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# Interoperability



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## **LETTER FROM THE EDITOR**

Dear Readers,

Interoperability has long been a controversial issue in antitrust law and related regulatory disciplines.

The concept refers, essentially, to the ability for systems controlled by different operators to be compatible, and in particular to share information and function in conjunction with each other.

Interoperability can take many forms. For example, telephone systems operating on the basis of one standard must interoperate with other standards in order to allow cross-network telephone calls. Interoperable file formats allow documents made in one computer program to be opened and edited in a competing program without loss of data. Cross-border rail networks are based on the interoperability of trains due to common rail gauge standards.

It is easy to see why, in principle, these possibilities are pro-consumer and can prevent the abuse of market power by incumbent providers, by facilitating switching and preventing markets from "tipping" permanently in favor of one provider.

As such, interoperability holds an intuitive appeal. However, as networked systems become more complex, it is also clear that mandating interoperability can be a double-edged sword. At times, competition between different standards and systems can produce positive outcomes for all concerned, not least consumers.

Requiring compulsory interoperability between, for example, programs written for different computer operating systems would arguably risk undermining the incentives for the creators of operating systems to innovate unique features and capabilities within those systems. This risk must be balanced against the pro-competitive aspects of interoperability: but this is a delicate calculus that must be based on a detailed case-by-case analysis.

The pieces in this Chronicle address various aspects of this debate as it has developed throughout the history of antitrust and competition rules, and how the principles that have developed over time apply to the dilemmas facing practitioners, regulators and courts in today's increasingly networked environment.

As always, thank you to our panel of authors.

Sincerely,

**CPI** Team

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## **SUMMARIES**



### Interoperability: The Wrong Prescription for Platform Competition

By Jay Ezrielev & Genaro Marquez

In this paper we assess the potential effects of recent proposals to mandate interoperability as a competition remedy for digital platforms. We find that mandating interoperability for digital platforms may harm competition and innovation. Interoperability standards for digital platforms may reduce differentiation and result in fewer functionality options for users. Interoperability may also weaken platforms' incentives to compete through innovation and pricing. Interoperability may discourage Schumpeterian competition and entrench incumbents. The process of establishing interoperability standards may result in excess inertia as well as inferior technology and design choices for standards. The benefits of interoperability for digital platforms may be relatively small when multihoming costs are low and there is a high degree of differentiation across platforms. We urge caution in adopting policies that would mandate interoperability for digital platforms as such policies may do far more harm than good.



## Self-Preferencing and Antitrust: Harmful Solutions for an Improbable Problem

By D. Bruce Hoffman & Garrett D. Shinn

Platforms, including vertically integrated platforms, are ubiquitous — both in the modern economy, and throughout history. While some such firms have managed to capture the popular imagination (and ire), there is good reason to expect self-preferencing by vertically integrated platforms is far more likely to benefit competition than to harm it. While there are limited cases in which self-preferencing could be harmful, existing antitrust laws are more than capable of addressing these situations. Finally, the proposed cures for a largely illusory problem are likely to inflict a great deal of harm, for little apparent gain. Antitrust enforcement involving platform self-preferencing should continue to follow the better course established by the existing legal and economic framework.



### The Unilateral Conduct Gap Sacrificing Interoperability and Innovation

By Susannah P. Torpey & Dillon Kellerman

The Sherman Act and related antitrust jurisprudence have proven flexible and capable of balancing competitive effects of virtually any kind of concerted conduct among two or more conspirators under the rule of reason. The same flexibility, however, is not available to plaintiffs seeking to remedy unilateral conduct — no matter how anticompetitive — except in very limited circumstances. The current U.S. antitrust framework overwhelmingly fails to reach anticompetitive, unilateral conduct by companies growing upwards of seventy percent in any well-defined product market. This unilateral conduct gap severely restricts the ability to protect interoperability and innovation, particularly with respect to complementary products that increase consumer welfare and choice. Congress should seize upon the rare cross-aisle support for modernizing antitrust legislation to create a new rule of reason cause of action to remedy anticompetitive unilateral conduct separate and apart from Section 2 of the Sherman Act.



## Interoperability in Antitrust Law & Competition Policy

By Laura Alexander & Randy Stutz

As the concepts of network effects, tipping, and lock-in have grown in importance with the rise, growth, and current ubiquity of platforms, data analytics, and computer software in the modern economy, competition concerns have followed. Considered through the lens of competition policy generally and antitrust law specifically, interoperability emerges as an indispensable part of the answer to these competition concerns, but one that requires careful implementation to navigate the inevitable frictions with intellectual property, privacy, and other doctrines that rub up against antitrust and competition policy. To the extent courts, regulators, and policymakers contemplate interoperability as a cure for network effects and other market failures, they will need to think carefully about how to strike the balance between sacrificing privacy and mandating interoperability, using the right combination of antitrust and regulation.

## **SUMMARIES**



### **Big Data Protection: Big Problem?**

By Stephen Dnes

Considerable debate exists as to the interaction of antitrust and privacy law. This nuanced debate encompasses many difficult questions: when is there a strong consumer preference for privacy, and when is there not? Under what circumstances do consumers happily trade data for service access? In an online world characterized by large platforms, is data collection a feature or a bug, and are the terms competitive? Can consumers and publishers internalize possible externalities from data use, or are there incentives for data processors to generate external costs? All these questions have profound implications for interoperability, because they affect how much use can be made of data across systems: the stronger the data protection right, the weaker the prospects of interoperability. The purpose of this article is to note significant moves in recent months towards a more consumer-centric approach to answering these questions. There is a prospect of using a well-known competition law device - the consumer welfare standard - to unite competition and privacy analyses, placing the consumer interest at the heart of the answers to these crucial questions.



## How Self-Preferencing Can Violate Section 2 of the Sherman Act

By Daniel A. Hanley

Self-preferencing occurs when a firm unfairly modifies its operations to privilege its own, another firm's, or a set of firms' products or services. Extensive domestic and international investigations have confirmed that dominant technology corporations, like Google and Facebook, use self-preferencing to acquire, maintain, and entrench their dominant market position. This article will explain how self-preferencing can violate Section 2 of the Sherman Act. Part 2 of the article will discuss how Congress intended and designed the Sherman Act to prohibit unfair competition. Part 3 will detail the harmful and exclusionary effects of self-preferencing. Part 4 will explain how self-preferencing can violate Section 2 of the Sherman Act by analyzing the statute's current legal framework, as determined by the Supreme Court, and the statute's application to historical monopolization cases.



### Interoperability as a Lens onto Regulatory Paradigms

By Chris Riley & James Vasile

As the world increasingly considers antitrust as a tool for governing and shaping large internet companies, we ask whether traditional antitrust analysis and remedies are well-suited to current regulatory challenges. We examine interoperability as a potential remedy, suggesting that a proper understanding of its objective and outcome is greater diversity of user experience and an increase in user agency rather than direct improvements in more traditional price or access metrics. Regulating interoperability from that perspective will involve practical challenges in balancing effectiveness with clarity of obligation. As a result, new models of co-regulatory governance including extensive engagement from all stakeholders should be explored.



### Invigorating Competition in Social Networking: An Interoperability Remedy That Addresses Data Network Effects and Privacy Concerns

By Cristian Santesteban & Shayne Longpre

The persistent dominance of Facebook has led many scholars and policymakers to generate proposals to invigorate competition in social networking. In this piece we address a remedy that has received renewed attention: interoperability. Prior proposals of interoperability have focused on eroding entry barriers that exist due to user-based network effects. We focus here on data-generated network effects: the more data Facebook acquires from its users, the more its Al algorithms can learn and improve the content Facebook provides its users. Without access to a rich stream of user data, a social network is merely a static interface, with limited capacity to serve engaging or personalized content. As such, we propose a version of interoperability that addresses both user and data-driven network effects. In doing so, we also explicitly tackle the privacy issues that invariably arise whenever data is shared across firms.

## WHAT'S NEXT?

For July 2021, we will feature Chronicles focused on issues related to (1) Foreign Direct Investments; and (2) The New Madison Approach.

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## INTEROPERABILITY: THE WRONG PRESCRIPTION FOR PLATFORM COMPETITION

## BY JAY EZRIELEV & GENARO MARQUEZ<sup>1</sup>



1 Jay Ezrielev is the Managing Principal at Elevecon and former economic advisor to FTC Chairman Joseph Simons. Genaro Marquez is Vice President at Elevecon. We are grateful to Yair Eilat for his comments.

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## I. INTRODUCTION

Interoperability is the ability of different systems to work together by exchanging information.<sup>2</sup> Recently, there have been a number of calls for mandating interoperability as a competition remedy for digital platforms.<sup>3</sup> For example, the recent House of Representatives Judiciary Committee's Subcommittee on Antitrust, Commercial, and Administrative Law majority staff report stated that, "in the absence of pro-competitive policies like interoperability, it is also possible that enforcement alone may provide incomplete relief [from deficient digital markets competition] due to future market tipping.<sup>4</sup> Kades and Scott Morton likewise call for mandating interoperability as a remedy for digital platform competition. They argue that "interoperability breaks the power of network effects" where "the network effects would no longer be firm-specific but apply at the market level," thus reducing the importance of size as an advantage for digital platforms.<sup>5</sup>

In this article, we put aside the question of whether there is any need to remedy digital platform competition and focus instead on the competition effects of interoperability. It is important to acknowledge at the outset that interoperability can be very beneficial. Interoperability is what allows different applications to communicate over the Internet. It is what enables users of different applications to share photos, videos, and documents and what allows iPhones to communicate with Android smartphones.

But not all interoperability effects are benign. There are costs as well as benefits to interoperability. The balance between the benefits and costs of interoperability varies across markets, technologies, and business models. Interoperability may lead to higher reliability risks, security breaches, and loss of privacy.<sup>6</sup> The benefits of interoperability may be small when the costs of multihoming (using multiple platforms) are low and there is a high degree of differentiation across platforms. Moreover, as we discuss in this article, interoperability may reduce competition and innovation for digital platforms.

There are several ways in which mandatory interoperability may reduce competition and innovation. An interoperability mandate would force competing digital platforms to agree to common functionality standards, eliminating some aspects of competition and limiting differentiation. Interoperability may also weaken platforms' incentives to compete through innovation and pricing. In addition, interoperability may hinder Schumpeterian competition and entrench incumbents. Establishing interoperability standards would entail a complex process that risks introducing delays in adopting the latest technological advancements and may lead to inferior technological and design choices. The proponents of interoperability argue that interoperability lowers entry barriers and mitigates the negative effects of "tipping" (or capturing the market).<sup>7</sup> A major flaw in this argument is that it rests on the assumption that digital platform markets are particularly prone to tipping. However, these markets are unlikely to tip because, for many types of digital platforms, the costs of multihoming are low, users have heterogeneous preferences, and platforms offer differentiated services. There is also no evidence of widespread tipping among digital platforms.

Overall, we urge caution in requiring interoperability for digital platforms, which may do far more harm than good.

4 See Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, Investigation of Competition in the Digital Marketplace: Majority Staff Report and Recommendations, 116<sup>th</sup> Cong., 2d sess., 2020, HR Rep. 385 [hereafter House Report].

<sup>2</sup> Interoperability should be distinguished from data portability, which is the ability to transfer data between systems or applications.

<sup>3</sup> See Michael Kades & Fiona Scott Morton, "Interoperability as a Competition Remedy for Digital Networks," *Washington Center for Equitable Growth*, Sept. 2020, https://eq-uitablegrowth.org/wp-content/uploads/2020/09/092320-WP-Interoperability-as-a-competition-remedy-for-digital-networks-Kades-and-Scott-Morton.pdf; Becky Chao & Russ Schulman, "Promoting Platform Interoperability," *New America*, May 13, 2020, https://www.newamerica.org/oti/reports/promoting-platform-interoperability; Chris Riley, "A Framework for Forward-Looking Tech Competition Policy," *Mozilla*, Sept. 2019, https://blog.mozilla.org/netpolicy/files/2019/09/Mozilla-Competition-Working-Paper.pdf.

<sup>5</sup> See Kades & Scott Morton, *supra* note 3.

<sup>6</sup> See Urs Gasser, "Interoperability in the Digital Ecosystem," July 6, 2015, https://ssrn.com/abstract=2639210; and Wolfgang Kerber & Heike Schweitzer, "Interoperability in the Digital Economy," *JIPITEC* 8, no. 1 (2017), https://www.jipitec.eu/issues/jipitec-8-1-2017/4531/JIPITEC\_8\_1\_2017\_Kerber\_Schweitzer.pdf.

<sup>7</sup> See House Report, supra note 4, at 383; Kades & Scott Morton, supra note 3, at 7-9.

## **II. MULTIHOMING AND DIFFERENTIATION**

To assess whether interoperability is the right policy for competition, it is important to consider both the benefits and costs of interoperability. The benefits vary across applications. One key determinant of the benefits of interoperability is the cost of multihoming. Interoperability may be particularly valuable when multihoming is expensive. For example, if Android smartphones could not communicate with iPhones, purchasing and carrying both an Android smartphone and an iPhone to be able to reach most users would be costly and inconvenient. Conversely, interoperability may offer users relatively little benefit if it is inexpensive to use different platforms to connect to different sets of users. For many types of digital platforms, users pay no fees or only pay per-use fees. For example, social media platforms normally do not charge user fees. Passengers only pay a per-use fee for ride-share platforms, making it inexpensive to switch platforms from ride to ride.

Interoperability may be relatively unimportant to users when digital platforms offer differentiated services and multihoming is inexpensive. Multihoming is an attractive option for users when platforms offer highly differentiated services because users may not view such platforms as substitutes. For example, users may find it convenient to stay in touch with friends and family on Facebook and use LinkedIn for work. Given the low multihoming costs and a high degree of differentiation for social media platforms, it is not surprising that multihoming is common for these platforms.<sup>8</sup> According to GlobalWebIndex's 2020 social media flagship report, Internet users in the U.S. hold on average of 7.3 social media accounts.<sup>9</sup>

There are many examples of digital platforms where non-interoperability is the norm, including social media, messaging applications, digital marketplaces, online dating websites, teleconferencing systems, ride-share applications, credit cards, restaurant reservation websites, streaming services, job search engines, and classified advertisements. What these platforms have in common are low costs of multihoming and a relatively high degree of differentiation. The absence of interoperability for these digital platforms may reflect user preferences.

### **III. LIMITING THE SCOPE OF DIFFERENTIATION**

Differentiation is an important element of competition. Firms differentiate themselves from competitors through products, services, advertising, quality, and pricing strategies.<sup>10</sup> Differentiation enables firms to gain a competitive advantage in serving specific segments of consumers.<sup>11</sup> Consumers benefit from differentiation by having options that are more targeted to their specific preferences.

