Computer & Communications Industry Association
Tech Advocacy Since 1972

CCIA Comments on the Interim Report on Evaluation of Competition in the Digital Advertising Market from the Headquarters for Digital Market Competition of the Cabinet Secretary

25 July 2020

1. Introduction

The Computer & Communications Industry Association (CCIA) welcomes the opportunity to submit comments to the Headquarters for Digital Market Competition of the Cabinet Secretary (the "DMCH") relating to the interim report on "Evaluation of competition in the digital advertising market" (the "Interim Report").

CCIA represents large, medium, and small companies in the high technology products and services sectors, including computer hardware and software, electronic commerce, telecommunications, and Internet products and services[1]. Our members employ more than 750,000 workers and generate annual revenues in excess of $540 billion. CCIA remains committed to protecting and advancing the interests of our members, the industry as a whole, as well as society's need to benefit from the positive contributions that the digital economy can make.

CCIA's members are leading innovators of what some refer to as the 'digital economy'. Many operate so-called multi-sided business models, where it is often the advertising revenue generated on one side of the business that funds the innovations valued by consumers. Others offer more traditional services and products online, using advertising to enhance consumer

[1] A complete list of CCIA's members can be found here: http://www.ccianet.org/about/members/.

experience. Many advertising services offered by CCIA's members create benefits and efficiencies for both consumers and advertisers alike.

There are numerous stakeholders that play an important role in the advertising sector since the Internet has offered a plethora of new, digital advertising opportunities including to those actors that have previously operated solely offline. When analyzing the digital advertising industry, CCIA encourages the DMCH to focus on all relevant stakeholders including, for example, key market players with not so familiar names such as Criteo, index Exchange, MediaMath, OpenX, or Telaria, who operate important scaled businesses. Focusing exclusively on the so-called 'digital platforms', a term which emcompasses a great variety of business models that operate in their own unique form in numerous and different online and offline sectors, would not be representative of the ad-tech ecosystem.

CCIA's analysis of the advertising industry proves that the advertising ecosystem has never been as dynamic as it is today with many online as well as offline channels fiercely competing for advertisers' money. CCIA is concerned with the mischaracterizations that the Interim Report contains regarding the digital advertising industry and possible regulatory action that the DMCH might pursue to address the purported challenges. CCIA agrees with the DMCH that principles such as fairness and transparency should govern the digital advertising space. That said, it is also important to highlight that the digital advertising sector is key in sustaining a free and open Internet, and interventions that overreach legitimate objectives might be harmful to innovation to continue to happen in the web. The implications of unilaterally regulating the digital advertising sector in Japan could not only have substantive negative consequences for Japanese consumers and businesses that have been able to benefit from the digital space, but could also raise trade conflicts by create regulatory asymmetries that would only act as a barrier to entry in the Japanese market, hindering innovation.

2. Preliminary Considerations Regarding Market Dynamics

Competition for consumer attention, and in turn, advertising revenue, remains fierce between mediums such as online and offline advertising. In fact, most advertisers and agencies use a mix of different media as the most effective way to reach a target audience and oftentimes switch between suppliers. Different media, both online and offline, compete with one another for consumer attention and ad spend. Advertisers focus on their goals (reaching audiences, ROI, etc.), not on artificial distinctions based on media. Therefore, any competition analysis in this sector should comprise relevant stakeholders that include online and offline mediums.

Advertising has long been used by many businesses, including multi-sided business models such as newspapers to financially support non-advertising services such as news media, television, social media or search engines. These business models that have long existed garner greater attention in the digital world thanks to innovation that has made advertising a more valuable tool for consumers and businesses.

According to David Evans, Professor of Law at the University of Chicago and University of College London, 24 percent of a 100 dollar advertising campaign is spent online, while the rest is spent on television, print, outdoor/billboard, radio and other advertising vehicles.[2] As Evans puts it, "advertisers base decisions about the level and allocation of their budgets on formal or informal analyses of the rate of return on investment". In Japan, data shows that traditional and online advertising compete against each other, the former being more used than the online channels. Therefore any requirements on companies operating in the digital space should

[2] David Evans, *Antitrust Issues Raised by the Emerging Global Internet Economy*, 102 Northwestern U. L. Rev. Colloquy 285 (2008) https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1095&context=nulr_online.

equally be considered for companies operating in other advertising mediums. In this respect, the Interim Report only focuses on the digital segment of the advertising sector failing to analyze the full market forces that characterize the advertising space as shown in Annex 1.[3]

In addition to competition between online and offline advertising, operators compete within the digital advertising sector with a variety of services for user attention in the digital space, all of which have the opportunity to display relevant advertising. This includes services such as messaging, gaming, streaming, various search engines, social media, and video, some of which can be displayed on various mediums including desktop, mobile, and with new mediums appearing regularly.[4] The Interim Report also presents limits with respect to its analysis as it does not include these other mediums where digital advertising takes place.

With respect to the classification of advertising, the Interim Report is limited with respect to describing the value that digital advertising such as targeted advertising has created for consumers and businesses alike.[5] Targeted advertising, which is advertising that allows companies to present an ad campaign to a relevant audience, is found both online and offline; this creates higher efficiencies for advertisers in addition to increased consumer welfare, since consumers prefer personalized and relevant ads.[6] As a result, targeted advertising has spread to mediums such as television and billboards.

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[3] Kay Jebelli, *Evolution of Ad Spend and the Dynamics of Digital*, Disruptive Competition Project (May 4, 2020), http://www.project-disco.org/competition/050420-evolution-of-ad-spend-and-the-dynamics-of-digital/.

