade treaties, albeit to varying degrees.

While policies vary across countries, the main policy tools used to promote local content include domestic content mandates on video distributors and various forms of subsidies. Content mandates typically require content distributors (i.e., television broadcasters) to satisfy minimum quotas for carriage of domestically produced content. These measures often include specific mandates on the nature of the content that must be carried, as well as time-of-day requirements (e.g., requiring domestically produced content to be broadcast in “prime time”).

Subsidies for domestic content production have taken the form of mandates on distributors to finance a minimum number of locally produced original works (expressed either as a percentage of revenue or as a given number of films or other measures) or taxes that are used to finance national productions.

Appendix A summarizes obligations in selected countries (Argentina, Brazil, Canada, France, India, Spain, and U.S.). National content quotas are most frequently used, along with obligations to fund production of national

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79 Governments have also set up public broadcasters with an explicit mandate to broadcast (and often to produce) national and niche content. Public broadcasters are often funded by advertising, general taxation, and specific levies on TV viewers. However, in some countries they are also funded by contributions from private broadcasters and telecommunications operators.
works. Contribution to national funds and to public broadcasters are also not uncommon. In our sample, only
countries with very strong film industries, such as the U.S. and India, refrain from imposing significant content
origination obligations on broadcasters.

B. Proposals to Regulate Online Video

The growth of online video has prompted authorities around the world to consider whether local content
obligations should be applied to OVDs. The debate over whether to do so is complex, and we do not attempt
to address every aspect here. Broadly speaking, however, proposals to extend such regulation to OVDs are
founded on concerns that the lack of such obligations provides them with a competitive advantage over
traditional platforms, or that the transition from traditional to online distribution platforms could reduce the
efficacy of existing regulatory regimes by depriving traditional platforms of audiences and revenues.80

The debate over whether and how to extend content regulations to OVDs is extremely fluid, occurring in
dozens of countries around the world. In Appendix B we summarise the state of play in some major markets.
As the appendix shows, some jurisdictions, including Brazil, France and Spain, have already moved to extend
their local content regimes to online platforms, and active deliberations are ongoing in number of others,
including the EU and Canada.81

The EU adopted the Audiovisual Media Services Directive (AVMSD).82 Although cultural policy is a competence
of Member States, the EU has an indirect mandate to contribute “to the flowering of the cultures of the
member states, while respecting their national and regional diversity and at the same time bringing the
common cultural heritage to the fore.”83 To advance this goal, the European Commission adopted the AVMSD
in 2010. The AVMSD specifically permits Member States to impose certain obligations on online video

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81 The discussion of the potential extension of traditional media regulation to online video is not limited to their content
dimension. As an example, the city of Chicago extended its existing nine percent amusement tax to “electronically delivered
amusements” (including online video streaming). See PwC, City of Chicago – Amusement Tax Applies to Charges Paid for
Electronically Delivered Amusements (July 1, 2015) (available at https://www.pwc.com/us/en/state-local-tax/newsletters/salt-
insights/assets/pwc-chicago-amusement-tax-applies-electronically-delivered-amusements.pdf); PwC, “Chicago Amusement Tax
Applies to Electronically Delivered Amusements” (August 2015) (available at https://www.pwc.com/us/en/state-local-
The expressed rationale for the new tax is to compensate for the loss of property taxes and other local taxes paid by video rental stores that went out of business because of competition from online video. See Russell Brandom, “Chicago’s ‘Cloud Tax’ Makes Netflix and Other
Streaming Services More Expensive,” The Verge (July 1, 2015) (available at https://www.theverge.com/2015/7/1/8876817/chicago-
cloud-tax-online-streaming-sales-netflix-spotify).
Council of 10 March 2010, on the Coordination of Certain Provisions Laid Down by Law, Regulation or Administrative Action
in Member States Concerning the Provision of Audiovisual Media Services (Audiovisual Media Services Directive) (March 10, 2010)
providers which are similar (though fewer in number) to those of broadcasters, in order to promote the production and access to European works. Specifically:

Member States shall ensure that on-demand audiovisual media services provided by media service providers under their jurisdiction promote, where practicable and by appropriate means, the production of and access to European works. Such promotion could relate, inter alia, to the financial contribution made by such services to the production and rights acquisition of European works or to the share and/or prominence of European works in the catalogue of programmes offered by the on-demand audiovisual media service.84

Several EU countries, including France and Spain, took advantage of this provision to impose catalog quotas and obligations to fund the production of national and European content on OVDs.

