

Written Submission from the Competition Law Forum (CLF) at the British Institute of International and Comparative Law: Online platforms and digital advertising market study by the UK Competition and Markets Authority (CMA)

The CLF is grateful for the opportunity to submit a response to the CMA's timely public consultation on *Online platforms and digital advertising*. This is a hugely important subject and hopefully the CMA will widen the scope to include killer acquisitions at a later stage.

Theme 1: The market power of online platforms in consumer-facing markets

1. Broadly speaking, digital advertising platforms' market power is determined by the strength of network and data-driven externalities, parallel use of competing services (i.e. multihoming), switching costs and the pressure stemming from dynamic competition. Crucially, a platform's market power on the consumer-facing or 'free' segment or segments is intrinsically linked to its market power on the advertising or 'paid' side.

Sources of market power in consumer-facing markets

2. The dynamics through which digital advertising platforms gain market power, albeit similar, differ depending on their business model. Accordingly, the analysis below will make a distinction between the two main types of digital advertising platforms: search engine platforms and social network platforms. Google and Facebook, the respective platform incumbents, will be the centre of the analysis. Google is the focus as it is the undisputed market leader in online search in the US and the EU. Accordingly, Google has more data to improve its search algorithms, and therefore, based on data-driven economies of scale, it is able to maintain and even strengthen a quality gap between its and its competitors' online search service. Similarly the focus on Facebook is due to its market position in the market for social network platforms. Moreover, due to Google's and Facebook's virtuous cycles, and in particular, based on their data advantage derived from data-driven externalities, Google and Facebook enjoy a duopoly in online advertising that captures the overwhelming majority of advertising revenue and growth in the sector. This will be discussed in detail below.
3. The strength of Google's market power on the consumer-facing side is mostly the result of data-driven externalities and learning-by-doing effects. Search engines compete primarily on the basis of quality, that is, the capacity to deliver the most relevant results in response to search queries. More queries allow the search engine to engage in experimentation aimed at improving the relevancy of its results. Search engines have the ability to observe what are the links that are more frequently clicked on by users after entering a specific search query, and if many users click on a link that was originally ranked at the end of the search results, the algorithms will take on board this information and place that link at the top, demoting at the same time the links that are less frequently or rarely clicked on. More consumers using a search engine with greater frequency enable the search engine to run more experiments to predict consumer preferences, and the more trials are conducted to this effect, the better the search engine will get at improving the relevancy of results.

4. Google and its supporters argue that the significance of scale and data has been largely overstated,¹ and that in fact data are subject to diminishing returns to scale. Indeed, in *Microsoft/Yahoo!* both Microsoft and Google recognised that “the value of incremental data decreases as the amount of data increases.”² However, neither Google nor Microsoft has been able to “identify a fixed number of queries or ads that constitutes the ‘minimum efficient’ point of operation,”³ and no competition agency thus far has been able to determine at which point the value of incremental data decreases. Ultimately, the answer to this question will vary depending on the type of query at hand. Whilst the diminishing returns to scale argument may hold for popular searches, it does not hold for less frequent (“tail”) queries. Large search engines do have an advantage relative to small-sized search engines with respect to these queries, and since relevance of results ‘across the board’ enhances the attractiveness of a search engine,⁴ a dominant search engine with a large user base, and therefore access to more data, is likely to be insulated from competitive pressure regarding quality of search results.
5. The extent of vertical integration of, and therefore the variety of data to which a search engine can access (i.e. economies of scope), is decisive to its competitive performance and consequently its market position. Every search query reveals a preference of a specific user, which allows the search engine to provide relevant search results. However, if a search engine can access data from different sources, it is more likely to be able to render relevant search results, in spite of not having any prior relevant search query data. In this regard, Google has an overwhelming advantage. Not only does Google collect user data from its search engine, but also from a plethora of data-driven products and services it offers at zero-price, such as its mobile operating system (Android), web browser (Chrome), email service (Gmail), video streaming site (YouTube), mapping service (Google Maps), social networking service (Google Plus), website analytics tool (Google Analytics), cloud platform service (Google Apps), and many others,⁵ in addition to the products offered by its ad-serving companies DoubleClick and AdMob. Accordingly, Google can render search results on Google Search based on, for example, a user’s streaming behaviour on YouTube, or based on locational data gleaned from Google Maps. Importantly, the variety of data stemming from different sources allows Google to develop rich user profiles and get better at predicting users’ preferences and tastes. This ‘mined’ knowledge is used to offer personalised search results, on the one hand, and improve ad targeting, on the other hand.
6. Data-driven economies of speed also come into play to favour the incumbent. If users’ interests suddenly change as a consequence of a recent event, data-driven platforms need to react rapidly and adapt to the new scenario. In this connection, first access to data and the ability to process it more quickly than competitors may confer a competitive advantage. As Microsoft’s consultant Susan Athey explains: “[w]hen Michael Jackson died [...] there was a huge spike in internet traffic, and the search engine companies wanted to be able to figure out in the first 30 seconds to stop sending people to general pages about the performer and start sending them instead to the latest news. By using the latest data

¹ *Case COMP/M5257, Microsoft/Yahoo! Search Business (2010)* [174].

² *ibid* 174.

³ FTC Staff, ‘FTC Staff Report on Google - File No. 111-0163’ 16 <<http://graphics.wsj.com/google-ftc-report/>>.

⁴ *Ibid* 66.

⁵ Omer Tene and Jules Polonetsky, ‘Big Data for All: Privacy and User Control in the Age of Analytics’ (2013) 11 *Northwestern Journal of Technology and Intellectual Property* 239, 250.

— crowd-sourcing what you want — a search engine can be a quick learner. All search engines try to do that, but how well they do it is a function of how fast they get the data. So Google will do it faster than Bing, because more people come to Google first.⁶

7. Capital requirements and the size of its web index also insulate Google from competitive pressure. There are significant fixed costs related to R&D and the development and maintenance of service infrastructure.⁷ It has been estimated that the core code for a search engine is around 3 million lines and takes up to USD 100 million to develop, which excludes the costs of running the service.⁸ In this connection, it has been reported that in 2010 Microsoft invested “more than \$4.5 billion into developing its algorithms and building the physical capacity necessary to operate Bing”;⁹ however, although it has gained market share, especially in the U.S., it still largely lags behind Google. In turn, the larger the web index, the more information the search engine has to match a specific query with relevant results. According to Google, its web index is “is similar to a map made up of one trillion intersections. So multiple times every day, [Google does] the computational equivalent of fully exploring every intersection of every road in the United States. Except it’d be a map about 50,000 times as big as the U.S., with 50,000 times as many roads and intersections.”¹⁰ As of 2015, Google had indexed over 40 billion websites, followed by Bing with only 14 billion.¹¹
8. Lack of multihoming reinforces Google’s market power. In *Microsoft/Yahoo! Search Business*, the European Commission (the ‘Commission’) observed “that users tend to ‘single-home’, meaning that they perform over 90% of their search queries within a month on one single search engine”,¹² and noted that “[t]he very limited share of user multi-homing between Microsoft and Yahoo [then second largest search engine] shows that users rarely run checks between these two platforms.”¹³ Single-homing in horizontal search may be the consequence of entrenched surfing habits and search personalisation, in such a way that if users are accustomed to a search engine, they may not try other search engines even if they perceive lower quality results.¹⁴ Moreover, perceptions about search results’ quality are likely to be influenced by brand. Indeed, in a 2013 study conducted by

⁶ Kathleen O’Toole, ‘Susan Athey: How Big Data Changes Business Management’ (*Stanford Graduate School of Business*, 2013) <<https://www.gsb.stanford.edu/insights/susan-athey-how-big-data-changes-business-management>>.

⁷ Ioannis Lianos and Evgenia Motchenkova, ‘Market Dominance and Quality of Search Results in the Search Engine Market: Analysis of Exploitative and Exclusionary Abuses’ [2012] CLES Working Paper series 2/2012 4.

⁸ Rufus Pollock, ‘Is Google the next Microsoft: Competition, Welfare and Regulation in Online Search’ (2010) 9 *Review of Network Economics* 26 <<https://www.degruyter.com/view/j/rne.2010.9.issue-4/rne.2010.9.4.1240/rne.2010.9.4.1240.xml>>.

⁹ FTC Staff (n 3) 76.

¹⁰ ‘We Knew the Web Was Big..?’ (*Official Google Blog*, 2008) <<https://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html>>.

¹¹ Carolina Di Pietro, ‘How Google Crawls and Indexes the Web’ (2015) *Lander Blog* <<https://landerapp.com/blog/google-crawls-indexes-web/>>.