[4] Ed Black, *"News Corp. Enters Competitive Advertising Market, While Denying It Is Competitive,"* Huffington Post (May 24, 2017), *https://www.huffpost.com/entry/news-corp-enters-competitive-advertising-market-while_b_592593e6e4b09c5b6bf92d79*.

[5] For additional data on the value created by targeted advertising, please see CCIA's supplemental submission to the UK Competition and Markets Authority's online platforms and digital advertising submission, https://www.ccianet.org/wp-content/uploads/2020/05/CCIA%E2%80%99s-Supplemental-Submission-to-the-UK-CMA-on-Digital-Advertising-12-May-2020.pdf

[6] Holly Paucer, *71% of Consumers Prefer Ads*, Adlucent (May 12, 2016), https://www.adlucent.com/blog/2016/71-of-consumers-prefer-personalized-ads.

Tyler Cowen, professor of economics at George Mason University, argues that not only is advertising competitive across formats, but that companies like Google and Facebook are helping disrupt monopolies in other sectors:

> Then there's the digital advertising industry that the two companies lead. But that's not a monopoly, either: Google as an advertising platform still competes with Facebook, television, radio, circulars, direct mail and, for that matter, e-mail and word of mouth. Insofar as Google has taken a big share of the ad market, it is because its ads are cheaper and better targeted than alternatives. When it comes to ads, Google is fundamentally a price-lowering institution for small and niche businesses that can now afford more reach for less than ever before. By boosting small startups elsewhere in the economy, Google and Facebook actually serve as major forces acting against monopolies in other sectors.[7]

New technologies and innovation will continue to disrupt the advertising marketplace. For example, television advertising will increasingly take advantage of new tools such as granular set-top box data to personalize ads to the viewer.[8] It is important, therefore, to acknowledge that the advertising sector comprises online and offline channels and that new mediums will have to be taken into account as innovation continues to open new mediums for advertising campaigns to be launched. In essence, advertising depends essentially on consumers' attention, and companies engaging in advertising campaigns compete for attention across a variety of channels including some of which were unthinkable years ago, e.g. smart speakers and digital billboards.

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[7] *See* Tyler Cowen, *Breaking Up Big Tech Would Be A Big Mistake*, The Globe & Mail (Apr. 12, 2019), https://www.theglobeandmail.com/opinion/article-breaking-up-big-tech-would-be-a-big-mistake/.

[8] *See e.g.* Jeanine Poggi, *Here's How AT&T's Xandr and Turner Plan to Work Together in 2019*, AdAge (Jan. 8, 2019), https://adage.com/article/media/xandr-turner-plan-fix-tv-advertising-2019/316160; Sara Fischer, *The future of TV advertising is here--and it involves targeting the specific interests of viewers*, Business Insider (Jan. 25, 2019), https://www.businessinsider.com/future-of-tv-advertising-targeting-the-specific-interests-of-viewers-2019-1.

3. Transparency and Digital Advertising

The DMCH's Interim Report raises concerns relating to transaction transparency in the digital advertising sector. When confronting these transparency concerns, CCIA suggests that the DMCH perform a holistic analysis taking into account the tradeoffs between requirement enhanced transparency in the digital advertising space and the risks of limiting innovation or competition in the digital advertising space that has substantially reduced costs of advertising campaigns for businesses. Restrictions on the use of computer and machine learning and data analytics that characterize the digital advertising sector in the name of transparency would have a net adverse impact on innovation and consumer rights and opportunities.

Regulating nascent sectors such as digital advertising space, particularly without a sound evidence base of proven consumer harm, will stifle innovation and distort markets.[9] For example, the EU's recently imposed General Data Protection Regulation (GDPR) has multiple restrictions on data processing and use of data that pose a threat to innovation in AI and machine learning.[10] CCIA understands that the digital advertising sector is a complex ecosystem and suggests that the DMCH engages in further research before adopting restrictive regulations that, as mentioned earlier, would impair innovation.

[9] Yale Information and Society Project, Governing Machine Learning: Exploring the Intersection Between Machine Learning, Law, and Regulation (2017), *available at* https://law.yale.edu/system/files/area/center/isp/documents/governing_machine_learning_-_final.pdf ("There was, however, a general awareness on the part of participants that creating new regulatory burdens without sufficient thought, or at too early a time in the development of ML, could negatively impact the potential benefits of the technology. Creating a framework for how to think about these issues was therefore deemed critical.").
[10] Nick Wallace & Daniel Castro, *The Impact of the EU's New Data Protection Regulation on AI*, Center for Data Innovation (Mar. 27, 2018), *available at* http://www2.datainnovation.org/2018-impact-gdpr-ai.pdf.

At the same time, consumer-facing transparency in digital advertising data flows and processing practices can support consumer trust and increase the effectiveness of advertisements.[11] Organizations are responding to consumer interests by developing new tools to give consumers granular insights into digital advertising practices, such as Facebook's recently launched "Off-Facebook Activity" feature.[12] Therefore, ad networks are continuing to innovate in supporting consumer transparency and control over the ads they receive, which may be deleteriously impacted by the imposition of prescriptive requirements.

a) Digital Advertising and Value Creation

Online advertising is able to compete with traditional advertising because it has generated unprecedented advantages for businesses and end consumers alike. The advertising business model that characterizes many of the digital companies helps to ensure that the right incentives exist for these companies to continue to invest in providing consumers with a positive experience. Advertisers value digital advertising platforms because they reach many people; in turn, these platforms reach many people because they provide highly desirable content or services. This is possible due to the financial support many of these companies obtain from digital advertising, which enables them to significantly invest in R&D.[13]

Digital advertising has become a personalized advertising channel thanks to behavioral advertising powered by data analytics. In fact, targeted advertising is now ubiquitous throughout

[11] Tami Kim, Kate Barasz, & Leslie K. John, "Why Am I Seeing This Ad? The Effect of Ad Transparency on Ad Effectiveness," Journal of Consumer Research (Feb. 2019), https://www.hbs.edu/faculty/Pages/item.aspx?num=54407

[12] Keir Lamont, "Facebook Debuts Long Anticipated 'Off-Facebook Activity' Feature," Disruptive Competition Project (Aug. 20, 2019), https://www.project-disco.org/innovation/082019-facebook-debuts-long-anticipated-off-facebook-activity-feature/.

