OMIDYAR NETWORK

Roadmap for an Antitrust Case Against Facebook

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Biographies

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Fiona M. Scott Morton is the Theodore Nierenberg Professor of Economics at the Yale University School of Management (SOM) where she has been on the faculty since 1999. Her area of academic research is industrial organization, with a focus on empirical studies of competition. The focus of her current research is competition in healthcare markets and the economics of antitrust. From 2011-12 Professor Scott Morton served as the Deputy Assistant Attorney General for Economic Analysis (Chief Economist) at the Antitrust Division of the U.S. Department of Justice, where she helped enforce the nation's antitrust laws. At Yale SOM she teaches courses in the area of competitive strategy and antitrust economics. She served as Associate Dean from 2007-10 and has won the School's teaching award three times. She founded and directs the Thurman Arnold Project at Yale, a vehicle to provide more antitrust programming and policy projects to Yale students. Professor Scott Morton has a BA from Yale and a PhD from MIT, both in Economics. She is a frequent speaker at seminars and conferences across the United States and Europe.

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As a senior advisor with the beneficial technology team at Omidyar Network, David is focused on developing a robust analytic framework for antitrust litigation and regulation designed to reduce the competitive, democratic, and other harms caused by big tech companies.

Prior to joining Omidyar Network, David served as deputy legal director with the Southern Poverty Law Center with a special focus on overseeing the LGBTQ Rights & Special Litigation practice group. Previously, he was a partner with the law firm of Munger, Tolles & Olson, where he maintained a national trial and appellate practice focused on antitrust, intellectual property, and corporate litigation. David has also served as special counsel with the Antitrust Division of the U.S. Department of Justice, helping to lead a forty-five-member team of attorneys in the successful antitrust challenge to the proposed merger of AT&T and T-Mobile.

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INTRODUCTION

Roughly 2 billion humans interact with Facebook every day. People across the globe use it to share pictures, catch up with friends and family, post news stories, and debate politics and art. Non-profits build Facebook pages through which to deploy messaging and organize advocacy; schools post official calendars and sports schedules. People with interests as varied as "dry-aged beef," "rock-gardening," and "bow hunting," gather in Facebook-sponsored virtual groups.

Facebook, which also owns Instagram (another social network, that emphasizes photo sharing) and WhatsApp (a messaging app that is especially popular outside the United States), has achieved extraordinary financial success. Its size, scope, and wealth should position Facebook to make massive contributions to consumer welfare. Because of its outsize role in our personal, civic, and political lives, Facebook ought to provide the very best services its abundant resources can support. It would have no choice in the matter if it faced competition.

Despite its popularity (or perhaps because of it), Facebook has faced intense scrutiny in recent years over policies that have permitted users to spread disinformation, sow division, and bully one another. The scrutiny sometimes takes on partisan overtones. A recent dust-up, for example, involves a Facebook decision *not* to fact-check posts by the President of the United States about the purported risks associated with mail-in-voting, while Twitter, a competitor, has decided to fact-check those pronouncements. This paper does not address Facebook's editorial policies or their implications or the question whether the company displays any political bias.

Rather, this paper applies an economic and competition policy lens to the following premise: in a competitive market, Facebook's constituents would enjoy the best social network Facebook can provide. Those constituents include (1) consumer/users who access the platform and use its services at no monetary cost; (2) digital advertisers who pay to gain access to those users; and (3) publishers (like Time Magazine or ESPN.com) whose content is distributed on the platform and who earn ad dollars when Facebook funnels readers to them.

Our second premise is that fair and vigorous competition would make Facebook's services better than if it can shelter itself from competitive forces. Economic theory tells us that new entry or even the threat of new entry forces incumbents to innovate and improve quality, which increases consumer welfare. Facebook has chosen not to compete on the merits of its products and services and instead has misled, deceived, and exploited consumers and publishers. The evidence discussed in this paper indicates that Facebook fought for at least a decade to avoid competition on the merits in the social networks market. Facebook has engaged in a long-term, integrated, anticompetitive strategy of half-truths about its privacy policies, exclusionary API manipulation, and anticompetitive acquisitions of nascent competitors that led to its current dominance of a market in which it now wields significant power over consumers, advertisers, and publishers. Our view is that the facts in the Competition and Markets Authority (CMA) report, the UK House of Commons Report, and other public sources suggest that the methods used by Facebook to achieve monopoly violated US antitrust law and harmed consumer welfare.

We have not conducted our own factual investigation of Facebook, and we had no access to any materials collected by any of the enforcement agencies in the US that currently *are* investigating Facebook.[1] Instead, we

1 *See, e.g.*, Brent Kendall, John D. McKinnon & Deepa Seetharaman, *FTC Antitrust Probe of Facebook Scrutinizes Its Acquisitions*, Wall St. J. (Aug. 1, 2019), https://www.wsj.com/articles/ftc-antitrust-probe-of-facebook-scrutinizes-its-acquisitions-11564683965; Tony Romm, *Forty-six attorneys general have joined a New York-led antitrust investigation of Facebook*, Wash. Post (Oct. 22, 2019), https://www.washingtonpost.com/technology/2019/10/22/forty-six-attorneys-general-have-joined-new-york-led-antitrust-investigation-into-facebook/.

have reviewed an Interim Report released by the UK CMA that has gathered significant amounts of data and evidence from Facebook and other market participants. We use the CMA data and findings, together with a small number of additional public sources, to map out what a monopolization case against Facebook in the US might look like.[2] Of course, if US facts are substantially different than the UK facts—though we note that we know of no reason to suspect major differences—then our analysis would be affected.

This is the narrative we draw from the UK facts: Facebook in its early years competed with a number of other social networks, for example, MySpace and Friendster and Orkut. Facebook in those early years promised users that it would not harvest their personal data. Facebook differentiated itself on this basis and that helped it attract users. Consumers began joining Facebook in increasingly high numbers, which made it an attractive destination for advertisers as well. Facebook's growth also made it increasingly attractive to publishers, who viewed Facebook as an important distribution platform for their content.

Facebook was making money from advertising, but knew it could sell even more advertising, at higher prices, if it could help advertisers serve digital ads that were targeted at the people most likely to buy their products. Therefore, quietly, Facebook began collecting user data without being fully transparent with its users or the public about what it was doing. Facebook also duped publishers into assisting in the data collection by convincing them to install plug-ins that allowed Facebook users to share the publisher content on Facebook. The plug-ins, though, also provided Facebook with a backdoor through which to spy on its users and harvest their data.

Facebook was able to grow its base at least in part by deceiving users and others about its data policies. This deception was critical, because it occurred during a time period in which Facebook was growing rapidly. Social networks are subject to something called "tipping," which results from a characteristic of some markets that economists call "network" effects. A social network becomes more attractive and valuable to new users as more and more of their friends join the same network. If posting on more than one network is a hassle, eventually one network becomes so popular that the market "tips"; small networks are no longer attractive to users, and the winning network essentially controls the whole market. In the UK, and likely in the United States, the social network market has tipped, so that virtually everyone is on Facebook.

Facebook also unfairly maintained and increased its power in the social network market. It carried out a series of acquisitions of small and nascent competitors, among them Instagram and WhatsApp (both at significant premiums), in a strategy that appears designed to stave off potential rivals rather than to take advantage of business synergies or efficiencies. It invited application companies such as game developers onto its platform and allowed them to interoperate with Facebook only until those complementary service providers posed competitive threats to its social network business, at which point Facebook disabled the interoperability or purchased them outright.

The result is that we now have a stagnant social network market. Facebook's sites (including Instagram) account for 75% of all user time spent on social networks, and Facebook.com captures roughly one-half of the billions spent annually on digital display advertising. These percentages have been stable for years, but Facebook's revenues, both in an absolute sense and as a multiple of its costs, are rising. No rival in the last decade has captured more than 5% of the social network market. And because the market is characterized by strong network effects, barriers to entry are high already. Without antitrust or regulatory intervention, it is unlikely that anything is going to change. Facebook can collect monopoly rents, manage the flow of information to most of the nation, and engage in virtually unlimited surveillance into the foreseeable future.

We do not address potential remedies in this paper, except to note that, because of the market's network effects and tendency to tip, remedial measures might need to include mandatory interoperability among competing platforms and complements. Our goal here is not to determine solutions, but rather to examine the UK evidence made public by the CMA and explain how similar evidence in the US might support a finding of liability in a monopolization case here in the US.

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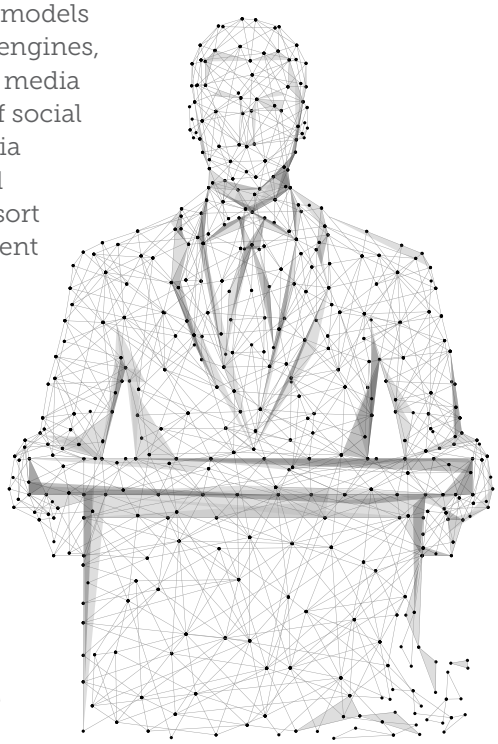
2 These authors have published a similar paper, also based on the CMA Interim Report, mapping out a potential monopolization case against Google based on its conduct in the digital adverting market. Fiona Scott Morton & David Dinielli, *Roadmap for a Digital Advertising Monopolization Case Against Google*, Omidyar Network (May 2020), https://www.omidyar.com/sites/default/files/Roadmap%20for%20a%20Case%20Against%20Google.pdf.

MARKET DEFINITIONS AND CHARACTERISTICS

The Business Model of Social Media



Today we see numerous different sorts of digital platforms that generate business models out of the instant connectivity made possible by internet: e-marketplaces, search engines, payment platforms, music distribution systems, game hubs, app stores, etc. Social media platforms are one type of digital platform. The CMA describes common features of social media platforms that set them apart from other sorts of web platforms. Social media platforms typically allow users to create accounts or profiles, share user-generated content, facilitate communication among users of the platform, and create some sort of personalized feed or homepage where the user can view and interact with content posted by other users or the platform itself.[3] Examples include Facebook.com, Twitter, Snapchat, Instagram (owned by Facebook), YouTube (owned by Google), Reddit, Tumblr, Pinterest, and WhatsApp (owned by Facebook).[4]

Another principal feature of social media platforms is that they typically offer their services for a zero monetary price to the consumer users of the platform.[5] The platform develops a service it hopes will attract a critical mass of users and then seeks to attract a second "side" to the platform, advertisers. Those advertisers are attracted by the users, and the information the platform has about them, and pay to display ads to those users. The large user base and the resulting attention from advertisers also spurs activity on a third "side" of the platform: content publishers. Because users share content on the platform (or the platform itself also displays content for users) the platform acts as an attractive distribution system for the content providers, who then share advertising revenue with the platform that steered the traffic in the first place. The CMA notes that, although a user generally does not part with money as a part of this exchange, she "pays" by giving her attention to the platform and allowing the platform to collect data about her that assists in selling advertising targeted to that user.[6]

Targeted advertising can increase social welfare. Users may experience well-targeted ads as informative and helpful, and less irritating than advertisements that attract their attention but provide information that is ill-suited for the particular user. From the standpoint of the advertiser, well-targeted ads are more likely to spur purchases. Depending on how completely price responds, targeting can allow advertisers to spend less on advertising

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3 Competition & Mkts Authority, *Online Platforms and Digital Advertising: Market Study Interim Report* ¶ 3.102 (2019) [hereinafter "CMA Report"] ("In general, social media platforms have some common features such as: consumer accounts or profiles, which allow consumers to create an online persona; messaging features allowing consumers to communicate directly with others; and a 'feed' or homepage where consumers can engage with organic content including posts, photos and videos. In addition to featuring this organic content, most social media platforms also feature adverts.").

4 *Id.* at ¶ 3.103 ("We consider a sample of the largest platforms that meet this description in this chapter, specifically: YouTube; Facebook.com; Snapchat; WhatsApp (owned by Facebook Inc.); Instagram (owned by Facebook Inc.); Twitter; LinkedIn; TikTok; Pinterest; Reddit; Tumblr. Of these, Facebook.com and YouTube have had by far the greatest shares of supply for at least the last five years.").

5 *See, e.g.*, George J. Stigler Center for the Study of the Economy and the State, *Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee Report* 87 (July 1, 2019), https://research.chicagobooth.edu/-/media/research/stigler/pdfs/market-structure-report.pdf [hereinafter "Stigler Report"]; CMA Report, *supra* note 3, at ¶ 2.5 ("Although consumers do not pay money for these services, they can be considered to pay for them by giving the platform their attention and data about themselves.").

6 CMA Report, *supra* note 3, at ¶ 2.5 ("Although consumers do not pay money for these services, they can be considered to pay for them by giving the platform their attention and data about themselves. Advertising-funded platforms are able to combine the attention of their users with contextual or personal information they have about them to serve highly-targeted adverts, which are in high demand by advertisers.").

(because they have to advertise to fewer people) while increasing the effectiveness of their campaigns. A part of any such savings will eventually accrue to consumers in the form of lower costs of running advertisers' businesses, thereby increasing consumer welfare. For these reasons, the business model of social media per se need not harm consumer welfare.[7]

However, three elements of the business model that we will discuss in detail below raise particular concerns about harm to consumer welfare. The first is that Facebook can raise the price of its ads if it can improve their quality by targeting.[8] This means Facebook has a financial incentive to gather as much data about its users as it can, including everything from shopping patterns, reading and browsing habits, to location information. This financial incentive has prompted Facebook to harvest data from its own platform and also to deploy methods to track its users when they are not using the Facebook platform. For example, Facebook gathers data about its users when they use the sign-in-with-Facebook functionality, which allows users to sign into third-party apps without having to create or remember additional passwords.[9] Facebook also deploys tags and pixels to track user behavior on third-party websites.[10] Surveillance extends not only to the consumer herself but to her friends. Because Facebook's ad targeting benefits not just from information about individual users, Facebook also gathers data about its users' friends and derives insights from the nature and strength of their social connections. And Facebook partners with data brokers to layer even more data on the data it gathers itself.[11] Consumers can experience harm when they are surveilled. The CMA reports that only a small minority of consumers—15%—are happy to share their data in order to get targeted ads,[12] the principal reason being that an even smaller proportion of consumers—9%—report trusting social media networks.[13]

Consumers can experience harm when they are surveilled. The CMA reports that only a small minority of consumers—15%—are happy to share their data in order to get targeted ads, the principal reason being that an even smaller proportion of consumers—9%—report trusting social media networks.

7 *Id.* at ¶ 2.8 ("The targeted nature of digital advertising can add value to both advertisers and consumers. For consumers, targeted adverts will be more relevant to them, which can make them less irritating and more likely to provide genuinely useful information about products and services they may be interested in. For advertisers, improved targeting should deliver a greater return on their investment as their adverts will be viewed more often by their intended audience. Overall, more relevant and better targeted adverts can be expected to result in more purchases, increasing consumer and producer welfare as a result."). Nor is the advertiser-sponsored business model unusual or novel. The CMA notes, for example, that newspapers in the UK have generated revenue from advertisements for several hundred years.

8 *Id.* at ¶ 5.142 ("Access to higher quality or more granular data allows for more precise targeting of more specific audiences. Granular data is particularly valuable when combined with high reach among different audience types using the platform, as this allows for relatively large numbers of very specific audiences to be targeted. These factors can allow platforms with better data to sell their advertising inventory at higher prices. This creates a substantial competitive advantage for Google and Facebook, both of which have access to much richer and higher quality datasets and benefit from much greater scale and reach than their rivals.").

9 *Id.* at ¶ 4.15 ("Platforms collect data when consumers sign into an app or website using their sign in functionality, whereby consumers can securely sign in to third-party apps without having to create, authenticate and remember new usernames and passwords. This means that, when a consumer signs into a website to, say, purchase something using her Facebook login details, Facebook collects data about the behaviour and interaction of the consumer with that website and adds it to the information it already has about that consumer.").

10 *Id.* ("Advertisers and publishers can allow platforms to collect observed and volunteered data from their own online services through a range of technologies such as pixels, tags and cookies. In this way, platforms collect large amount of data about consumer preferences and behaviours on other websites and apps and add it to the information they already possess about how consumers interact with their own services.").

11 *Id.* ("Advertisers, publishers and data brokers can provide data they collect about consumers visiting their platforms to enable a better targeting of digital advertising.").

12 *Id.* at ¶ 4.43 ("However, only a small minority of all consumers are happy to share their data to receive relevant advertising. For example, Ofcom found that only 15% of respondents were happy for online companies to collect and use their data to show more relevant adverts or information.").

13 *Id.* at ¶ 4.48 ("We have also found that consumers lack trust in online platforms, with only a minority saying they would trust an online platform with their data. Social media platforms are consistently ranked as the least trusted platforms in surveys. For example, a survey by Ipsos MORI in 2016 found that only 9% of respondents trusted social media platforms with their data.").

Second, as we learned from revelations about political research conducted by Cambridge Analytica, Facebook can gather, analyze, and sell information about its users and their social networks that is sufficiently detailed to permit construction of precise psychographic profiles.[14] These allow Facebook to exploit its knowledge of the user with advertising or other content that accentuates or provokes emotions such as hate or fear. Facebook can exploit these emotions to enable advertisers to sell products they otherwise would not, e.g., makeup to depressed teenagers. Facebook gains from the ability to create and sell such emotions to advertisers, but consumers may not.

