Investigating Cinephile SVoD Catalogs with Small-Scale and Cobbled Together Methods

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Abstract

This article considers strategies and tools (qualitative methods, web scraping, and small-scale data visualization) that can be used to study cinephile video-on-demand (VoD) services, such as BFI Player, Fandor, Filmatique, FilmStruck, LaCinetek, Mubi, Sundance Now, Tënk, and The Criterion Channel. It argues that these cinephile VoD services have characteristics that require a distinctive approach to data collection and analysis. The metaphor of cobbling, which emphasizes the heterogeneity of borrowings from both academic and nonacademic practices, is developed throughout the article. The goal is not so much to present a streamlined methodology as to reflect on the choices and adjustments made to create a unique set of analytical strategies. The article begins by describing the steps taken to achieve a multimodal analysis of the catalogs' websites and the circulation of content and subscribers through them, before moving on to consider the development of specific methods for collecting and visualizing data on title selection.

Keywords: *Cinephile VoD Services, Video-on-Demand, Catalog Analysis, Materialism, Intermediality.*

Streaming can take many forms. Even if today the field is dominated by US-based global players, easily recognizable brands offering a flood of the latest content, local or specialized services have still managed to carve a profitable and enduring market share. Cinephile subscription video-on-demand (SVoD) catalogs – the best know being BFI Player, The Criterion Channel, LaCinetek and Mubi – certainly belong to this second category of companies. Their significance stems from the role they play in actualizing film programming online rather than from their user count or popularity. When I started studying them in the early 2010s, I was immediately struck by their hybrid nature. They are located in between, on the one side, film distribution and all the cultural phenomena associated with it, and on the other side, digital

networks' processes, aesthetics, and technology.[2] Labeling these SVoD services as "catalogs" rather than "databases" or "platforms" emphasizes precisely that cultural importance.

To fully explore the different aspects of their hybridity, a materialist and intermedial approach proved essential. By materiality, I mean here an approach that considers the technical, discursive, and formal aspects of cultural productions. This approach takes inspiration in a balancing act between technological determinism and constructivism, notably argued by Jonathan Sterne.[3] This research also drew from a particular branch of intermediality that explicitly focuses on relations between the aforementioned technical, discursive, and formal aspects. I used this second approach to study the conditions of possibility and transformations of the cinema experience in its online form.[4] This article describes an adapted methodology that aligns with this combined approach. It focuses primarily on the description and analysis of this methodology, aiming to contribute to the growing domain of tools and approaches dedicated to the study of SVoD services. In the same way intermediality often relies on an assemblage of multiple theoretical borrowings, I argue that studying this part of the SVoD field requires piecing together several methods to study the unique way cinephile catalogs provide a hybrid movie-watching experience.

A working methodology for studying cinephile streaming would first need to account for its heterogeneity. The focus of this article is on SVoD services known for their film programming and curation, notably BFI Player (United Kingdom), Fandor (North America), Filmatique[5] (North America), FilmStruck (United States), LaCinetek (France), Mubi (worldwide), Sundance Now (United States), Tënk (France), and The Criterion Channel (North America). Although they are sometimes categorized in different ways, such as "specialty," which points to a broad set of services, or "arthouse," which omits the mainstream titles they also offer, labeling them as "cinephile catalogs" is meant to highlight their most significant common feature.[6] They all produce cinephile paratexts and work to create sociocultural value around the subscription formula. Beyond this common aspect, their backgrounds are very different. Some are online components of major festivals, directly or indirectly linked to archives or public institutions, and a few are owned by distributors or function as independent. Specific catalogs focus more on film classics, documentaries, and independent or genre cinema, while none is entirely dedicated to any one genre. Although they exist in the shadow of much larger media corporations, they position themselves as online venues for cinephile information gathering and movie-watching.[7]

As *cultural meeting places*, cinephile SVoD catalogs sit at the crossroads of two circulating flows: one made of content (the films and the paratexts) and the other shaped by subscribers' browsing.[8] If distribution can be conceived as the act of making those two flows intersect (among other functions), Paul McDonald *et al.* rightly remind us that distribution is also a type of mediation.[9] Consequently, film distribution should also be viewed as a way to train and prepare audiences for movie-watching. Following this idea, I looked at the catalogs' role in shaping these two flows while trying to perpetuate cinema's ways of seeing the world.[10] To put it differently, studying the digital materiality of those catalogs allows us to better understand how movies and *ideas of cinema* circulate online.[11]

This article looks at a few strategies and tools that I cobbled together to form a blend of qualitative methods, web-scraping, and small-scale data visualization. Those tools came from

fields just as varied: visual history (of the web), library science, open data and the open-source community, visual investigation, and data management and visualization, hence the metaphor of cobbling, which emphasizes the heterogeneity of these borrowings from both academic and nonacademic practices. The goal of this article is not so much to present a streamlined methodology as to reflect on the choices and adjustments made to create a unique set of analytical strategies. I start by describing the steps taken to achieve a multimodal analysis of the catalogs' websites and the circulation of content and subscribers happening through them. I then discuss the development of specific methods for collecting and visualizing data on title selection.

The hope is then that both this set of tools and the discussion presented here about their use in subscription video research will help others wanting to do this kind of close reading of SVoD services. In contrast to borrowing a single method and applying it to different cultural objects in a systematic way, this methodology stemmed from the needs identified while observing the catalogs' operation and their role in the larger cultural shift toward digital distribution.[12] It strives to grasp all the facets of their cultural production. Using the metaphor of cobbling, I discuss how we can bring these different aspects into dialog in order to refine our analysis. The methodology presented here is then as patchy as it is specifically tailored to study, in a materialist and intermedial approach, a rare breed of subscription services, both marginal and at the center of online cinephile culture.

Capturing the Form of the Catalogs while Browsing through Their Pages

One facet of my interest in the cinephile catalogs led me to study how their websites were structured, how long it took to reach the movies, and what kinds of visual and textual elements were used to build what Lobato *et al.* aptly call the VoD interface.[13] Taking a descriptive and qualitative approach that was also sensitive to implicit aspects, I studied the blocks of content presented on a given page and the intended or accidental effects of their selection and arrangement. I drew inspiration from Luc Pauwels' multimodal framework for the analysis of websites.[14] The study of SVoD catalogs must also consider two distinct types of circulation: how users navigate the catalogs and how data (and films as digital copies) circulate through those websites. For the former, I drew on Elisabetta Adami's work on the preexisting notion of *pathways* seeking to consider the different paths and interactive features the editorial teams of those catalogs provided to their subscribers.[15] I also worked to unpack how content retrieval and salience algorithms work, highlighting how part of users' browsing was modulated by machinic interventions.[16] For the latter, I studied not only the selection of movies presented by each catalog (more on this below) but also how content was aggregated around the movies. In addition to movies to watch, catalogs offer visual and textual content that literature and fan studies call *paratexts* to highlight how they introduce and complement the movies.

