DISPROPORTIONATE REGULATION OF PERSONALISED ADS COULD HAVE SIGNIFICANT UNINTENDED CONSEQUENCES

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Policymakers have in recent years shown concern regarding invasions of user privacy and/or misuse of data in online contexts. This has resulted in legislation such as the General Data Privacy Regulation (GDPR).

More recently, there has been an increased focus on the use of data for 'personalisation' of online content and advertising. Policymakers want to ensure that users understand how their data is used to tailor what they see online — and that they have sufficient control over what they do and do not share. There are also concerns regarding how 'personalisation' of online content could lead to cases where users are not exposed to a sufficiently diverse set of opinions and content — for example surrounding the use of political ads (and associated disclosure rules).

There are valid concerns associated with online privacy and the personalisation of online content and advertising. Policymakers are justified in scrutinising the ways in which data is collected and used online.

However, policymakers must also be aware of the trade-offs associated with introducing regulation that would reduce the ability or incentive to engage in personalisation – especially in the context of ads – since this could have significant unintended consequences on the broader economy.

To ensure proportionate regulation, any specific benefits that regulation is expected to deliver should be weighed against potential harm. While there could certainly be gains to consumers associated with e.g. increased transparency and/or increased control over data, the arguments in favour of specific policy interventions must be considered carefully – and it must be assessed whether less intrusive regulation could achieve the same benefits for less harm. If regulation cannot effectively balance all economic impacts, there is a substantial risk of disproportionate regulation that delivers net harm to consumers.

Various policy proposals have already been tabled to address concerns. Some proposals have gone as far as suggesting an outright ban on 'personalised', or 'targeted' advertising.' Other policy proposals, such as the December 2020 Digital Services Act (DSA) text of the European Commission²,

For example, the European Data Protection Supervisor (EDPS) has called for an assessment of a ban on personalised advertising, and some MEPs have also expressed views suggesting that personalised ads should be banned to protect the privacy of consumers and to ensure the existence of traditional media.

² https://ec.europa.eu/info/sites/default/files/proposal_for_a_regulation_on_a_single_market_for_digital_services.pdf

suggest extensive transparency obligations in relation to digital ads³ (see Articles 24 and 30). While these rules would not explicitly restrict the use of personalised ads, they would *de facto* also have the effect of reducing their use, as we explain in greater detail below.

In this study, we explore the potential risks associated with constraining the ability or incentive of EU firms to use personalised advertising. Our initial analysis of this novel research question finds that a reduction in the use of personalised advertising would drastically change the way the internet works today (for publishers, consumers and advertisers) and would have far-reaching impacts across the EU economy (on all markets served by firms that buy personalised ads to most efficiently reach their target audience).

We have developed preliminary estimates which show that the negative impacts associated with a reduced use of personalised advertising due to the aforementioned Articles in the DSA could be severe. An initial assessment of the order of magnitude suggests that that the negative impacts could reduce EU GDP by 76-106 billion EUR per year⁴, corresponding to 0.22-0.30 per cent of EU GDP, or 171-237 EUR per EU citizen per year.

This is based on the results of two separate methodologies constituting two separate attempts at quantifying the potential harm: one which builds on economic literature quantifying how regulation can restrict competition and hence long-run economic growth, and one which builds on studies quantifying how advertising has a positive knock-on effect on broader economic activity.⁵

Multiple stakeholders would be affected by a reduced use of personalised ads

Firms across the economy use advertising to make consumers aware of their products and to differentiate their offering. In recent years, due to the increase in online activity, digital advertising has taken up an increasingly large share of total spending on advertising. In 2019, EU businesses spent €65 bn on digital ads⁶, corresponding to €146 per capita.

A substantial share of digital advertising is tailored to the specific user that sees the ad, i.e. certain ads are shown to certain users, based for instance on which websites they have previously visited and/or on demographic data. This kind of digital advertising (often based on 'cookie' data) is called personalised advertising (also known as 'behavioural' or 'targeted' advertising).

Multiple stakeholders are either directly or indirectly affected by the use of personalised ads, and a reduced ability or incentive to engage in personalised ads could thus affect many businesses and consumers across the EU economy.

³ Some "very large online platforms", as defined in the DSA, already provide a certain degree of transparency regarding which ads are shown and why, see for example Google's "Why This Ad?" feature and Facebook's Ad Library.

⁴ All these estimates are per year and reflect an average of yearly effects estimated over a ten-year period, 2021-2030.

⁵ For more information on the quantification exercise, see Technical Annex.

