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THE FUNCTIONS OF DATA IN THE COMPETITION BETWEEN AUDIOVISUAL MEDIA AND VIDEO SHARING PLATFORMS FOR ADVERTISING

Sally Broughton Micova and Sabine Jacques

ABSTRACT

The European Union's (EU) 2018 Audiovisual Media Services Directive attempted to level the playing field upon which video sharing platforms and audiovisual media services compete by evening out advertising and consumer protection rules. Recent competition policy literature identifies data as a source of dominance in platform markets, suggesting its relevance to such situations where platforms compete with other services. Drawing on a study of this playing field involving stakeholder interviews and a comparison of regulatory frameworks, we present a nuanced understanding of imbalances across three distinct *functions* of data. We consider the policy implications, arguing for more equitable access to insight from aggregate, anonymized data and financial data.

Keywords: video sharing platforms, audiovisual media services, data, advertising, competition policy

In October 2018, member of the European Parliament Sabine Verheyen announced the adoption of the European Union's (EU) new Audiovisual Media Services Directive (AVMSD), saying, "we have established a fair, level playing field."¹ She was referring to the field on which, according to the Directive's preamble, video sharing platforms (VSPs), such as YouTube, Snapchat, and Facebook, "compete for the same audiences and revenues as audiovisual media services."² The intention came from concerns about the

1. Banks.

2. "European Parliament Legislative Resolution of 2 October 2018 on the Proposal."

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consequences of the expansion of advertising supported online platforms for what we might call traditional media, the audiovisual media services, and press publishers, fueled by evidence of stagnating or falling revenues and by very vocal European broadcasters. The AVMSD accomplished only one piece of what should be a holistic approach to dealing with the expansion of global online platforms into the business of media upon which we depend for information, news, entertainment, and other public interest purposes, but, we argue, its drafters approach of setting levelness among similar services as their policy aim offers great promise.

The Directive created the category of VSPs to delineate those platforms that enable the sharing of audiovisual user-generated content and are, therefore, most akin to audiovisual media services. Bringing them into the Directive's scope established similar qualitative rules for advertising and consumer protection for them as exist for audiovisual media services. While this may be fairer (given the range of concerns about platform dominance and unfair competition),³ it seemed unlikely that disparity in these rules was the sole or even the main source of any unevenness, or that fixing it would significantly level the playing field on which VSPs compete with audiovisual media services. We therefore sought to understand the dynamics on the playing field and identify any additional sources of any unevenness. In an area where much attention has been paid to trying define markets and identify barriers to entry, our approach instead closely examined what could be considered the nature of play in a game that both platforms, namely VSPs, and other services are playing.

Our investigation into the dynamics of audiovisual advertising revealed multiple sources of unevenness in the field of competition between audiovisual media services and VSPs. The most prominent of these, which we elaborate here, was the way data was used in the buying and selling of ad inventory. Though in advertising markets users or audiences and advertisers are linked through indirect network effects,⁴ here, we were concerned about competition for advertiser budgets rather than competition for attention. VSPs compete with other media offering video ad inventory, including audiovisual media services, largely through the same agencies and major advertisers.

3. Moore and Tambini.

4. Anderson and Jullien; Nooren et al.

In this article, we elaborate the imbalances in the ability of various players, including media agencies, to access and use data. Recent literature⁵ and policy debates have focused on the extent to which online platforms derive advantage from amassing the personal data of individual users necessary for personalization. Our investigation, however, found additional sources of unevenness related to data use, especially ones involving potentially nonpersonal (through anonymization and aggregation) or originally nonpersonal data. The article's first contribution is the identification of three *functions* of data that describe how data was being used and that reveal where differential access to specific kinds of data was a source of advantage for VSPs. Its second contribution is to consider what these findings indicate for assessing the policy tools that might be appropriate to further level the playing field.

The next section of this article provides a short account of the AVMSD and briefly outlines the concerns raised in the literature about unfair competition involving online platforms. Section three describes our methodology, which involved interviews with key informants and examination of the regulatory frameworks in Belgium, France, Italy, and the United Kingdom. Section four then elaborates the three functions of data evident in the accounts of how decisions are made and how data is used in the distribution of advertising budgets. Categorizing these functions of data across the whole system, rather than looking at platform data in isolation, allowed us to see where platform data is used in the same or in a similar manner to other data, such as from audience measurement bodies or from audiovisual media service providers. This section shows disparities in access to the aggregate data related to campaign performance and financial data on costs to be sources of unevenness and discusses how these were shaped by regulatory frameworks. This is followed by section five, in which we discuss the implications of these findings for potential interventions to level the playing field. Here, within each function we draw parallels with how data used in the trade in advertising on audiovisual media services has been governed to identify the specific policy challenges relevant to each function. Based on the evidence, we argue that policy making and regulatory innovation should focus on the anonymized or pseudonymized aggregate data and the data resulting from financial transactions that contribute to campaign and channel metrics and that indicate the full value

5. For example, Newman; Kathuria, "Greed for Data and Exclusionary Conduct in Data-Driven Markets"; Couldry and Turow; Bourreau, De Streel, and Graef.

of advertising inventory. Finally, in section six, we conclude with some suggestions for potential policy interventions to address those challenges and further level the playing field as additional pieces of a more holistic approach.

New Players and a Changing Game

In the late 1980s, when the precursor to the AVMSD, the Television without Frontier Directive (TWFD) was being drafted and debated, press publishers lobbied in support of limits on advertising for television broadcasters.⁶ At that time, advertising supported broadcast media and print publishers were the main recipients of advertiser budgets, and although they were very different media, there was clear competition for those budgets. Two underlying assumptions underpinning EU policy since the TWFD are that consumers need some protection in relation to advertising and that at the same time citizens' interests are served by having commercial media whose independent subsistence is sustained by advertising.⁷ When the TWFD was replaced by the AVMSD in 2007, policy makers were convinced by arguments made by television and advertising industry bodies, among others, that change was needed due to convergence and could be made without detriment to the viewer.⁸ Limits on product placement and advertising were somewhat relaxed. By the time the AVMSD was reopened again for revision in 2016, the game was different. New players were on the field, and this time it was the audiovisual media services that were calling for limits on their new competitors, the advertising supported online platforms.