Mandatory interoperability for platforms may lead to less differentiation and innovation.<sup>12</sup> There is a tradeoff between standardization and variety.<sup>13</sup> Interoperability standards constrain functionality, which may eliminate some aspects of innovation competition.<sup>14</sup> For example, setting a file size limit for data transfers under an interoperability standard would eliminate competition to provide larger file transfers. Without the constraints of interoperability, platforms have more freedom to develop new functionality and experiment with new ways to serve and attract users.

Messaging systems demonstrate the importance of differentiation and the potential limiting effects of mandated interoperability. Standard texting applications use the SMS (short message service) and MMS (multimedia messaging service) interoperability standards.<sup>15</sup> However, there has also been significant growth in popularity of competing "over-the-top" ("OTT") non-interoperable messaging applications that are not based

10 See Peter R. Dickson & James L Ginter, "Market Segmentation, Product Differentiation, and Marketing Strategy," Journal of Marketing 51, no. 2 (1987).

11 See Harold Hotelling, "Stability in Competition," *The Economic Journal* 39, no. 153 (Mar. 1929): 41-57; and Avinash K. Dixit & Joseph E. Stiglitz, "Monopolistic Competition and Optimum Product Diversity," *American Economic Review* 67, no. 3 (1977): 297–308.

12 See Gasser, supra note 6.

13 See Joseph Farrell & Garth Saloner, "Standardization and Variety," Economic Letters 18, no. 1 (1986): 71–74.

15 See "MMS (Multimedia Messaging Service) – definition," GSMArena, accessed April 29, 2021, https://www.gsmarena.com/glossary.php3?term=mms; and "SMS (Short Messaging Service) – definition," GSMArena, accessed April 29, 2021, https://www.gsmarena.com/glossary.php3?term=sms.

<sup>8</sup> See "Online Platforms and Digital Advertising: Market Study Interim Report," *Competition & Markets Authority*, (2019): 93-94, https://assets.publishing.service.gov.uk/media/5dfa0580ed915d0933009761/Interim\_report.pdf.

<sup>9</sup> See "Social Media Flagship Report", *GlobalWebIndex* (2020): 16, https://www.globalwebindex.com/hubfs/Downloads/Social%20flagship%20report%20Q3%202020%20 -%20GlobalWebIndex.pdf.

<sup>14</sup> See Michael L. Katz & Carl Shapiro, "Systems Competition and Network Effects," *Journal of Economic Perspectives* 8, no. 2 (Spring 1994): 93–115; and Stanley M. Besen & Joseph Farrell, "Choosing How to Compete: Strategies and Tactics in Standardization," *Journal of Economic Perspectives* 8, no. 2 (Spring 1994): 117-131, https://pubs.aeaweb. org/doi/pdfplus/10.1257/jep.8.2.117.

on the SMS and MMS standards.<sup>16</sup> OTT messaging applications include WhatsApp, Facebook Messenger, iMessage, Telegram, Skype, Signal, Google Chat, WeChat, Viber, Slack, Tencent QQ, Line, Snapchat, Discord, and many others. These messaging applications offer a variety of features not supported by the SMS and MMS standards, such as end-to-end encryption and typing indication.<sup>17</sup> Compelling OTT applications to comply with interoperability standards would have likely deterred the development of highly differentiated services that OTT applications currently offer.<sup>18</sup>

The interoperability proposal from Kades and Scott Morton does not prohibit platforms from offering differentiated features to their users but requires the exchange of "basic" information between platforms.<sup>19</sup> Under this proposal, interaction between users on the same platforms would have features not available for cross-platform interactions. The Kades and Scott Morton proposal would only offer a partial interoperability benefit and attenuated network effects across platforms. If multihoming costs are low (as they are for social media platforms), there may be relatively little demand by users for the type of interoperability that Kades and Scott Morton propose. With low multihoming costs, users may prefer to join a platform to engage with others on the same platform at a full level of functionality rather than engaging with others across platforms at a reduced level of functionality.

## **IV. LOSS OF COMPETITION AND INNOVATION**

What makes competition between non-interoperable (or incompatible) platforms particularly intense is the presence of positive network externalities (or network effects). Under positive network externalities, increasing the size of the network makes the network more valuable to all of its users.<sup>20</sup> Incompatible platforms have a strong incentive to compete for users because their network size is a source of competitive advantage.<sup>21</sup> Because of network effects (and strong incentives to increase network size), a platform's optimal strategy may be to charge zero prices or even subsidize usage in order to attract more users.<sup>22</sup> Multi-sided platforms may be able to attract users by subsidizing usage on one side of the platform and earning revenues on the other side of the platform, for example, from advertisers on social media platforms or merchants on credit card platforms.<sup>23</sup>

Interoperability across platforms effectively combines the platforms into a single network, allowing the network effects to apply across all the platforms participating in the standard.<sup>24</sup> However, combining platforms into a single interoperability network may weaken the incentives to compete for users because of the diminished private benefits of increasing network size. Without interoperability, a platform reaps the full benefits of investments to increase its network size. A platform may invest in increasing the size of its network by developing new functionality and services, advertising, and low prices.<sup>25</sup> But with interoperability, the benefits of investment to increase network size accrue partially to other platforms because the platforms share the network. Sharing the benefits of investment with other platforms would lead to free-rider effects and would diminish investment incentives.<sup>26</sup>

18 The Rich Communication Services (RCS") standard extends the functionality of the SMS and MMS standards. However, even though the RCS standard was first proposed in 2007, so far, there has been relatively little adoption of the standard by messaging applications. (See Mike Dano, "Verizon, AT&T, T-Mobile kill RCS plans," *LightReading*, April 13, 2021, https://www.lightreading.com/ossbsscx/verizon-atandt-t-mobile-kill-rcs-plans/d/d-id/768729.

19 See Kades & Scott Morton, *supra* note 3, at 23.

20 See Paul David & Shane Greenstein, "The Economics of Compatibility Standards: An Introduction to the Recent Research," *Economics of Innovation and New Technology* 1 (1990): 3–41; and Katz & Shapiro, *supra* note 14.

21 See Michael Katz & Carl Shapiro, "Product Compatibility Choice in a Market with Technological Progress," *Oxford Economic Papers* 38, issue supp. (November 1986): 146-165.

22 See Katz & Shapiro, *supra* note 14.

23 See Jean-Charles Rochet & Jean Tirole, "Platform Competition in Two-Sided Markets," *Journal of the European Economic Association* 1, no. 4 (June 2003): 990-1029, https://academic.oup.com/jeea/article/1/4/990/2280902.

24 Cross-firm network effects may be attenuated to the extent that interoperability is only partial and if firms may retain features that are outside the scope of the interoperability standard.

25 Platforms increase network size by adding users.

26 See Paul A. Samuelson, "The Theory of Public Expenditure," Review of Economics and Statistics 36, no. 4 (1954): 387–389.

<sup>16</sup> Jürgen Meffert & Niko Mohr, "Overwhelming OTT: Telcos' growth strategy in a digital world," McKinsey & Company, January 27, 2017, https://www.mckinsey.com/industries/ technology-media-and-telecommunications/our-insights/overwhelming-ott-telcos-growth-strategy-in-a-digital-world.

<sup>17</sup> See Zak Doffman, "Why You Should Stop Sending SMS Messages - Even On Apple iMessage," *Forbes*, August 8, 2020, https://www.forbes.com/sites/zakdoffman/2020/08/08/ apple-iphone-ipad-imessage-security-update-sms-rcs-google-whatsapp-encryption/?sh=2ec24135b4d3.

Interoperability transforms the nature of platform competition from between-network to within-network.<sup>27</sup> This transformation from between-network to within-network competition may have adverse effects.<sup>28</sup> For example, under interoperability, social media platforms would still compete for users, but they may have diminished incentives to develop new content-creation tools because the benefits of that investment would partially accrue to other platforms.<sup>29</sup>

## **V. ENTRENCHMENT OF INCUMBENTS**

Interoperability may also entrench incumbents by discouraging Schumpeterian competition.<sup>30</sup> Schumpeterian competition occurs when entrants pursue a strategy of disruptive innovation. A successful disruptive innovation strategy may lead to incumbents' products and services becoming obsolete, thereby inducing the incumbents to exit. Interoperability may impede disruptive innovation because of the constraints that interoperability standards would impose on new functionality. Incumbent firms would likely play a key role in crafting interoperability standards, and in doing so, the incumbents may advocate for standards that may deter entrants from pursuing disruptive innovation.

Interoperability also makes it more difficult for entrants to displace incumbents because interoperability mitigates incumbents' losses.<sup>31</sup> Just as interoperability may benefit entrants by giving them access to incumbents' users, it may likewise benefit incumbents by giving them access to users acquired by entrants, including the defectors not satisfied with the incumbents' products and services. Absent interoperability, defections from an incumbent may doom its survival. But with interoperability, the incumbents may persist despite offering obsolete functionality and inferior services because of the benefit of having access to the users on other platforms.<sup>32</sup> Had MySpace agreed to interoperability with other social media platforms, it might still be a significant social media platform.

The proposal from Kades and Scott Morton would make interoperability mandatory for Facebook but optional for entrants.<sup>33</sup> Under this proposal, entrants pursuing a disruptive innovation strategy may forgo interoperability while others could opt for interoperability to mitigate entry risks. Giving entrants the interoperability option amounts to a subsidy not to pursue a disruptive innovation strategy (to the extent that interoperability is valuable for entrants). The interoperability option may deter some entrants from pursuing disruptive innovation and may instead lead them to pursue the less risky interoperability strategy.

30 See Joseph A. Schumpeter, Capitalism, Socialism and Democracy (New York: Harper & Brothers, 1942).

31 See Katz & Shapiro, supra note 21.

<sup>27</sup> See Besen & Farrell, *supra* note 14.

<sup>28</sup> See Katz & Shapiro, *supra* note 14.

<sup>29</sup> Other platforms would benefit from the investments in better content generation because their users would be able to view the content, and the platforms would be able to earn revenues by showing ads to their users.

<sup>32</sup> See Jae Nahm, "Open Architecture and R&D Incentives," *The Journal of Industrial Economics* 52, no. 4, (December 2004): 547-568; and Michael Katz & Carl Shapiro, "Product Introduction with Network Externalities," *Journal of Industrial Economics* 40, no. 1 (March 1992): 55–84.

<sup>33</sup> Under the Kades and Scott Morton proposal for digital platform interoperability, interoperability would be mandatory for the "dominant" platform but optional all other platforms. See Kades & Scott Morton, *supra* note 3, at 24. ("While participation in the interoperability standard would be mandatory for Facebook, it would be optional for all other platforms.")

## **VI. STANDARD SETTING PROCESS**

In determining whether mandatory interoperability is the right policy for digital platform competition, it is important for policy-makers to consider the costs of the standard setting process and whether the benefits of interoperability for digital platforms justify these costs.<sup>34</sup> Standard setting organizations have the difficult task of building consensus among participants with divergent views and agendas.<sup>35</sup> Negotiations among participants with divergent agendas may lead to delays in reaching agreement.<sup>36</sup> The standard setting process also brings together competitors to participate in joint design decisions, which can create an opportunity for participants to engage in anticompetitive behavior (despite whatever mechanisms that standard setting organizations put in place to prevent such behavior).

Because of the uncertainty of technological progress and the challenges of reaching agreement among participants with divergent views and agendas, in some cases the standard setting process may result in inferior technological and design choices.<sup>37</sup> Interoperability standards may also lead to excess inertia, where standards lag technological and design advancements.<sup>38</sup> Standards may deter innovation and risk-taking because they represent design by consensus.<sup>39</sup> Firms unencumbered by interoperability standards are free to experiment with new features and services, potentially leading to more innovation.

### **VII. ABSENCE OF TIPPING**

Another reason to be cautious about mandatory interoperability as a competition remedy is that the arguments in favor of interoperability as a competition remedy have a faulty premise. The proponents of interoperability argue that the presence of network effects in digital platforms makes the platforms prone to tipping.<sup>40</sup> Under this argument, digital platform competition is "for the market" rather than "in the market," and interoperability, therefore, is necessary to allow "in the market" competition to occur.<sup>41</sup>

However, there are a number of reasons why tipping may not occur in digital platform markets. Markets may not tip when users have heterogeneous preferences and firms offer differentiated products and services.<sup>42</sup> Users' preferences for differentiation may outweigh their preferences for larger networks.<sup>43</sup> Thus, multiple incompatible platforms may survive by providing differentiated products and services that cater to users' specific preferences. Tipping may also not occur if multihoming costs are low. Users may be willing to join smaller networks that provide differentiated services and also use a large network if the cost of using multiple networks is low.<sup>44</sup> Past examples of tipping include the adoption of the VHS standard for videocassette recorders and the QWERTY standard for typewriter keyboards.<sup>45</sup> These cases involve relatively high costs of multihoming (purchase of hardware) and relatively low preferences for variety compared to the strength of network effects. In contrast to these cases, digital platforms tend to have relatively low costs of multihoming (no purchase of hardware), heterogeneous user preferences, and a high degree of differentiation. Based on these attributes, there is no reason to assume that digital platforms would be particularly prone to tipping.

35 See David & Greenstein, *supra* note 20.

36 See Joseph Farrell & Garth Saloner, "Coordination Through Committees and Markets," RAND Journal of Economics 19, no. 2 (1988): 235-252.

37 See Katz & Shapiro, supra note 14.

38 See Joseph Farrell & Garth Saloner, "Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation," *The American Economic Review* 76, no. 5 (December 1986): 940-955; and David & Greenstein, *supra* note 20.

39 See David & Greenstein, *supra* note 20.

40 See House Report, supra note 4, at 383; Kades & Scott Morton, supra note 3, at 7-9.

41 *Id*.

43 *Id*.

45 See Michael A. Cusumano, Yiorgos Mylonadis, & Richard S. Rosenbloom, "Strategic Maneuvering and Mass-Market Dynamics: The Triumph of VHS over Beta," *The Business History Review* 66, no. 1 (Spring, 1992): 51-94; and Paul A. David, "Clio and the Economics of QWERTY," *American Economic Review* 75, no. 2 (May 1985): 332–37.



<sup>34</sup> The type of interoperability that critics propose to remedy platform competition requires interoperability standards. In particular, Kades and Scott Morton argue that a "technical committee overseen by the antitrust enforcer is the most promising option" for solving the implementation challenges of interoperability. (See Kades & Scott Morton, *supra* note 3, at 3.)

<sup>42</sup> See Katz & Shapiro, supra note 14.

<sup>44</sup> Consumers would be willing to join a smaller network if the cost of membership is less than the differentiation benefit of the network. See Bruno Jullien & Wilfried Sand-Zantman, "The Economics of Platforms: A Theory Guide for Competition Policy," *TSE Digital Center Policy Papers series*, no. 1, September 24, 2019, https://ssrn.com/abstract=3502964.