Third, because the business model depends on selling ads, a user is more valuable if she stays on the platform longer. Thus, Facebook has an incentive to promote content that causes users to stay on the platform and is addictive. Some engaging content consists of displaying images in a high-quality way, making it easy to locate friends, and so forth, and thereby contributing to consumer welfare. But another type of content that holds users on the platform is that which is outrageous and arousing, as described by the Center for Humane Technology (CHT).[15] The literature show users, especially younger users, can be harmed by this content.[16] Industry insiders use the anodyne term, "engagement," to describe this sort of content because it causes consumers to spend more time on the platform. Thus, the business model of Facebook creates an incentive and ability to collect very detailed and intrusive information about users and exploit their emotions for profit.

The Social Media Sector Is an Antitrust Market

The CMA concludes that "social media platforms" constitute a market for antitrust purposes.[17] Defining a product market typically is one of the first steps in any antitrust analysis.[18] The goal is to demarcate the boundary between products or services that can be substituted for one another, on one hand, and those that cannot, on the other.[19] It is not always an easy task. The CMA cites other institutions' efforts to define social media, for example, and acknowledges that "the concept of 'social media' has blurred boundaries that intersect with video-sharing services, blogging sites, messaging apps and forums."[20] The CMA includes WhatsApp, a widely used messaging platform that Facebook acquired in 2014, in the social media market, despite that it seems similar to stand-alone messaging platforms as well.[21]

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14 *See infra "Harm to Consumers."*

15 *See* Mark Zuckerberg, *A Blueprint for Content Governance and Enforcement*, Facebook.com (Nov. 15, 2018), https://www.facebook.com/notes/mark-zuckerberg/a-blueprint-for-content-governance-and-enforcement/10156443129621634/ ("One of the biggest issues social networks face is that, when left unchecked, people will engage disproportionately with more sensationalist and provocative content. This is not a new phenomenon. It is widespread on cable news today and has been a staple of tabloids for more than a century. At scale it can undermine the quality of public discourse and lead to polarization. In our case, it can also degrade the quality of our services."); Jeff Horwitz & Deepa Seetharaman, *Facebook Knows It Encourages Division. Top Executives Nixed Solutions*, Wall St. J. (May 26, 2020), https://www.wsj.com/articles/facebook-knows-it-encourages-division-top-executives-nixed-solutions-11590507499?mod=e2tw ("The high number of extremist groups was concerning, the presentation says. Worse was Facebook's realization that its algorithms were responsible for their growth. The 2016 presentation states that '64% of all extremist group joins are due to our recommendation tools' and that most of the activity came from the platform's 'Groups You Should Join' and 'Discover' algorithms: 'Our recommendation systems grow the problem.'"); Manoel Ribeiro, et al., *Auditing Radicalization Pathways on YouTube*, Computers & Society (Dec. 4, 2019), https://arxiv.org/abs/1908.08313.

16 *See* Holly B. Shakya & Nicholas A. Christakis, *Association of Facebook Use with Compromised Well-Being: A Longitudinal Study*, 185(3) Am J Epidemiol 203 (2017); Jonathan Haidt & Jean Twenge, *Social Media Use and Mental Health: A Review*, (unpublished manuscript, https://docs.google.com/document/d/1w-HOfseF2wF9YIpXwUUtP65-olnkPyWcgF5BiAtBEy0/mobilebasic#h.xi8mrj7rpf37). Rachel L. Frost & Debra J. Rickwood, *A systemic review of the mental health outcomes associated with Facebook use*, 76 Comput. Hum. Behav. 576 (2017).

17 CMA Report, *supra* note 3, at ¶ 2.28 ("The social media sector is generally understood to include a range of online services, including those offered by Facebook, Twitter, Snapchat, Instagram, YouTube, Reddit, Tumblr, Pinterest and WhatsApp.").

18 We typically would define a geographic market as well, such as "the market for paralegal services in greater Pittsburgh." This paper looks to facts the CMA found regarding the social media market in the UK, and relies on those facts to hypothesize how Facebook's conduct may have harmed competition and consumers in the US social media market.

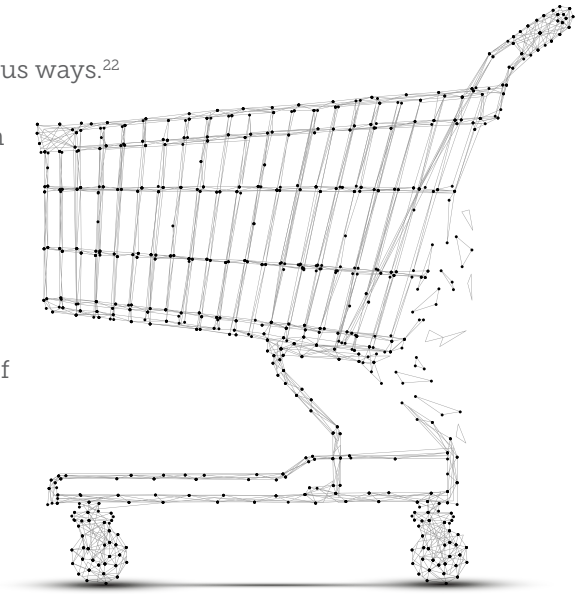
19 Courts typically look to see if, within a proposed market, a hypothetical monopolist could impose a small but significant non-transitory increase in price (SSNIP) for particular goods or services. If it could, then those goods or services constitute a market. But for markets in which there is no cash exchange, as is the case with the market for most social networks, some commentators have suggesting instead using what is termed the small but non-transitory decrease in quality test (SSNDQ) to help define a market. *See* Lapo Filistruchi, *Market definition in multi-sided markets*, Rethinking Antitrust Tools for Multi-sided Platforms 47-49 (OECD 2018). That test may be useful here. As we describe below, *see infra* note 35, social networks as least in theory and in part compete on the basis of their "quality-adjusted price." *See also* David Bassali, Adam Kinkley, Katie Ning & Jackson Skeen, *Google's Anticompetitive Practices in Mobile: Creating Monopolies to Sustain a Monopoly*, Thurman Arnold Project At Yale (May 2020), https://som.yale.edu/sites/default/files/DTH-GoogleMobile.pdf.

20 CMA Report, *supra* note 3, at Box 2.4.

21 *Id.* at ¶ 2.28.

An antitrust market is where we look to see if there has been harm to competitive processes, and, in turn, consumers, if there has been anticompetitive conduct. In particular, anticompetitive conduct in the social media market would cause harm because the affected consumers cannot turn to another product, e.g., the local pub or a search engine to obtain equivalent services at competitive conditions. This is the problem for the consumer of the social media platform. However, as noted above, social media platforms often have at least two types of customers: advertiser customers and user customers. The advertiser customers may have a location to display ads that is a substitute for social media. We will discuss the advertisers last and focus primarily on users in this section.

Online Social Networks Are an Antitrust Market



Social media platforms differentiate themselves from one another in various ways.[22] The CMA notes that some, such as YouTube and TikTok principally facilitate the distribution and consumption of content. In particular, much of the content on YouTube can be enjoyed by users with a wide range of relationships to the person posting, including complete strangers. The CMA concludes that YouTube is focused on offering content and does not compete with Facebook.[23] Other platforms, including Facebook, primarily facilitate communication (including the sharing of third-party content) among groups of friends who choose each other and enjoy content in large part because of those relationships.[24] Facebook is a prime example of this second category of social media platforms.[25]

The CMA describes the ways in which communication-focused social networks form a relevant antitrust market that is distinct from other social media.[26] The CMA, for example, defines social media with reference to the Bundeskartellamt Facebook decision (2019), which held that there is a specific demand for social networks (such as Facebook), "which is fundamentally different from the demand for social media."[27]

A principal feature distinguishing Facebook.com and other communications-focused social media platforms from platforms focused on distributing non-user-specific content is something called a "social graph." A social graph is

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22 *Id.* at ¶ 3.110–3.111 ("While they have similar broad functionalities, as shown by Table 3.1, social media platforms are differentiated in some important ways. An important aspect of platforms' differentiation appears to be the extent to which they emphasise promoting communication between their users as opposed to the consumption of content. . . As well as positioning themselves differently with respect to a balance of communication and content, social media platforms often also differentiate on the basis of one or more of the characteristics described earlier in the chapter.").

23 *Id.* at ¶ 3.116 ("As above, YouTube is a content-focused platform and appears to compete more closely with providers of audio-visual content (including music streaming platforms and video streaming platforms) rather than Facebook's social media platforms. We have therefore also calculated shares of supply based on consumer time spent on the platforms, excluding YouTube.").

24 Photos of first communions, music recitals, and baby's first steps may attract the attention of your great aunt in Pasadena, but unrelated 20-something Brooklyn-ites likely would rather scroll the high-gloss Instagram feeds of Chiarra Ferragni or Negin Mirsalehi.

25 The CMA observes that there is some debate about whether YouTube, which serves almost exclusively as a content distribution platform, and WhatsApp, which serves principally as a messaging app, should be considered social media platforms. The CMA includes these two platforms in its consideration of the broader social media market to provide for a fuller assessment of the competitive position of Facebook, which owns WhatsApp. *See* CMA Report, *supra* note 3, at ¶ 3.104.

26 *Id.* at ¶ 3.112 ("Consistent with social media platforms' differentiated strategies, consumers access different platforms for different reasons. For example, a platform that is oriented more towards communication may be more commonly accessed by consumers to have conversations with friends than a platform oriented more towards content. Social media platforms compete more closely (on the consumer side) if they are generally accessed by consumers for similar reasons. Facebook's platforms will therefore likely face the greatest constraint from platforms accessed by consumers for broadly similar reasons."); *cf. id.* at ¶ 3.121 ("YouTube does not currently appear to compete closely with Facebook's platforms, despite its comparable reach and levels of consumer engagement.").

27 *Id.* at Box 2.4 ("The key purpose of social networks is finding and networking with people the users already know, and to exchange on a daily basis experiences, opinions and contents among specific contacts which the users define based on identity. Providers meet this demand by offering the corresponding core functionalities which grant users a 'rich user experience.'") [citing Bundeskartellamt Facebook decision (2019)].

a virtual map of the vast web of connections between users that allows a platform to suggest new friends, display content liked by friends, and gather and create data based not just on a particular user's activity on the platform, but also that of her friends. Facebook.com has a robust social graph; YouTube does not.[28]

The CMA notes that the strongest reason to conclude that communication-focused social networks occupy their own antitrust market is that consumers themselves see such platforms, such as Facebook.com, as fulfilling a wholly different function than do the content-focused platforms such as YouTube. In reaching this conclusion, the CMA examined internal Google documents that concluded the most common reasons consumers in the UK access YouTube are (1) to view third-party entertainment; or (2) to view "how-to" videos. Consumers generally access Facebook.com for entirely different reasons, such as learning about the lives and events of friends and family. The CMA therefore concludes that Facebook.com and YouTube do not appear to compete directly and are in separate markets.[29] For example, few consumers could find equivalent services from YouTube if the quality of Facebook.com were to decline and they wanted to leave the platform. By contrast, the CMA concludes that the Facebook family of platforms, led of course by Facebook.com, operate as a single competitive unit.[30] We will refer to "Facebook's market share" as the sum of the shares of Facebook.com, Instagram, and WhatsApp, which the CMA pegs at 75% as of June 2019.[31]

The CMA notes that, although social media platforms for the most part all provide a service that allows users to communicate and interact with one another and view and share content, the various platforms compete for user attention along a number of parameters. The CMA identifies the following:

- **Innovation** — the development or incorporation of new features
- **Size and type of user base** — the decision to tailor a platform for particular sorts of users, for example, people interested in professional networking
- **Content featured** — the type of user-generated content the platform supports, as well as the third-party content the platform itself provides or suggests
- **Ad load and quality of advertising** — the number, type, and quality of ads served and the degree to which ads complement or detract from user experience
- **Privacy** — the manner in which user activity is shared with other users or external parties
- **Platform "governance"** — the degree to which a platform monitors and regulates negative or harmful content that could degrade user experience[32]

This (non-exclusive) list describes the elements of "quality" in this market. Higher quality social network platforms will be more attractive to users and provide more consumer surplus, all else equal. Another element a consumer considers when deciding whether to use a service is its price. The CMA notes that "price" can be zero because

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28 *Id.* at ¶ 3.121 ("Finally, Google told us that YouTube does not have a social graph. Social graphs give social media platforms the ability to identify connections between consumers. Therefore, YouTube cannot recommend videos based on consumers' 'friends' viewing behaviour or recommend content users may like based on friends' activity, as done by other social media platforms such as Facebook.com and Instagram.").

29 *Id.* at ¶ 3.121 ("We note that of the platforms we considered, consumers seem to access YouTube for particularly distinctive reasons. As a result, YouTube does not currently appear to compete closely with Facebook's platforms, despite its comparable reach and levels of consumer engagement. We further note that YouTube is heavily oriented towards content, rather than communication. Consistent with this, consumers tend to view YouTube as a platform for video consumption, with only a minority emphasising its communication features. Internal documents submitted by Google indicate that the most common reasons consumers in the UK access YouTube are for entertainment and to view 'how-to' videos on the platform.").

30 *Id.* at ¶ 3.128 ("The wider 'family' of Facebook platforms reinforces Facebook's competitive position.").

31 *Id.* at ¶ 3.102 ("In general, social media platforms have some common features such as: consumer accounts or profiles, which allow consumers to create an online persona; messaging features allowing consumers to communicate directly with others; and a 'feed' or homepage where consumers can engage with organic content including posts, photos and videos. In addition to featuring this organic content, most social media platforms also feature adverts, as shown below in Figure 3.5."). The CMA concludes that WhatsApp fits enough of this description to be included in the market.

32 *Id.* at ¶ 3.107.

the service is free, or positive, for example a subscription.[33] In addition to quality and price, the exchange between the social network and the user must account for any barter of goods in kind. In the case of Facebook, users agree to trade their data to the platform in exchange for its services.[34]

The combination of these elements generates net consumer surplus: the consumer gains from using a high-quality social network and loses from any barter or monetary price paid. In this way the impact of Facebook use on a consumer fits neatly into the familiar antitrust concept of "quality-adjusted price."[35] For example, a quality-adjusted price rises when the monetary price of a service stays constant while its quality falls or the amount of data required in trade increases.

The CMA describes in detail the fact that Facebook has not been transparent about the amount of data it extracts in exchange for the "free" service. Rival services could compete against Facebook by continuing to offer a service for free, while simply extracting less data or using the data it does extract in less invasive ways—if users were aware of this quality-adjusted price discount and responded to it. Rivals could also use monetary tools to compete as we have written elsewhere; a platform might want to charge a negative price for user data, i.e., platforms would pay users to use the platform and allow broad access to their data in exchange for the platform's right to monetize the data through targeted ads.[36]

The CMA does not discuss the externalities generated by platform governance though they follow logically from the findings above. The CMA describes how "governance" has competitive relevance insofar as governance affects the quality of individual user's experience: Facebook attracts users when it places high-quality, engaging content on their newsfeeds, but would turn users off were it to give them nothing but offensive rants or clickbait. In other words, an individual user experiences low quality (and a high quality-adjusted price) when she is shown content she doesn't personally like. But of course that same governance will affect what a user's friends see, and therefore their state of mind and the content they share when they interact with her; it will also affect what she believes her children or family will see if they spend time on the platform, as well

The quality the user experiences may also be reduced if the platform allows others to share low-quality materials—such as offensive or dangerous materials—among themselves. A user might prefer not to engage with a social media platform that makes money by serving false political ads or by providing tools such as "groups" that serve as virtual meeting rooms for conspiracy theorists and neo-Nazis.

33 *Id.* ("[S]ocial media platforms generally offer services to consumers at zero monetary cost. However, some services can also be provided on a subscription basis.").

34 *Id.* at ¶ 4.1 ("Many consumers use a range of online platforms every day. They may use Google to find a local restaurant, access Facebook to see what their friends are doing and buy a book on Amazon. When they use these services, platforms collect and use information about them to serve personalised advertising. In return, these services are typically free to use and allow them to do a range of things such as search the web, connect with friends, share content and receive more relevant advertising.").

35 *See* Stigler Report, *supra* note 5, generally and at 34 ("When a service reduces quality without lowering price, it is raising quality-adjusted prices, which harms consumers."). *See also Roland Machinery Co. v. Dress Industries, Inc.* 749 F.2d 380, 395 (7th Cir. 1984); Harold Demsetz, *Economics as a Guide to Antitrust Regulation*, 19 J.L. & Econ 371, 373; Samson Y Esayas, *Competition in (Data) Privacy:'Zero'-Price Markets, Market Power, and the Role of Competition Law*, 8 Int. Data Privacy L. 181 (2018).

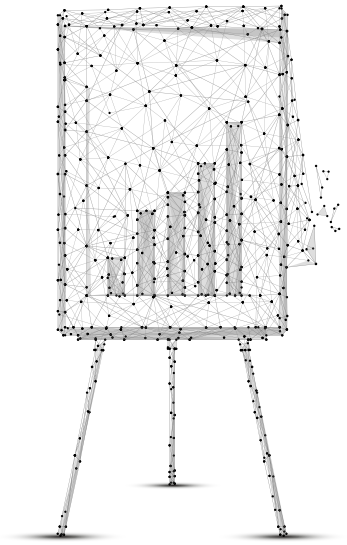
36 *See* Stigler Report, *supra* note 5. Indeed, one notable example of this strategy is Vero Social, a subscription service that saw a significant surge in downloads after Facebook's privacy breaches became the subject of high-profile reports in 2017. Dina Srinivasan, *The Antitrust Case Against Facebook: A Monopolist's Journey Towards Pervasive Surveillance in Spite of Consumers' Preference for Privacy*, 16 Berkeley Bus. L.J. 39, n. 247 (2019).

as the risk that she herself will be exposed to that content given that it is widely spread on the platform. Lastly, the quality she experiences may also be reduced if the platform allows others to share low-quality materials—such as offensive or dangerous materials—among themselves. A user might prefer not to engage with a social media platform that makes money by serving false political ads or by providing tools such as "groups" that serve as virtual meeting rooms for conspiracy theorists and neo-Nazis.[37]

These barter and quality elements to a user's transaction with Facebook properly belong in traditional notions of consumer welfare and can be conceptually operationalized as part of quality-adjusted price.

