European audiovisual media policy in the age of global video on demand services: A case study of Netflix in the Netherlands

ABSTRACT
This article considers the provisions in the European Union’s revised Audiovisual Media Services Directive concerning video on demand (VOD) services and the effectiveness of supply-side cultural diversity regulations in achieving their purported policy goals of increased production and consumption of European media content.

KEYWORDS
Audiovisual Media Services Directive, cultural diversity, media policy.
works. Because the Netherlands is the ‘country of origin’ to several multina-
tional VOD services, including Netflix, we conducted a case study of this specific
national context. We examine the quota for and prominence of European works,
as well as different forms of financial obligations. We find that the former two
policy tools may require new strategies to effectively reach their objectives in a
nonlinear context. Our evidence also indicates that the latter remains controver-
sial in the domestic audiovisual industry, as stakeholder positions are dependent
on the type(s) of production stimulated. Based on this, we argue that securing
the independence of producers and ensuring VOD services are transparent with
respect to performance data are essential to promoting source diversity and a
sustainable value chain.

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INTRODUCTION

...we are committed to being a voice for European entertainment...
(Ted Sarandos, Chief Content Officer at Netflix 2018)

Today’s global digital media landscape, populated by multinational video on
demand (VOD) services such as Netflix, Amazon Prime Video and Disney+,
presents a multitude of challenges for local media industries. In the European
Union (EU), creating a level playing field and protecting cultural diversity
in light of the presence of these big players contributed to a revision of the
Audiovisual Media Services Directive (AVMSD). Indeed, respect for cultural
diversity is a founding principle of the EU (Irion and Valcke 2015). International
agreements define cultural diversity as the manifold ways in which the cultures
of groups and societies find expression, whatever the means and technologies
used (UNESCO 2005).

In 2018, the EU revised the AVMSD to include specific provisions for VOD
services (European Parliament and Council 2018: Article 13). These include:
(i) a 30 per cent content quota for European works in VOD catalogues; (ii)
a prominence requirement for these works; and (iii) an option for Member
States to require VOD services to contribute financially to local productions

This revision exemplifies the challenges for cultural diversity policy in
the age of global digital media. Firstly, the affordances of internet distribu-
tion that differentiate nonlinear VOD services from linear television may alter
the function of traditional cultural diversity policy tools. Secondly, diversity of
supply does not necessarily lead to exposure diversity, particularly in an online
context characterized by user autonomy (Valcke 2011; Napoli 2011; Irion and

This article aims to improve understanding of the effectiveness of supply-
side diversity regulations in achieving the EU policy goals of increased
European content production and diversity of exposure within the context of
global VOD services.
Using a case study of Netflix in the Netherlands, we analyse the cultural and industrial policy objectives of the revised AVMSD in the context of nonlinear media services and the legal implications for the Netherlands as the country of origin of several major VOD players, including Netflix. This status gives the Dutch Media Authority (DMA) the significant responsibility of monitoring the EU-wide compliance of these VOD services with the quota and prominence requirement.

We then highlight potential issues surrounding the implementation of Article 13(1), in particular that the quota may not increase production of European works, that its effectiveness at incentivizing consumption of European works is dependent on the prominence requirement, and that monitoring these visibility measures may prove challenging in a nonlinear context.

We also assess how different forms of financial contributions put forward by Article 13(2) affect the production industry and diversity of content produced on a national level, using the Netherlands as an illustrative example. We find that the type of financial obligation (levy or direct investment) directly impacts the type of content produced and, as such, is a source of controversy and debate in the local audiovisual industry.

Finally, we argue that a crucial component of cultural diversity rests on promoting more balanced relationships between multinational VOD services and local producers, through securing the independence of producers and increasing transparency regarding content performance data.

Our analysis builds on literature from the fields of law, policy, media and business studies. From a media and business studies perspective, the focus is on critically locating multinational VOD services and their specific techno-commercial affordances in national and regional contexts (Lobato 2018; Lotz 2019a, 2020; Lobato and Lotz 2020). From a legal and policy perspective, the interest lies in the regulatory challenges of European cultural policy devices for nonlinear services (Burri 2016; Irion and Vallée 2015; Evens et al. 2020), in particular, supply-side regulations versus exposure diversity (Napoli 2011), discoverability (Hesmondhalgh and Lotz 2020; Mazzoli 2020) and algorithmic regulation (Napoli 2014; Helberger et al. 2018; Hunt and McKelvey 2019; Tallérás et al. 2020).

In the global digital environment, it is often necessary to update domestic regulatory frameworks in order to promote the production, distribution, access and enjoyment of local cultural content, including its visibility and discoverability (UNESCO 2017). We contribute to the growing number of studies researching ways different EU countries have sought to regulate multinational VOD services (García Leiva and Albornoz 2021; Kostovska et al. 2020) with our close examination of the Netherlands, which has been under-researched despite the implications its AVMSD implementation has for the rest of the EU.

**Methods**

This investigation took a mixed-methods approach combining document review and analysis, qualitative interviews and descriptive quantitative data.

We analysed documents to identify the legal requirements under the AVMSD’s Article 13, its impact in the Netherlands, and issues facing media industries and regulators in the Netherlands and the EU. This corpus of documents (2010–21) consisted primarily of Dutch and EU media legislation, policy documents and reports, Netflix press releases and media trade press.
We conducted a series of semi-structured, qualitative interviews in early 2021 with stakeholders including Netflix, the DMA, the Dutch Foundation for Public Broadcasting (NPO), the Association of Dutch Audiovisual Content Producers (NCP), the Netherlands Audiovisual Producers Alliance (NAPA), the Netherlands Film Fund (hereinafter NFF) and an audiovisual consultant (hereinafter AVC). Different sets of questions were prepared for each stakeholder, based on their area of expertise (see Appendix 1). Each interview took on average one hour. They were recorded, transcribed and analysed through close reading and inductive development of themes.