There is also no evidence of widespread tipping among digital platforms. Katz and Shapiro define tipping as the "tendency of one system to pull away from its rivals in popularity once it has gained an initial edge."<sup>46</sup> We do not observe such a tendency among digital platforms at a systematic level. On the contrary, users have numerous platform options in social media, messaging systems, digital marketplaces, online dating, teleconferencing, ride-sharing, credit cards, restaurant reservation services, streaming services, job search engines, and classified advertisements. Many digital platforms are thriving despite being significantly smaller than the largest platform in their category.

The proposals for remedying competition through interoperability focus on social media platforms and on Facebook in particular. However, entry and growth of smaller social media platforms belie the notion of tipping toward Facebook. Note the recent success of TikTok. Also note that Twitter and Snapchat have recently achieved significantly higher growth rates than Facebook (in terms of the average number of daily users), even though both of them are significantly smaller than Facebook. These cases show that platforms can achieve high growth despite being much smaller than the leading platforms, contrary to the notion of tipping. Interoperability is not necessary for achieving meaningful competition among digital platforms. Instead, marketplace evidence suggests that entrants and smaller platforms can achieve success through innovation, risk-taking, differentiation, and high-quality services.



Sources:<sup>47</sup> 2019-2020 Facebook, Twitter, and Snap 10-Ks

## **VIII. CONCLUSION**

We urge caution in adopting policies that would mandate interoperability for digital platforms. Although interoperability can be very beneficial, there are also significant drawbacks in mandating interoperability. In particular, mandated interoperability may reduce competition and hinder innovation. Interoperability standards for digital platforms may lead to less differentiation and less variety of functionality. Rather than enhancing competition, mandated interoperability may hinder Schumpeterian competition and entrench incumbents. The process of establishing interoperability standards may also lead to adverse effects, including excess inertia and inferior technological and design choices for standards. Overall, there is a significant risk that the policy of mandating interoperability for digital platforms may do far more harm than good.

<sup>46</sup> See Katz & Shapiro, *supra* note 14, at 106.

<sup>47</sup> Facebook daily active users do not include users on Instagram, WhatsApp, or other Facebook-owned products. The annual growth for Facebook daily active users is based on the December-to-previous-December change in the average daily active users. The annual growth for Twitter and Snapchat daily active users is based on the fourth-quarterto-previous-fourth-quarter change in the average daily active users.

## SELF-PREFERENCING AND ANTITRUST: HARMFUL SOLUTIONS FOR AN IMPROBABLE PROBLEM



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Over the last few years, antitrust law has surged to an unusually prominent position in popular and political discourse — largely due to a chorus of claims that antitrust enforcement has been overly lax for close to half a century.<sup>2</sup> Some of the loudest complaints target situations where a firm that offers a place for others to sell their products (a "platform") decides that it's going to sell its own products there as well — and sometimes gives its products an advantage.

This practice, frequently called "self-preferencing," is often taken as a self-evident evil in need of a cure. Thus, Senator Elizabeth Warren colorfully used a baseball metaphor to disparage self-preferencing, tweeting that "You can be an umpire, or you can be a player — but you can't be both."<sup>3</sup> Even popular media such as Wired magazine has echoed these sentiments.<sup>4</sup>

But this proposition is more an article of faith than the result of sound economic theory or evidence. In reality, self-preferencing is likely to be beneficial to consumers and competition, or at worst harmless, except in certain particular circumstances. And existing antitrust law is quite capable of appropriately handling those circumstances. Further, the proposed cures for self-preferencing are likely to do more harm than good, as well as being difficult if not impossible to administer coherently.

## I. WHAT IS "SELF-PREFERENCING BY PLATFORMS?" SOMETHING PRETTY NORMAL, AS IT TURNS OUT

For the purposes of this article, we'll use the term self-preferencing to refer to a situation that meets three criteria: when a (1) platform (2) vertically integrates and (3) gives its downstream products an advantage of some kind.

First, what is a platform? A platform is just a firm whose business involves providing a place for other firms to sell their products or services. Instead of a traditional vertical supply chain where a firm purchases inputs from an upstream supplier and transforms them into a product or service to sell to downstream consumers, a platform provides a meeting place for buyers and sellers to transact more or less directly. The platform is not selling products so much as it is selling a means of connection, and it is compensated, usually through rents or commissions, for providing this means of connection.

Some of the companies most closely associated with the modern economy are platforms. For example, Amazon is a platform that connects sellers and buyers for everyday products from books to silverware to televisions. Uber is also a platform, connecting drivers and their cars with individuals who want to go from Point A to Point B. But platforms are not modern inventions. Farmers' markets, flea markets, strip malls and shopping malls are also platforms, connecting merchants with goods to sell with consumers who want a convenient place to find merchants.

3 Senator Elizabeth Warren, Twitter (Apr. 22, 2019), https://twitter.com/ewarren/status/1120484639922110464.

4 See e.g. Wired, *Big Music Needs to Be Broken Up to Save the Industry* (Mar. 16, 2021) ("An expanded monopoly law that includes an explicit ban on self-preferencing could prevent a conglomerate like Liberty Media from using its radio and streaming properties to boost the tours and artists controlled by Live Nation.")



<sup>2</sup> E.g., Senator Amy Klobuchar, Press Release, Senator Klobuchar Introduces Sweeping Bill to Promote Competition and Improve Antitrust Enforcement (Feb. 4, 2021) ("While the United States once had some of the most effective antitrust laws in the world, our economy today faces a massive competition problem. We can no longer sweep this issue under the rug and hope our existing laws are adequate."); Commissioners Rohit Chopra & Rebecca Kelly Slaughter, Joint Dissenting Statement Regarding the Vertical Merger Commentary (Dec. 22, 2020) ("[The Vertical Merger Guidelines and Commentary] reflect the same status quo thinking that has allowed decades of vertical consolidation to go uninvestigated and unchallenged.... We look forward to turning the page on the era of lax oversight and to beginning to investigate, analyze, and enforce the antitrust laws against vertical mergers with vigor."); Lina M. Khan, Amazon's Antitrust Paradox, 126 Yale L.J. 710 (2017) ("This analysis reveals that the current framework in antitrust specifically its equating competition with 'consumer welfare,' typically measured through short-term effects on price and output-fails to capture the architecture of market power in the twenty-first century marketplace."); Small Business Rising, Our Goals, ("America's antimonopoly laws were enacted to safeguard small businesses, farmers, and working people from coercion and exploitation by preventing large corporations from amassing too much power. But beginning in the 1980s, the FTC and DOJ, as well as the courts, reinterpreted these laws. They abandoned concerns about outsized power and instead oriented antitrust enforcement around the idea of maximizing efficiency. Under this framework, enforcers embraced consolidation and adopted a permissive approach to predatory behavior by big corporations."); Robert H. Lande & Sandeep Vaheesan, The Atlantic, Ban All Big Mergers. Period. (Feb. 25, 2021) ("Sadly, that tradition [of aggressive antitrust enforcement] gave way in the 1970s and '80s, as federal judges, the Justice Department's antitrust division, and the Federal Trade Commission all came under the spell of dubious interpretations of history and economic theories strikingly tolerant of mergers and monopolistic practices."). These claims don't necessarily stand up well to careful examination. See e.g. Commissioners Noah Joshua Phillips & Christine S. Wilson, Statement Regarding the Commentary on Vertical Merger Enforcement (Dec. 22, 2020) ("[The history of vertical merger enforcement] reflects evolving antitrust jurisprudence, the steady refinement of economic analysis, and the specific facts of each case at issue. Any proposals for a new approach to vertical merger enforcement, which our colleagues have yet to articulate, would need to take into account and grapple with the law, economics, and the evidence in each case."); Timothy J. Muris & Jonathan E. Nuechterlein, Antitrust in the Internet Era: The Legacy of United States v. A&P, Rev. of Indus. Org. (2019) (describing "the intellectual void at the heart of this populist antitrust movement"); Carl Shapiro, Antitrust in a Time of Populism, Int'I J. of Indus. Org. (2018) ("The danger to effective antitrust enforcement is that today's populist sentiments are fueling a 'big is bad' mentality, leading to policies that will slow economic growth and harm consumers."); Joshua D. Wright, et al., Requiem for a Paradox: The Dubious Rise and Inevitable Fall of Hipster Antitrust, 51 Ariz. St. L.J. 293 (2019) ("We demonstrate that, when evaluated as evidence-based policy proposals, the Hipster Antitrust agenda fails to substantiate its claims and promises."). But that's an issue for another article.

Second, the platforms we're considering may decide to also sell their own products in their platform. So, for example, suppose someone who owns a large tract of land conveniently located near a town hosts a farmers' market there every Saturday, and charges rent to the farmers who sell their produce at her market. Now let's suppose that this market owner also decides to grow some produce of her own, and sell it in her market. This is also called vertical integration — our farmer is both providing the platform and selling on it.

Platform vertical integration is commonplace. When a consumer buys an Amazon Basics product on Amazon.com, this is the result of Amazon's vertical integration. When a consumer downloads the iTunes app from the Apple App Store, this is similarly an instance where a platform makes its own product available on its platform. When a user visits the Group page for Oculus VR on Facebook, this could also be viewed as a form of vertical integration. Such examples generally go unnoticed, in large part because these situations are innocuous, ordinary, and in many cases simply reflect common sense. After all, it's hard to imagine anyone complaining that the farmer we mentioned earlier also has a booth at her own market to sell her peppers and tomatoes alongside those of the other farmers (though, as we'll see shortly, some critics seem to have recently discovered this millennia-old practice, and apparently think it should be illegal).<sup>5</sup>

For our third element, let's take this a step further. Let's suppose that our platform — at least arguably — gives its own products an advantage. So, for example, our market-owning farmer puts her own booth right by the main entrance to her market, or maybe next to the coffee stand or beer tent (depending on the time of day). This practice — a platform owner vertically integrating and giving her own product an advantage on the platform — is "self-preferencing."

## II. WHO'S AFRAID OF SELF-PREFERENCING? SURPRISINGLY, A LOT OF PEOPLE

It might seem that no one should be very surprised, or very alarmed, about the kind of practice we've described. After all, it's probably been going on for as long as humans have been engaging in commerce. But, as we noted at the outset, self-preferencing has become a favorite boogeyman of the chorus of antitrust critics.

The European Commission was early to the assault on self-preferencing:

- In 2017 the Commission levied a 2.42 billion euro fine against Google for allegedly abusing its dominance as a search engine to benefit its comparison shopping service.<sup>6</sup> The Commission first found Google "dominant" in multiple national markets for general online search services, and next found that Google had abused this dominance by giving its own comparison shopping service more favorable positioning and display on its general search results pages than it provided to competing third-party comparison shopping services. The Commission found that this behavior was capable or likely of having an anticompetitive effect because Google's conduct decreased traffic to competing comparison shopping services, which conceivably could have led these competing services to exit the market, reduced their incentives to innovate, or reduced Google's incentive to improve its own product; and because it may have impeded consumer access to the most relevant information.<sup>7</sup> The Commission did not appear to be bothered that these theories of harm depended mostly on speculation about future harms that could not be observed in the market.<sup>8</sup>
- More recently, the European Commission proposed draft legislation on this topic in the form of the Digital Markets Act, which it introduced in December 2020. This Act would define certain platforms as "gatekeepers" based exclusively on their size and impose additional obligations on them for activities on their platform.<sup>9</sup> It would, in essence, treat platforms that achieve a certain level of success as quasi-public utilities.

5 The Wired writer mentioned above also fits into this group.

9 European Commission, Digital Markets Act: Ensuring Fair and Open Digital Markets (Dec. 15, 2020).

<sup>6</sup> European Commission, Press Release, Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service (June 27, 2017); Case AT.39740, Google Search (Shopping) (June 27, 2017). Cleary represented Google in this matter, though Hoffman wasn't at Cleary at the time and Shinn didn't work on the case.

<sup>7</sup> It is worth noting that the Commission's case against Google was brought under Article 102 of the Treaty on the Functioning of the European Union, which prohibits abuse of a dominant position. The closest corollary in the United States, Section 2 of the Sherman Act, prohibits similar conduct only if it has the effect of creating or maintaining a monopoly. *See Verizon Comms. Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004) (rejecting "monopoly leveraging" as a theory of illegality when the standard requirements of Section 2 are not met). *See also In re Google Digital Advertising Antitrust Litigation*, No. 5:20-cv-003556-BLF, ECF No. 143 (N.D. Cal. May 13, 2021) (dismissing Section 2 claim against Google where plaintiff failed to plead anticompetitive conduct in addition to anticompetitive effects). We'll return to this point later.

<sup>8</sup> E.g. Case AT.39740, *Google Search (Shopping)*, para. 602 ("In the first place, the Commission is not required to prove that the Conduct has the actual effect of leading certain competing comparison shopping services to cease offering their services. Rather, it is sufficient for the Commission to demonstrate that the Conduct is capable of having, or likely to have, such an effect.")

The U.S., while not originally on board with the attack on self-preferencing, now seems determined to make up for lost time:

- In December 2020, a coalition of states led by Texas sued Google over the way in which Google uses its position operating an auction-based advertising exchange to discriminate against rivals. Texas and its co-plaintiffs channel Senator Warren in saying that Google's model was operating as "pitcher, batter, and umpire, all at the same time."<sup>10</sup>
- The U.S. House Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary held seven hearings and published a 400-plus page majority staff report on Competition in Digital Markets.<sup>11</sup> One of the key targets of the report was the extent to which large digital platforms supposedly use their power as platforms to benefit other aspects of their operations. The Committee included as recommendations "reduce conflicts of interest through structural separations and line of business restrictions" and "implement rules to prevent discrimination, favoritism, and self-preferencing."
- Senator Klobuchar has introduced a bill that would dramatically impact antitrust enforcement.<sup>12</sup> While much of the bill is focused on mergers, it would also define a new antitrust violation for conduct that "materially disadvantages 1 or more actual or potential competitors." The legislation specifically states that it would not be a defense for a platform to take an action that benefits one category of platform users if it presents an appreciable risk of harming a second category of platform users.
- The House Judiciary Subcommittee on Antitrust, Commercial, and Administrative Law has begun to hold hearings "to consider legislative proposals to address the rise and abuse of market power online and to modernize the antitrust laws."<sup>13</sup> The first hearing focused on "proposals to address gatekeeper power."

This political and popular attention is not aimed solely at self-preferencing. Broader efforts to prohibit platforms from vertically integrating, and to break up those that have, are also underway.<sup>14</sup>

## III. WHAT'S SO BAD ABOUT SELF-PREFERENCING? AS IT TURNS OUT, NOT MUCH

So we see that modern political and popular discourse treats self-preferencing as nearly a *per se* evil. But, is there any reason to think that is right? Consider the example of that most quotidian of platforms: the shopping mall.<sup>15</sup>

A shopping mall is a platform. Its value is as a gathering place for stores on the one hand and shoppers on the other. It is compensated for this role by rent collected from its tenants. Let's suppose that a particular mall decides to open its own pretzel store in its food court.