Market Shares in Social Networks

The CMA concludes that, despite the various parameters along which other social media platforms compete with Facebook.com, none has achieved significant market share. The CMA measures market share based on the percentage time users spend on particular social media platforms. If a user spends 100 minutes in the course of a day on social media, and 60 of those minutes were on Facebook.com, for example, the CMA would say that Facebook.com had a 60% share of that user's time for that day. This conception of market share is also used in the literature and is consistent with the business model described above, where platforms want to keep eyeballs on their platforms for as long as possible in order to sell more ads.[38]



The CMA utilized this method to calculate market shares based on two possible social media markets: one that includes YouTube, and one that excludes YouTube. For the reasons described above, we will use a market definition without YouTube and denote it as the social network market. Facebook.com's differentiated competitors' shares are small regardless whether YouTube is in, or out, of the market. No social media platform has achieved even a 10% share of a market that includes YouTube at any time in a four-year period from 2015 to 2019.[39] And in the smaller market that excludes YouTube, only one competitor—Snapchat—has exceeded a 10% share during that same time period—a period in which Facebook's share generally remained about 75%.[40] The CMA also notes that the social media market, however defined, has not seen significant entry: only two entrants in the last decade (Instagram and Snapchat) succeeded in growing, and neither has captured more than 5% of the total time spent on social media (including YouTube).[41]

Using these definitions and methods, the CMA concludes that Facebook.com has 58% share of the social network market, while the Facebook corporation—including WhatsApp, Instagram, and Facebook.com—has a 75% share of the social network market. The next largest competitor, Snapchat, has 13%.[42]

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37 For example, marketing research has shown consumers will pay more for coffee labeled "fair-trade." *See* Elizabeth MacBride, *Jens Hainmueller: Will Consumers Actually Pay For Fair Trade?*, Stanford Business Insights (Apr. 8, 2015), https://www.gsb.stanford.edu/insights/jens-hainmueller-will-consumers-actually-pay-fair-trade. Another survey showed consumers are willing to pay more for sustainable products. *See* Joseph Chang, *Consumers willing to pay more for sustainable products—Accenture*, Icis (Jun. 4, 2019), https://www.icis.com/explore/resources/news/2019/06/04/10374331/consumers-willing-to-pay-more-for-sustainable-products-accenture.

38 *See* Andrea Prat & Tommaso Valletti, *Attention Oligopoly* (May 30, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3197930 (utilizing "usage rate" as the key input for a framework to assess mergers between advertising-supported "attention bottlenecks" such as social networks).

39 CMA Report, *supra* note 3, at Figure 3.7.

40 *Id.* at Figure 3.8.

41 *Id.* at Box 3.5.

42 *Id.* at ¶ 3.117 ("When YouTube is excluded, Figure 3.8 shows that Facebook.com had a share of 58% of time spent on social media platforms in the most recent period. What the CMA refers to as "time spent on social media" here is the market excluding YouTube—defined in this paper as the "social network" market. Therefore Facebook.com has by far the greatest share of consumer attention amongst the
social media platforms we considered. Snapchat, a recent entrant that holds the next greatest share, had only 13% of time spent. Facebook.com's share has declined over the last five years, having fallen from 80% in July 2015. However, we note that the number of users accessing Facebook.com has increased throughout the period and the absolute time spent by users on Facebook.com has increased in the last two years. Combined, Facebook's platforms (Facebook.com, Instagram and WhatsApp) had a share of 75% as of June 2019.").

Facebook's other group of customers are advertisers who are interested in presenting online consumers with display ads that will attract them to the product or service being advertised. In previous work, we describe in detail the CMA's findings concerning relevant markets in digital advertising.[43] The CMA finds that digital display advertising is a relevant market. The CMA further finds that Facebook holds about a 50% share of the digital display advertising market.[44] The CMA also describes a segmentation between video ads and non-video ads, which are not substitutes. According to the CMA, Facebook and Instagram together capture 50–60% of ad spend on video advertising.[45]

The other locations where advertisers may show their ads include other closed systems (known as "walled gardens") that are similar to Facebook, such as Amazon or the early AOL, direct deals, and the open web.[46] A walled garden refers to a vertically integrated business that provides content on the web, has users, and monetizes those content and users with its own tools. For example, Amazon earns subscription revenue (through Prime) and revenue from advertisers who purchase ads on Amazon's shopping platform. Facebook sells advertising on its own platform using its own system and tools.[47] By contrast, reaching consumers on the open web requires using ad tech tools where Google has a near-monopoly share, or establishing direct contracts with publishers. However, the CMA finds that other suppliers of display advertising are differentiated and do not provide significant competition for Facebook.[48]

The CMA Report thus concludes that Facebook competes in, and has an overwhelming share of, the social network market where consumers spend time, and a large and differentiated share of the digital advertising display market, where advertisers advertise. To the extent US courts treat Facebook as subject to the market definitions described in a recent Supreme Court decision involving American Express, it would compete with other social networks, just as newspapers compete with one another, despite both having advertisers with other choices of where to advertise. Under the *AmEx* description of different types of two-sided markets, Facebook is not a transaction platform like American Express, but rather can be treated as a one-sided platform since the impacts of indirect network effects between consumers and advertisers are minor, as with a newspaper.[49] This is consistent with how users view a social network.

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43 *See* Scott Morton & Dinielli, *supra* note 2, at 3–12.

44 CMA Report, *supra* note 3, at ¶ 17 ("Facebook (including Instagram, which it bought in 2012) **generated almost half of overall display advertising revenues in 2018**. For comparison, this was larger than the entirety of the open display market and more than four times the revenues of its next largest competitor, YouTube (owned by Google)."); *see also id.* at ¶ 5.111 ("Facebook (including Instagram) has a [50%-60%] share of video advertising . . . and a [40%-50%] share of non-video advertising.").

45 *Id.* at ¶ 5.111 ("As noted above, it seems likely that a segmentation between video and non-video formats is appropriate given that many advertisers would have limited ability to substitute between the two. As shown in Figures 5.6 and 5.7 below, Facebook (including Instagram) has a [50%-60%] share of video advertising (£[1-1.1] billion revenues in 2018) and a [40%-50%] share of non-video advertising (£[1.3-1.6] billion revenues in 2018). YouTube is the second largest supplier in video display advertising with a [15%-20%] share of expenditure. We estimate that the open display market accounts for around [20%-25%] of video and [45%-50%] of non-video display advertising.").

46 Facebook also sells advertising through its Facebook Advertising Network directly on websites. This could be another meaningful element of the Facebook ecosystem that deserves scrutiny. However, since the CMA did not analyze this portion of the market, we do not include it for the purposes of this paper. For a description of "walled gardens," *see* Tim Wu, The Master Switch 262 (2010) ("This fact can be hard to grasp for those born and bred on the Internet: AOL was, in those early days, the platform, and, in the lingo, operated as a 'walled garden' for its users. It dictated what content was available to users.").

47 Industry insiders sometimes refer to this as "owned and operated" supply, meaning that the corporation that owns the web page where the ad appears also chooses which ad appears, delivers it, and contracts with the advertiser.

48 CMA Report, *supra* note 3, at ¶¶ 3.125, 3.142 ("None of the other social platforms currently offer a comparable portfolio of services to Facebook.com. Instead, each provides a specialised offering that competes with some aspect of Facebook's services. . . Based on the evidence gathered regarding social media platforms' highly differentiated strategies and the variety of consumer purposes for which they can be used, these other platforms do not appear to act as close substitutes to Facebook.").

49 *Ohio v. American Express Co.*, 138 S. Ct. 2274, 2286 (2018) (internal citations omitted) ("To be sure, it is not always necessary to consider both sides of a two-sided platform. A market should be treated as one-sided when the impacts of indirect network effects and relative pricing in that market are minor. Newspapers that sell advertisements, for example, arguably operate a two-sided platform because the value of an advertisement increases as more people read the newspaper. But in the newspaper-advertisement market, the indirect networks (sic) effects operate in only one direction; newspaper readers are largely indifferent to the amount of advertising that a newspaper contains. Because of these weak indirect network effects, the market for newspaper advertising behaves much like a one-sided market and should be analyzed as such."). *See also* Bassali et al., *supra* note 19.

MARKET POWER

The CMA describes several indicators of Facebook's market power. We begin with market power over users and then move to market power over advertisers.[50]

Social Networks Have Strong Direct Network Effects

A very significant reason that Facebook has market power is that a user cannot change platforms and expect to be able to stay in contact with her friends. Because social networks are not compatible, a user's friends would have to change platforms with her for her to be able to continue to see their feeds. Thus, users may be upset that Facebook gave their data to Cambridge Analytica and wish they could move to a rival, but there realistically is nothing they can do other than leave the platform entirely. If they want to remain in touch with their friends they are forced to put up with Facebook's fake news, or exploitation of privacy, or any other increase in quality-adjusted price. Because Facebook has a near monopoly, the vast majority of the people with whom they want to exchange feeds are likely on Facebook already. The switching cost for any one user is therefore enormous. Members of a group that wish to primarily communicate with one another have lower switching costs individually, but very large coordination costs to get everyone to move at once. A single member who wishes to stay in touch on Facebook and finds multi-homing to be costly can prevent such a group move.

Facebook Has a Near-Monopoly Share and Enormous Reach

Facebook.com captures a consistently high share of the consumer time spent on social networks.[51] In a five-year period from 2015–2019, Facebook.com's share of the social media market ranged from around 32–58%. Facebook's market share is even greater when YouTube is excluded and one focuses on just social network usage; the share balloons to around 59–80%.[52] Although the share of time spent on Facebook.com has decreased slowly over time, Facebook.com remains the largest platform by a significant amount, and the size of its user base has not declined.[53] Moreover, the Facebook family of platforms (Facebook.com, Instagram, WhatsApp) had a combined share of 75% as of June 2019. These high market shares over this relatively long time period and continuing to the present indicate market power.

Facebook.com also has unusually broad reach, meaning that large numbers of people use the platform. This fact follows logically from both the strong network effects in social networks and the fact that this form of social communication is tremendously popular. In the way that everyone wanted a phone that connected to the telecom network when phones were the primary means of (distant) social communication, so everyone wants to be on the social network that connects to "everyone." The CMA found that, as of June

50 Users and advertisers both can be considered "customers" of Facebook. Users pay for the ability to use the platform by giving Facebook their data. Advertisers pay for the supply of space for display advertising available on the platform with money.

51 CMA Report, *supra* note 3, at ¶ 3.115 ("Facebook.com and Google-owned YouTube also account for the greatest share of consumer time spent on social media platforms in the UK. As illustrated by Figure 3.7, both have had consistently high shares for the entire period for which we have data.").

52 *Id.* at ¶ 3.117, Figure 3.7 ("When YouTube is excluded, Figure 3.8 shows that Facebook.com had a share of 58% of time spent on social media platforms in the most recent period. Therefore Facebook.com has by far the greatest share of consumer attention amongst the social media platforms we considered. Snapchat, a recent entrant that holds the next greatest share, had only 13% of time spent. Facebook.com's share has declined over the last five years, having fallen from 80% in July 2015. However, we note that the number of users accessing Facebook.com has increased throughout the period and the absolute time spent by users on Facebook.com has increased in the last two years. Combined, Facebook's platforms (Facebook.com, Instagram and WhatsApp) had a share of 75% as of June 2019.").

53 *Id.* at ¶ 3.130 ("While Facebook.com's overall share of time spent has been declining slowly over time, it remains significantly the largest player, and its number of active users has not declined. Facebook's platforms (Facebook.com, Instagram and WhatsApp) had a combined share of 75% of time spent on social media platforms as of June 2019.").

2019, 83% of UK web users report visiting Facebook at least monthly, and 56% report visiting Instagram at least monthly.[54] Reach is another way to think about a platform's popularity, in addition to considering the percentage time spent on particular platforms described above. For advertisers, the reach of the family of Facebook properties is also important. The greater the reach of the family of properties, the more likely an advertiser is to spend her money within the Facebook walled garden, rather than the Google or Amazon gardens. The CMA concludes that Facebook's broad reach is an indication that Facebook has market power.[55]

Facebook also has market power due to the substantial amount of data the platform has collected about its users and their activities.[56] It may have many years of life events and posts from a user. It may see every time a user uses her "Facebook login" on another website, and when she looks at, or purchases something there. It may know the location of the user because the app is open on a mobile device. This complete and detailed dataset permits Facebook to sell its ads at higher prices than they otherwise would garner.

Facebook knows, or can infer, frequent users' interests, their political affiliation, and their mood at any given time. The CMA Report does not discuss psychographics at any length, but they are covered in detail in the "Disinformation and 'fake news'" UK House of Commons Report that examines the Cambridge Analytica scandal.[57] Cambridge Analytica used a detailed survey to build detailed psychological profiles of voters in key political states. Cambridge Analytica could then create and target advertisements at groups with unparalleled precision.[58] Ads to boost right-wing turnout using issues such as same-sex marriage would only be seen by those voters with profiles that had been tested to show that they would be likely to be riled up by those ads. Cambridge Analytica explicitly targeted people with strong political views on specific social issues to take advantage of their emotions. The ads played on users' fear and distrust of societal change and marginalized groups. For entities interested in creating this kind of reaction, Facebook is one of the few platforms that can deliver that result at scale. Thus, Facebook holds market power in the sale of these (low-quality) ads.

Many people use more than one social network. The CMA therefore attempted to determine whether insights could be gleaned from examining patterns in "multi-homing" and asking, is multi-homing always reciprocal? The CMA found that as a general rule, it is not. Although virtually all visitors to other social network sites also visit Facebook.com, the reverse is not true. For example, 97% of Instagram's users "cross-visit" with Facebook.com, but only 66% of Facebook.com users cross-visit with Instagram. 95% of Snapchat users cross-visit with Facebook.com, but only 68% of Facebook.com users cross-visit with Snapchat.[59]

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54 *Id.* at ¶ 3.114 (As shown by Figure 3.6, both Facebook.com and YouTube seem to be consistently growing their user bases. Facebook.com has an audience of over 42 million users in the UK, accounting for 83% of the British online population. YouTube is even larger, with an audience of almost 46 million users accounting for 91%. In contrast, Instagram with the next largest audience, reaches only 56%.").

55 *Id.* at ¶ 3.128 ("The wider 'family' of Facebook platforms reinforces Facebook's competitive position, as consumers may choose to 'switch away' from Facebook.com but remain within the Facebook 'ecosystem' of apps.Facebook's 'family' of apps also gives it a very strong competitive position with respect to certain consumer uses of social media platforms. For example, both WhatsApp and Facebook Messenger are private messaging platforms.").

56 *Id.* at ¶ 5.121 ("Overall, the views of advertisers, media agencies, and suppliers support that Facebook has market power in display advertising. . . . Google and Facebook benefit from greater scale and access to user data than their rivals.").

57 UK House of Commons Digital, Culture, Media and Sport Committee, *Disinformation and 'fake news': final report*, Eighth Report of Session 2017–19 (Feb. 14, 2019), https://publications.parliament.uk/pa/cm201719/cmselect/cmcumeds/1791/1791.pdf [hereinafter "UK Disinformation Report"].

58 Alex Hern, *Cambridge Analytica: how did it turn clicks into votes?*, The Guardian (May 6, 2018), https://www.theguardian.com/news/2018/may/06/cambridge-analytica-how-turn-clicks-into-votes-christopher-wylie.

59 CMA Report, *supra* note 3, at ¶ 3.142 ("Consumers do appear to 'cross-visit' across multiple social media platforms. However, this does not in itself demonstrate that multi-homing behaviour acts as a genuine competitive constraint on Facebook, ie that the different platforms accessed are substitutes, drawing time and attention away from Facebook. Based on the evidence gathered regarding social media platforms' highly differentiated strategies and the variety of consumer purposes for which they can be used, these other platforms do not appear to act as close substitutes to Facebook. In turn, the consumer cross-visiting behaviour we described previously appears to impose more limited competitive pressure on Facebook.com, compared to a scenario where the other social platforms were close substitutes to Facebook."); *id.* at ¶ 3.119 ("The majority of every social media platform's audience 'cross-visits' with Facebook.com. For example, as shown by Figure 3.9 below, 97% of Instagram's audience cross-visited with Facebook.com and 95% of Snapchat's audience cross-visited with Facebook.com. In contrast, 66% of Facebook.com's audience cross-visited with Instagram and 68% cross-visited with Snapchat. The lowest proportion of a social media platform's audience cross-visiting with Facebook.com was TikTok at 70%, demonstrating that each social media platform we analysed is generally used in conjunction with Facebook.com.").

The implications of this pattern are at least two-fold. First, asymmetric multi-homing patterns confirm that Facebook.com is used more than any of its competitors, and therefore is likely to have market power. Second, even the competitor whose users were the least likely to use Facebook.com—TikTok—has a high proportion of users who cross-visit with Facebook.com. 70% of TikTok users (who skew young) also use Facebook.com, suggesting that users even of TikTok, the new kid on the block, do not view this platform as a substitute for Facebook.com.

Users provide Facebook access to personal data as a condition of their (free) use of the platform, and users can change default settings to limit the amounts/kinds of data they provide only through processes that are difficult to navigate.[60] The presence of high default sharing of data by consumers is combined with a lack of effort to offer choice.[61] As this is a form of low quality that users must accept to access the platform, the CMA concludes this indicates market power.[62]

> *The last several sections addressed evidence showing that Facebook has market power over the users who are consumers of its social network platforms. Now we turn to Facebook's market power over advertisers, who are customers of Facebooks insofar as they buy advertising space on Facebooks platforms.*

Another way to think of Facebook's market share is to examine the percentage of digital ad dollars that are spent to buy advertising on Facebook. The CMA finds that Facebook captures up to 50% of revenue in the digital display market. Excluding money earned on ads shown in search engine results, Facebook (including Instagram) generated almost half of all digital advertising revenues, an amount larger than the entirety of what is called the "open display" market, meaning ads placed on websites such as ESPN.com or Time.com, and more than four times larger than the amount earned by YouTube, its next largest competitor.[63] The CMA acknowledges that its estimates are just that: estimates. The open display market is fragmented and complex,[64] which the CMA notes makes difficult the process of estimating expenditure and revenue shares. Regardless, though, the CMA is sufficiently confident in its estimates to conclude that Facebook's high percentage of revenue capture gives it far greater scale than its competitors, and likely confers market power in the sale of display advertising supply.[65] Further, according to the CMA, Facebook and Instagram together capture 50–60% of ad spend on video advertising.[66] Video ads serve a purpose that different than the purpose of other display ads. The CMA therefore concludes that these differences

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60 *Id.* at ¶ 4.156 ("Consumers must engage with unreasonably long, complex, terms and conditions and must make several clicks to access their settings. Understandably, consumers rarely engage with these terms and when they do, they spend very little time reading them. It is unreasonable to expect ordinary consumers to read and understand these terms for every platform that they use.").