Finally, to respond to a specific concern raised in the literature around Netflix’s tendency to promote its own content (over licensed/acquired externally produced content), we recorded Netflix’s daily Top 10 in the Netherlands over 60 days (1 January–1 March 2021). Thus, we compiled a total of 59 titles which were subsequently coded using IMDb to tag their country of production and whether they were labelled as Netflix Originals.

**Empirical context: Netflix in the Netherlands**

Netflix has been labelled a ‘zebra among horses’ (Lotz 2020) due to its unique content and localization strategy. Indeed, as a subscription VOD service, Netflix’s content catalogue and internet-distribution distinguish it from linear television (Lotz 2017). However, the global scale at which Netflix produces and distributes content, simultaneously targeting mass and niche audiences, also sets it apart from other subscription VOD services (Johnson 2019; Lotz 2017, 2020; Lobato 2019; Lobato and Lotz 2020). At the time of writing, Netflix is ‘one of the world’s leading entertainment services with 204 million paid memberships in over 190 countries’ (Netflix 2021). Considering its complex global and local identities, Netflix and similar multinational VOD services present a unique set of challenges for policies relating to cultural diversity.

Netflix launched in the Netherlands in 2013 (Spangler 2013). In 2020, Netflix’s European headquarters in Amsterdam became the company’s EMEA headquarters (Roxborough 2019) placing its EU operations under the jurisdiction of the DMA. That same year, Netflix released its first Dutch Netflix Original, *Ares* (2020–present), and in 2021 announced a new slate of Dutch content (Netflix 2021a).

The Dutch ecosystem of audiovisual media services includes legacy broadcasters (e.g. public broadcaster NPO and commercial television operators), domestic on-demand services (e.g. Pathé Thuis, NPO Start, NLZiet, Videoland and Ziggo Go) and multinational VOD services originating from the United States (e.g. Netflix and Disney+). Netflix is the most used video streaming service in the Netherlands (Statista 2020).

**LEGISLATING CULTURAL DIVERSITY AND PROMOTION OF EUROPEAN CONTENT IN VOD SERVICES**

Today’s global digital environment not only challenges how media content is created, produced, distributed and consumed (UNESCO 2017), but moreover plays an increasingly important role in the construction of cultural identities. Parties to the 2005 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions (hereinafter CPDCE) may adopt measures aimed at enhancing diversity of the media (UNESCO 2005: Article 6(2)
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Both the EU and the Netherlands ratified the UNESCO CPDCE and are obliged to implement the Convention. With VOD services’ increasing foothold in the digital content markets, domestic legislation that aims to promote local cultural content calls for a different suite of tools as compared to linear television.

**EU Audiovisual Media Services Directive**

The AVMSD recognizes that VOD services should, where practicable, promote the production and distribution of European works and thus contribute actively to the promotion of cultural diversity (European Parliament and Council 2010: Recital 69).

‘European works’ are defined as works ‘originating in Member States’ or ‘a European third state’ or originating in a state that has a specific agreement or treaty with the EU or a co-production with the majority costs of production being borne by co-producers based in the EU (European Parliament and Council 2018: Articles 1(n), 3 and 4). Member States have the possibility to adopt a more detailed definition of ‘European works’ for audiovisual media services (AVMS) under their jurisdiction that is in compliance with EU law and aligned with the objectives of the AVMSD. In practice, the leeway for Member States to give preference to their own domestically originating content is limited since EU law prohibits discriminatory treatment of AVMS originating from another Member State.

The AVMSD’s regulatory architecture is graduated, meaning that there are three tiers of regulation with the fewest requirements being placed on on-demand AVMS. With the 2018 revisions to the AVMSD, requirements on the promotion of European works for on-demand AVMS were strengthened. Member States now have to ensure that VOD services secure at least a 30 per cent share of European works in their catalogues and ensure prominence of those works. That leaves only the rules on the promotion of independent productions, which apply to linear AVMS, out of the regulatory context for on-demand AVMS.

The AVMSD Article 13(2) affirms Member States’ ability to require media service providers to contribute financially to European production, which shall be proportionate and non-discriminatory. This contribution can take different forms, including direct contributions to the production of and acquisition of rights in European works and levies payable to a fund, on the basis of the revenues generated by [AVMS] that are provided in and targeted towards their territory (European Parliament and the Council 2018: Article 13(2)). Member States can opt for leveraging a financial contribution for European works in general; however, in practice such investment duties are likely to benefit mostly domestic productions and content acquisition. That is to some extent the outcome when tasking domestic organizations, like national film funds, to carry out specific calls for funding and award financial contributions to the creation and production of audiovisual content. However, there has been an increase of co-productions involving several EU Member States and eligible European countries that receive and pool funding from several funding organizations at national and at European levels (European Audiovisual Observatory 2019).

There is an important difference in the way the two policy tools to promote European works and cultural diversity with on-demand AVMS function in EU law. The quota for European works and prominence are subject to the country
of origin principle to the effect that the Member State where the on-demand AVMS provider is established governs the quota for European works and associated prominence rules across the EU. However, the possibility of Member States to leverage a financial contribution for European productions means that ‘a Member State is also allowed to impose such financial obligations on media service providers established in another Member State that targets its territory’ (European Parliament and Council 2018: 13(2)).

It is worth noting in this context that in the public consultation on the refit of the AVMSD, the Netherlands did not see the merit of the present rules for promoting European works (Ministry of Education, Culture and Science 2015). Instead, it was argued that ‘[i]nnovative audiovisual media services need less detailed rules to be able to adjust to this changing landscape’ and that ‘[m]ore regulation would result in an increased administrative burden’ (Ministry of Education, Culture and Science 2015). The Netherlands voted against the final text of the AVMSD, citing yet other reasons (Council of the European Union 2018: 3).