There was ample evidence that the spread of online platforms had been disruptive to traditional media, albeit more so to press publishers than audiovisual media.⁹ In response to the consultation that kicked off the revision of the AVMSD, a majority of respondents expressed the view that the existing rules did not contribute to a level playing field.¹⁰ EU policy makers were apparently sympathetic to the concerns about unfair competition to audiovisual media services from video on demand services

6. Tunstall and Palmer.

7. Harrison and Woods.

8. Woods; Williams.

9. Evens; Evens and Donders; Newman.

10. European Commission.

and online platforms offering user-generated content. Recital 44 of the Directive amending the AVMSD acknowledges competition between audiovisual media services and “VSPs,” and states that it is intended, among other things, to ensure “as much as possible a level playing field.”¹¹ Online platforms for disseminating user-generated content had been considered information service providers, and as such enjoyed exemption from liability for the content they carried under the E-Commerce Directive.¹² Though it avoids directly contradicting the E-Commerce Directive, the revised AVMSD introduces the category of VSPs, bringing services such as YouTube, Vimeo, and even Facebook into its the scope. It makes VSPs responsible (not liable) for protecting minors from harmful content, protecting all consumers from illegal content, and abiding by the same qualitative rules on advertising that apply to audiovisual media services.

Media policy scholarship on the AVMSD and its predecessor has long dealt with questions about competition among services. The Directive is an industrial policy operating in a cultural space and has been a balancing act between interventionists seeking to protect domestic and European industries and advocates of freer market.¹³ Scholars have been concerned about the extent to which the Directive’s elimination of borders and common standards disadvantages some services within Europe, namely those from smaller member states.¹⁴ Trappel, for example, argued that imbalances in production capacity between countries are an inherent source of unevenness that were exacerbated rather than rectified, especially for small states that shared a language with a larger neighbor.¹⁵

The Directive, even in its earliest form, was intended to strengthen European services in the face of competition from US-based content and services,¹⁶ and boost the potential for innovation in pan-European services that could compete globally.¹⁷ As technology and types of services evolved, research interest moved from questions about the role of the Directive in European competition with US content producers and broadcast services¹⁸ to questions about how European policy might address the new challenges

11. European Parliament, “DIRECTIVE (EU) 2018/1808.”

12. European Parliament, “Directive 2000/31/EC.”

13. Michalis; Broughton Micova; Harrison and Woods.

14. Burgelman and Pauwels; Trappel.

15. Trappel.

16. Broughton Micova, Hempel, and Jacques; Levy.

17. Herold.

18. Chalaby; Wheeler.

posed by competition between European services and US-based global platforms.¹⁹

Already in 2009, Valcke and Lievens argued that with the version adopted in 2007, European policymakers had missed a chance by not including the platforms now defined as VSPs back then, suggesting that a technologically neutral approach should actually create a completely level playing field for online and offline, linear and nonlinear services.²⁰ Shortly after, Pauwels and Donders pointed out that the dividing lines between linear and nonlinear services upon which the differentiated rules of the Directive's two-tiered approach were based had blurred and that the emergence of YouTube and other platforms had made the Directive obsolete.²¹ The 2018 changes that brought VSPs into scope have yet to be fully implemented. Nevertheless an emerging literature is concerned with how this will work given the nature of platforms and the implications for content producers that use them.²² The focus of this evolving body of research has remained on the even application of rules, namely those in the AVMSD, and the widening scope of these rules as new types of services emerge, however on competition issues with online platforms there is also a significant body of work from competition scholars and regulators that indicates such rules might play only a small role in shaping the field.

Much of the existing competition policy scholarship is limited in that it looks at platforms within narrowly defined markets. It considers whether or not there are barriers that would prevent new companies from providing the same service and the behavior of platforms is often considered in the abstract rather than investigated empirically. Reports by competition regulators or in the context of policy process have generated much of the recent evidence on how concrete platforms compete with each other and in adjacent markets.²³ These are primarily efforts to understand platform dominance and assess potential abuse of that dominance or unfair competition, yet, they can begin to sketch a picture not just of the behavior of platform owning companies, but also of the playing fields—shaped by rules and regulatory conditions—that may or may not contribute to any anticompetitive behavior.

19. Doyle; Pauwels and Donders; Busson, Paris, and Simon.

20. Valcke and Lievens.

21. Pauwels and Donders.

22. Kuklis; de Cock Buning.

23. Furman et al.; Competition and Markets Authority (CMA); Crémer, de Montjoye, and Schwitzer; Australian Competition and Consumer Commission.

The issue of dominance has been examined using the concept of market power and considering questions related to how platforms acquire and exercise this power and the extent to which antitrust measures are equipped to deal with it. Barwise and Watkins traced how several global online platforms have grown through a host of different means including creating propriety standards, exploiting user data secured consistently through high switching costs and lock-in effects, strategic acquisitions, and others.²⁴ Others have pointed out that large platform owning companies have been able to leverage market power across markets or a whole value chain,²⁵ for example, when a company's share in the social media market is leveraged in support of its programmatic advertising trading platform. Mergers and acquisitions have been crucial to this kind of cross market power. Alexiadis' work suggests that decisions in the key cases, many of which were waved through by the European Commission, were not particularly well-informed or consistent initially, with Google's acquisition of DoubleClick, a demand-side platform for ad serving, being probably the most controversial.²⁶ The complex nature of platforms, which involves network effects and often multisided markets, poses unique challenges for anti-trust intervention.²⁷ Nevertheless, failures in the application of anti-trust measures and unhealthy concentrations of ownership in value chains that stretch across markets could contribute to uneven playing conditions for competition with online platforms, including VSPs.

A specific issue that has emerged from the field of competition policy is the role of data, as scholars have attempted to understand the extent to which anticompetitive practices or barriers to market entry stem from vast troves of personal data held by platforms. Data has long been considered an asset in online platform markets.²⁸ Those that argue platforms' amassing of vast amounts of personal data is not a source of competition problems cite as pro-competitive the contribution big data makes toward quality improvement and innovation, and claim consumer welfare enhanced by the fact that it allows services to be free to the consumer.²⁹ Sokol and Comerford, for example, argue that "firms can easily and quickly collect data from consumers upon launch, and both data and the tools needed to store and

24. Barwise and Watkins.

25. Alexiadis; Duch-Brown.

26. Alexiadis.

27. Coyle; Capobianco and Nyeso; Van Gorp, and Honnefelder.

28. World Economic Forum.

29. Sokol and Comerford; Lerner.

analyze it are readily available from numerous third party sources.”³⁰ This view is based on the assumption that personal data is not exclusive and relies on businesses and individual users being able to freely move or give their data to other platforms in order to switch or multihome.³¹

Others have generated evidence that challenges the assumption that advertisers easily switch or multi-home. As Kraemer and Wohlfarth found, the data used in advertising is not given at a singular point in time, but is continually refreshed by the observance of user behavior.³² Newman found, in his investigation of search advertising, that what is used is “not just data on each individual user, but the cumulative data that can reveal how similar users behave.”³³ High-level expert committees in both the United Kingdom and the United States recently concluded that in the large online platforms derive such significant benefits of scale from their steady flows of user data, some markets may have “tipped” and require intervention.³⁴

The competition policy literature has not yet sufficiently looked at where platforms compete with other types of firms. Here questions would revolve less around the conditions needed for another company to provide a similar platform and more around what conditions would be most fair for both platforms and the other firms with which they compete. The AVMSD essentially provides minimum standards for the quality of the ad inventory VSPs provide by establishing qualitative criteria for ads, essentially ensuring that VSPs and audiovisual media services must at least play by similar rules in this area. However, the arguments and evidence emerging from competition policy research suggest that any playing field on which VSPs compete may be shaped by the extent to which they can benefit from leveraging power from other markets in which they operate, particularly that stemming from their accumulation and use of personal data. Other interventions may therefore be necessary in order to further level the playing field, but to assess this we must understand more about the conditions shaping it.