A question we should ask right off the bat is: why would the mall open its own pretzel store? Is it likely due to some nefarious motive — some secret desire, say, to squelch the businesses of the pretzel and other snack stores already inhabiting its food court, and to take their customers — and the money they spend — for itself? The answer is probably not, for a couple of reasons.

First, if the mall owner wants to make more money, opening its own pretzel store is a complicated, expensive, risky, and inefficient way to achieve that goal. It has much better tools at its disposal, such as raising the rent a little, or doing a bit more advertising to drive additional traffic to its mall. Occam's razor thus cuts this explanation off pretty neatly.<sup>16</sup>

<sup>10</sup> See Complaint, Texas et al. v. Google, LLC, ECF 1, (E.D. Tex. Dec. 16, 2020).

<sup>11</sup> See Maj. Staff of H.R. Subcomm. On Antitrust, Commercial and Administrative Law of the Comm. on the Judiciary, 116th Cong., Investigation of Competition in Digital Markets (2020).

<sup>12</sup> See Competition and Antitrust Law Enforcement Reform Act of 2021, S. 225, 117th Cong. (2021).

<sup>13</sup> House Committee on the Judiciary, House Judiciary Antitrust Subcommittee Announces Series of Hearings on Proposals to Curb the Dominance of Online Platforms and Modernize Antitrust Law (Feb. 18, 2021).

<sup>14</sup> See e.g. Competition and Antitrust Law Enforcement Reform Act of 2021, S. 225, 117th Cong. (2021); Senator Elizabeth Warren, *Here's How We Can Break Up Big Tech* (Mar. 8, 2019), https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c.

<sup>15</sup> We're using this commonplace example because the complexity of technology platforms (and the political venom directed at them) tends to obscure the simple economic logic underpinning self-preferencing.

<sup>16</sup> As William of Ockham put it, "pluralitas non est ponenda sine necessitate." A bit more plainly: the simple answer is likely the right one.

Second, and perhaps more importantly, platforms don't really care what items businesses are selling on the platform; a mall has no particular reason to care whether a given store sells pretzels, shoes, or jewelry.<sup>17</sup> Nor do platforms have a strong interest in dictating what particular products customers are buying; again, the mall doesn't really care if you're buying burgers, shirts, or perfume. What platforms want is more businesses successfully selling more stuff to more customers. They care about the mix of those businesses only insofar as that mix is more likely to be attractive to more customers, and — in turn — more attractive to other businesses. The mall wants stores to want to be in its mall, and customers to want to shop there.<sup>18</sup>

What all this means is that (1) because the platform has other, easier ways to make more money than by vertically integrating, and (2) because the platform's motivation is to make both sellers and buyers happier, *the most likely reason a platform would vertically integrate is to make buyers happier.* That will make them more likely to come to the mall, spend more time there, and spend more money in all the stores at the mall. In turn, this will make sellers more likely to want to be in the mall, and able and willing to pay higher rent because of the higher sales they'll make. In more technical antitrust terms, the most likely reason for platform vertical integration is to increase output and consumer (and overall) welfare.

So let's consider our new pretzel store. As we've shown above, the most likely reason for our mall owner to open its own pretzel store is that it perceives a gap in the products and services being offered to consumers in the mall, and thinks it's best able to fill that gap. Perhaps the mall owner noticed a shocking dearth of high-quality pretzels, or has a particularly good pretzel recipe, or has some other reason to think it's in a uniquely good position to provide mall shoppers a really attractive pretzel offering. Whatever the specific reason, when the mall owner vertically integrates, it's probably trying to improve the mall's consumer offering. As a result of our mall opening the pretzel store, hungry shoppers have additional options for food and competition between food court shops increases, which may even lead to lower prices at all stores in the food court. And, shoppers who might otherwise have left the mall to buy food somewhere else now spend a little more time there, shopping at other stores and increasing those merchants' sales.

Of course, the mall owner might get this wrong — the pretzel shop might be low-quality or unpopular, maybe even driving shoppers out of the mall. But if that happens, the mall owner suffers as much as (or more than) the other businesses, because the mall owner's main goal is to have more shoppers spending more time and money in the mall, not fewer shoppers spending less time and money.

But what if the mall owner does more than open its own pretzel shop — what if it "favors" that shop, by, say, not charging itself rent, and so offering lower prices for pretzels than other tenants, or perhaps by putting its shop in a prime location, or surrounding it with the best tables, nicest fountains and seating areas, and so forth? In other words, what inferences should we glean from self-preferencing? The answer turns out to be the same — the most likely reason for self-preferencing is to improve the overall quality of the mall (the platform) to consumers, and thus to increase output and welfare.

It's actually not difficult to understand why self-preferencing is probably good for consumers and competition in most circumstances if we just recall why the platform is likely to vertically integrate in the first place — to increase traffic and sales in the mall. To trace this point through, consider how self-preferencing would play out for our mall owner and pretzel store.

Let's start by considering the possibility that the mall owner actually just wants to hurt the competing pretzel and snack shops, or even drive them out of the mall — could that explain self-preferencing? It should be obvious that the answer is probably not, for a simple reason: the mall owner has much better tools for that purpose. It could, for example, just kick the competing snack stores out of the mall, or raise their rents to unsustainable levels. Making its own pretzel offering particularly compelling for customers is a costly and roundabout way to drive out rivals, if that's what the mall owner really wants to do.

More importantly, consider what will happen if the mall owner's actions hurt other snack stores and the net result — the changes in the other snack stores plus the effect of the addition of the new pretzel store — is bad for customers. In other words, the other snack stores close, or raise prices or cut the quality of their offerings because they're being squeezed on rent, and whatever the mall owner's own pretzel store

<sup>17</sup> This may be a little different if the platform markets itself as specializing in a type of product — for example, a shoe market or jewelry market. In that case, it will probably want a good mix of sellers of the type of products it's using for its marketing. But our overall point holds in such cases too.

<sup>18</sup> More technically, the platform owner benefits by maximizing transactions on its platform. Thus, it wants to maximize indirect network effects operating on both sides of the platform. See e.g. Geoffrey G. Parker & Marshall W. Van Alstyne, *Two-Sided Network Effects: A Theory of Information Product Design*, 51 Management Science 1494 (2005). The platform's incentive is to fuel those network effects by increasing its attractiveness to users on both sides, particularly on the side where the indirect network effects are weaker. *Id.* (demonstrating that under some conditions indirect market effects may lead a profit-maximizing platform to subsidize or even give away for free a product sold on its platform); Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. Econ. Perspectives 93 (1994) (arguing that network ownership (such as occurs with platforms) allows internalization of the benefits of indirect network effects, leading to increased investment by the owner in the network and to overall welfare gains).

offers isn't good enough to outweigh the negative effects of the degradation of the other snack stores. So now there are long lines at the pretzel store, and shoppers are upset because they don't have the options they appreciated before. If that happens, the mall will become less attractive to shoppers. Some won't come, some will leave sooner, and in total, they'll spend less. As shopper spending declines, the mall becomes less attractive to merchants; some close, or cut quality, or reduce hours, and total sales fall, which in turn makes the mall even less attractive to shoppers, and so on.<sup>19</sup> And as all of this happens, the mall owner gets less rent and is worse off, which plainly wasn't its goal.

So if the mall owner doesn't want to hurt rival snack shops by setting up and favoring its pretzel store, what is it trying to do? The answer is obvious — the most likely reason for a mall to do this is because it thinks the net result of its actions will benefit shoppers and make the mall more attractive (both to shoppers and merchants). In other words, our little thought experiment demonstrates that *the most likely explanation for platform self-preferencing is procompetitive*, benefiting both buyers and sellers on the platform and increasing overall output.

The mall example may seem quaint in a world of multibillion-dollar digital platforms, but the principles it illuminates are no less applicable to those platforms than to shopping malls or farmers' markets. Self-preferencing should generally be expected to be efficient and pro-competitive. This is because a platform is agnostic to its source of revenue. Its primary interest is in maximizing traffic on the platform to drive revenue, and it will not likely take actions that endanger this interest. Because the platform's highest interest is in maximizing traffic, the platform's interests are a good proxy for consumer interests and welfare. The conclusion then is that if a platform vertically integrates, it is because it expects that it can improve its platform by doing so. If a platform self-preferences, it is because it expects that consumers will be well-served as a result.

One underlying premise of this argument that deserves further reinforcement is that it is important to define what one means when one refers to anticompetitive conduct or outcome. "Unfairness" is not anticompetitive. To adopt a truism of U.S. antitrust law, the antitrust laws protect competition, not competitors. While baseball has proven an irresistible metaphor for some commentators, the metaphor is fundamentally flawed. The economy is not a sport or a schoolyard, and behavior that may be perceived as unfair by a competitor — for example, lowering prices when the competitor would have preferred market-wide prices to stay high — is often the pinnacle of pro-competitive behavior.<sup>20</sup> Rather, an "anticompetitive" outcome means that one of several possibilities is occurring in the market: overall, prices are rising, output is falling, or innovation or quality is decreasing.<sup>21</sup> Behavior that harms competitors but doesn't harm consumers or the competitive market is by definition not anticompetitive.

### **IV. BUT SHOULD WE WORRY ABOUT A MALL MONOPOLIST?**

Well, the reader may be thinking, that's all well and good for shopping malls, which face lots of competition. But what if the self-preferencing platform is a monopolist? It turns out, though, that the basic intuition we describe above should generally hold even where the platform has market or monopoly power. This is the case for two reasons.

First, if the platform's vertical integration and self-preferencing is actually bad for consumers, the result is simply that the monopoly platform makes more profit in the short run, but undermines its monopoly in the long run. The effects are no different than a monopolist charging a monopoly price (using our mall example, raising rents sky-high because no other malls are around); the monopolist makes more in the short run, but at the expense of the longevity of its monopoly.<sup>22</sup>



<sup>19</sup> Due to indirect network effects, declines on both sides of the market could accelerate due to a negative feedback loop. E.g. Catherine Tucker, *Network Effects and Market Power: What Have We Learned in the Last Decade?*, Antitrust (2018) (arguing that network effects may lead to market power that is more unstable and prone to reversal than traditionally thought). This danger strengthens platform owners' incentives to avoid degrading the platform for either side of a two-sided market; platforms don't want to trigger this potential downward spiral. It's important to note that this does not mean that a platform can never raise price to one side or the other — but it suggests that a price increase to one side of the market that holds without degrading the overall platform probably reflects an increase in the platform's quality with corresponding benefits to those paying the higher price (likely in the form of increased activity on the other side of the platform).

<sup>20</sup> Indeed, it is perhaps noteworthy in this context that a cartel member — the quintessential antitrust law-breaker — that does *not* go along with the anticompetitive actions of the cartel is referred to as "cheating."

<sup>21</sup> Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application, ¶ 114 ("The overall goal is markets that maximize output, whether measured by quantity or quality.").

<sup>22</sup> E.g. *Alaska Airlines, Inc. v. United Airlines, Inc.*, 948 F.2d 536, 549 (9th Cir. 1991) ("Every act exploiting monopoly power to the disadvantage of the monopoly's customers hastens the monopoly's end by making the potential competition more attractive."). In our mall example, the overcharged merchants will eventually find another way to reach customers, such as opening standalone stores, creating outdoor semi-malls, going back downtown, or using the internet. Or, an enterprising firm will open a new mall.

Second, in the U.S. at least, it's not illegal for a monopolist to reap the rewards of its monopoly, because those rewards help drive innovation and competition.<sup>23</sup> Section 2 of the Sherman Act doesn't prohibit monopolies; it assumes that a competitive economy can result in monopolies, because some competitor might just do things better than all of its rivals.<sup>24</sup> Rather, Section 2 prohibits anticompetitive conduct — conduct that harms the competitive process — that results in a monopoly.<sup>25</sup> As the Supreme Court has explained, even so-called monopoly leveraging (using a monopoly in one market to gain an advantage in another) does not violate the antitrust laws so long as this leveraging does not create or maintain monopoly power in a second market.<sup>26</sup> Antitrust law isn't price regulation.

## V. IS PLATFORM SELF-PREFERENCING EVER A PROBLEM? SOMETIMES, YES — BUT WE CAN DEAL WITH THAT

By this point, it might seem that platform self-preferencing can never be a problem, and should be *per se* legal under the antitrust laws. But that's not correct. There are at least two scenarios under which platform self-preferencing could harm competition and consumers, and should therefore be subject to enforcement. Both, however, require specific, unusual facts. And both can be readily dealt with under existing antitrust law.

First, a platform with an existing monopoly in the platform market may anticompetitively maintain its monopoly by identifying and eliminating nascent threats *to that monopoly*. Vertical integration with self-preferencing can be one tool in the monopolist's anticompetitive kit, if the monopolist sees a service offered on its platform as a nascent threat of this kind. But note that this requires that the vertical offering — the snack shops, in our mall example — has to threaten the platform monopoly — the mall, in our example. That fact pattern isn't likely to be common, though it does occur from time to time.

The classic example of this form of monopoly maintenance by a self-preferencing platform is the United States' turn-of-the-century case against Microsoft. In *United States v. Microsoft*, the government challenged a variety of Microsoft business and licensing practices related to its Windows operating system and Internet Explorer Internet browser.<sup>27</sup> The District Court, upheld by the D.C. Circuit, agreed with the government that Microsoft's behavior constituted illegal monopolization.

At the time of the *Microsoft* case, Microsoft's Windows operating system had greater than 95 percent share of the operating system market. But so-called "middleware" products like the Netscape Navigator browser threatened Microsoft's position by providing an alternative way for computer programmers and users to accomplish the same functions that they relied on Windows to perform. As the court explained, "a middleware product written for Windows could take over some or all of Windows's valuable platform functions — that is, developers might begin to rely upon APIs exposed by the middleware for basic routines rather than relying upon the API set included in Windows. If middleware were written for multiple operating systems, its impact could be even greater." If this occurred, "a consumer could have access to the applications he desired — regardless of the operating system he uses — simply by installing a particular browser on his computer, then he would no longer feel compelled to select Windows in order to have access to those applications; he could select an operating system other than Windows based solely upon its quality and price. In other words, the market for operating systems would be competitive."

To combat this threat, Microsoft took steps to promote its own Internet browser at the expense of Netscape Navigator. In particular, Microsoft designed its product such that Explorer came pre-installed with Windows and could not easily be removed, and it imposed licensing restrictions on computer OEMs meant to give Explorer an advantage over Navigator or other browsers. The court found that such actions had exclusionary effects, were not justified by any procompetitive rationale, served to maintain Microsoft's monopoly in the operating system market, and were thus illegal.

