Exploring VoD Services through Data Donations: A View from Netflix

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Abstract

Researching video-on-demand (VoD) services is notoriously challenging as these platforms maintain tight and strategic control over consumption data. To address this barrier, this chapter explores data donations as an innovative method for accessing real-world viewing data, made possible by the General Data Protection Regulation (GDPR) in the European Union. Under the GDPR, individuals can request their personal data from platforms like Netflix and voluntarily share it for research purposes. Using data donations from 126 respondents, we analyze 51,635 individual interactions with TV shows on Netflix in 2023, structured into 10,519 viewing sessions. We use the dataset to explore three widespread myths in VoD research: binge-watching, popularity, and diversity. Through this exploratory study, we demonstrate the potential of data donations for empirical VoD studies, discuss how to facilitate ethical and secure data donations, and

reflect on key challenges, such as low participation rates, messy and incomplete datasets, and issues of sample representativeness.

Keywords: *Data donations*, *Netflix*, *Computational methods*, *Myths*, *Binge-watching*, *Popularity*, *Diversity*.

Introduction

Researching video-on-demand (VoD) services is notoriously difficult as these platforms maintain strict and strategic control over consumption data, limiting insights into audience behavior and content popularity. This lack of transparency enables them to highlight successes without scrutiny while keeping failures hidden from public view.[2] Facing pressure from partners and creators, Netflix has started sharing more data, including weekly top ten lists, most popular lists, and a biannual engagement report. Historically, the company has resisted third-party audience measurement, but with the launch of its ad-supported tier, it has now also partnered with measurement companies in various countries, providing greater insights. However, despite these efforts, our understanding of VoD consumption remains limited, with audience data highly controlled by the services themselves, leaving us with little ability to challenge or verify their claims.

In academia, most research on television in the digital age has focused on industries, technologies, or content rather than on audiences, prompting calls for a revival of audience studies.[3] In VoD research specifically, the focus has primarily been on analyzing content catalogs[4] and platform interfaces.[5] Although several studies examine VoD audiences in terms of media choice, interface navigation, and algorithmic engagement, researching media consumption remains challenging due to restricted data access. To overcome this limitation, researchers have employed various methods, including self-reported data from interviews and surveys, observational studies, and analysis of selectively released data from Netflix. The use of actual interaction data in VoD research remains uncommon. While some studies have employed browser extensions to collect such data, these efforts typically involve only a small number of participants over short time periods. A promising solution to data access challenges lies in the ability of European citizens to retrieve their personal data. Under the General Data Protection Regulation (GDPR), individuals have the right to request their personal data from data processors, including global VoD services. Building on this, data donation projects invite individuals to voluntarily share their data for research purposes, offering new opportunities to VoD audience research into media consumption.

This chapter explores data donations as a valuable method to study media consumption patterns on VoD services.[6] First, we identify and examine the problem of data access that data donations aim to address in VoD research. Next, we reflect on how to facilitate ethical and secure data donations and reflect on key challenges, such as low participation rates, messy and incomplete datasets, and issues of sample representativeness. Then, drawing on data donations from 126 respondents, we analyze 51,635 individual interactions with TV shows on Netflix in 2023, structured into 10,519 viewing sessions. More specifically, we use this dataset to explore three prevalent myths in Netflix research–binge-watching, popularity, and

diversity–demonstrating the potential of data donations for VoD studies. Finally, we consider the broader implications of this method for understanding VoD services and propose directions for its future application.

Data Donations as a Means to Study Audience Consumption

Unlike traditional broadcast television, which relies on audience samples to generate metrics, VoD services such as Netflix have access to comprehensive interaction data across its platform. However, Netflix has historically been reluctant to share insights into user consumption. Wayne highlights a shift from an anti-transparency policy to selective data releases beginning in late 2018,[7] noting that "the absence of standardized audience metrics allows each SVoD platform to define popularity in ways that benefit them most."[8] While data availability has improved over time, particularly with the introduction of Netflix's biannual *What We Watched: Netflix Engagement Reports*, the company's approach remains strategic. Rather than fostering genuine transparency, Netflix appears to have adopted a performative or *phatic data policy*–releasing information primarily for appearances rather than genuine transparency.[9] The engagement reports lack the granularity needed for meaningful insights into title performance or viewer consumption patterns. This new approach allows the company to claim openness while providing little substance for critical analysis.

Despite challenges of access to data, researchers have adopted various methods to investigate media consumption on VoD services, each with its own strengths and limitations. One approach involves analyzing selective data and indirect measures, such as the top ten feature.[10] While this feature has numerous limitations as a source of audience data, scholars have effectively used it to generate valuable insights. For instance, Wayne and Ribke leveraged the top ten to demonstrate that the relationship between audiences and diverse content is more complex than industrial narratives suggest.

Other methods such as interviews and surveys rely on self-reported viewing data. Research by Frey and also Johnson et al. highlights the value of such empirical data, challenging the industry's claim that recommender systems heavily dictate audience choices.[11] Another example is the European Audiovisual Observatory 2022–2023 report, which provides insights into subscription VoD usage across the European Union (EU), offering a more detailed perspective on viewing behavior.[12] This report was based on surveys of statistically representative households in the given country but covered only a limited selection of content from the SVoD catalogs. It did reveal that VoD usage in Europe is concentrated in terms of services, genres, and recent films but also that European works account for 30 percent of viewing time. While certainly interesting and useful, there are many known potential inaccuracies of self-reported data.[13]

Methods for trace data collection include data donations and tracking. As explained by Ohme et al., they offer significant advantages.[14] Data donations rely on direct collaboration with users, allowing researchers to supplement with additional information, such as interviews or surveys, while also ensuring meaningful informed consent. Unlike self-reported data, they

avoid issues such as social desirability bias[15] and provide more accurate data.[16] However, while unobtrusive for users, these methods require skills to build tools and infrastructures and are designed for specific research questions.[17] An example of tracking is a study by Castro et al., which used a browser extension to log user interactions and examine binge-watching behavior.[18] While fruitful insights on binge-watching were produced, their study was limited to eleven participants over a 10-day period, raising questions about representativeness. Another study by Thurman et al. utilized data from Broadcasters' Audience Research Board (BARB).[19] BARB collects device-based census data on broadcaster video-on-demand (BVoD) in the United Kingdom, tracking people when watching content on tablets, laptops, or smartphones. The study explored user control and agency by analyzing the characteristics of television programs and minutes of viewing for BBC Three programming on iPlayer compared to linear television. A limitation of their method is that they work with aggregate rather than individual-level viewing data.

Leveraging the Right to Data Access of VoD Users

Data donations is a promising new method for accessing digital traces that has recently emerged and is facilitated by the 2018 GDPR in the EU and United Kingdom. The GDPR grants individuals the right to access their collected data and the right to data portability.[20] In recent years, various jurisdictions worldwide have introduced legislation that grants similar rights.[21] As a result of this legislation, all data processing entities are required to provide their data subjects a digital copy of their personal data upon request. This legislation applies to large online platforms such as Facebook, TikTok, YouTube, and Google, but also all VoD services. These digital copies typically come in the form of .zip files containing various file types, such as .json, .csv, or .txt files, and potentially also image and video files depending on the nature of the platform, which are commonly referred to as Data Download Packages (DDPs). While data donations face challenges with participation rates, it offers key advantages, such as the ability to collect data retrospectively and across multiple devices.[22]

How VoD services handle data access requests in practice varies substantially. Some platforms have fully automated data request procedures for their users, as is the case for global VoDs such as Netflix and Amazon Prime. With a single click of a request button, users receive a file in their inbox within 30 days, containing a copy of their personal data collected by the processor. In contrast, other VoD services require that their users send a letter or an e-mail to their privacy officer. We typically see this for VoDs that serve a local market, such as NPO Start or Videoland in the Netherlands. This is likely due to their scale, resulting in less need to invest in an automating process. While data donations are exciting in theory, in practice, platforms do not always fully comply with data access legislation. Moreover, there are sometimes issues such as unclear data access procedures, incomplete DDPs, and ambiguity regarding what the data in the DDPs exactly represent.[23]

Privacy Preserving Collection of VoD Users' Digital Trace Data

Since data donation relies on legislation that only exists since 2018, it is a relatively new approach for data collection. First studies that made use of data donation asked participants to share their complete DDPs. An example is Project AWeSome, which collected complete

Instagram DDPs to investigate the relationship between adolescent well-being and social media use.[24] Another example is a study which examined musical preferences by analyzing data donated by Facebook users. However, an important challenge was that the DDPs collected contained a lot of sensitive data, not only of the research participants but also of their contacts who did not give consent. To address this issue, data donation studies were designed so that participants either visited a research facility, where they immediately applied a de-identification procedure to the Facebook DDPs they received, or participated online, where the de-identification process was carried out immediately after receiving the DDPs.[25]

The presence of sensitive data in DDPs poses significant challenges. First, participants may be hesitant to share this information. Second, not all data contained in a DDP is typically needed to answer a specific research question. Sensitive data can also be present in DDPs from VoD services. This includes direct identifiers such as names, email addresses, and IP addresses. Additionally, user profiles may indirectly disclose household or family structures, while viewing histories and preferences could reveal special category information such as sexual orientation, religion, or political preferences. To tackle issues of sensitive data, Boeschoten et al. developed an alternative workflow.[26] It consists of the following steps for a research participant:

1. The participant requests their personal DDP at the platform that is of interest to the research project.
2. Once the DDP is ready, the participant downloads and stores the DDP on their own personal device.
3. The participant then visits a website that is built specifically for the research project.
4. The participant opens the DDP via the website, where a local processing step takes place. This means that only the features of interest to the research project are extracted from the DDP.
5. The extracted features are shown on the screen to the participant, and the participant can here decide whether they want to share these features with the research project. They can also decline to share the extracted features.

Only after the participant consents to sharing the extracted features (step 5) are these data sent to a secure storage location that can be accessed by the researchers of the project.

Multiple software tools exist that facilitate the conduct of a data donation study. For instance, the tool OSD2F[27] allows for the donation of .json files while locally removing various identifiers. It has been used to collect Facebook, Instagram, Twitter/X, and YouTube data to understand digital news use,[28] and in a study that collected Google Browsing, Searching, and YouTube histories to understand media consumption behavior.[29] Alternatively, the tool Designerly Data Donation[30] focuses on data visualization and was used for data collection from menstrual tracking apps[31] and Google Assistant.[32] Both tools focus on understanding how users perceive the intimacy of such data. The Data Donation Module[33] tool, in turn, facilitates a graphical user interface to prepare data donation studies and has been used for example, for collecting Google search histories to understand what participants search in

relation to upcoming political referenda.[34] Additionally, the tool Port offers researchers the flexibility to design studies that collect various types of data from any platform that complies with GDPR.[35] Port has supported several studies, including the following:

- Collecting WhatsApp data to understand the fundamental structural properties of the WhatsApp network.[36]
- Gathering Google Semantic History, Samsung Health, and iHealth data to understand the physical activity levels of older adults.[37]
- Investigating the relationship between YouTube media consumption and voting behavior in the 2023 Dutch general elections.[38]

As discussed shortly, Port is also what we used for our Netflix study.

