

# GOOGLE, BIG DATA, & ANTITRUST

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## ABSTRACT

Google occupies a powerful position within the United States economy, a position which many have begun to consider too powerful. Google's power is derived almost entirely from how it uses the billions of pieces of information it collects on its users—a collection of information known as "big data." Since October 2020, five separate antitrust lawsuits have been filed against Google by multiple states and the Department of Justice. Several sweeping antitrust reform measures have also been proposed in Congress to target big tech companies.

This Article discusses the unique antitrust challenges posed by companies like Google and argues that those challenges can be addressed without a massive overhaul of antitrust law. In doing so, it builds on recent legal scholarship that advocates for more vigorous antitrust scrutiny of mergers and acquisitions and more aggressive treatment of exclusionary conduct by dominant firms. While this Article echoes such recommendations, it develops an added focus on the manner in which dominant firms use big data to properly diagnose the unique anticompetitive concerns raised by companies like Google. In order to successfully keep antitrust enforcement abreast of the challenges posed by our growing digital economy, antitrust authorities must begin to emphasize the central role big data plays in today's digital arena. This approach yields an important normative insight: the sweeping legislative reforms proposed under the guise of protecting competition in the digital age could have an opposite and chilling effect on competition and innovation.

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## I. INTRODUCTION

Google, the international behemoth of the online business world, has revolutionized the Internet and has provided the world with a myriad of invaluable products that have changed our lives for the better. Unless one has lived in blissful ignorance of the news the past few years, it is impossible to have missed the ever-growing swarm of headlines decrying

Google as a ruthless monopolist of all things digital.<sup>1</sup> These sentiments have been reflected through several high-profile lawsuits against Google for various alleged anticompetitive acts, as well as through proposals for new antitrust legislation both in the United States and abroad.

If any meaningful challenge is to be made against Google, it must be done by focusing on how Google controls and uses what is known as "big data." Further, this focus can be achieved through the lens of current antitrust law. Allowing the government to overhaul that law under the guise of protecting competition in the digital age could have an opposite and chilling effect on competition and innovation.

Part II discusses Google's business model and introduces the concept of big data. Part III explains what big data is, as well as how today's dominant firms have both come to control it and rely on it to maintain their dominance. Part IV describes how Google uses and controls big data, and Part V lists some of Google's business transactions—such as, among others, its YouTube, Android, Waze, and Fitbit acquisitions—which have granted it such excessive control over big data. Part VI discusses the place of digital markets within antitrust law. Part VII clarifies how today's most powerful firms use big data as a competitive weapon to help detect nascent competitive threats so that they may then stamp out or acquire them. Part VIII lists the current legal and legislative challenges Google is facing, and why some of those challenges, if successful, would irreparably alter both our antitrust laws and endanger our economy. Finally, Part IX proposes possibilities for factoring data into an antitrust analysis.

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<sup>1</sup>See, e.g., David McCabe & Daisuke Wakabayashi, *10 States Accuse Google of Abusing Monopoly in Online Ads*, N.Y. TIMES (Dec. 6, 2020), <https://www.nytimes.com/2020/12/16/technology/google-monopoly-antitrust.html>;

Max Mason, *Google's Anti-Competitive Behavior Speaks Louder Than its Words*, FIN. REV. (Feb. 1, 2021), [https://www.afr.com/companies/media-and-marketing/google-s-anti-competitive-behaviour-speaks-](https://www.afr.com/companies/media-and-marketing/google-s-anti-competitive-behaviour-speaks-louder-than-its-words-20210128-p56xeh)

[louder-than-its-words-20210128-p56xeh](https://www.afr.com/companies/media-and-marketing/google-s-anti-competitive-behaviour-speaks-louder-than-its-words-20210128-p56xeh); Gary Reback, *You Should be Outraged at Google's Anti-Competitive Behavior*, WASH. POST (July 7, 2017), [https://www.washingtonpost.com/opinions/you-should-be-outraged-at-googles-anti-competitive-behavior/2017/07/07/e117b704-5de1-11e7-9b7d-14576dc0f39d\\_story.html](https://www.washingtonpost.com/opinions/you-should-be-outraged-at-googles-anti-competitive-behavior/2017/07/07/e117b704-5de1-11e7-9b7d-14576dc0f39d_story.html); Kira Radinsky, *Data Monopolists Like Google Are Threatening the Economy*, HARV. BUS. REV. (Mar. 2, 2015), <https://hbr.org/2015/03/data-monopolists-like-google-are-threatening-the-economy>.

## II. GOOGLE'S BUSINESS MODEL

From humble beginnings, Google<sup>2</sup> has developed into one of the wealthiest and most universally pervasive companies ever known. Google was conceived in 1995 when Larry Page and Sergey Brin were pursuing graduate studies at Stanford University. In 1996, the friends began work on a search engine called "BackRub," so-called as a reference to the algorithm-generated ranking for how many "back-links" a webpage has. The pair later decided to rename the search engine "Google" as a play on the word "googol," a mathematical term for the number one followed by 100 zeros.<sup>3</sup> Page and Brin outlined the foundation for what became Google Search in their 1998 paper: "The Anatomy of a Large-Scale Hypertextual Web Search Engine."<sup>4</sup> The Internet was designed to be a decentralized network with the potential to expand for a seemingly infinite number of content creators. Page and Brin brilliantly developed an indexing system for this network. Specifically, they used links to content as a way to order search results. Pages were ranked higher if there were more pre-existing links to them from high-quality sources. In their paper, Page and Brin dubbed this system "PageRank," and it remains the foundation for what we know as Google Search to this day.<sup>5</sup> As of March 2021, Google overwhelmingly dominates the search engine market, maintaining a 92.47% market share.<sup>6</sup>

The purpose of a search engine is to deliver users the answers they are seeking. The more users search, the more clicks are made available for the search engine to track. The more users click, the better the search engine can match relevant search results. Further, the greater number of users' clicks a search engine is able to track, the more it can improve its search functions. This phenomenon, whereby increased numbers of people

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<sup>2</sup>Although Alphabet Inc. replaced Google Inc. as the name of the publicly traded entity in 2015, for simplicity, I will refer to the company as Google throughout this paper.

<sup>3</sup>Christopher McFadden, *Almost Everything You Need to Know About Google's History*, INTERESTING ENGINEERING (June 28, 2020), <https://interestingengineering.com/almost-everything-you-need-to-know-about-googles-history>.

<sup>4</sup>See generally Sergey Brin & Lawrence Page, *The Anatomy of a Large-Scale Hypertextual Web Search Engine*, 30 STAN. U. INFOLAB 107, 111-12 (1998) <https://snap.stanford.edu/class/cs224w-readings/Brin98Anatomy.pdf>.

<sup>5</sup>Fiona M. Scott Morton & David C. Dinelli, *Roadmap for a Monopolization Case Against Google*, OMIDYAR NETWORK, at 4 (June 2020) <https://omidyar.com/wp-content/uploads/2020/09/Roadmap-for-a-Monopolization-Case-Against-Google-Regarding-the-Search-Market.pdf>.

<sup>6</sup>Joseph Johnson, *Global Market Share of Search Engines 2010-2021*, STATISTA (July 8, 2021), <https://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines/>.

or participants improve the value of a good or service, is commonly referred to as a "network effect."<sup>7</sup>

During a consumer's search, Google is presented an opportunity to advertise. The sale of advertising not only allows Google to offer many of its core services free of charge, but also allows it to reap considerable profits. Profits from the sale of advertising space serves as the main source of Google's revenue.<sup>8</sup> Search engine algorithms provide users with both "organic" results—page listings that most closely match the user's search query based on relevance, and "sponsored" results—page listings whose owners have paid to have them displayed when a user searches certain keywords.<sup>9</sup> In the case of such sponsored search results, most advertisers pay search engines on a cost-per-click basis.<sup>10</sup>

Morton and Dinelli explain, "[t]he concept of match quality between the consumer and the advertiser is often called 'relevance' and manifests itself in the price of the ad which is also sometimes referred to as 'monetization' or 'profit per search.'"<sup>11</sup> Google can charge a higher price for advertisements to be displayed on a results page that closely matches a consumer's search. By analyzing the advertising clicks of consumers within the same search, the search engine can market its result pages to the right businesses and identify relevant potential advertisers.

Google also charges a high price for advertisements by "vertical" or "specialized" search engines. A "general" search engine, such as Google, scans the entire web and provides relevant responses regardless of what a consumer is searching, but a "specialized" search engine—such as Yelp.com or Zillow.com—provides responses only within specific areas.<sup>12</sup> Instead of going directly to one of these specialized search engines, consumers often search Google first. Thus, Google's general search serves as a gateway to specialized search engines, and the revenue generated from the sale of advertisements for these specialized search engines generates a large percentage of Google's revenue.<sup>13</sup>

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<sup>7</sup>Caroline Banton, *What is a Network Effect?*, INVESTOPEDIA (Apr. 3, 2021), <https://www.investopedia.com/terms/n/network-effect.asp>.

<sup>8</sup>Joseph Johnson, *Advertising revenue of Google from 2001 to 2020*, STATISTA (Feb. 5, 2021), <https://www.statista.com/statistics/266249/advertising-revenue-of-google/>.

<sup>9</sup>See Maurice E. Stucke & Ariel Ezrachi, *When Competition Fails to Optimise Quality: A Look at Search Engines*, 18 YALE J.L. & TECH. 70, 78 (2016).

<sup>10</sup>*Id.*

<sup>11</sup>Morton & Dinelli, *supra* note 5, at 5.

<sup>12</sup>*Web Directories and Specialized Search Engines*, WEBCONFS, <https://www.webconfs.com/web-directories-and-specialized-search-engines-article-18.php> (last updated Jul. 20, 2021).

<sup>13</sup>See Morton & Dinelli, *supra* note 5.

Not long after the birth of Google Search, the company began expanding into many additional markets. Over time, Google has created what University of Miami Law Professor John Newman calls a "private digital ecosystem."<sup>14</sup> In 2019, Newman explained what these ecosystems are and what brought them about.<sup>15</sup> Newman wrote that humans possess limited amounts of cognitive capacity, meaning mental processes can be overloaded by a large amount of information being presented at once.<sup>16</sup> Overloading mental processes can have a reductive effect on available cognitive capacity over time.<sup>17</sup> Up until the modern Digital Era, information was relatively scarce, and access to it was limited. Thus, human attention and available cognitive load were relatively abundant, and the need for rapid decision-making was limited.<sup>18</sup> With the emergence of the internet in the last few decades, that relationship has become inverted. Today, information has become so abundant that it has vastly overtaken our ability to process it, leading to information overload.<sup>19</sup>

This information overload has provided companies like Google the unique opportunity to act as portals through which consumers are able to search and access only their desired information and services. The most successful of such businesses are those that offer what Professor Newman identifies as the "lowest-cognitive-burden" means of doing so.<sup>20</sup>

"A firm that controls the primary portal to a particular digital product—general search results, for example—can protect its dominant position by creating an ecosystem comprising multiple portals to other products among which users can easily switch."<sup>21</sup> In addition, once a business has created such an ecosystem, its competitive advantage is magnified by users' resistance to taking on the cognitive costs of switching to some other less pervasive ecosystem.<sup>22</sup> Google has created precisely such an ecosystem.<sup>23</sup> In a 2014 paper, Michigan State Law Professor and Former Commerce Department Member Adam Candeub notes, "Google is more than a search engine. Through its links to services such as news, email, and YouTube, Google provides a gateway to the web that minimizes search time—and thereby the cognitive and time costs of using

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<sup>14</sup> See generally John M. Newman, *Antitrust in Digital Markets*, 72 VAND. L. REV. 1497 (2019).

<sup>15</sup>*Id.*

<sup>16</sup>See *id.* at 1506.

<sup>17</sup>*Id.*

<sup>18</sup>Newman, at 1506.

<sup>19</sup>*Id.*

<sup>20</sup>*Id.*

<sup>21</sup>*Id.* at 1508.

<sup>22</sup>Newman, at 1507-08.

<sup>23</sup>*Id.*

the web."<sup>24</sup> Firms like Google which control such digital ecosystems are often referred to as "gatekeeper platforms," since they sit in a powerful intermediary position between other businesses and their customers, and they control core services, such as: search engines, social networking services, email and messaging services, and operating systems.<sup>25</sup> Four of the most powerful of these gatekeeper platforms are Google, Amazon, Facebook, and Apple.<sup>26</sup>

Looking over all the companies Google has acquired and all the markets into which Google has expanded, the only plausible conclusion is that it has always been Google's ultimate goal to become one of the world's most powerful private digital ecosystems. As users navigate Google's massive digital ecosystem, Google collects data about how they use any of its devices, applications ("apps"), and services.<sup>27</sup> This collection includes data from users' Google Search browsing behavior, Gmail and YouTube activity and preferences, Google Maps location history, website visits, online purchases, and so on.

With all the data Google gathers about each consumer across all of its products, services, and applications, it is able to build an extremely detailed advertising profile, including a person's gender, age, job, education, interests, location, health, and more. The more detailed an advertising profile Google creates, the more precisely it is able to target consumers with advertising that aligns with their personal tastes. Google has grown its data collection efforts into a system so large that the data pool it collects is now referred to by the name "big data."<sup>28</sup>

### III. UNDERSTANDING BIG DATA

Big data is a collection of data sets so large and complex that traditional database systems cannot effectively manage or process the information.<sup>29</sup> Information technology research company Gartner defines

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<sup>24</sup>J Adam Candeub, *Behavioral Economics, Internet Search, and Antitrust* 410 (J.L. & POL'Y FOR INFO. SOC'Y, Vol. 9, 2014), <https://ssrn.com/abstract=2414179>..

<sup>25</sup>Damien Geradin, *What is a Digital Gatekeeper?*, THE PLATFORM L. BLOG (Oct. 5, 2020), <https://theplatformlaw.blog/2020/10/05/what-is-a-digital-gatekeeper/>.

<sup>26</sup>*Id.*

<sup>27</sup>*How Google Uses Information From Sites or Apps that Use Our Services*, GOOGLE PRIVACY & TERMS, <https://policies.google.com/technologies/partner-sites?hl=en-US> (last updated Jul. 21, 2021).

<sup>28</sup>James Manyika et al, *Big Data: The Next Frontier for Innovation, Competition, and Productivity*, MCKINSEY GLOBAL INST. (May 1, 2011) [https://www.mckinsey.com/~media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/big%20data%20the%20next%20frontier%20for%20innovation/mgi\\_big\\_data\\_full\\_report.pdf](https://www.mckinsey.com/~media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/big%20data%20the%20next%20frontier%20for%20innovation/mgi_big_data_full_report.pdf).

<sup>29</sup>*Id.*

big data as "high-volume, high-velocity, and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight, decision making and process automation."<sup>30</sup> There are significant benefits to businesses, consumers, and the government from the collection and analysis of big data. Businesses analyze data to help them use targeted advertising to better market products and services to consumers, enhance and personalize products and services, and develop entirely new products and services.<sup>31</sup> Targeted advertising subsidizes free services and content on the Internet, as well as many free mobile apps, and has made possible the exponential growth of and innovation on the Internet.<sup>32</sup> Businesses and government entities use analysis of big data for what is known as "intelligence collection," which can "help humans establish baselines of normal behavior and activity, alert humans when those patterns deviate, and adapt collection to changing adversary behavior and operating environments."<sup>33</sup>

As technology continues to expand into ever more aspects of our daily lives, sources for big data continue to grow, including: smart home appliances and systems; health and wellness monitoring devices, commonly called "wearables;" networked sensors; and geospatial technologies.<sup>34</sup> The number of businesses and organizations with extensive data collection and processing capabilities are vast, including online and offline retailers, advertising networks, search engines, social networking sites, Internet service providers ("ISPs") and cable companies, financial institutions, insurance companies, data brokers, and government entities.<sup>35</sup> According to a recent estimate, by 2022, 35% of large organizations will be either sellers or buyers of data via formal online data marketplaces.<sup>36</sup> This estimate is up from 25% in 2020.<sup>37</sup> In addition, along with the

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<sup>30</sup>*Big Data*, GARTNER INFO. TECH. GLOSSARY, <https://www.gartner.com/en/information-technology/glossary/big-data>

<sup>31</sup>See Manyika et al., *supra* note 28, at 27-31.

<sup>32</sup>*Id.* at 2; See also *How do Internet Companies Profit with Free Services*, INVESTOPEDIA (July 29, 2021), <https://www.investopedia.com/ask/answers/040215/how-do-internet-companies-profit-if-they-give-away-their-services-free.asp>.

<sup>33</sup>Brian Katz, *The Collection Edge: Harnessing Emerging Technologies for Intelligence Collection*, CTR. FOR STRATEGIC & INT'L STUDIES (July 13, 2020), <https://www.csis.org/analysis/collection-edge-harnessing-emerging-technologies-intelligence-collection>.

<sup>34</sup>Darren S. Tucker & Hill B. Wellford, *Big Mistakes Regarding Big Data*, ANTITRUST SOURCE, AM. BAR ASSOC., December 1, 2014, at 2.

<sup>35</sup>*Id.*

<sup>36</sup>Laurence Goasduff, *Gartner Top 10 Trends in Data and Analytics for 2020*, GARTNER (Oct. 19, 2020), <https://www.gartner.com/smarterwithgartner/gartner-top-10-trends-in-data-and-analytics-for-2020/>.

<sup>37</sup>*Id.*

advancement of technologies capable of storing and analyzing massive sets of big data, the use of big data is no longer limited to a handful of large organizations. Almost all small businesses, entrepreneurs, and smaller government agencies are now able to access big data and use it in innovative ways to improve their products and operations. According to a recent study, 97.2% of organizations worldwide are investing in big data.<sup>38</sup> As former Federal Trade Commission ("FTC") Chairwoman Edith Ramirez observed, "big data is no longer the province of a few giant companies."<sup>39</sup>

Data has even been coined the "new oil,"<sup>40</sup> as it is used as fuel within almost every industry that takes part in the modern digital economy. Just like oil, however, data in its crude form is not all that useful, and only a handful of dominant firms, like Google, have the capability to harvest, process, and analyze it in ways which can turn it into the valuable fuel on which today's businesses and advertisers thrive. As marketing commentator Michael Palmer blogged back in 2006, "Data is just like crude [oil]. It's valuable, but if unrefined it cannot really be used. It has to be changed into gas, plastic, chemicals, etc., to create a valuable entity that drives profitable activity; so [too] must data be broken down [and] analyzed for it to have value."<sup>41</sup>

Data supply is increasing exponentially, and the technology required to collect, process, and analyze it is ever more powerful and sophisticated—the kind of technology not many businesses can afford. The total amount of data created, captured, copied, and consumed in the world reached fifty-nine zettabytes in 2020,<sup>42</sup> and has been predicted to reach four times that amount by 2025.<sup>43</sup> A byte is the unit most computers use to represent a character such as a letter, number, or typographic symbol, with 1000 bytes in a kilobyte (KB), 1000 KB in a megabyte (MB), 1000 MB in a gigabyte (GB), 1000 GB in a terabyte (TB), 1000 TB in a

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<sup>38</sup>Christo Petrov, *25+ Impressive Big Data Statistics for 2021*, TECHJURY, <https://techjury.net/blog/big-data-statistics/#gref> (last updated Aug. 5, 2021).

<sup>39</sup>Edith Ramirez, Former FTC Chairwoman, *The Privacy Challenges of Big Data: A View from the Lifeguard's Chair*, Keynote Address at the Technology Policy Institute Aspen Forum (Aug. 19, 2013) (transcript available at <https://www.ftc.gov/public-statements/2013/08/privacy-challenges-big-data-view-lifeguard%E2%80%99s-chair>).

<sup>40</sup>Perry Rotella, *Is Data The New Oil?*, FORBES (Apr. 2, 2012), <https://www.forbes.com/sites/perryrotella/2012/04/02/is-data-the-new-oil/?sh=79c26a357db3>.

<sup>41</sup>Michael Palmer, *Data is the New Oil*, ANA BLOGS (Nov. 3, 2006), [https://ana.blogs.com/maestros/2006/11/data\\_is\\_the\\_new.html](https://ana.blogs.com/maestros/2006/11/data_is_the_new.html).

<sup>42</sup>Arne Holst, *Amount of information globally 2010-2024*, STATISTA (Feb. 5, 2021), <https://www.statista.com/statistics/871513/worldwide-data-created/>.