¹² Teresa Vecchi, Jerome Vidal and Viveca Fallenius, ‘The Microsoft/Yahoo! Search Business Case’ (2010) 2 *Competition Policy Newsletter* 44.

¹³ *Case COMP/M.5257, Microsoft/Yahoo! Search Business* (2010) (n 1) para 221.

¹⁴ Nicolo Zingales, ‘Product Market Definition in Online Search and Advertising’ (2013) 9 *The Competition Law Review* 29, 44.

SurveyMonkey and reported in Search Engine Land: “[u]sing the same search term, respondents had to choose between a Google search results page and a Bing search result page. In this survey the SERP headers were swapped with Google results listed as Bing results and Bing results listed as Google results. Of the respondents who received the swapped search result pages, a larger percentage of respondents still chose Google results, even though they were actually Bing search results.”¹⁵ The study concludes that not only are users “biased toward Google, but they are influenced by a site’s brand as well.”¹⁶

9. It could be argued that Google nevertheless feels the threat of an entrant introducing a new ‘killer’ product that would render Google’s search engine obsolete (i.e. the threat of dynamic competition). However, the mere theoretical possibility of entry is not a sufficiently credible constraint if not based on realistic grounds.¹⁷ Indeed, the poor entry record in the search engine market runs counter to this argument. In *Google Shopping*, the Commission found that since 2007 a number of search engines, including Yahoo and Ask.com, had exited the market or abandoned general search technology in favour of third party technology.¹⁸ Since the same year there has been only one significant entrant (Microsoft); however, Bing’s market shares have never exceeded 10% in any EEA country.¹⁹ Fringe entrants such as Kosmix, Cuil, DuckDuckGo and Blekko did not manage to launch a successful challenge.²⁰ The fact that Google was able to leapfrog former market leaders AltaVista and Lycos in the 1990s does not amount to a convincing example of dynamic competition that could be seen today, as at the time the indexing technology of general search engines did not assess user behaviour.²¹ Thus, the example of entry by Google is not illustrative of current entry conditions in the search engine market.
10. Conversely, the strength of Facebook’s market power on the consumer-facing segment is mostly the consequence of direct network effects and lock-in. The more users a social networking platform has, the greater the value of the network to its members. The more friends the average user can connect with through Facebook, the more his profile and participation are worth to him personally, because the user does not have to go somewhere else to keep in touch.²²
11. Lack of interoperability reinforces direct network effects and protects the incumbent’s user base. If users cannot communicate across social network platforms, they will have the incentive to join the largest network in order to be able to interact with a greater universe of users. More users will attract more users, and so on. As Gebicka and Heinemann observe, “there is the idea of ‘I will have a Facebook profile because everyone is

¹⁵ Amy Gasenhues, ‘Study: Many Searchers Choose Google Over Bing Even When Google’s Name Is On Bing’s Results’ (*Search Engine Land*, 2013) <<http://searchengineland.com/users-prefer-google-even-when-155682>>.

¹⁶ *ibid.*

¹⁷ European Commission, ‘Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-Operation Agreements’ (2011/C 11/01) (2011) para 10.

¹⁸ *Commission Decision in Case AT39740 Google Search (Shopping)*, 27/06/2017 (European Commission) [298–300].

¹⁹ *ibid* 300.

²⁰ *ibid* 302–305.

²¹ *ibid* 290.

²² Aleksandra Gebicka and Andreas Heinemann, ‘Social Media & Competition Law’ (2014) 37 *World Competition* 149, 161.

on Facebook', which suggests facility and as such guarantees less effort, and in consequence attracts more and more people."²³ Furthermore, lack of data portability results in high switching costs, because contacts, shared information, messages, comments and photographs cannot be transferred when switching to a different network.²⁴ To circumvent lack of data portability, users of course have the alternative of reposting their profile information, wall posts, photos, videos, and any other information, but this alternative is of course time consuming, impossible in certain cases and subject to errors, for which reason users are more likely to "simply live with their existing Facebook page."²⁵ Accordingly, users become locked-in and will not switch to other social network providers, even though they are entirely free to do so if they wish.²⁶ The right to data portability introduced by the recently passed GDPR²⁷ is expected to change this scenario, although its impact on competition in social network markets remains uncertain.²⁸ Lock-in effects are demonstrated by the fact that users have opposed to several policy and operating changes on the part of Facebook,²⁹ without actually switching to competing platforms. Indeed, changes to Facebook's privacy policies are a matter of course,³⁰ but such changes have not caused any real impact whatsoever upon Facebook's growth. As of December 2018, Facebook had over 2.3 billion users worldwide.

12. Data-driven externalities are also decisive to the strength of a social network's market position. Firstly, larger volumes of data lead to data-driven economies of scale. Based on the data gathered from user-generated content and users' interactions with the platform, Facebook's social network algorithms can increase the relevance of social network engagement, suggested friends or suggested interests that are shown to specific users. For example, the stories shown in a user's newsfeed are determined by the user's connections and activity on Facebook. In particular, Facebook shows more stories of the interest of a specific user that are posted by friends with whom such user interacts the most.³¹ Second,

²³ *ibid* 160.

²⁴ Monopolkommission, 'Special Report 68: Competition Policy: The Challenge of Digital Markets' (2015) 73 <<http://www.monopolkommission.de/index.php/en/reports/special-reports/284-special-report-68>>.

²⁵ Spencer Weber Waller, 'Antitrust and Social Networking' (2012) 90 NCL Rev. 1771, 19.

²⁶ Gebicka and Heinemann (n 22) 160.

²⁷ See Article 20 GDPR.

²⁸ "Considering the different design features of social networks, it could become difficult, if not impossible, to come up with a format that would ensure that all the transferred data is displayed in the same way as in the social network from which the data was extracted." Inge Graef, 'Mandating Portability and Interoperability in Online Social Networks: Regulatory and Competition Law Issues in the European Union' (2015) 39 Telecommunications Policy 502, 507–508.

²⁹ See for example Richard King, 'Facebook Terms: "All Your Content Are Belong to Us"' (*Richard's Kingdom*, 2009) <<https://richardskingdom.net/facebook-terms-of-service-all-your-content-are-belong-to-us>>, noting consternation in the press and the blogosphere about recent changes to Facebook's terms of use. Andrew Tarantola, 'Facebook Changes "Real Name" Policy Rules after Public Outcry' (*Engadget*, 2015) <<https://www.engadget.com/2015/10/30/facebook-changes-real-name-policy-rules-after-public-outcry/>>'Facebook has no plans to do away with the controversial policy.'

³⁰ Kashmir Hill, 'What You Actually Need To Know About The Changes Facebook Is Making To Its Privacy Policy' (*Forbes*, 2012) <<https://www.forbes.com/sites/kashmirhill/2012/11/26/what-you-actually-need-to-know-about-the-changes-facebook-is-making-to-its-privacy-policy/#6be19f6a148d>>'Facebook is changing its privacy policy. Again.'

³¹ Facebook, 'Help Centre' <<https://www.facebook.com/help/327131014036297/>>.

since Facebook also controls the popular Instagram, Messenger and WhatsApp apps, Facebook benefits from significant economies of scope. For instance, based on phone numbers of WhatsApp users that are shared with Facebook, Facebook has been able to run analytics on user activity and make friends suggestions based on people with whom users talk on WhatsApp.³² These suggestions drive direct network effects even further. Indeed, it is reported that every new member of Facebook brings in 200 friends on average.³³ Lastly, economies of speed also come to play. Given its unparalleled audience, Facebook has first access to data about recent events, which enables it to update relevant content more quickly than competing social network platforms, thereby generating more traffic, more data and more consumer engagement. For example, within the first twelve hours of news that David Bowie had died, thirty-five million people had one hundred million interactions about Bowie's passing on Facebook.³⁴

13. The threat of potential competition does not seem to be a credible constraint disciplining Facebook. In 2011 Google launched its Google+ social network, which quickly became the "fastest-growing network thingy ever", with more than 500 million users in just 18 months.³⁵ However, Google could not convince users to share content on and engage with its social network platform. Google+ could not overcome Facebook's direct network effects, because users wanted to share content where their *entire* group was, and they did not want to have a shared social network experience in a second redundant place. If Google, with its financial strength and big data advantage, was unsuccessful in its attempt to displace Facebook, it seems unlikely that other undertaking may succeed in doing so. Disruptive innovation from unexpected sources, as Schumpeterians contend, is always a threat in high-tech markets, but if not supported by evidence and a dynamic record of entry into the market, it is only speculation, and as such, it should not be given too much weight.