The AVMSD’s deadline for national transposition was in September 2020, with Article 13(1) on quotas and prominence as an EU-wide requirement, while the implementation of Article 13(2) regarding financial obligations was left to the discretion of Member States.

**Legal implications of the Netherlands as country of origin**

In the Netherlands, the Media Act (*Mediawet* 2008) was amended in 2020 to incorporate the AVMSD refit. The Netherlands opted for minimum-harmonization of the AVMSD’s Article 13, meaning it only implemented Article 13(1) as required (DMA Interview 2021). However, the Ministry of Education, Culture, and Science’s (*Ministerie van Onderwijs, Cultuur en Wetenschap [OCW]*) draft ‘Bill on Investment Obligation for Dutch Cultural Audiovisual Product’ (hereinafter referred to as the Draft Bill), if passed, would require domestic investment obligations from Netflix and similar services (Ministry of Education, Culture and Science 2020).

The Netherlands is home to a notable number of multinational VOD services originating from the United States, including Netflix, Disney+ and Discovery+. Several reasons have been given for the choice of the Netherlands as a place of establishment, which are external to audiovisual media regulation, namely its business mindedness, international culture, digital infrastructure, as well as international travel links (DMA Interview 2021; Netflix Interview 2021). The Netherlands being home to the head offices of these multinational VOD services puts them under the jurisdiction of the Dutch media law as regards the quota for European works and prominence; thereby elevating the DMA to ‘an AVMS hub’ (DMA Interview 2021): ‘Because we are supervising Netflix, everyone is looking at us so we cannot afford to not prioritize it, even if it was not important for us’ (DMA Interview 2021).

The DMA is drafting policy guidelines on the definition of European works and the calculation of the 30 per cent quota, as well as compliance with the prominence requirements. Corresponding with the European Commission’s (2020) guidelines, the DMA guidelines stipulate that the calculation of the share of European works in on-demand catalogues is to be based on the (total) number of titles in the catalogue. On-demand AVMS providers will be under a self-reporting obligation demonstrate their compliance with
the 30 per cent quota for European works; however, the ways in which they give prominence to European works will be left to their own discretion. The first reporting for 2021/2022 will be due in 2023. As such, it is too early to make observations about the enforcement of these requirements; however, potential issues around their implementation are already evident and merit discussion.

LINEAR VISIBILITY TOOLS FOR NONLINEAR SERVICES: QUOTA AND PROMINENCE

Quotas and prominence are tools originally designed for linear transmission, with significantly different modes of distribution and consumption than nonlinear services (Lotz 2019b: 29). As such, their effectiveness in reaching their purported goals, i.e. the production and distribution of European works (European Parliament and Council 2018: Recital 35) is uncertain. With the Netherlands as Netflix’s country of origin, the significant responsibility of issuing further guidelines and monitoring Netflix’s EU-wide compliance with the quota and prominence requirement falls to the DMA.

European works quota

The nonlinear affordances of VOD services present certain challenges for the implementation and monitoring of a content quota. While the AVMSD and DMA have sought to respond to them, the DMA’s guidelines in development leave loopholes that enable VOD services to meet the quota without actually meeting the policy goal.

Nonlinear affordances

While a linear programme schedule is limited by the scarcity of time, a nonlinear catalogue is limited only by content budget (Lotz 2019b: 29). Thus, VOD catalogues are constantly evolving because content is added or removed. VOD catalogues also differ by country, often due to geographic rights restrictions on certain content. Consequently, there may be slightly different proportions of European works in Netflix’s different national catalogues across the EU.

Potential policy solution(s)

The DMA stated that they intend for VOD providers to self-report every title in their catalogue with metadata (including the title’s country of origin, date added to the catalogue, and date removed from the catalogue) to get a yearly overview (DMA Interview 2021). While this method accounts for some of the affordances of nonlinearity, certain challenges may still arise that would render the quota ineffective.

Challenges ahead

The first potential issue this raises is the ‘quota quickie’, i.e. the ability for Netflix to buy old or cheap content to meet the quota without incentivizing production or consumption (Lotz 2019b: 29; Evens et al. 2020: 290; García Leiva and Albornoz 2021: 270). This was cited as a concern by the Dutch Audiovisual Content Producers, who worried that the quota could be filled with old or cheap content from other EU Member States and therefore not
in any way stimulate the local production industry (NCP Interview 2021). Back in 2015, Netflix acknowledged this was a possibility, stating that ‘quotas risk creating a perverse incentive for VOD service providers to license more of the least expensive European titles and fewer premier European titles’ (Netflix 2015: 17). Since the DMA has no plans to issue additional requirements around the age of content counted in the quota (DMA Interview 2021), this could indeed transpire.

The type of content within the quota is another concern. Evens et al. argue that ‘such quotas are useless when Member States do not specify which part of that content must be original content’ (Evens et al. 2020: 290) because an original content strategy has become ‘the name of the game for most platforms’ (Evens et al. 2020: 287). This is especially true for Netflix, whose subscription business model is intrinsically linked to its exclusive content (Evens et al. 2020; Lotz 2019a; Hesmondhalgh and Lotz 2020: 402). Netflix has faced criticism for its tendency to recommend Netflix Originals (Hunt and McKelvey 2019: 314; Tallerås et al. 2020: 2; Hesmondhalgh and Lotz 2020: 402). To understand the ramifications of this self-promotion, we tracked Netflix’s ‘Top 10’ in the Netherlands and our preliminary findings showed that the most-watched European titles were disproportionately Netflix Originals. This may be indicative that Netflix users are more likely to view European Netflix Originals than other licensed European content (at least partly due to the promotion that these titles receive).