[13] David Balto, *Internet Search Competition: Where Is The Beef?* DC Antitrust Law (June 24, 2011), http://www.dcantitrustlaw.com/assets/content/documents/googlesearchfinal-Balto.pdf.

the digital advertising space (and increasingly throughout advertising), offering businesses a more efficient channel for reaching out to interested customers. As a result, targeted advertising and the pay-per-click model (rather than per-impression) allows advertisers, including smaller ones, to maximize returns from their campaign, that can be clearly tracked thanks to analytical tools applied to digital advertising. At the same time, individuals receive relevant advertising tailored to their own needs. For publishers, digital advertising has become a key revenue stream for them allowing them to maximize the yield from their inventory, and to realize profits per impression. In this regard, in the UK, Plum Consulting estimates that publishers receive on average £0.62 of every pound an advertiser spends on programmatic display advertising.[14]

Therefore, the digital economy has improved the advertising experience for all stakeholders involved and ushered in competitive pressure to the entire advertising marketplace to evolve. Thanks to ad-supported business models, consumers enjoy highly valued goods and services for a lower price, oftentimes even for free. By the same token, through this model, customers are also able to have access to ad campaigns in the digital space for a lower price, since advertising offers have increased in the digital space and more competition brings tailor-made offers to advertisers and individuals willing to advertise themselves. Other businesses may use advertising to support their main commercial activities, distinct from business models whose primary source of revenue may come from advertising. For example, advertising services can be offered to help find, attract, and engage with new and existing customers, thereby improving their experience by helping them to more easily find the products and services they are looking for.

[14] *See* Plum Consulting, *Online Advertising in the UK* (2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/777996/Plum_DCMS_Online_Advertising_in_the_UK.pdf; Gerry Smith & Mark Bergen, *Google Sweetens Deal with Publishers*, Bloomberg (Mar. 20, 2018), https://www.bloomberg.com/news/articles/2018-03-20/google-said-to-sweeten-deals-with-publishers-as-tech-woos-media.

Studies have shown that consumers prefer to receive ads instead of paying for online services. For example, as recently highlighted by the United States Department of Justice Assistant Attorney General Makan Delrahim, nearly 80 percent of respondents in one study reported in Recode represented that they would choose an ad-supported Facebook over paying $1/month.[15] Furthermore, thanks to the investments in technology, consumers usually receive advertising relevant to them, as targeted advertisements have become extremely accurate. A more personalized experience as a result of targeted advertisements is highly valued by consumers.[16] Another study by Erik Brynjolfsson found that free, ad-supported digital goods generate a large amount of consumer welfare, with the median Facebook user would need a compensation of around 48 USD to give the service up for a month.[17]

Advertisers continue to purchase advertising on various media operators which serve different purposes. However, it is important to bear in mind that different advertising channels often compete against each other. Even if online advertising offers unprecedented opportunities to businesses due to its personalization feature, it is important not to analyze this medium in an isolated bucket — a convergence of the different channels is actually what is taking place in reality, as further explained below.

b) Fraud in the Digital Advertising Space

The Interim Report devotes a substantial part of its analysis to addressing privacy risks. More specifically, the DMCH is concerned with fraud occurring in the digital advertising space. CCIA

[15] Makan Delrahim, *Assistant Attorney General Makan Delrahim Delivers Remarks at the Antitrust Division's Public Workshop on Competition in Television and Digital Advertising*, U.S. Dept. Justice (May 2, 2019), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-antitrust-divisions-public.
[16] *Id.*
[17] Erik Brynjolfsson, Avinash Collis, & Felix Eggers, "Using massive online choice experiments to measure changes in well-being," PNAS (Apr. 9, 2019), https://www.pnas.org/content/116/15/7250.

agrees with the DMCH that risks in the digital advertising space exist, in a similar way that risk exists in the offline world. However, CCIA is of the view that data collection, analysis and sharing backed by AI systems are already enabling businesses to measure performance metrics, reduce fraud, and optimize real-time bidding processes.[18] Furthermore, players throughout the digital ad ecosystems are increasingly adopting standards for supply chain transparency to help detect and prevent fraud in the digital advertising space.[19]

Algorithmic decision-making, AI, and predictive analytics allow businesses to make more intuitive, data-driven decisions, from better matching products and services to consumers, to creating opportunities in education, finance, healthcare, and employment[20] for low-income and underserved communities.[21] In particular, these technologies can improve outcomes in the consumer advertising and marketing space, providing consumers with information more relevant to their interests and needs, and increasing the likelihood of a completed transaction. The potential applications of AI extend beyond consumer advertising and marking, including: improved image recognition; automatic video captioning; expedited content moderation; enhanced medical diagnosis; spam and malware detection and filtering; and better detection of patterns in satellite imagery to improve agriculture and transit.