The impact of market power on the supply of digital advertising

14. Insofar as Google serves the overwhelming majority of search queries, advertisers will feel compelled to advertise on its search engine. This is all the more true for small-sized advertisers, as the cost of optimising a campaign on Bing or Yahoo! may be disproportionate, having regard to the expected click-through-rate.³⁶ As a matter of fact, the Autorité de la Concurrence has observed that Google's large user base is advertisers' main justification for opening an AdWords account: polled advertisers contended *inter alia* that Google is "an inescapable feature of the web", and that it enjoys an "hegemony in Inter-

³² Michael Duran, 'How to Stop WhatsApp From Giving Facebook Your Phone Number' [2016] *Wired* <<https://www.wired.com/2016/08/how-to-stop-whatsapp-from-sharing-your-phone-number-with-facebook/>> In turn, more friends connections translate into more user engagement and therefore more data to train its social network algorithms and enhance further its ad targeting capabilities. .

³³ House of Lords, 'Online Platforms and the Digital Single Market' 24.

³⁴ Colin Stutz, 'David Bowie's Death Leads to 100 Million Facebook Interactions in First 12 Hours' (*Billboard*, 2016) <<http://www.billboard.com/articles/columns/rock/6836601/david-bowie-death-100-million-facebook-interactions-12-hours>>.

³⁵ Google, 'Google+: Communities and Photos' (*Official Google Blog*, 2012) <<https://googleblog.blogspot.com/2012/12/google-communities-and-photos.html>>.

³⁶ Autorité de la Concurrence, 'Opinion No. 10-A-29 on the Competitive Operation of Online Advertising' (2010) 48.

net searches.”³⁷ Indirect network effects are thus easy to appreciate: more users on the free side will attract more advertisers on the paid side, since advertisers value a larger audience to which they can target their ads. These indirect network effects are combined with and fuelled by data-driven externalities, thereby giving rise to a self-reinforcing positive feedback loop commonly referred to as the “virtual cycle”:³⁸ as Google attracts more users with its free services (search engine, maps, YouTube, and so on), it is able to gather larger amounts of valuable user data that is necessary to improve its search algorithms and develop user profiles. Such user data obtained on the free side can be reprocessed and reused to better target users with targeted advertising. In turn, by being able to target users with more relevant ads, “the search engine is more likely to attract advertisers (as consumers are more likely to click on their ads) and thereby increase its advertising revenue and profits. Moreover, the search engine can target users with these personalised ads across media (such as on their personal computers, smartphones, tablets and soon, household appliances) and across services (such as texts, maps, videos, etcetera). This too increases the likelihood of consumers clicking on a relevant sponsored ad [...] or seeing a display ad.”³⁹ As a consequence, competing search engines which do not enjoy the aforementioned advantages cannot reach the necessary scale to attract advertisers, and therefore fail to become profitable. This is confirmed by the poor entry record referenced above (see paragraph 9).

15. A similar dynamic takes place in the social network market: a social network platform with a large user base will be certainly more attractive to advertisers than a small network with few users. There are strong indirect network effects stemming from the user side that link the advertiser side: more users entail more eyeballs advertisers can reach with their ads, and at the same time, more users provide the social network platform with more valuable data in the form of postings, comments, likes, shared pictures, videos and stories and the like, which allows the social networking site to develop more detailed user profiles and therefore to enhance its ad targeting capabilities to the benefit of advertisers. Indeed, in *Facebook/WhatsApp*, the Commission noted that several respondents considered that other forms of non-search advertising are “not as effective as advertising on social networking websites and notably on Facebook, due to Facebook’s large and highly engaged audience and its ad targeting opportunities.”⁴⁰ As a result, it is possible to appreciate a ‘virtuous cycle’ similar to Google’s: more users attract more users and generate more data; data are used to improve users’ social networking experience by making their social interactions more relevant to their interests; in turn, data are used to create user profiles and derive valuable insights to better target advertisements.⁴¹ Data-driven economies of scope and speed contribute to the improvement of Facebook’s social and ad targeting algorithms even further. Ultimately, the combination of more users/more data attracts more advertisers and more revenues, in a positive feedback loop reinforced by high switching costs derived from lack of interoperability. As a consequence, competing social networks and suppliers of display advertising, especially news outlets and other content publishers, cannot match Facebook’s scale and ad targeting precision, for which

³⁷ *ibid* 45.

³⁸ FTC Staff (n 3) 76.

³⁹ Maurice E Stucke and Ariel Ezrachi, ‘When Competition Fails to Optimize Quality: A Look at Search Engines’ (2016) 18 *Yale Journal of Law and Technology* 70, 88.

⁴⁰ *Case COMP/M7217, Facebook/WhatsApp (2014)* [77].

⁴¹ “In social advertising, marketers use online social relationships to target and improve their ads.” Catherine Tucker and Alexander Marthews, ‘Social Networks, Advertising, and Antitrust’ (2011) 19 *Geo. Mason L. Rev.* 1211, 1224.

reason they fail to attract a sufficient number of users/advertisers and become profitable. This conclusion is supported by the Cairncross Review, which found that the position of Facebook in online display advertising, through its integrated infrastructure and ‘vast repositories of data’, is of such magnitude ‘that challengers are effectively unable to enter the market’, which may be indicative of ‘grounds for intervention.’⁴²

16. Due to Google’s and Facebook’s virtuous cycles, and in particular, based on their data advantage derived from data-driven externalities, Google and Facebook enjoy a duopoly in online advertising that captures the overwhelming majority of advertising revenue and growth in the sector.⁴³ Their increasingly growing audiences enable them to sell larger advertising inventories and gather and capitalise on huge volumes of data,⁴⁴ Indeed, the Bundeskartellamt found that Facebook is increasingly becoming more and more indispensable for advertising customers,⁴⁵ whereas former Google CEO Eric Schmidt has testified that Google’s search advertising is ‘the most effective tool for reaching the customers that are actually prepared to buy’, and ‘has the best ROI of any advertising as best we can determine’,⁴⁶ for which reason it is not substitutable with other forms of advertising.

Theme 2: Consumer control over data collection practices

17. First of all, it must be noted that survey data over several years confirms that there is a general and widespread concern about online data processing practices. According to a survey published in August 2018 by the UK Information Commissioner’s Office, 53% of British adults are concerned about their ‘online activity being tracked.’⁴⁷ Moreover, the European consumer protection organisation BEUC has reported that 70% of EU consumers are worried about how their data is being collected and processed.⁴⁸ Similarly, in a study commissioned by IAB Europe in which 11,000 people across the EU were surveyed about their attitudes regarding online media and advertising, it was reported that only ‘20% would be happy for their data to be shared with third parties for advertising purposes.’⁴⁹ In the same vein, the 2016 Eurobarometer survey of 26,526 people across

⁴² ‘The Cairncross Review - A Sustainable Future for Journalism’ 63.

⁴³ Autorité de la Concurrence, ‘Opinion No. 18-A-03 of 6 March 2018 on Data Processing in the Online Advertising Sector’ (2018) 36 <http://www.autoritedelaconcurrence.fr/doc/avis18a03_en_.pdf>.

⁴⁴ *ibid.*

⁴⁵ Bundeskartellamt, ‘Background Information on the Facebook Proceeding’ (2017) 4 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Diskussions_Hintergrundpapiere/2017/Hintergrundpapier_Facebook.html>.

⁴⁶ FTC Staff (n 3) 72 See page 146 of this report for numerous statements from Google’s executives and advertisers noting lack of substitution between search and display advertising .

⁴⁷ Harris Interactive for the Information and Commissioner’s Office, ‘Information Rights Strategic Plan: Trust and Confidence’ (2018) 21.

⁴⁸ BEUC, ‘Supplementary Written Evidence (OPL0068) – Online Platforms and the EU Digital Single Market, BEUC Additional Comments’ (2015) <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/eu-internal-market-subcommittee/online-platforms-and-the-eu-digital-single-market/written/25081.html>>.