30. Sokol and Comerford, 1136–37.

31. Lerner, 21.

32. Kraemer and Wohlfarth.

33. Newman, 421.

34. Furman et al.; Stigler Center.

Methodology

As mentioned earlier, in the debates leading up to the revision of the AVMSD, providers of audiovisual media services had been very vocal with claims that platforms such as YouTube were competing with them directly for viewers and advertisers while not having to comply by the same rules. Given the issues raised in competition policy scholarship, we were skeptical that this relationship was so direct and that differing rules in relation to content and advertising were the main source of any advantage the platforms might have. Our objective was to understand the dynamics of the trade in video advertising and uncover any sources of unevenness.

We chose Belgium, France, Italy, and the United Kingdom as the locations for our investigation. Although our aim was not to elaborate country cases, we wanted to ensure we reached practitioners working in a variety of market environments, national and transnational. Though all well-developed Western European markets, they varied in market size and degrees of reliance on programmatic and addressable options. For example, the United Kingdom has the most mature digital ad market of the four countries studied while its TV advertising market remains an important component of the media mix, and addressable TV is highly advanced.³⁵ Both France and Belgium have mature markets when it comes to digital advertising in relation to the entire ad market but less reliance on programmatic options. Unlike the others, Italy's TV ad market remains the most important form of advertising and is still growing.³⁶ Another consideration was variety within the regulatory frameworks, because although all shared the common application of EU law, this is an area where there has been only minimum harmonization. France has a long history of protectionism toward its creative industries and its lawmakers have intervened to push transparency in the advertising trade, a rather opposite approach than the United Kingdom's one of liberalization and minimal intervention. Belgium is a small country essentially composed of three smaller markets, with regulatory powers devolved to *communautés*, and the specific market and regulatory condition of small states has been recognized.³⁷ We did not attempt to define the specific market for video advertising and calculate shares in each of these jurisdictions. Instead, we assumed that some of

35. Adsheed et al.; Select Committee on Communications.

36. Coppola.

37. Puppis; Lowe, Berg, and Nissen.

this ecosystem operates transnationally, an assumption born out in our investigation, and that a variety of factors might be shaping the nature of competition within it. We combined interviews with key informants from companies involved in both the buying and selling of video advertising and compared the legal frameworks in which this trade was taking place.

We interviewed a total of 36 people across 26 interviews, some of which were with teams within an individual workplace. Most were *elite* interviews with people with particular positions of authority within their institutions while three were *expert* interviews with people from institutions not involved directly in the trade.³⁸ Sampling was purposive with individuals identified through industry contacts and by trawling through corporate web pages and LinkedIn profiles. Twelve were from companies on the demand side, agencies and advertisers, and 11 were from ones on the supply side, including both VSPs and AVMS providers.³⁹ We took an approach to interviewing that aimed to be presuppositionless,⁴⁰ rather than one that attempted to test any of the arguments that had been made about the nature of competition, and we did not assume the playing field was uneven. We asked questions about how decisions were made by those who determined how to spend advertising budgets on the demand side, how those on the supply side sold their inventory and set their prices, what kinds of metrics or other considerations came into play, what kind of relationships existed among the players, and how both demand and supply side players thought of the various advertising inventory options and the other players in the ecosystem.

Interview transcripts were coded thematically using Nvivo in two layers by first identifying topics and then what was said within topics. The initial coding covered broad themes such as ad products, decision-making, metrics and measurement, data issues, relationships, innovation, the role of programmatic, and competition concerns. The word frequency functions within Nvivo were used to help confirm salience and identify themes.

38. Van Audenhove and Donders.

39. We had slightly more participants from the United Kingdom and Italy than from France and Belgium; however, these included ones whose remit was the EMEA (Europe, the Middle East and Africa) region and so were not speaking as from a national jurisdiction. The sample included national broadcasters and included one of the large global and a smaller, less well-known but also global VSP. Regrettably, numerous and sustained attempts to get more of the big global VSPs to agree were unsuccessful, and we did not have the resources to seek out sub-national AMVS providers. In order to protect the anonymity of those interviewed no further details about the companies involved can be provided.

40. Kvale.

The second level of coding was done within the themes identified in the first round and mapped out in a spreadsheet.⁴¹ Attention was paid to begin coding at alternating ends of the transcript list so as not to be consistently influenced by starting with demand or supply sides.

The legal framework analysis covered legislation, regulatory decisions, and self-regulatory instruments in the following areas: consumer protection (in relation to advertising), data protection, taxation (as applicable to the relevant companies), competition and pluralism, advertising standards, and content rules. These were filled into a matrix through which similarities and differences were identified. The purpose was both to assess the regulatory conditions that may be affecting the levelness of competition and to triangulate interview accounts. Slight differences were identified in relation to product placement and sponsorship rules, misleading and comparative advertising rules, and media pluralism and cross ownership rules.⁴² The treatment of personal data was harmonized across all four cases by the introduction of the General Data Protection Regulation (GDPR), but we found significant differences in the legal obligations related to the disclosure of nonpersonal data stemming from the financial transactions of advertising that will be discussed in detail as follows.

This investigation was only conducted in relatively advanced Western European contexts⁴³ and was further limited by its focus on the trade of video advertising inspired by the debates about the leveling of the playing field for that trade around the revision of the AVMSD. Although other forms were mentioned by interviewees and covered by the legislative frameworks, it was not within the scope of the project to consider other forms of display advertising, search, outdoor and experience, or other below the line options. The sample did not include representatives of press publishers, non-VSP online platforms, or providers of outdoor inventory. From this mixed method investigation, we found differences in access to and ability to utilize both personal and nonpersonal data to be a source of unevenness in the playing field. The details of these imbalances were illuminated in the accounts of how the various actors use data and the

41. Sixty-eight subcodes were identified across the first level themes. Each was considered a subtheme if found in at least two transcripts. A full matrix of themes and subthemes is available from the authors.