61 *Id.* at ¶ 4.106 ("At the same time, other interpretations point out that the framing of choices by platforms and the exploitation of behavioural biases can have an important influence on consumers' privacy decisions. In particular, consumers' choices about privacy controls can be heavily influenced by factors such as the default settings (eg whether to allow ad personalisation or not), how the choice of privacy setting is presented and what language is used to describe the privacy setting.").

62 *Id.* at ¶ 2.69 ("[T]here are various ways that the quality of services offered by platforms might be enhanced if they were subject to more intense competition. Looking beyond the immediate quality of the core services provided (eg relevance of search results or ease of communication with friends) the platforms might be judged on a range of other factors, such as: the extent to which they protect consumers' privacy; the volume and density of adverts that they carry; how clearly and easily the adverts can be distinguished from organic content; and how easily the services can interoperate with other complementary ones.").

63 *Id.* at ¶ 17 ("Facebook (including Instagram, which it bought in 2012) **generated almost half of overall display advertising revenues in 2018**. For comparison, this was larger than the entirety of the open display market and more than four times the revenues of its next largest competitor, YouTube owned by Google."); *see also id.* at ¶ 15 ("Media agencies and most advertisers have told us that search and display advertising are not substitutable, mainly because they perform different roles. Search is intent-based advertising designed to encourage those consumers who have already shown an interest in buying the product to make a purchase, while display is suitable for raising brand awareness and reaching new audiences that might not yet have shown interest.").

64 Scott Morton & Dinelli, *supra* note 2.

65 CMA Report, *supra* note 3, at ¶ 5.110 ("The fragmented nature of the open display market and the fact that advertising is sold via intermediaries makes the estimation of overall expenditure shares in display advertising difficult. Our preliminary estimates, shown in Figure 5.5, suggest that Facebook (including Instagram) is by far the largest supplier, with a share of [40-50%] of advertising expenditure. Facebook has considerably greater scale than the second largest supplier, YouTube, which has [5-10%] of advertising expenditure. In our view this evidence suggests that Facebook is likely to have market power.").

66 *Id.* at ¶ 5.111 ("As noted above, it seems likely that a segmentation between video and non-video formats is appropriate given that many advertisers would have limited ability to substitute between the two. As shown in Figures 5.6 and 5.7 below, Facebook (including Instagram) has a [50%-60%] share of video advertising (£[1-1.1] billion revenues in 2018) and a [40%-50%] share of non-video advertising (£[1.3-1.6] billion revenues in 2018). YouTube is the second largest supplier in video display advertising with a [15%-20%] share of expenditure. We estimate that the open display market accounts for around [20%-25%] of video and [45%-50%] of non-video display advertising.").

limit substitutability between two sorts of display ads.[67] Facebook's high market share in video ads would suggest market power in that sub-market as well.

Lack of transparency for advertisers is a manifestation of market power. The quality of an advertising service includes the ability to verify that the ad was shown as promised.[68] Digital ads are sometimes not delivered at all, displayed on a part of the page that the consumer never scrolls to, or shown too quickly for the human eye to see. Such ads are obviously not delivering value to the advertiser. To the extent such instances are common, they raise the price per effective ad that the advertiser is paying;[69] thus advertisers prefer to audit the performance of the platform and there are a set of independent tools to help them do that.[70] Denying audit and verification raises the quality-adjusted price of the ad and is an exercise of market power. An additional quality element of advertising is brand safety, which is the appearance of the brand next to dangerous or unsuitable content.[71] Facebook prevents brands from having full ability to audit or verify brand safety.[72]

Facebook's high financial returns also indicate market power.[73] The CMA finds that Facebook consistently earns returns of 50%, while its cost of capital is only 9%. Moreover, Facebook's revenue growth appears to be outpacing its cost increases. The CMA offers a chart based on Facebook's 10K filings for 2010 through 2018 that shows both its costs and revenues on a yearly basis. Both appear to be growing quickly.[74] But the revenue curve is much steeper than the cost curve, which indicates that Facebook is becoming even more profitable over time not just in an absolute sense, but also when one compares its revenues to its costs. Given that the vast majority of Facebook revenue consists of ad buys on its social media platform, these consistently high returns and the trend toward ever greater profitability indicate market power in social media.

Facebook serves as an important portal, funneling a significant percentage of views of third-party content to the original publishers. The CMA estimates that referrals from Facebook properties were responsible for 10% of all website visits in 2018, and 13% of website visits in 2019. Because website publishers rely on Facebook for such a significant percent of their traffic and the ad revenue that enables, the CMA reports that publishers generally consider Facebook a "must have business partner."[75]

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67 *Id.* at ¶ 5.34 ("We received views that suggest limited substitutability between video and non-video advertising. Media agencies told us that decisions between video and non-video advertising were typically likely to be driven by the need to convey the advertiser's message in the best way. These decisions were likely to be taken at an early stage of the planning process, driven by input from the creative agency. This would limit substitutability between video and non-video advertising.").

68 *See generally id.* at ¶ 5.37 ("For there to be effective competition between suppliers of advertising inventory, advertisers need to be able to make informed choices about the inventory that they buy. Effective competition between intermediaries relies on both advertisers and publishers being able to make informed decisions on the channels through which they buy and sell."); *see also id.* at ¶ 5.43 ("Platforms and intermediaries may have the incentive and ability to exploit the asymmetries of information and inertia on the part of advertisers in a number of ways. For instance, platforms with market power can take steps to reduce the degree of transparency in digital advertising markets, or refrain from taking steps to make it transparent, forcing advertisers to rely on information and metrics provided by those platforms.").

69 *See id.* at ¶ 50 ("Suppliers may have the incentive and ability to overstate the quality and effectiveness of their advertising inventory, for example, or to increase prices.").

70 *See id.* at ¶ 5.124 ("Responses indicated that although both Google and Facebook do work with a number of 'approved' third-party verification providers, they restrict access to detailed consumer level data in respect of verification for the advertising inventory they own and operate. Other display advertising platforms reported that they do allow advertisers to use tracking tags for third-party verification of impressions served on their advertising inventory.").

71 *See id.* at ¶ 5.126 ("Several advertisers have highlighted to us their previous experience of incidents in relation to the verification of viewability and brand safety in digital advertising. For instance, there have been issues with the misreporting of viewability on the Facebook platform and with brand safety on YouTube.").

72 *See id.* at ¶ 5.124 ("Without access to the underlying raw data and the ability to have full independent verification, there was a perception on the part of advertisers and agencies that Google and Facebook were able, in effect, to 'mark their own homework' in respect of the effectiveness of their own advertising inventory.").

73 *Id.* at ¶ 59 ("We have found that **the profitability of both Google and Facebook has been well above any reasonable estimate of what we would expect in a competitive market for many years.** In 2018 we estimated that the cost of capital for both Google and Facebook was around 9%, compared to actual returns on capital of over 40% for Google and around 50% for Facebook. This evidence is consistent with the exploitation of market power.").

74 *See id.* at Figure 2.4.

75 *Id.* at 5.258 ("Based on publisher submissions in 2018 and 2019 (up until June) the average proportions of traffic to their websites that were referred via Google properties was 26% and 25% respectively (for 2019 min was 8% and max was 57%). Referrals from Facebook properties were responsible on average for 10% of website visits in 2018 and 13% in 2019 (for 2019 min was 2% and max was 47%). Direct website visits were the most important source of traffic with 44% of visits being direct in 2018 and 43% being direct in 2019 (for 2019 min was 6% and max was 57%). Other visits come from what are termed 'other third-party referrals', for example referrals from Snapchat or Instagram."); *see also id.* at ¶ 5.259 ("Publishers have told us that they view Google and Facebook as 'must have' partners. This is primarily due to a substantial proportion of the traffic referred to their websites coming from Google and Facebook properties and a degree of reliance on prominence on Google and Facebook properties for content discovery and brand awareness.").

Summary of Evidence on Market Power

The CMA observes that the various indicators of market power described above are cumulative. Specifically, the CMA emphasizes that the combination of high market share and broad reach, combined with the robust social graph that makes such reach possible (that together result in Facebook's power in the supply of open display advertising that it sells at vast profits), confer what it terms "significant market power." In similarly stark terms, the CMA concludes that with respect to Facebook.com, the jewel in Facebook corporation's crown of properties, no current competitor imposes any strong competitive constraint. The social network market, quite plainly, has tipped. Facebook controls it.[76]

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BARRIERS TO ENTRY

Facebook makes tremendous profits, as explained above. Ordinarily, economic theory would predict that new firms would enter such a market to try to capture some of the profit currently enjoyed by Facebook. But idiosyncratic features of some markets make entry more difficult than would be entry into other markets market; economists call these barriers to entry. The CMA names three principal features that generate barriers to entry. First, digital markets experience network effects. Second, online platforms, including social media platforms, have low marginal costs, resulting in significant economies of scale. Third, the fact that users do not pay money to use the platform reduces the incentive to switch, because rivals and new entrants cannot easily offer a lower price or explain why theirs is a lower quality-adjusted price.[77]

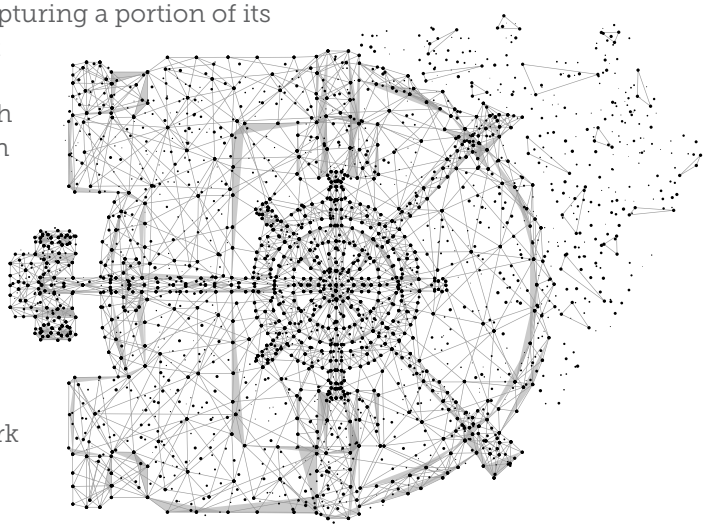
Network Effects Are Significant Barriers to Entry

The most important barrier to entry is the fact that social networks are characterized by "network effects": the value to the user increases as the network gains more and more users, which in turn makes the network

76 *Id.* at 3.130 ("Overall, Facebook appears to have significant market power. Facebook.com is a 'must have' platform for social media users. While other platforms have been able to enter the market and grow their user base, users of these platforms almost all still use Facebook.com. While Facebook.com's overall share of time spent has been declining slowly over time, it remains significantly the largest player, and its number of active users has not declined. Facebook's platforms (Facebook.com, Instagram and WhatsApp) had a combined share of 75% of time spent on social media platforms as of June 2019."); *id.* at ¶ 3.165 ("The evidence we have gathered so far suggests Facebook has significant market power in social media. None of the platforms currently active in the UK's social media sector appear to impose a strong competitive constraint on Facebook.com. No existing social media platform offers a comparable range of consumer services, has access to as extensive a consumer network or has a similarly well-developed social graph. Consumers are unlikely to be able to replace Facebook.com's services entirely with another platform's unless that platform can offer access to each of these components.").

77 *Id.* at Box 2.2 ("Online platforms typically have very low marginal costs and significant economies of scale in delivering the core service. Network effects mean that the value of a service to existing users of a platform increases as the total number of users increases. The nature of the network effects can vary significantly between platforms. The fact that consumers do not pay directly for the platform's services limits their incentives to switch, and means that new entrants must attract users through demonstrably better quality or innovative features, rather than being able to undercut on price.").

increasingly valuable to advertisers.[78] In light of Facebook's profitability, one normally would expect entrants to take on Facebook.com directly in hopes of capturing a portion of its tremendous profits. But this is extremely difficult when network effects are strong. These network effects arise because social network platforms are not interoperable. In order to interact with a friend on a social network, both parties must have accounts on the same platform. Contrast this situation with mobile wireless where a Verizon customer can call an AT&T customer and the phones interoperate. If a Verizon customer could only speak with other Verizon customers, a user would care greatly about the size of Verizon's installed base and whether her friends and family had AT&T or Verizon phones.



This is the situation in social networks. Choosing a platform determines with whom a user can communicate. Strong network effects make such platforms subject to a phenomenon called tipping. Because users all want to belong to the platform where their friends are, a market that starts out with multiple platforms will not stay that way. When one platform gains a slight advantage, it becomes the platform of choice for new users because it has more of their friends on it. Users who want to interoperate tend to all join the leading platform, causing the market to tip. As the result of this "winner-takes-all" dynamic whereby a single market participant (among several or many) rapidly gains monopoly or near monopoly power, there is little competition in a market after it has tipped. Economists describe competition in this kind of market as occurring ex ante, when multiple rivals are all vying for the monopoly position. Competition is *for* the market, rather than *in* the market, other than by sufficiently differentiated competitors. Significant recent scholarship has addressed this feature of digital markets, as the CMA notes.[79] We address some of the features of digital markets that can lead to tipping in our discussion of entry barriers, below.

A hypothetical new entrant that offered all of Facebook's services (or their functional equivalents) but could not offer access to a user's friends is not very attractive, even if its price were lower or its user interface more attractive.[80] Once a market has tipped, it is much harder for an entrant to gain users and traction. Some might argue that the social network market in the US arguably tipped with the decline of MySpace beginning in 2008.[81] In part due to Facebook's anticompetitive conduct, a rival has not grown to a size that would threaten tipping away from Facebook. An entrant must have a compelling value proposition to attract users given that hardly any other users are on it. Occasionally, a new entrant can attract a subgroup that is indifferent about the inability to communicate with the larger group. For example, Instagram was initially very popular with teenagers, who may not have minded being on a social network where their parents were not.[82]

Facebook Has Made It Difficult To Multi-Home

Despite the fact that many consumers "cross-visit" between different platforms, as described above, doing so is not necessarily easy. Indeed, the CMA identifies difficulties in what is termed "multi-homing"—utilizing a variety of

78 Stigler Report, *supra* note 5, at 38.

79 *Id.*; Digital Competition Expert Panel, Unlocking digital competition (Mar. 13, 2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf. *See also* CMA Report, *supra* note 3, at ¶ 2.9.

80 Facebook.com, as do most social media platforms, offers access to its platform for "free," meaning users generally pay no money to use the platform. Instead, and as described below, users "pay" Facebook.com by allowing it to harvest their data and use it to serve ads. A hypothetical new entrant could charge a lower price than Facebook.com in a number of ways, including by (a) taking less data; (b) lowering the quality-adjusted price by providing a higher quality experience; or (c) paying users cash in exchange for using their data.

81 *Id.* at Box 3.6.

82 Kavita Varma-White, *Parents: You follow your teen on Instagram, but do you know about their Finsta?*, Today.Com (Oct. 17, 2017), https://www.today.com/parents/parents-you-know-about-instagram-do-you-know-finsta-t117541 ("Teenagers know the kiss of death to any popular digital trend is when adults start using it.").

social networks to meet your various social network needs. Some of these difficulties are intrinsic to the fact that most platforms are, indeed, run independently from one another. The CMA, for example, cites the "opportunity cost" of accessing one account rather than another, and the time required to set up separate accounts on multiple platforms as impediments to multi-homing.

But the principal challenges to multi-homing in social networks result from decisions made by Facebook itself. Consumers easily could subscribe to (and provide their data to) only those social networks whose collection of services and polices were most attractive to them if the services were fully interoperable. We can imagine a social network market that worked more like the current phone system: a user of one social network could post and reach friends who were members of different social networks through interoperability protocols. In such a world an entrant could attract users who want better privacy protections while staying in touch with friends who remain on Facebook, for example. That is not the world we inhabit. Instead, the CMA notes that social networks generally are not interoperable. Friends on one platform can't be contacted from another, and content posted on one platform can't always be shared directly to another.[83] The lack of interoperability, especially with Facebook, raises the cost of multi-homing, as interfaces must be open and content shared repeatedly.[84] Costly multi-homing is a significant barrier to entry.

Given the strong network effects of Facebook.com, Instagram, and WhatsApp, entrants must choose a way to create value for their users that does not require interoperability with Facebook. Rivals must differentiate from Facebook in order to compete. The CMA observes that Facebook.com is the only social network that combines the features of a strong focus on communication, a range of services, and a robust social graph. Other platforms have differentiated along the competitive parameters described above—Twitter limits the number of characters to be used in each post, creating a Twitter-specific tone and manner of communication—but even these differentiated platforms have struggled to monetize their user bases.[85]

Only two entrants in the last decade—Instagram and Snapchat—have entered the social network market and captured more than 5% of consumer attention. Given the vast amounts of profits to be made in the sector, economists would expect more, or more successful, entry than that.[86] Consistent with the existence of strong market power, the very few successful entrants in social networks in the last 10 years have all been differentiated from Facebook. None except Google's now-defunct Google+ has attempted to compete with Facebook directly, meaning by offering the roughly same menu of services but promising a higher quality and/or lower price.[87] None of the other social networks promote themselves as, "Just like Facebook, but without the neo-Nazis!," for example. Rather, new entrants have all differentiated in appreciable ways, as described above. This suggests that innovators and those who fund their entry recognize that it would be difficult to match or defeat Facebook's market power and do not invest in head-to-head new competitors. These parties may have concluded that, given

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83 Bill Goodwin, Sebastian Klovig Skelton & Duncan Campbell, *How Facebook's 'Switcheroo' plan concealed scheme to kill popular apps*, Computer Weekly (Nov. 06, 2019), https://www.computerweekly.com/feature/How-Facebooks-Switcheroo-plan-concealed-scheme-to-kill-popular-apps.