⁴⁹ IAB Europe, ‘Europe Online: An Experience Driven by Advertising. Summary Results’; (2017) 7 <http://datadrivenadvertising.eu/wpcontent/uploads/2017/09/EuropeOnline_FINAL.pdf>.

the EU found that “[s]ix in ten (60%) respondents have already changed the privacy settings on their Internet browser and four in ten (40%) avoid certain websites because they are worried their online activities are monitored. Over one third (37%) use software that protects them from seeing online adverts and more than a quarter (27%) use software that prevents their online activities from being monitored.⁵⁰ The foregoing is consistent with the 2011 Eurobarometer survey which found that disclosing personal data is a big issue for 63% of respondents at EU level, and for 67% of UK respondents.⁵¹

18. Online privacy concerns are not exclusive to the EU. In the US, a study commissioned by TRUSTe found that consumers’ online privacy concerns were extremely high, ‘with 92% of US internet users worrying about their privacy compared with 89% in January 2013. The high level of concern [was] further evidenced by 47% saying they were always or frequently concerned and 74% were more concerned than last year.’⁵² Similarly, in a study on adults’ perceptions about online advertising, 64% of respondents agreed to the statement ‘someone keeping track of my activities online is invasive.’⁵³ Lastly, the Pew Research Centre reported in 2015 that ‘76% of [US] adults say they are “not too confident” or “not at all confident” that records of their activity maintained by the online advertisers who place ads on the websites they visit will remain private and secure.’⁵⁴ 50% of respondents said that no information should be shared with ‘online advertisers.’⁵⁵
19. Yet, privacy concerns are the antithesis of digital advertising platforms’ business model. The less data platforms can access, the lower the raw material they have to improve their plethora of free services and ad targeting algorithms. Therefore, to circumvent consumers’ privacy preferences and have access to larger volumes of data, both Google and Facebook have engaged in practices falling within three main categories: (i) infrastructure imperialism, (ii) deepening of information asymmetries, and (iii) deception and manipulation. The outcome of such practices has been the exploitation of consumers in the form of excessive extraction of personal data and privacy invasions, and as a direct consequence of the larger volumes of data Google and Facebook have been able to amass, the reinforcement of their market position in the markets for search, social networks and online advertising, with the concomitant loss of competition in those segments and significant harms to their customers and consumers.
20. Infrastructure imperialism is the *modus operandi* consisting of incursions into undefended private territories until resistance arises. When it comes to data, Google and Facebook just take what they want, and then exhaust their adversaries in court or agree

⁵⁰ European Commission, ‘Eurobarometer: E-Privacy (Eurobarometer 443)’ (2016) 5, 36–7 <<http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2124>>.

⁵¹ European Commission, “‘Special Eurobarometer 359: Attitudes on Data Protection and Electronic Identity in the European Union’” (2011) Tables section, 15.

⁵² TRUSTe, “‘Consumer Opinion and Business Impact. TRUSTe Research Report’” (2014) 3.

⁵³ Aleecia McDonald and Lorrie Faith Cranor, ‘Beliefs and Behaviors: Internet Users’ Understanding of Behavioral Advertising’ (2016) SSRN Paper 22 <<https://papers.ssrn.com/abstract=1989092>>.

⁵⁴ Mary Madden and Lee Rainie, ‘Americans’ View about Data Collection and Security - Pew Research Center’ (2015) 7 <http://assets.pewresearch.org/wp-content/uploads/sites/14/2015/05/Privacyand-Security-Attitudes-5.19.15_FINAL.pdf>.

⁵⁵ *ibid* 25.

to pay a fine that ultimately amounts to a negligible investment for a significant return.⁵⁶ The Google Street View Project is a case in point. In 2007 Google began circulating cars that photographed streets and gathered 3D images of cities and towns around the world. The cars were also fitted with antennas that scanned local Wi-Fi hotspots.⁵⁷ Wi-Fi information is particularly important for location-based services such as online maps, as it enables the service provider, in conjunction with GPS technology in smartphones, to determine the location of a given user at any time with more precision. Google publicly stated that said data was to be used in Google Maps.⁵⁸ After an audit requested by the Data Protection Authority ('DPA') of Hamburg of the data collected by the Street View cars, Google admitted that it had 'mistakenly' collected samples of payload data (information sent over the Internet) from non-password-protected Wi-Fi networks.⁵⁹ Said payload data included e-mail and text messages, passwords, Internet usage history and other highly sensitive personal information such as names, addresses, sexual preferences, marital infidelity events and medical histories.⁶⁰ The incident gave rise to multiple privacy/data protection investigations and sanctions around the world.⁶¹ Google ultimately settled the related complaints, after already having had access to data that was key for its online advertising business.⁶²

21. Facebook has engaged in similar practices. In a recently published paper entitled *Facebook's Anticompetitive Lean in Strategies*, it has been described extensively the methods based on which Facebook has tracked its users outside Facebook, unbeknown to them and

⁵⁶ Shoshana Zuboff, 'Big Other: Surveillance Capitalism and the Prospects of an Information Civilization' (2015) 30 *Journal of Information Technology* 75, 78.

⁵⁷ Jemima Kiss, 'Google Admits Collecting Wi-Fi Data through Street View Cars' *The Guardian* (15 May 2010) <<https://www.theguardian.com/technology/2010/may/15/google-admits-storing-private-data>> accessed 4 March 2017.

⁵⁸ 'WiFi Data Collection: An Update' (*Official Google Blog*) <<https://googleblog.blogspot.com/2010/05/wifi-data-collection-update.html>> accessed 4 March 2017.

⁵⁹ *ibid.*

⁶⁰ Federal Communications Commission, *In the Matter of Google Inc.: Notice of Apparent Liability for Forfeiture* (2012), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0416/DA-12-592A1.pdf

⁶¹ Sanctions were imposed in *inter alia* the US, Italy, Korea, Germany, the UK and France. See 'Google Pays Fine for Italy Privacy Breach' (3 April 2014) <<http://www.dailytelegraph.com.au/news/breaking-news/google-pays-fine-for-italy-privacy-breach/news-story/a15cb38e7cb45e3632e3c44b3db778e0>>; The Korea Herald, 'Google Fined W210m for Data Gathering' (28 January 2014) <<http://www.koreaherald.com/view.php?ud=20140128001166>>; Josh Halliday, 'Google Told to Delete Street View Payload Data or Face UK Prosecution' *The Guardian* (21 June 2013) <<https://www.theguardian.com/technology/2013/jun/21/google-street-view-payload-data>>; 'Google Fined 145,000 Euros Over Wi-Fi Data Collection in Germany' *Bloomberg.com* (22 April 2013) <<https://www.bloomberg.com/news/articles/2013-04-22/google-fined-145-000-euros-over-wi-fi-data-collection-in-germany>>; Mimosia Spencer and Ruth Bender, 'Google Fined in France Over Street View' *Wall Street Journal* (21 March 2011) <<http://www.wsj.com/articles/SB10001424052748703858404576214531429686752>>; 'Attorney General: Attorney General Announces \$7 Million Multistate Settlement With Google Over Street View Collection of WiFi Data' <<http://www.ct.gov/ag/cwp/view.asp?Q=520518&A=2341>>.

⁶² Maurice Stucke and Allen Grunes, *Big Data and Competition Policy* (Oxford University Press 2016) 93.

contrary to Facebook's own statements, with an aim to access more data and reinforce its market position.⁶³

22. Moreover, digital advertising platforms strive to deepen information asymmetries through the design of their privacy policies. Privacy policies are almost invariably lengthy. One study showed that a user would take 244 hours per year, or 40 minutes a day, to read all the privacy policies of the websites he visits, which is more than half of the average time users spend on the Internet.⁶⁴ The same study shows that if users actually read all such policies, this would entail USD 781 billion lost in opportunity costs.⁶⁵ Moreover, in addition to lengthy, privacy policies are difficult to understand,⁶⁶ as they are often expressed in incomprehensible legal jargon.⁶⁷ Further, they are typically vague as to under which circumstances and to whom personal data may be transferred,⁶⁸ simply referring, for instance, to 'provide a more tailored and consistent experience' or 'third-party partners.'⁶⁹ A survey conducted by Deloitte showed that only 22% of Internet users who read privacy policies understood how firms were supposed to use their data.⁷⁰ Consistent with this the CMA has confirmed that "consumers want more transparency and clearer explanations of how their data will be used before they consent to its collection."⁷¹ To make things worse, privacy policies commonly change over time. For instance, Facebook has historically and increasingly introduced changes to its privacy policy, which has led to users' data being more publicly available.⁷²

23. Importantly, some privacy policies present information in a cumbersome manner, with the effect that consumers are deterred from attempting to become more informed on online platforms' data collection practices. For example, Facebook's Data Policy is extremely hard to navigate, containing over 70 links to other pages. The interlinking of separate pages dramatically increases the amount of navigation and reading time for a user, as there is commonly no differentiation between links that contain key terms and

⁶³ See explanation of Facebook's Beacon and Social Plugins Liza Lovdahl Gormsen and Jose Tomas Llanos, 'Facebook's Anticompetitive Lean in Strategies' (Social Science Research Network 2019) SSRN Scholarly Paper ID 3400204 25–35 <<https://papers.ssrn.com/abstract=3400204>>.