IAB Europe (2019), Adex Benchmark 2019 report, https://iabeurope.eu/wp-content/uploads/2020/06/IAB-Europe AdEx-Benchmark 2019 2020 FINAL 03.06.20.pdf.

Display ads account for 46 per cent of total spend on digital advertising (in 2019) and over 65 per cent of display ads were based on personalisation (in 2016, this share may have increased in recent years), see IAB Europe (2019, Adex Benchmark 2019 report, https://iabeurope.eu/wp-content/uploads/2020/06/IAB-Europe_AdEx-Benchmark_2019_2020_FI-NAL_03.06.20.pdf) and IHS Markit (2017, The economic value of behavioural targeting in digital advertising, p.2, https://datadrivenadvertising.eu/wp-content/uploads/2017/09/BehaviouralTargeting_FINAL.pdf).

In the following sections, we describe some of the ways in which a reduced use of personalised advertising could lead to negative impacts. We have broadly identified three categories of stakeholders that could be harmed by a reduction in the use of personalised advertising: 1. publishers, 2. consumers and 3. firms (including small and medium-sized enterprises – SMEs) that use personalised ads to reach their target audience.

1. Reduced personalised advertising would harm publishers' ability to generate revenue

Many online publishers depend on digital advertising as their primary revenue source, especially publishers that provide 'free' content to consumers, such as social media platforms and many online newspapers. As explained by a coalition of European publishers: "The financing of the press and media sector relies on revenues deriving from online advertising. Advertising is an essential source of revenue for online publishers and allows them to offer content free of charge or at very affordable prices."

A reduction in the ability or incentive to engage in personalised ads could thus undermine the business model of publishers that otherwise rely on revenues generated via this channel: "[Regulatory proposals have] suggested new restrictions on online advertising which would be detrimental to the ad-financed sectors such as the press and media." ⁹

Online publishers would not necessarily be able to generate comparable revenue by selling their ad space as non-personalised advertising instead since this would likely generate considerably less revenue, see Box 1.

VDZ (21.10.2020), EMMA, ENPA, EPC, FEDMA, EGTA and ZAW express strong concerns about key parts of the EP JURI adopted report on the Digital Services Act, vdz.de/nachricht/artikel/emma-enpa-epc-fedma-egta-and-zaw-express-strong-concerns-about-key-parts-of-the-ep-juri-adopted/

⁹ Ibid.

Box 1 Publishers could not generate the same revenue via non-personalised ads

Several studies have found that personalised advertising is more effective and/or more valuable than non-personalised advertising:

- Beales and Eisenhach (2014) find, based on an analysis of impression-level data, that impressions without cookies (i.e. without personalisation) went for a price 38-67 per cent lower than impressions with cookies.
- Johnson, Shriver, Du (2020) on Marketing Science, find that the impressions of users who have disabled personalised advertising generate 52 per cent less revenue than users who allow personalised ads.
- Marosha, Abhishek and Acquisti (2019) find that ad impressions without cookie data (i.e. without personalisation) generate 4 per cent less revenue than impressions with cookie data.
- The CMA (2020) finds that the blocking of cookie data decreases publisher revenue by 70 per cent.

Note: Cookies are a notable example of a tool supporting personalised ads – thus we interpret the empiri-

cal evidence on cookies to be a relevant basis for assessing the impact of provisions that would re-

duce the use of personalised advertising.

Source: http://dspace.mit.edu/bitstream/handle/1721.1/64920/Tucker_Privacy%20Regulation.pdf?se-

quence=1&isAllowed=y

https://doi.org/10.1287/mksc.2019.1198

https://papers.ssm.com/sol3/papers.cfm?abstract_id=2421405 https://papers.ssm.com/sol3/papers.cfm?abstract_id=3020503

https://weis2017.econinfosec.org/wp-content/uploads/sites/6/2019/05/WEIS_2019_paper_38.pdf

https://assets.publishing.service.gov.uk/media/5efc57ed3a6f4023d242ed56/Final_re-

port_1_July_2020_.pdf

Publishers could, of course, attempt to generate revenue in other ways: "With the market for our behavioural data mostly shut off, social media platforms and other free apps would have to come up with ways to replace lost ad revenues." Alternatives to the ad-funded business model could include different kinds of user payments, e.g. premium subscription models and/or pay-walls.