[18] *How Digital Advertising Can Benefit From the Growth of AI*, IAS Insider, https://insider.integralads.com/digital-advertising-can-benefit-growth-ai/ (last visited July 20, 2018).
[19] Interactive Advertising Bureau, "Internet Advertising Revenue Report" (Oct. 2019), https://www.iab.com/wp-content/uploads/2019/10/IAB-HY19-Internet-Advertising-Revenue-Report.pdf.
[20] *See e.g.*, Rebecca Greenfield & Riley Griffin, *Artificial Intelligence Is Coming for Hiring, and It Might Not Be That Bad*, Bloomberg(Aug. 8, 2018), https://www.bloomberg.com/news/articles/2018-08-08/artificial-intelligence-is-coming-for-hiring-and-it-might-not-be-that-bad; Elizabeth Woyke, *AI Can Now Tell Your Boss What Skills You Lack—And How You Can Get Them*, MIT Technology Review (Aug. 7, 2018), https://www.technologyreview.com/s/611790/coursera-ai-skills/.
[21] FTC, Big Data: A Tool for Inclusion or Exclusion (2016), *available at* https://www.ftc.gov/system/files/documents/reports/big-data-tool-inclusion-or-exclusion-understanding-issues/160106big-data-rpt.pdf.

As with all data-intensive technologies, it is important to ensure that in algorithmic decision-making, consumer data is collected responsibility and adequately secured. Algorithms and predictive tools should be accountable, so that they do not exacerbate bias or produce discriminatory outcomes, or limit competition.

Algorithmic and AI-enabled decision-making systems pose similar risks to other data-intensive technologies. Several academics, building on the work of Daniel Solove, have identified the privacy risks in the algorithmic space, including: exclusion in information processing, a lack of data subject disclosure and control in processing, and reputational distortion.[22] Some automated decision-making systems may also pose the risk of inadvertent disclosure of an individual's personal information or protected status.[23]

These privacy risks can generally be mitigated through traditional privacy- and security-by-design methods of product and service development. Businesses should ensure that privacy risks are considered in the collection and use of data. This means that data used for automated decision-making processes, namely those powered by machine learning algorithms, is: (1) lawfully collected and used; (2) securely stored; and (3) representative of the population that these decisions will be applied to. Businesses should: (1) detect and mitigate biases in their systems before rolling out their products; (2) invest in and apply—whenever possible—sound measures to de-identify the data used to train algorithmic model; and (3) provide users with control over and meaningful transparency about algorithmic decision-making processes.

c) Increased Price Transparency and Third Party Metrics

[22] Joshua A. Kroll, Joana Huey, Solon Barocas, *et al*., *Accountable Algorithms*, 165 U. Pa. L. Rev. 633 (2017), *available at* https://scholarship.law.upenn.edu/penn_law_review/vol165/iss3/3/.
[23] *Id*.

The Interim Report advocates for increased price transparency as well as for standardization of ad metrics that third parties can use to inform their business decisions. However, it is CCIA's view that both of these suggestions could negatively impact market competition enabling collusive practices to take place in the digital advertising space and undermining the intense competition that characterizes the advertising sector.

Firms' use of algorithms to set prices should be generally seen as an efficient way to increase market competition to the benefit of consumers. It is regular practice for firms to monitor competitors' prices and adapt accordingly in order to compete. Therefore, the use of price algorithms injects dynamism in the markets as it allows firms to adapt price setting rules more rapidly. There is no special characteristic of firms' usage of price algorithms to compete that elicits changes to the current competition framework. Nothing about the use of algorithms confers immunity from antitrust law. As illustrated, price algorithms are mostly pro-competitive. In the limited instances where firms could use algorithms to the detriment of consumer welfare, these actions can be addressed using current antitrust enforcement tools.

Price discrimination and dynamic pricing, or the capacity to change and adapt prices in view of evolving estimates of the supply and demand relationship for a particular product, is pro-competitive. Pricing algorithms allow firms to engage in price discrimination and dynamic pricing in a more efficient manner to respond more quickly to changes in the market, increasing price competition. Additionally, the use of algorithms can help firms to allocate resources more efficiently. Allocative efficiencies bring generally positive outcomes that benefit consumer welfare. Finally, firms can use competitors' pricing as an input to optimize their own pricing algorithm and offer more competitive prices to customers, again increasing market competition to the benefit of consumers.

Furthermore, price algorithms are used by firms in a pro-competitive manner by engaging in aggressive competition. Firms could use pricing algorithms to undercut rivals, and/or to engage in disruptive pricing strategies, that would lead to market changes that will ultimately benefit consumers. While the use of algorithms based on competitors' data is generally considered pro-competitive, concerns have been voiced that the increased price transparency online can enable tacit collusion and/or help firms to engage in illegal agreements. In this respect, demanding even more transparency with regards to digital advertising pricing online could undermine companies' incentives to compete to the detriment of consumers.

Similarly, companies in the advertising industry offer different metrics related to their services that allow them to compete on terms different to price. This is the reason why the Interim Report's concerns with regards to the lack of uniformity across different digital advertising service providers with respect to metrics ignores the important fact that differentiation in the metrics space is a competition parameter in the digital space.

4. Data Utilization

Use of data collection and data analytics to accurately provide consumers with a personalized experience is a distinguishing characteristic of the digital advertising space, and is attracting the attention of many competition authorities. The DMCH is no exception to this trend, and the Interim Report raises concerns around the anticompetitive effects that the access to data by digital platforms have in acting as a barrier to entry for other ad-tech companies to compete in the data-driven digital advertising segment.

CCIA believes that the type of broad concern as highlighted by the Interim Report fails to fully understand the role that customer data plays in the digital advertising sector. Assumptions

regarding search defaults and potential harm to competition are not supported by empirical evidence, and the DMCH risks hurting Japanese OEMs and consumers (that will be charged with higher prices) if implementing its proposals. We develop an explanation in the next section.

The key element is to better understand whether incumbents that have accumulated data over the years may expand or maintain market power for the mere possession of historic data. Like any other factor of production, there is empirical evidence to prove that there are diminishing returns to the mere *accumulation* of data.