Importantly, while people can donate their data, they are not always willing to do so. Numerous studies have focused on what types of participants are inclined and also able to successfully donate their data for research. For example, a study that collected WhatsApp data donations in the LISS panel, a probability-based panel in the Netherlands, found that younger and higher educated users are more likely to donate.[39] Similar conclusions were drawn by a vignette study on hypothetical willingness of data donation in the probability-based German Internet Panel.[40] In addition, a study with participants from an online panel company concluded that participants with higher digital literacy skills were more likely to donate in a study with participants from an online panel company.[41]

Finding Participants to Donate Their Data

Data donation is a user-centric approach to collect digital trace data,[42] meaning that users need to be actively recruited to participate and guided through the process to share their personal digital traces. In practice, participant recruitment and guidance can be organized in different ways. In recent data donation studies, two main approaches can be distinguished: a fully online approach or a more personalized approach. In fully online approaches, participants receive an invitation to an online system for data donations and are guided through the process via instructions in their web browser. This approach must accommodate a diverse range of participants with varying backgrounds, device types, operating systems, language settings, and levels of familiarity with the service being studied.

For studies with a more qualitative focus and/or where researchers have the resources to provide direct support, a personalized approach can be beneficial. Setting up a physical lab environment, conducting on-site visits (e.g., at schools), or offering individualized assistance (e.g., through Zoom meetings) allows researchers to explain the procedure and to provide real-time troubleshooting. In such cases, it is common practice to compensate participants for their time, which is often done by monetary reimbursements.

When the goal of the research is to make inferences about a certain population or conduct experiments, researchers typically aim to collect data donations from over one hundred participants. In such cases, they often collaborate with panels such as the LISS panel[43] or commercial panels like Ipsos I&O. Alternatively, opt-in panels such as Prolific can be used. The

costs associated with different panels and the incentives offered to participants can vary significantly due to cultural differences. Which approach is most suitable depends on the purpose of the study, the financial means, and capacity in terms of support staff.

Exploring VoD Myths

This chapter explores how data donations can help scrutinize three prevalent Netflix myths: binge-watching, popularity, and diversity. As explored elsewhere,[44] Netflix perpetuates myths and controls the narrative over its service, limiting our understanding of the object, and its alleged disruptive impacts. These Barthesian myths are presented as facts that require no further scrutiny. For our exploratory study, we applied the data donations workflow developed by Boeschoeten et al.[45]

In collaboration with panel recruitment company Ipsos I&O, a survey on Netflix usage was sent to 401 participants in the Netherlands.[46] After completing the survey, they were asked to share their Netflix DDPs via Port. In total, 126 respondents out of 401 donated their Netflix data (31.4 percent).[47] The 126 respondents' ages range from 18 to 71 years, with an average age of 41.9 years. A majority (61.1 percent) identified as male, while 38.9 percent identified as female. The high dropout rate is likely due to the numerous steps participants were required to complete, a pattern also observed in a previous study.[48] There were, furthermore, multiple weeks between the invitation email (including the survey) and the actual data donation step. Also, participants had to wait several hours to a couple of days before their Netflix data were ready for downloading. Although the process was complex, we took several measures to minimize dropout. For example, we used B1-level language in the step-by-step instructions and included visualizations to guide participants through the data access request and donation procedure. Additionally, we ensured that the panel recruitment helpdesk was available for support.

The Netflix DDPs primarily include data on watching behavior, where individual users' interactions with content items are tracked (Figure 1; what title they clicked on, when they clicked on it, how long they watched it, and from what device). While these data points already enable various exploratory analyses, the data needed to be further enriched to examine the three myths. For starters, watched titles were categorized into TV shows and other genres (movies, documentaries, etc.) using additional datasets that included a correct categorization of each item. Since Netflix tracks specific episodes as titles (e.g., *Jane the Virgin*, Season 3: Episode 56), episodes belonging to the same TV show were labeled as such in a new column (e.g., to be able to see how many unique shows are in the dataset). Relatedly, trailers and teasers were excluded from the dataset.

Furthermore, the average total runtime per episode of TV shows was included to then calculate when an interaction could be considered a completed viewing based on the percentage watched in one interaction (using a 70 percent threshold). This information was added by enriching the dataset with external sources such as IMDb or Wikipedia. Eventually, these data points provided the basis for assigning each interaction to specific sessions, defined as a sequence of interactions within a specific timeframe. This, in turn, enabled the identification

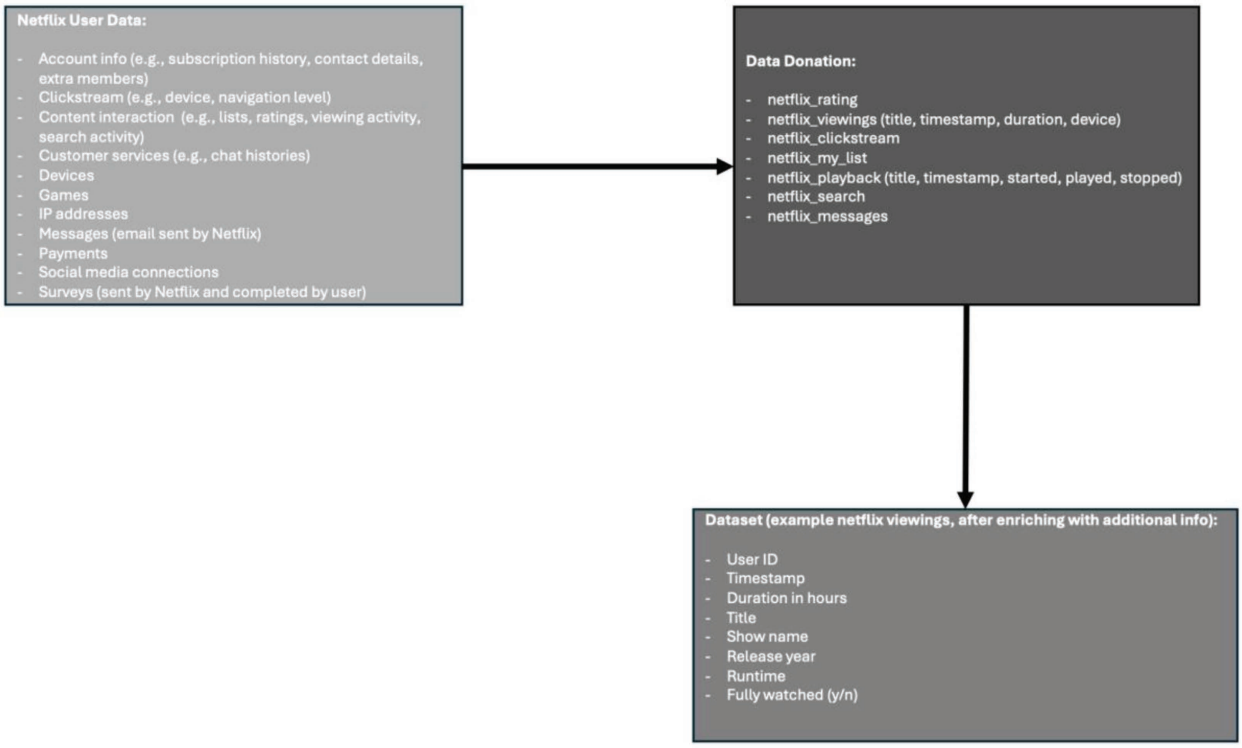

Figure 1 From Data Donations to Dataset.

and filtering of binge-sessions using thresholds (i.e., number of items completely watched within a session). Additionally, to analyze the diversity of watched content in our dataset, details about each unique TV show, including the country (or countries) of production, were included. The final dataset consists of 51,635 individual interactions with TV shows on Netflix in 2023, which were organized into 10,519 viewing sessions.

Myth 1: Binge-Watching

In 2013, Netflix commissioned an online survey by Harris Interactive, involving nearly 1,500 TV streamers. The survey found that binge-watching was common, with 61 percent of respondents reporting that they regularly binge-watch, defined in this context as viewing two–six episodes of the same show in one sitting.[49] Netflix subsequently framed binge-watching as "the new normal."[50] Wayne observes that Netflix frequently promotes binge-viewing as a preferred mode of audience behavior, positioning it as an improvement over traditional television's live broadcasts and linear scheduling.[51] But how common is binge-watching in practice?[52]

This is where data donations become useful. Yet even then, since there is no consistent definition of binge-watching, the answer remains far from straightforward.[53] Pierce-Grove notes how discussions about binge-watching frequently highlight the number of episodes viewed rather than the total duration (e.g., minutes or hours) spent watching.[54] It has been found that most definitions focus on the number of episodes watched in a single sitting.[55] For our analysis, we stipulated that for a session to be considered a binge, it must

Table 1 *Comparing definitions: changing the threshold .*[56]

	Two watched items	Three watched items	Four watched items	Five watched items	Six watched items
No. of users	116 (92%)	108 (86%)	88 (70%)	69 (55%)	53 (42%)
Percent of binge sessions in total sessions	32.2%	14.8%	8%	4.7%	2.8%
Percent that are non-binge sessions	67.8%	85.2%	92%	95.3%	97.2%

- have at least 3 watched items, with at least X of them marked as fully watched (at least 70 percent viewed of the total runtime);
- consist mostly of episodes from the same show, meaning that more than 50 percent of the items in the session come from a single show.

Table 1 presents our analysis of binge-watching based on the data donations, showing the proportion of respondents who binge-watched (or not) at some point during the data collection period. Here, we can see that 92 percent of participants would qualify as binge-viewers if we define binge-viewing as watching two complete episodes within a single session. The results also show how adapting that threshold changes the proportion of the population that are classified as binge-watchers. Harking back to Netflix's 2013 commissioned survey, we find that, over a decade later, actually more people seem to engage in binge-watching. Even with a threshold of five episodes, more than half of the users have engaged in such viewing activity. When looking at the percentage of total sessions, however, there is a sharp decline as the threshold increases, indicating that while binge-watching is popular (number of users) and rather common (in terms of frequency), "extreme" binge-watching is relatively rare and certainly not the norm. In the end, most sessions constitute non-binge-watching behavior (over at least 67 percent).