⁶⁴ Aleecia M McDonald and Lorrie Faith Cranor, 'The Cost of Reading Privacy Policies' (2008) 4 I/S: A Journal of Law and Policy 543, 563.

⁶⁵ *ibid* 564.

⁶⁶ Erik Sherman, 'Privacy Policies Are Great -- for PhDs' (*Moneywatch*, 2008) <<http://www.cbsnews.com/news/privacy-policies-are-great-for-phds/>>.

⁶⁷ Wolfgang Kerber, 'Digital Markets, Data, and Privacy: Competition Law, Consumer Law, and Data Protection' [2016] MAGKS, Joint Discussion Paper Series in Economics 11 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2770479>.

⁶⁸ CMA, 'The Commercial Use of Consumer Data – Report on the CMA's Call for Information' (2015) 136.

⁶⁹ See Facebook, '2018 Data Policy' (*Facebook*) <https://www.facebook.com/about/privacy/update/draft2?CM-S_BRANCH_ID=1534594943262990>.

⁷⁰ Deloitte, "Data Nation 2014: Putting Customers First" (2014) 10.

⁷¹ CMA (n 68) 138.

⁷² Matthew Keys, 'A Brief History of Facebook's Ever-Changing Privacy Settings' (*Medium*, 21 March 2018) <<https://medium.com/@matthewkeys/a-brief-history-of-facebooks-ever-changing-privacy-settings-8167dadd3b-d0>>.

links that contain explanatory content.⁷³ For example, under ‘Information from partners’ on Facebook’s 2018 Data Policy, one of the links is ‘learn more’, which takes the reader to a page containing more information about the third- party data providers with whom Facebook shares user data, although there is no additional information on how and with whom those data providers can further share user data.⁷⁴

24. As a result, information asymmetries are deepened, as consumers without exception will know less than data holders about the scope and pervasiveness of data collection and the use of voluntarily shared or inferred (i.e. mined) personal data. Moreover, even if people effectively read all relevant privacy policies on a regular basis, they still would not know what specific kind of data is being held, for how long, in what format, under which security measures, for what purposes it will be used (for instance, targeted advertising or price discrimination) or to whom the data may be shared.⁷⁵ In addition, consumers know very little about and cannot duly assess the consequences of agreeing to specific present collections, uses or disclosures of their data.⁷⁶ For example, consumers cannot possibly know about the data aggregation and data mining practices of companies, what kind of information about them is out there, how accurate the same is, and how such information may be used by prospective employers to accept or decline a job application or by insurance companies to set the amount of an insurance premium.⁷⁷
25. Also, through deception and manipulation, online platforms obfuscate their data collection operations and nudge consumers into choosing the most privacy-intrusive options, often in a manner contrary to their privacy preferences. Take the example of Facebook’s privacy settings. Whilst they offer users significant control regarding access to their data by other Facebook users, the same cannot be said in respect of the collection and use of data by apps, websites and Facebook. For example, whilst users can control who sees what they post in the News Feed and on their profile, who sees their contact phone and email address, and who sees the apps and websites they use, if all advertising data sharing settings are turned off, third parties may still target advertising on Facebook to users based on things that users do on Facebook, third parties may still use contact information to match their customer list to a Facebook profile and target advertising to that user, and there is no setting that prevents Facebook from targeting advertising to users while on Facebook based on the apps and websites they use.⁷⁸ Similarly, there are no options to stop sharing location data with Facebook. Consequently, ‘users are able to choose from several granular settings which regulate access by other individuals, but cannot exercise meaningful control over the use of their personal information by Facebook or third parties. This gives users a false sense of control.’⁷⁹

⁷³ Australian Competition & Consumer Commission, ‘Digital Platforms Inquiry - Preliminary Report’ (2018) 183.

⁷⁴ Facebook, ‘How Does Facebook Work with Data Providers? | Facebook Help Centre’ <<https://www.facebook.com/help/494750870625830?ref=dp>>.

⁷⁵ Katherine J Strandburg, ‘Free Fall: The Online Market’s Consumer Preference Disconnect’ (2013) Vol. 2013, Article 5 University of Chicago Legal Forum 95, 144.

⁷⁶ Daniel J Solove, ‘Privacy Self-Management and the Consent Dilemma’ [2012] 126 Harv. L. Rev. 1880 1886 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2171018>.

⁷⁷ Nathan Newman, ‘Data Justice: Taking on Big Data as an Economic Justice Issue’ (2015) 3.

⁷⁸ Australian Competition & Consumer Commission (n 73) 207.

⁷⁹ Brendan Van Alsenoy and others, ‘From Social Media Service to Advertising Network: A Critical Analysis of Facebook’s Revised Policies and Terms’ (2015) Report commissioned by the Belgian Data Protection Authority 22.

26. The Norwegian Consumer Council (Forbrukerrådet) recently found that Google and Facebook have ‘default settings preselected to the least privacy friendly options’.⁸⁰ This is highly concerning, as ‘the default setting of whether data are immediately shared or not probably has more effect [on disclosure of data] than any other issue of design’,⁸¹ and most users never look at, let alone change, the default settings.⁸² Facebook’s GDPR-pop-up provides a good example. The interface was designed with a bright blue button enticing users to ‘Accept and continue.’ Taking the easy path by clicking this button would take the user to a new screen about face recognition, with equivalent similar button to accept and continue. Conversely, users who wanted to limit the data Facebook collects and how it uses it, had to first click a grey box labelled ‘Manage data settings,’ where they were led through a long series of clicks in order to turn off ‘Ads based on data from partners’ and the use of face recognition technologies. This path was, in other words, considerably longer. Users that were in a rush to use Facebook were inclined to simply click the blue button and be done with the process, which results in the maximum amount of data collection and use. This ‘easy road’ consisted of four clicks to get through the process, which entailed accepting personalised ads from third parties and the use of face recognition. In contrast, users who wanted to limit data collection and use had to go through 13 clicks.⁸³ By making it simpler and more streamlined to allow the collection of the largest amount of data, in comparison to limiting data sharing, Facebook was nudging users toward the former.⁸⁴
27. As a result of the aforementioned and other similar practices over the years Google and Facebook strengthened their data-driven market power, and when they felt insulated from meaningful competitive pressure, they imposed on consumers onerous terms of service that enable excessive data collection, consumers are presented with a standard set of terms that are offered to all prospective users with no opportunity to negotiate any specific term, including with regard to how much personal data can be collected or how it may be used and shared with third parties.
28. In 2012 Google announced the introduction of a new privacy policy that would encompass all the services Google offers, including popular services such as YouTube, Chrome, Google Play and Google Maps, replacing the previous individual policies that governed each service. Said privacy policy⁸⁵ authorises Google to gather detailed personal data from any of those services and combine it for the purposes listed therein, including to create consumer profiles that are valuable for advertising purposes. This move caused a privacy uproar in the EU. The Article 29 Working Party established a task force composed of six DPAs, led by the CNIL (the French DPA), to carry out an ‘examination’ of the lawfulness of such privacy policy amendment. Since the Article 29 Working Party had no investigatory and enforcement powers under the Directive, this process was essentially informal, and ended up in separate investigations conducted under national laws

⁸⁰ Norwegian Consumer Council (Forbrukerrådet), ‘Deceived by design’ (2018) 15 <<https://www.forbrukerradet.no/undersokelse/no-undersokelsekategori/deceived-by-design/>>.

⁸¹ Jamie Bartlett in House of Lords, ‘Regulating in a Digital World’ (2019) 32.

⁸² Jared Spool, ‘Do Users Change Their Settings?’ (November 2011) <<https://archive.uie.com/brainsparks/2011/09/14/do-users-change-their-settings/>>.

⁸³ Norwegian Consumer Council (Forbrukerrådet) (n 80) 20.

⁸⁴ *ibid.*

⁸⁵ Google Inc., ‘Privacy Policy – Privacy & Terms – Google’ <<https://www.google.com/policies/privacy/>>.

by the DPAs participating in the task force. All of the DPAs composing the task force found that Google breached the data protection laws of their respective countries.⁸⁶ Nevertheless, Google managed to fully implement and keep this privacy policy amendment. After this amendment, users of Google's services had two options: either fully accept the new terms or stop using Google's services altogether.