However, if/where consumers are not willing to pay for the content, then some publishers could simply be forced to exit the market and/or downscale their business. This scenario is not far-fetched given empirical evidence on EU consumer/user preferences. In fact, a recent study by IAB Europe finds that a large set of consumers do indeed have a low willingness to pay for the content that they currently get for free: "a majority of Europeans surveyed would expect to pay less than €4 per month for most of the web services they currently use." A study by Pinar Akman (2021) similarly found that around 80 percent of consumers would not be willing to pay for the free services provided by search engines and Facebook.¹²

¹⁰ Wired (2020), Gilad Edelman, https://www.wired.com/story/why-dont-we-just-ban-targeted-advertising/

https://iabeurope.eu/wp-content/uploads/2021/04/IAB-Europe_What-Would-an-Internet-Without-Targeted-Ads-Look-Like April-2021.pdf

Pinar Akman (2021), A Web of Paradoxes: Empirical Evidence on Online Platform Users and Implications for Competition and Regulation in Digital Markets. Figure 19.

Whilst some larger publishers (e.g. larger news sites) might be able to charge for their content, smaller and/or niche publishers (SMEs) might be particularly challenged by the transition to a subscription-based business model (e.g. if/where consumers are less willing to pay for a website that they only use occasionally).

In addition to publishers, other businesses that generate revenue via digital advertising would be similarly negatively impacted. For instance, ad agencies and ad tech companies currently support the digital ad market by facilitating the match between publishers and advertisers. With fewer and/or less valuable ads, these firms would also face reduced revenues.

2. Reduced personalised advertising would harm consumers in several ways

Although the policy proposals under discussion have been designed with the intent to benefit consumers, it is in practice unclear whether consumers would actually experience net benefits from (all/any of) the regulatory proposals under consideration. This is because a reduced use of personalised advertising could also be associated with consumer harms which might outweigh any benefits. We have identified at least three channels via which reduced personalised advertising could harm consumers: a) consumers would lose access to valuable free content, b) consumers would become less informed and make worse purchasing decisions, and c) consumers would suffer from less competitive markets.

A. Consumers could lose access to valuable free content

Because reduced personalised advertising would harm publishers' ability to generate revenues, as explained above, consumers might lose access to some of the free content that is currently funded by advertising. As explained by the CMA: "Platforms funded by digital advertising provide highly valuable services, allowing people to find information in an instant and connect with family and friends from around the world – all at no direct cost to the consumer." Consumers would be harmed either if they have to pay for content that they previously got for free and/or if publishers cannot generate enough revenue to sustain their business and are thus forced to either leave the market or down-scale their activities.

Free online services provide a lot of value to consumers. Brynjolfsson *et al.* (2018) find that the median consumer values the use of free services funded by advertising, such as search engines and social media, at several hundreds or even thousands of dollars a year.¹⁴

An IAB Europe study found that 75 per cent of Europeans prefer the current commercial model for the internet, which is funded largely by targeted advertising, compared to a scenario where a majority of sites and apps fund themselves through subscriptions.¹⁵

CMA (2020), Online platforms and digital advertising market study, https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study

 $^{^{14} \}quad https://www.brookings.edu/wp-content/uploads/2020/01/WP57-Collis_Brynjolfsson_updated.pdf$

Survey respondents were asked the question: "Which version of the internet would you prefer?" and could choose between: a) "No targeted ads with most content paid for" and b) "Today's internet with mostly free content and targeted ads". 75 per cent chose option b. See IAB Europe (2020), What would an internet without targeted ads look like?, https://iabeurope.eu/wp-content/uploads/2021/04/IAB-Europe_What-Would-an-Internet-Without-Targeted-Ads-Look-Like April-2021.pdf

B. Consumers would become less informed and make worse purchasing decisions With reduced personalised advertising, consumers would be exposed to fewer and/or less relevant (non-personalised) ads. Consumers would thus become less informed and/or face increased search costs. As explained by economist Shapiro: "[A]dvertising does serve a useful social function; it informs customers about brands' characteristics, and improves the matching of consumers and products." Less informed consumers would be worse off for two reasons:

- 1. Consumers might not buy the *right* products, leading to sub-optimal matches between consumers and products. Advertising generally improves consumers' decision quality (in that they find it easier to match heterogeneous brands to their personal tastes). More specifically, match quality is generally higher in markets with personalised ads: "*Targeted ads are directed at a specific subset of consumers who are believed to be particularly interested in the firm's product. Consumers receiving targeted ads will on average find them more "relevant" compared to untargeted ones, and spend less time searching for firms and their products to match their interests. Thus, targeting benefits the consumer because it effectively reduces their search costs." 19*
- 2. Consumers might not buy any product at all. According to the *informative view*, advertising enables consumers to become aware of products that they want/need: "When a firm advertises, consumers receive at low cost additional direct (prices, location) and/or indirect (the firm is willing to spend on advertising) information. The firm's demand curve becomes more elastic, and advertising thus promotes competition among established firms." Consumers would be worse off if/where they never discover or become interested in products that would otherwise have delivered positive surplus (i.e. where the value of the product to the consumer would have exceeded its price). This applies to commercial products and services but also to non-commercial advertising (i.e. consumers would also be worse off if they forgo relevant information about e.g. upcoming events and local campaigns which non-commercial advertisers might otherwise have provided via personalised advertising).

C. Consumers would suffer from less competitive markets

More generally, advertising helps to facilitate good outcomes for consumers by supporting competitive markets. As remarked by Nobel Laureates Kenneth Arrow and George Stigler: "Advertising is a powerful tool of competition. It provides valuable information about products and services in an efficient and cost-effective manner. In this way, advertising helps the economy to function smoothly—it keeps prices low and facilitates the entry of new products and new firms into the market."²¹

^{&#}x27;Search costs' refers to the time that consumers must spend collecting information about relevant products and services before making a purchasing decision. Advertising reduces consumers' search costs by providing information on price dispersion, see Stigler (1961, The Economics of Information, The Journal of Political Economy).

¹⁷ Grossman Shapiro (1984), Informative Advertising with Differentiated Products, The Review of Economic Studies, p. 77.

Lynch and Ariely (2000), Wine Online: Search Costs Affect Competition on Price, Quality, and Distribution, Marketing Science, Vol. 19, p. 86.

Yan Lau (2020), A Brief Primer on the Economics of Targeted Advertising, Bureau of Economics Federal Trade Commission, p.5.

²⁰ Handbook of Industrial Organization (2007), Volume 3, North-Holland, p. 1706.

Launch! Advertising and Promotion in Real Time (2012), Saylor Academy, Chapter 3.1.

Reduced personalised advertising could thus lead to weakened competition and result in less choice and/or higher prices for consumers. There are two ways in particular in which reduced advertising would hinder the competitive process.

Firstly, and as explained in the next section, reduced personalised ads could harm competition by impairing firms' ability to launch new products, *de facto* resulting in increased barriers to entry on many markets across the economy and weakened competition. As explained by the OECD: "[...] restrictions on advertising generally have the potential to reduce information flows and adversely affect competition and consumer welfare."²²

Secondly, reduced personalised ads could also harm competition by making consumers less informed and thus less able to accurately compare different providers and offers. Several studies show that a reduction in the amount of advertising can for this reason be associated with higher prices.²³

3. Reduced personalised advertising would harm firms' ability to generate sales and enter new markets

Firms on many markets across the economy (fast-moving consumer goods, cars, luxury goods, services, etc.) use advertising to compete for the spending power of consumers via brand awareness and differentiation. A reduced ability or incentive to make use of personalised advertising would make it more difficult for firms to run a profitable business. We have identified two primary channels via which reduced personalised advertising could harm firms across the economy: a) firms would have a reduced ability to retain and increase volumes, and b) firms would have a reduced ability to enter new markets.

A. Firms would have a reduced ability to retain and increase volumes

Personalised ads enable firms to address the consumers who they expect to be most interested in their products. This in turn generates sales. As explained by the CMA: "Overall, more relevant and better targeted adverts, through personalisation, can be expected to result in more purchases, increasing consumer and producer welfare as a result." This is also supported by a statement from industry organisations in Spain, Portugal, Italy and Greece: "European companies, both large and small, use online tools to help grow their businesses more easily and at a lower cost. For example, digital advertising helps companies of all sizes find new customers around the world." ²⁵

In practice, a reduced ability or incentive to engage in personalised ads would thus stifle demand on any market where personalised ads otherwise contribute to stimulating volumes. As explained by Brian Titley for the UK Department of Business, Energy and Industrial Strategy: "The most immediate and initially unavoidable impact of industry compliance with measures such as a ban on advertising or a relaxation of controls on trading hours will be on consumer demand and sales. This

OECD (2019), Competition Assessment Toolkit: Volume 2 Guidance, p. 52, https://www.oecd.org/daf/competition/45544507.pdf

²³ See Kwoka et al. (1980), Staff Report on Effects of Restrictions on advertising and commercial practice in the professions: the case of optometry, Federal Trade Commission; Rauch (2011), Advertising Expenditure and Consumer Prices; Yan Lau (2020), A Brief Primer on the Economics of Targeted Advertising, Bureau of Economics Federal Trade Commission.