Myth 2: Popularity

The concept of popularity has long been central to television analysis in cultural studies, yet researching the cultural power of VoD services and their content is challenging due to the lack of available consumption data.[57] As Wayne states:

> whatever shared sense of collective audience-hood was discursively produced by widely accepted albeit thoroughly flawed ratings systems like Nielsen is being replaced by the industrial discourses associated with black-box audience data within which claims of popularity and cultural significance cannot be substantively challenged.[58]

Compounding this problem, Netflix's method for calculating a "view" has changed over the years, which has had implications for how popularity is understood and what content is popular. Initially, viewing a title meant completing 70 percent of its total runtime. However, in 2020, the company changed its definition: A view was now considered as watching just 2 minutes of

a title. This decision conveniently increased their average viewership by 35 percent compared to the previous metric.[59] In 2023, the definition of a view changed once again. It was calculated as the total hours viewed divided by the total runtime. According to Netflix, this method "offer[ed] a more easily comprehended number to represent popularity and also helps level the playing field for shows and films with shorter running times."[60] However, it also includes repeat views, which inflates viewership figures. As Mittell explains, Netflix profits more from perceived popularity, linked to attracting subscribers, than from actual viewer numbers.[61]

To determine what TV shows were popular among Netflix viewers in the Netherlands in 2023, we first identified the number of unique titles and calculated how many unique users watched these. In this way, it becomes possible to detect TV shows that seem to be watched by a relatively large share of unique users and what titles receive less attention. In total, users engaged with 1,196 different TV shows. This also includes interactions where users watched only a fraction of an episode. When considering only interactions where viewers completed at least one episode, this number drops to 779 unique titles, accounting for 65.2 percent of all TV shows. This number suggests that in circa 35 percent of cases, users started episodes but did not complete them, likely reflecting browsing behavior. When focusing on TV shows where users watched complete episodes, the analysis reveals a typical long-tail distribution (Figure 2).

Table 2 highlights the top 10 TV shows, ranked by the number of unique users who watched full episodes. *The Night Agent* emerges as the most-watched show of 2023, with forty-five

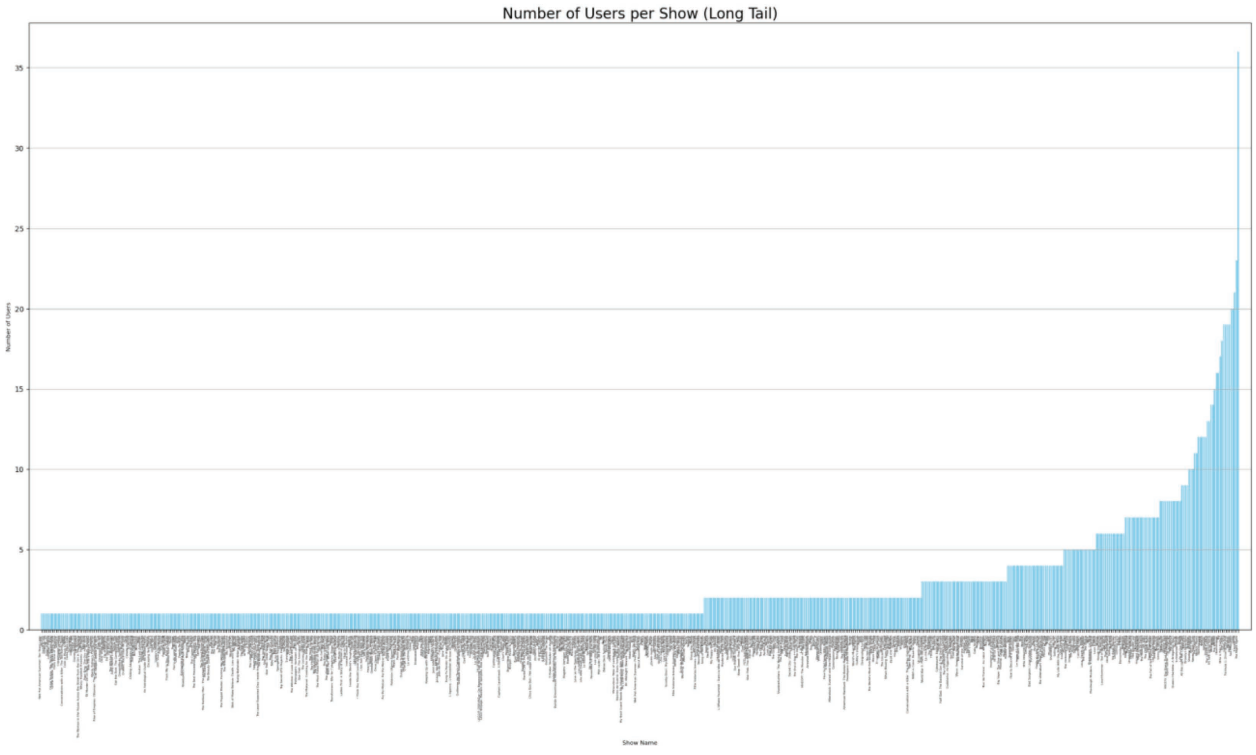

Figure 2 Long-Tail Distribution of Number of Users per TV Show.

Table 2 Top 10 TV Shows Based on Unique Users

Show name	Unique users	Percent of all unique users
The Night Agent	45	36.8
Lupin	32	26.2
Sex Education	31	25.4
The Crown	29	23.7
Liebes Kind	27	22.1
You	26	21.3
Who Is Erin Carter?	25	20.4
Knokke Off	24	19.6
Black Mirror	24	19.6
Manifest	23	18.8

unique viewers, representing 37 percent of all users in the dataset. Other top titles such as *Lupin* or *Sex Education* attract around 25 percent of unique users. However, only seven shows (0.8 percent of all unique titles) attract at least 20 percent of all users. Expanding the lens to the top twenty titles reveals a sharp drop-off, with many TV shows watched by fewer than 20 percent of all users. So, while the top twenty shows represent a large portion of our participants' attention, there are signs of fragmentation in viewership. Still, 113 unique users (92 percent) watched one of the top twenty shows.

Examining the long-tail, we find that 86 percent of all unique TV shows have fewer than five unique viewers, while over 52 percent are watched by just a single unique viewer. This suggests that most TV shows are consumed by very small groups of unique users or even individual viewers. However, engagement with titles in the long-tail is not limited to just a few unique users. On the contrary, 91 percent of all unique users watch shows in the long-tail. This indicates that most users also watch TV shows that are not widely popular based on audience share. In other words, many users watch both popular and "niche" content.

These observations are further supported when visualizing titles and users in network graphs (Figures 3–5). Each circle (node) represents a show title and a unique user. The larger a circle, the more users watch that title (indicated by an edge). Only show title nodes can differ in size based on how many users are connected to it. For example, a title such as *The Night Agent* is noticeably larger than others, due to the relatively high number of unique users who watched it. Accordingly, users are connected through the shows that they watch. Figure 3 shows the network graph for all shows, regardless of how many users watch them (but at least one). There is a dense cluster in the center, with several shows as large nodes, underscoring their prominence. However, the graph also indicates that many shows are watched by few or even only single users at the periphery of the graph (Figure 4). The colors in the visualization mark communities, clustered based on similar content consumption, identified via the modularity class algorithm in Gephi. TV shows that serve as a link between multiple user clusters can appear in multiple communities.

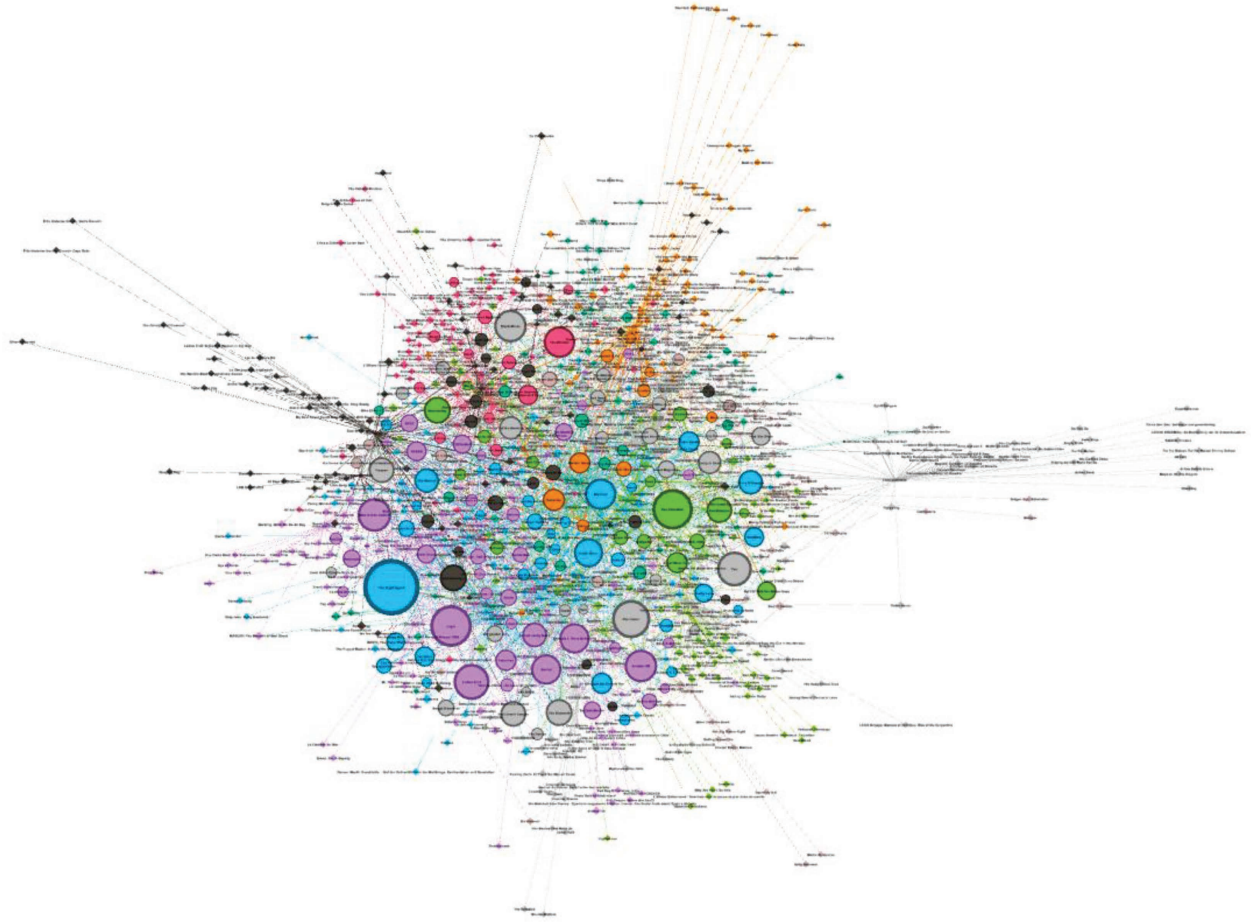

Figure 3 Network of All Watched Shows and Users, No Threshold.