<sup>43</sup>See, e.g., Steve Morgan, *The World Will Store 200 Zettabytes Of Data By 2025*, CYBERCRIME MAG. (Jun. 8, 2020), <https://cybersecurityventures.com/the-world-will-store-200-zettabytes-of-data-by-2025/>;

petabyte (PB), 1000 PB in an exabyte (EX), and 1000 EX in a zettabyte (ZB), etc.<sup>44</sup> Today's most basic smartphones usually have 32 GB of capacity, and to get 1 ZB you would have to fill approximately 34.4 billion smartphones. To visualize this number, if you put "34.4 billion [of those smartphones] end-to-end lengthwise, you could circle the Earth 121.8 times."<sup>45</sup> It appears the term "big data" is somewhat of an understatement.

Several characteristics of big data make its competitive significance difficult to ascertain under traditional antitrust analysis. First, big data is "non-rivalrous," meaning its collection or use by one company does not prevent simultaneous use by another.<sup>46</sup> Second, some sets of big data are now both widely available for purchase and relatively inexpensive.<sup>47</sup> There is a "near-continuous collection, transfer, and repurposing of information in a big data world."<sup>48</sup> Consumer data and other information can be purchased from an array of companies, including data brokers, and these profiles can contain "thousands of pieces of data" on an individual.<sup>49</sup> Finally, big data decays, meaning it becomes outdated, rapidly. A 2019 report found that every month around 3% of data becomes decayed globally, and business-to-business data decays at a rate of 70.3% per year.<sup>50</sup>

Antitrust attorneys Darren Tucker and Hill Wellford<sup>51</sup> noted big data's characteristics—its ubiquity, wide availability, and fleeting value—

<sup>44</sup>Orders of Magnitude in Digital Data & Computer Storage, ID TECH BLOG (Mar. 27, 2009), <https://www.idtech.com/blog/orders-of-magnitude-digital-data>.

<sup>45</sup>Jim Haughwout, *The Expanding (Digital) Universe: Visualizing How Big a Zettabyte Really Is*, LAGRANGIAN POINTS BLOG (May 12, 2014), <http://lagrangianpoints.com/2014/05/expanding-digital-universe-visualizing-big-zettabyte/>.

<sup>46</sup>Tucker & Wellford, *supra* note 34, at 3-4.

<sup>47</sup>Tucker & Wellford, *supra* note 34, at 3-4.

<sup>48</sup>Executive Office of the President, *Big Data: Seizing Opportunities, Preserving Values*, OBAMA WHITE HOUSE, 39 (2014), [https://obamawhitehouse.archives.gov/sites/default/files/docs/big\\_data\\_privacy\\_report\\_may\\_1\\_2014.pdf](https://obamawhitehouse.archives.gov/sites/default/files/docs/big_data_privacy_report_may_1_2014.pdf); *See also id.* at 50 ("[Big data] is bought, bartered, traded, and sold. An entire industry now exists to commoditize the conclusions drawn from that data.").

<sup>49</sup>*See, e.g.*, Dan Rafter, *How Data Brokers Find and Sell Your Personal Info*, NORTON LIFELOCK, <https://us.norton.com/internetsecurity-privacy-how-data-brokers-find-and-sell-your-personal-info.html> ("According to WebFX, there were more than 4,000 data brokerage companies operating across the globe in 2019. WebFX gives an example of how active these companies can be: The data brokerage Acxiom, which ranks as one of the largest in the industry, collects data on 500 million consumers. It collects up to 1,500 different pieces of information per person. WebFX said that in 2012, data broker companies made \$150 billion in revenue.").

<sup>50</sup>*Control Data Decay to Enhance your Sales Efficiency*, AI TECH. INSIGHTS (Sept. 4, 2019), <https://aithority.com/ait-featured-posts/control-data-decay-to-enhance-your-sales-efficiency/>.

<sup>51</sup>It should be noted that Tucker and Wellford, through firm Vinson & Elkins LLP, represented Google in its acquisition of Fitbit for \$2.1 billion, completed on January 14, 2021.

make big data different from industry structures typically thought to cause competition problems.<sup>52</sup> Nonetheless, the authors point out these unique characteristics do not "preclude a violation of the antitrust laws due to conduct involving big data, but . . . suggest that courts and regulators should proceed cautiously when presented with claims that big data is the source of a competition problem."<sup>53</sup>

Conversely, in 2015 Tilburg University Law Professor Inge Graef pointed out the alleged ubiquitous nature of data and the low cost of its collection, storage, and analysis is often overstated.<sup>54</sup> She notes that while some types of data, such as a user's basic contact and demographic information, can be easily purchased from data brokers and other companies, "the information that search engines, social networks, or e-commerce platforms need to operate their services is much more specific and does not seem to be readily available on the market."<sup>55</sup> In addition, the initial costs required for the collection, storage, and analysis of big data sets are staggering; whereas, the costs required afterwards for increased production are low.<sup>56</sup> Graef notes these economics of scale are created to act as an entry barrier for both smaller companies and new entrants to a given market. University of Tennessee College of Law Professor, Maurice Stucke, and Antitrust Lawyer, Allen Grunes, pointed out massive firms like Google would not invest considerable amounts of money in developing services through which to collect and analyze information if data "were as freely available as sunshine."<sup>57</sup>

#### IV. GOOGLE AND BIG DATA

Given that Google's main source of revenue is derived from its advertising services, Google has had great economic incentive to increasingly extend into markets that allow it to appropriate more and more information about its consumers. Advertising revenue accounts for

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See Darren Tucker Lawyer Profile, THE LEGAL 500, <https://www.legal500.com/firms/51027-vinson-elkins-llp/52170-washington-dc-usa/lawyers/794383-darren-tucker/> (last updated Feb. 26, 2022); Hill Wellford Lawyer Profile, THE LEGAL 500, <https://www.legal500.com/firms/51027-vinson-elkins-llp/52170-washington-dc-usa/lawyers/794386-hill-wellford/> (last updated Feb. 26, 2022).

<sup>52</sup>Tucker & Wellford, *supra* note 34, at 4.

<sup>53</sup>Tucker & Wellford, *supra* note 34, at 4.

<sup>54</sup>Inge Graef, *Market Definition and Market Power in Data: The Case of Online Platforms*, 38 WORLD COMPETITION: L. & ECON. REV. 473, 483 (2015).

<sup>55</sup>*Id.*

<sup>56</sup>*Id.*

<sup>57</sup>Maurice E. Stucke Allen P. Grunes, *No Mistake About It: The Important Role of Antitrust in the Era of Big Data*, ANTITRUST SOURCE, at 7 (April 2015).

the majority of Google's revenue, amounting to 146.92 out of 181.69 billion dollars, or almost 90%, in 2020, with the majority of that advertising revenue coming from search advertising.<sup>58</sup>

The more data Google is able to collect, the more it is able to solidify its economic dominance, while simultaneously making it less economically feasible for potential competitors to challenge it. It is apparent that Google has recognized this correlation, given certain business decisions, such as its move in 2011 to begin encrypting user search data with Google Analytics.<sup>59</sup> Encryption prevents website owners from learning what terms a user searched in Google which led them to the owner's site. The official reason Google gave for the decision was to protect user privacy.<sup>60</sup> However, encryption allows Google to share encrypted data with advertisers for a price, turning its Google Analytics into a tool to give companies yet another incentive to purchase Google's advertising services.<sup>61</sup>

The unit cost of servicing the next consumer is lowered as each new consumer's data accumulates.<sup>62</sup> Google, therefore, has a great interest in investing resources into the enhancement of data processing methods, such as machine learning through artificial intelligence ("AI"). Google claims that it does not directly sell user data.<sup>64</sup> Technically it does not; to quote Google CEO Sundar Pichai, "Google will never sell any personal information to third parties; and you get to decide how your information is used."<sup>65</sup> However, Google is able to monetize the information it collects on users in three main ways.

First, as described above, Google uses the data to build individual profiles of users' demographics and interests.<sup>66</sup> This is usually on a cost-

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<sup>58</sup>Joseph Johnson, *Advertising revenue of Google from 2001 to 2020*, STATISTA (Feb. 5, 2021), <https://www.statista.com/statistics/266249/advertising-revenue-of-google/>.

<sup>59</sup>Amy Chang, *Making Search More Secure: Accessing Search Query Data in Google Analytics*, GOOGLE ANALYTICS SOLUTIONS (Oct. 18, 2011), <https://analytics.googleblog.com/2011/10/making-search-more-secure-accessing.html>.

<sup>60</sup>*Id.*

<sup>61</sup>Danny Sullivan, *Google Put a Price on Privacy*, SEARCH ENGINE LAND (Oct 22, 2011), <http://searchengineland.com/google-puts-a-price-on-privacy-98029>.

<sup>62</sup>See James Currier, *The Network Effects Manual: 13 Different Network Effects (and Counting)*, MEDIUM (Jan. 9, 2018), <https://www.nfx.com/post/network-effects-manual/>.

<sup>64</sup>Sundar Pinchai, *Google's Sundar Pichai: Privacy Should Not Be a Luxury Good*, N.Y. TIMES (MAY 7, 2019), <https://www.nytimes.com/2019/05/07/opinion/google-sundar-pichai-privacy.html>.

<sup>65</sup>*Id.*

<sup>66</sup>See discussion *infra* Section I.

per-click price basis and allows advertisers to target groups of people based on those traits.<sup>67</sup>

Second, it shares data with advertisers directly and asks them to bid on individual advertisements through an automated process of third-party advertising placement known as “real-time bidding” (“RTB”).<sup>68</sup> The RTB process allows publishers to auction off advertising space in their apps or on their websites.<sup>69</sup> In doing so, Google shares their user data with dozens or hundreds of different advertising technology companies.<sup>70</sup> Each RTB auction typically passes user data through three different layers of companies on its way from a publisher to an advertiser: (1) supply-side platforms, that collect user data to sell; (2) advertising exchanges, that organize auctions between them and advertisers; and (3) demand-side platforms, that “bid” on behalf of advertisers to decide which advertisements to show to which people.<sup>71</sup> These auctions take milliseconds and occur continuously, allowing companies at every level of the process to share and collect more and more data to add to their existing profiles of users.<sup>72</sup>

Third, it allows advertisers to target users by name, email, or device ID and reach them almost anywhere through its “Customer Match” program.<sup>73</sup> Advertisers can upload lists of users they want to reach, usually with “anonymous” device IDs or phone numbers, and Google will then match those numbers to real people and serve them advertising in exchange for money.<sup>74</sup>

Google stands by its claim that none of these processes involve a direct sale of the data. However, it is quite apparent that in each transaction, Google sends data to advertisers and advertisers send Google money.<sup>75</sup> If one wonders how Google gets away with collecting so much of its users’ data with little to no backlash or consequences, recall that most of Google’s most widely used products and services are offered free of charge.<sup>76</sup> Google offers consumers free services with the true aim of

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<sup>67</sup>See discussion *infra* Section I.

<sup>68</sup>Bennet Cyphers, *Google Says It Doesn't 'Sell' Your Data. Here's How the Company Shares, Monetizes, and Exploits It*, ELEC. FRONTIER FOUND. (March 19, 2020), <https://www.eff.org/deeplinks/2020/03/google-says-it-doesnt-sell-your-data-heres-how-company-shares-monetizes-and-exploits-it>.

<sup>69</sup>*Id.*

<sup>70</sup>*Id.*

<sup>71</sup>*Id.*

<sup>72</sup>Cyphers, *supra* note 68.

<sup>73</sup>*Id.*

<sup>74</sup>*Id.*

<sup>75</sup>*Id.*

<sup>76</sup>See discussion *infra* Section I.

acquiring those users' personal data and using it to attract business from advertisers.<sup>77</sup> As the two famous sayings go, “if the product is free, you are the product” and “there ain’t no such thing as a free lunch.”<sup>78</sup>

Behavioral economist Dan Ariely identified what makes free products so powerful through what he coined the “zero-price effect.” When faced with a choice of purchasing one of several available products, or possibly buying nothing, people will almost always choose the option with the highest cost–benefit difference. However, Ariely discovered decisions about free (zero-price) products differ, in that people do not simply subtract costs from benefits but instead perceive the benefits associated with free products as higher.<sup>79</sup> In addition, researchers at Carnegie Mellon found the insula, a section of the brain associated with pain processing, is activated when subjects are given the opportunity to buy various products and see prices that are too high for their given budget, and vice versa when the cost is lower (or free) than expected.<sup>80</sup>

When considering the “zero-price effect” in conjunction with the results of the Carnegie Mellon study, it becomes clear why consumers so willingly give up their personal data to companies like Google. When consumers use free digital products, they actually do pay quite dearly. Users give up their time, their attention, and, most importantly, their personal information. Nonetheless, they perceive the benefit of those free products as higher than they would if they were offered at some economic cost, even a low one, and experience a boost to their pleasure every time they are able to use such products for free.<sup>81</sup> Consumers appear to value these free products so greatly they are willing to give up their personal data in exchange, even when they tend to feel uneasy or unhappy about it.<sup>82</sup> A 2020 survey found that 91% of respondents worry about the potential abuse of their personal data, with 46% saying their concern has grown over the last five years, while 70% of respondents would like businesses to ask before sharing personal details with partners.<sup>83</sup>

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<sup>77</sup>See discussion *infra* Section I.

<sup>78</sup> *You’re Not the Customer; You’re the Product*, QUOTE INVESTIGATOR, <https://quoteinvestigator.com/2017/07/16/product/> (last updated Mar. 1, 2022); *There Ain’t No Such Thing as a Free Lunch*, QUOTE INVESTIGATOR, <https://quoteinvestigator.com/2016/08/27/free-lunch/> (last updated Mar. 1, 2022).

<sup>79</sup>Kristina Shampanier, Nina Mazar, & Dan Ariely, *Zero as a Special Price: The True Value of Free Products*, 26 *MARKETING SCI.* 742, 742 (2007).

<sup>80</sup>Scott I. Rick, Cynthia E. Cryder, & George Loewenstein, *Tightwads and Spendthrifts*, 34 *J. OF CONSUMER RES.* 767, 768 (2008).

<sup>81</sup>*Id.*

<sup>82</sup>*Survey Shows Consumers Very Willing To Trade Personal Data for Financial Benefits*, GENESYS (Aug. 5, 8:00 PM), <https://www.prnewswire.com/news-releases/survey-shows-consumers-very-willing-to-trade-personal-data-for-financial-benefits-301106196.html>.

<sup>83</sup>*Id.*

Nonetheless, just 53% take common steps to prevent the tracking of their personal data, such as disabling "cookie" collection software, and 81% allow smartphone apps to access their location data.<sup>84</sup>

## V. GOOGLE'S BUSINESS TRANSACTIONS AS SOURCES FOR BIG DATA

As of January 2021, Google has 272 products, including its search engine.<sup>85</sup> Through its lifetime, Google has made 248 acquisitions,<sup>86</sup> including the tremendously successful health and wellness activity wearables company Fitbit for \$2.1 billion in January, 2021.<sup>87</sup> In 2011 alone, Google acquired twenty-seven companies, meaning it averaged more than one acquisition every two weeks.<sup>88</sup>

Few of Google's acquisitions rang traditional antitrust alarm bells, but, in the aggregate, they helped the company grow into not only one of the world's most pervasive companies, but also into the world's largest holder of big data.<sup>89</sup> Looking through Google's list of acquisitions, it is evident that many of these transactions brought with them massive pools of newly accessible user data, as well as great potential for additional data collection in the future.

James Whittaker, a former technology executive at Google, explained his reasoning for leaving the company in a scathing blog post in 2012. He criticized Google for what he had seen as a drift away from innovation and a drive towards advertising, saying the company had become entirely corrupted by its thirst to consume personal information: "The Google I was passionate about was a technology company that empowered its employees to innovate," and continued, "[t]he Google I left was an advertising company with a single corporate-mandated focus.... Perhaps Google is right. Perhaps the future lies in learning as much about people's personal lives as possible."<sup>90</sup>

<sup>84</sup>*Personalization & Empathy in Customer Experience Multinational Consumer Survey*, GENESYS (June, 2020), <https://www.genesys.com/collateral/genesys-consumer-survey-2020>.

<sup>85</sup>Mahesh Mohan, *Over 271 Google Products & Services You Probably Don't Know*, MINTEREST (Mar. 4, 2021), <https://www.matrics360.com/google-products-and-services/>.

<sup>86</sup>*List of Google's 246 Acquisitions*, CRUNCHBASE, [https://www.crunchbase.com/search/acquisitions/field/organizations/num\\_acquisitions/google](https://www.crunchbase.com/search/acquisitions/field/organizations/num_acquisitions/google) (last visited Oct. 5, 2021).

<sup>87</sup>*Fitbit acquired by Google*, CRUNCHBASE, <https://www.crunchbase.com/acquisition/google-acquires-fitbit--ab8ff7b7> (last visited Oct. 5, 2021).

<sup>88</sup>*Id.*

<sup>89</sup>See discussion *infra* Section I.

<sup>90</sup>James Whittaker, *Why I Left Google*, MEDIUM (Apr. 8, 2015), <https://medium.com/@docjamesw/why-i-left-google-c170e6165f2a>.

Regardless of one's opinion on Google's motivation for its data-gathering, it is undeniable that data-gathering of massive scale has been a goal, and Google has surely achieved it. Listed below are some of the transactions which most helped Google rise to its current position as one of the titans of the big data firms:

### A. *Urchin*

In April of 2005, Google acquired Urchin Software Corporation, a San Diego-based web analytics company that, in the words of one of Urchin's founders, Scott Crosby, "had the largest installed base among web analytics vendors on a number-of-websites basis."<sup>91</sup> Web analytics technology is used for the collection, reporting, and analysis of website usage data. It is used by website owners to analyze and understand user behavior on their site, such as what pages users spend most time on, which sites they came from, what content they are most interested in, how many users visit over a certain period of time, whether they visited from a computer or a mobile device, whether they are new or returning visitors, et cetera.<sup>92</sup> Only a few months after the Urchin acquisition, Google Analytics was unveiled, which was based entirely on "Urchin On Demand," Urchin's JavaScript-based "Software as a Service" ("SaaS") web traffic analytics solution.<sup>93</sup> As of today, Google Analytics is the most widely used web analytics platform in the world.<sup>94</sup>

### B. *Android*

Google bought Android for \$50 million in July of 2005. Google's Android has maintained its position as the leading mobile operating system worldwide as of June 2021, controlling the mobile operating system market with a 73% market share.<sup>95</sup> Open-sourcing Android also allowed Google's operating system to live on various devices from mobile

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<sup>91</sup>Scott Crosby, *Urchin Software Corp. The Unlikely Origin Story of Google Analytics, 1996-2005-ish*, URCHIN BIZ (Sept. 2, 2016), <https://urchin.biz/urchin-software-corp-89a1f5292999>.

<sup>92</sup>Ken Fisher, *When Google Acquisitions Go Wrong: The Disappointing Story of Urchin*, ARS TECHNICA (Oct. 8, 2007, 11:49 PM), <https://arstechnica.com/uncategorized/2007/10/when-google-acquisitions-go-wrong-the-disappointing-story-of-urchin/>.

<sup>93</sup>*Id.*

<sup>94</sup>*Usage Statistics and Market Share of Google Analytics for Websites*, WEB TECH. SERV., <https://w3techs.com/technologies/details/tagooleanalytics> (last updated Oct. 6, 2021).

<sup>95</sup>S. O'Dea, *Mobile operating systems' market share worldwide from January 2012 to January 2021*, STATISTA (Jun. 29, 2021), <https://www.statista.com/statistics/272698/global-market-share-held-by-mobile-operating-systems-since-2009/>.

carriers around the world, and today it accounts for over 84% of the smartphone operating system market share.<sup>96</sup>

When idle, Android sends roughly 1 MB of data to Google every 12 hours, while iOS sends Apple only 52 KB over the same period.<sup>97</sup> "In the US alone, Android collectively gathers about 1.3 terabytes TB of data every 12 hours. During the same period, iOS collects about 5.8 GB."<sup>98</sup>

### C. YouTube

Google paid \$1.65 billion for YouTube, the video-hosting and streaming site, in 2006. At the time, YouTube had fewer than 100 employees, but since has grown to become Google's second-largest revenue contributor, with estimated revenues of \$15 billion per year.<sup>99</sup>

Within a traditional antitrust analysis, Google's acquisition of YouTube did not appear problematic, and the FTC cleared the transaction without conditions. At the time, Google primarily provided general search results to users, and users' attention data to advertisers. Meanwhile, YouTube provided video-hosting and streaming services to users and users' attention data to advertisers. Since the two firms did not directly compete for users and thus constituted distinct product markets, the standard analysis failed to indicate that competitive harm would ensue from the acquisition. At the time of the acquisition, Google did have a video-hosting and streaming service, Google Videos, which launched in 2005. However, the site was not nearly as successful as YouTube at the time. With YouTube holding a 46% market share, MySpace 23%, and Google Video only 10%, the FTC allowed the YouTube acquisition to go through without objection.