84 *Id.* at ¶ 3.143 ("That social media platforms are not interoperable. Friends on one platform cannot be contacted from another platform, nor can the content from one platform be consumed on another platform. As a result, consumers have less of an incentive to 'multi-home' with smaller platforms.").

85 *Id.* at ¶ 27 ("Overall, **rival social media platforms do not currently appear to be acting as a material threat to Facebook's competitive position**. While new entry is possible, new platforms must overcome network effects and other barriers by offering a differentiated proposition that induces users to switch. No current platform offers a comparable range of services to Facebook and none can provide access to a similarly extensive user base. Even where platforms are successful in developing a user base, to be viable in the long-term, they must successfully monetise their services, and in the last ten years we note that rival platforms have struggled to do this."); *id.* at ¶ 5.116 ("Rivals similarly saw Google and Facebook as the strongest competitors in display advertising. All of the display advertising rivals we contacted identified Facebook as a competitor and most of these platforms specified that Facebook was one of their top two competitors. These businesses also identified Google as a major competitor, some referring to its ownership of YouTube, and some also referring to its search advertising or its total scale across digital advertising as a whole"); *id.* at ¶ 5.115 ("Advertisers submitted that some rival platforms had idiosyncratic relative advantages. Twitter was highlighted by several advertisers as being especially effective for direct customer engagement and reactive advertising. Snapchat was highlighted for the flexibility of its creative assets and Amazon for its first-party data and for its proximity to the point of sale.").

86 *Id.* at ¶ 3.166 ("Additionally, entry does not appear to act as a meaningful threat to Facebook's competitive position. Network effects act as a strong barrier to entry and expansion in the social media sector, because consumers value the presence of other consumers and an array of relevant, high-quality content. A platform that lacks these may struggle to attract consumers.").

87 *Id.* at ¶ 3.167 ("Recent entrants appear to have responded to the barriers imposed by network effects by inducing consumers to multi-home with differentiated offerings. However, the nature of this strategy implies that the constraint placed on Facebook by such an entrant will be limited. In particular, we note that there has been no successful entry in the last 10 years by a platform competing directly with a comparable set of services to those provided by Facebook.com, with Google's attempt having failed.").

Facebook's market power, any available profits in social networks can only be captured on the margins or through complements.[88]

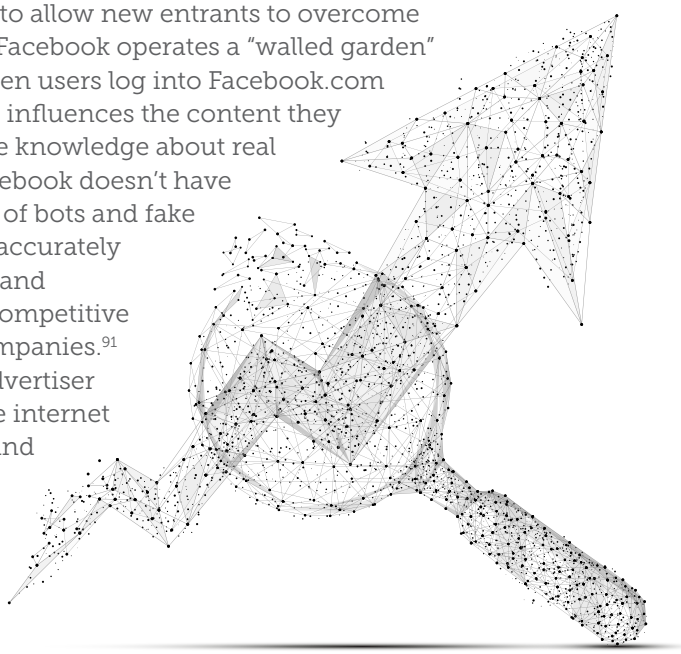
An Entering Complement Requires Access to Facebook's APIs

Because Facebook has an effective monopoly and network effects are strong, the most realistic path to entry may be through beginning as a complement, developing a user base and brand recognition, and if that is successful, later transitioning to an independent platform. However, the hitch in this plan is that the entrant begins on Facebook's platform serving Facebook's users where Facebook controls access to its APIs that enable complements to operate. If the complement achieves success on the platform, Facebook both sees it and can block any complement that it feels poses an appreciable risk of becoming a future horizontal competitor.

Facebook's Data Advantage Makes It Better at Targeting and Monetizing Ads

Facebook harvests vast stores of data based on users' interactions with its own platform as well as users' activities off Facebook that Facebook tracks such as location and purchases. Assuming that a new entrant would also be ad supported, no de novo entrant would have access to anywhere near the volume or quality of data that Facebook can access until it reaches the same level of scale (which is difficult because of network effects etc.) and privacy intrusiveness.[89]

Data brokers are unlikely to be able fill this data gap in such a way as to allow new entrants to overcome Facebook's data advantage, for a number of reasons. The first is that Facebook operates a "walled garden" within which it exerts total control of users' experience and data. When users log into Facebook.com or Instagram and are inside this walled garden, Facebook knows and influences the content they view and with which they engage. Facebook's complete and accurate knowledge about real people gives it a tremendous advantage in attracting advertisers. Facebook doesn't have to match cookies when it serves ads because, putting aside the issue of bots and fake accounts, Facebook knows who its users are. It therefore targets ads accurately (and can charge a high price).[90] Facebook then offers analytics tools and metrics that interoperate with the "in-garden" data. That is another competitive advantage that cannot be replicated by brokers or other analytics companies.[91] Further, the CMA observes, Facebook tags are broadly available on advertiser sites. This permits Facebook to track a consumer's journey across the internet and measure attribution with a high level of accuracy. Data brokers and other publishers cannot do this as effectively as Facebook. The CMA concludes that Facebook's ability to demonstrate the effectiveness of its ads gives it yet another competitive advantage as compared to other publishers or social network new entrants that cannot make similar showings of effectiveness.[92]



88 One reason venture capital and other funding sources might hesitate to fund horizontal potential competitors relates to a kind of financial "incumbency advantage" the CMA describes. To the extent a new entrant might try to differentiate with new or better features, Facebook can simply imitate the features and then better monetize them because of scale and scope, thus depriving the new entrant of the incremental competitive advantage it might have had and blunting any threat from the outset. *See id.* at ¶ 3.140.

89 *Id.* at ¶ 3.160 ("As well as access to content, access to data used for targeted advertising and personalisation can act as a barrier to entry and expansion"); *see also id.* at ¶ 5.142.

90 *Id.* at ¶ 5.145 ("the inability for smaller platforms and publishers to access equivalent user data to Google and Facebook may raise barriers to entry"); *see also id.* at ¶ 4.12 ("The individual level data collected by platforms such as Google, Facebook and Twitter remain under the control of these platforms and it is generally not shared with other market participants.").

91 *Id.* at ¶ 5.146 ("the majority of these platforms offer free analytics tools and metrics to advertisers to create and tailor content and to analyse campaign effectiveness of ads").

92 *Id.* at ¶ 5.144 ("The ability to show effectiveness of advertising is another important driver of advertisers' decisions on how to allocate their advertising expenditure across publishers and platforms. Google and Facebook tags are widely available on advertiser websites. This enables a more sophisticated analysis of attribution because they are more easily able to track a consumer's journey across the internet and provide a single source for the data. A number of responses indicated that Google and Facebook had a competitive advantage in respect of their access to consumer data and an ability to track consumers' behaviour across different websites and measure attribution across their own inventory more accurately.").

Facebook Benefits from Cross-Side Network Effects[93]

The CMA also concludes that Facebook benefits from what are called "cross-side network effects"—that is network effects taking place on a different "side" of the platform.[94] With regard to Facebook.com, for example, platform users benefit not just as more users join, but also as more publishers (content providers) make available content to be viewed on the platform. Content is the "third side" of the platform mentioned above. These cross-side network effects are unlike the impact of advertisers, whose presence does not attract more consumers to the platform. Content typically shows up in a user's news feed or as promoted content, and it can be recycled (such as articles already posted by a third-party website) or purpose-built, such as material created by celebrities or influencers specifically to be viewed on Facebook. (Note that a content provider, whether the Wall Street Journal or Kim Kardashian, can both deliver content consumers want to see, e.g. news, and also advertise its own content through its business development function. These activities are conceptually distinct and match the categories above.)

Again, all of this content is ultimately ad-funded and therefore driven by the source of funding for the business model, the advertisers. The bigger Facebook's user base, the more valuable Facebook becomes to these third-party content providers. As more and better content providers seek placement on Facebook, the user experience gets better.[95] These are cross-side network effects. Because of Facebook's overwhelmingly dominant share of user attention and its vast reach, Facebook is an important target for these third-party content providers. A new entrant with a small market share and narrow reach would not experience these same cross-side network effects, which is a barrier to entry.[96]

Facebook's Multiple Related Properties Help It Retain Users

Facebook has a family of products, which makes it difficult/unlikely that users will fully exit the Facebook ecosystem. Facebook users might delete their Facebook profile, for example, while remaining active on Instagram and/or WhatsApp, which would mean Facebook would continue to use data about that person to serve ads. A new entrant would not be able to rely on corporate siblings and would have to stand on its own.[97]

Facebook's Reach Makes It Valuable to Advertisers

The breadth, size, and reach of Facebook's user base makes it an advertising destination like no other. An advertiser that wishes to reach nearly all of some demographic with one transaction can come to Facebook. Because Facebook offers a walled garden with nearly complete information on its users, it can accurately deliver the number of exposures per ad that advertisers prefer (e.g. one). This permits Facebook to monetize its ads at a higher rate than an entrant with less scale.

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93 *Id.* at ¶ 3.147 ("The value of a social media platform to its users may also depend on the number of customers active on another 'side' of the platform.").

94 *Id.* at ¶¶ 3.132, 3.147 ("Social media platforms are characterised by same-side and cross-side network effects. . . The value of a social media platform to its users may also depend on the number of customers active on another 'side' of the platform.").

95 *Id.* at ¶ 3.149 ("Facebook.com features games and apps developed by third parties, facilitated by the Facebook Platform for Consumer Apps. This allows third-party content providers to 'build and create valuable content for Facebook's users', thereby enriching users' experience on the platform.").

96 *Id.* at ¶ 3.150 ("As Facebook is able to offer its users access to this wider range of content this may impose even greater barriers to any platform seeking to compete directly with its services.").

97 *Id.* at ¶ 3.128 ("The wider 'family' of Facebook platforms reinforces Facebook's competitive position, as consumers may choose to 'switch away' from Facebook.com but remain within the Facebook 'ecosystem' of apps. Facebook's 'family' of apps also gives it a very strong competitive position with respect to certain consumer uses of social media platforms. For example, both WhatsApp and Facebook Messenger are private messaging platforms.").

ANTICOMPETITIVE CONDUCT

Markets subject to tipping can, of course, tip even in the absence of any anticompetitive conduct. But that is precisely why recognizing this feature of the social network market is important to examining whether Facebook has illegally monopolized it. Conduct that might be relatively harmless in a different sort of market—the acquisition of a small, nascent competitor or complement, for example—might be dangerously anticompetitive in the social network market. The actions of Facebook that we describe below therefore have significant anticompetitive impact. Conversely, remedies or interventions that might sufficiently restore competition in a traditional market—reversing an acquisition, for example—could be an important component of a remedy package in a market like social networks that is subject to tipping, but fully restoring competition could necessitate further requirements such as requiring the dominant firm interoperate with the nascent rival.

Conduct that might be relatively harmless in a different sort of market—the acquisition of a small, nascent competitor or complement, for example—might be dangerously anticompetitive in the social network market.

Facebook Acquired a Series of Nascent or Potential Rivals

Facebook has completed a number of major acquisitions, most notably of Instagram and another of WhatsApp. Instagram was, at the time of acquisition, gaining traction in the social network market. Because of its popularity with young people and its large user base, Facebook may have viewed it as a potential rival. WhatsApp is principally an encoded messaging app, also with a huge user base, largely in markets outside the US. Facebook may have acquired WhatsApp to prevent any entry through that route into Facebook's sector of social media. Facebook also has acquired a number of companies and used their technology to enter new verticals, as it did when it launched Facebook Messenger. Facebook also has acquired companies that can be viewed as offering complements to the Facebook.com platform, such as game companies. And most recently, it announced its intent to acquire Giphy, a company that provides GIF access, an important input to social media that is currently available to users of rival messaging apps and social media sites.

By listing and examining individual acquisitions in the following section, we are not asserting that any one alone is an independent violation of the Clayton Act in the US, or that any regulatory agency in any country erred by failing to block any of them, though we are not ruling that out either. Rather, our point is that eight years after Facebook's $1B acquisition of Instagram, we now can look back at the series of acquisitions and see a pattern—a pattern that, in our view, could be a cornerstone of a monopolization case. Specifically, Facebook repeatedly has purchased rivals,[98] nascent rivals, or potential rivals, and paid significant premiums over what one would expect based on the targets' financial results. Such premiums support a hypothesis that Facebook may have used its existing monopoly profits to buy off its nascent competition, thereby preserving

98 Thurman Arnold Project at Yale, *Digital Platforms and Antitrust: Digital Tech Acquisition Datasets: Facebook Acquisitions*, https://som.yale.edu/faculty-research-centers/centers-initiatives/thurman-arnold-project-at-yale/digital-platforms-and-antitrust.

those monopoly profits, rather than competing on the merits with those competitors.[99] We focus on three types of transactions here.

a. **Instagram (2012)**: Facebook paid $1B just days after series B funding closed based on a valuation of $500 million.[100] Facebook's overpayment suggests its purchase was not motivated only by Instagram's earning potential.

b. **WhatsApp (2014)**: At the time of the acquisition, WhatsApp had virtually no revenue stream; even today Facebook still has no successful strategy for monetizing WhatsApp, which suggests that the main purpose of the acquisition may have been exclusionary.[101] WhatsApp has an installed base that would have significantly strengthened an entering social networking competitor. Note that Facebook offered $19B for WhatsApp, almost double the $10B price offered by Google.[102] A combination of Google and WhatsApp would likely have been viewed as a significant competitive threat by Facebook.

c. **Complements that risk future disintermediation of Facebook**: Digital businesses exhibit high product "plasticity," namely an ability for the business, and therefore its competitors, to change over time. Nascent or future competitors will include game companies and applications that make the Facebook site more engaging, and are encouraged to enter on that basis.[103] History makes it clear that Facebook will invite complements onto their platform in order to improve the platform's attractiveness until those complements become successful enough that they threaten to establish their own relationship with customers and become a rival. At that point Facebook either acquires the company or terminates its access to the platform.

In analyzing any acquisition of a nascent or potential competitor, the impact on competition must be evaluated as an expectation, given the uncertainty about what that competitor would have done in the future as a standalone firm. However, the uncertainty about the nascent competitor's eventual success does not extend to uncertainty about consumer welfare: such competition is beneficial to consumers even if the entrant eventually fails. As noted above, vigorous competition for the market is often the main source of competition in markets with network effects. The entrant's efforts to overthrow the incumbent produce valuable competition on quality and innovation during this phase, regardless of the identity of the final winner.[104]

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99 Mark Zuckerberg, in 2010 when Facebook was but a few years old, gave a talk in which he described Facebook's acquisition philosophy. He said that Facebook had, at that time, never bought a company for the company; Facebook bought companies to bring those companies' creative talent into the Facebook fold. *See* Biz Buzz, *Why Facebook buys startups* (Oct. 18, 2010), https://www.youtube.com/watch?v=OlBDyItD0Ak. That purpose—buying companies to acquire their talent—may have continued to motivate at least some Facebook's acquisitions over the following decade. But a different motivation is plausible as well. It is true that Facebook does not appear to have acquired many of the companies it did "for the companies" themselves; Facebook appears to have purchased them so that it could eliminate them from the competitive landscape.

100 Alexia Tsotsis, *Right Before Acquisition, Instagram Closed $50M At A $500M Valuation From Sequioa, Thrive, Greylock And Benchmark*, TECHCRUNCH (Apr. 9, 2012), https://techcrunch.com/2012/04/09/right-before-acquisition-instagram-closed-50m-at-a-500m-valuation-from-sequoia-thrive-greylock-and-benchmark/.

101 Jeff Horwitz & Kirsten Grind, *Facebook Backs Off Controversial Plan to Sell Ads in WhatsApp*, Wall St. J. (Jan. 16, 2020), https://www.wsj.com/articles/whatsapp-backs-off-controversial-plan-to-sell-ads-11579207682.

102 Caroline Moss, *Google Offered To Buy WhatsApp For $10 Billion Before Facebook Swooped In With More Money*, Business Insider (Feb. 20, 2014), https://www.businessinsider.com/google-offered-to-buy-whatsapp-for-10-billion-before-facebook-swooped-in-with-more-money-2014-2.

103 UK Disinformation Report, *supra* note 57, at ¶ 105 (documenting an email from Facebook CEO Mark Zuckerberg in which he writes: "Sometimes the best way to enable people to share something is to have a developer build a special purpose app or network for that type of content and to make that app social by having Facebook plug into it. However, that may be good for the world but it's not good for us unless people also share back to Facebook and that content increases the value of our network. . . The purpose of platform is to tie the universe of all the social apps together so we can enable a lot more sharing and still remain the central social hub.").

104 As an example, eBay rolled out user protection features in direct response to then-upstart rival Amazon when Amazon entered the auction space. Gary Schneider, Electronic Commerce 9th ed. 310–311 (2011) ("One way that Amazon attempted to compete with eBay was through its 'Auctions Guarantee.' This guarantee directly addressed concerns raised in the media by eBay customers about being cheated by sellers. When Amazon opened its auctions site, it agreed to reimburse any buyer for merchandise purchased in an auction that was not delivered or that was 'materially different' from the seller's representations up to $250. Buyers of more expensive items can protect themselves by using a third-party escrow service, which holds the buyer's payment until he or she receives and is satisfied with the purchased item. . . In response to Amazon's guarantee, eBay immediately offered its customers a similar guarantee, but not before Amazon gained free publicity from the media coverage of its guarantee.").