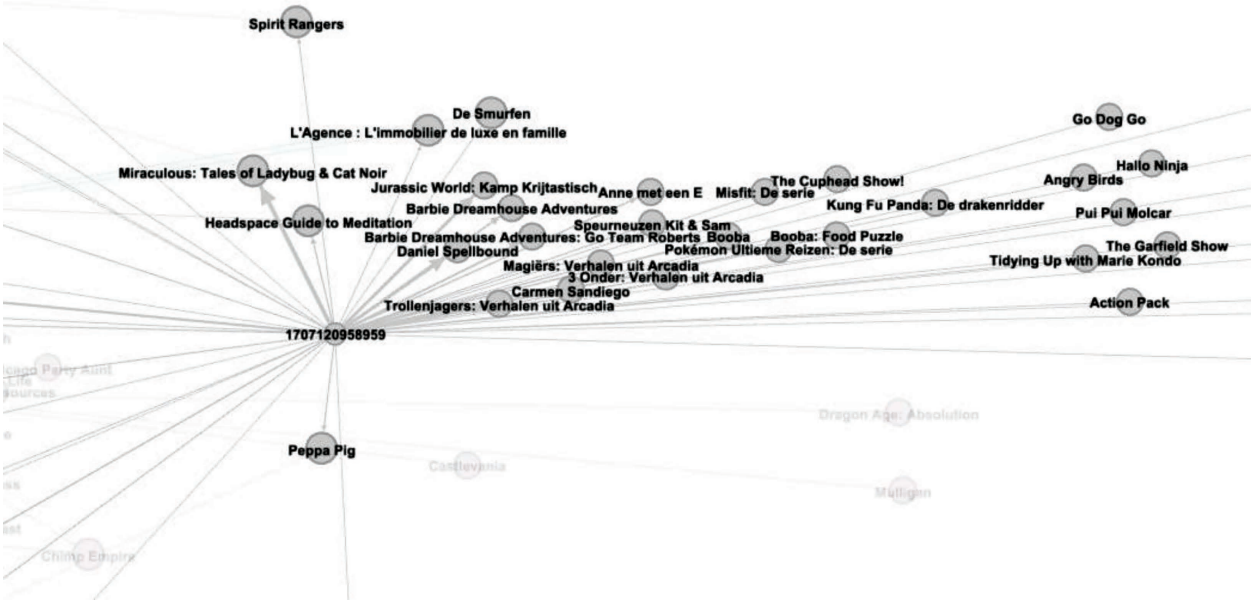

Figure 4 Example of Watched Shows Unique to a Single User.

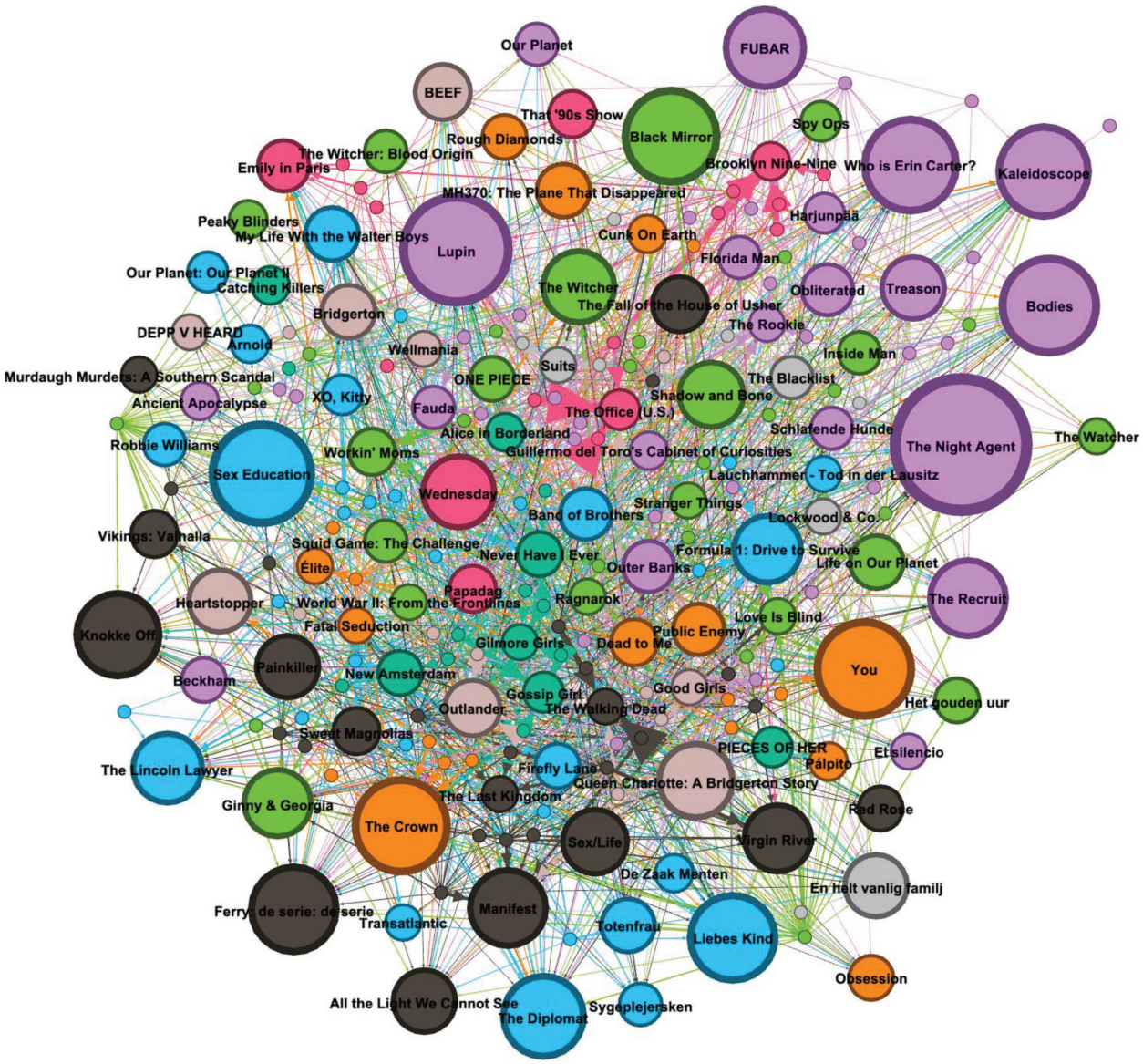

Figure 5 Network of All Watched Shows and Users, Minimum of Ten Users per Show (User IDs Removed).

The size and complexity of the network graph change noticeably when the threshold for including show titles–based on the number of unique users watching them–is increased. For example, the number of nodes for show titles drops from 779 to 239 (30 percent) when including only shows that have at least five unique users who watched them. It drops down even further to 105 show titles (13 percent) with a threshold of ten unique users (Figure 5).

These exploratory analyses illustrate potential applications of similar methods to identify and investigate matters such as taste communities, content popularity, or diversity of content consumption.

Myth 3: Diversity

In the EU, the Audiovisual Media Services Directive (AVMSD) aims to promote cultural diversity by requiring global VoD services such as Netflix to include at least 30 percent European content in their catalogs and ensure these titles are prominently featured. While the quota system is intended to support local productions, there have been concerns that these content quotas lead to "quota quickies"–low-quality filler content that fails to attract viewers.[62] Moreover, local content may be in the interest of these services. Theories of cultural proximity, originally developed to explain transnational television consumption, suggest that audiences tend to prefer content that is familiar to them in terms of language, cultural references, and ethnic appearance.[63] However, whether this preference still applies to VoD services is unclear.[64] In the meanwhile, Netflix uses its branding of diversity to appeal to transnational audiences.[65] As Ted Sarandos has repeatedly stated in interviews: "We're entering into a new era now where content and great stories can come from almost anywhere in the world."[66]

While numerous studies have examined Netflix in terms of catalog composition and prominence/discoverability of European titles, a key question remains: Are users watching European content? The earlier mentioned 2022–2023 report by the European Audiovisual Observatory gives some useful clues.[67] Based on survey data and covering a selection of titles, their findings suggest that 62 percent of television viewing time in the Netherlands is spent on US productions, followed by 11 percent on UK content. Additionally, it observed that the share of EU-produced TV content in viewing time (29 percent) roughly aligned with its share in the catalog (33 percent). Data donations provide valuable insights into the role of European content while also offering a broad perspective on consumption diversity.

Our dataset included 1,170 unique TV shows from 104 different production countries. Notably, 46 percent of all titles were produced–or co-produced–by the United States (Table 3). With considerable distance, this is followed by the United Kingdom (11 percent) and South Korea (5.3 percent). Content from the Netherlands accounts for only 2 percent of all titles watched by users in 2023.

Table 3 Productions Watched By Netflix Users By Country.

Country	Number of productions	Percent of TV shows
United States	546	46.6
United Kingdom	133	11.3
South Korea	70	5.9
Spain	63	5.3
France	60	5.1
Japan	52	4.4
Canada	47	4.0
Germany	46	3.9
Australia	28	2.3
Netherlands	24	2.0

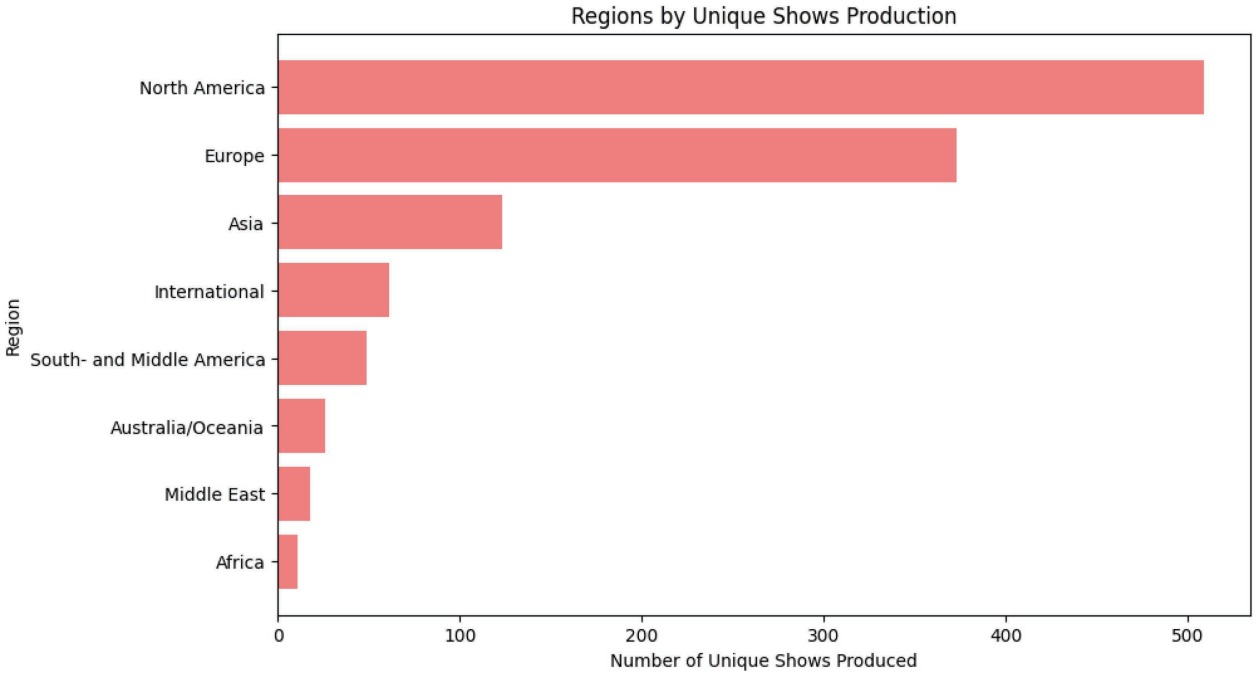

Figure 6 Production Countries Into Regions.