As the importance of online video continued to increase, the European Commission (EC) launched a proposal to review the AVMSD in 2016, which it completed in 2018.85 Key provisions include:

- VOD Services will be required to have in their catalog at least a 30 percent share of European works.
- Member states may also require VOD services to contribute financially to the production of European works.
- Video-sharing platforms will not be subject to these requirements, but will be subject to requirements that the platforms take appropriate measures to avoid harm to minors among other content restrictions and comply with certain advertising restrictions.

Canada has also launched a series of consultations on the best way to adapt its regulation to the emergence of online video. In its 2015 consultation, 86 the Canadian Radio-television and Telecommunications Commission (CRTC) concluded that:

- Canadians throughout the country should have access to programming, including original Canadian programming, on Canadian-operated online platforms.

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84 EU AVMSD 2010 at Article 13.1 (emphasis added).
• Policy focus should shift from a regulatory approach based on exhibition quotas to one based on expenditures on Canadian programming.

• The broadcasting system should rely on market forces to the extent that the market can provide programs and services that achieve the objectives of the Act. Only when the market fails to provide such services or programming will the Commission intervene.

• Online video services should continue to be exempt from regulation provided they are accessible to all Canadians through the Internet and not linked to a Pay-TV subscription.

In 2017, the Canadian government launched a review of its communication laws that seeks to “update and modernize the legislative framework in a balanced way that takes into account the realities of Canadian consumers and businesses, and our artists, artisans and broadcasters without increasing the cost of services to Canadians.” 87 In response the CRTC announced new consultations to explore ways to further adapt its regulatory framework to the growing importance of online video. 88 The CRTC’s report, issued in June 2018, calls for extensive changes to Canada’s local content regime, and recommends including OVDs within the Canadian broadcasting system. However, the report also recognizes that different OVDs contribute in different ways, and proposes adopting a flexible approach involving negotiations with large platforms, rather than a heavy handed, “one-size-fits-all” regulatory approach. 89 The Government also appointed an expert panel to review Canada’s Broadcasting, Telecommunications and Radiocommunications Acts and recommend specific legislative changes.

C. The Economics of Extending Local Content Regimes to OVDs

While proposals to extend local content regimes to OVDs are no doubt well intended, our analysis suggests that such regulation would be both unnecessary and undesirable – unnecessary, because the advent of online distribution has virtually eliminated the economic and social rationales for such policies, and undesirable

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because such regulation would raise the costs and distort the incentives of OVDs and thus have the opposite of the intended effect.

First, as discussed above, the advent of online distribution has solved the primary barriers to the production of local, niche, and specialty content. By expanding the market geographically and solving the “matching problem” of bringing content consumers together with producers, and advertisers together with both, OVDs have reduced barriers to entry and made it possible for small, independent content creators of both user-generated and professionally-produced videos reach larger audiences. No longer is consumer choice limited by scarce spectrum or channel capacity, with consumers being forced to accept from a finite set of choices pushed to them, but rather consumers now have the power to pull in content from vast catalogs from seemingly endless sources. As detailed in Section III, the economic effects of this market expansion have been to increase the production of video content of all types, including specifically the types of niche and specialty content local content regulation regimes are intended to support.90

Second, the effect of imposing content mandates or financial obligations on OVDs would be to increase costs and distort incentives, potentially leading to the opposite of the intended effect. Consider, for example, the effects of the EU’s proposed 30 percent quota of European works on the catalogs of online video providers.91 The easiest way for online platforms to comply with such a quota would likely not be to increase the absolute number of European films in their catalogs, but rather to remove niche content from cultural areas outside of Europe. Figures 19 and 20 show the potential effect that imposing a 30 percent quota of European content could have on two European online platforms that currently have diverse catalogs, iTunes (U.K.) and Wuaki.TV (Italy).

As shown in Figure 19, iTunes U.K. catalog currently consists of approximately 23 percent U.K. and other European content and 77 percent content produced outside of Europe, including content from the U.S. and from other non-European nations. As the figure shows, one way of meeting a 30 percent European content requirement would be to retain the vast majority of content from the U.S. while removing other non-European content, thereby reducing the level of cultural diversity while having no effect at all on the availability of (or demand for) European content.