Finally, a content quota in a nonlinear context can have adverse impacts by limiting the overall offering of a given VOD service. To meet the quota, it is possible VOD services ‘can merely trim the non-local offerings to achieve the policy requisite’ (Lotz 2019b: 29). The DMA were aware of this possibility, stating that it ‘would be a very undesirable side-effect of this legislation’ and potentially restrict VOD services’ business models, resulting in a decrease of choice for consumers (DMA Interview 2021). However, it was not something they intended to address in their forthcoming guidelines (DMA Interview 2021).

By and large, it is clear that without further guidelines this policy tool does little to incentivize local content production in a nonlinear context. However, perhaps an even greater challenge is promoting European works to encourage their consumption through personalized VOD services.

Prominence of European works

To improve the likelihood of consumption of European works, their prominence is required by the AVMSD. However, the user-autonomy and personalization of VOD services renders prominence difficult to implement and monitor, presenting both challenges and opportunities for policy-makers.

Nonlinear affordances

Because VOD catalogues ‘are interactive, curated databases’ (Lobato 2018: 243), most VOD users ‘experience only the fragments […] pushed forward to them algorithmically’ (Lobato 2018: 251). Thus, prominence is essential to increasing the likelihood of exposure to European works.

However, the personalization and algorithm-driven recommender systems characteristic of VOD services complicates the practical implementation of a prominence requirement. Indeed, Netflix’s recommender system is actually a collection of algorithms that personalize aspects of each subscriber’s
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Since each subscriber’s homepage differs, monitoring the actual prominence of European works requires new strategies that also include the personalization algorithms.

Furthermore, VOD services are constantly innovating with their interfaces to improve the subscriber experience. For instance, Netflix’s Top 10 ranking was launched in 2020 (Spangler 2020). Consequently, ‘how prominence can be achieved today may be very different from how it can be achieved in five years’ (García Leiva and Albornoz 2021: 274).

Potential policy solution(s)

The AVMSD defines prominence in broad terms as any measure facilitating discoverability of European works (European Parliament and Council 2018: Recital 35). The DMA does not plan to ask for specifics on how the algorithms making up Netflix’s recommender systems work or for any aggregated data on the consumption patterns of Netflix’s users (DMA Interview 2021). Instead, they said:

There are many ways to create more visibility to European works, so we leave it to the services to show us how they do it and then we will evaluate, but we do not prescribe one way.

(DMA Interview 2021)

Prominence requirements will remain an important policy instrument to foster exposure diversity (Helberger et al. 2018), as personalization algorithms can be instructed to give prominence to European works. However, these new strategies have yet to be operationalized.

Challenges and opportunities ahead

Because the AVMSD and the DMA’s forthcoming guidelines have such an open definition for prominence, it is possible for VOD services to make little to no changes and nevertheless maintain that they have met the prominence requirement. For example, in our discussion with Netflix, they referenced the ability to search for Dutch or European content, as well as rows and categories of European content, suggesting that this may be how they intend to demonstrate prominence (Netflix Interview 2021).

However, without consumption data from Netflix, it is impossible to know whether simply having a row of ‘European TV Thrillers’ effectively encourages subscribers to watch them. Additionally, there is no way of monitoring how often or where such rows appear for each subscriber. The Netherlands Film Fund argued that to accurately measure prominence on personalized and algorithm-driven services, the DMA would need to check the individual level content consumption data of every user (Netherlands Film Fund Interview 2021). While this level of data analysis is likely not feasible, further transparency may be needed for the DMA to monitor whether the prominence measures are effective.

Although the current approach will likely be insufficient to achieve the policy objectives of prominence, the affordances of internet distribution also present new tools and opportunities for policy-makers (Lotz 2019b: 28). Netflix’s personalization has the potential to facilitate discoverability of European content. In our interview, Netflix stated that when it recommends
European titles to users, it is not to meet a prominence requirement, but because they are shows that the users are likely to enjoy (Netflix Interview 2021). Thus, recommending content from Europe that a user is likely to enjoy based on their viewing history may be an additional way to incentivize the consumption of European works, since having a row called ‘European Programmes’ may not prima facie appeal to certain users.

We have highlighted how quotas and prominence are not obsolete policy tools, but in a nonlinear context their functions and relationship with consumer demand are altered. It is apparent that the link between the AVMSD’s Article 13(1) provisions and their purported objectives is tenuous, with further guidelines and regular monitoring of the outcomes in terms of exposure to and consumption of European content required in order to be actionable.

**DOMESTIC FINANCIAL OBLIGATIONS IN THE NETHERLANDS**

The AVMSD’s Article 13(2) describes two different ways Member States can implement financial obligations for VOD services: direct investment into European productions and/or levies payable to a fund. The fundamental difference between the two forms is who controls the funding, which has direct implications for the type of production incentivized.

In relation to this policy tool, the Netherlands serves as an informative case study of the tensions surrounding different forms of financial obligations and their impact on the local media industry; however, its status as the country of origin for Netflix and other VOD services is not relevant and has no impact on other Member States’ ability to establish their own obligations. In fact, multiple EU Member States have already legislated their own forms of so-called Netflix Tax(es) (Kostovska et al. 2020; García Leiva and Albornoz 2021).

**Research and approach**

As the Netherlands opted for minimum harmonization of the AVMSD, Article 13(2) was not transposed into the Dutch Media Act. Instead, the Ministry of OCW commissioned studies from the Council for Culture (Raad voor Cultuur) and research firm Dialogic to assess how best to stimulate Dutch cultural content and the economic effects of levies, domestic quotas, or alternative measures (Council for Culture 2018: 9; Dialogic 2019: 5).