These findings suggest that anglophone productions also dominate the consumed content catalog in our dataset. However, when clustering the production countries into regions, 31 percent of all titles have a European origin (Figure 6).[68] Asian productions are in the third place, accounting for circa 10 percent of all content and spearheaded by South Korea and Japan. Productions from the Middle East and Africa are only a fraction of the catalog (1.5 percent and 0.9 percent, respectively).

While the catalog of consumed shows seems biased toward productions from North America, further exploring what TV titles users interact with implies that underrepresentation of production countries does not mean less engagement per se. Table 4 shows the number of unique users watching content from different countries, in this case the top 10 based on user counts.

While anglophone titles appear very popular, a considerable proportion of unique users also engage with Dutch content: 55 percent of them check Dutch titles at least once, with 36 percent watching at least one full episode of Dutch TV shows. So, while Dutch titles are only a small fraction of the catalog, they attract over half of all unique users in the dataset. The visible presence of South Korean and Spanish content in the top 10 shows that Dutch audiences are open to non-anglophone titles, aligning with trends seen in the success of K-dramas and Spanish-language series.

Taken together, these findings indicate that anglophone productions dominate the consumed TV show catalog on Netflix in the Netherlands–at least among our participants. However, this does not mean that quantitatively less represented local and regional productions are irrelevant, as engagement with them remains significant. While concerns of US dominance

Table 4 Number of Unique Users Watching Content From Different Countries.

Country	Unique users	Percent of all users
United States	124	98.4
United Kingdom	117	92.8
France	73	57.9
Netherlands	70	55.5
Germany	68	53.9
Canada	54	42.8
Belgium	53	42.0
South Korea	52	41.2
Spain	50	39.7
Australia	47	37.3

and cultural imperialism are not unwarranted, a substantial amount of content from other countries is also being consumed. While we don't know if and how these productions are featured on the platform, users are discovering and engaging with them.

Conclusions

In this chapter, we highlighted how the VoD industry's secrecy surrounding audience data has hindered researchers from critically evaluating its claims. First, we introduced data donations as a valuable method for collecting digital trace data within the context of VoD research. Here, we reflected on both the benefits and limitations of this form of data collection, introduced the ways of setting up studies that are ethically sound with informed consent, and discussed challenges in participant recruitment and the need for compensation in return for their labor.

Second, we zoomed-in on an exploratory study we conducted on Netflix data donations to illustrate the potentials of access to such data. We used 126 DDPs to briefly reflect on binge-watching, popularity, and consumption diversity. These, we argue, are all Netflix myths–narratives that have circulated and been accepted as facts without critical evaluation. While the Netflix DDPs provided the necessary empirical basis for our subsequent analyses, it also revealed the need for enriching the donated data with additional information (e.g., genres and production countries) from other sources. This is a complex and laborious task that often combines automated matching of different datasets and manual input for enriching data.

As demonstrated, having empirical data from data donations allows for talking back to some key assumptions about VoD services driven by the industry and reproduced in media and academic publications. To sum up the key insights, (1) binge-watching is a common behavior

but appears less extreme than myths make it seem. Importantly, binge-watching does not appear to be the "norm," as most interactions do not fall in this category. (2) Concerning popularity, a few shows (mostly Netflix Originals) attract the largest share of unique users, with most titles falling into the long-tail; still, users in our dataset watch both popular and niche content. There are indicators for noticeable audience fragmentation, possibly shaped by the platform's personalization-centered recommender system, but more research is needed here. (3) In regard to popularity, US and other anglophone productions clearly dominate the content catalog and are widely consumed by the vast majority of users; however, European and local productions (in the present case, Dutch ones) are watched by a considerable share of unique users. In this sense, it can be stated that proportions do matter to some extent, but that does not mean that productions from less represented countries are rendered invisible.

Data donations offer scholars new opportunities to explore the cultural power and global flow of content on VoD services. These matters can be explored both synchronically–comparing different services–and diachronically–by tracking developments over time. In all these approaches, it is essential to contextualize the data within broader socioeconomic, technological, and policy frameworks. Moreover, it could help empirical research on VoDs out of its siloes by enabling much-needed studies that examine the interplay among catalogs, interfaces, and audiences.[69]

Ultimately, data donations provide a useful workaround to VoD's reluctance to share data for academic research. However, this approach also creates new inequalities–not only in the skills and infrastructural resources required but also in its applicability for different VoD services. While large global VoDs enable quicker access to DDPs, smaller local platforms often remain inaccessible and overlooked. Additionally, access varies by country; some grant citizens access to their personal data, while many still do not. While innovation in research methods is crucial for studying VoD services, so is advocating for access to digital trace data and defending academic freedom.

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Conflict of Interests

The authors declare no conflict of interests.

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[2] Michael L. Wayne, "Netflix Audience Data, Streaming Industry Discourse, and the Emerging Realities of 'Popular' Television," *Media, Culture & Society* 44, no. 2 (2022): 193–209, https://doi.org/10.1177/01634437211022

[3] Graeme Turner, "Approaching the Cultures of Use: Netflix, Disruption and the Audience," *Critical Studies in Television* 14, no. 2 (2019): 222–32, https://doi.org/10.1177/1749602019834554.

[4] Catalina Iordache and Tim Raats, "The Platformization of Public Service Media: A Comparative Analysis of Five BVOD Services in Western and Northern Europe," *International Journal of Media and Cultural Politics* 19, no. 1 (2023): 3–22; Catalina Iordache, Tim Raats, Michael Pakvis, and Axelle Asmar, "Piecing the Puzzle of VoD Offerings: A Comparison of Eight US and Local Services in Flanders," *Journal of Digital Media & Policy* 14, no. 3 (2023): 357–76; Ramon Lobato and Alexa Scarlata, *Australian Content in SVOD Catalogs: Availability and Discoverability – 2019 Edition*, Report (Melbourne: RMIT University, 2019), https://apo.org.au/sites/default/files/resource-files/2019-10/apo-nid264821.pdf; Amanda D. Lotz, Oliver Eklund, and Stuart Soroka, "Netflix, Library Analysis, and Globalization: Rethinking Mass Media Flows," *Journal of Communication* 72, no. 4 (2022): 511–21. https://doi.org/10.1093/joc/jqac020

[5] Joëlle Farchy, Gregoire Bideau, and Steven Tallec, "Content Quotas and Prominence on VOD Services: New Challenges for European Audiovisual Regulators," *International Journal of Cultural Policy* 28, no. 4 (2021): 419–30, https://doi.org/10.1080/10286632.2021.1967944; John P. Kelly, "'Recommended for You': A Distant Reading of BBC iPlayer," *Critical Studies in Television* 16, no. 3 (2021): 264–85, https://doi.org/10.1177/17496020211024201; Ramon Lobato and Alexa Scarlata, "Regulating Discoverability in Subscription Video-on-Demand Services," in *Digital Platform Regulation: Global Perspectives on Internet Governance*, edited by Terry Flew and Fiona R. Martin (Springer International Publishing, 2022), 209–27; Eleonora Maria Mazzoli, "Online Content Governance: Towards a Framework for Analysis for Prominence and Discoverability," *Journal of Digital Media and Policy* 11, no. 3 (2020): 301, 319.

[6] Ramon Lobato, Alexa Scarlata, and Tyson Wils, "Video-on-Demand Catalog and Interface Analysis: The State of Research Methods," *Convergence* 30, no. 4 (2024): 1331–47, https://doi.org/10.1177/13548565241261992; [author]
[7] Wayne, *Netflix Audience Data*, 193–209.
[8] Wayne, *Netflix Audience Data*, 204.
[9] Karin van Es and Dennis Nguyen, "Binge-Watching Netflix? Insights from Data Donations," *Media and Communication* 13 (2025), https://doi.org/10.17645/mac.9362.
[10] Daphne Idiz, Julia Noordegraaf, and Rens Vliegenthart, "Culture as Window Dressing? A Threefold Methodological Framework for Researching the Locality of Netflix Series," *Critical Studies in Television* 0, no. 0 (2024), https://doi.org/10.1177/17496020241235579; Amanda D. Lotz, "Unpopularity and Cultural Power in the Age of Netflix: New Questions for Cultural Studies' Approaches to Television Texts," *European Journal of Cultural Studies* 24, no. 4 (2021): 887–900, https://doi.org/10.1177/1367549421994578; Alexa Scarlata, "'What Are People Watching in Your Area?': Interrogating the Role and Reliability of the Netflix Top 10 Feature," *Critical Studies in Television* 18, no. 1 (2023): 7–23, https://doi.org/10.1177/17496020221127183; Mike L. Wayne and Nahuel Ribke. "Loved Everywhere?: Netflix's Top 10 and the Popularity of Geographically Diverse Content." *Convergence* 30 no. 4 (2024): 1348–64. https://doi.org/10.1177/13548565241265504
[11] Frey, Matthias. *Netflix Recommends: Algorithms, Film Choice and the History of Taste* (University of California Press, 2021); Johnson, Hills, and Dempsey, "An Audience Studies' Contribution to the Discoverability and Prominence Debate."; Johnson, Catherine, Matt Hills, and Laurie Dempsey. "An Audience studies' Contribution to the Discoverability and Prominence Debate: Seeking UK TV Audiences' 'Routes to Content'." *Convergence* 30, no.5 (2023): 1625-1645. https://doi.org/10.1177/13548565231222605
[12] Christian Grece and Jean-Augustin Tran, *SVOD Usage Report in the EU 2023* (December2023),https://rm.coe.int/svod-usage-report-in-the-eu-2023-december-2023-c-grece-and-j-a-tran/1680af0850.
[13] Biying Wu-Ouyang, and Michael Chan. "Overestimating or Underestimating Communication Findings? Comparing Self-Reported with Log Mobile Data by Data Donation Method," *Mobile Media & Communication* 11, no. 3 (2023): 415–34. https://doi.org/10.1177/20501579221137162.
[14] Jakob Ohme, Theo Araujo, Claes H. de Vreese, and Jessica Taylor Piotrowski. "Mobile Data Donations: Assessing Self-Report Accuracy and Sample Biases with the iOS Screen Time Function." *Mobile Media & Communication* 9, no. 2 (2021): 293–313. https://doi.org/10.1177/2050157920959106
[15] Wu-Ouyang and Chan, "Overestimating or Underestimating Communication Findings?"
[16] Ohme et al., "Mobile Data Donations."
[17] Ohme et al., "Mobile Data Donations," 129.
[18] Deborah Castro, Jacob M. Rigby, Diogo Cabral, and Valentina Nisi, "The Binge-Watcher's Journey: Investigating Motivations, Contexts, and Affective States Surrounding Netflix Viewing," *Convergence* 27, no. 1 (2021): 3–20, https://doi.org/10.1177/1354856519890856.