Stanford University conducted a study to analyze whether increased accumulation of data improves the outcomes of the analysis performed on such data. The Stanford Dogs Dataset contains images of 120 breeds of dogs from around the world.[24] This dataset was constructed for the purpose of fine-grained image categorization. Researchers used this dataset for classifying breeds of dogs in images, and calculated the mean accuracy for identification as the number of images in the dataset increased. The results showed that additional access to data provided diminishing returns to the accuracy of classification results (see chart below).[25] In short, a growing dataset provided diminishing returns as it grew.

Similarly, economists David Evans and Richard Schmalensee found that across technology companies, data did not grant incumbents the power to strangle competition. Their research highlighted that:

> A number of previously dominant companies all had user data — so-called "attention platforms" such as AOL, Friendster, Myspace, Orkut, Yahoo!, Blackberry in mobile, as well as numerous search engines including AltaVista,

[24] Stanford Dogs Dataset, *available at* http://vision.stanford.edu/aditya86/ImageNetDogs/.
[25] *Id.*

> Infoseek, and Lycos. This data did not give the incumbents the power to stifle competition in their respective markets, nor is there any evidence that data increased the network effects for these firms in a way that gave them a substantial lead over challengers.[26]

University of Florida Professor Daniel Sokol and Central University of Finance and Economics School of Law (China) Professor Jingyuan (Mary) Ma conclude that little, if any, user data is required as a starting point for most online services. They noted that:

> The data requirements of new competitors are far more modest and qualitatively different than those of more established markets. Little, if any, user data is required as a starting point for most online services. Instead, firms may enter with innovative new products that skillfully address customer needs, and quickly collect data from users, which can then be used towards further product improvement and success.[27]

This research, in opposition to the Interim Report's conclusion, shows why the accumulation of data alone is not a tool for companies to shut out competitors, and is unlikely to lead to decreased competition in the relevant market.

5. Vertical Integration & Access Restrictions

[26] David S. Evans & Richard Schmalensee, *Network Effects: March to the Evidence, Not to the Slogans*, Antitrust Chronicle (Aug. 2017) at 9, *available at* http://mitsloan.mit.edu/shared/ods/documents/?DocumentID=4243.
[27] D. Daniel Sokol & Jingyuan (Mary) Ma, *Understanding Online Markets and Antitrust Analysis*, 15 Nw. J. Tech. & Intell. Prop. 43 (2017), *available at* https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1267&context=njtip.

The Interim Report addresses concerns relating to vertically integrated platforms active in the digital advertising sector. These concerns fall under the international trend that indicates a growing interest in conglomerate and non-horizontal theories of harm. This concern includes the consideration of interoperability between one party's products and a rival's competing downstream product, to favor their own downstream product.

Before commenting on the particular issues noted by the DMCH, it is important to highlight that vertical integration is generally believed to be pro-competitive. In this regard, vertically-integrated businesses can bring about efficiencies and offer consumers goods and services of better quality, lower prices, and more innovation. Interventions that are not justified on evidence may negatively impact the efficiencies that vertically integrated businesses create and risks harming publishers and Japanese companies alike.

a) Access Restrictions

The Interim Report questions whether digital platforms can engage in exclusionary conducts by denying access to advertising input (advertising inventories) to its competitors, implicitly classifying advertising input as essential. Whereas CCIA understands that market foreclosure should be of concern to competition authorities, in the digital advertising industry it is unlikely that possible foreclosures will take place for lack of access to inputs, that in no case should be considered as essential.

When addressing the access restrictions concerns raised in the Interim Report, it is important to do so taking into account real market dynamics. In the case of the advertising market, though advertisers value the ability to access users, user demand for a platform is not substantially driven by the availability of advertisements. That is, an Internet user does not choose to use a

search engine or a news website based on the quality or quantity of ads. Users therefore do not flock to one platform for ads. Similarly, marketers can switch among many advertising platforms or exchanges due to the low fixed cost of running ads on multiple platforms. They have little incentive to stick to one platform. These incentives for both users and marketers eliminate the possibility of a feedback loop that locks users and marketers to a dominant advertising platform.[28]

Furthermore, under the pay-per-click model—which is the pricing structure that most advertisers employ—running an ad on a platform with more "congestion" would yield better conversion rates but involve proportionally higher costs. As such, an advertiser may be incentivized to choose many smaller platforms over relying on a larger one.[29] This further encourages marketers to multi-home, weakening possible lock-in effects on advertising platforms.[30] Consumers' tendency to multitask or multi-home facilitates cross-platform responses to advertising.

6. Fairness

The Interim Report endeavors to analyze the questions around automated decision-making tools and fairness. The complexity of algorithmic and machine learning-based decision-making tools suggests that in some cases it may be difficult for designers or external reviewers to determine

[28] D. Daniel Sokol, *Antitrust and Regulating Big Data*, 23 George Mason L. Rev. 119 (2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2834611.
[29] Id.
[30] *See* Rex Yuxing Du, Linli Xu & Kenneth C. Wilbur, *Immediate Responses of Online Brand Search and Price Search to TV Ads*, 83 J. Mktg. 81 (July 1, 2019), https://journals.sagepub.com/doi/abs/10.1177/0022242919847192 (noting study results that show TV ads lead to a variety of immediate online responses); Jura Liaukonyte, Thales Teixeira, & Kenneth C. Wilbur, *Television Advertising and Online Shopping*, 34 Mktg. Science 309 (Jun. 2015), https://pubsonline.informs.org/doi/abs/10.1287/mksc.2014.0899 (demonstrating that TV advertising does influence online shopping); Mingyu Joo, Kenneth C. Wilbur, Bo Cowgill & Yi Zhu, *Television Advertising and Online Search*, 60 Mgmt. Science 1 (Jan. 2014), https://pubsonline.informs.org/doi/10.1287/mnsc.2013.174 (showing that TV advertisements for financial services brands increase both the number of related Google searches and searchers' tendency to use branded keywords instead of generic keywords).

the procedural basis for their outputs, even when those decisions or predictions tend to be more reliable and accurate than their human-derived counterparts. Further, the speed and scale at which such systems may make decisions means that they could amplify potential disparate impacts. The digital advertising dynamics are the best example of the velocity at which these decisions take place.

a) Platform Rule-Making

CCIA is of the opinion that market competition and contractual freedom should be the principle under which the digital advertising industry operates. That being said, CCIA is aware of the risks that exist in terms of algorithmic bias and discrimination.