29. Facebook implemented an identical practice. Insulated from competitive pressure, on 13 November 2014 it announced a new update of its terms and policies, including its privacy policy. This update, which came into force on 1 January 2015 (the 2015 Data Policy), included explicit descriptions of Facebook's user tracking and the possibility to combine for commercial purposes data gathered from different sources, including Instagram, WhatsApp and third-party websites using Facebook's analytics or advertising services, to which now consumers had to either agree or close their accounts. In our paper 'Facebook's Anticompetitive Lean in Strategies' we describe the timeline of Facebook's practices that culminated in this privacy policy amendment.⁸⁷
30. The use of take-it-or-leave-it terms is a manifestation of Google's and Facebook's significant market power and lack of competition in many segments dominated by these platform's services (such as online search, social networks, video-streaming, digital maps, online messaging, OS for non-Apple mobile devices and App stores for Android), since both platforms can unilaterally set the terms applicable to their transactions with consumers, which include the right to unilaterally change their terms of service from time to time. Conversely, consumers are only able to decide whether or not to consent to the entirety of Facebook's and Google's terms of use to access their services, a decision that almost invariably favours Google and Facebook given the absence of viable competitors. Since the imposition of these terms would not be possible under competitive conditions, and moreover deprives consumers of their data protection rights in violation of the GDPR, it amounts to an exploitative abuse within the meaning of Article 102(a) TFEU (i.e. imposition of unfair trading terms). Our paper 'Facebook's Anticompetitive Lean in Strategies' explains in detail the manner in which this abuse operates, as well as the causal connection between exploitation on the free side and elimination of competition on the paid side.⁸⁸

⁸⁶ See Information Commissioner's Office, 'Google to Change Privacy Policy after ICO Investigation' (15 April 2016) <<https://ico.org.uk/about-the-ico/news-and-events/news-and-blogs/2015/01/google-to-change-privacy-policy-after-ico-investigation/>>; Agencia Española de Protección de Datos, 'Agencia Española de Protección de Datos Sanciona a Google Por Vulnerar Gravemente Los Derechos de Los Ciudadanos' (2013) <http://www.agpd.es/portalwebAGPD/revista_prensa/revista_prensa/2013/notas_prensa/news/2013_12_19-ides-idphp.php>; Garante per la Protezione dei Dati Personali, 'Decision Setting Forth Measures Google Inc. Is Required to Take to Bring the Processing of Personal Data under Google's New Privacy Policy into Line with the Italian Data Protection Code' (2014) <<http://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/3295641>>; Commission Nationale Informatique et Libertés, 'The CNIL's Sanctions Committee Issues a 150 000 € Monetary Penalty to GOOGLE Inc. | CNIL' (2014) <<https://www.cnil.fr/fr/node/15624>>; Autoriteit Persoonsgegevens, 'CBP Issues Sanction to Google for Infringements Privacy Policy' <<https://autoriteitpersoonsgegevens.nl/en/news/cbp-issues-sanction-google-infringements-privacy-policy>>; 'Google Ordered by German Authority to Change Privacy Practices' (*PCWorld*, 8 April 2015) <<http://www.pcworld.com/article/2907612/google-ordered-by-german-authority-to-change-privacy-practices.html>>.

⁸⁷ Lovdahl Gormsen and Llanos (n 63) 22–35.

⁸⁸ *ibid* 35–61.

Theme 3: Competition in the supply of digital advertising in the UK

31. The exploitative terms Google and Facebook have imposed on consumers have enabled them to increasingly gather more data to improve their free service downstream and paid advertising services upstream. As a result, competition and consumers suffer. Take the example of the display advertising market. Display advertising is the main source of income of content publishers, especially media and news websites and apps, and therefore they compete with Facebook on this side of the market. The exploitative terms introduced in the 2015 Data Policy harmed publishers to a great extent, given that by enabling Facebook's surveillance of their readers and visitors, Facebook was able to undercut their value and publishers' pricing power over them.⁸⁹ For example, a website publisher such as the TechCrunch attracts a well-defined audience interested in gadgets, technology and Internet trends. The TechCrunch has an interest in keeping that audience engaged with its website, so it can show its audience ads that are targeted to their interests and thereby make profits when users click on an ad. However, the ability to monitor Internet users arising from the introduction of the exploitative terms meant that Facebook could determine with precision who the members of the TechCrunch actually are, follow them throughout the Internet and target them with ads on any website or app other than the TechCrunch, charging a significantly lower ad serving cost than that the TechCrunch would charge. As Srinivasan explains: 'if Facebook could compile a list of people that read the *Journal*, even those who did not use Facebook, it could simply sell the ability to retarget "*Journal* readers" with ads across the internet for a fraction of the cost that the *Journal* charged.'⁹⁰ Put in other words, Facebook contributed to the commoditization of publishers' most valued asset: their loyal audiences.
32. The market for search advertising has also become increasingly more concentrated and consequently less competitive. The merging of data from different sources enabled by Google's 2012 privacy policy amendment reinforced data-driven externalities and therefore Google's market position: more data means enhanced learning-by-doing and therefore the ability to render more relevant search results and better targeted ads. Deprived of scale and access to data, market penetration and expansion by Google's competitors has become almost impossible (see paragraph 9).
33. Moreover, both Google and Facebook have expanded their advertising services beyond search and social display advertising on their respective web properties. Facebook Audience Network allows advertisers to have their ads shown on third party websites and apps that are members of this Network, with which they extend their Facebook ad campaign off Facebook using the same targeting information. Similarly, Google's AdSense and AdMob enable websites and apps to supply ad inventory to Google Display Network or Google Search Network, and Google sells ads purchased by advertisers on Google Ads (formerly known as 'AdWords') on such websites and apps. As a result, both Google and Facebook have been able to extend their reach on the Web dramatically, and consequently to exponentially increase their sources of data to improve their advertising services. According to Facebook, 'in a Facebook ad campaign study, conversion rates were eight times higher amongst people who saw ads across Facebook, Instagram and Audience Network than people who only saw the ads on Facebook,'⁹¹ whereas Google

⁸⁹ Dina Srinivasan, 'The Antitrust Case Against Facebook: A Monopolist's Journey Towards Pervasive Surveillance in Spite of Consumers' Preference for Privacy' (2019) 16 Berkeley Business Law Journal 64.

⁹⁰ *ibid.*

⁹¹ 'Help Centre - What Is the Audience Network?' (*Facebook Business*) <<https://www.facebook.com/business/help/788333711222886>>.

claims that Google Display Network ‘has over 2 million sites and reaches over 90% of people on the Internet’.⁹²

34. Ultimately, the mix of large audiences, vast repositories of data and almost endless data sources has resulted in a Google/Facebook search advertising/display advertising duopoly that is causing increasing concern. As observed by Phil Smith of the Incorporated Society of British Advertisers (ISBA), “[t]he impact, in digital, of their [Google and Facebook’s] strength is that advertisers do feel they lack choice when they are looking simply within digital media.”⁹³ On account of data-driven economies of scale and the practices mentioned in Theme 2 above, it is highly unlikely that this duopoly will be displaced by the operation of market forces.
35. Monopolies do not tend to advance the interests of their customers and consumers, and the Google/Facebook duopoly is no exception. Notably, digital advertising systems are remarkably opaque, a fact that provides room for the exercise of market power. Indeed, it has been argued that on some occasions the performance of Google’s and Facebook’s advertising services is overstated, which may be as a result of over reporting the number of visitors to their platforms.⁹⁴ Similarly, it is claimed that the standards Facebook and Google have adopted may mislead advertisers by overstating the number of consumers that have viewed their ads.⁹⁵ In particular, Facebook has a rich history of miscalculating ad metrics.⁹⁶ For example, in 2017 ad videos served on Facebook mobile app continued to play after they were scrolled out of view, and Facebook charged advertisers for the background views.⁹⁷ Also, in 2016 Facebook admitted that it had been overstating the ‘average duration of video viewed’ metric.⁹⁸ Facebook reportedly told some advertisers that it had been ‘probably’ overstating the average time spent watching video ads by 60 per cent to 80 percent; however, a group of small advertisers claimed in a lawsuit that Facebook had instead inflated the average ad-watching time by 150 per cent to 900 per cent.⁹⁹ Importantly, complaints have been made that Google and Facebook are measuring the performance of their own advertising services whilst restricting the ability of advertisers to resort to independent third parties to this end.¹⁰⁰ According to the Australian Competition & Consumer Commission, ‘the inability for advertisers to verify the delivery

⁹² Google Inc., ‘About Targeting for Display Network Campaigns - Google Ads Help’ <<https://support.google.com/google-ads/answer/2404191?hl=en-AU>>.

⁹³ House of Lords, ‘UK Advertising in a Digital Age - HL Paper116’ (2018) 21.

⁹⁴ Australian Competition & Consumer Commission (n 73) 77.