[19] Neil Thurman, Antonia Klatt, Hritik Raj, and Harsh Taneja. "Predicting Streaming Audiences for a Channel's On-Demand TV Shows: Discerning the Influences of Choice Architecture, Consumer Agency, and Content Attributes," *Convergence* 30, no. 3 (2024): 1254–70.

[20] Jef Ausloos and Michael Veale. "Researching with Data Rights," *Technology and Regulation* (2020): 136–57. https://doi.org/10.26116/techreg.2020.010.

[21] Examples are the Japanese Amended Act on the Protection of Personal Information (AAPI 2016), the 2020 Brazilian General Data Protection Law (LGDP 13.709/2018), the Personal Data Protection Bill (PDP Bill 2019) in India, and various state level legislation in the United States such as the 2020 California Consumer Privacy Act (375/2018) and the 2019 New York SHIELD Act (S5575B/2019). In addition, new legislations such as the 2024 Data Act are expected to further simplify access to digital trace data.

[22] Johannes Breuer, Zoltán Kmetty, Mario Haim, and Sebastian Stier. "User-Centric Approaches for Collecting Facebook Data in the 'Post-API Age': Experiences from Two Studies and Recommendations for Future Research," *Information, Communication & Society* (2022). https://doi.org/10.1080/1369118X.2022.2097015.

[23] Valerie Hase, Jef Ausloos, Laura Boeschoten, Nico Pfiffner, Heleen Janssen, Theo Araujo, Thijs Carrière, Claes H. de Vreese, Jörg Haßler, Felicia Loecherbach, Zoltán Kmetty, Judith Möller, Jakob Ohme, Elisabeth Schmidbauer, Bella Struminskaya, Damian Trilling, Kasper Welbers, and Mario Haim. "Fulfilling Data Access Obligations: How Could (and Should) Platforms Facilitate Data Donation Studies?" *Internet Policy Review* 13, no. 3 (2024), https://doi.org/10.14763/2024.3.1793.

[24] Irene I. van Driel, Anastasia Giachanou, J. Loes Pouwels, Laura Boeschoten, Ine Beyens, and Patti M. Valkenburg, "Promises and Pitfalls of Social Media Data Donations," *Communication Methods and Measures* 16, no. 4 (2022): 266–82, https://doi.org/10.1080/19312458.2022.2109608; Tim Verbeij, Ine Beyens, Damian Trilling, and Patti M. Valkenburg, "Happiness and Sadness in Adolescents' Instagram Direct Messaging: A Neural Topic Modeling Approach," *Social Media + Society* 10, no. 1 (2024): 20563051241229655, https://doi.org/10.1177/20563051241229655.

[25] Laura Boeschoten, Roos Voorvaart, Ruben van den Goorbergh, Casper Kaandorp, and Martine de Vos, "Automatic De-Identification of Data Download Packages," *Data Science* 4, no. 2 (2021): 101–20, https://doi.org/10.3233/DS-210035.

[26] Laura Boeschoten, Jef Ausloos, Judith E. Möller, Theo Araujo, and Daniel L. Oberski, "A Framework for Privacy Preserving Digital Trace Data Collection through Data Donation," *Computational Communication Research* 4, no. 2 (2022): 388–423, https://doi.org/10.5117/ccr2022.2.002.boes.

[27] Theo Araujo, Jef Ausloos, Wouter van Atteveldt, Felicia Loecherbach, Judith Moeller, Jakob Ohme, Damian Trilling, Bob van der Velde, Claes H. de Vreese, and Kasper Welbers, "OSD2F: An Open-Source Data Donation Framework," *Computational Communication Research* 4, no. 2 (2022): 372–87, https://doi.org/10.5117/ccr2022.2.001.arau.

[28] Mario Haim, Dominik Leiner, and Valerie Hase, "Integrating Data Donations in Online Surveys," *Medien & Kommunikationswissenschaft* 71, no. 1–2 (2023): 130–37, https://doi.org/10.5771/1615-634X-2023-1-2-130.

[29] Kasper Welbers, Felicia Loecherbach, Zilin Lin, and Damian Trilling, "Anything You Would Like to Share: Evaluating a Data Donation Application in a Survey and Field Study," *Computational Communication Research* 6, no. 2 (2024): 1, https://doi.org/10.5117/CCR2024.2.5.WELB.

[30] Alejandra Gomez Ortega, Jacky Bourgeois, and Gerd Kortuem, "Towards Designerly Data Donation," in *UbiComp/ISWC '21 Adjunct: Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers*, 496–501, https://doi.org/10.1145/3460418.3479362.

[31] Alejandra Gomez Ortega, Jacky Bourgeois, and Gerd Kortuem, "Reconstructing Intimate Contexts through Data Donation: A Case Study in Menstrual Tracking Technologies," in *Proceedings of the Nordic Human–Computer Interaction Conference* (October 2022): 1–12, https://doi.org/10.1145/3546155.3546646.

[32] Alejandra Gómez Ortega, Jacky Bourgeois, and Gerd Kortuem, "What Is Sensitive about (Sensitive) Data? Characterizing Sensitivity and Intimacy with Google Assistant Users," in *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (April 2023): 1–16, https://doi.org/10.1145/3544548.3581164.

[33] Nico Pfiffner, Pim Witlox, and Thomas N. Friemel. *Data Donation Module*. 2022. https://doi.org/10.5117/CCR2024.2.4.PFIF

[34] Sina Blassnig, Eliza Mitova, Nico Pfiffner, and Michael V. Reiss, "Googling Referendum Campaigns: Analyzing Online Search Patterns Regarding Swiss Direct-Democratic Votes," *Media and Communication* 11, no. 1 (2023): 19–30, https://doi.org/10.17645/mac.v11i1.6030.

[35] Laura Boeschoten, Niek C. de Schipper, Adriënne M. Mendrik, Emiel van der Veen, Bella Struminskaya, Heleen Janssen, and Theo Araujo, "Port: A Software Tool for Digital Data Donation," *Journal of Open Source Software* 8, no. 90 (2023): 5596, https://doi.org/10.21105/joss.05596.

[36] Rense Corten et al., "Assessing Mobile Instant Messenger Networks with Donated Data," *SocArXiv* (preprint), accessed February 8, 2025, https://osf.io/preprints/socarxiv/x4ku2.

[37] Florian Keusch, Bella Struminskaya, Joris Mulder, and Stein Jongerius, "Measuring Physical Activity in Older Adults through Data Donation: Consent Rates, Donation Success, & Bias," *SocArXiv* (preprint), 2024, https://doi.org/10.31235/osf.io/fdg8t.

[38] Felicia Loecherbach, Linda Bos, and Jessica Piotrowski, "Dissecting Digital Natives' Political Preferences: Election Campaigns and YouTube Media Exposure," presented at the ODISSEI Conference for Social Science in the Netherlands, October 2024, https://odissei-data.nl/wp-content/uploads/2024/10/ODISSEI-Conference-2024-_Programme.pdf.

[39] Corten et al., "Assessing Mobile Instant Messenger Networks with Donated Data."

[40] Henning Silber, Johannes Breuer, Christoph Beuthner, Tobias Gummer, Florian Keusch, Pascal Siegers, Sebastian Stier, and Bernd Weiß, "Linking Surveys and Digital Trace Data: Insights from Two Studies on Determinants of Data Sharing Behaviour," *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 185, Supplement 2 (2022): S387–407, https://doi.org/10.1111/rssa.12954.

[41] Joanna Strycharz, Corine Meppelink, Brahim Zarouali, Theo Araujo, and Hilde Voorveld, "The Blind Spot in Data Donations: Who Is (Not) Willing to Donate Digital Data in Social Scientific Research," *Computational Communication Research* 6, no. 2 (2024): 1, https://doi.org/10.5117/CCR2024.2.3.STRY.

[42] Ohme et al., "Mobile Data Donations."

[43] Annette C. Scherpenzeel, and Marcel Das, " 'True' Longitudinal and Probability-Based Internet Panels: Evidence from the Netherlands," in *Social and Behavioral Research and the Internet: Advances in Applied Methods and Research Strategies*, ed Marcel Das, Peter Ester, and Lars Kaczmirek, 77–104. London: Taylor & Francis, 2010.

[44] Karin van Es, "Exploring Netflix Myths: Towards More Media Industry Studies and Empirical Research in Studying Video-on-Demand," *Critical Studies in Television* (2024): 17496020241297618, https://doi.org/10.1177/174960202412976.

[45] Boeschoten et al., "A Framework for Privacy Preserving Digital Trace Data Collection."

[46] We plan to use these insights in the future to provide context for interpretations and to compare reported consumption with donated data. However, such analyses are beyond the scope of the current chapter.

[47] Several data donation studies show substantive discrepancies between the number of participants that express willingness to participate in data donation studies and the number of participants who actually donate their data. For example, German studies showed that 63 percent and 52 percent of participants reported willingness to donate their data, but only 20 percent and 12 percent, respectively, actually donated their data. See: Valerie Hase and Mario Haim, "Can We Get Rid of Bias? Mitigating Systematic Error in Data Donation Studies through Survey Design Strategies," *Computational Communication Research* 6, no. 2 (2024): 1, https://doi.org/10.5117/CCR2024.2.2.HASE.

[48] Joanna Strycharz, Corine Meppelink, Brahim Zarouali, Theo Araujo, and Hilde Voorveld, "The Blind Spot in Data Donations: Who Is (Not) Willing to Donate Digital Data in Social Scientific Research," *Computational Communication Research* 6, no. 2 (2024): 1, https://doi.org/10.5117/CCR2024.2.3.STRY.