<sup>23</sup> Verizon Comms. Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004) ("The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system.").

<sup>24</sup> United States v. Grinnell Corp., 384 U.S. 563, 570–71, (1966) ("The offense of monopoly under s 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.").

<sup>25</sup> See e.g. In re Google Digital Advertising Antitrust Litigation, No. 5:20-cv-003556-BLF, ECF No. 143 (N.D. Cal. May 13, 2021) (dismissing complaint for failure to allege anticompetitive conduct, and noting that even a monopolist generally does not have a duty to aid competitors).

<sup>26</sup> Verizon Comms. Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004).

<sup>27</sup> United States v. Microsoft, 253 F.3d 34 (D.C. Cir. 2001).

The second set of circumstances under which self-preferencing could be subject to antitrust enforcement is where a platform is using self-preferencing to monopolize a downstream market. To go back to our mall, imagine that the mall owner thinks, for whatever reason, that by vertically integrating into pretzels and favoring its own pretzel shop, it could monopolize the downstream pretzel market — not just in its mall, but more broadly, in a well-defined antitrust market. That could violate Section 2 (though how often such downstream monopolization is actually plausible is an open question). Once again, though, an attempt by a platform monopolist to use self-preferencing to monopolize a downstream market is squarely in the wheelhouse of current antitrust law; no radical legal changes are necessary to address this problem if and when it arises.

One last point on this issue bears mentioning, though: self-preferencing where the monopolist makes its own product better, as opposed to degrading its rivals' products, is unlikely to constitute anticompetitive conduct.<sup>28</sup> Monopolists don't have to compete with one hand tied behind their backs.<sup>29</sup> If their monopoly has put them in a position to offer a particularly good product to consumers, that should be celebrated, not condemned. However, a monopolist that self-preferences by degrading or harming its rivals' products could face enforcement under Section 2 (if the other conditions we describe are satisfied).

Thus, while self-preferencing is in most cases likely to be beneficial, there are two situations where it could be anticompetitive. Both situations, however, can be addressed by current law (though both require very specific facts that seem unlikely to arise with great frequency).

### VI. A WORD ABOUT CURES THAT ARE WORSE THAN DISEASES

Medieval doctors often killed their patients with ill-advised treatments.<sup>30</sup> Similarly, there is a serious risk that the current zealotry against self-preferencing will inflict considerable economic damage in an attempt to cure problems that, to the extent they exist, could be remedied by less-drastic measures. To explain the danger, we briefly touch on the practical consequences of some of the remedies being bandied about for self-preferencing.

Some anti-self-preferencing advocates are calling for root-and-branch structural relief, i.e. preventing platforms from self-preferencing by preventing them from vertically integrating in the first place, and carving up platforms that are already integrated.<sup>31</sup> After all, you can't favor your own product if you're not allowed to offer it in the first place. But empirical evidence indicates that vertical integration is generally good — it reduces prices, reduces costs, increases competition, and benefits consumers — and is not usually harmful.<sup>32</sup> And, as we've shown above, this is equally true for platform vertical integration. In fact, because of platforms' incentives and the consequences of multisided indirect network effects, vertical integration by platforms seems particularly likely to be beneficial, and particularly unlikely to be harmful. Indeed, many of the complaints leveled at vertically integrated platforms are, on their face, complaints about practices that benefit consumers by providing better products (though competitors, of course, don't like those products). Broadly prohibiting platform vertical integration to avoid the risk that in some rare cases vertical integration might be anticompetitive would be like amputating your leg to treat a mosquito bite.

29 United States v. Microsoft Corp., 253 F.3d 34, 68 (D.C. Cir. 2001) ("The rare case of price predation aside, the antitrust laws do not condemn even a monopolist for offering its product at an attractive price, and we therefore have no warrant to condemn Microsoft for offering either IE or the IEAK free of charge or even at a negative price. Likewise, as we said above, a monopolist does not violate the Sherman Act simply by developing an attractive product.").

30 Gerry Greenstone, The History of Bloodletting, 52 BC Med. J. 12 (2010).

31 E.g. Senator Elizabeth Warren, *Here's How We Can Break Up Big Tech* (Mar. 8, 2019), https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e-0da324c; Senator Josh Hawley, Press Release, *Senator Hawley Introduces the Bust Up Big Tech Act* (Apr. 19, 2021).

32 E.g. U.S. Dep't of Justice and Fed. Trade Comm'n, *Vertical Merger Guidelines* ("Vertical mergers combine complementary economic functions and eliminate contracting frictions, and therefore have the capacity to create a range of potentially cognizable efficiencies that benefit competition and consumers."); Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. of Econ. Lit. 629 (2007) ("[The weight of the evidence] says that, under most circumstances, profit-maximizing vertical-integration and merger decisions are efficient, not just from the firms' but also from the consumers' points of view."); Joshua D. Wright, Douglas H. Ginsburg, Tad Lipsky, & John M. Yun, *Connecting Vertical Merger Guidelines to Sound Economics*, Truth on the Market Blog (Feb. 6, 2020), https://truthonthemarket.com/2020/02/06/wright-vmg-symposium/ ("With few exceptions, the literature does not support the view that [vertical mergers] are used for anticompetitive reasons. . . . [T]he empirical reality [is] that vertical relationships are generally procompetitive or neutral."); D. Bruce Hoffman, Director, FTC Bureau of Competition, *Vertical Merger Enforcement at the FTC*, Remarks as Prepared for Delivery at Credit Suisse 2018 Washington Perspectives Conference (Jan. 10, 2018), available at https://www.ftc.gov/system/files/documents/public\_statements/1304213/ hoffman\_vertical\_merger\_speech\_final.pdf ("Moreover, while efficiencies are often important in horizontal mergers, they are much more intrinsic to a vertical transaction due to the cost-reducing effects of most vertical mergers, at least in the abstract. Due to the elimination of double-marginalization and the resulting downward pressure on prices, vertical mergers come with a more built-in likelihood of improving competition than horizontal mergers."); Jon Sallet, Deputy Assistant Attorney General For Litigation, Antitrust Division, U.S. Department of Justice, *The Interesting Case of the Vertical Merger*, Remarks as Prepared for Deli





<sup>28</sup> As the Supreme Court explained in a related context, "Cutting prices in order to increase business often is the very essence of competition. Thus, mistaken inferences in cases such as this one are especially costly, because they chill the very conduct the antitrust laws are designed to protect." *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986).

Some commentators suggest that rather than prohibiting platform vertical integration, platforms — or some platforms — should be barred from self-preferencing.<sup>33</sup> That's certainly better than barring vertical integration outright. But prohibiting self-preferencing is also easier said than done in any coherent and administrable way, and would likely result in harming consumers and competition for little or no gain.

To illustrate, let's return to the mall and the pretzel shop. Should the mall owner be prohibited from putting its pretzel shop in a high-traffic location — even though shoppers would be delighted to have the shop there? Or precluded from improving the lighting, or the seating areas, around the pretzel shop? What if the mall owner happens to learn, by looking at shopping and traffic data, that a particular corner of the mall — one that no store has shown interest in — happens to be highly-trafficked by customers who are particularly likely to want pretzels. Should the mall owner be prohibited from using this information to get those customers the pretzels they want? Or, suppose the mall owner happens to have invented a uniquely good pretzel-frying technique — would using that technique be illegal? Is even not charging itself rent illegal self-preferencing?

One response to this quandary might be to try to prohibit self-preferencing that degrades rivals, rather than self-preferencing that improves the platform's own product. That's clearly a better starting point. But, once again it turns out to be difficult to define in practice — and it creates a high risk of opportunistic behavior.

If, for example, the mall owner launches a series of renovations, snack stores could complain if their area gets a face-lift later than the spaces around the pretzel store, because they're being put at a relative disadvantage. But they could just as readily complain if their area gets renovated first, because the dust and disruption from the construction could drive shoppers away from their stores — and maybe some of those shoppers would end up at the pretzel shop. Ultimately, a prohibition of this nature would become a "Swiss Army knife" tool store owners could use to extract costly concessions from the mall without any connection to true competitive issues. And the ever-present threat of legal sanctions for routine business activities could have a chilling effect on the mall, deterring it from making sensible choices or eventually forcing it to give up on the pretzel shop — even if doing so hurts customers.

There are other problems as well. For one, how should enforcers decide which platforms should be subjected to remedies? Clearly, prohibiting all platforms from self-preferencing would be absurd, impossible to enforce, and a massive government overreach that would no doubt spark an equally massive backlash; our farmer should be able to put her vegetable stand by her market's entrance without worrying that antitrust enforcers will descend on her, brandishing subpoenas and dense economic treatises, early one Saturday morning.

But drawing finer lines isn't much more promising. For starters, using *ad hoc* or arbitrary classifications — such as the type of business involved, or the size of the platform in transaction value<sup>34</sup> — has no apparent relationship to competitive harm. Such capricious line-drawing would likely lack a rational basis, and certainly would be unlikely to advance any legitimate economic end.

Some proposals suggest using market power as a yardstick, a measure that at least finds its foundation in antitrust law principles.<sup>35</sup> But despite its appeal, that proposal fares little better. Platforms are ubiquitous, and because "market power" can often be creatively defined,<sup>36</sup> limiting enforcement to platforms with market power is a fairly hollow safeguard. For example, if a mall has numerous local retail competitors, but the next closest mall is two towns over, does it have market power? Is the market for retail, or malls? Thinking back to our farmer — does she have market power because she owns a piece of land that's convenient to a particular town? Disgruntled or opportunistic competitors will have a strong incentive to push the boundaries of any rule to gain leverage and extract rents from platforms — but that's not likely a procompetitive result.<sup>37</sup>

33 E.g. Fiona Scott Morton, et al., *Report of the Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee*, George J. Stigler Center for the Study of the Economy and the State (July 1, 2019), at 97 (noting that while divestiture may be "the clear and simple remedy" for self-preferencing, because of the costs associated with this drastic approach, "a behavioral non-discrimination remedy might be more appropriate.").

34 See e.g. Bust Up Big Tech Act, S. 1204, 117th Cong. (2021) (covering platforms with at least 30 million U.S. users or 300 million worldwide users and at least \$1.5 billion in worldwide revenue); European Commission, *Digital Markets Act: Ensuring Fair and Open Digital Markets* (Dec. 15, 2020) (covering platforms with at least 6.5 billion euro EEA annual turnover or 65 billion euro market capitalization, and at least 45 million monthly EU users or 10,000 yearly EU business users); Mark MacCarthy, *To Regulate Digital Platforms, Focus on Specific Business Sectors*, Brookings Institution (Oct. 22, 2019) (proposing that regulators focus on social media over other types of platforms).

35 E.g. Library of Congress, *Germany: New Digital Competition Act Expands Abilities of Competition Authorities to Regulate Abuse of Dominant Market Positions* (Feb. 23, 2021) (describing the German Digital Competition Act, which imposes heightened regulation on digital platforms with a market share of at least 40 percent); Gene Kimmelman, *The Right Way to Regulate Digital Platforms*, Shorenstein Center on Media, Politics and Public Policy (Sept. 18, 2019) (proposing regulation for "dominant" platforms).

36 See e.g. U.S. Dep't of Justice and Fed. Trade Comm'n, *Commentary on the Horizontal Merger Guidelines*, at 6 (describing how the FTC defined separate markets for superpremium, premium, and economy ice cream in its assessment of the Nestle/Dreyer's merger).

37 Moreover, while too complex for this article, in vertical arrangements the potential for consumer benefit from market power tends to be isomorphic with the potential for foreclosure. Thus, generalized rules targeting market power in vertical relationships have a high potential for harming consumers and competition.



## **VII. CONCLUSION**

Platforms, including vertically integrated platforms, are ubiquitous — both in the modern economy, and throughout history. While some such firms have managed to capture the popular imagination (and politicians' ire), there is good reason to expect self-preferencing by vertically integrated platforms is more likely to benefit competition than to harm it. Further, existing antitrust laws are more than capable of addressing the limited cases in which self-preferencing could be harmful. Finally, proposed cures that reach beyond current antitrust law are more likely to inflict harm than they are to effectively address any problem that needs a solution. Antitrust enforcement involving platform self-preferencing should continue to follow the course established by the existing legal and economic framework.

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## THE UNILATERAL CONDUCT GAP SACRIFICING INTEROPERABILITY AND INNOVATION



## BY SUSANNAH P. TORPEY & DILLON KELLERMAN<sup>1</sup>



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## I. INTRODUCTION

The recent focus on anticompetitive conduct in digital markets has exposed a fundamental limitation of U.S. antitrust legislation and jurisprudence: How do we rein in anticompetitive, unilateral conduct in emerging and adjacent markets by entities that may be dominant players in related markets, but might not have a monopoly share in the complementary market restrained by the conduct? The Sherman Act and related antitrust jurisprudence have proven flexible and capable of balancing competitive effects of virtually any kind of concerted conduct among two or more conspirators under the rule of reason.<sup>2</sup> The same flexibility, however, is not available to plaintiffs seeking to remedy unilateral conduct no matter how anticompetitive — except in very limited circumstances typically requiring proof of monopoly power to support a monopolization claim or the specific intent to monopolize and/or a dangerous probability of obtaining monopoly power.<sup>3</sup>

This is because Section 2 of the Sherman Act, which addresses unilateral conduct, is expressly limited to conduct related to monopolization.<sup>4</sup> The inability to reach anticompetitive unilateral conduct untethered to monopolization theories severely restricts the ability to protect innovation, particularly with respect to interoperable products that increase the value or functionality of complementary products. Congress should seize upon the rare cross-aisle support for modernizing antitrust legislation to create a new rule of reason cause of action to remedy anticompetitive unilateral conduct separate and apart from Section 2 of the Sherman Act.

## II. THE CURRENT U.S. ANTITRUST FRAMEWORK RENDERS UNREACHABLE MOST UNILATERAL CONDUCT NO MATTER HOW ANTICOMPETITIVE

Because Section 2 of the Sherman Act is limited to claims relating to monopolization, our antitrust laws necessarily tolerate anticompetitive single-firm conduct perpetrated by companies with less than a monopoly share or counseled well enough to avoid making egregious statements supporting a specific intent to monopolize. If a dominant tech firm, for example, purposefully decides to degrade the interoperability of its products with a competitor's not for any efficiency-enhancing or procompetitive reason, but for the purpose of restraining competition, some cases suggest that, absent other conduct, there may be little that can be done if that company has less than a seventy percent share in that particular product market.<sup>5</sup> In contrast, in the area of concerted practices, antitrust jurisprudence recognizes that real, anticompetitive market effects may be achieved by a firm with market power, as opposed to monopoly power, with a market share hovering just around thirty percent.<sup>6</sup>

This is the unilateral conduct gap that has delivered the digital market dilemma we face today and looms in the background each time an elected official asks how the digital giants became what they are. The current antitrust framework overwhelmingly fails to reach anticompetitive, unilateral conduct by companies growing upwards of seventy percent in any well-defined product market. Even once such a share is reached, some courts faced with well-pled monopolization claims create carve-outs to the generally applicable standards for exclusionary conduct that further restrict antitrust scrutiny of unilateral conduct claims.<sup>7</sup>

4 15 U.S.C. § 2 (prohibiting conduct that "shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize").