Cinephile catalogs help extend and perpetuate the cinema experience by producing cinephile and programming content, such as short movie reviews, periodic newsletters, in-depth

essays, video introductions by famous critics, or clips from associated film archives.[17] This part of their work sets them apart from other subscription video services, such as those linked with linear TV broadcasters or even pure-play streamers, such as Netflix. Although paratexts can be produced in-house, they are often taken from other online and offline sources and then reformatted, transformed, and adapted to fit a new editorial use.[18] Retracing their circulation and assessing their relative novelty seemed a good way then to approach the added curating work done by catalogs. I started to follow the journey of the short synopsis, teaser paragraphs, and even blog posts featured through the catalogs' pages, tracing back their intermittent showing through the web in a chronology reconstructed with the help of Google search.

Following the trajectory of visual content proved a bit more difficult. As I conducted my research, tools to automate visual analysis of the web became more reliable. After considering different solutions, I opted for TinEye, a solution used by scholars in the humanities to study both online and offline image circulation.[19] TinEye is a very accessible, efficient, and free tool that can accept whole image files. It compares the entry image "signature" with a very large index of pictures built from online sources. When matches are found in this index, TinEye displays them in chronological order with links pointing to their webpages or, more precisely, pointing to the pages that hosted them when visited by TinEye's robots.[20]

Although less efficient and versatile than other services, such as Google Images, TinEye returns exact matches only, making it particularly useful to find previous or subsequent publication of the same image.[21] Here I used the tool to look for the presence of identical images in past publications, downstream if we will, a usage reminiscent of methods journalists and activists use to authenticate visual content in open-source intelligence (OSINT).[22] Besides search engines that find images on specific sites, like Reddit or Imgur, Microsoft Bing now offers a similar most effective solution.[23] A caveat of this method is that the search is indeed limited to open sources, to images that are available online, thus excluding private image databases and non-digitized material, such as festival programs.

After navigating the catalogs' websites in a very systematic manner, to assess the amount of curating work and locate the different places where subscribers could interact with the content or engage with others, I made two observations: one almost existential and the other methodological. The first point alludes to the once-popular feature of allowing subscribers to provide feedback. Apart from Mubi, which offers its lively community ways to express thoughts and share movie lists, other catalogs, some after experimenting with comment sections, choose to abandon them. I realized that subscribers' comments and interactions were happening elsewhere: on social media, such as on Letterboxd, or on dedicated platforms, on SensCritique for instance.[24] Still, outside of the parts fueled by curating teams, the methodology I had designed revealed vast spaces inhabited only by machinic activity–numerous pages populated only by the aggregation and shaping of movies' technical metadata and paratexts. What this means for online cinema distribution goes beyond the scope of this article. To mention it very briefly, browsing the numerous pages generated for each movie, arguably in a more systematic manner than the one intended, I came to realize that even the more curated side of the streaming cultural offer felt very machinic. This affective reaction is similar to the first impressions that Luc Pauwels encourages researchers to keep track of in the initial phase of studying websites.[25] I would argue that it is also relevant to keep track of

these reactions during the data-gathering process. Further exploring this path, for instance, enabled me to develop an argument about the catalogs' production of eclectic cinephile paratexts as a way to conceal the presence and centrality of machinic processes within their websites.[26] Broadly speaking, the deployment of large online libraries of titles seems to come inevitably with the feeling that we are, perhaps as never before in the history of film distribution, very often interacting and dealing only with machinic forms and processes. To come back to the main point, it is relevant here to mention that this observation stems from manually browsing the many catalogs' pages, their busiest sections, and their more neglected corners. An automatic analysis could very well overlook this aspect. Or, to avoid that, such an automatic approach would need to be complemented with a more detailed reading of samples to fully grasp this experiential side of film databases' usage and viewing context.

The second observation, methodological in nature, points to the need to build a small archive of the catalogs' design and features. As I began to work through their sections, the catalogs started to move. Some changes were modest, new rows of thumbnails appeared to highlight thematic or editorial groupings, while others were more substantial. Mubi and Filmatique completely altered their website layout in 2020 and 2021, respectively. To be able to come back to a particular moment of this continuous transformation, I needed to find a way to capture and archive snapshots of the catalogs' states in time.