The Council for Culture recommended ‘increasing circularity’ in the sector, whereby revenue is reinvested in the sector through levies and a Dutch content quota (Council for Culture 2018: 56). Dialogic’s report claimed that an investment obligation would be less market distorting than levies because platforms could choose how to invest and therefore be incentivized to produce and market high-quality Dutch content (Dialogic 2019: 102–04). Since Dialogic assessed these measures from an economic perspective, it may not have considered that the objectives of cultural diversity policy must be, to some extent, market distorting as they attempt to correct a perceived imbalance.

Following these reports, the Minister of OCW informed the House of Representatives of their intent to implement an investment obligation for Dutch cultural content but not a Dutch quota or levies (Ministry of Education, Culture and Science 2019). For VOD services, this means 6 per cent of their annual turnover generated in the Netherlands will need to be invested into Dutch content (Ministry of Education, Culture and Science 2019). This obligation was included in the Draft Bill, and the requirement can be met ‘by investing in productions or co-productions’ (Ministry of Education, Culture
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and Science 2020: 10, translation added) or by acquiring recent or forthcoming productions (Ministry of Education, Culture and Science 2020: 10–11). The Draft Bill further explains that ‘providers can choose to invest directly in Dutch cultural audiovisual products, but they can also choose to invest through a private fund’ (Ministry of Education, Culture and Science 2020: 11, translation added). The collapse of the Dutch government in January 2021 (Erdbrink 2021) postponed the reading of the Draft Bill, which as of the time of writing had not been presented to parliament.

Industry tensions
Throughout our interviews, stakeholders’ preferences for different forms of financial obligations became apparent. Indeed, whether from a competition standpoint or the opportunity for funding, all sectors of the Dutch audiovisual industry have a vested interest in how this incentive measure is governed.

On the one side, the more traditional parts of the industry (encompassing public broadcasters and the NFF) favoured levies over a direct investment obligation. Some arguments presented were that levies would be the simplest measure to apply and monitor (Netherlands Film Fund Interview 2021); that they would give the governing body more control over what kinds of production most need support (Netherlands Film Fund Interview 2021); and that they would be the most effective way to fund a wide range of cultural productions (NPO Interview 2021; NPO 2020). The NFF and AVC also raised the point that it would be difficult to force certain VOD services with specific content offerings to invest directly into the production of content that does not fit in their catalogue (Netherlands Film Fund Interview 2021; Audiovisual Consultant Interview 2021).

In the middle, NAPA, which represents a range of arthouse and mainstream producers, hoped for a policy mix including levies and direct investments (NAPA Interview 2021). Most importantly, they stressed that any investment obligation should secure the position of the independent producer and ensure they retain rights related to the content they produce. To this end, they advocated that 75 per cent of the proceeds should go to independent producers (NAPA 2020: 6). The current Draft Bill states that a percentage of the investment obligation should go to independent producers; however, it does not specify an amount (Ministry of Education, Culture and Science 2020: 9).

On the other side, the NCP and Netflix preferred direct investment. NCP, admittedly representing mostly mainstream producers, felt that levies create another layer of bureaucracy and prioritize more arthouse content (NCP Interview 2021). Netflix leaned on the Dialogic report, repeating the claims that it is more sustainable and less market distorting if they can choose how to invest and that direct investment gives them more incentives to stay active in the Dutch market (Netflix Interview 2021).

In essence, this range of perspectives demonstrates the tension between cultural and industrial policies. Since levies promote the production of cultural/arthouse content whereas direct investment stimulates more mainstream productions, stakeholders have aligned with what is in their interests. Thus, cultural diversity may be best served by a policy mix, necessitating additional measures such as the ones suggested by Dialogic’s report, especially promoting better cooperation between local producers and multinational VOD services in the value chain (Dialogic 2019: 71–93). Since source diversity
relies upon a ‘media system [that] is populated by a diverse array of content providers’ (García Leiva and Albornoz 2021: 268), it is essential to secure the position of independent producers and ensure they obtain more transparency regarding content performance from VOD services.

REMAINING CHALLENGES: INDEPENDENCE AND TRANSPARENCY

Within the policy objective of stimulating local production, interrelated concerns around the independence of producers and the lack of transparency from VOD services came up repeatedly in our interviews. While producers have long dealt with challenges related to accessing funding whilst remaining independent from broadcasters and other large media conglomerates, the development of multinational VOD players presents new obstacles (Doyle 2019: 146).

Independent production is seen as integral to cultural diversity and pluralism (Cabrera Blázquez et al. 2019: 8). UNESCO’s CPDCE specifies that a means of protecting and promoting cultural diversity is ‘providing domestic independent cultural industries [...] effective access to the means of production, dissemination and distribution of cultural [...] goods’ (2005: Article 6). However, independent producers face challenges from both traditional (broadcasters) and new (multinational VOD players) gatekeepers, with regards to creative control and rights related to the content they produce.

The European Producers Club (EPC) defines independent producer as an ‘entity [...] which is independent of broadcasters, VOD services and other audiovisual media service programme providers’ (European Producers Club n.d.). However, while the 2010 AVMSD defines independent producers as independent from broadcasters and reserves a proportion of broadcast for independent productions (European Parliament and Council 2010: Recital 71), the 2018 revision offers no such points related to VOD. Thus, it is left to Member States to secure the position of independent producers within the local media ecosystem. For producers working with VOD services, one of the major challenges relates to content distribution, particularly exclusivity and windowing.

Producing a Netflix Original usually implies exclusive rights for Netflix. The NCP said their members felt this was fair but acknowledged that it made co-productions with any other parties (such as the NPO) near impossible (NCP Interview 2021). NAPA also alluded to this power imbalance, stating that Netflix is ‘very dominant in the way they operate’ and citing concerns that producers would simply become service producers with no creative control or Intellectual Property rights (NAPA Interview 2021). By contrast, the AVMSD’s independence requirement from broadcasters defines independent producers by criteria such as their ownership of the production company or rights related to the content produced (European Parliament and Council 2010: Recital 71). Another source of contention is that, while Netflix pays well by local standards, they still pay local prices for potentially global content (Audiovisual Consultant Interview 2021; Vivarelli 2020) with no remuneration for producers based on the success of the content produced.