Professor Newman points out that Google's motivation for acquiring YouTube might have been to create a "lowest cognitive load" ecosystem around its core area of dominance—general search results.<sup>100</sup> Newman notes that by lowering users' cognitive load required to switch among

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<sup>96</sup>*Smartphone Market Share*, IDC, <https://www.idc.com/promo/smartphone-market-share/os> (last updated July 29, 2021).

<sup>97</sup>Joe Wituschek, *Google collects 20X more data from Android than Apple does from iOS*, IMORE (Mar. 30, 2021), <https://www.imore.com/google-collects-20x-more-data-android-apple-does-ios>.

<sup>98</sup>*Id.*

<sup>99</sup>Dawn Kawamoto, *Google-YouTube Merger Clears Antitrust Review*, CNET, <https://www.cnet.com/news/google-youtube-merger-clears-antitrust-review> (last updated Nov. 6, 2006, 7:28 AM).

<sup>100</sup>Newman, *supra* note 14, at 1509.

portals, the YouTube acquisition "may have entrenched, and even enhanced, Google's dominance in its core search portal."<sup>101</sup>

The YouTube acquisition also brought along a treasure trove of user data, and over the years has grown to be one of Google's key data collection sources. Among the data YouTube collects are users' search terms, videos they watch, voice and audio information from their use of audio features, people with whom they communicate or share content, and Chrome browsing history they have synced with their Google accounts.<sup>102</sup> All this data is an invaluable source of information that Google incorporates into its advertising services across not only YouTube, but throughout all its products and services.

#### D. DoubleClick

A particularly significant acquisition for Google was the purchase of DoubleClick in 2007, which Google bought for \$3.1 billion.<sup>103</sup> DoubleClick provides a substantial share of the technology behind Google's core advertising business, which, as previously noted, brings in almost 90% of Google's total revenue.

At the time of the acquisition, Google was 10 times smaller than its competitors Yahoo! and Microsoft, but the DoubleClick deal allowed Google to begin monetizing its Google Search data much more effectively than its competitors.<sup>104</sup> While Google had already become a substantial contender in search advertising, it had an insignificant presence in the display advertising market,<sup>105</sup> which DoubleClick dominated.<sup>106</sup> Leading up to the deal, it became clear that Google was attempting to enter and undercut DoubleClick's position. Google, for example, had begun offering

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<sup>101</sup>Newman, *supra* note 14, at 1509.

<sup>102</sup>*Standard Privacy Report for YouTube*, COMMON SENSE PRIVACY PROGRAM, <https://privacy.commonsense.org/privacy-report/YouTube> (last updated Jul. 1, 2021).

<sup>103</sup> Press Release, Fed. Trade Comm'n, Federal Trade Commission Closes Google/DoubleClick Investigation (Dec. 20, 2007), <https://www.ftc.gov/news-events/press-releases/2007/12/federal-trade-commission-closes-googledoubleclick-investigation>.

<sup>104</sup>Nicolas Rivero, *The Acquisitions that made Google a Search Monopoly*, QUARTZ (Oct. 20, 2020), <https://qz.com/1920334/the-acquisitions-that-built-googles-monopoly-on-search/>.

<sup>105</sup> While search advertising is only presented to users of a search engine after they have entered a specific search for a product or service, display advertising is shown to users while they are navigating various other websites across the web. See Daniel Bitton, Maurits Dolmans, Henry Mostyn, & David Pearl, *Competition in Display Ad Technology: A Retrospective Look at Google/DoubleClick and Google/AdMob*, CPI ANTITRUST CHRON., April 2019, at 2.

<sup>106</sup>*Id.*

certain software tools for free for which DoubleClick still charged.<sup>107</sup> In an interview with the New York Times, former DoubleClick Executive Michael Rubenstein recalled, "we were terrified."<sup>108</sup> Preferring to surrender for a good price than lose everything in an attempt to defend against the search giant, the DoubleClick managers and investors elected to sell. The auction came down to a bid between three finalists: Yahoo!, Microsoft, and Google. Former Chief Executive David Rosenblatt noted that although the three bids were similar in value, given Google's access to the largest pool of advertisers through its massive Google Search business, "the combination with Google made the most sense."<sup>109</sup> Since the DoubleClick acquisition, Google has gone on to purchase a significant number of additional rival advertising vendors, including AdMob, Invite Media, Admeld, Applied Semantics, and Sprinks. Google now has a strong presence in every market that involves the buying and selling of online advertising.<sup>110</sup>

As the sole dissenter to the FTC's decision to clear the acquisition, Former FTC Commissioner Pamela Harbour wrote, "[t]he transaction will combine not only the two firms' products and services, but also their vast troves of data about consumer behavior on the Internet .... The Commission is uniquely situated to evaluate the implications of this kind of data merger, from a competition as well as a consumer protection perspective."<sup>111</sup>

In a New York Times interview, Former FTC Chairman William Kovacic said of the acquisition, "[i]f I knew in 2007 what I know now, I would have voted to challenge the DoubleClick acquisition."<sup>112</sup>

### E. *Motorola Mobility*

In August 2011 Google acquired Motorola Mobility for \$12.5 billion.<sup>113</sup> The transaction was considered a "vertical acquisition," a

<sup>107</sup>Steve Lohr, *This Deal Helped Turn Google Into an Ad Powerhouse. Is That a Problem?*, N.Y. TIMES (Sept. 21, 2020), <https://www.nytimes.com/2020/09/21/technology/google-doubleclick-antitrust-ads.html>.

<sup>108</sup>*Id.*

<sup>109</sup>*See id.*

<sup>110</sup>Rivero, *supra* note 104.

<sup>111</sup>*Google/DoubleClick*, F.T.C. File No. 071-0170 at 4, (2007) (Harbour, J. dissenting) (available at [https://www.ftc.gov/sites/default/files/documents/public\\_statements/statement-matter-google/doubleclick/071220harbour\\_0.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/statement-matter-google/doubleclick/071220harbour_0.pdf)).

<sup>112</sup>Lohr, *supra* note 107.

<sup>113</sup>Press Release, Dep't of Justice Antitrust Div., Statement of the Department of Justice's Antitrust Division on Its Decision to Close Its Investigations of Google Inc.'s Acquisition of Motorola Mobility Holdings Inc. (Feb. 13, 2012),

transaction joining two companies that may not compete with each other but exist in the same supply chain for a common good. In this case, Google was the provider of software for use in its mobile phone, the Android; meanwhile, Motorola Mobility was a provider of hardware for mobile phones. At the time, Google was partnered with Samsung for its hardware, which granted Samsung a significant 81% market share of the Android hardware market. Purchasing Motorola Mobility sent a powerful message to Samsung, which had begun making alterations to Google's software and attempting to call attention away from the fact that Google had created the Android operating system.<sup>114</sup> Many were shocked at the high price Google paid which, at \$40 per share, was an amount 63% greater than the price at which Motorola Mobility had closed on August 12, 2011. As of today, this transaction is still by far Google's most expensive purchase. Further, after just a few years in 2014, Google went on to sell Motorola Mobility to a Chinese technology firm, Lenovo, at the price of \$2.91 billion.<sup>115</sup>

To many, this transaction came as a shock, as it appeared that Google had greatly overpaid for the company, only to sell it to Lenovo for a \$10 billion loss a few years later. What many overlooked, however, was the \$3.2 billion Google had gained from Motorola's cash, the \$2.4 billion it saved in deferred tax assets, and the \$2.5 billion from two separate Motorola unit sales in 2013.<sup>116</sup> Also, if one were to factor in the cost of Lenovo's purchase against the approximately \$2 billion in losses Motorola had incurred since its acquisition, Google still only paid \$3 billion for what it kept following the sale: \$5.5 billion worth of Motorola patents—reportedly around 17,000 issued patents and 7,500 pending patent applications—as well as the company's cutting edge research lab.<sup>117</sup> In the words of Motorola Mobility Chairman and CEO, Sanjay Jha, "[w]e have a very large IP portfolio, and I think in the long term, as things settle down, you will see a meaningful difference in positions of many different Android players—both, in terms of avoidance of royalties, as well as collecting them. And that will make a big difference to people who have very strong IP positions."<sup>118</sup>

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<https://www.justice.gov/opa/pr/statement-department-justice-s-antitrust-division-its-decision-close-its-investigations>

<sup>114</sup>See Gordon Kelly, *How Google Used Motorola To Smack Down Samsung - Twice*, FORBES (Feb. 10, 2014), <https://www.forbes.com/sites/gordonkelly/2014/02/10/how-google-used-motorola-to-smack-down-samsung-twice/?sh=3a3b497e21fa>.

<sup>115</sup>See *id.*

<sup>116</sup>See *id.*

<sup>117</sup>See *id.*

<sup>118</sup>Kurt Mackie, *Motorola "Completely Open" to Mobile Windows Platform*, REDMOND (Aug. 11, 2011), <https://redmondmag.com/articles/2011/08/11/motorola-open-to-mobile-windows.aspx>.

Thus, while the deal might have appeared on the surface to be one of Google's biggest losses, it could arguably have been one of Google's most clever business decisions. With the deal, Google gained a massive trove of patents that forced Samsung and other Android smartphone manufacturers around the world to reduce any operating system alterations. Further, the deal was able facilitate the creation of a smartphone on which the Android operating system worked in its purest form as well as promote Android and other Google services. Finally, the ultimate sale to Lenovo unloaded the Motorola Mobility phones, which were obligated to continue using Android operating system, to a prominent Chinese company that would go on to popularize Android in new global markets, especially in Asian markets. Thus, Google not only solidified Android's position as the most dominant operating system in the world, but also gained the ability to further protect that position in the future.

#### F. *Waze*

Back in 2013, Google bought Israeli navigation software start-up Waze for \$1.1 billion.<sup>119</sup> The acquisition brought with it social traffic data which helped Google's already dominant mapping service, Google Maps, begin predicting travel times and routes. Over the years following the acquisition, Google slowly integrated more and more Waze features into Google Maps, and in 2019, Google Maps copied one of Waze's most unique features—its community reporting. Google Maps now allows real-time reporting from the Google Maps community on crashes, speed traps, construction, lane closures, disabled vehicles, traffic slowdowns, and more. Further, Google imposed a restraint of trade on Waze by blocking it from deals it otherwise would have done. The Waze acquisition not only allowed Google Maps to absorb all of Waze's innovative features to improve Google Maps, but also further solidified its position as the most relevant provider of user location data to advertisers.<sup>120</sup>

Today, Google Maps dominates the global market for online mapping services with up to an estimated 80% market share.<sup>121</sup> Though Waze continues to operate, Google's cannibalization of all its key features,

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<sup>119</sup> Benjamin Pimentel, *Google's Waze acquisition clears FTC Hurdle*, MARKET WATCH (Nov. 5, 2013), <https://www.marketwatch.com/story/googles-waze-acquisition-clears-ftc-hurdle-2013-11-05>.

<sup>120</sup> Dan Shewan, *The Ultimate Guide to Google Maps Marketing*, WORDSTREAM (Mar. 11, 2021), <https://www.wordstream.com/blog/ws/2015/12/03/google-maps-marketing>.

<sup>121</sup> Justin O'Beirne, *How Many People Use Google Maps Compared to Apple Maps*, JUSTIN O' BEIRNE.COM (July 2021), <https://www.justinobeirne.com/how-many-people-use-google-maps-compared-to-apple-maps>.

as well as its imposition of restraints on trade, transformed Waze from a thriving startup to a failing subsidiary. In April 2021, Waze's founder, Noam Bardin, wrote of the transaction:

We quickly learned, the hard way, that we could not get distribution from Google. Any idea we had was quickly co-opted by Google Maps. The Android app store treated us as a 3rd party, there was no pre-installation option and no additional distribution . . . we were constrained in what we could do and which 3rd parties we could work with due to corporate policies.<sup>122</sup>

Director of Enforcement Strategy at the Open Markets Institute Sally Hubbard has said, "[i]t was literally Google acquiring its number one competitor in maps. It was a bad deal that should have been blocked."<sup>123</sup> When the deal was announced in 2013, Royal Bank of Canada Capital Markets Analyst Mark Mahaney noted the move "[e]liminates Waze as a potential acquisition target for competitors who could use the app's collection of data and 50 million users to bolster their own location-based products."<sup>124</sup>

Last year, the FTC reopened the investigation of acquisitions made by big tech firms in the past ten years, including Google's purchase of Waze, requiring them to provide information about prior acquisitions not reported to the antitrust agencies under the Hart-Scott-Rodino ("HSR") Act of 1976.<sup>125</sup> The HSR Act requires the DOJ and the FTC receive a pre-merger notification for certain mergers.<sup>126</sup> The necessity of pre-merger notifications depends on three factors: the nature of the commerce, the size of the parties involved, and the size of the transaction.<sup>127</sup> The deal is not allowed to close for a period of thirty days while the regulatory agencies investigate. If the agencies do not take any action after thirty days, the

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<sup>122</sup>Noam Bardin, *Why Did I Leave Google or, Why Did I Stay So Long?*, PAYGO MEDIA, (last updated May 20, 2021) <https://paygo.media/p/25171>.

<sup>123</sup>Mark Bergan & Ben Brody, *Google's Waze Deal Is a Likely Target in FTC Antitrust Sweep*, BLOOMBERG (Feb. 14, 2020), <https://www.bloomberg.com/news/articles/2020-02-14/google-s-waze-deal-is-a-likely-target-in-new-ftc-antitrust-sweep>.

<sup>124</sup>*Id.*

<sup>125</sup>Press Release, Fed. Trade Comm'n., *FTC to Examine Past Acquisitions by Large Technology Companies* (Feb. 11, 2020), <https://www.ftc.gov/news-events/press-releases/2020/02/ftc-examine-past-acquisitions-large-technology-companies>

<sup>126</sup>*Id.*

<sup>127</sup>Fed. Trade Comm'n., *Steps for Determining Whether an HSR Filing is Required*, <https://www.ftc.gov/enforcement/premerger-notification-program/hsr-resources/steps-determining-whether-hsr-filing> (last updated Feb. 26, 2022).

merger can then close. While Google had declared plans to buy Waze, it never filed the purchase under HSR, since the startup had minimal U.S. revenue at the time. However, the FTC is able to investigate deals even when there is no HSR filing and has the power to probe mergers and acquisitions which were previously cleared as well. While the FTC has taken a laissez-faire approach to examining certain mergers and acquisitions in the past, its decision to reopen the investigation of certain mergers and acquisitions is a promising step. In a comment on these newly investigated transactions, Deputy Assistant Attorney General for Economic Analysis for the Antitrust Division Dr. Fiona Scott Morton found, "[the deals] weren't examined carefully by the agencies. Now that [the Agencies] understand that these companies have acquired market power, they're interested in finding out how that happened."<sup>128</sup> As Ms. Hubbard commented, "[t]hese free map apps are just data-suction tools . . . [r]egulators are starting to figure it out."<sup>129</sup> Nonetheless, there is no guarantee that the FTC will take any new actions based on these investigations, nor is there any promise that it plans to adopt a more attentive approach for reviewing mergers and acquisitions going forward.

### G. Nest

Google bought smart home company Nest for \$3.2 billion in 2014.<sup>130</sup> Since then, Nest has been transformed from a smart thermostat product into Google's home devices brand. The Nest brand includes smart thermostats, smart lights, and smart speakers. At the time of the acquisition, Nest was not competing with Google in any relevant product market. Nevertheless, the acquisition significantly increased Google's access to data which informs it about the everyday behavior of its consumers. The acquisition of Nest not only impacted Google's ability to improve the relevance of existing services offered to users and advertisers on its search platform, but also provided new information which—unlike data collected through a consumer's use of Google's search and mobile services—granted Google new insights into how users move and behave within their physical environments, and thus the opportunity to create new products to fulfill those physical needs.<sup>131</sup>

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<sup>128</sup>Bergan & Brody, *supra* note 123.

<sup>129</sup>Bergan & Brody, *supra* note 123.

<sup>130</sup> Press Release, Fed. Trade Comm'n., 20140457: Google Inc.; Nest Labs, Inc. (Feb. 4, 2014), <https://www.ftc.gov/enforcement/premerger-notification-program/early-termination-notices/20140457>.

<sup>131</sup>Graef, *supra* note 54, at 493.

At the time of the Nest acquisition, University of Washington Professor Pedro Dominos made a prediction that such products might include artificial intelligence ("AI"). In an interview, he said, "[Google] seem[s] to have longer-term ambitions [in AI]" and continued, "[i]f you look at the kinds of things they have been buying and hiring, a lot of it looks like they are trying to solve AI. And, to provide search, at the end of the day, is to solve AI."<sup>132</sup>

Two other deals Google completed soon after acquiring Nest that indicated its future AI focus were its purchases of the robotics company, Boston Dynamics,<sup>133</sup> and the London-based AI company, DeepMind.<sup>134</sup> Additionally, in 2012, Google hired the inventor, entrepreneur, and "futurist," Ray Kurzweil, author of the seminal book on AI, "The Age of Spiritual Machines: When Computers Exceed Human Intelligence." He is the father of the idea of the "singularity," which is that point in time when he predicts advances in technology, particularly AI, will lead to machines that are smarter than human beings, at which point we will likely begin to merge AI with our own minds.<sup>135</sup> Kurzweil continues to act Google's Engineering Director today.<sup>136</sup>

#### H. *Project Nightingale with Ascension Health*

In 2019, it was discovered that Google had entered a mostly secret deal to use the personal health information of millions of Americans provided by Ascension Health, the second largest healthcare system in the country, to develop new healthcare product lines without patients' or physicians' knowledge or consent. The practice is technically legal under the Health Insurance Portability and Accountability Act ("HIPAA"), as it stipulates a business associate may gain access to protected health information "only to help the covered entity carry out its health care functions—not for the business associate's independent use or

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<sup>132</sup>Scott Raynovich, *Is There a Theme to Google's Latest Acquisition Binge?*, CMS WIRE (Jan. 28, 2014), <https://www.cmswire.com/cms/big-data/is-there-a-theme-to-googles-latest-acquisition-binge-023952.php>.

<sup>133</sup>John Markoff, *Google Adds to Its Menagerie of Robots*, N.Y. TIMES (Dec. 14, 2013), [https://www.nytimes.com/2013/12/14/technology/google-adds-to-its-menagerie-of-robots.html?hpw=&rref=technology&\\_r=0](https://www.nytimes.com/2013/12/14/technology/google-adds-to-its-menagerie-of-robots.html?hpw=&rref=technology&_r=0)

<sup>134</sup>Liz Gannes, *Exclusive: Google to Buy Artificial Intelligence Startup DeepMind for \$400M*, VOX (JAN. 26, 2014), <https://www.vox.com/2014/1/26/11622732/exclusive-google-to-buy-artificial-intelligence-startup-deepmind>.

<sup>135</sup>Christianna Reedy, *Kurzweil Claims That the Singularity Will Happen by 2045*, FUTURISM (Oct. 15, 2017), <https://futurism.com/kurzweil-claims-that-the-singularity-will-happen-by-2045>.