[49] Netflix, "Netflix Declares Binge Watching Is the New Normal," *Netflix Media Center*, December 13, 2013, https://web.archive.org/web/20140607183011/https://pr.netflix.com/WebClient/getNewsSummary.do?newsId=496.

[50] Chuck Tryon, "TV Got Better: Netflix's Original Programming Strategies and Binge Viewing," *Media Industries Journal* 2, no. 2 (2015), https://doi.org/10.3998/mij.15031809.0002.206.

[51] Wayne, *Netflix Audience Data*, 195.

[52] Elsewhere we have explored this question with data donations in greater depth: van Es and Nguyen, "Binge-Watching Netflix?"

[53] Mikos Lothar and Deborah Castro, "Binge-Watching and the Organisation of Everyday Life," in *Binge-Watching and Contemporary Television Studies*, ed. Mareike Jenner (Edinburgh University Press, 2021), 112.

[54] Ri Pierce-Grove, "What Defines a Binge? Elapsed Time versus Episodes," in *Binge-Watching and Contemporary Television Studies*, ed. Mareike Jenner (Edinburgh University Press, 2021), 98, https://doi.org/10.1515/9781474462006-009.

[55] Pierce-Grove, "What Defines a Binge?"

[56] Adjusted for outliers.

[57] Lotz, "Unpopularity and Cultural Power," 887–900.
[58] Wayne, "Netflix Audience Data," 194.
[59] Netflix, "Shareholder Letter 2019Q4," 2020, https://s22.q4cdn.com/959853165/files/doc_financials/2019/q4/FINAL-Q4-19-Shareholder-Letter.pdf.
[60] Rick Porter, "Wednesday, 'Stranger Things' Spur Netflix Changes in Top 10 Rankings," *The Hollywood Reporter*, June 20, 2023, https://www.hollywoodreporter.com/tv/tv-news/wednesday-stranger-things-netflix-changes-top-10-rankings-1235519752/.
[61] Jason Mittell, "Why Netflix Doesn't Release Its Ratings," *The Atlantic*, February 2022, https://www.theatlantic.com/entertainment/archive/2016/02/netflix-ratings/462447/.
[62] Catalina Iordache, Petar Mitric, and Tim Raats, "Content Quotas: At the Crossroads between Cultural Diversity and Economic Sustainability," in *European Audiovisual Policy in Transition*, ed. Heritiana Ranaivoson, Sally Broughton Micova, and Tim Raats (New York: Routledge, 2023), 177–97.
[63] Joseph Straubhaar, *World Television: From Global to Local* (SAGE Publications, 2007), 27.
[64] Lotz, "Unpopularity and Cultural Power," 887–900.
[65] Axelle Asmar, Tim Raats, and Leo Van Audenhove, "Streaming difference (s): Netflix and the Branding of Diversity," *Critical Studies in Television* 18, no. 1 (2023): 24–40.
[66] David Marchese, "Ted Sarandos on the Future of Entertainment," *The New York Times*, May 25, 2024, https://www.nytimes.com/2024/05/25/magazine/ted-sarandos-netflix-interview.html.
[67] Christian Grece and Jean-Augustin Tran, *SVOD Usage Report in the EU 2023* (December 2023), https://rm.coe.int/svod-usage-report-in-the-eu-2023-december-2023-c-grece-and-j-a-tran/1680af0850.
[68] Including the United Kingdom.
[69] Lobato, Scarlata, and Wils, "Video-on-Demand Catalog and Interface Analysis."

Bibliography

Araujo, Theo, Jef Ausloos, Wouter van Atteveldt, Felicia Loecherbach, Judith Moeller, Jakob Ohme, Damian Trilling, Bob van der Velde, Claes H. de Vreese, and Kasper Welbers. "OSD2F: An Open-Source Data Donation Framework." *Computational Communication Research* 4, no. 2 (2022): 372–87. https://doi.org/10.5117/ccr2022.2.001.arau.

Asmar, Axelle, Tim Raats, and Leo Van Audenhove. "Streaming difference (s): Netflix and the Branding of Diversity." *Critical Studies in Television* 18, no. 1 (2023): 24–40.

Ausloos, Jef, and Michael Veale. "Researching with Data Rights." *Technology and Regulation* (2020): 136–57. https://doi.org/10.26116/techreg.2020.010.

Blassnig, Sina, Eliza Mitova, Nico Pfiffner, and Michael V. Reiss. "Googling Referendum Campaigns: Analyzing Online Search Patterns Regarding Swiss Direct-Democratic Votes." *Media and Communication* 11, no. 1 (2023): 19–30. https://doi.org/10.17645/mac.v11i1.6030.

Boeschoten, Laura, Jef Ausloos, Judith E. Möller, Theo Araujo, and Daniel L. Oberski, "A Framework for Privacy Preserving Digital Trace Data Collection through Data Donation." *Computational Communication Research* 4, no. 2 (2022): 388–423, https://doi.org/10.5117/ccr2022.2.002.boes.

Boeschoten, Laura, Niek C. de Schipper, Adriënne M. Mendrik, Emiel van der Veen, Bella Struminskaya, Heleen Janssen, and Theo Araujo. "Port: A Software Tool for Digital Data Donation." *Journal of Open Source Software* 8, no. 90 (2023): 5596. https://doi.org/10.21105/joss.05596.

Boeschoten, Laura, Roos Voorvaart, Ruben van den Goorbergh, Casper Kaandorp, and Martine de Vos. "Automatic De-Identification of Data Download Packages." *Data Science* 4, no. 2 (2021): 101–20. https://doi.org/10.3233/DS-210035.

Breuer, Johannes, Zoltán Kmetty, Mario Haim, and Sebastian Stier. "User-Centric Approaches for Collecting Facebook Data in the 'Post-API Age': Experiences from Two Studies and Recommendations for Future Research." *Information, Communication & Society* (2022). https://doi.org/10.1080/1369118X.2022.2097015.

Castro, Deborah, Jacob M. Rigby, Diogo Cabral, and Valentina Nisi. "The Binge-Watcher's Journey: Investigating Motivations, Contexts, and Affective States Surrounding Netflix Viewing." *Convergence* 27, no. 1 (2021): 3–20. https://doi.org/10.1177/1354856519890856.

Corten, Rense, Laura Boeschoten, Thijs C. Carrière, Sander Jongerius, Bella Struminskaya, Jule Mulder, Adriënne Mendrik, et al. "Assessing Mobile Instant Messenger Networks with Donated Data." *SocArXiv* (preprint). Accessed February 8, 2025. https://osf.io/preprints/socarxiv/x4ku2.

Farchy, Joëlle, Gregoire Bideau, and Steven Tallec. "Content Quotas and Prominence on VOD Services: New Challenges for European Audiovisual Regulators." *International Journal of Cultural Policy* 28, no. 4 (2021): 419–30. https://doi.org/10.1080/10286632.2021.1967944.

Frey, Matthias. *Netflix Recommends: Algorithms, Film Choice and the History of Taste*. University of California Press, 2021.

Garcia-Navarro, Lulu. "The Interview: The Netflix Chief's Plan to Get You to Binge even More." *The New York Times*, May 25, 2024. https://www.nytimes.com/2024/05/25/magazine/ted-sarandos-netflix-interview.html.

Gómez Ortega, Alejandra, Jacky Bourgeois, and Gerd Kortuem. "Reconstructing Intimate Contexts through Data Donation: A Case Study in Menstrual Tracking Technologies." In *Proceedings of the Nordic Human–Computer Interaction Conference*, 1–12. 2022. https://doi.org/10.1145/3546155.3546646.

Gómez Ortega, Alejandra, Jacky Bourgeois, and Gerd Kortuem. "What Is Sensitive about (Sensitive) Data? Characterizing Sensitivity and Intimacy with Google Assistant Users." In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, 1–16. April 2023. https://doi.org/10.1145/3544548.3581164.

Grece, Christian, and Jean-Augustin Tran. *SVOD Usage Report in the EU 2023*. December 2023. https://rm.coe.int/svod-usage-report-in-the-eu-2023-december-2023-c-grece-and-j-a-tran/1680af0850.

Haim, Mario, Dominik Leiner, and Valerie Hase. 2023. "Integrating Data Donations in Online Surveys." *Medien & Kommunikationswissenschaft* 71 (1–2): 130–37. https://doi.org/10.5771/1615-634X-2023-1-2-130.

Hase, Valerie Jef Ausloos, Laura Boeschoten, Nico Pfiffner, Heleen Janssen, Theo Araujo, Thijs Carrière, Claes H. de Vreese, Jörg Haßler, Felicia Loecherbach, Zoltán Kmetty, Judith Möller, Jakob Ohme, Elisabeth Schmidbauer, Bella Struminskaya, Damian Trilling, Kasper Welbers, and Mario Haim. "Fulfilling Data Access Obligations: How Could (and Should) Platforms Facilitate Data Donation Studies?" *Internet Policy Review* 13, no. 3 (2024). https://doi.org/10.14763/2024.3.1793.

Hase, Valerie, and Mario Haim. "Can We Get Rid of Bias? Mitigating Systematic Error in Data Donation Studies through Survey Design Strategies." *Computational Communication Research* 6, no. 2 (2024): 1. https://doi.org/10.5117/CCR2024.2.2.HASE.

Hesmondhalgh, David, and Amanda D. Lotz. "Video Screen Interfaces as New Sites of Media Circulation Power." *International Journal of Communication* 14 (2020): 24. Accessed November 7, 2024. https://ijoc.org/index.php/ijoc/article/view/13261/2913.

Idiz, Daphne, Julia Noordegraaf, and Rens Vliegenthart. "Culture as Window Dressing? A Threefold Methodological Framework for Researching the Locality of Netflix Series." *Critical Studies in Television*, 20, no. 1 (2024): 93–117. https://doi.org/10.1177/17496020241235579.

Iordache, Catalina, Petar Mitric, and Tim Raats. "Content Quotas: At the Crossroads between Cultural Diversity and Economic Sustainability." In *European Audiovisual Policy in Transition*, edited by Heritiana Ranaivoson, Sally Broughton Micova, and Tim Raats, 177–97. New York: Routledge, 2023.

Iordache, Catalina, and Tim Raats. "The Platformization of Public Service Media: A Comparative Analysis of Five BVOD Services in Western and Northern Europe." *International Journal of Media and Cultural Politics* 19, no. 1 (2023): 3–22.

Iordache, Catalina, Tim Raats, Michael Pakvis, et al. "Piecing the Puzzle of VoD Offerings: A Comparison of Eight US and Local Services in Flanders." *Journal of Digital Media & Policy* 14, no. 3 (2023): 357–76.