One recent example of successful collaboration is De Slag om de Schelde (The Forgotten Battle) (van Heijningen 2020). With a budget of €14 million, it
is the biggest Dutch production in the last decade (Levitate Film n.d.) and received significant funding from the NFF as well as Netflix and many other parties (including other funding bodies, broadcasters and distributors). In this case, the NFF told us ‘Netflix is one of the financiers and has a four-month window to release the film on its platform after it’s had its theatrical run’ (Netherlands Film Fund Interview 2021). This example illustrates a potentially more sustainable position Netflix could take on in the value chain, particularly as related to exclusivity and fair remuneration for producers.

Transparency

A related concern to the aforementioned power imbalance is transparency. In 2021, the Federation of European Screen Directors (FERA) and the EPC issued separate statements calling on multinational VOD providers to commit to fair and sustainable creative relationships in Europe by sharing viewing data (Federation of European Screen Directors 2021; European Producers Club 2021). FERA argues that ‘without information on their works’ actual performance, authors and their representatives are negotiating blindfolded’ (Federation of European Screen Directors 2021). One of our interviewees called Netflix a ‘black box when it comes to data’ (NAPA Interview 2021). The AVC said there is a:

hume lack of a level playing field with how different players in the industry are being handled [because] in one single industry, governments [only] oblige part of the industry to disclose all their figures on the performance of productions.

(Audiovisual Consultant Interview 2021)

FERA’s statement directly references the AVMSD along with the EU Directive on Copyright and Related Rights in the Digital Single Market (DSM). Evens et al. refer to these two directives as examples of the European Commission’s ‘platform policies’ whereby a ‘platform angle’ is added to existing regulations (Evens et al. 2020: 288) to account for the specificities of global VOD services. The DSM Directive, whose deadline for national transposition was June 2021, has two relevant provisions related to multinational VOD services. Firstly, EU Member States will offer negotiation mechanisms to assist licensing disagreements between parties and VOD services and facilitate the availability, visibility and circulation of EU content (European Parliament and Council 2019: Article 13). Second, VOD platforms will be required to meet certain transparency obligations which will entail sharing data with authors and performers (European Parliament and Council 2019: Article 19). It is too early to know how this will impact the interactions between Netflix and local producers and directors; however, it might be a step towards a more balanced and transparent relationship.

CONCLUSIONS

The near ubiquity of multinational VOD services, and their self-produced exclusive content, has significant implications for cultural diversity. This has raised concerns around the effective regulation of these services using existing policy tools designed for linear television, which, at least in the case of a quota, may not fit the specificities of VOD services.
This article aimed to identify potential challenges surrounding the AVMSD’s Article 13 policy tools in achieving their goals in the context of a global media sector that has been undergoing a massive transition resulting from the growth of multinational VOD services (Nieborg and Poell 2018; Lobato 2019; Vlassis 2020).

We demonstrated how quotas and prominence have limitations on nonlinear personalized algorithm-driven services, particularly how a lack of clear and effective prominence guidelines may negate any meaningful impact. Since monitoring Netflix’s EU-wide compliance with these measures falls to the DMA, we flagged that the guidelines being drafted will likely leave wide scope for interpretation to VOD services. On a national level, we highlighted how controversial different forms of financial obligations can be within the audiovisual media industry, as they stimulate different areas of production. We also noted that securing the position of independent producers is essential to the objectives of cultural diversity. This goes hand in hand with transparency concerns, with more viewing/consumption data needed from VOD services to establish sustainable relationships with producers and for regulators to practically monitor the effectiveness of prominence measures.

This article contributes to comparative research on the governance of VOD, specifically regional and national audiovisual policy related to Netflix (Kostovska et al. 2020; García Leiva and Albornoz 2021). We build on the scholarly discourse around the disruptive nature of multinational VOD services (Lotz 2019b; Lobato 2019; Lobato and Lotz 2020), focusing on the important case of the Netherlands and its implementation of the AVMSD to demonstrate challenges and opportunities for local policy-makers and industry stakeholders. Finally, we emphasize how this further complicates the discussion around supply-side regulations for cultural diversity objectives (Valcke 2011; Napoli 2011; Irion and Valcke 2015; Burri 2016; Helberger et al. 2018).

Both policy-makers and VOD services are looking for future-proof policy models in this rapidly evolving global digital media environment. Ultimately, it may prove more effective to develop new policy tools based on the unique affordances of multinational VOD services, rather than (or in addition to) applying existing frameworks designed for linear ones.

Conducting our case study at this early stage of AVMSD implementation in a single country creates a point of comparison both geographically and temporally. We have raised potential concerns at the time of implementation; however, the true effectiveness of Article 13(1) provisions should be closely analysed after the first reporting in 2023. Expanding on our examination of Netflix’s Top 10 over a period of time could be one way to conduct such research and measure the actual promotion of European works in the future. Further research is also needed to assess how the investment obligation is implemented in the Netherlands and cross-national comparative research is required to see how different forms of investment obligations affect the diversity of content produced. How the Copyright Directive’s transparency obligations and negotiation mechanisms are implemented and what their effects are on the relationship between multinational VOD services and European producers should also be closely monitored. Finally, there is a need to study the locality of Netflix content (Lobato 2018: 246) through comparative textual analyses of Netflix Originals to examine whether they are subject to an overarching Netflix studio style, as this may have serious implications for cultural diversity.
ACKNOWLEDGEMENTS

The authors would like to thank the interviewees for generously giving their time to contribute to this project. We would also like to thank the anonymous reviewers for their helpful suggestions and the editors for their efforts in bringing this special issue together. This research was made possible through a Research Grant from the University of Amsterdam’s Research Priority Area: Global Digital Cultures (https://globaldigitalcultures.uva.nl/).