Google's Chrome browser extension *GoFullPage* allowed me to create scrolling screenshots, some as long as the large numbers of content rows stacked vertically on webpages (see Figure 1). Because of their stacked visual form, I metaphorically called them *ice carrots* in
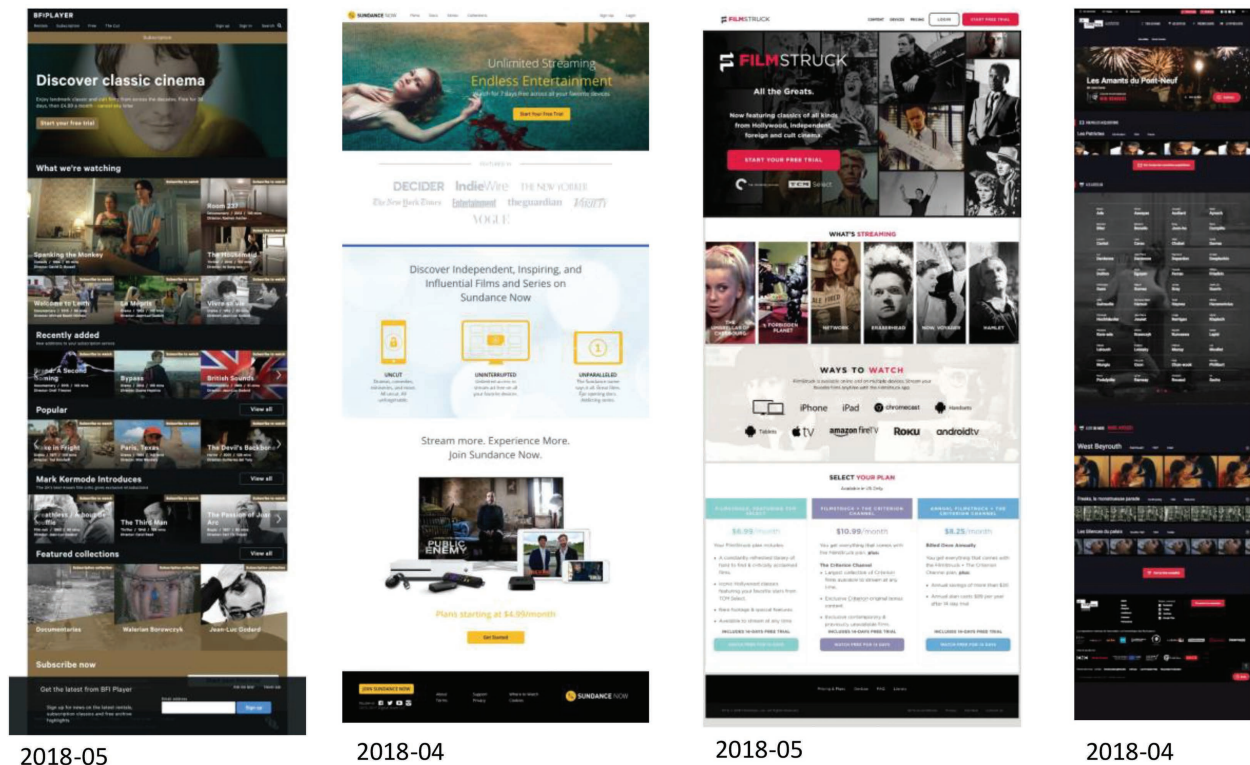

| 2018-05 | 2018-04 | 2018-05 | 2018-04 |

Figure 1 Screen Captures of BFI Player, Sundance Now, FilmStruck, and LaCinetek.

reference to the ice core produced by scientists to study layers of ice-bound dust. Here, the aim wasn't to drill into the past of the web but to build an archive of the way different elements and modalities (text, image, video, and graphical elements) were used and laid out in the catalogs. Once archived, those screen grabs helped me systematize the description of the various websites' sections. They retain a visual trace of the state of the catalogs at a given moment in their history. I then could track the changes applied to the layouts and the fate of dedicated sections and features, such as pages reserved to known festival or, as I mentioned earlier, comment sections. I applied this method to the capture and analysis of the desktop version of the catalogs' websites.

If SVoD consumption largely takes place on TV screens and mobile devices, there are several reasons to consider desktop layouts rather than the ones created for mobile or TV applications. In line with industry standards, the cinephile SVoD services started deploying mobile applications and software developed to reach specific platforms, such as tablets, smart TVs, and other OTT devices (Apple TV, Chromecast, Roku, etc.). Until recently, this development work was outsourced to third-party companies. Mubi collaborated with a small agency named MonkeySource. The Criterion Channel relied on the Vimeo OTT service. You.i TV, the company that was behind FilmStruck's multi-platform interface during the service short run between 2016 and 2018, also provided technical solutions to major media groups (Sony's Crackle and Rogers' Shomi, for instance) and worked on behalf of Twitch, Amazon's subsidiary dedicated to live streaming of video game sessions. Tënk and LaCinetek used a proprietary content management system created by Kinow, an OTT platform provider bought in 2022 by a larger international player, Alpha Networks.

It is worth noting that catalogs, either due to limited resources or because they are part of large media groups aiming to rationalize expenses, often rely on ready-made solutions in this domain. The gain of adopting this somewhat out-of-the-box solution measured in terms of presence on multiple platforms (which required a great deal of development work), but it came with related constraints. When film catalogs choose to outsource their apps development, the video routing function was often the only one retained. Likely due to similar factors, paratextual content and other *extras* are still not included in the apps version of those catalogs today.[27] This is also meant to facilitate movies' navigation and broadcasting. Still, the lack of paratextual content and the relatively flat structures found in those applications make them less appealing to study in an approach that is interested in the formal and cultural aspects of cinephile SVoD interfaces.[28] The fact that these applications present little information may also explain why the discoverability of movies still also happens via the web.[29]

In contrast, catalogs' websites tend to present eye-catching landing pages, original thumbnail stacking (in mosaic of larger tiles on BFI Player or by evoking frames in a film stock on LaCinetek), and dedicated or thematic sections, each shortly introduced and using specific layouts. However useful this method of capturing and archiving scrolling screenshots or *ice carrots* may be, it captures only the visual content of the page. It doesn't extract the links, HTML tags, or code behind the displayed elements. Studying those requires making short exploratory searches, by following the different hyperlinks and manually scanning the source code.

How, then, can one consider all the visual forms previously identified and archived, while maintaining a manual and heuristic approach to these materials? To achieve this, I used a mnemonic method of location and referencing modestly inspired by the work of Austrian formalist filmmaker Gustav Deutsch.[30] In addition to noting the aesthetic aspects of the pages, I draw a quick sketch of their composition. Deutsch developed a method for finding a series of recurring motifs in large corpuses of films, starting with home movies and then archival materials. His process was a very slow one where he would watch each movie, take notes, and draw quick sketches of outstanding shots. The set of motifs thus produced, which Deutsch then edited to make parallels or highlight contrasts, is less a posteriori synthesis than something that emerged as the research progressed, throughout the consultation of the material found in the archives. The study of SVoD interfaces can take inspiration from this technique to better describe the different ways in which multimodal elements are arranged on the pages and how their layout follows and enacts cultural programming and distribution strategies.

Stitching a Patchwork of Data Processing Tools

In addition to the interest in the shape of SVoD catalogs, understanding the main trends in title selections is a key area of study in the current research on streaming. This is especially relevant for cinephile catalogs. An important part of the marketing discourse they produce is meant to distinguish them from other more generalist SVoD services by showcasing their programming efforts and the fact they offer niche or under-seen movies. When conducting my research, I was confronted with the lack of reliable data on VoD services.[31] In Quebec, those statistics still do not exist.[32] In France, the catalogs of my corpus disappeared from the CNC graphs about VoD consumption after 2020, due to their small subscriber base. Multiple methods have been devised to try to describe the specificities of cinephile SVoD programming. Research projects classified services by specialty, studied Mubi's scheduled programming on a given date, followed a sampling method, or took a broader approach, analyzing the overall classification of subscription video by genre.[33] Catalog analysis also benefited from the data collected by third-party data providers, such as Ampere Analysis, which specialized in gathering movies selection and metadata across different platforms and countries.[34] But accessing this commercial information is costly and often beyond the financial means of small academic teams and individual scholars.