Researchers have identified three scenarios where bias might be reflected in a decision-making system or its outputs: (1) training on implicitly biased or statistically distorted datasets; (2) potentially biased algorithm or model design; and (3) masking of intentional discrimination through the complexity of decision-making systems.[31]

Reducing the risk of bias in complex algorithmic decision-making systems requires a multi-pronged approach. Appropriate hiring practices to build diverse and cross-disciplinary teams with technical and social science expertise, combined with robust methodologies in identifying and correcting potential sources or proxies for bias in datasets or model design, can help mitigate bias before it can enter a system. Algorithmic accountability, or the idea that the potential for consumer harms can be "assessed, controlled, and redressed"[32] in an algorithmic system, is a principle that can aid businesses in ensuring systems operate in accordance with their

[31] *Id*.
[32] World Wide Web Foundation, Algorithmic Accountability (July 2017), *available at* http://webfoundation.org/docs/2017/07/Algorithms_Report_WF.pdf at 16.

designed intentions and can identify and address actual harmful outcomes.[33] Operators should work to define the substantive algorithmic harms that might result from a particular system based on its likely inputs and overall design. Verifying that algorithms produce results consistent with their operators' intentions, rather than those defined harms, can be accomplished through a variety of means. For instance, system architects can implement technical parameters for consistent and procedurally regular system design, provide confidence measures associated with outputs, and conduct disparate impact assessments of results to identify and rectify potential harms before and during system use.

b) Parameters in Search Engines

The Interim Report raises concerns with possible changes to algorithms and other parameters that could impact many publishers' businesses that depend on search results. This is particularly important for those sites whose visitors depend upon the results in a search engine.

CCIA recognizes that the Interim Report is correct to reflect on these dynamics, and would like to highlight that, in the past, digital platforms such as Google have introduced enhanced transparency to their search rankings.[34] However, requiring even more transparency from certain digital platforms should in no circumstances undermine the right of businesses to preserve their business and trade secrets which are an essential element for competition to exist in the market.

Because it is difficult to predetermine the terms under which digital platforms should give advance notice to publishers with respect to changes in the platforms' parameters, and since it is

[33] Joshua New & Daniel Castro, *How Policymakers Can Foster Algorithmic Accountability*, Center for Data Innovation (2018), *available at* http://www2.datainnovation.org/2018-algorithmic-accountability.pdf.
[34] Google Algorithm Update History, https://moz.com/google-algorithm-change.

almost impossible to predict possible innovations that could significantly impact the way content is consumed, CCIA encourages the DMCH to request parties to work cooperatively and negotiate in good faith proportional solutions with respect to transparency standards.

CCIA understands that being flexible with respect to the transparency commitments that digital platforms should abide by vis-a-vis publishers will be the key to ensure successful policy outcomes. Hence, providing interested parties with a sufficient degree of flexibility to work cooperatively will increase transparency in the markets without undermining the protection of trade secrets and business sensitive information.

7. The Use of Personal Data

The DMCH discusses relevant issues relating to competition policy and its intersection with privacy-related matters. As mentioned earlier, understanding the economic role that data plays and how it is used by companies is thus fundamental for authorities. In a similar fashion, actions involving the intersection of antitrust and privacy in data-driven markets should be economically informed, so as to ensure that consumers benefit from those actions.

a) Privacy as an element of competition-data portability

The DMCH Interim Report has a final section devoted to questions around privacy and competition, which are not specific to the digital advertising segment, but concern the digital economy as a whole.

With respect to privacy as an element of competition, CCIA believes that the DMCH's final report would benefit greatly from a deepened discussion around how transparency about the

privacy and security attributes of digital services can help consumers choose services that best align with their personal privacy preferences. That being said, CCIA supports the DMCH's willingness to ensure that users control the data used.

Scholars Ramon Casadesus-Masanell and Andres Hervas-Drane demonstrated that in the marketplace for services that are partly dependent on information disclosure for revenue (used as a proxy for how protective of privacy a service might be), competition can drive the provision of services with more privacy protective features. However, where the net utility of a service far outweighs the value consumers place on data protection, that service will continue to outperform competitors who are offering an ostensibly more privacy protective service.[35] This research indicates that consumers seek to optimize various features, including privacy, in maximizing their own personal utility.