<sup>136</sup>About - Ray Kurzweil, KURZWEILAI.NET, <https://www.kurzweilai.net/about-ray-kurzweil> (last updated Mar. 1, 2022).

purposes."<sup>137</sup> Nonetheless, when the Wall Street Journal came out with an article on the deal, it sparked outrage with the public over privacy concerns.<sup>138</sup>

Google and Ascension's data sharing program is particularly extensive. It spans tens of millions of patients across twenty-one states and has been going on since early 2018, as found by the article's author Rob Copeland.<sup>139</sup> According to internal documents, Google has been analyzing many forms of patient data, including lab results, diagnoses, hospital records, and patient names and dates of birth, among other categories. This analysis has been carried out without notification to either the patients or their physicians.<sup>140</sup>

Tariq Shaukat, president of Google Cloud, said of the deal, "[b]y working in partnership with leading healthcare systems like Ascension, we hope to transform the delivery of healthcare through the power of the cloud, data analytics, machine learning, and modern productivity tools—ultimately improving outcomes, reducing costs, and saving lives."<sup>141</sup>

The "machine learning" referred to by Mr. Shaukat is a branch of artificial intelligence development based on the idea that systems can learn from data, identify patterns, and make decisions with minimal human intervention.<sup>142</sup> The article reported that employees at several different Google divisions, including its AI division Google Brain, have access to the patient information.<sup>143</sup>

### I. *Fitbit*

In January 2021, Google announced that it had completed its acquisition of Fitbit for \$2.1 billion, even though the DOJ has not yet issued its approval of the deal.<sup>144</sup> In a statement to Bloomberg, Alex Okuliar, DOJ Deputy Assistant Attorney General, said, "[a]lthough the

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<sup>137</sup>U.S. DEPT. OF HEALTH AND HUMAN SERV., BUSINESS ASSOCIATES - 45 CFR 164.502(E), 164.504(E), 164.532(D) AND (E), (2003).

<sup>138</sup>Rob Copeland, *Google's 'Project Nightingale' Gathers Personal Health Data on Millions of Americans*, WALL ST. J. (Nov. 11, 2019), <https://www.wsj.com/articles/google-s-secret-project-nightingale-gathers-personal-health-data-on-millions-of-americans->.

<sup>139</sup>*Id.*

<sup>140</sup>*Id.*

<sup>141</sup>Press Release, Ascension Health, Ascension and Google Working Together on Healthcare Transformation (Nov. 11, 2019), <https://ascension.org/News/News-Articles/2019/11/11/19/51/Ascension-and-Google-working-together-on-healthcare-transformation>.

<sup>142</sup>*Id.*

<sup>143</sup>*Id.*

<sup>144</sup>*Google Completes Fitbit Acquisition*, GOOGLE BLOG (JAN. 14, 2021), <https://blog.google/products/devices-services/fitbit-acquisition/>.

Division has not reached a final decision about whether to pursue an enforcement action, the Division continues to investigate whether Google's acquisition of Fitbit may harm competition and consumers in the United States."<sup>145</sup> Google announced in a blog post, "a world-class health and fitness service from Fitbit is coming to the platform."<sup>146</sup> The immediate reason that comes to mind as to why Google decided to purchase Fitbit is to rescue and revamp its relatively unpopular smartwatch software company, Google Wear. Per its usual *modus operandi* following an acquisition, Google will adopt Fitbit's hardware and integrate key Fitbit features into Google Wear's software, which will work to blur the line between the two companies. More importantly, however, Google also plans to adopt Fitbit's health tracking features. "Health and fitness tracking is essential for wearables," Google announced in another blog post.<sup>147</sup> "With the latest Wear update, we welcome Fitbit's many years of health expertise to the experience. The best of Fitbit, including features like tracking your health progress throughout your day and on-wrist goal celebrations, will motivate you on your journey to better health."<sup>148</sup> Fitbit has been tracking its users' health data since the company was founded in 2007.<sup>149</sup> Fitbit's data collection involves tracking health-related behaviors like daily number of steps taken, calories burned, exercises performed, as well as health information such as users' heart rate, sleep patterns, and, with some models, even the level of oxygen in their blood.<sup>150</sup> Google now has access to all of this data from as many as 28 million Fitbit customers.<sup>151</sup>

Some argue the acquisition of Fitbit should be stopped. St. John's University Law Professor Anthony Sabino told MarketWatch:

While Fitbit is firstly a personal health appliance, it gathers information, and highly personal information at that. I can see Justice being deeply concerned about Google having access to such intimate customer

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<sup>145</sup>David McLaughlin, *Google Closes Fitbit Deal Amid Ongoing U.S. DOJ Review*, BLOOMBERG (JAN. 14, 2021), <https://www.bloomberg.com/news/articles/2021-01-14/google-closes-fitbit-deal-amid-ongoing-u-s-doj-review>.

<sup>146</sup>*What's new for Android developers at Google I/O*, GOOGLE BLOG (May 20, 2021), <https://developers.googleblog.com/2021/05/whats-new-for-android-developers-at.html>.

<sup>147</sup>Bjorn Kilburn, *What's New for Wear*, GOOGLE BLOG (MAY 18, 2020), <https://blog.google/products/wear-os/wear-io21/>.

<sup>148</sup>*Id.*

<sup>149</sup>*Id.*

<sup>150</sup>*Id.*

<sup>151</sup>*Id.*

information via Fitbit, and it would not surprise me in the least to see it raised as an issue in the antitrust lawsuit.<sup>152</sup>

Nonetheless, Google's Chief Executive James Park said in a letter to Fitbit users, "Google will continue to protect Fitbit users' privacy and has made a series of binding commitments with global regulators, confirming that Fitbit users' health and wellness data won't be used for Google advertising and this data will be kept separate from other Google ad data."<sup>153</sup> Further, Google issued a statement noting "[t]his deal is about devices, not data," and continued, "[t]he wearables space is highly crowded, and we believe the combination of Google's and Fitbit's hardware efforts will increase competition in the sector, benefiting consumers and making the next generation of devices better and more affordable."<sup>154</sup> Even if Google upholds its promise not to use the data from Fitbit for Google advertising—given the massive store of personal health data Google gained due to Project Nightingale and the huge amounts of additional health data that the acquisition of Fitbit brought with it—it is undeniable that Google occupies a highly advantageous position for entering any healthcare related AI or other market.

It is clear from looking over the Fitbit acquisition and other transactions discussed above, not to mention so many more from throughout Google's history, Google has an inconceivable stockpile of data granting it highly lucrative information on almost every aspect of its users' lives.<sup>155</sup> Whether certain of these transactions should not have been allowed to go through, or whether they should be unwound now, are questions best left for another paper. Either way, it is evident that these transactions—and the data brought with them—have placed Google in a unique and powerful position. It is possible to successfully target today's largest tech firms within the legal framework of the current antitrust laws. To do so, however, antitrust authorities must begin to pay special attention to how firms like Google use data to beat out rivals' products and services, as superior as they may be.

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<sup>152</sup>John Swartz, *Google and Fitbit Said 'I do,' But the Marriage Could Still be Annulled*, MARKET WATCH (Jan. 20, 2021), <https://www.marketwatch.com/story/google-fitbit-acquisition-closes-but-antitrust-scrutiny-is-far-from-over-11611154278>.

<sup>153</sup>*Id.*

<sup>154</sup>Aaron Pressman, *Why Google's Fitbit Acquisition Will be Tough to Stop*, FORTUNE (JUL. 2, 2020), <https://fortune.com/2020/07/02/google-fitbit-acquisition-european-union-regulators/>

<sup>155</sup>*Id.*

## VI. ANTITRUST LAW AND DIGITAL MARKETS

In 1979, the Supreme Court declared that, "Congress designed the Sherman Act as a 'consumer welfare prescription.'"<sup>156</sup> This decision formally established the protection of the competitive process in order to promote the economic welfare of consumers as the goal of antitrust law. This standard, commonly known as the "consumer welfare standard," was first introduced and promoted throughout a series of publications by Judge Robert Bork, widely considered the most influential author on modern antitrust law,<sup>157</sup> beginning in 1963.<sup>158</sup> In 1984, the Supreme Court held anticompetitive conduct increases an actor's "market power" only by harming the competitive process, with "market power" defined as "the ability to raise prices above those that would be charged in a competitive market."<sup>159</sup> Such excessive pricing is often called "supracompetitive" pricing, and under the Supreme Court's definition, any ability to charge supracompetitive prices is a sign of market power.<sup>160</sup> The possession of market power itself does not violate antitrust law—only becoming unlawful when used in ways which reduce economic welfare.<sup>161</sup> As noted by Judge Richard Posner and Professor William Landes, "[m]arket power diminishes economic welfare when it is used to increase price, reduce output, or harm rivals and when it reduces incentives for product improvement, cost reduction, or innovation."<sup>162</sup> In other words, it is not illegal for a company to have a monopoly so long as the position was achieved by offering consumers attractive products and services at a competitive price. Judge Learned Hand famously illustrated the logic behind this approach in 1945, holding:

[a] single producer may be the survivor out of a group of active competitors, merely by virtue of his superior skill,

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<sup>156</sup>*Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (holding that the floor debates "suggest that Congress designed the Sherman Act as a 'consumer welfare prescription.'").

<sup>157</sup>Dylan Matthews, *Antitrust was Defined by Robert Bork. I cannot Overstate his Influence*, THE WASH. POST (DEC. 20, 2012), <https://www.washingtonpost.com/news/wonk/wp/2012/12/20/antitrust-was-defined-by-robert-bork-i-cannot-overstate-his-influence/>.

<sup>158</sup>*See, e.g.*, Robert H. Bork & Ward S. Bowman Jr., *The Crisis in Antitrust*, FORTUNE, Dec. 1963; Robert H. Bork, *Legislative Intent and the Policy of the Sherman Act*, 9 J.L. & ECON. 7 (1966); *see generally* ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* (1978).

<sup>159</sup>*N.C.A.A. v. Bd. of Regents*, 468 U.S. 85, 109 (1984).

<sup>160</sup>*Id.* at 111.

<sup>161</sup>Richard A. Posner & William M. Landes, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 937 (1981).

<sup>162</sup>*Id.*

foresight and industry. In such cases a strong argument can be made that, although the result may expose the public to the evils of monopoly, the [Sherman] Act does not mean to condemn the resultant of those very forces which is its prime object to foster: *finis opus coronat*. The successful competitor, having been urged to compete, must not be turned upon when he wins.<sup>163</sup>

In light of this principle, a company must only be found to have violated the laws of antitrust when it has engaged in practices that extend beyond competition on the merits.

Digital markets have grown exponentially in today's economy. Until quite recently—as indicated by the drastic changes to antitrust law being proposed here in the U.S. and those proposed or already enacted abroad—the consensus view has tended to be that antitrust law as it currently exists is perfectly capable of regulating such markets.<sup>164</sup> Further, many have argued that digital markets should receive even more defendant-friendly treatment because of the risk of finding "false positives," *id est*, finding violations of antitrust law when the conduct did not harm competition. In his widely influential essay published in 2001, Judge Posner wrote, "antitrust doctrine is supple enough . . . to take in stride the competitive issues presented by the new economy."<sup>165</sup> If anything, he continued, "the risk of false positives dictates a hands-off approach to digital markets."<sup>166</sup> In an interview during a 2017 Stigler Center Conference, Judge Posner made light of antitrust criticisms against digital platforms like Google, saying, "I was surprised to read that there are criticisms being made against Amazon, Microsoft, and Google. That's blasphemy. Those are the three

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<sup>163</sup>*United States v. Aluminum Co. of America*, 148 F.2d 416, 430 (2d Cir. 1945) (the Latin phrase "finis coronat opus" is translated: "the end crowns the work" or "the goal gives value to the labor that produced it.").

<sup>164</sup>ANTITRUST MODERNIZATION COMM'N, ANTITRUST MODERNIZATION COMMISSION REPORT AND RECOMMENDATIONS (2007) ("There is no need to revise the antitrust laws to apply different rules to industries in which innovation, intellectual property, and technological change are central features."); Adam Candeub, *Behavioral Economics, Internet Search, and Antitrust*, J.L. & POL'Y FOR INFO. SOC'Y 407, 408 (2014) ("[R]egulators appear to rely upon traditional approaches, not specific to online behavior, assuming that market behavior online is not distinguishable from behavior in the brick and mortar world."); *See also*, Timothy J. Muris & Jonathan E. Nuechterlein, *Antitrust in the Internet Era: The Legacy of United States v. A&P*, GEO. MASON U. L. & ECON. RSCH. PAPER SERIES, no. 18-15, 2018, at 1 ("[A]ntitrust doctrine does not need an over-haul. It is . . . flexible enough to address any monopoly abuses in today's economy.").

<sup>165</sup>Richard A. Posner, *Antitrust in the New Economy*, 68 ANTITRUST L. J. 925, 925 (2001).

<sup>166</sup>*Id.*

best companies in the world. Who's concerned about whether they had monopolies?"<sup>167</sup> Robert Bork himself dismissed investigations of Google in an interview in 2012. He said, "[t]here is no coherent case for monopolization because a search engine, like Google, is free to consumers and they can switch to an alternative search engine with a click."<sup>168</sup>

Posner's and Bork's pro-defendant position has been widely reflected in the courts up to this day. In the words of Professor Newman, since the U.S. Court of Appeals for the D.C. Circuit issued its *Microsoft III* decision in 2001, "the United States has experienced a near-total lack of antitrust enforcement in digital markets."<sup>169</sup>

What Bork and Posner do not point out is that the users of Google products are not actually Google's primary customers. Google's most valued clients are the advertisers who are willing to pay a great deal for access to Google users' personal data.<sup>170</sup> Google products act as tools to extract ever more precise information about their users, so that Google can help advertisers more effectively target specific advertisements to those users. When Google enters a new market, often by acquiring some up-and-coming company within that market, it is not necessarily because Google genuinely wishes to provide the most valuable product to that market's consumers. It is more likely because Google wishes to find yet another pathway through which to extract users' information and better meet the needs of advertisers. As Scott Cleland, a chief scientist at Google, admitted in 2011, "[w]e don't have better algorithms than anyone else. We just have more data."<sup>171</sup>

Some argue that the difficulty of gaining access to big data sets acts as a significant barrier to entry in itself, because it requires more sophisticated databases and software techniques to collect, access, replicate, and process.<sup>172</sup> Others assert that because data is readily available, non-rivalrous, and ubiquitous, "[d]ata-rich companies are not an economic threat, but rather an important source of innovation, which

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<sup>167</sup>Stigler Center, *Judge Richard A. Posner in Conversation with Professor Luigi Zingales*, YOUTUBE (Mar. 30, 2017), [https://youtu.be/JRCm\\_gJ2EOK](https://youtu.be/JRCm_gJ2EOK) [<https://perma.cc/5K5G-RN2R>] (remarks of Judge Posner at 5:26).

<sup>168</sup>Robert H. Bork, *Antitrust and Google*, CHICAGO TRIBUNE (Apr. 6, 2012), <https://www.chicagotribune.com/opinion/ct-xpm-2012-04-06-ct-perspec-0405-bork-20120406-story.html>.

<sup>169</sup>Newman, *supra* note 14, at 1500.

<sup>170</sup>Newman, *supra* note 14, at 1501.

<sup>171</sup>See Scott Cleland, *Google's "Infringnovation" Secrets*, FORBES (Oct. 3, 2011), <https://www.forbes.com/sites>

[/scottcleland/2011/10/03/googles-infringnovation-secrets/?sh=19e4cc2f30a6](https://www.forbes.com/sites/scottcleland/2011/10/03/googles-infringnovation-secrets/?sh=19e4cc2f30a6).

<sup>172</sup>Graef, *supra* note 54, at 483; see also Daniel Rubinfeld & Michal Gal, *Access Barriers to Big Data*, 59 ARIZ. L. REV. 339 (2017).

policymakers should encourage, not limit."<sup>173</sup> Perhaps the ability to access big data does act as a significant barrier to entry, the government should be careful before giving any leg-up to companies which fail to take the necessary steps to compete in a data-driven digital age. Further, one should take caution against punishing companies which compete aggressively. Nonetheless, in order to sufficiently monitor competition in the fast-paced and rapidly growing digital economy, courts must recognize the potential for abuse involving big data, either through exclusionary measures or through data-targeted mergers and acquisitions.

Judge Posner is correct in saying antitrust law itself does not need to be changed in order to control anticompetitive behavior in digital markets. However, if courts are to apply those laws effectively, it is necessary to begin scrutinizing the ways in which businesses collect, analyze, and use data in competition with rivals, and whether those practices harm competition. Though dominant firms' control over consumer data has not been central to antitrust investigations thus far, antitrust authorities have begun to note the relationship between that control and potential antitrust concerns in recent years. Control over big data is finally becoming a much more central concern among U.S. competition officials. What is not evident, however, is what they plan on doing about it.

In former FTC Commissioner Pamela Harbour's dissenting statement in the investigation of Google's merger with DoubleClick discussed above, she suggested privacy could be "'cognizable' under the antitrust laws," and should have been considered by the Commission "as part of its antitrust analysis of the transaction."<sup>174</sup> She suggested that network effects could reduce "incentives of search firms to compete based on privacy protections or related non-price dimensions."<sup>175</sup>

In recent years, there has been a dramatic increase in size and scope of the data that firms collect, store, and use. Deborah Feinsein, head of the FTC's Bureau of Competition, wrote in a 2015 blog post, "[w]hat is new is the explosion in the collection and use of data about consumers, from their shopping habits to their sensitive health information."<sup>176</sup>

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<sup>173</sup>See Joe Kennedy, *The Myth of Data Monopoly: Why Antitrust Concerns About Data Are Overblown*, INFO, TECH., & INNOVATION FOUND. 1 (Mar. 2017), <http://www2.itif.org/2017-data-competition.pdf>.

<sup>174</sup>Harbour, dissenting, *supra* note 111, at 4.

<sup>175</sup>Harbour, dissenting, *supra* note 111, at 10 n. 25.

<sup>176</sup>Debbie Feinsein, *The Not-So-Big News About Big Data*, FED. TRADE COMM'N (Jun. 16, 2015), <https://www.ftc.gov/news-events/blogs/competition-matters/2015/06/not-so-big-news-about-big-data>.

In 2015, the FTC's Bureau of Competition—its antitrust enforcement wing—accidentally released portions of a report by its Bureau of Competition Staff regarding a Google investigation to the Wall Street Journal.<sup>177</sup> The staff advocated for prosecuting Google after identifying multiple practices it deemed anticompetitive, but the FTC opted to close its investigation after Google committed to changing some of its data-related business practices.<sup>178</sup>

In 2018, both Congress and the FTC held a series of hearings in which they discussed issues concerning competition in digital markets, including those potentially surrounding control and use of data.<sup>179</sup>

In February 2019, The FTC Bureau of Competition, formed a Technology Task Force dedicated to monitoring competition in digital markets.<sup>180</sup> In a July 2019 presentation, General Counsel at the FTC Alden F. Abbott noted "[t]he Task Force [would be] monitoring tech products and services, including industries within the online advertising, social media, software and application, and mobile spaces," as well as "review[ing] consummated and proposed technology mergers" and confronting "big data issues."<sup>181</sup>

In a February 2019 speech, Former Assistant Attorney General of the DOJ Antitrust Division Makan Delrahim said:

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<sup>177</sup>Fed. Trade Comm'n. Bureau of Competition, Released Excerpt, FTC Report on Google's Business Practices, Google Inc., FTC File No.111-0163 (2012) [hereinafter FTC Staff Report].

<sup>178</sup>Press Release, Fed. Trade Comm'n, Google Agrees to Change Its Business Practices to Resolve FTC Competition Concerns In the Markets for Devices Like Smart Phones, Games and Tablets, and in Online Search (Jan. 3, 2013), <https://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc>.

<sup>179</sup>*Protecting Consumer Privacy in the Era of Big Data: Hearing Before Subcommittee on Consumer Protection and Commerce of the Committee on Energy and Commerce*, 116th Cong. (2019) ([https://www.congress.gov/event/116th-congress/house-event/108942;Examining Legislative Proposals to Protect Consumer Data Privacy: Hearing Before the Subcommittee on Commerce, Science, and Transportation](https://www.congress.gov/event/116th-congress/house-event/108942;Examining%20Legislative%20Proposals%20to%20Protect%20Consumer%20Data%20Privacy:%20Hearing%20Before%20the%20Subcommittee%20on%20Commerce,%20Science,%20and%20Transportation), 116th Cong. (2019) (<https://www.commerce.senate.gov/2019/12/examining-legislative-proposals-to-protect-consumer-data-privacy>); *FTC Hearing #6 Privacy, Big Data, and Competition: Public Hearing on Competition and Consumer Protection in the 21st Century* (Nov. 2018) (<https://www.ftc.gov/news-events/events-calendar/ftc-hearing-6-competition-consumer-protection-21st-century>).

<sup>180</sup>Press Release, Fed. Trade Comm'n., FTC's Bureau of Competition Launches Task Force to Monitor Technology Markets (Feb. 26, 2019), <https://www.ftc.gov/news-events/press-releases/2019/02/ftcs-bureau-competition-launches-task-force-monitor-technology>.