These constraints made essential the need to draw up a complete picture of the titles offered by cinephile SVoD services at a given time. Working with data samples makes it difficult to make comparisons between catalogs, and accessing commercial databases is too costly, as just stated. I have then sought to overcome these limitations by gathering information on the movies selected (their title, date, director, and country of production) through web-scraping. I used two different methods for this purpose: the importHTML or importXML function of the Google drive software and small capture scripts that I developed in Python. The two methods emulate human browsing to collect webpage data. The first looks into the HTML or XML source code to find tags that indicate content structured as lists. For the second, I used the

Anaconda development tools, a programming environment, and the Beautiful Soup library, a series of prewritten tools and functions, to send requests to the catalogs and capture the data sent back by their servers. Each catalog used slightly different systems to dynamically display content and metadata to subscribers, and those scripts had to be adapted each time following a trial-and-error method.[35]

The movie information collected is limited to data already available on other platforms (e.g., from the Internet Movie Database (IMDb) to Rotten Tomatoes, via library catalogs) and does not include information produced by the catalogs themselves. Only the title selections specific to each catalog were the subject of my analysis.[36] The creation of this capability hinged on designing a tailored set of procedures for data collection, processing, and analysis. These procedures were built up through a series of back-and-forth processes, from collection to data cleaning. I worked to harmonize country names, to find missing information for certain titles by reconciling data tables with authority file systems (Virtual International Authority File (VIAF) and Wikidata), and to aggregate the various data sources together. OpenRefine, a free and open source software supported by a lively community, proved to be invaluable to do so. I used it to join different datasets together and to start cleaning and structuring them, while always keeping an eye on the data by previewing tables and using simple transform functions. The same applies to Tableau, a data visualization software with a general user-oriented interface that also provides direct access to the underlying tables. Through OpenRefine and Tableau, I was able to create exploratory graphs of the data and then come back to the tables to adjust parameters and correct the remaining errors. I thus recreated, on a very modest scale, some of the interactive and iterative data cleaning methods used in much larger projects.[37]

In the end, each data gathering method needed to be adjusted to every catalog. The selection of titles presented in a unique catalog could differ between countries, following programming logic–titles chosen with a local audience in mind–or because of restrictions related to the user's geographical location. The latter stems from the negotiation of digital rights by territory, sometimes understood as broad regions–such as North America or Europe–or as individual countries. Beyond these general considerations, some catalogs posed specific challenges. Mubi's programming required adjustments due to its daily update and the small selection of titles available at any given time. I annualized the sample using the Wayback Machine archive to reconstitute a selection of 325 titles.

The data collection method created for this project was thus made of a very diverse set of tools cobbled together to achieve the specific goal of analyzing catalogs' programming. To accomplish this, researchers need to be able to adapt these tools to the unique characteristics of the web objects they wish to study (API, database structure, scraping methods, etc.). This leads to two observations. First, the selected tools must be easy to access and flexible enough to accommodate this adaptation. Second, the methodology has to be flexible enough to accept borrowings from other fields of research. The use of the Wayback Machine archive, a tool often queried to study the history of the web, provides a good example of this. Despite the difficulty in navigating the site layouts due to image storage and display problems, the archive.org database keeps track of title selections. This allowed me to annualize Mubi's programming and add it into my dataset.

Data Visualization to Locate Where to Dig Further

Beyond cobbling together tools, the cobbling metaphor also applies to the need for combining methods. The aim is to better follow and highlight the relation among, in this case, title selection, interface design, and larger cultural trends. After gathering the data, I created a set of exploratory graphs to identify patterns in title choices. Far from constituting full-fledged results, these graphs enabled me to highlight certain aspects of catalog programming, showing me where to take my research further.

At the time of data collection, the catalogs provided access to the following numbers of films: Fandor (3386), Criterion (1900), LaCinetek (1034), BFI Player (697), Mubi (325), and Sundance Now (244). Figure 2 shows that 40 percent of titles come from the so-called classic period, roughly between 1950 and 1980. If we exclude Fandor's and its big group of recent titles, it represents the majority of movies offered (54 percent). These figures, influenced by the more voluminous offerings in our corpus, nevertheless conceal other relevant clues.

Sundance Now offers a majority of films set in the first two decades of the 21st century. This is also the case for Mubi, albeit in less marked ways. On the LaCinetek side, the selection takes the opposite form, with very few recent titles and many works made between 1907 and 2011. A closer look at the distribution of titles for each year reveals the strategies of the cinephile catalogs. For example, Fandor seems to maintain a small sampling of titles (between fifteen and thirty) for each year, separating the oldest film, *Monkey Shines, No. 1* (William K.L. Dickson and William Heise, 1889) from the most recent, *You're Welcome* (Rebecca Panian, 2017).
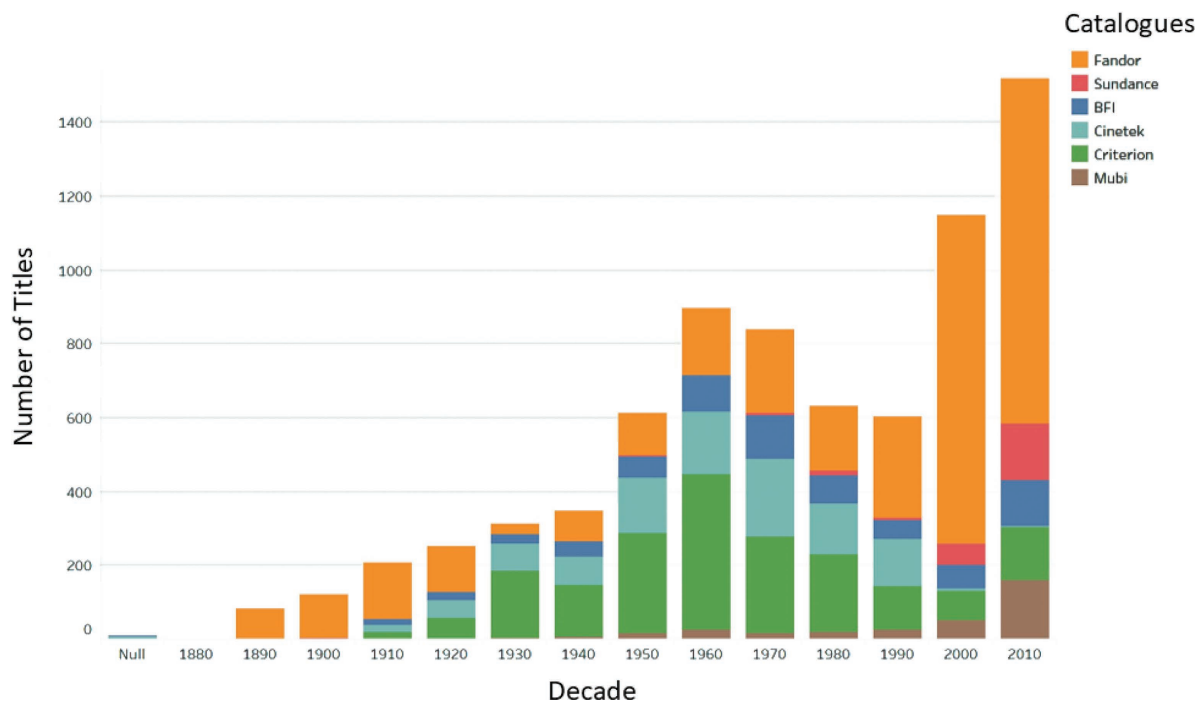