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90 There appears to be little debate about these benefits, even among those who support extending local content regulation to OVDs. The CRTC’s June 2018 report, for example, unabashedly admits that “New online services have provided the tools and opportunities for more Canadians to become creators than ever before. This has resulted in the development of a large pool of Canadians who have developed the creative and technical talent and skills necessary to inform and entertain audiences large and small, within local communities, across the country and around the globe.” Further, it continues, “New technologies and online services create opportunities for content production by Canadian creators and producers. There is an increasing number of online service providers, and each must invest in content to draw in viewers. Traditional services, particularly television services, must also continually invest in content to compete with each other and their new competitors. There are great opportunities for new and existing Canadian creators and producers to benefit from this demand.”). See CRTC Harnessing Change 2018.

Figure 19: Potential Impact of 30 Percent European Content Quota on Number of Films in iTunes U.K. Catalog (October 2016)

Source: Fontaine and Grece 2016 at 31. Note: Figures only include films for which country of origin could be identified.

Figure 20 below shows the same calculations for Wuaki.TV Italy showing, again, that a 30 percent quota requirement could easily be met by reducing non-European content while leaving the amount of European content unchanged.92

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92 To be clear, we expect that OVDs would react to with a combination of reducing their non-EU catalogues and increasing offerings of EU-originated content. Overall, however, consumer choice would be reduced due to the requirement to offer more expensive and/or less desirable content.
Obliging online platforms to devote a specified share of their revenue to fund local productions also overlooks the fact that one of the success factors of online platforms is their ability to lower distribution costs and increase the reach of video productions. International revenues and lower distribution costs allow online platforms to pay niche producers for videos that would not be profitable for traditional broadcasters.

### V. Conclusions

The advent of online video distribution has transformed the economics of the video marketplace, significantly increasing the demand for video content of all kinds. This has fueled a massive growth in locally-produced, culturally relevant content which local content regulation policies have aimed to support. The evidence presented here shows that more video content is being produced in markets throughout the world, and that the video content sector is growing in virtually every major market. Content producers in one market can find audiences not just in their own market, but around the world, leading to a broad representation of countries in the world’s most popular YouTube channels, and large growth in film production in countries like Canada and India.
Extending local content regulation to OVDs would raise costs and distort incentives, ultimately reducing rather than increasing the ability of local content producers to distribute their programs to consumers. OVDs are able to connect viewers with the content of their choice, increasing audiences for independent content creators and thereby preserving and showcasing local culture. By capturing economies of scale and scope, increasing the ability of consumers to discover and obtain content of their choice, and allowing content producers to reach larger numbers of interested viewers, economic welfare is increased.

The growth of online distribution has virtually eliminated the economic rationale for such policies. In the case of OVDs, choice is not limited by access to a scarce public resource such as spectrum or rights of way, and consumers are able to choose from a virtually unlimited library of content. Regulation of catalogs would only serve to raise the costs and distort the incentives of OVDs and thus decrease availability of diverse content, rather than encourage it.
### Table A-1: Local Content Obligations on Traditional Television Distributors