<sup>181</sup>Alden Abbott, Fed. Trade Comm'n., Big Data and Competition Policy: A US FTC Perspective, Presentation at the Big Data and Competition China (Jul. 6, 2019), ([https://www.ftc.gov/system/files/documents/public\\_statements/1543858/big\\_data\\_and\\_competition\\_policy\\_china\\_presentation\\_20](https://www.ftc.gov/system/files/documents/public_statements/1543858/big_data_and_competition_policy_china_presentation_2019.pdf)

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Today's business methods and practices regarding data appear to be a departure from the kind and scale of old. Thus, it is not particularly compelling to compare today's data-intensive business practices to a brick-and-mortar store's loyalty program. These changes raise questions about whether there is more potential for abuse of market power than in the past. . . . The perceived importance of controlling data has even led some to suggest that 'in markets where zero-prices are observed, market power is better measured by shares of control over data than shares of sales or any other traditional measures.' The Antitrust Division is studying the ways market power can manifest in industries where data plays a key role.<sup>182</sup>

Finally, in October 2020, the House Judiciary Subcommittee on Antitrust, Commercial, and Administrative Law released a 449-page report on a sixteen month long Investigation on Competition in Digital Markets.<sup>183</sup> The report focused on the dominance of the four big data firms Google, Apple, Facebook, and Amazon, and included a comprehensive analysis of how those firms collect, use, and control user data.<sup>184</sup> The report identified many of the same or similar practices by Google that the above-referenced FTC Staff Report had deemed anticompetitive back in 2012.<sup>185</sup> The House Report also listed a series of proposals for how antitrust law should be changed and tailored to address big tech concerns. Though several factual findings of the House Report will be referenced, it is not to recommend adherence to any of the suggested proposals.

## VII. DATA AS A COMPETITIVE WEAPON

Before making any suggestions on how the consideration of big data might be factored into an antitrust analysis, it is important to explain how dominant firms use big data to their competitive advantage.

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<sup>182</sup>Makan Delrahim, Justice Dept., *Blinding Me with Science: Antitrust, Data, and Digital Markets*, Remarks at the Harvard Law School & Competition Policy International Conference (Nov. 8, 2019) (<https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-harvard-law-school-competition>) (noting that Delrahim represented Google as a lobbyist in 2007 when it faced antitrust scrutiny over its acquisition of DoubleClick.)

<sup>183</sup>MAJORITY STAFF OF ANTITRUST, COMMERCIAL AND ADMIN. LAW S. COMM ON THE JUDICIARY, 116<sup>TH</sup> CONG., REP. AND RECOMMENDATIONS ON INVESTIGATION OF COMPETITION IN DIGITAL MARKETS, (Oct. 2020). [hereinafter House Report].

<sup>184</sup>*Id.* at 21.

<sup>185</sup>FTC Staff Report, *supra* note 177, at 120.

As Stucke and Grunes illustrated, "today's dominant firms benefit from the velocity [with which they are able to analyze big] data to 'quickly identify and [eliminate] nascent competitive threats in a process called 'nowcasting.'"<sup>186</sup> Nascent competitors are "those whose prospective innovation represents a serious future threat" to a dominant firm, and whose "potency as a competitor is as yet not fully developed and hence unproven."<sup>187</sup> Nowcasting refers to the process through which a big data firm is able to "predict the present" by analyzing the billions of data points it collects from users' search inquiries, social media posts, emails, etc.<sup>188</sup> Those firms can then use nowcasting to discern social and economic trends well before other businesses and the government. In monitoring search queries, for example, Google has been able to predict flu outbreaks well before government health agencies.<sup>189</sup>

Nowcasting allows dominant firms to monitor new business models in real time, enabling them to identify nascent competitive threats and acquire them or take other measures to stunt their growth before they are able to pose any significant competitive threat. For example, the 2020 House Report produced documents which showed "Google used the Android operating system to closely track usage trends and growth patterns of third-party apps—near-perfect market intelligence that Google can use to gain an edge over those same apps," that "Facebook used its platform tools to identify and then acquire fast-growing third-party apps, thwarting competitive threats at key moments," and that "Amazon has used the data of third-party merchants to inform Amazon's own private label strategy, identifying which third-party products were selling well and then introducing copycat versions."<sup>190</sup> In a blog article, Professor Stucke identifies these types of strategies as "acquire-copy-or-kill."<sup>191</sup>

Dominant firms employ such strategies in order to take out competitive threats, often without Competition Officials taking any notice. Since Competition Officials do not possess the tools to engage in nowcasting themselves, they often lack the ability to distinguish between

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<sup>186</sup>Maurice E. Stucke & Allen P. Grunes, *Debunking the Myths over Big Data and Antitrust*, CPI ANTITRUST CHRON., May 2015, at 8; See also Irfan Khan, *Nowcasting: Big Data Predicts the Present*, COMPUTERWORLD (Oct. 22, 2012), <https://www.computerworld.com/article/2719343/nowcasting--big-data-predicts-the-present.html>.

<sup>187</sup>C. Scott Hemphill & Tim Wu, *Nascent Competitors*, U. OF PENN. L. REV., Vol. 168, 1879, 1880 (2020).

<sup>188</sup>Stucke & Grunes, *supra* note 57, at 8.

<sup>189</sup>*Id.*

<sup>190</sup>House Report, *supra* note 183, at 378.

<sup>191</sup>Maurice Stucke, *Antitrust Spring*, INST. FOR NEW ECON. THINKING (Dec. 18, 2020), <https://www.ineteconomics.org/perspectives/blog/antitrust-spring>.

a pro-competitive transaction and one that is being undertaken simply to squelch a nascent competitive threat.

The "acquire-copy-or-kill" strategy involves exactly what it sounds like. First, a dominant firm can attempt to acquire a company in order to prevent it from gaining a competitive advantage. As Facebook's CEO said in an internal e-mail, "it is better to buy than compete."<sup>192</sup> In addition, as is alleged in the recent lawsuit against Facebook, the acquisitions strategy not only extinguishes competitive threats, but can also keep them "out of the hands of other firms that are well-positioned to use them to compete" and can prevent competitors "from having access to next generation technology that might threaten the data-opoly."<sup>193</sup> Most of the time, the smaller company will choose to accept the check rather than attempt to compete.

If the company refuses to sell, however, as Snapchat refused Facebook's \$3 billion offer back in 2013, the dominant firm might then choose to copy all of the smaller company's key features instead. This strategy uses network effects offensively by copying the smaller company's product or service to deprive it of scale. To illustrate, after Snapchat's refusal, Facebook's Instagram introduced the "Instagram Stories" feature, which allows users to post content that is available for only 24 hours, which was nearly identical to the central feed feature in Snapchat, which was also called "Stories." Within one year of its introduction, Instagram Stories "had more daily active users (200 million) than Snapchat Stories (161 million)," and by 2018, Instagram Stories had doubled the number of its users over Snapchat.<sup>194</sup> Internal emails between Facebook employees revealed in the House Report described the copycat strategy in no uncertain terms:

Even if some new competitors springs[sic] up, buying Instagram, Path, Foursquare, etc[sic] now will give us a year or more to integrate their dynamics before anyone can get close to their scale again. Within that time, if we incorporate the social mechanics they were using, those new products won't get much traction since we'll already have their mechanics deployed at scale.<sup>195</sup>

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<sup>192</sup>Catie Canales, *FTC's Facebook Lawsuit Unearths Crucial Zuckerberg Emails*, BUS. INSIDER (Dec. 10, 2020), <https://www.businessinsider.com/ftc-facebook-lawsuit-makes-zuckerberg-emails-public-instagram-whatsapp-competition-2020->

<sup>193</sup>Complaint at 185, *New York, et al. v Facebook, Inc.*, (D.D.C. Dec. 9, 2020), 2020 WL 7348667 at \*29.

<sup>194</sup>House Report, *supra* note 183, at 164-65.

<sup>195</sup>House Report, *supra* note 183, at 152.

Finally, dominant firms can kill a start-up by using various aggressive tactics to prevent the smaller company from achieving scale. This may include "scraping" its content, cutting off its user supply by reducing the start-up product's interoperability with the dominant platform's, preferencing its own products over the start-up's, and making it harder for consumers to find and use the competing product.

One example is the House Report's findings that Google forced rivals to allow them to "scrape" their sites' content by giving them the choice to either "permit Google to take their content, or else be removed from Google's search results entirely."<sup>196</sup> Another example provided in the House Report is Google's favorable positioning and display of its own comparison-shopping services on the first page of its general search results and its burying of superior rival offerings to the fourth page of results or more. Internal emails revealed that Google recognized its own offerings as inferior, yet preferred them anyway in order to dry up traffic to the rivals' websites.<sup>197</sup> Although Google justified the preferencing of its own sites and burying of third-party sites as "a response to users' desire to see less 'low quality' sites in their search results . . . Google did not subject its own vertical sites to the same algorithmic demotion."<sup>198</sup> Such tactics have been employed by Google for many years. In a recent article, Richard Stables, CEO of rival comparison-shopping site Kelkoo, wrote:

Google decided it wanted to compete in our category, but its offering, Froogle, was a flop. Even after copying all of the best features from the leading shopping sites, consumers preferred competitors over Google's copycat tool. Unable to win on a level playing field, Google altered its search results, burying competitors' results so deep that users would likely never find us and putting its own Google Shopping service in the top slot.<sup>199</sup>

Professor Stucke explained such self-preferencing is "network effects in reverse."<sup>200</sup> By reducing traffic to its rivals' sites, Google causes

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<sup>196</sup>*Id.* at 79.

<sup>197</sup>*Id.* at 189.

<sup>198</sup>*Id.* at 189.

<sup>199</sup>Richard Stables, *Can Antitrust Enforcement Save the Digital Free Market from Big Tech Monopolies?*, USA TODAY (Feb. 14, 2020), <https://www.usatoday.com/story/opinion/2020/02/14/googles-anti-competitive-practices-decimates-online-shopping-antitrust-column/4718626002/>.

<sup>200</sup>Stucke, *supra* note 191.

the rivals to attract fewer consumers, which leads to fewer listings, less revenue, reduced investment, and, in turn, an even further decline in traffic to their sites. To recover their lost traffic, one of the only options is to purchase advertising from Google to be displayed on Google through search advertisements.<sup>201</sup> By forcing its rivals to advertise on its own platforms, Stucke notes, "Google can then glean competitively-sensitive data about its rivals, thereby bolstering its now-casting radar."<sup>202</sup>

### VIII. GOOGLE'S CURRENT CHALLENGERS

The following are the largest legal and legislative challenges Google is currently facing for its various alleged anticompetitive behaviors. While the five lawsuits suggest no alteration to current antitrust law, and thus require only brief identification for purposes of this paper, Sen. Klobuchar's Competition and Antitrust Law Reform Act (CALERA),<sup>203</sup> Sen. Hawley's Trust-Busting for the Twenty-First Century Act,<sup>204</sup> and the House Judiciary Committee's bill package ("HJC Package") led by Antitrust Subcommittee Chairman David Cicilline<sup>205</sup> each suggest drastic and, in my opinion, extreme and unnecessary changes to U.S. antitrust law that would wreak significant havoc on today's economy as a whole. It is important to note the House Judiciary Committee package is a bi-partisan package of bills and that Sen. Klobuchar (D-MN) and Sen. Hawley (R-MO) are on opposite sides of the political aisle. Unlike in recent decades, throughout which change in antitrust law has typically been urged only by the left, certain actions by Google in the months leading up to and following the presidential race between President Joe Biden and former President Donald Trump sparked animus from the right as well.<sup>206</sup> This is

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<sup>201</sup>House Report, *supra* note 183, at 191.

<sup>202</sup>Stucke, *supra* note 174.

<sup>203</sup>Competition and Antitrust Law Enforcement Reform Act of 2021, S. 225, 117th Cong. (2021) [hereinafter CALERA].

<sup>204</sup>Trust-Busting for the Twenty-First Century Act, S.1074, 117th Cong. (2021-2022) [hereinafter Trust-Busting Act].

<sup>205</sup>*House Lawmakers Release Anti-Monopoly Agenda for "A Stronger Online Economy: Opportunity, Innovation, Choice"* OFF. OF CONGRESSMAN DAVID CICILLINE (Jun. 11, 2021), <https://cicilline.house.gov/press-release/house-lawmakers-release-anti-monopoly-agenda-stronger-online-economy-opportunity>.

<sup>206</sup>Cat Zakrewski & Rachel Lerman, *Trump Files Class Action Lawsuits Targeting Facebook, Twitter and Google's YouTube Over 'Censorship' of Conservatives*, WASH. POST (July 7, 2021), <https://www.washingtonpost.com/technology/2021/07/07/trump-lawsuit-social-media/>;

Jack Nicas & Davey Alba, *Amazon, Apple and Google Cut Off Parler, an App That Drew Trump Supporters*, N.Y. TIMES (Jan. 9, 2021), <https://www.nytimes.com/2021/01/09/technology/apple-google-parler.html>.

2021/01/09/technology/apple-google-parler.html.

cause for concern because, regardless of how merited the contentions with Google might be from either political side, it means the likelihood of antitrust legislation passing is much greater, no matter how flawed or misguided.

While neither CALERA nor the Trust-Busting Act focus on big data, the House Judiciary Committee Package includes a number of data-related proposals that echo certain measures taken by various countries abroad to target big tech. Thus, this piece also includes a discussion of the EU's proposed Digital Markets and Digital Services Acts<sup>207</sup> and Germany's 10th Amendment to its Act Against Restraints of Competition,<sup>208</sup> which serve as examples of recent antitrust legislation abroad that do target data, albeit from a regulatory standpoint. Though such regulations wreak substantial and, for the most part, harmful effects on smaller companies, they serve only as an insignificant barrier to today's dominant firms. While such regulations enable the government to collect significant revenue in fines from dominant firms, they generally cause an overall loss in revenue due to a chilling effect on innovation. They also tend to be unsuccessful at addressing any true competitive problems and ultimately place smaller firms, which can't afford to break or circumvent the rules, at a competitive disadvantage. As former Assistant Attorney General to the Antitrust Division of the DOJ and Stanford Law Professor Melamed noted, "[r]egulation that initially makes sense can rapidly become obsolete yet ossified by bureaucratic inertia and industry investment in regulatory compliance and industry features and structures caused by the regulation."<sup>209</sup>

### A. Five U.S. Lawsuits

In October 2020, the U.S. Department of Justice ("DOJ") filed a suit against Google for alleged anticompetitive practices in the search and search advertising markets, joined by eleven state attorneys general<sup>210</sup> with attorneys general from three additional states in following months. The Complaint alleges that according to "public estimates," "Google pays

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<sup>207</sup>*Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act)* COM (2020) 825 final (Dec. 15, 2020); *Proposal for a Regulation of the European Parliament and of the Council on Contestable and Fair Markets in the Digital Sector (Digital Markets Act)*, COM (2020) 842 final (Dec. 15, 2020).

<sup>208</sup>10th Amendment to German Digitalization Act § 19(a) (2021).

<sup>209</sup>A. Douglas Melamed, *Antitrust Law and Its Critics*, 83 ANTITRUST L.J. 21 (forthcoming 2020) (available at <https://ssrn.com/abstract=3519523> or <http://dx.doi.org/10.2139/ssrn.3519523>).

<sup>210</sup>Complaint, *United States of America v. Google LLC*, No. 1:20-CV-03010, 2020 WL 6152114 (D.D.C. Oct. 20, 2020).

Apple between \$8 billion and \$12 billion per year to be the default search engine on Apple products."<sup>211</sup> While the Complaint did acknowledge that a user can change the default search engine, it noted that few users do so and thus that Google Search is a "*de facto* exclusive" search engine that disadvantages competitors.<sup>212</sup>

In December 2020, Texas Attorney General Ken Paxton, joined by fifteen attorneys general from U.S. states and Puerto Rico, filed a lawsuit against Google for committing alleged anti-competitive acts in digital advertising markets.<sup>213</sup> Among the accusations is that Google colluded with Facebook to reduce the competitiveness of rival advertising exchanges, which directly impacted the effectiveness of Google's own advertising exchange.<sup>214</sup>

In December 2020, the Colorado Attorney General, joined by attorneys general from thirty-seven other states and territories, filed a lawsuit against Google with many of the same accusations as the DOJ suit, that Google has acted anticompetitively in the search and search advertising markets, but makes the additional allegation that Google has used its monopoly over general search to discriminate against companies that operate in specialized search, which involves searching for a specific product or service on a service like Yelp or Hotels.com.<sup>215</sup>

In June 2021, the Ohio Attorney General filed suit against Google to ask the court to declare Google a public utility and/or a common carrier under Ohio Law.<sup>216</sup> In order to be a public utility and/or common carrier, the Complaint asserts an entity must serve a "substantial part of the public in a way that makes its methods of operations a matter of public concern, welfare, and interest,"<sup>217</sup> its membership must be "indiscriminately and reasonably made available to the general public."<sup>218</sup> The Complaint concludes since Google is the "most visited website in Ohio," "dominates the search engine market in Ohio," and is offered "indiscriminately to the

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<sup>211</sup>*Id.* ¶ 118.

<sup>212</sup>*Id.* ¶ 119.

<sup>213</sup>See Complaint, *Texas v. Google, LLC*, No. 4:20-CV-00957 (E.D. Tex. Dec. 16, 2020), 2020 WL 7382404.

<sup>214</sup>*Id.* ¶¶ 13-14 (alleging that "Facebook decided to dangle the threat of competition in Google's face and then cut a deal to manipulate the auction" and "[i]n the end, Facebook curtailed its involvement with header bidding in return for Google giving Facebook information, speed, and other advantages.").

<sup>215</sup>Complaint, *Colorado v. Google*, No. 1:20-CV-03715 (D.D.C. Dec. 17, 2020), 2020 WL 7405690.

<sup>216</sup>Complaint, *Ohio ex rel. Dave Yost v. Google LLC*, No. 21-CVH-060274 (Ohio Com.Pl. Jun. 8, 2021), 2021 WL 2333652.

<sup>217</sup>*Id.* ¶ 40.

<sup>218</sup>*Id.* ¶ 39.

people of Ohio," it should be declared a common carrier and/or a public utility under Ohio law.<sup>219</sup>

Most recently, on July 7, 2021, Utah Attorney General Sean Reyes, joined by attorneys general in thirty-six states and the District of Columbia, filed a suit against Google that challenges the 30% commission Google levies on developers in the Google Play App Store as anticompetitive.<sup>220</sup> The Complaint also contends Google imposes technical barriers that "strongly discourage or effectively prevent third-party app developers from distributing apps outside the Google Play Store."<sup>221</sup>

### B. CALERA

In February 2021, U.S. Sen. Amy Klobuchar (D-MN) launched the Competitors and Antitrust Legislation Enforcement Reform Act (CALERA), co-sponsored by Sens. Blumenthal (D-CT), Booker (D-NJ), Markey (D-MA) and Schatz (D-HI), "to reform the antitrust laws to better protect competition in the American economy, to amend the Clayton Act to modify the standard for an unlawful acquisition, to deter anticompetitive exclusionary conduct that harms competition and consumers, to enhance the ability of the Department of Justice and the Federal Trade Commission to enforce the antitrust laws, and for other purposes."<sup>222</sup> A The bill includes drastic changes to antitrust law, with violators to face civil penalties of the greater of 15% of total revenues for the previous calendar year or 30% of revenues during the period of the unlawful conduct.<sup>223</sup>

Among the most controversial provisions is the bill's proposal to amend the Clayton Act to add an explicit definition of market power, redefining the long-recognized standard of "the ability to raise prices above those that would be charged in a competitive market" established by *NCAA v. Board of Regents* in 1984.<sup>224</sup> CALERA's redefinition would read:

the ability of a person, or a group of persons acting in concert, to profitably impose terms or conditions on counterparties, including terms regarding price, quantity, product or service quality, or other terms affecting the

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<sup>219</sup>*Id.* ¶¶ 20, 26, 28, 41, 42.

<sup>220</sup>Complaint, *Utah v. Google LLC*, No. 3:21-CV-05227 (N.D.Cal. July 7, 2021), 2021 WL 2827564.

<sup>221</sup>*Id.* ¶ 27.

<sup>222</sup>S. 225, 117th Cong. (2021).

<sup>223</sup>*Id.* at § 10(b)(1).