42. For elaboration of these findings, see Broughton Micova and Jacques.

43. For practical reasons we were not able to include Germany, which is one of the most advanced and sizeable European markets with particular attributes; however, it was mentioned by some of those respondents working regionally.

frameworks in which this use takes place. We categorized these into three distinct functions that are elaborated in the following section.

Three Functions of Data in the Ecosystem

Even well before online platforms got into the business, advertising relied heavily on data. Audience measurement data was combined with data from panel surveys and focus groups about the attitudes, preferences, and behavior of various categories of people. This type of data is voluntarily given, aggregated, and anonymous. The technology of online platforms allows for the collection of data about individuals by observing their behavior and by inferring characteristics from patterns in their behavior.⁴⁴ Such data can be linked to an individual, or it can be aggregated to generate information about groups of similar people or about any given campaign, ad inventory, or channel. The buying and selling of video advertising inventory also generates nonpersonal data related to the financial transactions and revenues generated. We found these different types of data being used in a number of ways within the ecosystem and that categorizing them into distinct functions helped to identify how the imbalances in the use of data contribute to uneven competition.

We identified three functions of data, each of which describes a category of ways data was used in the trade for inventory on both VSPs and audiovisual media services. The first, the targeting function, covers how data from various sources is used in the targeting of users of VSPs and both users and audiences of audiovisual media services. The second function is that of strategy design and is largely the domain of media agencies. It describes how data is used by those who primarily determine how advertiser budgets are spend. The final function we describe is that of telling the story of success. This is how data is used by all the inventory holders and the media agencies to establish value and faith in their performance, and to build the long-term relationships that the evidence showed remained very important, despite the growth of programmatic trading. In this section, we elaborate each function in turn.

44. Autorité de la concurrence and Bundeskartellamt.

Targeting Audience/Users

The major VSPs have vast numbers of consenting individual users who can be identified and from whom they can gather personal information that can be used by advertisers to target them. This includes data volunteered by users, but more importantly for targeting, it includes observed data and inferred data generated through user engagement with the platforms and other services for which the platform has gained consent. The value of this data does not derive from its collection at a specific moment in time but from it being continuous, providing insight into user preferences and ad campaigns performance. Those collecting this data need to have the trust of users and ensure continuous use.⁴⁵

When looking at the way data is used in targeting, this continuous feed of personal data functions similarly to the way continuous audience measurement data and data from regular panel surveys does for advertising on audiovisual media services. In targeting advertising on both VSPs and audiovisual media services the value of data lies both in connecting an ad to the right person and in generating the insight into how similar consumers might behave. The first purpose is simply about delivery, whether to a known individual user watching a live stream on Twitch or a video on YouTube, or to a group of people likely to fit a particular demographic known to watch a cooking program on a national broadcaster. For delivering an ad to a known individual, personal data is required to execute the delivery. The second purpose is generating insight into how various type of people or groups might behave or for creating consumer archetypes or “twins” that agencies use to establish which consumers they wanted to reach and how. For this purpose, the personal nature of the data was irrelevant.

Multiple respondents talked enthusiastically about the possibilities of targeting, describing how third-party data, data from the platforms offering ad inventory, and customer data from advertisers were used to target in new creative ways. One example given was how data purchased from Oath (now Verizon Media) about individuals’ cinema ticket purchases harvested from their e-mails was used to target individual cinemagoers with online advertisements. Another respondent recounted how his agency produced a series of short online ads that built on each other in a narrative, but with multiple options for the direction of the narrative that were

45. Kraemer and Wohlfarth.

chosen depending on how the user behaved following the previous one. Nevertheless, the agencies need for identifiable data is limited.

For example, Jane Doe is 25-year-old female in Seattle. She is a movie-goer who sees Japanese anime films in cinemas (as reported by her e-mail provider) and watches a lot of anime on YouTube, as well as lot of cake decorating videos and ones related to a few particular video games. Her tastes in music have been tracked by her online listening and Spotify playlists. The data on all this is combined with that of many others with shared characteristics to create a model of people with her tastes and behavior. Jess Dee a 25-year-old female who shares tastes in music and video games with Jane. She is not very familiar with anime but gets targeted by a trailer for an anime film while watching a cake decorating video because the “twin” created from the observation of Jane and others like her indicates she might be interested. Only the ad server placing the ad at the start of her YouTube video had to be able to identify her.

This kind of very granular targeting and engagement with specific individuals was not necessarily always called for by campaign objectives. Every agency respondent interviewed reported that the first consideration in planning is what the client wants to achieve with advertising, their objectives. Most explained that meeting longer term objectives such as brand building, attitude shifting, or awareness campaigns still start with television advertising as the central piece. When the objectives were more short term, such as to drive sales with a specific group, get repeat business from previous customers, or to test the waters with something a bit experimental, then campaigns required higher levels of targeting. As described by agency respondents, the targeting possibilities and data sets of YouTube were not directly competing with those of the United Kingdom’s ITV or Italy’s Mediaset, or even with those of Facebook.

AVMSs are also investing in inventory options that offer more targeting possibilities than linear TV. Major AVMSs in the countries studied offered some addressable TV options via set-top boxes, such as Sky’s AdSmart in the United Kingdom. Most major services had moved to sign-in based catch-up services. Both set-top boxes and sign-ins provide data that can be used for targeting and increase the amount and diversity of inventory services can sell. The observation of one agency respondent that “sales houses and broadcasters are really evolving to digital activities in order to get this data because if you have only television activities, you won’t have this data” was confirmed by respondents from AVMS providers in all four countries. Some AVMSs are essentially pooling their data sets by cooperating on

tools to offer addressable and programmatic buying options at scale both on a European level, for example, through the European Broadcasting Exchange⁴⁶ or within a national jurisdiction, such as the cooperation between RTL and ProSiebenSat.1.⁴⁷

In all four countries studied, the use of personal data for targeting individuals was governed by GDPR,⁴⁸ and there were no other sector-specific rules on personal data. Article 4 of the GDPR defines data controllers and data processors. Controllers, such as the VSPs and AMVS providers, are responsible for determining the purposes and means of processing personal data, whereas processors are responsible for the processing of data on behalf of the controller, and controllers have to get consent for all the processing that is done with data they have gathered.⁴⁹ Nearly all the respondents mentioned GDPR spontaneously.