APPENDICES

Appendix 1: Interview questions

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<th>THEMES</th>
<th>QUESTIONS</th>
<th>STAKEHOLDER(S) ASKED</th>
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<tr>
<td>Impact of VOD in the Netherlands</td>
<td>What opportunities do Netflix and similar US-based global VOD providers present for the Dutch media industry?</td>
<td>NAPA, NCP, Film Fund, NPO, AVC</td>
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<tr>
<td></td>
<td>What challenges do Netflix and similar US-based global VOD providers present for the Dutch media industry?</td>
<td>NAPA, NCP, Film Fund, NPO, AVC</td>
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<td></td>
<td>How great of a challenge is visibility (or ‘prominence’) for Dutch content in this global digital context?</td>
<td>NAPA, NCP, Film Fund, NPO, AVC</td>
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<td></td>
<td>What is the role of Netflix and similar global VOD in the value chain? In what ways is or isn’t this sustainable?</td>
<td>AVC</td>
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<td></td>
<td>What kind of local content are Netflix and similar global VOD providers interested in licencing/acquiring or producing? To what extent do Netflix and similar VOD providers focus on specific genres and/or content themes, and why do you think that is the case?</td>
<td>NAPA, NCP, Film Fund</td>
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<td>In what ways does the Film Fund’s 2021–2024 Policy Plan respond to the strong presence of Netflix and similar VOD providers in the Netherlands? How does the Film Fund balance its cultural and industrial policy objectives? Since when has the Film Fund also supported television series and why?</td>
<td>Film Fund</td>
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AVMSD (Art. 13): Implementation, Enforcement and Definitions

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<th>QUESTIONS</th>
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<tr>
<td></td>
<td>How important are the revised AVMSD provisions under Article 13 in the context of the Netherlands?</td>
<td>DMA</td>
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<td>How has the Netherlands specifically transposed the revised AVMSD’s Article 13 into domestic law?</td>
<td>DMA</td>
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<td></td>
<td>How many VOD providers are registered in the Netherlands and subject to the revised AVMSD’s European works requirements?</td>
<td>DMA</td>
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<td></td>
<td>What exactly is the local content criteria for European works? For instance, is it calculated by percentage of crew/cast/locations from the EU or by the nationality of producers?</td>
<td>DMA, Netflix, NCP, NAPA</td>
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<td></td>
<td>How is the Netherlands enforcing the content quota requirements for VOD providers?</td>
<td>DMA</td>
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<th>QUESTIONS</th>
<th>STAKEHOLDER(S) ASKED</th>
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<td></td>
<td>What are the main challenges of enforcing content quota requirements for VOD providers?</td>
<td>DMA</td>
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<td>The European Commission’s states that ‘it is the responsibility of the Member State of jurisdiction (i.e. the country of origin) to enforce the obligation related to the share of European works with regard to all the various national catalogues’. Does this mean that the Netherlands, which is home to Netflix’s EMEA headquarters is considered its country of origin and therefore responsible for monitoring its EU-wide compliance? In what ways have other Member States’ regulators sought cooperation with DMA about VOD issues in the context of this quota?</td>
<td>DMA</td>
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<td>The European Commission also states that Member States can monitor compliance at a point in time or on average over a predetermined period. What has the Netherlands chosen?</td>
<td>DMA</td>
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<td></td>
<td>According to DMA’s Program Quota Report, Netflix NL had an 18% share of European works on its catalogue in 2020. How was this calculated?</td>
<td>DMA</td>
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<td></td>
<td>Are the DMA making the rapportageformulier completed by VOD providers (e.g. Netflix) publicly available?</td>
<td>DMA</td>
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<td>What specific requirements are there, if any, for VOD providers regarding the type of European content included in the quota (e.g. with respect to age, origin, genre, or medium of content)?</td>
<td>DMA</td>
</tr>
<tr>
<td><strong>AVMSD (Art. 13): Prominence</strong></td>
<td>How is the Netherlands enforcing the prominence requirements for VOD providers? What are the main challenges of enforcing prominence requirements for VOD providers?</td>
<td>DMA</td>
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<td></td>
<td>How is prominence operationalized and measured in the context of personalized and algorithmically-recommended content catalogues such as Netflix’s?</td>
<td>DMA</td>
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<td><strong>AVMSD (Art. 13): Financial Contributions</strong></td>
<td>Beyond voluntary financial contributions, will nonlinear services be obligated to invest in national funds and media production in the Netherlands? If so, in what circumstances and how will these investments be levied?</td>
<td>DMA</td>
</tr>
<tr>
<td></td>
<td>What specifications, if any, are there regarding how much VOD providers should contribute to direct investments in (a) production of European content for their own platform versus (b) contributing to European national funds (e.g. Dutch Film Fund) where they (e.g. Netflix) are not involved in the selection of projects that receive production subsidies?</td>
<td>DMA, Film Fund</td>
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### THEMES QUESTIONS