<sup>224</sup>*NCAA*, 468 U.S. at 109.

value of consideration exchanged in the transaction, that are more favorable to the person or group of persons imposing them than what the person or group of persons could obtain in a competitive market.<sup>225</sup>

This definition is much broader than the current market power definition and would expose a great many more companies and their transactions to antitrust scrutiny by competition officials.<sup>226</sup>

The bill would also significantly lower the standard for preventing mergers and acquisitions.<sup>227</sup> Currently, the government must prove a deal would "substantially lessen competition."<sup>228</sup> The amended language would require only the government show a deal would "create an appreciable risk of materially lessening competition,"<sup>229</sup> with "materially" defined as "more than a de minimis amount."<sup>230</sup> Courts would likely interpret this new standard to be significantly lower and broader than the current standard. It would place a much wider swath of mergers and acquisitions under antitrust scrutiny and make it significantly easier for the government to successfully challenge mergers and acquisitions in court.<sup>231</sup> The standard's vague language could lead to competition officials using antitrust law as more of a political tool to go after certain disfavored businesses or industries.

CALERA would also add an express prohibition on monopsony power—domination of the demand for goods or services by a single buyer, alongside the current prohibition on monopoly power, i.e., domination of the supply of goods or services by a single seller.<sup>232</sup> Further, it would establish a presumption of harm for transacting firms with greater than 50% market share, or that would gain greater than 50% market share as a result of the transaction, or that possess "significant market power" in any given market.<sup>233</sup> This would shift the burden of proof onto such parties to show the transaction would not create an appreciable risk of materially lessening competition or tend to create a monopoly or monopsony.<sup>234</sup> The effects of this proposal would not be limited to large firms like Google, since in many markets, such firms with greater than 50% market share or

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<sup>225</sup>S. 225, 117th Cong. § 4(a) (2021).

<sup>226</sup>See *NCAA*, 468 U.S. at 109; *Contra* S. 225, 117th Cong. § 4(a) (2021).

<sup>227</sup>S. 225, 117th Cong. 225 § 4(b)(3) (2021)

<sup>228</sup>15 U.S.C.A. § 14 (1914).

<sup>229</sup>S. 225, 117th Cong. 225 § 4(b)(3) (2021).

<sup>230</sup>*Id.* at § 4(b)(3)(5)(B)(ii)(II).

<sup>231</sup>See S. 225, 117th Cong. 225 § 4(b)(3) (2021).

<sup>232</sup>*Id.* at § 4(b)(2).

<sup>233</sup>S. 225, 117th Cong. 225 § 4(b)(3)(2)(A)-(B).

<sup>234</sup>*Id.*

significant market power could be quite small.<sup>235</sup> Similarly, the bill would shift the burden for all transactions valued at more than \$5 billion and for acquisitions of companies valued at \$50 million or more by those valued at more than \$100 billion.<sup>236</sup> As Director of Competition Policy at the International Center for Law and Economics ("ICLE") Sam Bowman put it, "changing the burden of proof to a 'guilty until proven innocent' standard would be an unprecedented change in American law that would give enormous discretionary power to Federal agencies, giving them the power to block mergers with zero evidence for doing so."<sup>237</sup>

The bill would also amend Section 2 of the Clayton Act to prohibit dominant firms from engaging in "exclusionary conduct," such as entering exclusive dealing contracts or preventing competitors from using its products or platform.<sup>238</sup> It would create a rebuttable presumption, with limited exceptions, that exclusionary conduct by companies with a market share of greater than 50% or otherwise significant market power presents an "appreciable risk of harming competition."<sup>239</sup> In other words, such parties would have the burden of proving their conduct does not have "an appreciable risk of harming competition."<sup>240</sup> This relatively vague language and standard would leave significant room for regulatory interpretation and action.

CALERA also proposes allocating approximately \$300 million in funding to each the FTC and the DOJ, nearly doubling the FTC budget along with that of the Antitrust Division of the DOJ.<sup>241</sup> George Mason Law Professor Jan Rybnicek commented:

Senator Klobuchar's legislation rightly calls for increased funding for the DOJ and FTC to ensure that the antitrust laws can live up to their purpose. But it is just as important that antitrust enforcement not create undue regulatory

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<sup>235</sup>*Id.*

<sup>236</sup>*Id.* at § 4(b)(3)(5)(B)(ii)(II).

<sup>237</sup>Sam Bowman, *Comment: Sen. Klobuchar's Antitrust Proposals are Legally and Economically Misguided*, INT'L CTR. L. & ECON. (Feb. 4, 2021), <https://laweconcenter.org/sen-klobuchars-antitrust-proposals-are-legally-and-economically-misguided/>.

<sup>238</sup>S. 225, 117<sup>th</sup> Congr. § 26(A)(b)(1) (2021)

<sup>239</sup>*Id.*

<sup>240</sup>*Id.*

<sup>241</sup>*Congressional Budget Justification*, FED. TRADE COMM'N (May 28, 2021), [https://www.ftc.gov/news-events/press-releases/2021/05/ftc-submits-annual-budget-request-performance-plan-performance;Dep't of Just., FY 2022 Budget Request At A Glance, Antitrust Division \(ATR\) \(July 16, 2021\), https://www.justice.gov/jmd/page/file/1398981/download..](https://www.ftc.gov/news-events/press-releases/2021/05/ftc-submits-annual-budget-request-performance-plan-performance;Dep't of Just., FY 2022 Budget Request At A Glance, Antitrust Division (ATR) (July 16, 2021), https://www.justice.gov/jmd/page/file/1398981/download..)

costs that stifle M&A [mergers and acquisitions], discourage investment, and impede economic growth.<sup>242</sup>

### *C. Trust-Busting for the Twenty-First Century Act*

In April 2021, U.S. Sen. Josh Hawley (R-MO) introduced the Trust-Busting for the Twenty-First Century Act (Trust-Busting Act), "[t]o amend the Sherman Act, the Clayton Act, and the Federal Trade Commission Act to promote competition in the United States, and for other purposes."<sup>243</sup> A press release on the bill by Sen. Hawley's office stated, "Senator Hawley's bill will crack down on mergers and acquisitions by mega-corporations and strengthen antitrust enforcement to pursue the breakup of dominant, anticompetitive firms."<sup>244</sup>

The bill's most drastic change to antitrust law is its proposed ban on any mergers or acquisitions by companies with a market cap greater than \$100 billion.<sup>245</sup> The bill would also dramatically increase the penalty for companies caught engaging in anti-competitive behavior, forcing any company which loses an antitrust suit to forfeit profits made through those business practices.<sup>246</sup> Interestingly, there is no reasoning provided as to why an acquisition by a company with a market cap greater than this amount would be anticompetitive. As Northwestern University Law Professor John O. McGinnis noted, "[t]he \$100 billion is really quite striking, because it's a real example of populism," and continued "[i]t's headline grabbing, but it's not connected to any attempt to show that an acquisition would have anything anticompetitive about it at all."<sup>247</sup>

Another significant proposal is the bill's call to alter the standard for prosecution under existing federal antitrust laws. The bill would replace the "consumer welfare" standard with one that emphasizes "the protection

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<sup>242</sup>Jan Rybnicek, *Recent Antitrust Proposals Could 'Throw Sand in the Gears' of Economic Recovery by Stalling M&A*, CNBC (Feb. 12, 2021), <https://www.cnbc.com/2021/02/12/op-ed-recent-antitrust-proposals-add-friction-to-ma-at-wrong-time.html>.

<sup>243</sup>S. 1074, 117th Cong. (2021).

<sup>244</sup>*Senator Hawley Introduces The 'Trust-Busting for the Twenty-First Century Act': A Plan to Bust Up Anti-Competitive Big Businesses*, JOSH HAWLEY U.S. SENATOR FOR MISSOURI (April 12, 2021), <https://www.hawley.senate.gov/senator-hawley-introduces-trust-busting-twenty-first-century-act-plan-bust-anti-competitive-big>.

<sup>245</sup>S. 1074, 117th Cong. § 3(2) (2021).

<sup>246</sup>*Id.* at § 2(B).

<sup>247</sup>Tim de Chant, *Hawley's Antitrust Bill Focuses on Market Cap, Ignoring Consumers*, ARS TECHNICA (Apr. 14, 2021), <https://arstechnica.com/tech-policy/2021/04/hawleys-antitrust-bill-targets-big-tech-but-experts-worry-about-collateral-damage/>.

of competition."<sup>248</sup> Before the consumer welfare standard was introduced by Robert Bork and formally established in 1979,<sup>249</sup> antitrust law was governed to a greater degree by a "protection of competition" standard. Though the consumer welfare standard does not lack in its share of critics,<sup>250</sup> it is relatively widely considered that the former "protection of competition" standard was much more difficult for courts to interpret and produced inconsistent and unpredictable results. Some scholars, such as President Biden's recently appointed Special Assistant for Technology and Competition Policy, Tim Wu, have argued the problems associated with a "protection of competition" standard could be eliminated through more nuanced analysis and such a standard would be "arguably more determinate than the exceeding abstract consumer welfare test, while being much truer to the legislative intent underlying the antitrust laws."<sup>251</sup> Others argue, alternatively, that the consumer welfare standard is perfectly able to accommodate the new challenges of digital markets,<sup>252</sup> and as ICLE members recently expressed before the FTC, to "jettison the crown jewel of modern antitrust law—the consumer welfare standard—[would be to] return antitrust to an earlier era in which inefficient firms were protected from the burdens of competition at the expense of consumers."<sup>253</sup> Whether the consumer welfare standard needs adjustment or should be replaced is a topic best left for another paper, but there is a strong caution against lawmakers replacing it without serious and diligent consideration of the consequences to follow.

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<sup>248</sup>S. 1074, 117<sup>th</sup> Cong. § 2(2)(B)(c) (2021) ("It is the policy of the United States that the principal standard for evaluating the permissibility of practices under this Act is the protection of economic competition within the United States.").

<sup>249</sup>*Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (holding that the Sherman Act is a "consumer welfare prescription.").

<sup>250</sup>Critics such as Elizabeth Warren, Maurice Stucke, Adam Candeub, Sally Hubbard, Lina Khan, John Newman, Mark Patterson, Sandeep Vaheesan, Matthew Stoller, Zephyr Teachout, Kevin Caves, Hal Singer, Ramsi Woodcock, among others.

<sup>251</sup>Tim Wu, *After Consumer Welfare, Now What? The "Protection of Competition" Standard in Practice*, COMPETITION POLICY INT'L, 2018, at 2 ([https://scholarship.law.columbia.edu/faculty\\_scholarship/2291](https://scholarship.law.columbia.edu/faculty_scholarship/2291)).

<sup>252</sup>*See, e.g.*, A. Douglas Melamed and Nicolas Petit, *Before "After Consumer Welfare" — A Response To Professor Wu*, COMPETITION POLICY INT'L, 2018 (July 1, 2018), <https://www.competitionpolicyinternational.com/before-after-consumer-welfare-a-response-to-professor-wu/>.

<sup>253</sup>Geoffrey A. Manne, et al., Comments of the International Center for Law & Economics, FTC Hearings on Competition & Consumer Protection in the 21<sup>st</sup> Century at 40 (Aug. 20, 2018), [https://www.ftc.gov/system/files/documents/public\\_comments/2018/08/ftc-2018-0048-d-0128-155134.pdf](https://www.ftc.gov/system/files/documents/public_comments/2018/08/ftc-2018-0048-d-0128-155134.pdf).

*D. HJC Package—"A Stronger Online Economy: Opportunity, Innovation, Choice"*

On June 11, 2021, the HJC, led by Antitrust Subcommittee Chairman David Cicilline (D-RI) and Antitrust Subcommittee Ranking Member Ken Buck (R-CO), introduced a package of five antitrust bills meant to specifically target big tech companies.<sup>254</sup> On June 24, 2021, the bills passed the House Judiciary Committee, along with a sixth bill previously introduced which would give state attorneys general control over which courts hear antitrust cases.<sup>255</sup> In a press release, the HJC stated the package is a "bipartisan legislative agenda to expand opportunities for consumers, workers, and small business owners by holding unregulated Big Tech monopolies accountable for anti-competitive conduct."<sup>256</sup>

Unlike CALERA and the Trust-Busting Act, the HJC Package explicitly targets large online platforms. Under the identical definition in each of the bills, a "covered platform" is "at the time of the Commission's or the Department of Justice's designation . . . or any of the twelve months preceding that time, or in any of the 12 months preceding the filing of a complaint for an alleged violation of this Act"<sup>257</sup> if it: 1a) has 50 million U.S. - based monthly active users; or 1b) 100,000 U.S.-based monthly active business users; 2) has a market capitalization of more than \$600 billion; and 3) is "a critical trading partner for sale or provision of any product or services offered on or directly related to the online platform."<sup>258</sup> The bills propose a great number of new regulatory and enforcement powers to the FTC and DOJ which would give the agencies a staggering amount of additional influence over the digital economy. Violators would face civil penalties of the greater of 15% of total revenues for the previous calendar year or 30% of revenues during the period of the unlawful conduct.<sup>259</sup>

<sup>254</sup>Merger Filing Fee Modernization Act of 2021, H.R. 3843, 117th Cong. (2021); American Choice and Innovation Online Act, H.R. 3816, 117th Cong. (2021); Platform Competition and Opportunity Act of 2021, H.R. 3826, 117th Cong. (2021); Ending Platform Monopolies Act, H.R. 3825, 117th Cong. (2021); and ACCESS Act of 2021, H.R. 3849, 117th Cong. (2021).

<sup>255</sup>State Antitrust Enforcement Venue Act of 2021, H.R. 3460, 117th Cong. (2021).

<sup>256</sup>Press Release, House Judiciary Comm'n., House Lawmakers Release Anti-Monopoly Agenda for "A Stronger Online Economy: Opportunity, Innovation, Choice" (June 11, 2021), <https://judiciary.house.gov/news/documentsingle.aspx?DocumentID=4591>.

<sup>257</sup>H.R. 3816, 117th Cong. § 2(g)(4)(A)-(B)(i) (2021); H.R. 3826, 117th Cong. § 3(d)(1)-(2)(A) (2021); H.R. 3825, 117th Cong. § 5(5)(A)-(B)(i) (2021); H.R. 3849, 117th Cong. § 5(6)(A)-(B)(i) (2021).

<sup>258</sup>H.R. 3816 § 2(g)(4)(B); H.R. 3826 § 3(f)(A)-(C); H.R. 3825 § 5(5)(B); H.R. 3849 § 5(6)(B).

<sup>259</sup>H.R. 3816 § 2(f)(1); H.R. 3825 § 3(c); H.R. 3849 § 10(a).

One of the most significant proposals is a prohibition on "unlawful discriminatory conduct" by covered platforms that "advantages the covered platform operator's own products, services, or lines of business," "excludes or disadvantages the products, services, or lines of business" of competing or "similarly situated" businesses.<sup>260</sup> This would prohibit such practices as Google's preinstallation of its Google Play app store on Android devices or its ranking of its own products or services over competitors in Google search results.

The HJC Package also contains several proposals that would require immediate structural changes. For example, one proposal would require break-ups within certain covered platforms because of prohibitions on platforms owning and operating businesses using "the covered platform for the sale or provision of products or services"<sup>261</sup> or other "conflicts of interest" which "create the incentive and ability" for a covered platform to "advantage the platform's own products, services, or lines of business," or "exclude from, or disadvantage, the products, services, or lines of business" of competing businesses.<sup>262</sup> The proposal could presumably require Google to sell certain business lines like YouTube or Google Maps. The language of the proposal is particularly alarming because it would prohibit a covered platform from owning or controlling another business simply when that ownership or control creates the "incentive or ability" to advantage its own products and services over others or to exclude or disadvantage the products and services of other businesses, even when the platform has not actually engaged in any such exclusionary behavior.<sup>263</sup> This proposal would grant the antitrust agencies an enormous amount of discretionary power, and it would be very difficult—if not impossible—for courts to determine exactly what sort of ownership or control of a business by a covered platform would cause such conflicts of interest to arise.

The HJC Package would also make acquisitions by covered platforms much more difficult. It would shift the burden onto covered platforms to prove by "clear and convincing evidence" that a company to be acquired does not "(A) compete with the covered platform . . . for the sale or provision of any product or service; (B) constitute nascent or potential competition to the covered platform . . . ; (C) enhance or increase the covered platform's . . . market position; or (D) enhance or increase the

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<sup>260</sup>H.R. 3816 § 2(a).

<sup>261</sup>H.R. 3825, 117th Cong. § 2(a).

<sup>262</sup>*Id.* § 2(b).

<sup>263</sup>*Id.*

covered platform's . . . ability to maintain its market position . . ." <sup>264</sup> The bill goes on to stipulate "competition, nascent competition, or potential competition for 'the sale or provision of any product or service' includes competition for a user's attention" and "an acquisition that results in access to additional data may, without more, enhance, increase, or maintain a covered platform's market position." <sup>265</sup> While antitrust law would benefit from the inclusion of a provision or guideline identifying users' attention and data as important and valuable assets, or, as discussed below, "products" or "key inputs," within a digital economy, placing a blanket ban on any acquisitions by dominant platforms of any companies competing for users' attention and/or data would block innumerable transactions that would otherwise benefit competition, innovation, and consumer welfare.

### *E. 10th Amendment to the German Act Against Restraints of Competition*

In January 2021, Germany passed the 10th Amendment to its Act Against Restraints of Competition, also known as the Digitalization Amendment, which introduced several novel provisions, under Section 19a, intended to address misuse of market power by large digital platforms. <sup>266</sup> The Amendment authorized the German Federal Cartel Office, Germany's national competition regulatory agency, to intervene where it finds that a company with "paramount significance for competition across markets" has engaged in anti-competitive practices. <sup>267</sup>

In March 2017, Germany had also passed a 9th Amendment to the same Act Against Restraints of Competition, in order to address what they saw as the problem in German Antitrust law that "free" products could not constitute relevant antitrust markets. <sup>268</sup> The Amendment made clear that "a market shall not be invalidated by the fact that a good or service is provided free of charge." <sup>269</sup> John Newman suggests that a similar addition of such language to relevant U.S. antitrust statutes could prevent domestic courts from mistakenly granting antitrust immunity to free-product suppliers. <sup>270</sup>

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<sup>264</sup>H.R. 3826, 117th Cong. § 2(b)(1)-(2).

<sup>265</sup>H.R. 3826 117th Cong. § 2(c)-(d) (2021).

<sup>266</sup>Gesetz gegen Wettbewerbsbeschränkungen [GWB] [Competition Act], June 26, 2013, BUNDESGESETZBLATT, TEIL I [BGBl I] at 1750, 3245, last amended by Gesetz [G], Jan. 18, 2021, BUNDESGESETZBLATT, TEIL I [BGBl I] at 2 (Ger.), [https://www.gesetze-im-internet.de/englisch\\_gwb/englisch\\_gwb.html](https://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.html).

<sup>267</sup>*Id.* at § 19(a)(1)-(2); *Id.* at § 18(2a).

<sup>268</sup>*Id.*

<sup>269</sup>*Id.*

<sup>270</sup>Newman, *supra* note 14, at 1560.

The 10th Amendment, among other provisions, requires that, in assessing market dominance, particular account shall be taken of a company's access to data relevant for competition.<sup>271</sup> Further, it requires that in assessing market dominance, particular account must be taken of the role a company acting as an "intermediary on multi-sided markets" (i.e. a digital platform) plays for access to procurement and sales markets.<sup>272</sup> As explained in the Memorandum accompanying the original draft, this "criterion of significance" is supposed to ensure that only firms "with a focus on digital business models are subject to the rule."<sup>273</sup>

The Amendment stipulates that when a firm is one of "paramount significance for competition across markets,"<sup>274</sup> it can be prohibited from engaging in certain types of conduct perceived by the Federal Cartel Office to be anticompetitive. This constitutes the introduction of an entirely new category of market power. The rationale given for the introduction of the new category is that while digital platforms may not have significant market shares in all affected markets, they may nevertheless have significant influence on these markets due to their key position for competition and their conglomerate, or "gatekeeper," structures.<sup>275</sup>

The Amendment lists seven types of practices the German competition authority may prohibit once a firm is found to possess "paramount significance for competition across markets[.]" including: (1) self-preferencing by vertically integrated firms (firms that have combined in one company two or more stages of production normally operated by separate companies); (2) hindering supply or sales activities of other firms (even if they are not competitors); (3) hindering competitors in markets where the 19a firm is not dominant but where it can rapidly expand its position; (4) using collected data to raise market entry barriers or requiring users' permission for such use; (5) hindering competition by impeding interoperability or by making data less portable; (6) withholding information on the 19a firm's performance – this is particularly relevant for intermediation services, concerning information on consumers' click

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<sup>271</sup> Gesetz gegen Wettbewerbsbeschränkungen [GWB] [Competition Act], June 26, 2013, BGBl I at 1750, 3245, last amended by Gesetz [G], Jan. 18, 2021, BGBl I at 2, § 19(a)(1)4. (Ger.), [https://www.gesetze-im-internet.de/englisch\\_gwb/englisch\\_gwb.html](https://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.html)

<sup>272</sup> *Id.* at § 18(3b).