Figure 2 Breakdown of Selected Titles By Decade and Catalog.

It is also worth noting the presence of many early cinema titles in Fandor. It's an unprecedented presence in the subscription video landscape, and one that contributed to Fandor's reputation in its heyday.

There is one exception to Fandor's coverage of different periods. The 1930s and early 1940s are much less represented. Criterion seems to do better in the same period, presenting a selection mostly occupied by films from French Poetic Realism and the Hollywood Golden Age. In the case of these two movements, their absence at Fandor is perhaps explained by the difficulty in acquiring licenses for them. The former, including films by Jean Renoir, Jean Duvivier and Marcel Carné, is part of the French pantheon. The latter belongs to the major studios and is part of already-established distribution strategies. Their presence in the Criterion catalog undoubtedly helps "validate" their canonical aspect, while their broadcasting rights are often acquired by larger platforms (e.g., Netflix, Amazon, and Hulu) or "in-house" services (e.g., FilmStruck then Max for Warner, Crackle for Sony, or Peacock for Universal).[38]

This second graph (Figure 3) illustrates the concentration of titles in three main areas: North America, Central Europe, and Japan. Those are by far the main sources of titles offered in the catalogs.[39] Perhaps less expected, Brazil, India, and China account for less than 2 percent of all titles. The Fandor catalog stands out for its presence in many countries. Leaving aside the Latin American countries (a few dozen titles) and the countries of the Near and Middle East renowned for their major film productions: Israel, Lebanon, and Iran (between ten and twenty titles each), Fandor's strategy was one of sampling. Several countries are represented
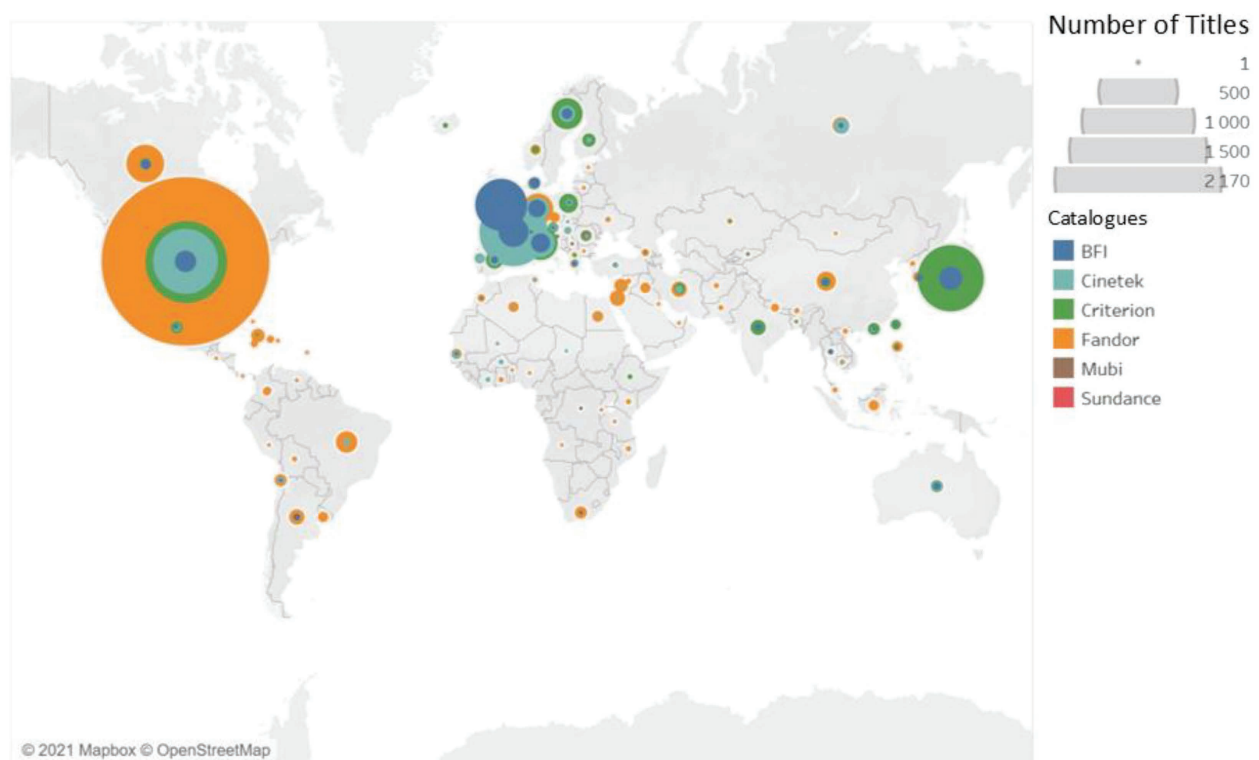

Figure 3 Breakdown of Selected Titles By Country and Catalog.

by just a handful of titles: Ukraine (2), Bulgaria (1), Cambodia (2), Vietnam (2), Algeria (6), Senegal (6), and Nigeria (1), to name but a few.