In 2013, Facebook bought Onavo, a company that had developed a VPN app to hide users' IP addresses, thereby protecting them from third-party tracking.[105] The app served as a secure channel through which all of a user's app activity flowed. Facebook bought Onavo and used its data to "assess not only how many people had downloaded apps, but how often they used them."[106] In a bitter piece of irony, an app downloaded by users to better protect their privacy was instead exploited by Facebook to study those very same users. The knowledge was then used by Facebook to identify and acquire high-performing companies and possible competitors.[107] According to internal documents, Facebook used Onavo data to justify its high purchase price for messaging app WhatsApp in 2014.[108] Onavo data gave Facebook unique data on WhatsApp user engagement that even WhatsApp itself did not have.

Facebook had been using been using less-than-fully transparent methods for keeping tabs on potential rivals even before it purchased Onavo, however. According to a former Facebook executive, Facebook was monitoring Instagram's growth before purchasing it in 2012, a transaction that predated its purchase of Onavo.[109] Instagram had been using Facebook's Connect (later renamed "Open Graph") API. That API was a way for apps and third-party websites to interface with the Facebook website and social graph. For example, a Facebook user reading a news article on an enabled website could see which of her Facebook friends liked the article and could share the article on her own Facebook profile with just a click. Crucially, interfacing with Facebook was a two-way street: third-party apps and websites sent data on users back to Facebook, meaning the company could track users even when they weren't on a Facebook app or site.[110] It is not clear whether Facebook revealed that it had access to this real-time data in connection with the acquisition or its regulatory approval.[111]

Not only is there a pattern of dozens of acquisitions by Facebook over the last ten years, those acquisitions were a coherent exclusionary strategy as can be seen by their pattern juxtaposed with data from the app Onavo. The apps owned by Facebook are shaded in gray. Those that are growing fast—rising by more than 3 ranking spots in the Onavo data—are shaded in red, as is WhatsApp. The red-shaded apps are those that Facebook either acquired, attempted to acquire, or cut off from API access.[112]

105 UK Disinformation Report, *supra* note 57, at ¶ 110.

106 *Id.*

107 *Id.* at ¶ 111.

108 *See* Sam Schechner & Parmy Olson, *Facebook Feared WhatsApp Threat Ahead of 2014 Purchase, Documents Show*, Wall St. J. (Nov. 06, 2019), https://www.wsj.com/articles/facebook-feared-whatsapp-threat-ahead-of-2014-purchase-documents-show-11573075742.

109 Mike Hoefflinger, Becoming Facebook: The 10 Challenges That Defined The Company That's Disrupting The World 114 (2017) ("Zuckerberg, however, was watching more closely than most and had an ace up his sleeve when it came to data. Because Instagram was using Facebook's Connect platform to enable sharing—and Facebook being by far the largest platform Instagram was using for that purpose—Zuckerberg had nearly real-time awareness of Instagram's relative growth and engagement, rather than the occasional glimpse into the growth of the app the unwashed masses would get when Instagram deigned to share that information. Few people in the industry had more familiarity with looking at this kind of growth data with their teams than Zuckerberg, and unlike the stock market, historical performance of these apps do tell clear stories—or at least strongly inform hunches—about their futures.").

110 *See* Caroline McCarthy, Facebook F8: One graph to rule them all, Cnet (Apr. 21, 2010), https://www.cnet.com/news/facebook-f8-one-graph-to-rule-them-all/.

111 Hoefflinger, *supra* note 109.

112 Chart adapted from UK Disinformation Report, *supra* note 57, at p. 37.

	% US iPhone App Reach, Mar. 2013	% Increase from Feb. 2013	Rank	Rank Change from Feb. 2013	Fate as of 2020
Facebook	72.60%	0.6	1	–	Part of Facebook
Instagram	34.00%	1.7	3	–	Part of Facebook. Acquired 2012
Twitter	27.20%	0.1	6	–	Still operating as of 2020
FB Messenger	13.70%	0.2	15	–	N/A
Snapchat	13.20%	1.6	16	+ 4	Facebook attempted to purchase, rebuffed
Pinterest	11.30%	0.2	20	+ 1	Still operating as of 2020
WhatsApp	8.60%	0.3	30	-	Part of Facebook. Acquired 2014
Tumblr	5.90%	0.4	43	+ 3	Still operating as of 2020
foursquare	5.00%	0.2	57	+ 1	Still operating as of 2020
Vine	3.90%	1.2	71	+ 25	Cut off by Facebook in 2013
Google +	2.90%	-0.2	97	- 4	Failed (2019)
Path	1.00%	0.1	243	+ 22	Cut off by Facebook in 2013

The Onavo data make it clear that Facebook excluded—whether by acquisition or "depreciating the APIs"—a series of nascent competitive threats.[113] An incumbent that buys, over time, a number of small and growing competitors that were trying to compete closes off competition *for* the market. In a market with strong network effects, much, if not all, of the benefit from competition occurs on those days when there is a competitor striving to overthrow the incumbent, and both companies improve quality and innovation. The more often there is attempted entry, the more often consumers benefit. The pattern in the table cuts off that competition at the knees.

Although not in the CMA Report because it occurred only in May of 2020, Facebook's announcement that it will acquire Giphy—a company that makes a library of GIFs available to users of various communications platforms—is the latest in this series. Facebook announced on May 15, 2020 that it will acquire Giphy and incorporate it into Instagram.[114] Immediately, tech observers raised the concern that Facebook might transform Giphy, which historically has teamed up with many competing communication platforms, into yet another data-harvesting arm of the Facebook family.[115] Facebook's pattern of past acquisitions suggests that connectivity to the Giphy product would be an anticompetitive lever. The acquisition would give Facebook the ability to deny interoperability with Giphy to its rivals, or require unfavorable terms such as sharing data with Facebook. A significant swath of messaging apps, all of which could be viewed as competing at some level with the messaging functions of Facebook, Instagram, and, of course WhatsApp, currently interoperate with Giphy. Post-acquisition, Facebook could simply deny access to the Giphy library to any of its perceived rivals in an effort to lower the quality of its rivals, or raise their costs of service. Such a disadvantage would steer those apps' users to its own family of services.[116]

113 CMA Report, *supra* note 1, at ¶ 3.154 ("By either degrading the functionalities enabled by the APIs or removing the service entirely, large incumbents may be able to affect the level of competition that they face. As shown by the examples below, this may be done on a targeted basis or as part of a general policy change on the part of the platform providing access. Facebook refers to such changes as 'deprecation' of the APIs.").

114 *See* Vishal Shah, *Facebook Welcomes GIPHY as Part of Instagram Team*, Facebook.Com (May 15, 2020), https://about.fb.com/news/2020/05/welcome-giphy/.

115 *See* Jay Peters, *Facebook's Giphy acquisition may have big implications for iMessage and Twitter*, The Verge (May 16, 2020), https://www.theverge.com/2020/5/16/21260104/facebook-giphy-acquisition-twitter-slack-snapchat-apple-imessage-signal-facebook-tinder.

116 *Cf. id.* (finding iMessage, MailChimp, Signal, Slack, Snapchat, Telegram, TikTok, Tinder, Trello, and Twitter all currently have access to the Giphy library, albeit on varying terms).

Facebook Cut Off Access to APIs To Advantage Itself and Raise Rivals' Costs

Application Programming Interfaces, or APIs, are portals to and from a computer system or digital platform that define the manner in which that system does or does not interact with other systems and platforms. Facebook has used its APIs as a tool to limit interaction with potential competitors and to weaken them, and to advantage itself.

The CMA concludes that Facebook has the ability to "open" its APIs to complements when their services benefit the Facebook platform and business, but then to close them when those companies become potential competitors. The CMA notes that open-source APIs can help mitigate network effects for entering complements by providing access to Facebook's user base and social graph, but, at the same time, create dependence on Facebook, which may be a direct competitor in the future.[117] Facebook is initially enthusiastic about such businesses helping to make Facebook's platform more engaging and attractive—and profitable—but Facebook knows that some of those applications will become potential horizontal competitors. As the CMA notes, by degrading the functionalities or disabling them, Facebook and other large platforms can directly control the level and type of competition they face.[118]

Vine is an example. Vine was a popular video app launched in 2013 that permitted users to share short, six-second videos with their friends who used Vine. Within months, it became the most popular video sharing app in the sector. The CMA reports that, initially, Vine users could connect with their Facebook friends through Facebook's "Find Contacts" API. According to the CMA, Twitter acquired Vine and Facebook thereafter modified its APIs so as to make it impossible for Zine users to upload their videos onto Facebook.[119] Twitter eventually shuttered Vine.

A 2019 report issued by the House of Commons adds meat to the bones of this anti-competitive vignette. A committee appointed by the House of Commons used compulsory process to investigate internet platforms in support of a report about disinformation and "fake news." The report describes contemporaneous internal emails reflecting Facebook's decision to disable Vine's interoperability. On the day Twitter went live with Vine in 2013, an executive sent the following email to a group of recipients including Mark Zuckerberg:

> *Unless anyone raises objections, we will shut down their friends [sic] API access today. We've prepared reactive PR, and I will let [name withheld] know our decision.*

Open-source APIs can help mitigate network effects for entering complements by providing access to Facebook's user base and social graph, but, at the same time, create dependence on Facebook, which may be a direct competitor in the future.. Facebook is initially enthusiastic about such businesses helping to make Facebook's platform more engaging and attractive—and profitable—but Facebook knows that some of those applications will become potential horizontal competitors.

117 CMA Report, *supra* note 3, at ¶ 3.153 ("However, the importance of these APIs in mitigating the effects of network effects may create a dependency between the platform receiving the services, and the platform providing access.").

118 *Id.* at ¶ 3.154 ("By either degrading the functionalities enabled by the APIs or removing the service entirely, large incumbents may be able to affect the level of competition they face.").

119 *Id.* at ¶ 3.155 ("For example, in 2013 Twitter acquired a video sharing platform called Vine. Prior to the acquisition Vine users were able to find friends they already knew on Facebook.com through Facebook's 'Find Contacts' API. However, following its acquisition by Twitter, Facebook disallowed Vine's access to this API. In doing so, Facebook was able to degrade consumers' experience of Vine and reduce the platform's competitive threat. Vine was discontinued by Twitter in 2016.").

Mark Zuckerberg himself replied, "Yup, go for it."[120] This exchange exemplifies a pattern that The House of Commons report called "targeting competitor apps."[121]

The House of Commons committee report also discloses evidence that reveals the anti-competitive reasons Facebook decides to open and then later close its APIs to apps. That evidence suggests, according to the committee, that the decision depends largely on whether the app adds value to Facebook, which it must do to become a partner initially, or whether it poses a competitive threat, which is what causes the change in policy. An internal Facebook email from 2013 suggests that the company categorize its more than 40,000 recent requests to gain access through APIs based on criteria such as whether they create strategic value, whether they are competitive to Facebook, or whether they will cause a business disruption.[122] In other words, Facebook appears to have decided which apps to do business with based on whether those apps threatened to compete with Facebook. Another internal email appears to confirm this, asserting that all "lifestyle apps" should have their access revoked because Facebook "is ultimately competitive with them."[123]

Another way Facebook uses its APIs to advantage itself and disadvantage its rivals is by designing the APIs with functionalities that are not reciprocal. The CMA reports that Facebook, for some time, featured a "Publish Actions" API that allowed users to post on their Facebook pages content from other social media platforms. The reverse was not true, however: the "asymmetrical" API did not allow Facebook users to export content onto other platforms. The obvious result (and a plausible purpose) of Facebook's API design decision was to favor Facebook.com so as to ensure the total variety of content available on Facebook.com was broader and better and more varied than the content on other platforms. The CMA confirms that cross-posting capabilities remain asymmetric to this day.[124] Again, a company that is confident that its product is superior would have no reason to avoid competition on the merits and stack the deck in this manner.

Facebook Raised Rivals' Costs—Both Social Network Rivals and Publishing Rivals—with Misleading or False Privacy Policies

As described above, users choose among social network sites according to both price and quality. Two competing social network platforms that have the same price (e.g. zero) will compete on the basis of their installed base and quality. One of the measures of quality is both the strength of the privacy policy offered by a platform and also the truthfulness, clarity, and ease of user adjustment of the privacy policy. A weak privacy policy that allows users little control over what personal information is shared is a competitive disadvantage in a market where many users value privacy. A platform that fears the market may tip against it might therefore hide its weak privacy policy using dark patterns or misleading statements in order to advantage itself against rivals.[125] Such behavior effectively raises rivals' costs, as they try to compete against what appears to be high quality, but is, in truth, low quality.

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120 *See* UK Disinformation Report, *supra* note 57, at ¶ 116.

121 *See id.* at p. 38.

122 *See id.* at ¶ 123.

123 *See id.*

124 CMA Report, *supra* note 3, at ¶ 3.154–3.157 ("This dependency may also allow incumbents to worsen smaller competitors' offerings to consumers. By either degrading the functionalities enabled by the APIs or removing the service entirely, large incumbents may be able to affect the level of competition that they face. As shown by the examples below, this may be done on a targeted basis or as part of a general policy change on the part of the platform providing access. Facebook refers to such changes as 'deprecation' of the APIs. . . For example, in 2013 Twitter acquired a video sharing platform called Vine. Prior to the acquisition Vine users were able to find friends they already knew on Facebook.com through Facebook's 'Find Contacts' API. However, following its acquisition by Twitter, Facebook disallowed Vine's access to this API. In doing so, Facebook was able to degrade consumers' experience of Vine and reduce the platform's competitive threat. Vine was discontinued by Twitter in 2016. . . Additionally, the functionalities enabled by APIs may not be reciprocal. For example, prior to 2018, Facebook.com featured a 'Publish Actions' API which allowed consumers to post content onto Facebook.com from other social media platforms. However, consumers were unable to post content from Facebook.com onto other social media platforms. This asymmetry in consumers' cross-posting abilities may favour Facebook.com by leading to greater and more varied content being shared on Facebook.com compared to the social media platforms from which content is shared. . . Cross-posting capabilities between Facebook.com and other social media platforms remain asymmetric, as shown by Figure 3.10.").

125 *Id.* at ¶ 4.106 ("The Data Protection Commission, the supervisory authority for several platforms including Google and Facebook Ireland, notes that organisations can design their websites and use 'branding, colour and font selections to highlight or emphasise certain options rather than others.' They set out that design is important and by highlighting 'Ok' or 'I agree' buttons, consumers may overlook further information that may be less prominent, such as in grey text. These are typically referred to as 'dark patterns.'").

In a recent analysis, Dina Srinivasan offers a close examination of the evolution of Facebook privacy policies and increasing reliance on the monetization of user data, and reveals that Facebook has employed precisely this strategy. She concludes that, early on, Facebook competed on the basis of superior privacy protections and even gave assurances that it would not monetize user data.[126] These policies and proclamations, and the fact that Facebook did not yet dominate the social network market meant that user preferences kept Facebook in check; if Facebook did not keep its word, users could choose other platforms.[127] As it gained market share and power, however, market forces could no longer prevent Facebook from seeking higher profits by reneging on privacy commitments. This reneging allowed Facebook to offer superior services to advertisers (because they had data they were not supposed to have and which rival social networks with similar privacy policies did not collect).

For example, Facebook introduced a feature in 2010 called social plug-ins that ended up providing Facebook a backdoor of sorts through which to gather user data. Facebook would place a small bit of code on third-party sites, NYT.com, for example, that would permit readers on those sites to "like" content. Doing so activated that code to message the Facebook server, via the user's device, so that the "like" would be visible to the user's Facebook social network.[128] Because the code initiated a message to the Facebook server via the user's device, which then served the "like" feature back to that device, the code initiated on the NYT.com site actually provided a backdoor to users' devices. Facebook used that backdoor harvest user data and even write and read tracking cookies—i.e., Facebook could now surveil anyone who "liked" something they read on a third-party site.[129] At the time Facebook was attempting to grow market share based on its purported superior privacy protections. Facebook assured the public repeatedly it wouldn't use plug-ins to track users or collect their data.

These assurances turned out to be false, but the false assurances allowed Facebook to grow market share and power in a number of ways. First, with respect to consumers, the claims perpetuated the perception that Facebook protected their privacy, allowing Facebook to continue to grow its user base.[130] Second, even before the market tipped, evidence suggests that Facebook may have been privately using data to target ads while denying it publicly. A 2010 paper, for example, revealed that every time a Facebook user visited a page with a "like" button, Facebook retrieved the user's Facebook login cookies, possibly for use in its advertising business.[131] This cheating, therefore, may have aided Facebook in selling higher-priced ads. Third, with respect to content providers, the assurances duped many of them into partnering with Facebook by installing the plug-in, thinking that Facebook never would collect or use information about their readers to compete directly with them or expropriate the value of the relationships they had built with their readers. As the Srinivasan analysis explains, Facebook told publishers the "like" button was to ensure distribution of their content across the Facebook platform.

However, publishers are horizontal competitors of Facebook in the market for the supply of display advertising space. An advertiser wishes to reach particular consumers and has a choice to advertise on Facebook or on the site of the publisher. If Facebook can track publishers' customers, for example, it will know who is a reader of the Wall Street Journal—and by "who" we mean an individual with a name and address, not the holder of a cookie. At that point, Facebook can target ads to those readers when they are on Facebook, monetizing the value and brand loyalty that rightly belonged to the WSJ.[132] Facebook's assurances that it would not gather this data or use it in this way lulled publishers into installing the plug-in *en masse*.[133]

126 Srinivasan, *supra* note 36, at 55.

127 *See id.* at 44 (citing two instances, one in 2007 and one in 2010, in which market forces caused Facebook to reverse unpopular polices); *see also id.* at 55, 62.

128 *See id.* at 63.

129 *See id.* at 64.

130 *See id.* at 64–65.

131 *See id.* at 65 (citing Arnold Roosendaal, *Facebook Tracks and Traces Everyone: Like This!*, (Tilburg L. Sch. Legal Studs. Res. Paper Ser. No. 03/2011, Nov. 30, 2010), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1717563).

132 *See id.* at 66.

133 *See id.* at 67.