⁹⁵ *ibid.*

⁹⁶ For a list of measurement errors see Tim Peterson, ‘FAQ: Everything Facebook Has Admitted about Its Measurement Errors’ (*Marketing Land*, 17 May 2017) <<https://marketingland.com/heres-itemized-list-facebooks-measurement-errors-date-200663>>.

⁹⁷ *ibid.*

⁹⁸ Greg Finn, ‘Facebook Acknowledges Discrepancy That Had Overstated a Video View Metric’ (*Marketing Land*, 23 September 2016) <<https://marketingland.com/facebook-acknowledges-discrepancy-overstated-video-view-metric-192828>>.

⁹⁹ Ethan Baron, ‘Facebook Lured Advertisers by Inflating Ad-Watch Times up to 900 Percent: Lawsuit’ (*The Mercury News*, 16 October 2018) <<https://www.mercurynews.com/2018/10/16/facebook-lured-advertisers-by-inflating-ad-watch-times-up-to-900-percent-lawsuit/>>.

¹⁰⁰ Australian Competition & Consumer Commission (n 73) 77.

and performance of their ads on Google and Facebook has the potential to lessen competition in the supply of advertising services. This is because it has the potential to mislead advertisers into thinking their ads perform better than they actually do. This impedes the transmission of price and quality signals in the market and encourages some advertisers to advertise on [Google and Facebook] rather than with competing suppliers of advertising services.¹⁰¹

36. Furthermore, the high degree of vertical integration of both Google and Facebook increases the risk of anticompetitive conduct in online advertising. For example, there is a risk that these platforms favour their own advertising services by ranking their ads higher on search or social media results. Indeed, the Commission recently imposed a EUR 2.42 billion on Google for preferencing its own specialised vertical services (i.e. Google Shopping) instead of competing services that might advertising on Google Search.¹⁰² Additionally, there are concerns that Google and Facebook can avail themselves of their advertising services to fully exclude competitors from their platforms, thereby denying them an indispensable media outlet to reach customers. For instance, the Danish dating site Dating.dk has in a letter to Commissioner Vestager said that it had long used Facebook's advertising services; however, shortly after Facebook announced the launch of its own dating service in 2018, its ad requests were turned down.¹⁰³
37. The state of the online advertising market is detrimental to content publishers, advertisers and consumers. Content providers, especially news outlets, cannot compete with Google's and Facebook's scale and data-advantage to attract advertisers, and as a result have been forced to either cease their operations or reduce the quality and variety of their journalism to remain alive.¹⁰⁴ Advertisers, in turn, have no option but to use Google's and Facebook's advertising services, the accuracy of which they cannot verify, paying prices they cannot negotiate. Last but not least, if advertisers are exploited, higher advertising prices are inevitably passed on to the consumers whom advertisers are targeting.¹⁰⁵

Potential Remedies

Potential Remedy area 1: increasing competition through data mobility, open standards and open data

38. Interoperability, that is, the '[c]apability to communicate, execute programs, or transfer data among various functional units in a manner that requires the user to have little or no knowledge of the unique characteristics of those units',¹⁰⁶ can be particularly suitable to boost competition in markets where direct network effects play an important role, such as the social media and electronic communications markets. It can be achieved through

¹⁰¹ *ibid* 79.

¹⁰² *Commission Decision in Case AT.39740 Google Search (Shopping)*, 27/06/2017 (n 18).

¹⁰³ 'Dating.Dk i Åbent Brev Til Margrethe Vestager: Stop Facebooks Misbrug Af Dominerende Stilling' (*Avisen.dk*, 14 June 2019) <https://www.avisen.dk/datingdk-i-aabent-brev-til-margrethe-vestager-stop_555500.aspx>.

¹⁰⁴ 'The Cairncross Review - A Sustainable Future for Journalism' (n 42) 14–15.

¹⁰⁵ Matt Rogerson in House of Lords, 'UK Advertising in a Digital Age - HL Paper116' (n 93) 23.

¹⁰⁶ IGI Global, 'What Is Interoperability' <<https://www.igi-global.com/dictionary/interoperability-medical-devices-information-systems/15494>>.

the provision of transparent and publicly accessible application programming interfaces (APIs) giving access to the data and functionality needed for technical integration between technological components. For example, for messaging services, an interoperability obligation imposed on WhatsApp would mean that a WhatsApp user could send a message to his friends using Telegram without the need of switching services. Or in the context of social media, users of competing social networks such as Diaspora or LinkedIn could post messages on somebody's Facebook page directly without the need to create a Facebook profile. Accordingly, consumer lock-in could be significantly reduced, thereby lowering barriers to entry.

39. Interoperability in respect of Facebook's social graph (i.e. the list of online friend connections) would be a welcomed development to promote competition. Currently, consumers are not able to take their social graph and use it on another social media platform. This is because the data a user can download through Facebook's Download Your Information functionality is not interoperable. True interoperability would mean that users could download their social graph from Facebook and upload their list of friends onto other social networks, so they can find their friends there. In this connection, some have advocated giving users ownership of their social graph, based on a Social Graph Portability and Interoperability Act. This measure could greatly boost competition in the social network market, since if users can find their online connections on different social networks, they will be more likely to try new social network platforms.¹⁰⁷ In turn, if newcomers know that they can attract existing Facebook customers, new social networks are more likely to emerge, the strength of network effects is lowered, and incentives to compete and innovate are promoted. As Josh Constine observes: '[i]f you can't take your social graph with you, there's little chance for a viable alternative to Facebook to arise. It doesn't matter if a better social network emerges, or if Facebook disrespects your privacy, because there's nowhere to go. Opening up the social graph would require Facebook to compete on the merit of its product and policies. Trying to force the company's hand with a variety of privacy regulations won't solve the core issue. But the prospect of users actually being able to leave would let the market compel Facebook to treat us better.'¹⁰⁸
40. A combination of data portability and interoperability has a great potential to promote competition in the market for social networks. Most Facebook's users are locked-in, as they cannot take elsewhere valuable content they have gathered over the years. Article 20 GDPR enshrines the right to data portability, but this right applies only to personal data. Accordingly, in a competition policy context, the scope of applicability of Article 20 GDPR could be extended to non-personal data and data about the data subject provided by other users in order to enable meaningful porting of profiles and other information onto competing social network providers. This measure 'would make data portability more meaningful and effective when a social network is market dominant',¹⁰⁹ as Facebook users would have the real possibility to keep and transfer all the information they have gathered over the years on Facebook to other social networking platforms. Yet, this remedy is bound to be ineffective insofar as the necessary degree of interoperability between social networks is missing. As Vanberg and Unver explain: 'users are uninterested

¹⁰⁷ Luigi Zingales and Guy Rolnik, 'Opinion | A Way to Own Your Social-Media Data' *The New York Times* (20 January 2018) <<https://www.nytimes.com/2017/06/30/opinion/social-data-google-facebook-europe.html>>.

¹⁰⁸ Josh Constine, 'Facebook Shouldn't Block You from Finding Friends on Competitors' (*TechCrunch*, 2018) <<http://social.techcrunch.com/2018/04/13/free-the-social-graph/>>.

¹⁰⁹ Marco Botta and Klaus Wiedemann, 'EU Competition Law Enforcement Vis-À-Vis Exploitative Conducts in the Data Economy Exploring the Terra Incognita' [2018] Max Planck Institute for Innovation and Competition Research Paper No. 18-08 86.

in pure data export, as it is a complex and time-consuming process, with inherent uncertainty, as the data transferred may not be utilised by other data controllers due to technical and architectural constraints.¹¹⁰ If the user data gathered from Facebook cannot be used elsewhere, there will be no incentives to switch. Therefore, interoperability and data portability must go hand in hand. To this effect, technical standards should be adopted to enable the seamless transmission of data between social network providers and ensure a level playing field for small operators and entrants.

41. An alternative to data portability coupled with interoperability is mandated data sharing. To counter the strong network effects and data-driven externalities that characterise certain online markets, some have signalled mandated data sharing as the cure. According to Pruffer and Schottmuller, '[b]y increasing access to [...] anonymized clickstream data, other parties in different markets can use them for further innovation. At the same time, a strong concentration of large internet companies on these markets can be avoided.'¹¹¹ The idea is that access to the incumbent's data by competitors is likely to enable them to innovate and improve their services, compete on the merits and reduce the extent of the incumbent's data advantage. It is highly likely that this approach can lead to positive competitive outcomes. However, it lies in tension with data protection considerations. In particular, by demonstrating feasibility of large-scale re-identification using movie-viewing histories and in general any behavioural or transactional profile, Narayanan and Shmatikov have proved that 'once any piece of data has been linked to a person's real identity, any association between this data and a virtual identity breaks the anonymity of the latter.'¹¹² Therefore, if anonymisation cannot be properly achieved, mandated data sharing is likely to cause significant privacy harms far beyond those Facebook and Google have already caused, as anonymised information that is in the exclusive possession of these platforms could be made available to a potentially large number of rivals, which may be able to de-anonymise the data with relative ease.¹¹³ Hence, insofar as no technical mechanisms exist to ensure the anonymity of data, this measure should be avoided.