²⁴ CMA (2020), Online platforms and digital advertising market study, para 4.20, https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study

IAA Italy chapter (2021), IAB Spain, IAB Portugal, IAB Greece, Netcomm, AEA, UNA, "Manifesto in favour of digital advertising", https://f.hubspotusercontent30.net/hubfs/5264884/Manifesto_DSA.pdf?utm_me-dium=email&_hsmi=122176245&_hsenc=p2ANqtz-9NsL8M1kjFERHVNeJoft2tTbgv5Iezrf1Ikemhk7RHOnd-QGTbp6n1DWpD12I_pQE3dojJd4z7acNIRppuehFi8VbBOiA&utm_content=122176245&utm_source=

will be reflected in a shift to the left in the market demand curve in the regulated market."²⁶ Empirical evidence supports the notion that less advertising does indeed lead to lower volumes.²⁷

Firms would not be able to effectively compensate for a reduction in the use of personalised advertising by using non-personalised advertising, such as 'contextual' digital advertising²⁸, or traditional advertising (such as TV). This is because:

- Non-personalised digital ads are less effective. According to an industry survey by IHS
 Markit from 2017, personalised ads have a 5.3 times higher click-through rate compared to
 non-personalised ads.²⁹
- Traditional advertising channels, such as TV and print, are also less effective. This is because firms are essentially forced to show an ad to a larger audience in order to reach the consumers of interest. Evidence also suggests that offline advertising does not provide the same return on marketing investment as online advertising.³⁰

Without the ability to specify their target audience, firms would have to spend more money on advertising (since they would have to also buy ads for users beyond their target audience). In other words, firms would have to buy more ads to achieve the same levels of relevant exposure.

SMEs in particular might suffer from the transition to non-personalised ads since a) they would increasingly have to compete with larger firms for the same ad space (without being able to segment their specific consumers of interest), and b) they might have a smaller advertising budget (and thus be more squeezed by an increase in marketing expenses).

Smaller firms that provide a niche product or service might also be particularly harmed by stifled demand as personalised ads in some cases otherwise enable smaller firms to reach minimum viable scale by aggregating a dispersed group of consumers (across geographic locations, demographics, interests, etc.).

Apart from commercial advertisers, reduced personalised advertising could also harm non-commercial entities. Non-commercial organisations that use personalised ads could include public sector bodies (e.g. a health authority looking to promote a certain agenda), cultural organisations (e.g. museums looking to promote an exhibition), or local / community groups (e.g. a scouts group looking to advertise a local fair). Many of these entities may be particularly budget-constrained and thus also particularly unable to compensate for a reduced ability to employ personalised ads.

²⁶ Titley, B (2017), Evaluating costs and benefits for regulatory purposes: Direct and indirect impacts of regulation on business

Dubois et al. (2018) find that a ban on advertising of potato crisps would lead to a reduction in volumes of 10-15%: "This column examines the likely effect of a ban on potato crisp advertising. Results suggest that the total quantity of crisps sold would fall by around 15% in the presence of a ban, or by 10% if firms respond with price cuts." Dubois et al. (2018), The Effects of Banning Advertising in Junk Food Markets, The Review of Economic Studies, Volume 85, Issue 1.

²⁸ Contextual advertising does not make use of any data about the specific user, but rather shows the same ad to all users that visit the same page, or search for the same keywords.

²⁹ See IHS Markit (2019), The economic value of behavioural targeting in digital advertising, p.3, https://iabeurope.eu/wp-content/uploads/2019/08/BehaviouralTargeting_FINAL.pdf

See Paul Sinkinson, Analytic Partners, presentation for IAB (2018, slides 18, 27, 30, http://think.storage.goog-leapis.com/docs/analytic-partners-deck.pdf) and Cap Gemini Partners (2017, Role of Digital in Media Mix: Understanding Digital Marketing and Getting it Right, Figure 2 and 6, https://www.capgemini.com/wp-content/uploads/2017/07/digital_marketing25-06.pdf).