Advertiser, agency, and VSP respondents commented that they had noticed a loss of some players after the GDPR came into effect, mainly third-party data suppliers, but welcomed this as cleaning up those engaged in unsavory practices. Respondents from five different AVMS providers reported in some way that GDPR compliance for them as controllers was difficult or a burden, and two complained that they had to deal with consent on behalf of all those processors in the programmatic trading system that might engage with the data they controlled. Five respondents from across the categories argued that the GDPR had increased the dominance of the global VSP-owning companies engaged in programmatic trading, citing Google in particular for pushing trade onto its own platforms by cutting off others' access to data for which it was a controller.⁵⁰

There remains a large gap between the amount of personal data that AVMSs hold on individual audience members and what VSPs have on their users, and differences exist among VSPs. As long as advertiser objectives continue to require varying levels of targeting, the specificity with which the individual users or audiences of AVMSs and VSPs could be seen as part of the differentiation of inventory. Control over the personal data

46. EBX.

47. Dziadul.

48. Though the United Kingdom left the EU on 31 January 2020, the GDPR remains valid through the transition period at which point it is transposed into UK law.

49. European Parliament, "On the Protection of Natural Persons."

50. Google plays the role of controller in some services and as processor in other services. For the division, see *Businesses and Data*.

required to link ads to specific individuals is also justifiably limited by data protection rules. Much of the data used to determine whom to target and by what means, however, is removed from the individual in a similar way that it is removed from individuals who have participated a panel survey. Where we did find evidence of unevenness was in the tools used to purchase, serve, and verify targeted ads that generate the data that feeds into media strategy making and planning.

Determining Strategy

The way agency respondents spoke about the process of determining how advertising budgets are allocated across what they referred to as different channels was most akin to a cook working out a recipe. It starts with the objectives of the advertiser, which are often shaped by the type of product or service, and then prices and a host of metrics representing historical experience are plugged into complex econometric modeling. As one agency respondent described:

“what we’re looking at is we’ve been able to track the effectiveness of every one of those media partners in its ability to deliver a sale at the end of the day, we attribute a cost per action against all of those. And then we will make adjustments and we will re-plan based on historic performance.”

Those designing strategies talked about two types of data as important at this stage: anonymized aggregate observed data from previous campaigns and nonpersonal data indicating cost. Here we found sources of unevenness for those vying to have their inventory included in campaign strategies stemming from imbalances in access to campaign metrics and other information with which the potential effectiveness of inventory was assessed and upon which prices were based.

Though there was little choice in the measurement data used for broadcast inventory, these were provided by independent industry bodies in all countries studied. Those metrics were universally accepted, audited, and available at transparent rates to inventory holders, agencies, advertisers, and others. While the amount and variety of data that can feed into modeling effectiveness for online inventory was vastly greater, it was not standardized or audited, and who had access to it appeared dependent on opaque relationships with intermediaries and third-party providers.

A key tool talked about was the ad server, which gathers the data related to each ad placement that was aggregated to produce campaign and channel metrics.⁵¹ Third-party trackers are also crucial for measuring the effectiveness of online advertising. There are a number of companies offering such services, and often inventory holders engage with more than one. However, multiple agency respondents reported that Google's ad server is overwhelmingly used, and Google's and Facebook's trackers are by far the most common.⁵² Only a limited number of third parties have been approved for tracking on Google's YouTube⁵³ since GDPR went into effect, and multiple agency respondents expressed suspicion about the provision of such data by the platforms that also offer inventory.

One agency representative explained,

“[i]t's well-known that you don't get the same amount of data as Google and Facebook will get. For instance, you get, at best, impressions in aggregate from Facebook and then when Facebook—I think this example is probably true. When Facebook track, they track in a way that's very favorable to them.”

Another respondent gave an example of how a platform set the terms for what counts as an impression with less viewability and a shorter duration than what they consider the minimum, resulting in a discrepancy between what they reported to their client to show effectiveness and what was charged by the platform and costed into the budgets.

For online and addressable TV inventory data such as about the quantity and quality of views, click through to webpages or the minisites accessible on addressable TV is gathered through the delivery platforms. Inventory on Google's YouTube and on Facebook can only be bought through their own trading platforms. Their tools were also reported to be the unavoidable choice for the purchase of other online inventory because of what eight different respondents referred to as “walled gardens.” The term refers to the data environment that is controlled by one company that may allow users to import data but only allow selected aggregate data to

51. The word “channel” here is used as it is by those in the advertising industry to mean, they type of medium for example linear television, radio, outdoor display, search, social media, and so on.

52. Helles, Lomborg, and Sophos Lai.

53. YouTube.

be extracted.⁵⁴ One such complaint was that because a client used Google Analytics on their own website, the agency was then locked into using Google's demand-side platform to activate the campaign. While the advertiser and the agency according to contract "owned" the data stemming from their own campaigns, they explained that they could not use it outside of the Google "garden."

Google and Facebook are not alone in this practice. A respondent from another VSP described a similar practice and a strict policy against allowing third-party tracking. Two representatives from AVMSs confirmed that their companies were modeling their own data "walled gardens" after the practice of the platforms, in part to avoid opening up their addressable inventory to Google's trading platforms. Most AVMS providers and even smaller VSPs are not also providers of analytics services or third party tracking, meaning the depth of the campaign data they offer within their "gardens" will be limited and as will their ability to drive buyers into them.

The other type of data involved in determining strategy and dividing up budgets is price. Media agencies that do the buying of inventory have historically made their profits from the difference between what they can get as the price for the inventory and what they can charge the client. This is an arbitrage system in which agencies pool their buying across clients and campaigns, getting a lower price than the advertiser could individually, and include a margin for themselves. Though for some services agencies reported having moved to a flat fee, it was confirmed by multiple respondents from agencies, advertisers, and inventory holders that the discounts and rebates characteristic of media buying in broadcasting and print media were still common practice despite the expansion of programmatic trading. One advertiser respondent working across Europe claimed that cash rebates and kickbacks were even more common for online inventory in some countries.

In the accounts of both demand- and supply side respondents, past performance metrics, expected audience/user reach, and pricing information appeared crucial to these negotiations. The financial data resulting from the buying and selling of advertising is special category of nonpersonal data. It can be in big datasets, such as the price achieved on vast numbers of nearly instantaneous auctions in programmatic buying systems or can be cumulated into a few regularly reported figures. Among the regulatory frameworks we examined, only in France were there requirements for the

54. Further explanation see Adshead et al., 14.

disclosure and reporting of financial that were equivalent for all inventory holders.

In 1993, France introduced an anti-corruption law regulating the purchase of advertising space, known as the “Sapin Law.”⁵⁵ Initially, this piece of legislation aimed to address harms to advertisers and media companies from the lack of transparency in the arbitrage buying of advertising inventory by media agencies. An alternative to the structured shared-based systems of other jurisdictions, the Sapin law requires an agency to communicate any discount or tariffs advantages made by the media organization to the advertiser to avoid exorbitant profit margins. The law was amended in 2015 to broaden its scope to digital advertising (article 20). Henceforth, an advertiser is also entitled to know the cost of an entire campaign as well as the price paid for each advertising space purchased in digital advertising. A decree n 2017-159 adopted in February 2017 includes specific rules for programmatic advertising or other real-time bidding. From January 1, 2018, all intermediation charges (whether human or artificial intelligence [AI]) must be communicated to advertisers. There are now requirements to report campaign data, such as on the dissemination environment where the advertising is featured, the content, the format, the number of impressions, pages visited and clicks, as well the total amount invoiced.