<sup>273</sup> Memorandum in Support of 10th Amendment to German Digitalization Act § 19(a) (2021) (since I have relied on quotations taken from an English translation of this Memorandum, I do not include specific page numbers in citation.)

<sup>274</sup> *Id.*

<sup>275</sup> *Id.*

behavior or parameters determining how the firm ranks goods and services; and (7) exploiting business customers.<sup>276</sup>

As prominent German Law Professors Jens-Uwe Franck and Martin Peitz explain in a critique of the Amendment:

The types of behavior that the [Federal Cartel Office] may prohibit 19a firms from engaging in are deliberately drafted very broadly. They also include scenarios in which these practices may be procompetitive and consumer welfare-enhancing. For instance, final consumers may benefit from vertically integrated offers that are shown prominently and provide a minimum quality of service such as quick delivery, adequate packaging, or authentic products. Thus, self-preferencing may to a certain extent be in the interest of final consumers.<sup>277</sup>

The authors continue, "[w]hether the 19a tool will lead to socially-desirable outcomes will very much depend on whether the [Federal Cartel Office] strikes the right balance between the pro and anticompetitive effects of these behaviors."<sup>278</sup>

#### F. *EU's Digital Services Act and Digital Markets Act*

In December 2020, the European Commission published a pair of proposals, the Digital Services Act and the Digital Markets Act, to introduce additional competition rules for digital markets applicable to digital markets across the entire European Union.<sup>279</sup> According to a press release by the Commission, "[t]he new rules will better protect consumers and their fundamental rights online, and will lead to fairer and more open digital markets for everyone" and "will prohibit unfair conditions imposed

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<sup>276</sup> See Gesetz gegen Wettbewerbsbeschränkungen [GWB] [Competition Act], June 26, 2013, BGBI I at 1750, 3245, last amended by Gesetz [G], Jan. 18, 2021, BGBI I at 2, § 19(a)(2) (Ger.), [https://www.gesetze-im-internet.de/englisch\\_gwb/englisch\\_gwb.html](https://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.html).

<sup>277</sup>Jens-Ewe Franck & Martin Peitz, *Taming Big Tech: What Can We Expect From Germany's New Antitrust Tool?*, STIGLER CTR. (Feb. 7, 2021), <https://promarket.org/2021/02/07/germany-antitrust-bundeskartellamt-19a-dma-big-tech/>.

<sup>278</sup>*Id.*

<sup>279</sup>Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services and Amending Directive 2000/31/EC, COM (2020) 825 final (Oct. 15, 2020) (Digital Services Act); Proposal for a Regulation of the European Parliament and of the Council on Contestable and Fair Markets in the Digital Sector, COM (2020) 842 final (Oct. 15, 2020) (Digital Markets Act).

by online platforms that have become or are expected to become gatekeepers to the single market."<sup>280</sup>

Franck and Peitz note the German Legislature, by enacting Section 19a of the 10th Amendment discussed above, deliberately put pressure on the EU to more effectively address perceived competition problems caused by dominant digital platforms.<sup>281</sup> Thus, they explain, the recently proposed EU Digital Markets and Digital Services Acts are intended to be the functional equivalent of section 19a.<sup>282</sup>

In October 2020, political economists Hosuk Lee-Makiyama and Badri Narayanan Gopalakrishnan published an extensive study discussing the potential impacts of the EU digital Markets and Digital Services Acts on the EU economy.<sup>283</sup> They explain that an unfortunate reality of any antitrust regulatory body is that its officials are made up of individuals who are, for the most part, “not business strategists, engineers, product developers, or economists.”<sup>284</sup> Therefore, regulation generally takes place “ex post,” once evidence of market failure has already arisen.<sup>285</sup> In contrast, “ex ante” regulation attempts to identify problems before they occur and shape future anticompetitive behavior and responses through regulatory intervention.<sup>286</sup> In other words, ex ante actions are taken without regard to whether certain occurrences have actually produced any market failure. Ex ante regulation is created based on regulators’ prediction of the effects of certain events in advance of their occurrence, and is much more prone to any biases harbored by the regulators. In addition, this makes ex ante regulation much more prone to manipulation by political, rather than consumer welfare, motivations, which can significantly dampen productivity, innovation, and competition. The authors conclude that “shifting from ex post to ex ante in the online services sector as stipulated by the [Digital Services and Digital Market Act] proposals”<sup>287</sup> would produce an estimated “loss of about 85 billion EUR in GDP and 101 billion

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<sup>280</sup>Press Release, European Commission, Europe fit for the Digital Age: Commission Proposes New Rules for Digital Platforms (Dec. 15, 2020) (on file with the European Commission Press Office).

<sup>281</sup>Franck & Peitz, *supra* note 277.

<sup>282</sup>Franck & Peitz, *supra* note 277.

<sup>283</sup>Hosuk Lee-Makiyama & Badri Narayanan Gopalakrishnan, *Economic Costs of Ex Ante Regulations*, EUROPEAN CTR. FOR INT’L POL. ECON. Oct. 20, 2020, <https://ecipe.org/publications/ex-ante/>.

<sup>284</sup>*Id.* at 3.

<sup>285</sup>*Id.*

<sup>286</sup>*Id.*

<sup>287</sup>*Id.* at 2.

EUR in lost consumer welfare, due to a reduction in productivity, after accounting for other control variables."<sup>288</sup>

### IX. HOW MIGHT BIG DATA BE FACTORED INTO AN ANTITRUST ANALYSIS?

In a 2019 speech, Professor Melamed said:

I see no basis to abandon or alter the two basic elements of an antitrust violation, anticompetitive conduct and a resulting increase in market power. Antitrust law is sound in principle. Saying that antitrust law is sound in principle, however, does not necessarily mean that antitrust law does not need improvement.<sup>289</sup>

Professor Melamed's pronouncement is correct, and further, whatever improvements might be made to the antitrust laws to address the unique problems presented by big data platforms can be accomplished with existing legal tools.

Some recommendations described in the following subsections are: (1) to define a distinct product market for data; (2) to recognize data as a "key input" within a number of markets in today's tech-driven economy; (3) to urge competition officials to focus more on the detection and scrutiny of exclusionary conduct by big data firms; and (4) to encourage competition officials to recognize the prevalence of data-driven mergers and acquisitions and to be proactive in identifying when the commingling of data might cause significant entry barriers that harm competition. In considering the following, it is important to keep in mind that a high degree of control over data is not in itself anticompetitive. As Professor Melamed noted, "[i]t is important in analyzing this issue to distinguish efficiencies from harms" and continued, "use of data lawfully obtained from any source to improve . . . proprietary products is itself an efficiency benefit."<sup>290</sup>

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<sup>288</sup>*Id.*

<sup>289</sup>*Does America Have a Monopoly Problem? Examining Concentration and Competition in the U.S. Economy: Hearing Before the Subcomm. on Antitrust, Competition Pol'y, and Consumer Rts. of the S. Comm. On the Judiciary*, 119th Cong. 6 (2019) (statement of A. Douglas Melamed, Professor of the Practice of Law Stanford Law School) <https://www.judiciary.senate.gov/imo/media/doc/Melamed%20Testimony.pdf>.

<sup>290</sup>Melamed, *supra* note 209, at 20 n. 99.

### A. Defining a Product Market for Data

Factoring big data into an antitrust analysis is difficult, as it has yet to be defined as its own product within a particular product market. Tucker and Wellford note in both the U.S. and Europe "demand substitution" is an essential prerequisite to defining a market.<sup>291</sup> "Demand substitution" refers to the change in demand for a good as a result of a change in the relative price of that good compared to that of other substitute goods. They explain that the primary goal of defining a market is to measure a firm's ability to exercise market power.<sup>292</sup> The relevant market determines which goods or services potentially compete, to the exclusion of those that do not. The authors note that in defining a market, the FTC and DOJ most often apply the "hypothetical monopolist" test, asking whether customers would switch to substitutes in response to a hypothetical small relative price increase in the products and areas under investigation.<sup>293</sup> Similarly, courts most often apply the "Brown Shoe" test, under which "[t]he outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it."<sup>294</sup>

Tucker and Wellford further argue that when one applies these determinations to the online advertising industry, it can be concluded that data itself is not a relevant product in the sale of online advertising; rather, it is advertising services that are the relevant product.<sup>295</sup> Instead, data is used as an "input" for those advertising services.<sup>296</sup> As such, Tucker and Wellford find there is no competition between providers for the actual sale of data and no substitution, and thus under current antitrust law, no relevant market can be defined for the collection of consumer data.<sup>297</sup> While the consideration of data as a key input rather than a product could provide certain avenues for finding antitrust liability, the task of defining a product market for data should not be dismissed as impossible.

Google insists it does not directly sell user data.<sup>298</sup> Nonetheless, Google does monetize data through various means. Tucker and Wellford themselves note that while treating data as a product market when the data

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<sup>291</sup>See Tucker & Wellford, *supra* note 34, at 5.

<sup>292</sup>See Tucker & Wellford, *supra* note 34, at 5.

<sup>293</sup>U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 4.1.1 (2010); *Commission Notice on the Definition of Relevant Market for the Purposes of Community Competition Law*, 1997 O.J. (C 372) 5, ¶ 17.

<sup>294</sup>*United States v. Brown Shoe Co.*, 370 U.S. 294, 325 (1962).

<sup>295</sup>Tucker & Wellford, *supra* note 34, at 2, 4-8.

<sup>296</sup>Tucker & Wellford, *supra* note 34, at 4-5.

<sup>297</sup>Tucker & Wellford, *supra* note 34, at 5.

<sup>298</sup>*Pinchai*, *supra* note 64.

is not for sale would make antitrust analysis "more complex, less accurate, and less predictable," and further state "there is no shortage of precedent . . . for defining a market around data sold to customers."<sup>299</sup> Professor Melamed suggests Antitrust officials could presumably estimate a price for data by calculating the average revenue generated per user in transactions with advertisers, minus the cost of collecting, processing, and organizing that data, and then treating it as they would any other product that is bought and sold.<sup>300</sup>

It is also important to note in certain circumstances, defining a distinct product market is not required to demonstrate a firm possesses market power and has harmed competition. In instances where direct evidence of harmful effects on competition can be shown, a formal delineation of a product market is unnecessary. In *FTC v. Indiana Federation of Dentists*, the Supreme Court emphasized "proof of actual detrimental effects, such as a reduction of output,' can obviate the need for an inquiry into market power, which is but a 'surrogate for detrimental effects.'"<sup>301</sup>

In her Google/DoubleClick dissent, Harbour suggested it would be beneficial to define "a putative relevant product market comprising data that may be useful to advertisers and publishers who wish to engage in behavioral targeting."<sup>302</sup> In a subsequent article, she argued the "definition of markets for data, separate and apart from markets for the services fueled by this data," would reflect reality in which "[i]nternet-based firms often derive great value from user data, far beyond the initial purposes for which the data initially might have been shared or collected, and this value often has important competitive consequences."<sup>303</sup> Harbour argued:

The competition analysis in *Google/DoubleClick* might have proceeded differently if . . . before the merger, it might have been argued that Google held a significant market share in a possible market for 'data gathered via search,' [and,] . . . the Commission might have asked whether Google's acquisition of DoubleClick would have

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<sup>299</sup>Tucker & Wellford, *supra* note 34 at 5-6 (citing *In re CoreLogic, Inc.*, FTC Docket No. C-4458 (May 21, 2014); *In re Dun & Bradstreet Corp.*, FTC Docket No. 9342 (2010); *United States v. Thomson Corp.*, Case No. 1:08-cv-00262 (D.D.C. 2008).

<sup>300</sup> See A. Douglas Melamed & Nicolas Petit, *The Misguided Assault on the Consumer Welfare Standard in the Age of Platform Markets*. REV. INDUS. ORG., Feb. 11, 2019, at 14 n. 32.

<sup>301</sup>*FTC v. Ind. Fed'n of Dentists*, 476 U.S. 447, 460-61 (1986).

<sup>302</sup>Harbour, dissenting, *supra* note 111, at 4.

<sup>303</sup>Pamala J. Harbour & Tara I. Koslov, *Section 2 In A Web 2.0 World: An Expanded Vision of Relevant Product Markets*, 76 ANTITRUST L.J. 769, 773 (2010).

substantially increased the likelihood that Google would acquire or maintain market power in that market.<sup>304</sup>

Alternatively, Harbour suggested that when defining a data market, "one might define a somewhat broader market, such as 'data used for behavioral advertising'" and suggested that such a market "would include not only search data, but also data gathered from other sources and applications that offer clues regarding consumer preferences."<sup>305</sup>

Most of Google's products and services operate within what are called "two-sided" markets. Nobel laureate Jean Tirole and Professor Jean-Charles Rochet provided what is today's widely accepted definition for a two-sided market: a market "in which one or several platforms enable interactions between end-users and try to get the two (or multiple) sides 'on board' by appropriately charging each side."<sup>306</sup> In *Ohio v. American Express Co.* ("*AMEX*"),<sup>307</sup> the Supreme Court held, "[i]n two-sided transaction markets, only one market should be defined."<sup>308</sup> The Court further determined that, to establish prima facie evidence of uncompetitive practices, there must be anticompetitive effects on the "two-sided market . . . as a whole," and the effects on one side of the platform are insufficient.<sup>309</sup> To date, *AMEX* is the only US antitrust case having expressly addressed issues presented by multisided market platforms. The type of two-sided market discussed in *AMEX* is a credit card company, which facilitates a single transaction between cardholders and merchants by performing various functions such as extending credit and rewards to cardholders, issuing credit cards, paying merchants for the products bought by cardholders, and collecting amounts due.<sup>310</sup> The types of products and services that Google provides, such as Google Search, might be more readily compared to another type of a two-sided market, such as a radio station. On the one side, the radio station provides free content to listeners in exchange for their attention; and conversely sells advertising time-slots for advertisers to play for those listeners. Unlike a radio station, Google not only transacts with the users of its various products primarily in exchange for their attention, but primarily in exchange for their personal

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<sup>304</sup>*Id.* at 785.

<sup>305</sup>*Id.*

<sup>306</sup>Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. ECON. 645, 645 (2006).

<sup>307</sup>138 S. Ct. 2274 (2018).

<sup>308</sup>*Id.* at 2287.

<sup>309</sup>*Id.*

<sup>310</sup>*See generally AMEX*, 138 S. Ct. 2274 (2018).

data, and then uses that data to create the detailed and valuable user profiles to be used in the advertising services it sells to advertisers. While a radio station does compile certain demographic data on its listeners, the data is neither as detailed nor as valuable for monetization as the highly detailed and comprehensive personal data that Google is able to collect from the users of its digital products. Further, Google does not use *only* the data collected from users of a specific product for use in advertising services to be sold *only* on that product. In other words, the advertising services provided by Google through Google Search incorporates data collected not only from users of Google Search but also from users of all its various products—Gmail, YouTube, Google Maps, Fitbit, Nest, Android, et cetera. With these differences in mind, it becomes clear why defining data within its own distinct product market, outside of and separate from the product in which it is utilized—advertising services—might better reflect the reality of the assets with which the companies with whom Google competes for advertisers.

If antitrust officials were to consider a case against Google for practices involving a broadly defined product market, such as the market for "data used for behavioral advertising" suggested by Commissioner Harbour,<sup>311</sup> the types of businesses that would be included as competitors would be quite varied. They would range from those businesses that monetize data collected from users of a single rival product or service, such as other search engines or mapping services, to other platforms like Facebook or Amazon that monetize data collected from users across entire digital ecosystems.

### B. *Treating Data as a Key Input*

Even if no distinct product market for data can be defined, one avenue suggested by existing case law would be to ask whether data is a "key input" for the operation of certain businesses. Antitrust liability has been found in some instances where a firm has gained control over and has successfully denied key inputs to its rivals.<sup>312</sup> This conduct involves the exercise of what has become known as "Bainian" market power, so called due to distinguished American Economist Joe Bain's extensive analysis of its consequences.<sup>313</sup> According to Bain, this type of market power occurs when a dominant firm successfully achieves two related

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<sup>311</sup>Harbour & Koslov, *supra* note 303, at 784.

<sup>312</sup>*See, e.g., Continental Ore Co. v. Union Carbide & Carbon Corp.*, 370 U.S. 690, 82 S. Ct. 1404 (1962).

<sup>313</sup>*See* JOE S. BAIN, *INDUSTRIAL ORGANIZATION* 324-30 (2<sup>d</sup> ed. 1968)

goals: (1) by denying key inputs to its rivals, the dominant firm materially raises those rivals' costs; and (2) by raising their costs, eliminates their competitive check on pricing and output.<sup>314</sup> This, then, grants the dominant firm the power to raise its own prices above the competitive level.<sup>315</sup>

In *Continental Ore Co. v. Union Carbide & Carbon Corp.*, the Supreme Court ruled against defendants whose conduct could be said to involve the exercise of Bainian market power., Continental argued the defendants had "violated §§ 1 and 2 of the Sherman Act by conspiring to restrain, by monopolizing, and by attempting and conspiring to monopolize, trade and commerce in ferrovanadium and vanadium oxide."<sup>316</sup> The production of ferrovanadium and vanadium oxide requires the use of the naturally occurring metal "vanadium."<sup>317</sup> The defendants were charged with purchasing and acquiring control over substantially all accessible vanadium-bearing ore deposits in the United States, refusing to sell vanadium to rivals, and fixing identical prices for vanadium ore, among other charges.<sup>318</sup> The Supreme Court held that there had been "sufficient evidence for a jury to infer the necessary causal connection between respondents' antitrust violations and petitioners' injury."<sup>320</sup>

Despite the Supreme Court's ruling in *Continental Ore Co.*, there has been limited support for the concept of Bainian market power by antitrust scholars. Antitrust professors Thomas Krattenmaker, Robert Lande, and Steven Salop discuss Bainian market power at length and explain, "market power arising from exclusionary conduct directed against rivals is still controversial and has not yet received extensive, systematic exposition and analysis in the antitrust literature."<sup>321</sup> Further, some scholars have criticized the concept of Bainian market power, arguing just because there is evidence that a firm has taken exclusionary measures to exclude rivals does not mean that firm should face antitrust liability.<sup>322</sup>

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<sup>314</sup>*See id.*

<sup>315</sup>*Continental Ore Co. at 709, 82 S. Ct. at 1416.*

<sup>316</sup>*Id. at 693, 82 S. Ct. at 1407.*

<sup>317</sup> Richard Mills, *Vanadium: The Metal We Can't Do Without and Don't Produce*, MINING.COM (Oct. 24, 2017), <https://www.mining.com/web/vanadium-metal-cant-without-dont-produce/>.

<sup>318</sup>*See Continental Ore Co.*, 370 U.S. at 693.

<sup>320</sup>*Id. at 700.*

<sup>321</sup> Thomas G. Krattenmaker et al., *Monopoly Power and Market Power in Antitrust Law*, 76 GEO. L.J. 241, 249-50 (1987).

<sup>322</sup> See, e.g., Daniel A. Krane, *Market Power Without Market Definition*, 90 Notre Dame L. Rev. 32 (2014).