7 See infra Section III.

<sup>2</sup> Under the rule of reason, the plaintiff bears the initial burden of proving that the defendant's conduct was anticompetitive, which shifts the burden to the defendant to prove it had a procompetitive justification. Unless the defendant could have achieved the asserted procompetitive benefit with a less restrictive alternative, the court will balance the anticompetitive and procompetitive effects to assess the overall competitive impact on the relevant market. See, e.g. *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2284 (2018); *Cap. Imaging Assocs., P.C. v. Mohawk Valley Med. Assocs., Inc.*, 996 F.2d 537, 543 (2d Cir. 1993).

<sup>3</sup> See, e.g. Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004); Spectrum Sports v. McQuillan, 506 U.S. 447, 459 (1993) (unilateral conduct violates Section 2 "only when it actually monopolizes or dangerously threatens to do so"); AlB Express, Inc. v. FedEx Corp., 358 F. Supp. 2d 239, 246-47 (S.D.N.Y. 2004) (monopoly leveraging requires monopoly power in one market and a dangerous probability of acquiring it in another).

<sup>5</sup> See, e.g. U.S. v. Aluminum Co. of America (Alcoa), 148 F.2d 416 (2d Cir. 1945) (J. Learned Hand) (ninety percent share "enough to constitute a monopoly; it is doubtful whether sixty or sixty-four percent would be enough"); see also Exxon Corp. v. Berwick Bay Real Estate Partners, 748 F.2d 937, 940 (5th Cir. 1984) ("monopolization is rarely found when the defendant's share of the relevant market is below 70%").

<sup>6</sup> See, e.g. BookLocker.com, Inc. v. Amazon.com, Inc., 650 F. Supp. 2d 89, 103-04 (D. Me. 2009) ("consensus" among courts that "thirty percent is a threshold" for market power).

While the FTC theoretically could reach additional types of unilateral conduct that more broadly constitute unfair methods of competition under Section 5 of the FTC Act, the policy last stated by the FTC was to interpret Section 5 coextensively with Sections 1 and 2 of the Sherman Act.<sup>8</sup> Even if the FTC were to reverse this policy, however, the FTC's resources are limited. Further, the FTC's deterrent capabilities are now more constrained than ever following the Supreme Court's recent ruling that the FTC is not authorized to seek equitable monetary relief, such as restitution or disgorgement, directly from the courts.<sup>9</sup> And the DOJ, of course, does not itself pursue claims under Section 5 of the FTC Act.

## III. OUR OUTDATED ANTITRUST FRAMEWORK CREATES STRUCTURAL BARRIERS TO ENFORCEMENT AND GROWTH ACROSS ALL SECTORS

The inability to address anticompetitive activities in the unilateral conduct gap has concrete consequences for innovation across all sectors of the economy in an increasingly high-tech world. Competitors cannot rely on a return on investment for interoperable products because one or more companies can simply render a start-up product incompatible without justification or raise insurmountable barriers to entry to wall off a targeted nascent product market. Without making changes to our antitrust laws, we may never know how many innovative products we miss out on or start-ups fold because nascent competitive products are at the mercy of the anticompetitive conduct of near monopolists.

Technological interconnectivity is driving growth across even the most traditional industrial sectors. One need only look to the myriad neologisms springing up to grasp the economic shift taking place as tech converges with other industries, from more familiar areas like biotech and fintech to emerging ones like agritech, foodtech, realtech/proptech, insurtech, wealthtech, regtech, legaltech, edtech, cleantech/greentech, medtech, healthtech, adtech/madtech, retailtech, and so on.<sup>10</sup> Companies that used to view themselves as consumer electronics or banking or medical companies or the like are increasingly viewing themselves as technology companies, and for good reason.

Our antitrust legislation, however, is not keeping up with the growing complexity of our modern economy. Waiting for anticompetitive conduct to mature into a monopoly, rather than responding at a point before the dominant tech has become so deeply entrenched and far-reaching, creates structural barriers to antitrust remedies and enforcement. By the time unilateral anticompetitive conduct supports a well-pled monopolization claim or the inevitable years of litigation come to a close, the conduct at issue may be so well entrenched and intertwined across markets that structural remediation is nearly impossible and the most promising challengers are long gone. Anticompetitive conduct and monopoly profits may be dispersed by this point across numerous interrelated products requiring the definition of multiple markets making complaints either unwieldy or incapable of depicting the full scope of anticompetitive effects. Monopoly profits may be nearly impossible to detect as they are arbitraged across markets or intermingled with products that companies pass off as "free" to consumers. Tracing the eventual harm to consumers across interlinked markets costs millions of dollars in legal and expert fees, making the cost of litigation prohibitive for most plaintiffs even where there is a significant likelihood of recovering attorneys' fees and automatically trebled damages years later. Even when litigation funding is available, the bar for succeeding in a unilateral conduct case is so high that would-be plaintiffs routinely choose to resign themselves to known anticompetitive conduct and effects, rather than risk being cut-off or further excluded by dominant companies that have powerful sway over necessary inputs and supply chains.

Monopolies, moreover, are not built overnight. It can take decades for a monopolist's anticompetitive conduct ultimately to exclude enough competition to support a claim, by which time memories have faded, witnesses have died or moved on, and evidence has long been wiped from hard drives. Plaintiffs may need to seek documents extending back more than a decade to obtain the foundational documents laying out an anticompetitive plan that has come to fruition years later. These challenges increase the costs of litigating unilateral conduct claims, decrease the odds of successful prosecution, and deter private litigation. With the rarity that the antitrust agencies have traditionally pursued unilateral conduct claims, these hurdles have meant that the majority of anticompetitive single-firm conduct has gone largely unchecked for decades.

9 AMG Cap. Mgmt., LLC v. Fed. Trade Comm'n, 141 S. Ct. 1341, 1346-1348 (2021).

<sup>8</sup> See Donald S. Clark, *Statement of Enforcement Principles Regarding "Unfair Methods of Competition" Under Section 5 of the FTC Act*, F.T.C. (Aug. 13, 2015), https://www.ftc. gov/system/files/documents/public\_statements/735201/150813section5enforcement.pdf.

<sup>10</sup> BBVA, 'Fintech', 'Proptech', 'Femtech', 'Edtech' and Other Related Neologisms (July 12, 2018), https://www.bbva.com/en/fintech-proptech-femtech-edtech-and-otherrelated-neologisms/; see also Mukund Hari Nathany, FinTech, MedTech, EdTech, RegTech and All the Other Terms Ending in 'Tech', UCL FINANCE AND TECHNOLOGY REVIEW, https:// www.uclftr.com/post/fintech-medtech-edtech-regtech-and-all-the-other-terms-ending-in-tech (last visited May 11, 2021).

## IV. CONGRESS NEEDS TO ADDRESS THE BROADER UNILATERAL CONDUCT GAP TO PROTECT INTEROPERABILITY, INNOVATION, AND ECONOMIC GROWTH

While federal and state authorities have recently focused unprecedented attention on a handful of dominant tech firms, even within the tech sector, the limited focus on digital markets and platforms risks implementing legal and regulatory changes that exclude protections for the interoperability of hardware and other physical products that traditionally have been the focus of unilateral efforts to degrade interoperability, such as chips,<sup>11</sup> medical devices,<sup>12</sup> and consumer electronics and appliances.<sup>13</sup> Particularly when our economy is standing on the precipice of another technological shift driven by the promise of 5G, it would be a regrettable oversight to introduce legislation or rules narrowly addressing digital markets without protecting interoperability more generally with and across physical products, such as the multitude of new IoT devices poised to spur innovation across numerous categories of connected devices.

Even within the context of digital markets, the House Majority Staff Report and Recommendations on the Investigation of Competition in Digital Markets characterized interoperability as "an important complement, not substitute, to vigorous antitrust enforcement," thereby missing an opportunity to recognize the applicability of antitrust jurisprudence to interoperability degradation more generally.<sup>14</sup> Beyond instituting rules that decrease switching costs, enabling portability of data across platforms, and encouraging interoperability by dominant digital platforms, Congress should consider reforms that more broadly deter unilateral conduct that degrades or eliminates interoperability across physical as well as digital products.

Interoperability is widely recognized as procompetitive, including by Democrats, Republicans, and the courts.<sup>15</sup> For example, in the standard-setting context, antitrust authorities and courts have long recognized that standard-setting can make products more valuable to consumers and can increase innovation, efficiency, and consumer choice "by allowing products to interoperate."<sup>16</sup> The Supreme Court has further held that "one of the evils proscribed by the antitrust laws is the creation of entry barriers to potential competitors by requiring them to enter two markets simultaneously," which a firm would need to do to compete in both a primary and interoperable secondary market.<sup>17</sup>

Despite the focus on the procompetitive virtues of interoperability and its ability to increase consumer welfare and innovation across complementary products in other contexts, some courts have hesitated to apply a traditional rule of reason analysis to interoperability degradation even by a monopolist, for example, in the context of product design.<sup>18</sup> Such refusals meaningfully to evaluate conduct that degrades or eliminates interoperability fail to assess the potential for an overall decrease in consumer welfare attributable to the sacrifice of real, innovative, and typically lower priced, complementary products in the ironic vein of seeking not to chill speculative, future innovation in the form of primary product



<sup>11</sup> See, e.g. *In re Intel Corp.*, FTC File No. 061 0247, FTC Docket No. 9341 (last updated November 2, 2010), *available at* https://www.ftc.gov/enforcement/cases-proceedings/061-0247/intel-corporation-matter (degrading GPU interoperability with chipset interfaces).

<sup>12</sup> See, e.g. C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1367 (Fed. Cir. 1998) (redesigned biopsy gun to eliminate interoperability with competitors' non-infringing complementary needles).

<sup>13</sup> See, e.g. In re Keurig Green Mountain Single-Serve Coffee Antitrust Litig., 383 F. Supp. 3d 187, 213 (2019) (redesigned brewer to render inoperable competitors' hot beverage cartridges).

<sup>14</sup> Jerrold Nadler and David N. Cicilline, *Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations*, Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, at 386 (2020) (hereinafter "House Report"), *available at* https://judiciary.house.gov/uploadedfiles/competition\_in\_ digital\_markets.pdf?utm\_campaign=4493-519.

<sup>15</sup> See, e.g. *id*. (Democratic report describing interoperability as procompetitive); see also Ken Buck, *The Third Way*, Subcommittee on Antitrust, Commercial, and Administrative Law of the Committee on the Judiciary, at 8-9 (Republican report agreeing that "interoperability policies will further facilitate competition in the marketplace"), available at https://buck.house.gov/sites/b

<sup>16</sup> U.S. Dep't of Justice and F.T.C, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition* 33 (Apr. 2007), *available at* https://www.justice. gov/sites/default/files/atr/legacy/2007/07/11/222655.pdf; see also *SD3, LLC v. Black & Decker (U.S.) Inc.*, 801 F.3d 412, 435 (2015) (standard-setting can have "decidedly procompetitive effects by encouraging greater product interoperability, generating network effects, and building incentives to innovate"); *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1335 (4th Cir. 2015) (standard-setting is procompetitive in that it allows a number of different firms to produce competing, compatible products); *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 308 (3d Cir. 2007) ("standards that ensure the interoperability of products facilitate the sharing of information among purchasers of products from competing manufacturers, thereby enhancing the utility of all products and enlarging the overall consumer market").

<sup>17</sup> Eastman Kodak Co. v. Image Tech. Servs., 504 U.S. 451, 485 (1992) (citing Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 14 (1984) and Fortner Enters., Inc. v. U.S. Steel Corp., 394 U.S. 495, 509 (1969)).

<sup>18</sup> See, e.g. Allied Orthopedic Appliances Inc. v. Tyco Health Care Grp. LP, 592 F.3d 991, 1000 (9th Cir. 2010) ("There is no room in this analysis for balancing the benefits or worth of a product improvement against its anticompetitive effects.").

redesigns.<sup>19</sup> Notably, this willingness by some courts to accept defendants' theoretical arguments about chilling potential innovation in the future stands in stark contrast to cases in which courts have declined to credit allegations that anticompetitive conduct has restrained a plaintiff's ability to innovate as a basis to support antitrust standing.<sup>20</sup> While the latter may reasonably be due in a number of cases to a failure to support allegations of lost innovation with non-conclusory, well-pled facts, the disparate willingness to credit speculative theories of future innovation when asserted by a defendant, in contrast to the high bar set for plaintiffs pursuing similar theories of harm, suggests that the pendulum has swung out of balance in favor of protecting a defendant's innovation over that of a plaintiff's. Decades of over-deterrence arguments thus have arguably tipped the balance in defendants' favor without fully considering chilling concerns on the other side.

Giving such overwhelming deference to innovation associated with a defendant's dominant, primary product alone, while ignoring the restraints and benefits associated with innovation generated by complementary, interoperable products in a related, secondary or otherwise adjacent market, is misguided for several reasons.<sup>21</sup> First, focusing solely on the primary product frequently conflates a putative benefit in a primary product market with that of a distinct and separate complementary product market in which the anticompetitive effects may overwhelmingly outweigh any putative benefit. Second, anticompetitive redesigns degrading interoperability with complementary products typically present at best a modest, incremental change to the primary product, which can then sacrifice the production and availability of numerous variations of more innovative complementary products that may have additional functionality or otherwise increase consumer choice and value beyond whatever previously existed. Third, presuming new or redesigned products are procompetitive without fully assessing potential anticompetitive effects is akin to carving out a judge-made exception to the generally applicable standard for exclusionary conduct and creating an implied exemption to the antitrust laws, which courts have long held are "strongly disfavored."<sup>22</sup>

Further, declining to apply a rule of reason analysis to conduct degrading or eliminating interoperability presumes a lack of institutional competence to do precisely what judges and juries do in other antitrust contexts by weighing procompetitive and anticompetitive effects of conduct that restrains competition.<sup>23</sup> Indeed, the Microsoft court was perfectly capable of distinguishing between the development of a new product (JVM) that legitimately improved the speed of applications running on Windows and did not have any anticompetitive effects versus product design conduct that the Court held did have unjustified anticompetitive effects.<sup>24</sup> Following the Microsoft case, two decades went by without significant oversight of unilateral conduct by other participants in that market. We should not be surprised to find ourselves here again.

20 See *Feitelson v. Google Inc.*, 80 F. Supp. 3d 1019, 1029 (N.D. Cal. 2015) ("Plaintiffs' allegations of hypothetical loss of . . . innovation are entirely too conclusory and speculative [to constitute antitrust injury] . . . .").