The French competition authority found that the expansion of the Sapin law to digital advertising was seen as a positive step by many actors including major online platforms and intermediaries.⁵⁶ This overall approval was mirrored by our interviewees from agencies in France who wanted to see it harmonized at the EU level, though they did note it was not without cost. As one noted, “at a personal level, I think that yes [the Sapin law is a good thing], at a professional level, it is difficult for companies because this adds many administrative constraints that the legislator may not have foreseen.” Examination of the legislation suggested that there will likely be practical uncertainties as to who is obliged to fulfil these new obligations. In addition, it only applies to the French territory, which gives it limited scope within an ecosystem where the majority of the actors are located elsewhere.⁵⁷ The Sapin Law only ensures transparency to advertisers, but it

55. Loi n 93-122 du 29 janvier 1993 relative à la prévention de la corruption et à la transparence de la vie économique et des procédures publiques.

56. Autorité de la concurrence.

57. This being said, article 27 does make an attempt at broadening the reach of this legislation beyond the French territory but difficulties remain in practice.

does allow advertisers to see what exactly they are spending their money on and what makes up the prices they pay.

In the United Kingdom, a certain level of financial transparency for television advertising was achieved by the fact that media owners participate in a share-based system that is based on advertiser commitments for total multiyear spend and the audience measurement data. In the past, it has formed the basis for remedies to protect competition in the Carleton/Grenada merger that became ITV.⁵⁸ It may not directly reveal any discounts or rebates, especially in the form of airtime in lieu. However, combined with the required revenue reporting to the regulator Ofcom and the transparent audited audience measurement data, it seemed to provide the players some transparency. Similar systems were present in Belgium and Italy. In Italy, the regulator required platforms, even those taxed abroad, to provide advertising revenue data in a manner equivalent to the requirements for audiovisual media services, for the specific purpose of protecting competition in media markets.⁵⁹

In each country, those selling television inventory had access to the historical audience data of others offering television inventory from the independent measurement bodies. In Belgium, Italy, and the United Kingdom, the share-based buying systems and the regular financial reporting required by the regulators gave a degree of transparency regarding the prices paid for inventory in the past, which can help them assess and represent to buyers the value of their inventory. With agencies moving from television strategies to multi-platform video strategies, television broadcasters and online platforms are negotiating with the same agencies for the discounts and rebates yet have very different information. In this function, the lack of transparency reported to us and since identified also by others in the data on performance, price and profits in the trade of online advertising⁶⁰ gives the large platforms informational advantage, not just in relation to the others competing for advertising budgets, but also vis-a-vis the agencies with which they are negotiating.

Some progress has been made with YouTube in terms of participation in the independent audited system for measuring reach and audience in Germany. After three years of working on measuring daily viewing on YouTube in a manner similar to audiovisual media, Germany's independent

58. Ofcom.

59. Google Ireland/Agcom.

60. Furman et al.; Stigler Center.

rating body AGF Videoforschung released its first results in March 2019,⁶¹ and discussions were reported to be ongoing within joint industry committees in other countries as well. This is the kind of independent and accessible measurement that can be useful in informing campaign strategies and negotiations over price when paired with some level of financial transparency. It also demonstrates that data protection rules are not an impediment for participating in such schemes, which should be based around nonpersonal, anonymized or pseudonymized data.

Our investigation found consistent calls for comparable and standardized measurement metric across all video inventory among those on the demand side, but some reservations expressed from representatives of AVMS providers on the demand side. Their concerns as to whether it would fairly represent the advantages of their inventory had more to do with the third function of data we identified that describes how it is used in the longer-term building of relationships and preferences.

Telling the Story of Success

The decisions about dividing up particular campaign budgets take place within the context of longer-term relationships and contracts that shape those decisions. These provide the framework for the bulk commitments between agencies and inventory holders that garner the rebates and discounts. Inventory holders in all the countries we studied reported maintaining direct relationships with advertisers to understand their needs and to ensure their faith in the effectiveness of their inventory. Agencies must demonstrate performance to retain their clients, especially large global brands with which they may have multiyear, multicountry contracts. The evidence from our investigation indicates that because of a trend toward centralization and short termism, those telling their story with the kind of data generated by online inventory are at an advantage. Here aggregate, anonymized campaign and channel data and financial data are used to demonstrate performance and efficiency.

Two agency respondents and one from an AVMS provider reported having to deal with traders responsible for groups of countries in centralized procurement departments rather than nationally based marketing teams, and increasingly having to address short-term key performance indicators (KPIs). As the AVMS respondent described, their pitches were

61. AGF Videoforschung GmbH.

recently less about “the value of the quality or the context . . . and more about the net cost and the discounts and optimization and that kind of metrics.” One respondent who was on the receiving end of this for a major global advertiser explained that what he did on a regional level was “review on a broader level how to allocate budget most efficiently across different channels and vendors so that we can maximize our discounts and our cost efficiencies.” It appeared that in the current environment advertisers are increasingly focused on efficiency, defined as the combination of performance and price, and therefore firms offering the data-intensive online inventory have an advantage.

Although television was reported by nearly all demand side respondents as being trusted for brand safety and environment quality, it was evident that AVMSs were at a disadvantage in terms of being able to demonstrate performance against short-term KPIs. Promoting their addressable TV options AVMSs speak the language of procurement and data-driven assessments of return on investment,⁶² and as mentioned earlier AVMS providers are cooperating to increase the scale of their offerings. Nevertheless, VSPs offering online inventory at great scale clearly have an advantage in terms of demonstrating efficiency as the observed data linking online advertising to website views, test drives booked, product sales, and so on, serves this need very well.

Though we did not have access to details on their expenditures and revenues, our evidence indicated agencies are increasingly making their profits from programmatic advertising, enabled by a lack of transparency and the complexity of the process. Getting the most out of programmatic buying requires specific expertise that must be regularly updated, which agencies can offer, and as mentioned earlier, only in France was there any transparency in their margins on this. One agency respondent admitted, “if you squeeze our remuneration, like we are doing pitches with no fees or fees close to zero then, of course, many of our choices are logically directed to the best option for us at basic economic level.” Two others confirmed charging programmatic advertising mainly on the gap between the value they get and what the clients could have gotten alone instead of on a fixed percentage. One of them explained: “everyone became competitive on price . . . and it became this ever-decreasing circle where you’re basically doing it almost for nothing. I suppose agencies were like we’ve got to find other ways to make money and those perhaps . . . haven’t necessarily

62. For example, AdSmart; SBS.

been the most regulated practices,” essentially acknowledging the lack of transparency.