Despite any criticism for finding antitrust liability when firms that deny or cut off rivals' access to key inputs, the FTC has treated data as a key input in the past and blocked certain transactions that would grant one firm excessive control over such data. In its decision to block Nielsen's acquisition of radio research company Arbitron, the FTC noted the merging companies had "the most accurate and preferred sources of individual-level demographic data for [television and radio] audience measurement purposes."<sup>323</sup> The FTC concluded smaller rivals working to develop similar audience measurement services were not as well positioned to compete because they "lack[ed] the representative panels, existing audience measurement technology assets of the quality and character of Nielsen's and Arbitron's, and strong brands in audience measurement."<sup>324</sup> Because data was found to be a critical requirement for the development of a service to measure audiences across multiple media platforms, the acquisition was deemed "likely to cause significant competitive harm."<sup>325</sup>

Another instance in which the FTC considered data a key input was in its review of Google's acquisition of DoubleClick. Though unsuccessful, the FTC's theory of harm was that Google's data was a key input for rivals in the digital advertising and services market and that the data aggregation through the merger with DoubleClick could lead to competitive harm.<sup>326</sup> Ultimately the FTC held "[a] number of Google's competitors have at their disposal valuable stores of data not available to Google. For instance, Google's most significant competitors in the ad intermediation market, Microsoft, Yahoo!, and Time Warner have access to their own unique data stores."<sup>327</sup>

The FTC's decision in the Google/DoubleClick merger echoes a widely held argument that big data's non-rivalrous and non-exclusive nature sets it apart from other key inputs. Many argue even if one provider has a piece of data, this does not mean another provider is prevented from collecting the very same piece of data. Unlike key inputs such as the ferrovanadium and vanadium oxide in *Continental Ore*, data is not a finite

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<sup>323</sup>Analysis of Agreement Containing Consent Order to Aid Public Comment, *Nielsen Holdings N.V. & Arbitron, Inc.*, *FTC File No. 131-0058* (Sept. 20, 2013) at 2, <https://www.ftc.gov/sites/default/files/documents/cases/2013/09/130920nielsenarbitronanalysis.pdf>.

<sup>324</sup>*Id.*

<sup>325</sup>*Id.* at 3.

<sup>326</sup>Press Release, Fed. Trade Comm'n, Statement of Federal Trade Commission: Google/DoubleClick, *FTC File No. 071-0170* (Dec. 20, 2007), [https://www.ftc.gov/system/files/documents/public\\_statements/418081/071220googledec-commstmt.pdf](https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledec-commstmt.pdf)).

<sup>327</sup>*Id.* at 12.

resource and thus no one provider can ever amass all available data. Furthermore, dominant firms do not hold any explicit exclusivity over user data, meaning that there are no exclusivity clauses included in terms of service with users and there are no structures that lock users into sharing their data with only one provider. Those opposed to calling data a key input would argue potential competitors do not need to create a data store "equivalent to the size of the incumbent," but rather need to "devise a strategy to accumulate highly relevant and timely data."<sup>328</sup> Professor Graef pointed out this assessment is overly simplified; the non-rivalrous and non-exclusive nature of big data is often greatly overstated.<sup>329</sup> While the FTC concluded in their Google/DoubleClick decision that competition in the "ad intermediation market" would not be harmed by the merger of the two companies, there is no indication competition cannot ever be harmed in transactions or practices involving data as a key input in other markets.

### C. *Enhancing Prohibitions on Exclusionary Conduct*

Exclusionary conduct involves private conduct between firms that restrains trade. While there is a variety of flavors of exclusionary conduct, generally it takes one of two forms: (1) collaboration among firms that would otherwise have been rivals; or (2) exclusion of rivals or potential rivals from the market. The former can cause economic harm by reducing competition among those firms that agreed to collaborate, while the latter injures competition by either reducing the output or increasing the costs for rivals.

Although exclusionary conduct is not always unlawful—often producing significant economic efficiencies benefiting consumer welfare—courts have found antitrust liability when exclusionary conduct has deprived rivals of achieving sufficient scale to compete. An example is provided by *McWane, Inc. v. F.T.C.*, in which the Eleventh Circuit held a monopoly can violate Section 2 of the Sherman Act when its exclusive dealing program deprived smaller rivals of "distribution sufficient to achieve efficient scale, thereby raising costs and slowing or preventing effective entry."<sup>330</sup>

From the released portions of the 2012 FTC Staff Report referenced above, it was discovered the FTC Staff had recommended suing Google

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<sup>328</sup>Nils-Peter Schepp & Achim Wambach, *On Big Data and Its Relevance for Market Power Assessment*, 7 J. EUR. COMP. L. & PRAC. 120, 122 (2016).

<sup>329</sup>*Id.* at 121-22.

<sup>330</sup>*McWane, Inc. v. F.T.C.*, 783 F.3d 814, 838 (11th Cir. 2015).

for several anticompetitive practices.<sup>331</sup> The Staff Report discussed the competitive significance of data and "substantial scale effects" in the online search, search advertising, and search syndication markets.<sup>332</sup> One alleged anticompetitive practice was Google's use of exclusivity provisions to prevent its competitor Microsoft from achieving sufficient scale, including the renewal of its deal with another rival AOL to decrease the number of search queries entered into Microsoft's search engine Bing.<sup>333</sup>

Another type of exclusionary conduct courts have deemed anticompetitive is a dominant firm's refusal to work with other businesses or customers who also purchase from or sell to its rivals. In *Lorain Journal v. United States*, a dominant local newspaper had refused to accept advertisements from those who had also placed advertisements on the local radio station and the Supreme Court ruled that such exclusive dealing violated Section 2 of the Sherman Act.<sup>334</sup> Specifically, the Court held:

[t]he publisher claims a right as a private business concern to select its customers and to refuse to accept advertisement from whomever it pleases . . . The right claimed by the publisher is neither absolute nor exempt from regulation. Its exercise is a purposeful means of monopolizing interstate commerce is prohibited by the Sherman Act.<sup>335</sup>

According to the FTC Staff Report, Google had entered restrictive agreements with websites that published its search results that prohibited them from working with rivals.<sup>336</sup> Specifically, the Report reads, "[i]n the market for search syndication, Google has exclusive or restrictive agreements with 12 of the top 20 companies . . . and 4 of the top 5" and concludes:

Google has unlawfully maintained its monopoly . . . in violation of Section 2 [of the Sherman Act], or otherwise engaged in unfair methods of competition, in violation of Section 5, by entering into exclusive and highly restrictive agreements with web publishers that prevent publishers

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<sup>331</sup>FTC Staff Report, *supra* note 177.

<sup>332</sup>FTC Staff Report, *supra* note 177, at 76.

<sup>333</sup>FTC Staff Report, *supra* note 177, at 106-08.

<sup>334</sup>*Lorain J. Co. v. United States*, 342 U.S. 143 (1951).

<sup>335</sup>*Id.* at 155.

<sup>336</sup>FTC Staff Report, *supra* note 177.

from displaying competing search results or search advertisements.<sup>337</sup>

While the FTC's final decision acknowledged that such exclusive agreements had been investigated, it did not mention that the Staff Report had deemed those agreements in violation of the Sherman Act, nor did it obtain any commitments from Google to change its exclusive dealing policies.<sup>338</sup> The FTC simply stated "[t]he agency decided not to take action in connection with these allegations."<sup>339</sup>

Another type of exclusionary conduct with the potential to be considered unlawful is self-preferencing, though these practices are not, for the most part, considered anticompetitive. Courts only find liability for self-preferencing when it constitutes an "unfair exclusionary tactic" that does not promote "superior service, lower costs, and improved efficiency," but rather is used to "foreclose competition, to gain a competitive advantage, or to destroy a competitor."<sup>340</sup> Both the 2012 FTC Staff Report and the 2020 House Report identify Google's favorable positioning and display of its own comparison-shopping services on the first page of its general search results, contrasted with its burying of superior rival offerings to the fourth page of search results or more. The House Report also discovered internal emails by Google revealed Google recognized its own offerings as inferior yet preferred them anyway in order to halt traffic to its rivals' websites.<sup>341</sup> Specifically, one Google employee internally acknowledged "if Google ranked its own content according to the same criteria that it applied to competitors, 'it will never rank.'"<sup>342</sup>

From the conduct identified both in the FTC Staff Report and, more recently, the House Report, it appears that Google has engaged in exclusive dealing practices to prevent rivals from achieving efficient minimum scale, has placed obstacles before certain other businesses and customers to prevent them from working with rivals, and has engaged in forms of self-preferencing with the sole objective of foreclosing rivals, despite recognizing the inferiority of its preferred products. Whether retroactive action will or should be taken against Google for these actions is not a question I will attempt to answer in this paper. However, going

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<sup>337</sup>FTC Staff Report, *supra* note 177, at 104, 116.

<sup>338</sup>Press Release, Fed. Trade Comm'n., *supra* note 178.

<sup>339</sup>Press Release, Fed. Trade Comm'n., *supra* note 178.

<sup>340</sup>*See, e.g.*, *Otter Tail Power Co. v. United States*, 410 U.S. 366, 380 (1973); *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 601, (1985); *United States v. Griffith*, 334 U.S. 100, 107 (1948).

<sup>341</sup>House Report, *supra* note 183, at 190.

<sup>342</sup>House Report, *supra* note 183, at 190.

forward, I believe it is essential that competition officials be more vigilant for such exclusionary conduct by big data firms, and more proactive in pursuing such claims in antitrust litigation.

#### D. *Considering Data in Mergers and Acquisitions*

The reason big data has not been a focus in the FTC or DOJ's analyses of potential mergers or acquisitions is likely because a distinct product market for data has not been defined. While competition officials have intervened on several occasions in transactions involving certain types of data, those cases involved data considered a commercially valuable product within a relevant competitive market.<sup>343</sup> In addition, while the FTC did block the acquisition of Arbitron by Nielsen when it considered the demographic data on television and radio users as a key input, courts have yet to treat data gathered by online platforms in a similar manner.<sup>344</sup> For the most part, it seems competition officials have paid little mind to how greatly a dominant firm's decision to carry out a certain merger or acquisition might be influenced by the opportunity to access additional pools of data or, if they have taken note of its influence, have yet to figure out what to do about it. As Professor Stucke said during a panel discussion at the 2017 Stigler Center Conference:

The tools that we have under our old paradigm are not necessarily going to work in the new paradigm. If Google were to acquire Twitter, that's not necessarily a horizontal merger. It's not a conglomerate merger. It's not a vertical merger. Yet because of the data, there might be significant competitive consequences as a result.<sup>345</sup>

Concerns regarding data were raised in Facebook's 2014 acquisition of WhatsApp, but the FTC cleared the transaction unconditionally within

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<sup>343</sup>Daniel Bitton, *United States – E-commerce and Big Data: Merger Control*, GLOBAL COMPETITION REV. (Dec. 7, 2018), <https://globalcompetitionreview.com/guide/e-commerce-competition-enforcement-guide/e-commerce-competition-enforcement-guide/article/united-states-e-commerce-and-big-data-merger-control>).

<sup>344</sup> See Decision & Order at 5-7, *In re Nielsen Holdings N.V.*, FTC Docket No. C-4439 (Feb. 28, 2014), <https://www.ftc.gov/system/files/documents/cases/140228nielsenholdingsdo.pdf>.

<sup>345</sup>Asher Schechter, *Is There a Case to be Made for Political Antitrust*, PROMARKET (Apr. 28, 2017), <https://promarket.org/2017/04/28/case-made-political-antitrust/> (quoting remarks made by panelists at the March 29, 2017 Stigler Center Conference panel discussion).

just two months.<sup>346</sup> Salesforce.com also reportedly expressed concerns when Microsoft won the bid to acquire LinkedIn in 2016.<sup>347</sup> Though the FTC cleared the acquisition without conditions, Salesforce argued "by gaining ownership of LinkedIn's unique dataset of over 450 million professionals in more than 200 countries, Microsoft will be able to deny competitors access to that data, and in doing so obtain an unfair competitive advantage."<sup>348</sup> Finally, concerns about data aggregation were raised by third parties after the FTC's 2017 investigation of Amazon's acquisition of Whole Foods, but the FTC cleared the transaction in short shrift.<sup>349</sup>

If one wonders why such concerns have been so summarily dismissed, one must keep in mind courts have considered the procompetitive effects of such transactions to outweigh the anticompetitive. To illustrate, because Google has access to such a vast number of different data sets from all its various platforms, and smaller rivals might have access to data from only one source in a given market, Google is often much better able to anticipate the wants and needs of consumers in that market. Thus, while the aggregation of data resulting from a merger or acquisition might pose a significant entry barrier to rivals, such an entry barrier must be shown to substantially harm competition and cause a serious threat of monopoly before it can be blocked by competition officials. Determining when a transaction poses such a threat is quite difficult. Perhaps because the procompetitive and anticompetitive effects of entry barriers are so difficult to measure, the role of entry barriers in antitrust litigation has yet to be clearly articulated by the Supreme Court. Although the Court's decisions have increasingly referenced barriers to entry in the last few decades, they fail to comprehensively explain the role entry barriers should play in an antitrust

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<sup>346</sup>San Schechner & Tom Fairless, *EU Begins Questioning Facebook Rivals Over WhatsApp Deal*, WALL ST. J. (JUL. 9, 2014), <https://www.wsj.com/articles/eu-begins-questioning-facebook-rivals-over-whatsapp-deal-1404910724>.

<sup>347</sup>Mark Scott & Nick Wingfield, *Salesforce Is Said to Question Microsoft-LinkedIn Deal in Europe*, N.Y. TIMES (SEP. 29, 2016), <https://www.nytimes.com/2016/09/30/technology/salesforce-is-said-to-question-microsoft-linkedin-deal-in-europe.html>.

<sup>348</sup>Dina Bass, Brian Womack, & Aoife White, *Salesforce Argues the Microsoft-LinkedIn Deal Will Hurt Innovation*, BLOOMBERG (SEP. 30, 2016) <https://news.bloomberglaw.com/business-and-practice/salesforce-urges-microsoft-linkedin-probes-amid-ai-concerns>.

<sup>349</sup>Press Release, Fed. Trade Comm'n, Statement of Federal Trade Commission's Acting Director of the Bureau of Competition on the Agency's Review of Amazon.com, Inc.'s Acquisition of Whole Foods Market Inc. (Aug. 23, 2017), <https://www.ftc.gov/news-events/press-releases/2017/08/statement-federal-trade-commissions-acting-director-bureau>.

analysis.<sup>350</sup> However, as firms like Google enter a continuously greater number of new markets, it is likely that the significance of access to data as an entry barrier will become ever more apparent. Thus, a detailed discussion on the definition and role of entry barriers by the Supreme Court in general, but especially in reference to data, would be extremely beneficial.

In addition, unless there is a very serious threat of monopoly, antitrust law in the United States does not recognize a "monopoly leveraging" offense, such as the use of monopoly in one market to gain competitive advantage in a second market. In *Verizon v. Trinko*, the Supreme Court held in order to prevail on an antitrust claim under a monopoly leveraging theory, there must be a "dangerous probability of success" that the defendant will monopolize a second market.<sup>351</sup>

An example where the FTC moved to block a merger which threatened nascent competition due to the aggregation of data is found in *CDK/Auto-Mate*. The FTC sued to block a merger of two digital tech platforms, specifically two car dealership management system platforms, where the firms were current competitors, but one was a market giant while the other was far smaller. The Complaint did allege harm to current competition, but focused most intently on harm to future, nascent competition.<sup>352</sup> Though the transaction was abandoned by the parties after the FTC filed suit, this case is a promising example of the FTC's efforts to deal with threats through merger or acquisition to nascent competition by employing existing legal tools.

The DOJ has carried out a successful enforcement action against the merger of Bazaarvoice and its leading rival Power-Reviews, which explicitly involved allegations and proof that the aggregation of data can serve as an entry barrier. *United States v. Bazaarvoice* involved the merger between the two largest providers of online ratings and reviews. In discussing the entry barrier documents, the court highlighted a document prepared by Bazaarvoice that had discussed the company's ability to "leverage the data from its customer base" as "a key barrier [to] entry."<sup>353</sup> At trial, Bazaarvoice tried to recharacterize its statement, claiming it was

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<sup>350</sup>See Daniel Lazaroff, *Entry Barriers and Contemporary Antitrust Litigation*, 7 U.C. DAVIS BUS. L.J. 1 (2006).

<sup>351</sup>*Verizon Commc'ns Inc. v. L. Offs. of Curtis V. Trinko, LLP*, 540 U.S. 398, 415, n. 4 (2004).

<sup>352</sup>Complaint, In the Matter of CDK Global Inc. Auto/mate, Inc., Docket No. 9382 (March 19, 2019) (available at <https://www.ftc.gov/enforcement/cases-proceedings/171-0156/cdk-global-automate-matter>).

<sup>353</sup>*United States v. Bazaarvoice, Inc.*, Case No. 13-cv-00133-WHO, 2014 WL 203966, at \*50 (N.D. Cal. Jan. 8, 2014).

really only talking about its competitive advantages, and any economic barriers to rivals were minimal. The court disagreed, stating "[m]uch of what Bazaarvoice refers to now as its 'competitive strengths' it used to call, accurately, significant barriers to entry."<sup>354</sup>

Still, competition officials have often found that the aggregation of greater amounts of data through merger or acquisition actually increases competition. For example, in the DOJ's investigation of the merger of Microsoft and Yahoo!, the DOJ decided not to challenge the companies' agreement to combine their back-end search and paid search advertising technology. The DOJ concluded the transaction would actually "enhance Microsoft's competitive performance because it will have access to a larger set of [search] queries, which should accelerate the automated learning of Microsoft's search and paid search algorithms."<sup>355</sup> The transaction would thereby create a more viable competitive alternative to Google.

Data-related efficiencies also played a role in the DOJ's clearance of eBay's acquisition of PayPal. The merging companies both provided person-to-person payment systems used to complete transactions in connection with eBay auctions. In the Commentary on the Horizontal Merger Guidelines, the DOJ explained that it had cleared the acquisition because "integrating the two companies "would make transactions more convenient for eBay buyers and also improve the detection of fraud by combining the information that had been separately amassed by the two companies."<sup>356</sup>

A third example is provided by the U.S. District Court's decision to dismiss the DOJ's challenge of the vertical merger between AT&T and Time Warner. The court highlighted the efficiencies that data would create for the parties, stating that the data possessed by the parties individually would create synergies post-merger that would allow the combined company to better compete with innovative rivals, such as the subscription-based video programming services Netflix and Hulu.<sup>357</sup>

These examples suggest that while the aggregation of data following a merger or acquisition can pose enough of an entry barrier to warrant blocking the transaction, such a finding is dependent on the

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<sup>354</sup>*Id.* at \*3.

<sup>355</sup>Press Release, Dep't of Justice Antitrust Div., Statement of the Department of Justice Antitrust Division on Its Decision to Close Its Investigation of the Internet Search and Paid Search Advertising Agreement Between Microsoft Corporation and Yahoo! Inc. (Feb. 18, 2010), <https://www.justice.gov/opa/pr/statement-department-justice-antitrust-division-its-decision-close-its-investigation-internet>.

<sup>356</sup>U.S. Dep't of Justice & Fed. Trade Comm'n, Commentary on the Horizontal Merger Guidelines (2006) at 55 (*available at* <https://www.justice.gov/atr/file/801216>).

<sup>357</sup>*United States v. AT&T Inc.*, 310 F. Supp. 3d 161, 182-83 (D.D.C. 2018).

specific circumstances of each transaction and that competition officials should conduct a careful analysis in each case. Competition officials should be particularly vigilant for data-related entry barriers in the burgeoning digital age, but concerns about foreclosure risks following a merger or acquisition must always be weighed against efficiency benefits.

## X. CONCLUSION

Google, and the few firms comparable to it, possess an unfathomable degree of market power. On the path towards achieving this power, such firms have spurred leaps in innovation and technology none of us, even Page and Brin themselves, could have imagined possible twenty-five years ago. Whether or not one agrees Google has behaved anticompetitively along its journey to success, it serves as one of the most prominent examples of a firm with market power greater than and distinct from any we have known in American legal history.

The collection of big data is something we must accept will become ever more prevalent in our daily lives. It does not seem so far-fetched to imagine we will reach that point of "singularity" Ray Kurzweil envisioned, when many of us will merge our minds with ultra-advanced AI to transcend the limitations of our own cognitive capacities, allowing data collection to go on continuously and uninterrupted. Big data of such scale can grant to those few firms which can collect, control, and analyze it a competitive advantage that competition officials and courts have yet to distinctly address. Nonetheless, our antitrust laws here in the United States are flexible enough to target the issues surrounding big data without overhaul.

Today the sentiment "big business is always bad business" is one we find reflected day after day on the news or on social media. In some respects, this sentiment holds true. In any attempt to achieve optimal antitrust law for the new data-driven economy, however, we must proceed with a scalpel, not a sword.