Visualizing data in charts helps highlight these major geographical trends. Here the aim, however, is not to draw macro-level typologies or to study regional or global distribution strategies. Larger projects, both state-run and independent, do that well today and provide a useful context to the more focused research described here. The goal is rather to shed light on programming trends and decision-making by taking a snapshot of title selections across a very specific category of SVoD services. What differentiates this snapshot from other visualization methods is that it is very close to the source where data have been collected. Having created the data collection and processing workflow by themselves, researchers can answer specific questions about interface design or programming logics by coming back to each catalog under analysis. They would also have a better understanding of the trade-off and decisions made during data capture and processing: how movies produced in countries that no longer exist, such as the German Democratic Republic or Yugoslavia, were coded, for instance. What defines a *title*? Were feature-length films the only ones considered? Moreover, as stated earlier in this article, each data gathering method had to be adjusted to each catalog functioning. This caveat, when it is time to bring everything together and to try to draw comparisons between catalogs, could then turn into a series of blind spots if not known by researchers. Not being able to check the quality of data supplied by third-party companies is, in fact, a problem raised by other research teams. Amanda Lotz *et al.* mention that caveat while conducting their large-scale research on streaming services.[40]

Visualizing large trends and quickly accessing data sources are also conducive to another key aspect of this methodology. Charts can also help researchers identify new areas of interest, allowing them to focus their efforts on particular aspects. Quantitative analysis is not intended to provide final conclusions but rather to guide further analysis. The distinctive trends observed in the data, such as the global distribution of Fandor's chosen titles, should be regarded as indicators and incentives for further investigations. These inquiries must go beyond the raw data to examine underlying strategies and the way those strategies take forms in the websites of the catalogs. Small complementary enquiries can then profit from the analysis done on the design and formal aspects of the catalogs to provide context and help explain data patterns and trends, thus bridging two or more of the methodological pieces previously cobbled together.

To demonstrate how different methodological threads can inform each other and shed light on the relations between aspects of the cinephile catalog programming and curating work, I now describe how the trend identified earlier in Fandor can be explained by the catalog's design choices. Fandor devoted a section of its website entitled *International* to the sorting and browsing of movies according to their region of origin. For each part of a world map divided into six regions, from North America to Eurasia to Oceania, users were invited to discover the countries covered by the catalog. These were displayed in overlay when the mouse was moved over the region name. When clicked, they linked to groups of films from these countries. Having studied the graph, I went back to the site's interactive filter. I then realized that each group of movies (even a single title) made their country of origin appear on the interactive list of the website. Selecting a very small number of films from a multitude of

countries meant that this interactive menu would display a large number of entries, even if many of them referred to just one or two titles. This strategy that blended title selection and web design then made Fandor's international reach look stronger.

Conclusion

Assembling a patchwork of tools to study streaming services allows to create adapted sets of tools in order to grasp the multifaceted aspects of the SVoD offering. Since I conducted the field work of this research, a steady stream of new studies was published on SVoD interfaces and programming.[41] They tend to work on large datasets, provide longitudinal or comparative analysis, and focus on big national and international brands. This article aims to contribute to the development of suitable methodologies by promoting a particular type of research designed to address small-scale and dedicated streaming services. Partly because of their hybrid nature and partly due to their limited means, cinephile catalogs use less dynamic layouts than the constantly rearticulated interface of Netflix and are, in many ways, far away from AI's big data shuffling, described, for instance, in Somaini's *Grey Room* article.[42] They nonetheless contribute to cinema online distribution by constantly working to find new ways to shape the flows of subscribers and movies circulating through their websites. A multifaceted methodology can then help researchers gain a plurality of views on their cultural role. This may involve reorienting certain methods to pursue new objectives. Analyzing interface design and title selection, a method usually used for the measurement of content prominence and discoverability, can also serve the study of the movie-watching experience and how catalogs experiment around it. But the cobbling metaphor furthermore points to open and accessible research. Studying the streaming phenomenon calls not only for big infrastructure-led projects but also for the development of a multiplicity of focused research, maybe conducted with more proximity to their subject and certainly leveraging free or affordable tools and developing tailor-made and accessible data gathering strategies. Contributing to this still emerging field of research, this article makes the case that studying SVoD catalogs requires appropriate methods, both small-scale and pieced together, to capture their marginal and nonetheless essential place in cinema online distribution.

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2024), "Civil Society and Online Exchanges: Some Digital Contingencies" (2020), and "(Re)monter le cinéma sur le web" (Cinémas, 2018).

[2] These catalogs do not allow for wide interoperability and the addition of functionalities by a community of developers, two main characteristics of platforms, Jean-Christophe Plantin, Carl Lagoze, Paul N. Edwards, and Christian Sandvig, "Infrastructure Studies Meet Platform Studies in the Age of Google and Facebook," *New Media & Society* (2016): 1–25, https://doi.org/10.1177/1461444816661553.

[3] Jonathan Sterne, "'What Do We Want?' 'Materiality!' 'When Do We Want It?' 'Now!,'" in *Media Technologies: Essays on Communication, Materiality and Society*, ed. Kirsten A. Foot, Pablo J. Boczkowski, and Tarleton Gillespie (MIT Press, 2014), 119–28.

[4] On the Montreal School of Intermediality, see Rémy Besson, "Montreal School of Intermediality: Beyond Media Studies," in *The Palgrave Handbook of Intermediality*, ed. Jørgen Bruhn, Asun López-Varela Azcárate, and Miriam De Paiva Vieira (Springer International Publishing, 2024), 135–58, https://doi.org/10.1007/978-3-031-28322-2_7. On the cinema experience, Thomas Elsaesser, "Between 'Erlebnis' and 'Erfahrung' : Cinema Experience with Benjamin," *Paragraph* 32, no. 3 (November 2009): 292–312, https://doi.org/10.3366/E0264833409000625.

[5] Now entitled Kino Film Collection.