With advertisers increasingly motivated by the need to show efficiency, there seems to be a preference in agencies for the inventory that can easily combine data measuring success with price to demonstrate that efficiency, and for the inventory that can garner them the highest margins. These preferences shape the long-term relationships and buying decisions of advertisers and agencies. As mentioned earlier, advertiser objectives may not always call for highly specific targeting, yet the industry, it seems, is being pushed toward programmatic trading and reserve buying of online inventory despite reservations expressed across our sample about the use of personal data, the lack of transparency, and risks to brand safety.

Policy Challenges in Leveling the Playing Field

Our investigation into the dynamics on the playing field for video advertising identified data access and use to be a key source of unevenness. We found that types of nonpersonal data, mainly financial data and past performance data for campaigns and channels, were important to decision-making about how to spend advertising budgets on the demand side and competing effectively for those budgets on the supply side. Though it evened out the qualitative rules for advertising for AVMS providers and VSP, the AVMSD did not deal with data use. Competition policy scholarship has produced rich debates about potential dominance or unfair behavior related to platform data, resulting in interesting policy proposals for antitrust intervention or pro-competition regulation to achieve data openness or sharing.⁶³ However, these tend to be focused on platform markets and the extent to which there are barriers to entry or undue concentration in those narrowly defined markets, rather on platforms as part of wider ecosystems that involve nonplatform players and competition in adjacent markets.⁶⁴ In our investigation, looking at how data more generally functions, how it is used by all players in an ecosystem, has allowed us to see where platform data functions in the same or similar manner to other kinds of data. Drawing parallels with how these

63. Furman et al.; Competition and Markets Authority (CMA); Australian Competition and Consumer Commission.

64. van Dijck, Nieborg, and Poell.

other kinds of data are generated and accessed, here we consider the policy implications, more specifically what challenges need to be addressed in order to level the playing field and what policy options might be useful in meeting those challenges.

Table 1 presents an overview that gives a simplified description of the types of data being used in each function and the challenges posed by each of the functions of data for any policy aimed at leveling the playing field on which AVMS providers and VSPs are competing.

Only those firms that have consent for its processing have access to the kind of personal identifiable data that enables a specific individual to be targeted by advertising. The kind and amount of data that Facebook or Google has on each of its users dwarfs the amount that other media currently gather from viewer log-ins to catch up services or through set-top boxes delivering addressable TV. Though our findings indicate that in the competition for advertising budgets the ability to target specific individual users is not always necessary, major AVMS providers in Europe are advancing in both the gathering of personal data and innovating in ways to offer targeting at scale to agencies and advertisers, including all

TABLE 1 The Data Types and Policy Challenges Associated with the Three Functions of Data in Video Advertising

Function	Data Types	Levelness Policy Challenges
Targeting	User and audience data	Encouraging or removing barriers to data pooling or sharing among AVMS providers (with user consent)
Strategy design	User and audience data Campaign metrics (e.g., impressions, click throughs, viewability) Financial (e.g., inventory price, discounts, auction details)	Defining the level of aggregation and anonymization at which the relevant personal data becomes nonpersonal Encouraging demand side porting of nonpersonal data and competition among adserver and trading platforms Establishing basic levels of financial transparency (e.g., Sapin Law)
Story of success	Campaign metrics Financial (e.g., revenues, past inventory prices)	Encouraging participation in independent measurement bodies and collective efforts at standardization (e.g., German JIC and YouTube) Enforcing financial reporting obligations on all inventory holders

those represented by our respondents. As Table 1 indicates the policy challenge would therefore be to determine how best to support AVMS providers in doing this. It could mean revising media plurality rules to allow collaboration, offering guidance on managing consent, or a variety of other interventions aimed at promoting collaboration and innovation in this direction.

Our findings suggest that greater attention needs to be paid to the aggregate data generated by the behavior of and characteristics of individuals, and the extent to which demand side actors have the ability to use, or port, this kind of data across the various channels of inventory suppliers. In talking to agency and advertiser representatives, what we found was not, as has been suggested, a “multi-homing” across similar options by advertisers that could simply choose another provider as long as they can take their own data.⁶⁵ Instead it was more akin to hedging bets, spreading investment across a number of channels based on calculations of what is likely to reach the right people and achieve the desired outcome.

From the accounts of those interviewed, much of what seems to feed into the econometric models and strategy process through which they do this, was a *constructed* kind of data that “does not reflect truths about people, but by means of patterns and behavioral tracing it creates simulations of target groups.”⁶⁶ For offline inventory this might be from panel surveys and audience measurement data. For online options it is anonymized or pseudonymized and aggregated observed data, often connected with past campaigns. Data such as from store card use, test drives booked, loyalty programs, and other sources can feed into planning across types of inventory, and all combine to provide an idea of what might reach certain groups and what approach might achieve an advertiser’s objectives. As mentioned earlier, we found problems arise from the fact that, unlike panel survey data, the former can lock agencies into particular buying options, and that unlike the metrics of audience measurement, the former is not independent and accessible to all players.

Agencies reported being locked into activating campaigns through particular buying platforms owned by major inventory holders, particularly Google and Facebook, by the fact that much of the data they used for planning a campaign had to stay within those ecosystems. This is despite the commitments made to competition authorities by Google to facilitate

65. Lerner.

66. McStay, 139.

advertiser switching by allowing the porting of their own campaign activating data,⁶⁷ and Google's documentation for the Google Marketing Platform confirming that each client owns their campaign data and can "take it out" in an anonymized form.⁶⁸ This contradiction indicates that closer analysis is needed to define the point of anonymization and the interaction between the anonymous aggregate data and the personal data used for targeting the ad.

Data that has been sufficiently anonymized according to the guidance of the Article 29 Working Party could potentially be considered nonpersonal data.⁶⁹ Open display online video inventory, such as that of audiovisual media services and other publishers, can be traded through a number of tools, including those developed by these media themselves,⁷⁰ and addressable TV can be traded in a similar manner to online inventory. These face the increasing level of concentration among intermediaries in programmatic trading and ad servers.⁷¹ Enabling agencies and advertisers to spread their investments through rules that enable them to port their nonpersonal data and not be locked into particular intermediary platforms would seem necessary to level the playing field for other intermediaries and the collaborative initiatives of media companies for large-scale buying.