Potential Remedy area 2: giving consumers greater protection in respect of data

42. The overwhelming market power of Google and Facebook is correlated with the expanding erosion of online users' privacy rights. Data Protection law is called upon to stop this trend, but thus far, it has not been vigorously enforced. If these platforms were forced to obtain actually valid consent for the processing of their users' personal data and abide by the purpose specification and data minimisation principles, the scope of their data advantage, and consequently the magnitude of their data-driven market power, could be significantly reduced.

¹¹⁰ Aysem Diker Vanberg and Mehmet Bilal Ünver, 'The Right to Data Portability in the GDPR and EU Competition Law: Odd Couple or Dynamic Duo?' (2017) 8 *European Journal of Law and Technology* 10.

¹¹¹ Inge Graef and Jens Pruffer, 'Mandated Data Sharing Is a Necessity in Specific Sectors' (2018) 103 *Jaargang* 298.

¹¹² Arvind Narayanan and Vitaly Shmatikov, 'Robust De-Anonymization of Large Sparse Datasets', in *2008 IEEE Symposium on Security and Privacy (SP 2008)* (IEEE Computer Society 2008) 9 <<http://ieeexplore.ieee.org/abstract/document/4531148/>>.

¹¹³ See example of AOL making public over 20 million search queries made by thousands of subscribers over a three-month period in 2006. Michael Barbaro and Tom Zeller, 'A Face Is Exposed for AOL Searcher No. 4417749' (*The New York Times*, 2006) <http://www.nytimes.com/2006/08/09/technology/09aol.html?pagewanted=1&_r=1>.

43. In particular, if users gave valid consent, as opposed to forced consent, they would be duly informed as to the specific kind of data that Google and Facebook collect for the provision of their services, and would be able to deny that consent if they considered some type of data collection as too intrusive or inconsistent with their privacy preferences, without fear of being forced to close their social media accounts or stop using specific services. The possibility of consenting to the data collection necessary only for the provision of Facebook's social network services or Google's search services, for example, whilst still having the possibility to deny consent to intrusive data processing operations that only seek to increase Facebook's and Google's profitability, would be in and of itself sufficient to put an end to the exploitative abuse referenced in paragraph 30. Given users' attitudes to online advertising seen in paragraphs 17 and 18, it is likely that a big portion of users would significantly reduce the scope of their consent to Facebook's and Google's data processing operations, especially the relentless tracking across the Web. Therefore, Facebook's and Google's stream of data could be drastically reduced, thereby opening the possibility for competitors to catch up. At the same time, consumers' privacy would be duly promoted.
44. Crucially, consumers should be properly aware of Google's and Facebook's data processing operations and the detrimental effects on online privacy arising from the use of their services. Currently, with the majority of consumers uninformed or confused about their data processing practices and related privacy harms, Google and Facebook feel little to no pressure to reduce the intrusiveness of their practices, in spite of consumers' voiced preference for more online privacy seen paragraphs 17 and 18. As the CMA observes: 'if consumers are limited in their ability to make informed decisions and to challenge firms over the use of their data, this may mean that firms have limited incentives to compete over the protection they afford to consumer data.'¹¹⁴ Accordingly, information asymmetries must be removed so consumers can exercise genuine informed choice. To this end, the provision of adequate and clear information about Facebook's and Google's business model is essential. In this connection, the recent agreement at which Facebook, the Commission and EU Consumer protection authorities arrived to clarify Facebook's use of data is a welcomed development. The Commission reported that 'Facebook will introduce new text in its Terms [of Use] explaining that it does not charge users for its services in return for users' agreement to share their data and to be exposed to commercial advertisements. Facebook's terms will now clearly explain that their business model relies on selling targeted advertising services to traders by using the data from the profiles of its users.'¹¹⁵ However, the implementation of this measure must be done correctly. Since only few consumers read online terms and conditions in full, information about Facebook's business model should be made available not only in its Terms of Use, but also in multiple places on its website and at different points during users' interaction with the platform, including with the aid of images, audio and video, when appropriate.¹¹⁶ The same measure should apply to Google and other data-driven platforms.

¹¹⁴ CMA (n 68) 106.

¹¹⁵ European Commission, 'Press Release - Facebook Changes Its Terms and Clarify Its Use of Data for Consumers Following Discussions with the European Commission and Consumer Authorities' (9 April 2019) <http://europa.eu/rapid/press-release_IP-19-2048_en.htm>.

¹¹⁶ As the OECD observes, '[i]n some scenarios, images, audio and video can more effectively convey information to consumers than even the most clear and simple text.' OECD, 'Improving Online Disclosures with Behavioural Insights: Towards Better Outcomes for Consumers' (2018) Directorate for Science, Technology and Innovation Policy Note, 5.

45. The above could be complemented with awareness-raising campaigns. For example, in 2014 the Commission launched a EU-wide Consumer Rights Awareness Campaign, with an aim to increase general knowledge among traders and consumers of EU consumer rights that stem from national transposition of EU Directives. An array of information was made publicly available, and myriad events took place in designated locations across the EU with the participation of consumer authorities, consumer associations, business associations and other stakeholders.¹¹⁷ A similar campaign could be launched to raise awareness of the business model of and harmful consequences stemming from the operations of Google, Facebook and other data-driven platforms. The campaign could serve to educate consumers about online privacy, behavioural biases, the importance of default settings, the manner in which platforms make profits, and the adequate channels and mechanisms to exercise consumer rights online.

Potential Remedy area 3: limiting platforms' ability to exercise market power

46. Measures should be adopted to ensure that Google and Facebook do not abuse their position of intermediaries. Google was recently fined for having manipulated its search algorithms to give more visibility and preference to its services.¹¹⁸ Facebook has engaged in similar practices. It has tweaked its social algorithms to prioritise content that keeps users on the platform, in a move to increase user engagement and therefore have access to more data to fuel its virtuous cycle, thereby harming competitors who are dependent on Facebook's traffic referrals. In the paper referred to above *Facebook's Anticompetitive Lean in Strategies* it is explained how these practices have a detrimental effect on competition.¹¹⁹
47. Accordingly, both Google and Facebook should be prevented from implementing any modifications to their algorithms that result in undue advantages for their platforms and harms for rivals. In particular, Facebook's algorithms should subject every type of content, regardless of whether it fuels traffic within Facebook or leads to traffic being referred to third party websites, to the same underlying processes that have an impact on the content's visibility and ranking on Facebook's news feeds. The Commission imposed a somewhat similar obligation on Google, ordering it to treat competing comparison shopping services no less favourably than its own comparison shopping service within its general search results pages.¹²⁰ However, this obligation is too narrow in scope, and should be extended to all of Google's services.
48. To this effect, a system of independent review of Facebook's and Google's algorithms should be devised and implemented. For example, a team of expert auditors could regularly review the operation of their algorithms, examine the data that is used to train them, and determine the potential for bias in the rankings and promotion of content, or in the ranking of competing services. This would allow auditors to run controlled experiments over time to determine if the algorithms subject to review are leading to competitive advantages for Facebook and Google in the form of increased traffic, greater visibility of their own services, or whether there is discriminatory treatment for publishers' content or competitors. Although this idea is new and untested, so too were once upon a time 'the wild-eyed notions of independent testing of pharmaceuticals and the random in-

¹¹⁷ European Commission, 'Consumer Rights Awareness Campaign' (2014) <https://ec.europa.eu/newsroom/just/item-detail.cfm?item_id=30149>.

¹¹⁸ *Commission Decision in Case AT.39740 Google Search (Shopping)*, 27/06/2017 (n 18).

¹¹⁹ Lovdahl Gormsen and Llanos (n 63) 65–67.

¹²⁰ *Commission Decision in Case AT.39740 Google Search (Shopping)*, 27/06/2017 (n 18) para 699.

spection of food safety,¹²¹ for which reason it should not be readily dismissed on grounds of difficult implementation or otherwise.

¹²¹ Dipayan Ghosh and Ben Scott, 'Digital Deceit II: A Policy Agenda to Fight Disinformation on the Internet' (2018) 20 <<https://www.newamerica.org/public-interest-technology/reports/digital-deceit-ii/>>.