Promoting interoperability between services with different data protection features is one mechanism of increasing competition on privacy features where there are marked disparities in the net utility of services. However, designing interoperability for complex digital systems may introduce security risks that may lessen or negate the net privacy utility derived by consumers. Academics Peter Swire and Yianni Lagos noted the tension between moving data between services and users' security interests in evaluating an early version of the EU's General Data Protection Regulation (GDPR)'s right to data portability.[36] The risk of inadvertent disclosure or data leakage through vulnerabilities increases when independently designed systems are made

[35] Ramon Casadesus-Masanell & Andres Hervas-Drane, *Competing with Privacy*, Harvard Business School, Working Paper (2013), *available at* https://www.hbs.edu/faculty/Publication%20Files/13-085_95c71478-a439-4c00-b1dd-f9d963b99c34.pdf.
[36] Peter Swire & Yianni Lagos, *Why the Right to Data Portability Likely Reduces Consumer Welfare: Antitrust and Privacy Critique*, 72 Md. L. Rev. 335 (2013), https://pdfs.semanticscholar.org/b826/c58ff279d3e6b3ae96583dcd5f023585b68b.pdf.

interoperable.[37] Where operators of interoperable systems may be acting in bad faith or inadequate verification standards for transfer requests exist, sharing of data can pose privacy risks. Further, mandated interoperability or API access might result in unforeseen anticompetitive consequences that could advantage incumbents over smaller competitors,[38] and could allow some companies to free ride on the efforts of others, chilling the incentive to develop innovative services. Finally, rather than promote competition, mandated interoperability could increase the risk of collusion when competitors are required to collaborate and share information.

These potential pitfalls do not mean that data portability and interoperability of digital systems are unrealistic aims. They point to principles that can help ensure that these risks are mitigated and consumers are empowered. In particular, they suggest that to ensure data transfers between systems are private, secure, and balanced, data portability tools should be voluntary, industry-developed, and responsive to actual consumer needs. For example, they should: (1) allow users to move data they have provided to the service, but not data that may relate to other users; (2) afford consumers control over how and when the tools are used; and (3) be tailored to the privacy and security expectations of specific products and services. Further, access to data portability tools should enable machine-to-machine transfers where technically feasible. Several technology services recently launched a data portability project based on these principles. The Data Transfer Project (DTP) connects the APIs of many different digital services through an open-source system that securely encrypts machine-to-machine transfers at the direction of users.

[37] Urs Gasser & John Palfrey, *When and How ICT Interoperability Drives Innovation*, Berkman Center for Internet & Society (2007), *available at* https://cyber.harvard.edu/interop/pdfs/interop-breaking-barriers.pdf; *Open, Closed, and Privacy*, Stratechery (Apr. 25, 2018), https://stratechery.com/2018/open-closed-and-privacy/.
[38] Chris Riley, *Using Interoperability For Horizontal Competition and Data Portability*, Medium (May 24, 2018), https://medium.com/@mchrisriley/using-interoperability-for-horizontal-competition-and-data-portability-6706906ce699.

[39] The success of the DTP and other tools to increase consumer control and interoperability between services depends on adoption and good faith participation by services of all sizes.

b) The benefits and costs of privacy laws and regulations

Privacy laws and regulations can have an unintentionally adverse impact if they do not strike the correct balance between protecting privacy and enabling data-driven innovation. Restricting companies' use and collection of data may unintentionally impair commerce in the digital economy, and by implication, reduce investment. This especially affects firms that rely on the collection, analysis, or storage of large amounts of user data, such as companies in the online news, online advertising, and cloud computing sectors. These sectors are highly relevant to the online consumer experience as they encompass many of a user's typical online interactions.

Professor Anja Lambrecht evaluated the relationship between changes in EU privacy laws and relative venture capital investment in the EU, finding that VC investment across these three sectors was between 58-75 percent lower in aggregate each year relative to the United States, after controlling for several drivers of VC investments into firms in these industries.[40] These conclusions reflect those of Professors Avi Goldfarb and Catherine Tucker, who found that privacy regulations "directly affect the usage and efficacy of emerging technologies" in the sectors they studied.[41]

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[39] Russell Brandom, *Google, Facebook, Microsoft, and Twitter Partner For Ambitious New Data Project*, The Verge (July 20, 2018), https://www.theverge.com/2018/7/20/17589246/data-transfer-project-google-facebook-microsoft-twitter.
[40] Anja Lambrecht, *E-Privacy Provisions and Venture Capital Investments in the EU* (Dec. 2017), *available at* https://www.ceps.eu/sites/default/files/E-Privacy%20Provisions%20and%20Venture%20Capital%20Investments%20in%20the%20EU.PDF.
[41] Avi Goldfarb & Catherine Tucker, *Privacy and Innovation*, Innovation Policy and the Economy, Vol. 12, http://www.nber.org/chapters/c12453.pdf.

As with innovation, there are parallel risks to competition if privacy laws and regulations are not appropriately designed. Due to economies of scale, large incumbent companies can better bear the costs of complying with the same regulations as smaller companies and new market entrants, especially in the privacy context.[42] For example, an impact assessment commissioned by the California Department of Justice found that "[s]mall firms are likely to face a disproportionately higher share of compliance costs relative to larger enterprises" in complying with the recently enacted California Consumer Privacy Act.[43] It is also important to consider that, insofar as privacy regulations function to inhibit voluntary portability of users' data from one service to another, these regulations may cut against open, horizontal business models and indirectly favor closed, vertical models. Ensuring privacy rules are designed thoughtfully, so that requirements are scalable and context-dependent, can help promote competition and data protection goals.

For all the above mentioned reasons, any action related to data-driven enterprises would benefit from expert analysis, to avoid consumer harm.