Encouraging portability on the demand side is not likely to compensate for the unevenness found in access to the campaign and channel data that contributes to the metrics for telling the story of success to advertisers. Neither will it help those negotiating for the discounts and rebates know the value of their inventory and or better assess where they stand in relation to the other inventory holders. Major social media and certain VSPs were described as unavoidable for reaching some audiences. "Ultimately, it's not a matter, do you like it, do you not like it. This is where the eyeballs are," explained one agency respondent. This in itself is not necessarily a problem. One could say the same thing about major broadcast television stations in most countries. However, for broadcast media much of the data needed for designing a media strategy and planning a campaign is accessible, audited, and independent.

67. For explanation, see Geradin and Kuschewsky, 11; Graef, *Data as Essential Facility Competition*, 51–52.

68. Google.

69. Article 29 Data Protection Working Party.

70. For an illustration, see Adshead et al., 46.

71. Geradin and Katsifs, "An EU Competition Law Analysis."

Audience measurement that is done by joint industry bodies and data from panel surveys can be bought or replicated. Inventory holders do not have all the insight into the impact of specific past campaigns, which is held on the demand side, but going into negotiations over discounts or rebates on prices and other conditions they each have an idea of the value of their broadcast inventory and a view of what each other can offer because it is to a large extent transparent. As the online equivalent to audience measurement data, the aggregated anonymized data observed from people's behavior that contributes to campaign metrics could be considered just as essential for doing business.

This does not necessarily mean structural competition policy remedies are required to open up the necessary data. Following the model of broadcasting, VSPs could be encouraged to participate in independent and audited measurement systems. A "common currency" for a video impression does not necessarily have to be agreed. The example of YouTube's inclusion in Germany's independent measurement body shows that it is technically possible, though it is likely more detail and duration should be achieved for them to be meaningful to competition. In the countries studied, these processes appear to be moving slowly, and we did not find conclusive evidence as to whether resistance came from the platforms and/or from the other media already participating.

In all four countries studied, systems ensured some degree of transparency to advertisers and information necessary for oversight to regulators that put AVMSs on level with each other. Given the complexity of the trade in online video advertising and the numbers of those offering inventory, the share-based system could not easily be expanded to include online platforms. However, the French Sapin Law already has been providing a credible model, though one that should be adapted and perfected, and regulatory reporting requirements could be applied as in the Italian case.

Conclusion

The purpose of our investigation was to understand the conditions affecting the levelness of the playing field for video advertising. It revealed specific ways that uneven access to data was a source of advantage for online platforms offering video advertising inventory vis-à-vis the AVMSs that have traditionally relied on such advertising. Examining the role of data in decision-making and relationships involved in the distribution of

advertising budgets, we identified three functions that characterize how data is being used and what types of data were being used in each function.

Our findings indicate that while there may be a vast difference among players in the extent to which they can utilize personal data in the function of enabling targeting, these should not be the main focus of policy intervention aimed at leveling the playing field. AVMSs, and likely a variety of other media, competing to be part of strategies designed in media agencies are disadvantaged by the fact that they do not have equitable access to the anonymized aggregate personal data and nonpersonal data related to campaigns and channels. Such data feeds the metrics, against which competitors demonstrate relative efficacy and tell their own stories of success. Based on the evidence presented earlier, we argue that a case could be made that access to the aggregate anonymized, and therefore nonpersonal, data required to generate the equivalent of audience metrics is imperative for all those competing for advertising budgets.

By grounding our analysis in the AVMSD's notion of levelness among players of different types rather than looking for evidence of unfair competition or barriers to entry in a market, we can see the relevance of policy solutions devised for ensuring a fair game before platforms entered the field. We suggest a priority of policy makers should be to encourage VSP participation in independent and audited industry-wide measurement systems, and that competition policy tools such as essential facility access requests could be used only as a fallback option to ensure the necessary data sharing in case of resistance.⁷² This kind of data, which is generated by user behavior but far removed from them as individuals, and which represents their collective role as an audience is also arguably the best candidate for designation as a public resource as suggested by Napoli.⁷³ According to his argument such a designation would have much wider regulatory implications than forcing participation in independent accessible measurement, but it has been part of media regulation since the use of frequencies in many countries and merits consideration.

The situation with user data in the function of strategy making and media planning is complex because aggregate anonymized data is mixed with personal data from platforms, but also from third parties and

72. For discussion of the application of essential facility doctrine to data, see Graef, "Mandating Portability and Interoperability"; Graef, *EU Competition Law*; Graef, *Data as Essential Facility Competition*; Kraemer and Wohlfarth.

73. Napoli.

advertisers, to target individuals. When it comes to actually activating a campaign or placing the ads, for the right person, even if he or she just happens to fit an archetype to be reached, the ad must be served to an IP address and therefore not anonymous, contributing to the “walled gardens” problem characteristic of the strategy design function. Our methodological approach produced evidence from the reports of practitioners and examination of the rules in which they operate, but this approach could not produce the kind of technical evidence on how data moves through the system required to determine exactly where the boundaries of data gardens should be. Further investigation is needed to arrive at a definition of the point at which data becomes sufficiently anonymous to become nonpersonal in this context is needed, and what is accessible by whom at exactly which point. This could contribute to the development of codes or other instruments to enable data that does not need to be associated with an individual to be moved out of the “walled gardens” or facilitate other means of accessing the flows of such data.

One aim would be to encourage media agencies to utilize a range of tools for buying. If the trend toward concentration in ad serving intermediaries described by Geradin and Katsifis⁷⁴ continues, perhaps Rahman’s suggestion that online platforms be treated as public utilities with “new forms of oversight and accountability” based on norms such as nondiscrimination and common carriage⁷⁵ could be considered only for ad servers.

Our approach of asking questions of those in the industry how they made decisions and conducted business revealed that the much less talked about category of nonpersonal data related to financial transactions is also highly important in the competition for video advertising. The opacity of transactions in programmatic advertising has been cited as problematic in several policy reports, and it was raised by many of our respondents from all categories of industry players, including VSPs. Although there is no complete transparency in the trade of other advertising, we argue that more data should be made available to level the playing field. The French Sapin Law is a good model for this, perhaps with added reporting obligations in situations where a demand-side platform does not respond to a bid and the inclusion of requirements that some information is shared with all industry players.

74. Geradin and Katsifis, “Google’s (Forgotten) Monopoly.”

75. Rahman, 236.

As van Dijck, Nieborg, and Poell have pointed out there is a need for more research into areas where platforms interact with other types of firms and actors within wider ecosystems.⁷⁶ Our investigation focused on one specific playing field on which a particular type of platform is in competition with another type of service. Within wider ecosystems there are likely to be many other areas where platforms compete with nonplatform players that merit investigation. Given how important it is to platform businesses, data is likely to be an important part of any picture in which they are involved, therefore we suggest that the approach we took to identify functions in which data is used both from and by platform and nonplatform players can be a useful way to draw parallels and understand the nature of competition in other areas.

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76. van Dijck, Nieborg, and Poell.

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