Over the next years, however, a series of revelations and analyses demonstrated that Facebook in fact was collecting data through the installed plug-ins. When caught, Facebook distracted and dissembled, even going so far as to make the nonsensical assertion (through its chief technology officer) that, "We don't use them [the plug-ins] for tracking and they're not intended for tracking."[134] The evidence, though, was to the contrary. The Wall Street Journal, for example, published an analysis in which it concluded that Facebook knew when a consumer accessed an article on a site that had installed the plug-in, even if the reader had not even "liked" the article and even if she were not a registered Facebook user.[135]

Facebook's strategy of building the technological capacity to collect data while pretending it would never collect or use such data worked to disadvantage both types of rivals, social networks and content providers, so that Facebook grew. Then, arguably, the market tipped. Facebook went public in 2012, added a billion users to its user base, and rivals exited.[136] It was at this point in its history that Facebook updated its terms to make the "free" use of the platform conditioned on the user's granting permission to Facebook to monetize her data.[137]

The effect of this deception, with respect to consumers, was to increase demand, accelerating the network effects that otherwise might have accrued to Facebook's benefit at a later date (absent the arrival of another competitor) and causing the premature exit of rivals that were unable to match Facebook's combination of (apparent) privacy and targeting. The effect with respect to publishers, Facebook's horizontal competitors in display ad supply, was to raise their costs and expropriate the value of their customer relationships for itself, degrading their ability to compete for ad dollars.

Facebook Has Hidden the True Cost of Its Services to Users—Personal Data and Surveillance in Exchange for Platform Access

As both this recent analysis and the CMA observe, Facebook has for years undertaken efforts to obscure the fact and the manner in which it has reversed its previously popular data protection policies.[138] As the Srinivasan analysis explains, Facebook's deception regarding its data privacy policies likely duped users into thinking they were using a high-quality platform when the quality—due to Facebook's abandoning its protective data polices—was actually low.

It also is generally understood that, despite Facebook's seismic shift from its earliest forays into advertising into its current, very profitable ad-supported business model, Facebook never has made any substantial effort to ensure that its users understand the basic bargain: a free social network in exchange for vast amounts of personal data that is sold to enable advertising.[139] Its consistent strategy to make the basic terms of the modern transaction difficult to find and understand, especially given its early disclaimer of any intent to use personalized information to target ads, itself may have helped propel Facebook to dominance among consumers, and may currently contribute to its maintenance of that dominance, and also may have contributed to its power over its horizontal rivals for the supply of display advertising.

In its submission to the CMA, Facebook admits that privacy is one of the parameters along which social networks compete, and even submitted to the CMA that it seeks to build a "privacy-focussed [sic] social platform."[140] The privacy Facebook purports to commit itself to, however, relates to efforts to keep user data out of the hands of

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134 *See id.* at 66 (citing Amir Efrati, *'Like' Button Follows Web Users*, WALL ST. J (May 18, 2011), https://www.wsj.com/articles/SB10001424052748704281504576329441432995616).

135 *See id.* at 66.

136 *See id.* at 68.

137 *See id.* at 69.

138 *See* CMA Report, *supra* note 3, at Intro Box 4 ("[S]ocial media platforms such as Facebook do not allow consumers to turn off personalized advertising. . . [W]here choice does exist, it can be difficult to exercise due to a strong tendency to accept default settings presented by platforms. . . [W]e found that engaging with privacy settings was complicated, especially for social media platforms like Facebook."); *see also* Srinivasan, *supra* note 36, at Part II.C.3 ("Facebook Circumvents User Attempts To Opt-Out").

139 CMA Report, *supra* note 3, at ¶ 4.128 ("While information about the finding relationship could be found, it was not presented prominently to casual users of platforms and only rarely referred to as a part of the account creation process."); *id.* at ¶ 4.130 ("Facebook's Terms of Service include a statement on how services are funded.").

140 *Id.* at Fn. 108.

outsiders; Facebook apparently said nothing to the CMA about allowing users to keep their information out of the hands of Facebook.[141] Indeed, the CMA concludes that Facebook makes very little information about data collection available to users, designs its platform so that this information is hard to find, and takes minimal effort (relative to other areas of user engagement) to have users engage with what privacy settings there are.[142] It appears that Facebook does not want its users to know how Facebook uses their own data or the value of that data.

Users' behavioral biases make such a strategy effective. As the CMA describes in detail, users of platforms overestimate the privacy protections offered by platforms and succumb to dark patterns.[143] Thus, users are easier to deceive about privacy settings than a more salient characteristic of a platform, such as the number of friends enrolled. Users typically do not engage with privacy policies of platforms, perhaps because they are so difficult to find and understand, and are often difficult, or not possible, to alter if the user wishes to.[144] For example, the CMA has described the "multi-stepped and partially obfuscated" process as a dark pattern that allows Facebook to take advantage of the fact that users rarely change defaults. With respect to Facebook.com, for example, the CMA notes that the general "Settings" menu is difficult to find and appears only when the user clicks a small, downward arrow in the options ribbon. Once she arrives at the Settings menu, the user sees twenty different tabs, of which "Privacy" is but one.[145]

The CMA finds that Facebook engages in little effort to ensure users understand the privacy settings that determine the amount of data users are bartering away, namely the effective price of the Facebook service.[146] Further, Facebook, which vigorously tests virtually every change to its user-facing features, has done little testing to understand the effectiveness of the tools it makes available for users to change their privacy settings.[147] And

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141 *See id.* (Facebook's "privacy principles" relate to private interactions, encryption, safety, secure data storage, and the like.).

142 *Id.* at ¶ 4.126 ("In addition, even when a consumer has been able to navigate to the correct menu, they are often presented with multiple other settings, which serves to reduce the prominence of the location of the privacy settings. For example, on Facebook's Settings Page, consumers are presented with links to 20 different tabs along the left-hand margin of the page, of which 'Privacy', leading to Facebook's Privacy Settings and Tools is one.").

143 *Id.* at ¶ 4.102 ("Even if consumers can locate the privacy settings, it is not clear that consumers understand the implications of using them. For example, Habib et al (2018) found that two thirds of participants overestimated the protection that 'private browsing' offers. A separate survey performed in 2018 found that the description of 'private browsing' offered by major platforms did not clear up common misconceptions.").

144 *Id.* at ¶ 4.103, 4.110 ("The finding that consumer engagement with privacy settings is low is unsurprising. In the course of our work in other markets, consumer engagement has sometimes remained low despite the existence of strong financial incentives for consumers to participate actively (for example, by shopping around for a better broadband deal or switching energy supplier to avoid paying a loyalty penalty). In the online world of search and social media platforms, there is no direct financial incentive to prompt consumer engagement: consumers 'pay' for services, not with money, but with their data and attention. We might therefore expect engagement with privacy controls to be low except for those consumers for whom privacy is a top of mind issue. . . . The use of dark pattern techniques can nudge consumers to making choices that are in the best interest of the platforms which maximise data collection, rather than their own preferences. To understand how information may affect consumers' choices, we have considered: evidence on the power of default setting in these and other markets; what platforms claim about the nature of their service(s) and how they are funded by personalised advertising; the consumer experience at sign-up and click-wrap agreements; the presentation of terms and conditions; and how consumers navigate the controls available.").

145 *Id.* at ¶ 4.125–4.127 ("For example, on the Facebook desktop website, we found that the Settings webpage can only be reached via a drop-down menu which appears only when a small downward arrow symbol in the options ribbon is clicked, as shown in the screenshots below. . . . In addition, even when a consumer has been able to navigate to the correct menu, they are often presented with multiple other settings, which serves to reduce the prominence of the location of the privacy settings. For example, on Facebook's Settings Page, consumers are presented with links to 20 different tabs along the left-hand margin of the page, of which 'Privacy', leading to Facebook's Privacy Settings and Tools is one. . . . The effect of making navigation towards privacy settings and the selection of alternative options to the default a multi-stepped and partially obfuscated process has been described as a 'dark pattern'. By relying on the fact that consumers generally do not change default settings, platforms are able to maximise the number of consumers that will share the maximum amount of their personal information, to the benefit of the platform.").

146 *Id.* at ¶ 4.156 ("Consumer engagement with privacy policies and controls is low. And platforms do little by the way of systematic testing to measure this or test what would increase consumers' engagement with these policies. Instead they rely on the fact that very few consumers alter the default settings in order to increase their ability to use personal data.").

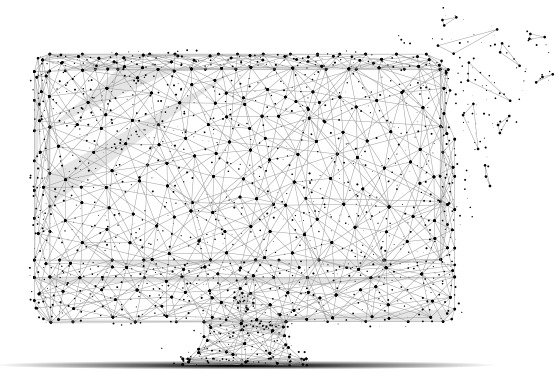
147 *Id.* at ¶ 4.111 ("We asked platforms if they undertook testing to assess to what extent their controls facilitate engagement on the part of users. We discovered that some platforms do carry out some testing of aspects of their privacy policies and privacy controls but they have not prioritised research to improve consumer control in this area. This finding is at odds with the extensive testing some platforms undertake in respect of other areas of their business. For example, Google ran over 650,000 experiments in 2018 when looking to make improvements to Google Search.").

it is plain that users minimally engage with the Privacy Policy and rarely change their default settings.[148] If Facebook wanted to make it easy for users to choose the data Facebook could collect and deploy, which those users would like and appreciate as higher quality, it could. It has not, which suggests that Facebook does not want to make it easy.

These policies harm competition because users are not able to choose between products on the basis of characteristics they care about. The monetary price of the platform is zero, so the user must focus on quality to choose among rival social networks. By hiding or falsifying quality, Facebook made competition on the merits impossible. Once again, this behavior raises rivals' costs. Rival social networks that attempt to compete on quality—including privacy—will not be able to make it clear that their social network actually protects consumers while Facebook's does not.

US antitrust law does not condemn the possession of monopoly by itself, assuming that the monopolist attained dominance based on innovation, the merits of its product or services, or competitive acumen. However, purposefully designing privacy tools to (a) take advantage of the power of defaults; and (b) dissuade even privacy-concerned users from modifying the defaults by obfuscating the tools to modify those defaults is not the strategy of a company with a high quality product it wants users to compare in head to head competition with rivals. It is not competition on the merits, but rather disguise of a competitive weakness. [149] By hiding the nature and extent of data it collects and monetizes and then making it difficult for users to modify the defaults, Facebook suppresses competition in quality. Users who believed that Facebook offered higher quality than in fact it did will have helped Facebook acquire its monopoly power, and currently help maintain it.

The monetary price of the platform is zero, so the user must focus on quality to choose among rival social networks. By hiding or falsifying quality, Facebook made competition on the merits impossible.



Intent

The Interim Report does not disclose direct evidence of Facebook's actual motives for engaging in the conduct described above. Such "intent" evidence is helpful in interpreting a course of conduct in a US monopolization case.[150] In the case of the Instagram acquisition, there is apparently a memo from a "high-ranking Facebook executive" (possibly Zuckerberg himself) saying the reason for buying Instagram was to eliminate a potential competitor.[151] The US antitrust authorities who are engaged in investigating Facebook may uncover further documents of this type.

148 *Id.* ("Consumers must engage with unreasonably long, complex, terms and conditions and must make several clicks to access their settings. Understandably, consumers rarely engage with these terms and when they do, they spend very little time reading them. It is unreasonable to expect ordinary consumers to read and understand these terms for every platform that they use.").

149 The CMA did not collect, or at least does not report, data about the number or percentage of Facebook users who modify default privacy settings. We expect that US regulators are collecting data on this.

150 Section 2 of the Sherman Act makes illegal "the *willful* acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *See United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966) (emphasis added).

151 Josh Kosman, *Facebook boasted of buying Instagram to kill the competition: sources*, The New York Post (Feb. 26, 2019), https://nypost.com/2019/02/26/facebook-boasted-of-buying-instagram-to-kill-the-competition-sources/.

In 2013, Facebook acquired the app Onavo *in order to* identify competitors who were obtaining users and traction among Facebook users.[152] Facebook used the Onavo data to find the rivals that they would either acquire or exclude from the market by removing API functionality ("depreciating the APIs"). Facebook was also able to use Onavo to study the competitive effects its actions had on rivals. For example, Facebook was able to see that Snapchat saw declining usage after Facebook introduced a competing product: Instagram Stories.[153] The strategy of purchasing and using Onavo to identify competitors before they could threaten Facebook's monopoly, and then acquiring those competitors was intentional.

Likewise, the opening of the platform to applications as long as they were needed to grow Facebook's business was intentional, as was the choice to cut off those applications. The barring of Vine from the platform and ending the partnership with game developer Zynga required affirmative action by Zuckerberg to reverse course and end access to some of the most popular games and activities on Facebook.[154]

The report analyzing the Cambridge Analytica incident demonstrates that Facebook's privacy deception and low quality were purposeful choices of its management.[155] It found Cambridge Analytica's actions to be "facilitated by Facebook's policies."[156] Facebook built itself in a way that made data abuses easy and did not exercise proper oversight over what third-party developers like Cambridge Analytica were able to do with user data. And those privacy choices advantaged Facebook in the marketplace relative to a situation of truthfulness towards users.

The 2019 FTC complaint against Facebook describes a pattern of deception over the company's treatment of user data.[157] According to the complaint, Facebook attempted to hide the option to disable third-party developers from accessing their data. Facebook was driven primarily by safeguarding its own revenue—at one point considering whether to remove user data access for all but companies spending large advertising sums on Facebook.[158] Despite a public announcement on ending third-party developer user data access, Facebook surreptitiously gave developers a one-year grace period with their collected data.[159]

Facebook's conduct over the last decade in its actions towards applications on the platform, its choices about privacy, and its active hunt for rivals to acquire all tell a narrative of purposeful acquisition or maintenance of monopoly power.

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152 *See* UK Disinformation Report, *supra* note 57, at ¶ 110.

153 Rachel Sandler, *People are furious about Onavo, a Facebook-owned VPN app that sends your app usage habits back to Facebook*, Business Insider (Feb. 14, 2018), https://www.businessinsider.com/what-is-facebooks-onavo-protect-virtual-private-network-app-2018-2?r=US&IR=T.

154 *See* Adi Robertson, *Mark Zuckerberg personally approved cutting off Vine's friend-finding feature*, The Verge (Dec. 5, 2018), https://www.theverge.com/2018/12/5/18127202/mark-zuckerberg-facebook-vine-friends-api-block-parliament-documents; Harrison Weber, *Facebook kicked Zynga to the curb, publishers are next*, Venture Beat (June 30, 2016), https://venturebeat.com/2016/06/30/facebook-kicked-zynga-to-the-curb-publishers-are-next/.

155 *See* UK Disinformation Report, *supra* note 57, at ¶ 105 (finding Cambridge Analytica wasn't just enabling research but a fully worked out data sharing arrangement to provide Facebook more granular information about individuals they could then monetize. In an email, Zuckerberg writes: "Sometimes the best way to enable people to share something is to have a developer build a special purpose app or network for that type of content and to make that app social by having Facebook plug into it. However, that may be good for the world but it's not good for us unless people also share back to Facebook and that content increases the value of our network.").

156 *Id.* at ¶ 76.

157 Department of Justice Complaint, *U.S. v. Facebook, Inc.*, No. 19-cv-2184 (D. D.C., June 24, 2019), https://www.justice.gov/opa/press-release/file/1186506/download.

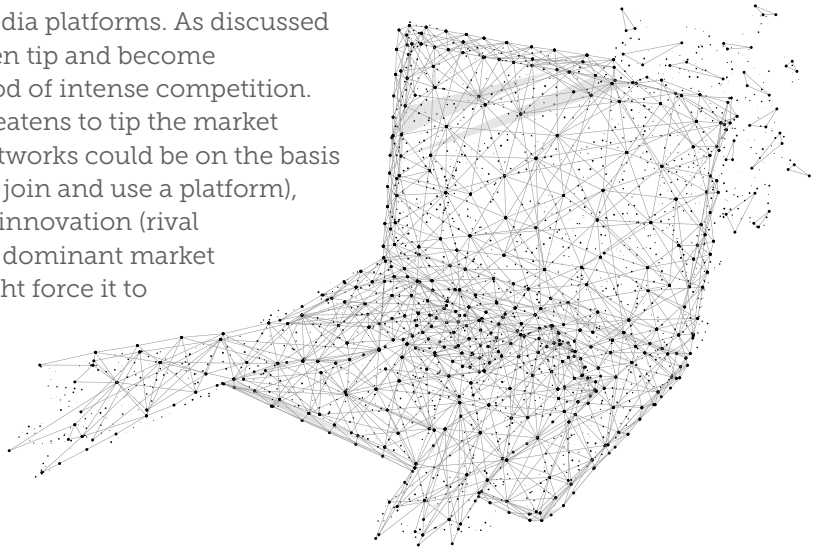
158 *Id.* at ¶ 88–91.

159 *Id.* at ¶ 100.

HARMS

Anticompetitive conduct by Facebook will cause a variety of harms: some to users, some to publishers, and some to advertisers. The harms we describe below are those that occur when the market has become a virtual monopoly and the consumer has significantly reduced, or zero, choice of social network to join in order to escape low quality.

Harm to Consumers



Consumers benefit from competition between social media platforms. As discussed above, when network effects are strong, markets will often tip and become concentrated. But before they do there is typically a period of intense competition. Intense competition arrives each time a new entrant threatens to tip the market away from an incumbent. Such competition in social networks could be on the basis of price (users could barter less data or be paid money to join and use a platform), quality (users are protected from dangerous content), or innovation (rival platforms improve the service in a new way). Facebook's dominant market position insulates it from competitive pressures that might force it to compete in any of these ways.[160]

Dark patterns cause consumers to pay a higher data price than they would freely choose.[161] Framing and communication of privacy settings in a way that takes advantage of consumers' behavioral limitations causes them to give away more data and privacy than they otherwise would and represents a lower quality of the service.[162] When a user gives away more data than she might freely choose, that is also a worsening in the terms of barter between the user and the platform which, along with the lower quality, increases the quality-adjusted price. If that data is then used to serve unwanted advertising or otherwise interrupt the user's experience on the platforms, that causes a further reduction in the quality-adjusted price. The business model of Facebook incentivizes the collection and exploitation of consumer data that worsens the consumer experience.[163]

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160 CMA Report, *supra* note 3, at ¶ 3.170 ("In combination, we consider that the factors above limit the competitive pressure on Facebook. This may have several negative impacts for consumers. Firstly, Facebook may have weaker incentives to innovate and to develop its platforms in ways that are valued by consumers, compared to a more competitive scenario. In addition, Facebook may be able to extract more consumer data, or worsen the terms that it offers consumers for this data. We discuss consumer control over data in Chapter 4. Finally, consumers may be harmed indirectly through higher prices for other goods and services, if Facebook is able to use its market power over consumers to raise the prices its charges to display advertisers above competitive levels.").