[6] Other ways of categorizing them refer to the amount of curation they feature, such as handpicked titles and human recommendations, or through the "niche" markets they aim to serve, see Vicente Rodríguez Ortega and Jara Fernández-Meneses, "Curating the Middlebrow: Filmin's Strategies for Distinction in the Spanish SVoD Market," *Journal of Digital Media & Policy* 15, no. 2 (June 1, 2024): 259–77, https://doi.org/10.1386/jdmp_00149_1; Mattias Frey, "Recommendation Logics and Exposure Diversity: Researching the European VOD Experience," in *European Cinema in the Streaming Era*, ed. Christopher Meir and Roderik Smits (Springer International Publishing, 2024), 131–49, https://doi.org/10.1007/978-3-031-42182-2_7. On the way they work to perpetuate the role and the cultural prestige of arthouse DVD collections, see Daniel Herbert, "From Art House to Your House: The Distribution of Quality Cinema on Home Video," *Canadian Journal of Film Studies* 20, no. 2 (2011): 2–18.

[7] For a more in-depth description of their characteristics and how they fit into the general history of SVoD, see Martin Bonnard, ed., *Cinephile Film Catalogues Grappling with Web Technology* (CinéMédias, 2024), http://hdl.handle.net/1866/33948.

[8] On studying websites as *cultural meeting places*, see Luc Pauwels, "A Multimodal Framework for Analyzing Websites as Cultural Expressions," *Journal of Computer-Mediated Communication* 17, no. 3 (2012): 247–65, https://doi.org/10.1111/j.1083-6101.2012.01572.x. On circulation, see Dilip Parameshwar Gaonkar and Elizabeth A. Povinelli, "Technologies of Public Forms: Circulation, Transfiguration, Recognition," *Public Culture* 15, no. 3 (2003): 385–97; Will Straw, "The Circulatory Turn," in *The Wireless Spectrum: The Politics, Practices, and Poetics of Mobile Media*, ed. Barbara Crow, Michael Longford, and Kim Sawchuk (University of Toronto Press, 2010), 17–28; Amanda Lotz and David Hesmondhalgh coined the term *circulation power* in their study of the forces at play in the design of screen interfaces, "Video Screen Interfaces as New Sites of Media Circulation Power," *International Journal of Communication* 14 (2020): 287–409.

[9] Paul McDonald, Courtney Brannon Donoghue, and Timothy Havens, eds., *Digital Media Distribution: Portals, Platforms, Pipelines*, Critical Cultural Communication (New York University Press, 2021). See also, Ramon Lobato, "The Politics of Digital Distribution: Exclusionary Structures in Online Cinema," *Studies in Australasian Cinema* 3, no. 2 (January 2009): 167–78, https://doi.org/10.1386/sac.3.2.167/1.

[10] Francesco Casetti, *Eye of the Century: Film, Experience, Modernity* (Columbia University Press, 2008).

[11] On *ideas of cinema* and the way their circulation helps perpetuate cinema online, see Francesco Casetti, *The Lumière Galaxy: Seven Key Words for the Cinema to Come* (Columbia University Press, 2015).

[12] This *grounded* methodology takes inspiration in the anthropological approach to studying film production developed by Jean-Marc Leveratto, "Anthropologie de la technique et études cinématographiques," in *L'équipe de film au travail. Créations artistiques et cadres industriels* (AFRHC, 2022), 23–44.

[13] Ramon Lobato, Alexa Scarlata, and Tyson Wils, "Video-on-Demand Catalog and Interface Analysis: The State of Research Methods," *Convergence: The International Journal of Research into New Media Technologies* (June 18, 2024): 13548565241261992, https://doi.org/10.1177/13548565241261992.

[14] Pauwels's methodology notably points to the following elements: stylistic choices in the presentation of visual and audio content, the material conditions of this presentation (video format, resolution, etc.), points of view, expressed or latent, and the organization of information. Pauwels, "A Multimodal Framework for Analyzing Websites as Cultural Expressions."

[15] Elisabetta Adami points to the possibility offered to users not only to build their own reading paths through the content presented but also to interact with it, "What's in a Click? A Social Semiotic Framework for the Multimodal Analysis of Website Interactivity," *Visual Communication* 14, no. 2 (2015): 133–53, https://doi.org/10.1177/1470357214565583.

[16] Farchy et al. very effectively describe how recommendation influences content prominence and placement, see Joëlle Farchy, Grégoire 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 (June 7, 2022): 419–30, https://doi.org/10.1080/10286632.2021.1967944.

[17] Audiovisual content generally referred to as bonus or extra is not taken into account here, as it is often supplied with the digital copy by the distributor or producer. For more detail on cinephile SVoD paratexts, see M. Bonnard, "Les paratextes, facteurs de réussite de la distribution en ligne du cinéma," in *Péritexte et Transmédialité* (Presses universitaires Blaise-Pascal, 2023), 230–41; Rémy Besson and Martin Bonnard, "L'éducation au cinéma par l'entour des films : paratexte et machinerie," *Nouvelles Vues*, no. 23–24 (2024): 1–21.

[18] In terms of original content, one can mention the short interviews produced by LaCinetek as *extra* content or the numerous introductions hosted by Mark Kermode for BFI Player, for instance.

[19] Kirsten Belgum used TinEye to search in vast collections of digitized printed books, Kirsten Belgum, *Before Photography: German Visual Culture in the Nineteenth*

Century, ed. Kirsten Belgum, Vance Byrd, and John D. Benjamin (De Gruyter, 2021), https://doi.org/10.1515/9783110696448.

20 It's easy to imagine how these index-based systems risk been quickly overtaken by the continuous and massive addition of images online. On the way machine learning palliates this and could expand *reverse image search*, see Lin Du, Brandon Le, and Edouardo Honig, "Probing Historical Image Contexts: Enhancing Visual Archive Retrieval through Computer Vision," *Journal on Computing and Cultural Heritage* 16, no. 4 (2024): 1–17, https://doi.org/10.1145/3631129. For a thorough explanation of the different technics (supervised and unsupervised training, for instance) used in *machine-vision* systems, see Antonio Somaini, "Algorithmic Images: Artificial Intelligence and Visual Culture," *Grey Room* no. 93 (2023): 74–115, https://doi.org/10.1162/grey_a_00383.

21 Matches are detected even between transformed or cropped images.

22 *The New York Times* visual investigations team explained how they proceed to authentic visual sources in a live Q&A, *How The Times Makes Visual Investigations*, 2020, https://www.youtube.com/watch?v=reTUxfQsSUQ.