22 United States v. Phil. Nat'l Bank, 374 U.S. 321, 348, 350-51 (1963) ("It is settled law that immunity from the antitrust laws is not lightly implied.").

23 But see U.S. v. Microsoft, 253 F.3d 34, 75 (D.C. Cir. 2001) ("In order to violate the antitrust laws, the incompatible product must have an anticompetitive effect that outweighs any procompetitive justification for the design.").

<sup>19</sup> The FTC has similarly taken a deferential approach to product design, but query whether that approach will continue given the current focus on digital market dominance. *See Statement of the FTC regarding Google's Search Practices in re Google Inc.*, FTC File No. 111-0163 (Jan. 3, 2013) ("Product design is an important dimension of competition and condemning legitimate product improvements risks harming consumers . . . . Challenging Google's product design decisions in this case would require the Commission – or a court – to second-guess a firm's product design decisions where plausible procompetitive justifications have been offered . . . ."). Note, however, that the FTC did secure a commitment from Google in 2013 to remove certain restrictions governing the use of application programming interfaces or APIs that restricted interoperability with competitive software programs used to manage and optimize advertising campaigns. F.T.C., *Google Agrees to Change Its Business Practices to Resolve FTC Competition Concerns In the Markets for Devices Like Smart Phones, Games and Tables, and in Online Search (January 3, 2013), https://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc.* 

<sup>21</sup> A "primary" product market may refer to: a market in which there is a base product to which "secondary" components or other products may be added to enhance or extend value or functionality (like a chip and interoperable memory products); a product that works with complementary aftermarket products (like consumer electronics using interoperable cartridges, such as for printers or gaming) or consumables (like a biopsy gun and replaceable needles); or a market with one or more interrelated secondary markets (like internet search and comparison shopping services).

<sup>24</sup> See *id.* (programming instructions rendered Java applications incompatible with competing platforms in a manner that did not contribute to or result from superiority of operating system).

### V. CONGRESS COULD RECONCILE THE ENFORCEMENT IMBALANCE ACROSS CONCERTED AND UNILATERAL PRACTICES BY ENACTING A RULE OF REASON CLAIM FOR SINGLE-FIRM CONDUCT

While critics of monopolization claims argue that the risk of false positives can deter innovation,<sup>25</sup> more consideration should be given to protecting innovation driven by interoperable products of nascent competitors that could spur even greater economic expansion. Big in and of itself is not bad, and nothing needs to change the jurisprudence that protects success driven by superior acumen and skill. Caution must also be taken to ensure incentives to innovate across all sizes are fostered, particularly in connection with protections afforded by intellectual property rights, which include the right to exclude competitors from practicing inventions legitimately covered by patent claims.<sup>26</sup> The focus, however, should be on the conduct and effects, not the mere size of the actor.

Just as the rule of reason is capable of distinguishing between anticompetitive and procompetitive conduct in the concerted conduct context, it could do so in the context of unilateral conduct as well if Congress (and/or state legislatures) were to create a rule of reason claim to address anticompetitive, unilateral conduct by entities with less than a monopoly share of a well-defined market that is untethered from the monopolization constraints of Section 2 of the Sherman Act. A rule of reason claim applicable to unilateral conduct could more predictably place the focus on the anticompetitive nature and effects of single-firm conduct, rather than on market share numbers that can differ dramatically based on conflicting market definition theories or on the specific know-it-when-you-see-it nature of a defendant's business under judge-made doctrines, as in essential facilities or duty to deal cases. A unilateral rule of reason claim could also import the reasoning and guidance from Section 1 concerted conduct jurisprudence to borrow appropriate thresholds for market effects, while providing flexibility to address the new and complex ways single-firm conduct restrains competition that Senator John Sherman never could have anticipated in the 1800s. For those concerned that the availability of such a claim would open the floodgates of antitrust litigation, one need only consult the numerous observations that rule of reason litigation under Section 1 itself is typically prohibitively expensive.<sup>27</sup> And of course, Rule 11, Article III standing, antitrust standing, and the technical and costly nature of antitrust litigation all would still remain to temper the impetuous filer.

As the Supreme Court recognized in *Trinko*, our antitrust laws should be interpreted to "safeguard the incentive to innovate."<sup>28</sup> Those safeguards should likewise protect incentives to innovate in markets not yet dominated by a monopolist, including in connection with interoperable products in adjacent and complementary product markets. Failing to do so risks sacrificing consumer welfare overall and irrationally preferencing already entrenched dominant market players over the innovations offered by nascent competitors that hold the key to pushing competition forward, keeping markets dynamic over time, and stimulating economic growth. Congress should seize on this unique moment in history to make a meaningful change to our antitrust laws that will help fuel the growth of our economy through the next technological transformation.

25 See, e.g. Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 414 (2004) ("The cost of false positives counsels against an undue expansion of § 2 liability . . . . Judicial oversight under the Sherman Act would seem destined to distort investment").

26 35 U.S.C. § 101.

27 See Herbert Hovenkamp, *The Rule of Reason*, Research Paper No. 17-28, UNIVERSITY OF PENNSYLVANIA LAW SCHOOL (July 2017) ("[A] full blown rule of reason inquiry is significantly more costly than analysis under the per se rule. Applying the rule of reason typically requires expert testimony identifying a relevant market or alternative mechanisms for estimating market power, as well as some evidence that purports to measure actual anticompetitive effects."), *available at* http://awa2018.concurrences.com/IMG/pdf/ssrn-id2885916. pdf; see also Maurice E. Stucke, *Does the Rule of Reason Violate the Rule of Law?*, UC Davis L. Rev. Vo. 42 No. 5 (June, 2009) ("Because a rule-of-reason case is so costly to try, it is likely that fewer antitrust violations will be challenged."), *available at* https://lawreview.law.ucdavis.edu/issues/42/5/articles/42-5\_Stucke.pdf.

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28 Trinko, 540 U.S. at 407.

# INTEROPERABILITY IN ANTITRUST LAW & COMPETITION POLICY

## BY LAURA ALEXANDER & RANDY STUTZ<sup>1</sup>



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Interoperability is increasingly recognized as a core legal and regulatory concept for the modern internet economy. This is befitting in light of the rise, growth, and current ubiquity of platforms, data analytics, and computer software in the economy, which have elevated the importance of the concepts of network effects, tipping, and lock-in. Hard questions involving interoperability were preordained to follow.

In this article, we consider some of these hard questions through the lens of competition policy generally and antitrust law specifically. Interoperability emerges as an indispensable part of the answer to the competition concerns raised by network effects, tipping, and lock-in, for prospective regulation and retrospective enforcement. But one that requires careful thought in implementation to navigate inevitable frictions with intellectual property, privacy, and other doctrines that rub up against antitrust and competition policy.

## I. THE SEEDS OF AN INTEROPERABILITY DISCUSSION: NETWORK EFFECTS, TIPPING AND LOCK-IN

The rudiments of the competition concepts underpinning the modern internet economy are well understood. First and foremost is positive network effects. According to "Metcalfe's Law," the proportional value to a network of a user's investment in joining the network is the square of the number of users who do so. In other words, a network that increases tenfold in size increases a hundredfold in value. That means that when a network has a \$1 value to a single user and increases to 10 users, the *network's* total value increases to \$100.<sup>2</sup> Facebook's 2.8 billion users, and \$858 billion market cap, are sufficiently illustrative. An endless stream of platform-based network sponsors, from Uber to Tinder, are now vying for comparable ratios in niche segments of the internet economy.

If positive network effects are strong and consumers' preferences for network attributes are relatively homogenous, the product markets susceptible to network effects can be prone to "tipping," which is the tendency of one network-based product that gains the early lead to pull away from rival products and never look back.<sup>3</sup> The early competition, followed by definitive victory, that marked the triumph of VHS over Beta Max and the QWERTY keyboard over its progenitors are well-trodden examples.<sup>4</sup> Google's rise to dominance in internet search, and Facebook's rise in social networking, appear to be modern examples.

Tipping can lead to durable monopoly when conditions are ripe for lock-in. Lock-in occurs in network markets when the collective switching costs of all network users are high. Consider a software-based market, like the market for mobile operating systems that power the mobile phones on which many of us are reading the latest CPI Antitrust Chronicle. A rival operating system seeking to lay claim to our device du jour and our attention would face high collective switching costs in the form of significant difficulties coordinating a move to superior technology.

Such a rival would not only have to persuade readers like us to make the switch, but also app developers and publishers like CPI, device manufacturers, and other hardware and software complementors who have invested in the incumbent operating system. And worse yet for the would-be rival, the collective switching costs cannot be overcome through an orderly migration; they have to be overcome collectively. It will be more than ten times as hard to persuade 10 people to switch to an incompatible new network than to persuade one person to switch, but the rival will need to convince all 10 or most of them, for nobody will want to be the first to give up the incumbent network benefits and risk getting stranded.<sup>5</sup>

Worryingly, the lock-in effects caused by high collective switching costs can lead to the entrenchment of inferior products, as the QW-ERTY keyboard example illustrates.<sup>6</sup> Lock-in also can lead to "holdup" or "installed-base opportunism," which is a variant on the familiar form of monopoly exploitation whereby a firm, after cementing dominance, unilaterally alters its terms of trade to extract maximum wealth from its customers or suppliers.<sup>7</sup> Or, the mere prospect of lock-in can discourage savvy customers, input suppliers, or complementors from investing or



<sup>2</sup> CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES 184 (1999).

<sup>3</sup> Michael L. Katz & Carl Shapiro, Systems Competition and Network Effects, 8 J. ECON. PERSPECTIVES 93, 106 (1994).

<sup>4</sup> See *id.*; Shapiro & Varian, *supra* note 2, at 184.

<sup>5</sup> SHAPIRO & VARIAN, supra note 2, at 184–85; see also Peter S. Menell, Rise of the API Copyright Dead?: An Updated Epitaph for Copyright Protection of Network and Functional Features of Computer Software, 31 Harv. J. L. & TECH. 305, 458 (2018).

<sup>6</sup> See Shapiro & Varian, *supra* note 2, at 185 (noting that the alternative Dvorak layout is used by speed typists and recounting reports that QWERTYUIOP was originally chosen as the top row to *slow down* typists to reduce incidences of typewriter jams, while still allowing salesmen to rapidly type "Type Writer" in customer demonstrations); *but see* Jimmy Stamp, *Fact or Fiction? The Legend of the Qwerty Keyboard*, SMITHSONIAN MAGAZINE (May 3, 2013) (questioning veracity of these accounts and discussing evidence suggesting QWERTY keyboard layout was designed to accommodate telegraph operators translating morse code).

<sup>7</sup> See Carl Shapiro & Mark A. Lemley, The Role of Antitrust in Preventing Patent Holdup, 168 PENN. L. REV. 2019, 2027 (2020).

innovating in and around the network *ex ante*, particularly if foresight reveals an existential threat posed by the network owner's financial incentives coupled with its monopoly or monopsony power.<sup>8</sup> Lock-in also can discourage would-be horizontal rivals from attempting to compete for those customers or suppliers, if such rivals likewise recognize *ex ante* that they can't win for losing to the incumbent.<sup>9</sup>

## **II. INTEROPERABILITY AND ANTITRUST**

Enter interoperability. Interoperability considerations factor importantly into competition policy in network markets prone to tipping. Such considerations often arise in tipped network markets because of two interrelated challenges: (1) "the inexorable tension between platforms and applications,"<sup>10</sup> and (2) the need to integrate data sets across platforms that "significantly affect the efficient use of data and, resultantly, public and private welfare."<sup>11</sup> The first challenge typically presents as the basis for a theory of competitive harm. The second challenge often presents as question of remedial policy.

#### A. The Denial of Interoperability as Harm to Competition

In a common theory of competitive harm, the denial of interoperability serves as the dominant network owner's mechanism for excluding rival applications developers and other complementors from its network. Analogous, but distinct, theories of competitive harm have informed antitrust actions premised on the denial of access to essential facilities<sup>12</sup> and abuses of the standard-setting process by owners of standard-essential patents (SEPs).<sup>13</sup> Interoperability is conceptually distinct from the essential facilities doctrine and SEP licensing because it does not require the party on whom it is imposed to provide anything, except the ability to interface, to another party. The essential facilities doctrine and duty to deal cases more broadly apply where a monopolist controls an essential input and denying that input to rivals would make it impossible for them to compete.

By forcing the monopolist to share the input, antitrust law seeks to facilitate or protect competition in the upstream and downstream markets. Similarly, because standard setting gives holders of standard-essential patents a monopoly on a critical input to standard-compliant products, standard setting organizations' patent policies, supported by antitrust law, can require those patent holders to license their patents to rivals on fair, reasonable and non-discriminatory (FRAND) terms, again to enable competition in the upstream or downstream market. With interoperability, however, the dominant player typically does not sell anything to the party seeking to interoperate; it is asked only to provide existing or potential rivals the ability to interact and share information with it.

Interoperability also is distinct from data portability and right to repair, because it is bilateral and not rooted in a notion of consumer protection. Data portability is the right of a user to move his data from one platform to another.<sup>14</sup> Right to repair is about the consumer's right to control his own devices, including the right to fix them when they break.<sup>15</sup> Interoperability, on the other hand, is about the boundaries and interactions between competitors, and how they impact competition, not about protecting consumers or their rights *per se*. And interoperability is more than just a transfer of goods or information from one platform to another, it is an ongoing alignment of data and systems *between* two platforms.<sup>16</sup>

#### 8 See id.

9 Shapiro & Varian, supra note 2, at 184 ("In many information industries, collective switching costs are the biggest single force working in favor of incumbents.").

10 Philip J. Weiser, *Regulating Interoperability: Lessons from AT&T*, Microsoft, *and Beyond*, 76 ANTITRUST L.J. 271, 271, 286 (2009) ("The basic question is when can application developers trust that platform owners will treat them in a fair, reliable, and forthright fashion? If the answer is 'never' or 'not under certain circumstances,' there will be increasing pressure on government regulators, antitrust courts, and other institutions to facilitate cooperation between these two sets of actors.").

11 Michal S. Gal & Daniel L. Rubinfeld, *Data Standardization*, 94 NYU L. Rev. 737, 739 (2019) ("It is thus not surprising that barriers to data portability and interoperability have been identified as major barriers to the efficient operation of our data-intensive economy.").

12 For a recent example, see Viamedia, Inc. v. Comcast Corp. et al., No. 18-2852 (7th Cir. Feb. 24, 2020), currently before the United States Supreme Court on petition for certiorari.

13 For a deeply problematic recent example, see, e.g. FTC v. Qualcomm, Inc., 969 F.3d 974 (9th Cir. 2020) (overturning district court decision in favor of FTC in antitrust case premised on SEP abuse).