<table>
<thead>
<tr>
<th>Country</th>
<th>Quotas</th>
<th>Visibility</th>
<th>Monetary Contribution</th>
</tr>
</thead>
</table>
| Argentina | 60% Argentine content  
• 30% original content with local information  
• 30%, 15% or 10% local independent content, depending on size of local population  
All Pay-TV operators and free-to-air operators covering less than 20% of population can meet the screen quota by acquiring antenna rights to films by independent national producers prior to filming | No regulation | The licensees of open television services must show eight films every year by independent national producers whose antenna rights have been acquired prior to the start of filming | No regulation | No regulation |
<table>
<thead>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Direct Investment</td>
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</table>
| Brazil   | Program Content Quotas: Pay-TV channels must broadcast 3.5 hours of Brazilian prime time programming per week  
             • 50% produced by an independent Brazilian producer  
             Channel Quotas: cable operators must distribute at least 21 hours per week of prime time Brazilian Content/produced by an independent Brazilian producer, measured across packages of channels distributed by the cable operators | National programming under quota must be delivered during prime time | No regulation | No regulation | Telecoms and private TV must make fixed payments, depending on the type of service, to fund public television |
<p>| Canada   | 55% Canadian content                                                  | No regulation                                                              | No regulation | No regulation | No regulation |
| France   | 60% of films must be European works                                    | General Pay-TV channels: 15% of revenues to the                            | No regulation | No regulation | Funding model for public television includes the collection |</p>
<table>
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<tbody>
<tr>
<td></td>
<td>40% must be original French-language works</td>
<td>Direct Investment</td>
<td>Contribution to a Creation Fund</td>
</tr>
<tr>
<td></td>
<td></td>
<td>development of national audiovisual works</td>
<td>of 3% of advertising revenues from private TV and 0.9% of revenues from telecom operators</td>
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<td></td>
<td></td>
<td>Of which, 8.5% must be devoted to “œuvres patrimoniales” Cinema Pay-TV channels: 3.6% of revenue for “œuvres patrimoniales.”</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>Licensing of foreign channels: government permission required (around 100 international channels now licensed, licenses given for 10-year period)</td>
<td>No regulation</td>
<td>No regulation</td>
</tr>
<tr>
<td></td>
<td>• No local content quotas</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Content regulation not restrictive — largely a self-regulatory approach</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Based on a published Program Code, with separate codes adopted by industry organizations</td>
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<td></td>
</tr>
<tr>
<td>Spain</td>
<td>51% of annual broadcasting time for European works</td>
<td>No regulation</td>
<td>5% of revenues</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 60% to feature films</td>
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<tr>
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<td></td>
<td>• 50% of which in any of Spain’s official languages • 10% of which for works by independent producers o half of that 10% must have been produced in the last five years Broadcasting time to be considered does not include time dedicated to news, sports events, games, advertising, teletext and teleshopping services</td>
<td></td>
<td>• 40% to TV films, series or mini-series 60% must be produced in one of Spain’s official languages, 50% of which allocated to independent production</td>
</tr>
<tr>
<td>U.S.</td>
<td>No local content quotas Pay-TV services perform self-regulation based on individual channel standards and guidelines</td>
<td>No regulation</td>
<td>No regulation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>of 3% of gross income from national commercial broadcasters, 1.5% from Pay-TV operators and 0.9% from telecoms</td>
</tr>
</tbody>
</table>

No regulation
## Table B-1: Local Content Obligations on OVDs

<table>
<thead>
<tr>
<th>Country</th>
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<th>Visibility</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Direct Investment</td>
</tr>
<tr>
<td>Argentina</td>
<td>No regulation</td>
<td>No regulation</td>
<td>No regulation</td>
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</tbody>
</table>
| Brazil    | No regulation     | No regulation | No regulation | VOD providers must pay “Contribution for the Development of the National Cinema Industry” (CONDECINE). Rates depend on the runtime, type and origin of the titles in the catalog:  
- Less than 15 minutes: BRL 729  
- 15-50 minutes: BRL 1,701  
- More than 50 minutes: BRL 7,291  
- Series: BRL 1,822 | No regulation |
<p>| Canada    | Under discussion  | No regulation | No regulation | Under discussion | No regulation |</p>
<table>
<thead>
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<th>Visibility</th>
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</tr>
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</table>
| France    | 60% European works                          | VOD’s homepage must display a substantial proportion of European and French-language works, not only mentioning the title of the works, but also highlights of trailers and visual elements | Direct Investment: Catch-up TV: identical contribution to that of the operation of the television service from which the catch-up service originated  
TVOD: 15% of net annual revenues for European works, of which at least 12% for original French-language works  
SVOD: 15-26% of revenue for European works and 12-22% of revenue for French-language works, depending on the length of time between theatrical release and VOD release  
Contribution to a Creation Fund: 2% of revenues to the National Center for Cinema and Motion Picture (10% for pornographic and violence inciting works) |
| India     | No regulations specifically applying to OTT; Several local OTT operators voluntarily adhere to the cable television content and advertising codes | No regulation                                                               | Contribution to Public Television: No regulation                                                                 |
| Spain     | 30% European works                          | No regulation                                                               | 5% of revenues  
• 60% to feature films                                                                 |
<table>
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<tr>
<td></td>
<td></td>
<td></td>
<td>40% to TV films, series or mini-series</td>
</tr>
</tbody>
</table>

50% of which in one of Spain’s official languages

- 40% to TV films, series or mini-series
- 60% must be produced in one of Spain’s official languages, 50% of which allocated to independent production

| U.S.   | No regulation | No regulation | No regulation | No regulation | No regulation |