B. Firms would have a reduced ability to enter new markets

Advertising also plays an important role for firms looking to enter a new market or launch a new product. As explained by economist Tesler: "Advertising is frequently a means of entry and a sign of competition."³¹ Various studies from the marketing literature find that advertising is an important component of a successful launch strategy.³²

Personalised advertising specifically can be used to ensure that new products can get a foothold on a market, thus overcoming entry barriers. As explained by Deloitte: "Advertising funded platforms such as Google and Facebook, help to [...] Reduce barriers to entry into new markets, by providing SMEs with an effective low-cost tool to promote products and acquire customers through search and display advertising".³³

Any policy proposal that reduces the ability or incentive of firms to engage in personalised advertising could thus inadvertently increase barriers to entry on markets across the economy where personalised ads otherwise facilitate entry. As explained by the CMA: "Advertising provides an important means by which suppliers promote their products and by which they differentiate their product from those of their rivals. Restrictions on advertising may limit competition, particularly if they deter new entrants because they would be unable to make consumers aware of their new products."³⁴ The OECD similarly notes: "Regulations on advertising may also help to restrict the entry of new firms by reducing their ability to create brand awareness."³⁵

The incentive to even develop or attempt the launch of a new product could be diminished if it were apparent that there would be a reduced opportunity to deliver a successful launch. Thus, some products might not even make it to the market in the absence of personalised ads.

Various forms of DSA regulation could disincentivise personalised ads

In the previous sections, we have described the potential harms associated with a reduce use of personalised ads. It is immediately apparent how an outright ban on personalised advertising would reduce the use of personalised ads. However, even less explicitly restrictive rules could also in practice disincentivise the use of personalised ads and thus reduce their use.

For example, Articles 24 and 30 of the December 2020 draft of the DSA nominally impose only transparency obligations, describing how online platforms should share information about advertisers and the 'main parameters' used for personalisation (or 'targeting'). However, these rules could nevertheless reduce the use of personalised ads by revealing information that is commercially sensitive regarding advertiser marketing strategy.

Telser, L. (1964). Advertising and Competition. Journal of Political Economy, 72(6), 537-562.

[&]quot;From previous research it follows that high advertising expenditure influences line extensions' success positively. [...]
advertising is a prime success factor for any new product (Kotler, 1997; Cooper, 1994)" (see Nijjsen (1999), Success factors of line extensions of fast-moving consumer goods, European Journal of Marketing 33). "Several tactical activities were related to successful launches: high quality of selling effort, advertising, and technical support; good launch management and good management of support programs; and excellent launch timing relative to customers and competitors." (see Benedetto (1999), Identifying the Key Success Factors in New Product Launch, Journal of Product Innovation Management 16).

³³ Deloitte (2017), The economic contribution of advertising in Europe: A report for the World Federation of Advertisers

³⁴ CMA (2015), Competition impact assessment

OECD (2019), Competition Assessment Toolkit: Volume 2 Guidance, p. 52, https://www.oecd.org/daf/competition/45544507.pdf

In particular, the requirements imposed by Article 30(2)(d-e) suggest that online platforms would be required to disclose a significant amount of information that are key elements of advertisers' strategies such as the target market and metrics of targeted audience reached.

It can be crucial for companies to keep such commercially sensitive information secret. Firms will invest in advertising only if they can make a return on investment, e.g. if they can increase sales by appealing to a certain segment in a certain way before competitors. Increased transparency could undermine the ability to make a return because competitors would easily be able to observe and copy marketing strategies (thus undermining any first-mover benefits). ³⁶ ³⁷

A degree of commercial confidentiality relating to advertising strategy (e.g. which consumers to target and how) is thus important to ensure that businesses can profit from their marketing investment. If the ability to make a return were undermined by transparency obligations, the incentive to engage in personalised ads would be reduced.

Although there could be good arguments in favour of increased transparency in certain contexts, such as in user-facing contexts and/or political advertising, it is also unclear which benefits to end users would be generated by the aggregated ad database specified in e.g. Article 30, particularly in the context of commercial advertising.

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The first-mover advantages associated with advertising are e.g. described in Lieberman and Montgomery (1988), First-Mover advantages, Strategic Management Journal; Lieberman and Montgomery (1998), First-Mover (Dis-)Advantages: Retrospective and Link with the Resource-Based View, Strategic Management Journal; and Corporate Finance Institute, https://corporatefinanceinstitute.com/resources/knowledge/strategy/first-mover-advantage/

^{37 &}quot;If inventors or innovators could not rely on some means to protect the knowledge they create, they would be at a disadvantage compared to their rivals that did not incur the costs of creating that knowledge. Such rivals could free ride on the innovation expenses of the innovators and imitate the new product/process at zero cost." (European Union Intellectual Property Office (EUIPO), 2017, Protecting innovation through trade secrets and patents: determinants for European Union firms, p.11)

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