23 https://www.bing.com/visualsearch

24 Sarah Cordonnier and Annelise Touboul propose an analysis of the many ways SensCritique works to foster participation around movies consumption, "Cadres et décadrages de la critique amateur en ligne sur SensCritique.," in *L'avis des autres: Prescription et recommandation culturelles à l'ère numérique*, ed. Valérie Croissant (Archives Contemporaines, 2019), 35–59, https://shs.hal.science/halshs-02007104.

25 Pauwels, "A Multimodal Framework for Analyzing Websites as Cultural Expressions."

26 Martin Bonnard, "Un incontournable navet : l'exploitation du nobrow cinéphilique sur les plateformes de vidéo par abonnement," *Écranosphère* no. 1 (2020): 54–68, http://www.ecranosphere.ca/article.php?id=84.

27 Mubi, which hired developers internally to form an *Apps & TV* team, represents a notable exception with a mobile app that includes most of the content categories found on the movies' webpages.

28 Perhaps the fast adoption rate of Smart TV in the last 5 years will motivate the development of new layouts and the production of related content adapted to specific streaming devices.

29 A recent survey by the Institut de la Statistique du Québec found that 42 percent of Quebec's connected viewers (15 years and older) say they use the web to discover the films and TV series they watch, see Figure 2.2.1 in "Enquête québécoise sur la découverte des produits culturels et le numérique 2023" (Québec: Institut de la statistique du Québec, 2024), 30.

30 See André Habib and Michael Cowan, "Was Ist Film? Entretien Avec Gustav Deutsch," HorsChamp,2011,https://horschamp.qc.ca/article/entretien-avec-gustav-deutsch.

31 For this part of my research, I collected data between November 2018 and August 2020.

32 Two recent reports from the Institut de la statistique du Québec and the Association québécoise de la production médiatique address how Quebecers discover audiovisual content online and the main SVoD services they subscribe to, without giving any numbers on the movies offered online. "Abonnements à la télévision

traditionnelle et aux services de vidéo sur demande au Québec en 2022–2023" (Association québécoise de la production médiatique, 2024), https://www.aqpm.ca/actualites/abonnements-a-la-television-traditionnelle-et-aux-services-de-video-sur-demande-au-quebec-en-2022–2023/; "Enquête québécoise sur la découverte des produits culturels et le numérique 2023."

[33] By specialities: Olivier Thuillas and Louis Wiart, "Les plateformes de VOD cinéphiliques: des stratégies de niche en questions," *Les Enjeux de l'information et de la communication* 20, no. 1 (2019): 39–55, https://doi.org/10.3917/enic.026.0039; on a given date: Roderik Smits and E. W. Nikdel, "Beyond Netflix and Amazon: MUBI and the Curation of On-Demand Film," *Studies in European Cinema* 16, no. 1 (January 2, 2019): 22–37, https://doi.org/10.1080/17411548.2018.1554775; through a sampling method: Mattias Frey, "Recommendation Logics and Exposure Diversity: Researching the European VOD Experience," in *European Cinema in the Streaming Era*, ed. Christopher Meir and Roderik Smits (Springer International Publishing, 2024), 131–49, https://doi.org/10.1007/978-3-031-42182-2_7; or a classification by genre: Chloé Delaporte, "La médiation générique des contenus cinématographiques sur les plateformes de vidéo à la demande," *Réseaux* 5, no. 217 (2019): 151–84, https://doi.org/10.3917/res.217.0151.

[34] Lobato, Scarlata, and Wils, "Video-on-Demand Catalog and Interface Analysis."

[35] For reasons of feasibility and due to certain technical limitations, only the following catalogs were the subject of such data collection: BFI Player, Fandor, LaCinetek, Mubi, Sundance Now, and The Criterion Channel.

[36] My use of these data is strictly noncommercial and for research purposes. On the issues surrounding the use of data collection, see C. Fiesler, N. Beard, and B. C. Keegan, "No Robots, Spiders, or Scrapers: Legal and Ethical Regulation of Data Collection Methods in Social Media Terms of Service," in *Proceedings of the International AAAI Conference on Web and Social Media*, 14, no. 1, 2020, 187–96, https://ojs.aaai.org/index.php/ICWSM/article/view/7290.

[37] Krishnan *et al.* explore cleaning methods involving human and machinic processes alike, Sanjay Krishnan *et al.*, "Towards Reliable Interactive Data Cleaning: A User Survey and Recommendations," in *Proceedings of the Workshop on Human-in-the-Loop Data Analytics* (SIGMOD/PODS'16: International Conference on Management of Data, San Francisco California: ACM, 2016), 1–5, https://doi.org/10.1145/2939502.2939511.

[38] On the role the collection plays in the cinephile realm, see Joshua Hunt, "Sure, It Won an Oscar. But Is It Criterion?," *The New York Times*, 2024, https://www.nytimes.com/2024/02/29/magazine/criterion-collection.html.

[39] As a way of contextualization, Mattias Frey, studying Mubi programming in the United Kingdom, Belgium, and the United States, found that "Despite rhetorical goals of discovery, novelty and diversity and a non-personalised method of presentation, MUBI subscribes to the imperatives of its main public funder, Creative Europe MEDIA, which incentivises more homogenous offerings: a catalogue of primarily recent European films." Mattias Frey, "Recommendation Logics and Exposure Diversity: Researching the European VOD Experience,"

in *European Cinema in the Streaming Era*, ed. Christopher Meir and Roderik Smits, (Cham: Springer International Publishing, 2024), 138, https://doi.org/10.1007/978-3-031-42182-2_7.

40 Amanda D Lotz and Oliver Eklund, "Beyond Netflix: Ownership and Content Strategies among Non-US-Based Video Streaming Services," *International Journal of Cultural Studies* 27, no. 1 (January 2024): 119–40, https://doi.org/10.1177/13678779231196314.

41 For a review of these research projects, see Lobato, Scarlata, and Wils, "Video-on-Demand Catalog and Interface Analysis."

42 On the strategies behind Netflix's personalized interface, see Niko Pajkovic, "Algorithms and Taste-Making: Exposing the Netflix Recommender System's Operational Logics," *Convergence: The International Journal of Research into New Media Technologies* 28, no. 1 (February 2022): 214–35, https://doi.org/10.1177/13548565211014464. Antonio Somaini describes how generative adversarial networks (GANs) exploit large-scale visual data by transforming them into a series of vectors or a *latent space*, Somaini, "Algorithmic Images."

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