161 *Id.* at ¶ 4.126–4.127 (In addition, even when a consumer has been able to navigate to the correct menu, they are often presented with multiple other settings, which serves to reduce the prominence of the location of the privacy settings. For example, on Facebook's Settings Page, consumers are presented with links to 20 different tabs along the left-hand margin of the page, of which 'Privacy', leading to Facebook's Privacy Settings and Tools is one. . . The effect of making navigation towards privacy settings and the selection of alternative options to the default a multi-stepped and partially obfuscated process has been described as a 'dark pattern'. By relying on the fact that consumers generally do not change default settings, platforms are able to maximise the number of consumers that will share the maximum amount of their personal information, to the benefit of the platform.").

162 *Id.* at ¶ 4.113–4.114 ("The Behavioural Insights Team, the NCC and Which? have pointed to the role that defaults have in terms of influencing consumers' choices about sharing data with service providers suggesting that firms could be exploiting behavioural biases to get them to accept privacy-intrusive defaults (so called 'dark patterns'). . . There is some evidence that consumers have a preference for privacy-friendly default settings. Research carried out in 2019 by the US Stigler Center at University of Chicago Booth School of Business looked at the privacy and security practices of Facebook, Google, Amazon, and other platforms. They found that consumers would often—but not always—prefer and expect default provisions that enhanced their privacy and security; *id.* at ¶ 4.156 ("Consumers have some controls over their data, but frequently platforms do not give them full control and some do not allow consumers to turn off personalised advertising.").

163 *Id.* at ¶ 5.151 ("Our view at this stage is that the dynamics in the display advertising market create the incentive for Facebook to exploit its market power on the consumer side of the platform—by extracting large amounts of data from consumers. This exploitation by Facebook of consumers is then rewarded in the digital advertising market through higher prices paid for its advertising inventory.").

Another reduction in quality that Facebook's market power allows is the serving of addictive and exploitative content to consumers. Facebook deploys various methods to maintain user attention—so that it can serve more ads—using techniques that the medical literature has begun to demonstrate are potentially addictive. These studies show that Facebook's tactics affect the brain in the same manner as dopamine. The Cambridge Analytica incident demonstrated how Facebook explicitly targeted people with strong political views on specific social issues to take advantage of their emotions in order to make those users upset and angry. Most users would likely view this type of strategy and content as low quality.

Clearly, robust competition that generated more innovation would benefit consumers, especially in a market where prices are often fixed at zero. The lack of innovation in social networks is of significant harm to consumers given the many hours a day that most consumers use these platforms.

One possible offsetting benefit from the conduct is Facebook's superior ability to target ads, making them less annoying to users and more valuable to advertisers. However, a critical issue in this case is that if the data being used to target the ads was stolen from the consumer without her knowledge or permission, then the better-targeted ads may not constitute a sufficient benefit under the antitrust laws to justify the conduct.

The facts that are public today do not provide a procompetitive justification for any of these actions by Facebook described here. A single acquisition may be pro-competitive, but using an app to spy on users to carry out a long series of both acquisition and exclusion of nascent rivals is clearly not. Falsehoods concerning privacy and consequent unauthorized appropriation of data from users and publishers likewise have no procompetitive justification.[164]

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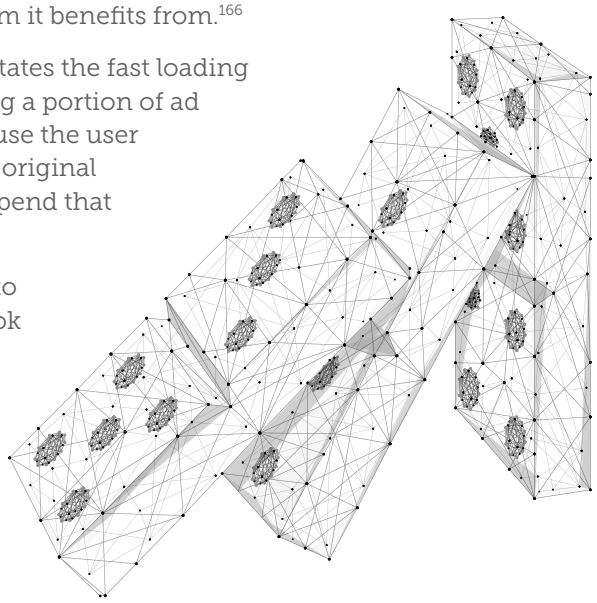
Harm to Content Providers (Publishers)

Publishers and other content providers are horizontal competitors of Facebook in the market for the supply of display advertising space. Facebook's market power allows it to earn profit from content providers who post on Facebook, profit that in a more competitive environment would likely go to the original content provider. Facebook keeps 27% of ad spend for ad placed on websites when users land there through a Facebook post.[165] It is the user who is posting a piece from a publisher like HuffPo, and that piece helps Facebook platform remain relevant and engaging, and

164 Higher prices for better targeted ads could be a procompetitive business model if executed transparently so that consumers had a choice to participate by sharing data and gained from the barter.

165 *Id.* at ¶ 2.58 ("We have also carried out analysis of Google and Facebook's advertising revenues based on information in their management accounts. This suggests that, where small publishers use Google's AdSense for Content product to monetize their advertising inventory, Google retains on average 32% of the revenues earned from advertisers. Similarly, where small publishers use Facebook Audience Network to monetize their advertising inventory, Facebook retains on average 27% of the revenues earned from advertisers.").

yet Facebook can keep a supra-competitive piece of any advertising that results from views because it does not face competition. The lack of revenue for journalism has caused some governments around the world to begin to require Facebook to pay for the journalism it benefits from.[166]



Facebook also developed a format called Instant Articles (IA) that facilitates the fast loading of publisher pages on the Facebook Mobile App. Facebook passes along a portion of ad spend that appears alongside IA but Facebook captures the data, because the user is visiting a Facebook-cached page rather than a page residing on the original publisher's server. In this way, Facebook captures both traffic and ad spend that might otherwise go to publishers.[167]

An advertiser that wishes to reach particular consumers has a choice to advertise on Facebook or on the site of the publisher. Because Facebook can track publishers' customers, it can target ads to those readers when they are on Facebook, monetizing the value and brand loyalty of the publisher, thus reducing the publisher's revenue.[168] The publishers' financial incentive to invest and create new content is below competitive levels because Facebook's conduct lowers the return it gets from such investment, and its business is harmed.

All of these methods of reducing publisher revenue below competitive levels result in less investment in, and production of, content relative to what consumers would get in a competitive market. Internet content is a source of consumer welfare benefit to users; news sites with more reporters, cooking sites with more recipes, travel sites with more itineraries—these are all examples of the type of investment a content provider will create in response to financial incentives. The lack of this content harms consumers.

Harm to Advertisers

Facebook's market power allows it to charge supracompetitive prices for its ad inventory.[169] Facebook has the ability to charge high prices not just because it owns such a large percentage of display inventory, but also because it has extracted such extraordinary amounts of data from its often-unwitting users which make the ads more valuable.[170]

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166 *See, e.g.*, Livia Albeck-Ripka, *Australia Moves to Force Google and Facebook to Compensate Media Outlets*, N.Y. Times (Apr. 20, 2020), https://www.nytimes.com/2020/04/20/business/media/australia-facebook-google.html; Mark Sweney, *EU copyright law may force tech giants to pay billions to publishers*, The Guardian (Sep. 12, 2018), https://www.theguardian.com/law/2018/sep/12/eu-copyright-law-may-force-tech-giants-to-pay-billions-to-publishers-facebook-google.

167 CMA Report, *supra* note 3, at ¶ 5.254–5.255 ("Facebook is another key source of consumer traffic for publishers. Publishers post content on their own Facebook pages with the aim of generating awareness of their content and brand and of referring traffic back to their websites and apps. Publishers report that they have little or no opportunity to directly monetise what might be termed standard content on their Facebook pages. . . Facebook's News Feed is another key source of traffic. To post content in Facebook's News Feed, a number of publishers put their web pages in into Facebook's Instant Articles (IA) format. Similar to AMP, IA is a publication format that has been designed to allow mobile pages to load faster, but in the case of IA it is only in use on the Facebook mobile app. Publishers receive a [majority] share in advertising revenue generated by Facebook from adverts that appear alongside their IAs. They also have the option to insert their own directly sold advertising alongside their IA and, where they do this, they receive 100% of the advertising revenue.").

168 *See id.* at ¶ 5.277 ("One impact of this ability of Google and Facebook to observe consumer interaction on many publisher sites is to reinforce the advantages they have over most other online publishers in offering targeted advertising due to their greater access to online data. In particular, this reinforces Google's and, to a lesser extent, Facebook's ability to track consumers across different web domains.").

169 *Id.* at ¶ 3.170 ("Finally, consumers may be harmed indirectly through higher prices for other goods and services, if Facebook is able to use its market power over consumers to raise the prices its charges to display advertisers above competitive levels.").

170 *Id.* at ¶ 3.160 ("Social media platforms that offer greater targeting capabilities are more valuable to advertisers. Platforms with greater quantities of consumer data are better able to target advertising and may be better able to successfully monetise their services.").

Additionally, advertisers suffer from lower-quality advertising outcomes than they would in a competitive market. The CMA notes that advertisers expressed concern over restrictions on third-party verification, which can lead to overcharges above and beyond the otherwise supra-competitive price.[171] Facebook in 2016, for example, admitted that it had substantially over-reported view time for video ads, leading to improper overcharges.[172] Advertisers would have had no way to learn about this overcharge had Facebook not disclosed it itself.

The lack of transparency in advertising on Facebook also exposes advertiser's ads to dangerous content and harms the brand. Because Facebook controls the data reflecting the placement and performance of ads and does not fully share it with advertisers, advertisers lack the ability to audit or understand where their ads are appearing. It has been reported, for example, that internet trolls utilize the group feature to form closed "banter groups," specifically for the purpose of exchanging distasteful memes and jokes on topics such as rape and child sexual abuse.[173] Facebook places ads in group feeds,[174] presumably including in groups feeds where few if any advertisers hope to find their next customer. This dangerous content appearing next to an ad for a known brand, e.g. Pampers or Starbucks, harms the reputation of those brands. This is known as "brand safety" and is a critical element of quality from the point of view of an advertiser.

Facebook controls, in addition to its vast stores of user data, all information related to ads placed on its inventory, including click-through and conversion rates and the like. Advertisers, despite purchasing ads on Facebook, cannot get Facebook to give them these data, even though Facebook *does* provide log-level data about ads placed on other properties.[175] This makes it difficult for advertisers to evaluate the actual value of what they are buying. An ad served on a page opened by a bot, for example, does the advertiser no good, nor does an ad at the bottom of a page that is never viewed by the user, nor an ad that runs too fast for the human eye to see. But the advertiser does not know how frequently that happens because Facebook refused to share data that permits truly independent third-party audits.[176] This practice is only possible due to Facebook's market power and represents a decrease in the quality of the ad the advertiser buys.

The harms from Facebook's anticompetitive conduct include harm to advertisers in the form of higher prices and lower quality. These reduce the advertisers' incentive to invest and innovate, which harms them and consumers. Further harm to consumers comes from the higher prices that flow through to goods and services from the higher prices of impressions, clicks, and actions that are marginal costs of obtaining sales.

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171 *Id.* at ¶ 5.124 ("Some advertisers raised concerns about restrictions on the third-party verification of advertiser on inventory owned and operated by Google and Facebook. Responses indicated that although both Google and Facebook do work with a number of 'approved' third—party verification providers, they restrict access to detailed consumer level data in respect of verification for the advertising inventory they own and operate.").

172 *Id.* at Fn. 257.

173 Ellie Flynn, *ANTI-SOCIAL NETWORK Inside Facebook's sickest groups where trolls share memes about slavery, rape and ABORTION – and joked about PC Palmer's terror death*, The Sun (Mar. 29, 2017), https://www.thesun.co.uk/news/3203794/inside-facebooks-sickest-groups-where-trolls-share-memes-about-slavery-rape-and-abortion-and-joked-about-pc-palmers-terror-death/.

174 *About ads in the Facebook Group Feed*, Facebook For Business, https://www.facebook.com/business/help/544340026341679.

175 CMA Report, *supra* note 3, at ¶ 5.124 ("Some advertisers raised concerns about restrictions on the third-party verification of advertising on inventory owned and operated by Google and Facebook. Responses indicated that although both Google and Facebook do work with a number of 'approved' third-party verification providers, they restrict access to detailed consumer level data in respect of verification for the advertising inventory they own and operate. Other display advertising platforms reported that they do allow advertisers to use tracking tags for third party verification of impressions served on their advertising inventory. Without access to the underlying raw data and the ability to have full independent verification, there was a perception on the part of advertisers and agencies that Google and Facebook were able, in effect, to 'mark their own homework' in respect of the effectiveness of their own advertising inventory.").

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All Sides of the Platform Are Harmed

The foregoing discussion makes it clear that every side of the Facebook platform experiences net harm. Publishers lose revenue relative to a market with more competition and less deception. Advertisers buy ads at a supra-competitive price and experience low-quality delivery. Those highly-targeted ads could just as well be available in a competitive market where consumers were offered benefits from sharing their data, rather than being deceived. Consumers experience low quality on many dimensions and less innovation than would occur under competition. The ads they see may be less irritating than poorly-targeted ads but the consumers do not share in that surplus, and the critical targeting input, data, was stolen from those consumers rather than being "purchased" through the transparent exchange of some benefit. Based on the facts that are public, and on which we have based this paper, there do not appear to be any offsetting pro-competitive benefits that need to be applied to any side of this platform in order to evaluate harm.[177]

Any efficiencies must, of course, arise from the anticompetitive conduct itself, not from the existence of social networking technology, which pre-dates Facebook. Thus, although it may be tempting to view the existence of a social media platform with many friends on it as an efficiency, the existence of MySpace and Google+ and many others disposes of that argument. If complements had not been cut off from Facebook APIs the quality of the platform would be higher. If privacy policies were adhered to as written and not hidden by dark patterns, consumers would experience higher quality. If Facebook had not carried out a pattern of acquisitions over time that regularly picked off the latest most successful entrant in social networks, the sector would likely be more innovative and competitive. Likewise, there are no offsetting efficiencies from the anticompetitive conduct that would benefit advertisers, as digital ads and successful social media platforms would exist in a competitive market, but at competitive price and quality levels. Publishers also would experience demand for their content in a competitive social network platform market and payments would be at competitive levels. Facebook may respond to agency investigations by asserting procompetitive elements of its conduct, but nothing in the public record to date describes a benefit for the consumers, the publishers, or the advertisers; they all suffer.

177 The AmEx cardholders were in an unusually fortunate position. The AmEx restraints raised merchants' marginal costs and thereby caused higher prices for all customers—those using AmEx, Visa/MC, debit, and cash. Those higher prices were borne by all consumers in the store, but only AmEx cardholders received points. The high costs for the merchants became American Express's profits, which were created by the externality on other customers. Part of this externality was shared with cardholders to induce them to use their card and create the profits. Facebook's anticompetitive conduct does not feature this strong financial externality which may be why it can take profit from all sides.

CONCLUSION

Facebook has a monopoly in social media and/or social networks, whether considered in lay or legal or economic terms. The CMA has quantified the nature and extent of Facebook's control of the UK market. More important, the CMA has explained how Facebook came to acquire and maintain its monopoly.

The facts made public by the CMA demonstrate that Facebook grew its market share in part by deploying "dark patterns, skulduggery, and other" misleading and fraudulent behavior regarding its data collection efforts so that it could, on one hand, placate users, and on the other, endear itself to advertisers (whose interest was targeted ads) in order to sell them valuable and expensive advertising. Users were not aware that their data was being collected in such abundance, either through deliberate design and control of privacy policies or by the flouting of such policies. Facebook also hoodwinked publishers into participating (largely unknowingly) in its data gathering efforts; publishers installed plug-ins that allowed Facebook to spy on their users as they traversed the web and collect their data.

Facebook used its ill-gotten data to raise rivals' costs by making them unable to compete with its apparent combination of privacy and targeting. Facebook embarked on a series of acquisitions designed to eliminate competition from nascent competitors operating as social networks. And it manipulated its APIs so as to control and limit any threat posed by complementary service providers. Facebook eliminated competition by cutting off applications on its own platform that were popular with users because those applications represented potential competition that it feared. And when API manipulation was insufficiently protective, Facebook simply gobbled up those potential competitors outright.

Because the social media market is characterized by network effects that make it especially subject to tipping, and Facebook has been aggressively pursuing policies that take advantage of those characteristics, the company is now insulated from competition and can inflict harms on all three categories of its constituents. Regarding users: the lack of competition leaves users with less innovation in social media, a lower quality of content and interface, more surveillance with less privacy, a platform that exploits their emotions and behavioral biases, and higher prices for goods and services. Regarding advertisers: Facebook prevented them from analyzing the true quality of Facebook's advertising, while raising prices and failing to protect brand safety. Regarding publishers: Facebook expropriated the value of their business by taking relationships they had created with their own readers, using those to sell ads to those same audiences while sharing less ad revenue than would be generated by a competitive market.

We now find ourselves in a world in which social networks are dominated by a single firm—Facebook—that appears to be able to take almost any action, whether about price, politics, or psychology, without losing its position. Recent events underscore what we might be missing, as politicians as well as members of the polity decry the power of just a few internet platforms in shaping the democratic discourse on issues ranging from voting rights protection to police-involved violence to the pandemic. Imagine if there were a dozen social networks rather than one, how differently these democratic issues would manifest themselves; users would be able to depart from a platform that did not adhere to their standard of quality or values. But this world with choice requires Facebook to be compelled to compete.