Johnson, Catherine, Matt Hills, and Laurie Dempsey. "An Audience studies' Contribution to the Discoverability and Prominence Debate: Seeking UK TV Audiences' 'Routes to Content'." *Convergence* 30, no.5 (2023): 1625-1645. https://doi.org/10.1177/13548565231222605

Kelly, JP. "'Recommended for You': A Distant Reading of BBC iPlayer." *Critical Studies in Television* 16, no. 3 (2021): 264–85. https://doi.org/10.1177/17496020211024201.

Keusch, Florian, Bella Struminskaya, Joris Mulder, and Stein Jongerius. "Measuring Physical Activity in Older Adults through Data Donation: Consent Rates, Donation Success, & Bias." *SocArXiv* (preprint), 2024. https://doi.org/10.31235/osf.io/fdg8t.

Lobato, Ramon, and Alexa Scarlata. "Regulating Discoverability in Subscription Video-on-Demand Services." In *Digital Platform Regulation: Global Perspectives on Internet Governance*, edited by Terry Flew and Fiona R. Martin, 209–27. Springer International Publishing, 2022.

Lobato, Ramon, Alexa Scarlata, and Tyson Wils. "Video-on-Demand Catalog and Interface Analysis: The State of Research Methods." *Convergence* 30, no. 4 (2024): 1331–47. https://doi.org/10.1177/13548565241261992.

Loecherbach, Felicia, Linda Bos, and Jessica Piotrowski. "Dissecting Digital Natives' Political Preferences: Election Campaigns and YouTube Media Exposure." Presented at the ODISSEI Conference for Social Science in the Netherlands, October 2024. https://odissei-data.nl/wp-content/uploads/2024/10/ODISSEI-Conference-2024-_Programme.pdf

Lotz, Amanda D. "Unpopularity and Cultural Power in the Age of Netflix: New Questions for Cultural Studies' Approaches to Television Texts." *European Journal of Cultural Studies* 24, no. 4 (2021): 887–900. https://doi.org/10.1177/1367549421994578.

Lotz, Amanda D., Oliver Eklund, and Stuart Soroka. "Netflix, Library Analysis, and Globalization: Rethinking Mass Media Flows." *Journal of Communication* 72, no. 4 (2022): 511–21. https://doi.org/10.1093/joc/jqac020.

Marchese, David. "Ted Sarandos on the Future of Entertainment." *The New York Times*, May 25, 2024. https://www.nytimes.com/2024/05/25/magazine/ted-sarandos-netflix-interview.html.

Mikos, Lothar, and Deborah Castro. "Binge-Watching and the Organisation of Everyday Life." In *Binge-Watching and Contemporary Television Studies*, edited by Mareike Jenner, 112–30. Edinburgh: Edinburgh University Press, 2021.

Mittell, Jason. "Why Netflix Doesn't Release Its Ratings." *The Atlantic*, February 2022. https://www.theatlantic.com/entertainment/archive/2016/02/netflix-ratings/462447/.

Netflix. "Netflix Declares Binge Watching Is the New Normal." *Netflix Media Center*, December 13, 2013. https://web.archive.org/web/20140607183011/https://pr.netflix.com/WebClient/getNewsSummary.do?newsId=496.

Netflix. "Shareholder Letter 2019Q4." 2020. https://s22.q4cdn.com/959853165/files/doc_financials/2019/q4/FINAL-Q4-19-Shareholder-Letter.pdf.

Ohme, Jakob, Theo Araujo, Claes H. de Vreese, and Jessica Taylor Piotrowski. "Mobile Data Donations: Assessing Self-Report Accuracy and Sample Biases with the iOS Screen Time Function." *Mobile Media & Communication* 9, no. 2 (2021): 293–313. https://doi.org/10.1177/2050157920959106.

Ortega, Alejandra Gomez, Jacky Bourgeois, and Gerd Kortuem. "Towards Designerly Data Donation." In *UbiComp/ISWC '21 Adjunct: Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers*, 496–501. https://doi.org/10.1145/3460418.3479362.

Pierce-Grove, Ri. "Chapter 7: What Defines a Binge? Elapsed Time versus Episodes." In *Binge-Watching and Contemporary Television Studies*, edited by Mareike Jenner, 98. Edinburgh University Press, 2021. https://doi.org/10.1515/9781474462006-009.

Pfiffner, Nico, and Thomas N. Friemel. "Leveraging Data Donations for Communication Research: Exploring Drivers behind the Willingness to Donate." *Communication Methods and Measures* 17, no. 3 (2023): 227–49. https://doi.org/10.1080/19312458.2023.2176474.

Pfiffner, Nico, Pim Witlox, and Thomas N. Friemel. *Data Donation Module* (2022). https://datadonation.uzh.ch/en/ddm/

Porter, Rick. "Wednesday, 'Stranger Things' Spur Netflix Changes in Top 10 Rankings." *The Hollywood Reporter*, June 20, 2023. https://www.hollywoodreporter.com/tv/tv-news/wednesday-stranger-things-netflix-changes-top-10-rankings-1235519752/.

Savvas, Zannettou, Olivia-Nemes Nemeth, Oshrat Ayalon, Angelica Goetzen, Krishna P. Gummadi, Elissa M. Redmiles, and Franziska Roesner. "Leveraging Rights of Data Subjects for Social Media Analysis: Studying TikTok via Data Donations." *arXiv Preprint* (2023). http://arxiv.org/abs/2301.04945.

Scarlata, Alexa. "'What Are People Watching in Your Area?': Interrogating the Role and Reliability of the Netflix Top 10 Feature." *Critical Studies in Television* 18, no. 1 (2023): 7–23.

Scherpenzeel, Annette C., and Marcel Das. "'True' Longitudinal and Probability-Based Internet Panels: Evidence from the Netherlands." In *Social and Behavioral Research and the Internet: Advances in Applied Methods and Research Strategies*, edited by Marcel Das, Peter Ester, and Lars Kaczmirek, 77–104. London: Taylor & Francis, 2010.

Shao, Chun. "Unraveling Structured Routine: An Exploration of Audiences' Habits in the Post-Network Age," *International Journal of Communication* 18 (2024): 3366–87, https://ijoc.org/index.php/ijoc/article/view/21829.

Silber, Henning, Johannes Breuer, Christoph Beuthner, Tobias Gummer, Florian Keusch, Pascal Siegers, Sebastian Stier, and Bernd Weiß. "Linking Surveys and Digital Trace Data: Insights from Two Studies on Determinants of Data Sharing Behaviour." *Journal of the Royal Statistical Society: Series* A 185 (Supplement 2, 2022): S387–407. https://doi.org/10.1111/rssa.12954.

Straubhaar, Joseph. *World Television: From Global to Local*. SAGE Publications, 2007.

Strycharz, Joanna, Corine Meppelink, Brahim Zarouali, Theo Araujo, and Hilde Voorveld. "The Blind Spot in Data Donations: Who Is (Not) Willing to Donate Digital Data in Social Scientific Research." *Computational Communication Research* 6, no. 2 (2024): 1. https://doi.org/10.5117/CCR2024.2.3.STRY.

Thurman, Neil, Antonia Klatt, Hritik Raj, and Harsh Taneja. "Predicting Streaming Audiences for a Channel's On-Demand TV Shows: Discerning the Influences of Choice Architecture, Consumer Agency, and Content Attributes." *Convergence* 30, no. 3 (2024): 1254. https://doi.org/10.1177/13548565231174590.

Turner, Graeme. “Approaching the Cultures of Use: Netflix, Disruption and the Audience.” *Critical Studies in Television* 14, no. 2 (2019): 222–32. https://doi.org/10.1177/1749602019834554.

Turner, Graeme. “Television Studies, We Need to Talk about ‘Binge-Viewing.’” *Television & New Media* 22, no. 3 (2021): 228–40. https://doi.org/10.1177/1527476419877041.

Verbeij, Tim, Ine Beyens, Damian Trilling, and Patti M. Valkenburg. 2024. “Happiness and Sadness in Adolescents’ Instagram Direct Messaging: A Neural Topic Modeling Approach.” *Social Media + Society* 10 (1): 20563051241229655. https://doi.org/10.1177/20563051241229655.

van Es, Karin. “Exploring Netflix Myths: Towards More Media Industry Studies and Empirical Research in Studying Video-on-Demand,” *Critical Studies in Television* (2024): 17496020241297618. https://doi.org/10.1177/17496020241297618.

van Es, Karin, and Dennis Nguyen. “Binge-Watching Netflix? Insights from Data Donations.” *Media and Communication* 13 (2025): https://doi.org/10.17645/mac.9362.

van Driel, Irene I., Anastasia Giachanou, J. Loes Pouwels, Laura Boeschoten, Ine Beyens, and Patti M. Valkenburg. “Promises and Pitfalls of Social Media Data Donations.” *Communication Methods and Measures* 16, no. 4 (2022): 266–82. doi:10.1080/19312458.2022.2109608.

Varela, Daniela, and Anne Kaun. “The Netflix Experience: A User-Focused Approach to the Netflix Recommendation Algorithm.” In *Netflix at the Nexus: Content, Practice, and Production in the Age of Streaming Television*, edited by Theo Plothe, Amber M. Buck, 197–211. New York: Peter Lang Publishing Group, 2019.

Wayne, Mike L., and Nahuel Ribke. “Loved Everywhere?: Netflix’s Top 10 and the Popularity of Geographically Diverse Content.” *Convergence* 30, no. 4 (2024): 1348–64. https://doi.org/10.1177/13548565241265504.

Wayne, Michael L. “Netflix Audience Data, Streaming Industry Discourse, and the Emerging Realities of ‘Popular’ Television.” *Media, Culture & Society* 44, no. 2 (2022): 193–209. https://doi.org/10.1177/01634437211022723.

Welbers, Kasper, Felicia Loecherbach, Zilin Lin, and Damian Trilling. “Anything You Would Like to Share: Evaluating a Data Donation Application in a Survey and Field Study.” *Computational Communication Research* 6, no. 2 (2024): 1. https://doi.org/10.5117/CCR2024.2.5.WELB.

Wu-Ouyang, Biying, and Michael Chan. “Overestimating or Underestimating Communication Findings? Comparing Self-Reported with Log Mobile Data by Data Donation Method.” *Mobile Media & Communication* 11, no. 3 (2023): 415–34. https://doi.org/10.1177/20501579221137162.

Zannettou, Savvas, Olivia-Nemes Nemeth, Oshrat Ayalon, Angelica Goetzen, Krishna P. Gummadi, Elissa M. Redmiles, and Franziska Roesner. “Leveraging Rights of Data Subjects for Social Media Analysis: Studying TikTok via Data Donations.” 2023. http://arxiv.org/abs/2301.04945.