8. Conclusion

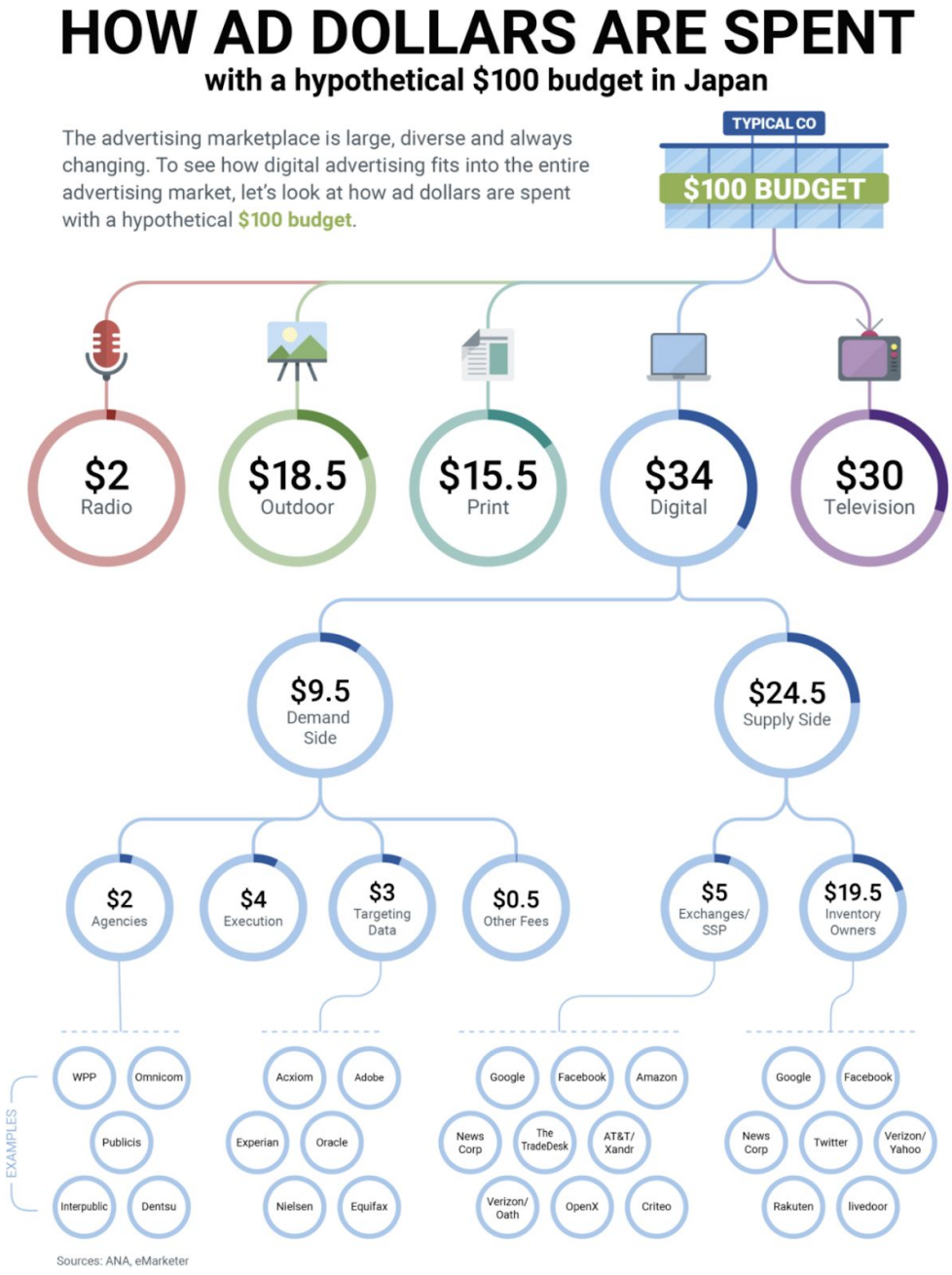
As technology continues to drive our economy and transform our markets, privacy and competition policies will remain key to ensure consumers benefit from these advancements. The digital advertising sector, which is expected to grow in the coming years, represents a good example of the need to balance privacy and competition concerns. Existing competition

[42] James Campbell, Avi Goldfarb, & Catherine Tucker, *Privacy Regulation and Market Structure*, 24 J. Econ. & Mgmt. Strategy 47, 47 (2015).
[43] Berkeley Economic Advising and Research, LLC, "Standardized Regulatory Impact Assessment: California Consumer Privacy Act of 2018 Regulations" (Aug. 2019), http://www.dof.ca.gov/Forecasting/Economics/Major_Regulations/Major_Regulations_Table/documents/CCPA_Regulations-SRIA-DOF.pdf

frameworks have proved to be sufficiently robust and flexible to adapt to new challenges, and privacy standards will ensure consumers remain protected from novel privacy threats.

CCIA cautions against intervention in narrowly defined innovation-driven sectors such as the digital advertising segment that involve user data without evidence of harm to competition that could disadvantage consumers and deter innovation, especially when based upon a misunderstanding or incorrect understanding of the existing market dynamics. Any intervention should be equally applied at an industry-wide level, and should take into account interested stakeholders viewpoints. Finally, in the digital space, failure to consider international implications of local regulations can create unnecessary asymmetries that would only act as a trade barriers impairing economic growth.

Annex I


HOW AD DOLLARS ARE SPENT
with a hypothetical $100 budget in Japan
The advertising marketplace is large, diverse and always changing. To see how digital advertising fits into the entire advertising market, let's look at how ad dollars are spent with a hypothetical $100 budget.
TYPICAL CO
$100 BUDGET
$2 Radio
$18.5 Outdoor
$15.5 Print
$34 Digital
$30 Television
$9.5 Demand Side
$24.5 Supply Side
$2 Agencies
$4 Execution
$3 Targeting Data
$0.5 Other Fees
$5 Exchanges/ SSP
$19.5 Inventory Owners
EXAMPLES
WPP
Omnicom
Publicis
Interpublic
Dentsu
Acxiom
Adobe
Experian
Oracle
Nielsen
Equifax
Google
Facebook
Amazon
News Corp
The TradeDesk
AT&T/ Xandr
Verizon/ Oath
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