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<tr>
<td>How do different forms of investment obligations (e.g. direct investment in production or levies) affect the diversity of content produced?</td>
<td>AVC</td>
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<td>Under the Dutch government’s incentives announced in December 2019, an investment obligation of 6% will be applicable to SVOD providers which can be done directly (through production) or through private funds. How does Netflix plan to contribute to the Dutch media industry under this obligation?</td>
<td>Netflix</td>
<td></td>
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<td><strong>Impact of AVMSD</strong></td>
<td>The revised AVMSD’s Article 13 implements a content quota, prominence requirement, and investment obligations for VOD providers to promote European works. In what ways does this impact the Dutch media industry?</td>
<td>NAPA, NCP, Film Fund, NPO</td>
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<tr>
<td>Which provisions (content quota, prominence requirement, investment obligations, levies) are most effective for stimulating production within the Dutch film and television industry (and why)?</td>
<td>NAPA, NCP, NPO</td>
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<tr>
<td>Which provisions (content quota, prominence requirement, investment obligations, levies) are least effective for stimulating production within the Dutch film and television industry (and why)?</td>
<td>NAPA, NCP, NPO</td>
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<td>To what extent do (or will) these measures incentivize production in The Netherlands? To what extent do (or will) these measures increase consumer exposure to European works?</td>
<td>AVC</td>
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<tr>
<td><strong>Netflix and AVMSD</strong></td>
<td>Which, if any, of the AVMSD’s measures has had (or might have) the greatest impact on Netflix's European strategy? Netflix has been ramping up it’s slate of European content, to what extent is this due to the revised AVMSD?</td>
<td>Netflix</td>
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<tr>
<td>What is the editorial criteria Netflix uses for European content? How does Netflix seek out European content?</td>
<td>Netflix</td>
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<td>What type of European content does Netflix look for?</td>
<td>Netflix</td>
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<tr>
<td>Netflix recently announced a new slate of Dutch content (including the first Dutch Netflix Original film and first Dutch Netflix Original comedy series). What motivates Netflix to acquire or develop Dutch content?</td>
<td>Netflix</td>
<td></td>
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<tr>
<td>How does Netflix balance acquiring/licensing older local content with developing/producing new local Netflix Originals?</td>
<td>Netflix</td>
<td></td>
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<tr>
<td>What are the greatest challenges with the content quota of European works on a theoretically unlimited content catalogue? What are the greatest challenges with the prominence requirements for European works on an algorithmically personalized homepage that differs per user?</td>
<td>Netflix</td>
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<tr>
<td>How does Netflix deal with the strategic challenge of balancing diversity with providing accurate recommendations to its users? To what extent is Netflix designing or developing tools (e.g. recommendation algorithms, categories, etc.) to promote European works?</td>
<td>Netflix</td>
<td></td>
</tr>
<tr>
<td>Why did Netflix choose Amsterdam, the Netherlands for its EMEA headquarters? What implications does the Netherlands as ‘country of origin’ have for Netflix’s EU-wide compliance with the AVMSD?</td>
<td>Netflix</td>
<td></td>
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<td>What is the current relationship between (Stakeholder) and Netflix?</td>
<td>NAPA, NCP, Film Fund, NPO</td>
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<tr>
<td>What kind of local content is Netflix interested in licensing/acquiring or (co-)producing from the NPO? What is the current state of affairs and how are these talks progressing? How do you feel the AVMSD has (or might) influence these discussions?</td>
<td>NPO, Netflix</td>
<td></td>
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<tr>
<td>How does the NPO structure cost and revenue sharing with Netflix?</td>
<td>NPO</td>
<td></td>
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<td>How does collaboration with Netflix affect relationships with (besides the Netherlands Film Fund) other Dutch and EU level production subsidy providers such as the CoBo fund?</td>
<td>NAPA, NCP</td>
<td></td>
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<tr>
<td>How does (or might) collaboration with Netflix to produce films, affect the division of costs and revenues between Netflix and the traditional stakeholders, namely the Film Fund, film producers, film distributors, cinemas, TV broadcasters etc.?</td>
<td>Film Fund</td>
<td></td>
</tr>
<tr>
<td>How have Netflix and similar VOD providers affected the relationship between content producers and traditional (public and private) television broadcasters, film distributors, cinemas, etc.?</td>
<td>NAPA, NCP</td>
<td></td>
</tr>
<tr>
<td>How does Netflix differ from private or public broadcasters (e.g. NPO) in terms of their approach to content development/production/distribution? In what ways does the fact that Netflix doesn’t share viewing data impact the market power of the local producers/filmmakers/ talent it works with?</td>
<td>NAPA, NCP</td>
<td></td>
</tr>
<tr>
<td>What relationship does (Stakeholder) hope to have with Netflix and similar multinational VOD providers in the future?</td>
<td>NAPA, NCP, Film Fund, NPO</td>
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<tr>
<td>THEMES</td>
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<td>STAKEHOLDER(S) ASKED</td>
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<tr>
<td><strong>Transparency</strong></td>
<td>Per the EU Directive on Copyright and Related Rights in the Digital Single Market, EU member states will offer negotiation mechanisms to assist licensing rights disagreements between parties and VOD services and VOD platforms will be required to meet certain transparency obligations which will entail sharing data with authors and performers. How will this impact Netflix?</td>
<td>Netflix, AVC</td>
</tr>
<tr>
<td><strong>General</strong></td>
<td>Are there any other related policy challenges that we should discuss?</td>
<td>All</td>
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</table>

**REFERENCES**

Audiovisual Consultant Interview (2021), video conference interview with D. Idiz, 9 March.


Dutch Media Authority Interview (2021), video conference interview with D. Idiz and K. Irion, 10 February.


NAPA Interview (2021), video conference interview with D. Idiz and J. Ebbers, 17 February.


NCP Interview (2021), video conference interview with D. Idiz and J. Ebbers, 16 February.


Netflix Interview (2021), video conference interview with D. Idiz and K. Irion, 22 February.

Netherlands Film Fund Interview (2021), video conference interview with D. Idiz and J. Ebbers, 17 February.


NPO Interview (2021), video conference interview with J. Ebbers and R. Vliegenthart, 24 February.


Schuurman, Ruud (2020), Alles is zoals het zou moeten zijn (Life as it Should Be), Netherlands: Interstellar Pictures.


van Heijningen, Matthijs (2020), De Slag om de Schelde (The Forgotten Battle), Netherlands: Levitate Film.


SUGGESTED CITATION


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