14 Under the California Consumer Privacy Act ("CCPA"), for example, users have a right to get their data "in a readily useable format that allows the consumer to transmit this information from one entity to another entity without hinderance." California Consumer Privacy Act of 2018, CA Civ. Code § 1798.100, *et seq.* (2018).

15 See United States Federal Trade Commission, *Nixing the Fix: An FTC Report to Congress on Repair Restrictions*, at 54 (May 2021) (describing how existing right to repair law "gives consumers the right to make repairs on their own or through an independent repair shop" and explaining how manufacturer policies "have made it difficult for consumers to exercise this right."), available at https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing\_the\_fix\_report\_final\_5521\_630pm-508\_002.pdf.

16 Gal & Rubinfeld, *supra* note 11, at 739 (distinguishing data portability—"the ability to transfer data without affecting its content"—from interoperability—"the ability to integrate two or more datasets").



Nevertheless, a network owner's denial of interoperability can raise many of the same kinds of competition concerns as a facility owner's denial of access to an essential facility and a SEP-owner's refusal to license a FRAND-encumbered SEP. A vertically integrated firm that owns and controls the network may, for example, employ an "open early closed late" strategy. That is, it may encourage and invite applications providers and other complementors to interoperate on the network to help attract participants in the network's formative years, only to deny access to such providers and complementors once it has matured and developed a large installed user base that is locked in.<sup>17</sup> The vertically integrated network owner may choose to deploy interoperability restrictions defensively, to protect its proprietary upstream or downstream products from outside challenges, or offensively, where it can save costs or reap additional profits by forcing the user base off of the complementors' products and onto its proprietary products or partners' products instead.

The competition concern is that the network owner's rivals—like the essential-facility owner's or SEP owner's rivals—may be driven from the market or relegated to obsolescence, harming the consumers or suppliers who otherwise would have benefitted from lower prices, higher output, greater choice or quality, or increased innovation. However, exclusion of rivals from a network, through denial of interoperability, goes further by depriving consumers and other network participants of the benefits of positive network effects—that is, of the added value to the network itself that the excluded rivals would have provided.<sup>18</sup>

#### B. Interoperability as Remedy: Antitrust and Regulation

As a remedial tool, interoperability sounds in the familiar regulatory concept of "network access" or "interconnection," which has been a mainstay of telecommunications policy. When network effects render free-market competition at the platform level untenable, interoperability remedies offer "policy-induced competition"<sup>19</sup> at the developer level, a perhaps imperfect but still formidable alternative means of allowing market forces to help generate the "considerable amounts of innovation and wealth creation" that would otherwise be misappropriated or deterred because of an unlevel playing field.<sup>20</sup>

In telecom, the FCC has deployed interoperability remedies as a regulatory strategy, but often in tandem with antitrust law. The agency's modern approach has been traced to a dispute over the "Hush-A-Phone," a suctioned, 1950's gizmo that could be attached to telephone hand-sets to muffle background noise during phone calls.<sup>21</sup> After the FCC, at the urging of the AT&T Bell System, banned the product as a "foreign attachment" to AT&T's network, the D.C. Circuit overturned the agency's decision, holding that the network owner could not restrict the use of reasonable attachments to the network.<sup>22</sup> The agency has since embraced interoperability as a remedial principle in a variety of settings.

In the subsequent breakup of the Bell System, the FCC and the Antitrust Division of the Department of Justice brought their collective resources to bear in instituting structural and behavioral relief to promote interoperability in the long-distance market. The relief came after many years of failed regulatory efforts to promote equal network access for alternative long-distance carriers, while AT&T continued to maintain dominant market share. The structural separation of the Bell System's long-distance service and local networks was imposed under the auspices of the Sherman Act, while the behavioral obligations mandating equal access to interconnection were overseen and enforced by the FCC.<sup>23</sup> A district court oversaw both remedies, which were imposed via consent decree.

<sup>17</sup> Scott A. Sher & Bradley T. Tennis, *Exploiting Others' Investments in Open Standards*, Comp. Pol'y Int'l Antitrust Chron. 1, No. 1, at 3–4 (2016) ("[T]herein lies the danger: that a firm will employ an open policy in order to gain dominance and then impose less favorable interconnection terms once dominance has been achieved.") (quoting Testimony of Carl Shapiro, Antitrust Modernization Commission, *Exclusionary Conduct* 15-16 (Sept. 29, 2005)).

<sup>18</sup> See Marina Lao, Networks, Access, and Essential Facilities: From Terminal Railroad to Microsoft, 62 SMU L. Rev. 557, 558 (2009).

<sup>19</sup> Gerald R. Faulhaber, Policy-Induced Competition: The Telecommunications Experiments, 15 INFO. ECON. & POL'Y 73 (2006).

<sup>20</sup> Weiser, supra note 10, at 291.

<sup>21</sup> Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 7 Harv. J.L. & Tech. 85, 93 (2003).

<sup>22</sup> Hush-A-Phone Corp. v. United States, 238 F.2d 266, 269 (D.C. Cir. 1956).

<sup>23</sup> United States v. AT&T Co., 552 F. Supp. 131, 224 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983).

The synergistic approach undertaken in addressing the Bell System's network-driven, long-distance monopoly has been a data point in leading many commentors, including our organization, the American Antitrust Institute, to advocate generally for a complementary approach to antitrust and regulation, and for capitalizing on the institutional policing and other capabilities of the governmental and private actors responsible for carrying out each.<sup>24</sup>

There are many instances, for example, where an antitrust approach is susceptible to coverage gaps that regulation can fill. First and foremost, antitrust law may have difficulty reaching some of the most prominent network sponsors in in the internet economy as a jurisdictional matter. The common carrier exemption threatens to free many of them from antitrust exposure altogether.<sup>25</sup> Moreover, there remains the concern that some courts may read dicta in the U.S. Supreme Court's *Trinko* decision as limiting, inappropriately in our view, antitrust law's application in regulated industries.<sup>26</sup>

Second, certain forms of competitive misconduct in network markets may be difficult to prosecute. When a network owner denies interoperability to nascent rivals, for example, the exclusionary effects may be subtle, impairing innovation over the long run by deterring startups.<sup>27</sup> A dearth of timely, actionable proof, coupled with unfavorable case law, creates the risk of rampant "false negatives."

Third, conduct violations under the antitrust laws are policed *ex post*, not *ex ante*. That is, an antitrust challenge to exclusionary behavior by a network owner can only be initiated after competition has been harmed. Yet, if the excluded rival is a nascent firm struggling to survive, a lengthy, costly enforcement proceeding is likely to be cold comfort, particularly in dynamic internet markets.<sup>28</sup>

Finally, to the extent that antitrust actions require behavioral rather structural remedies, agencies and courts are often ill-suited to the task of implementing and monitoring such remedies, for a variety of reasons.<sup>29</sup> This is particularly true when measured against the institutional capabilities of regulators.

By contrast, regulation has shortcomings of its own, which antitrust enforcement can counterbalance. For example, regulation often is accomplished through rulemakings, which frequently require authorities to prospectively delimit conduct to be encouraged and discouraged or required and proscribed. Particularly as novel developments occur in regulated industries undergoing changes due to new technologies or shifting consumer preferences, such rules can become obsolete or ineffectual.<sup>30</sup> In these circumstances, antitrust law's targeted, case-by-case, retrospective approach can be a feature rather than a bug, including because it can employ structural rather than behavioral relief. The law is often nimbler in responding and adjusting to changes and uncertainties than regulatory rules.

Moreover, when industries undergo disruptions and shifts of this kind, antitrust enforcement can be an essential "backstop" during the transition from monopoly to competition.<sup>31</sup> When markets in such positive transition phases are subject to price regulation or access regimes, the risk of harm caused by over- or under-regulation becomes significantly higher, and regulators can often do far better for consumers and other intended beneficiaries by forbearing, and instead allowing competitive forces to determine market outcomes, subject to assurances that strong antitrust enforcement will prevent distortions in the competitive process.<sup>32</sup>

In thinking about interoperability as a potential competition remedy in tipped network markets, many of the same considerations in balancing antitrust and regulation, and maximizing their respective advantages, come into play. As Gal and Rubinfeld, who advocate for data standardization as a means of promoting interoperability, have ably explained, the stakes are quite high. Without data interoperability in the mod-

25 See, e.g. FTC v. AT&T Mobility LLC, 835 F.3d 993 (9th Cir.2016).

26 Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398 (2004).

27 See John M. Newman, Antitrust in Digital Markets, 72 Vanderbilt L. Rev. 1497, 1515-1516 (2019).

28 See Kevin Caves & Hal Singer, When the Econometrician Shrugged: Identifying and Plugging Gaps in the Consumer-Welfare Standard, 26 Geo. MASON L. REV. 395, 398 (2018).

29 See John E. Kwoka & Diana L. Moss, Behavioral Merger Remedies: Evaluation and Implications for Antitrust Enforcement, 57 ANTITRUST BULL. 979, 994, 1010 (2012).

30 Shelanski, *supra* note 24, at 719.

31 See id. at 727-29.

32 See id. at 731-32.

<sup>24</sup> See American Antitrust Institute, Repeal of Network Neutrality Eliminates Important Antitrust-Regulation Partnership, Deprives Competition and Consumers of Needed Safeguards (Dec. 22, 2017), https://www.antitrustinstitute.org/wp-content/uploads/2018/08/AAI\_Net-Neutrality-Repeal-Comm\_F.pdf; see also Dennis W. Carlton & Randal C. Picker, *Antitrust and Regulation, in* Economic Regulation and Its Reform: What Have We Learned? (Nancy L. Rose ed., 2014); Howard A. Shelanski, *The Case for Rebalancing Antitrust and Regulation,* 109 Mich. L. Rev. 683 (2011); Philip J. Weiser, *The Relationship of Antitrust and Regulation in a Deregulatory Era*, 50 Antitrust Bull. 549 (2005).

ern internet economy, we risk a "'Tower of Babel' of different databases," limited potential data uses, interference with new business models, elevated costs for not only small and medium-sized enterprises but also large enterprises, the balkanization of data within particular sectors, spillovers undermining the improvement of analytical tools, and even fundamental threats to the competitive advantages of firms and nations.<sup>33</sup>

Yet, there may be instances where antitrust law is ill-equipped to deliver interoperability, for want of a violation. Where, for example, a network sponsor obtains dominance through a first-mover advantage and strong positive network effects alone, an antitrust interoperability remedy will be unavailable assuming the network owner has not otherwise violated the law, no matter how socially beneficial such a "remedy" might be. Absent new antitrust legislation, only a regulatory approach could hope to achieve interoperability benefits in these circumstances.

At the same time, there may be other instances where antitrust is well suited to help deliver interoperability. Where, for example, an unregulated network sponsor monopolizes a market by employing an "open early closed late strategy," and a prior course of dealing provides reasonable terms on which to allow interoperability, an antitrust action may be well suited to protecting and restoring competition. Or, perhaps an antitrust action supported by a sectoral regulator's supervisory assistance, as in the AT&T case, would be better suited still.

### **III. PRIVACY AS A CHALLENGE TO INTEROPERABILITY**

As if to illustrate the difficulty and complexity in balancing antitrust and regulation in the modern economy, a conflict is brewing between the growing demand for interoperability and the growing demand for privacy. The need to protect consumer privacy is one of the justifications put forth by companies for denying interoperability in product design or operational policy. Apple, for example, touts its high privacy standards as a feature of its App Store, which is the exclusive portal for apps seeking to interoperate with Apple iOS phones.<sup>34</sup> When sincere, this justification is generally regarded as procompetitive and, accordingly, a defense to a charge that the company engaged in predatory innovation or otherwise sought to thwart interoperability to suppress competition. Companies, of course, may also be using privacy as a pretext, which presents an evidentiary issue for courts. And, perhaps most common, the concerns for consumer privacy may be real, but the suppression of competition is also a wanted benefit to the company acting on the concern. Courts contemplating interoperability as a remedy must also confront this tension; even if effective as a competition remedy, interoperability can pose privacy risks.

One high-profile example of the privacy risks from interoperability in recent years is the Facebook-Cambridge Analytica scandal. In that incident, Facebook allowed users to install a third-party app called "This Is Your Digital Life," which harvested data from its users with their permission, but also harvested information about the app users' friends without seeking permission from those friends.<sup>35</sup> The makers of This Is Your Digital Life subsequently sold the harvested data to Cambridge Analytica, which used the data for microtargeting political campaigns. When the collection and sale of the data came to light, Facebook users were outraged, leading to a significant drop in the company's market capitalization and trust by consumers. Facebook claimed the third-party company that sold the data to Cambridge Analytica had violated Facebook's terms of service by selling the data and cut the third-party off from future access to its network. Once Facebook allowed the third-party to interact with its users and their data, though, it gave up effective control over how that data was used. It could cut off interoperability with the original source, as it eventually did, but that only prevented future infringements on privacy and in no way remedied the breach that had already occurred.

## **IV. CONCLUSION**

While the Cambridge Analytica scandal was about more than interoperability, it graphically illustrates some of the pitfalls of interoperability as either an antitrust remedy or regulatory policy, particularly for platforms where multiple users interact with each other on the platform. A user can consent to share his or her own information or allow a third-party app to interoperate with his information on the platform, but where that user's information is inseparable from the information of the other users with whom he or she interacts on the platform, permission from the original user is insufficient to protect user privacy. To the extent courts, regulators, and policymakers contemplate interoperability as a cure for network effects and other market failures, they will need to think carefully about how to implement interoperability without sacrificing privacy. Or, more likely, how to strike the balance between sacrificing privacy and mandating interoperability, using the right combination of antitrust and regulation.

<sup>33</sup> Gal & Rubinfeld, *supra* note 11, at 741.

<sup>34</sup> App Store, Apple.com (last visited May 17, 2021), https://www.apple.com/app-store/ ("And a big part of those experiences is ensuring that the apps we offer are held to the highest standards for privacy, security, and content.").

<sup>35</sup> Matthew Rosenberg & Sheera Frenkel, Facebook's Role in Data Misuse Sets Off Storms on Two Continents, THE NEW YORK TIMES (March 18, 2018).

## **BIG DATA PROTECTION: BIG PROBLEM?**

## **BY STEPHEN DNES<sup>1</sup>**



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## I. PERSONAL QUESTION: ROCKY ROAD OR COOKIE DOUGH?

It is a hot, sunny day. A gentle breeze is blowing in from the sea. You have just spent a wonderful afternoon at the beach gazing out at the horizon with an excellent beach read — and no, it is not an antitrust journal. You left your phone in the car — deliberately. What could top this bliss? Well, how about a delicious ice cream?

There is a line at the entrance to the ice cream parlor. You eye up the flavors chosen by the patrons in front of you as you wait — anxious to gain an early insight into the treasures in the cooler. When your turn comes, you make your choice and head happily back to the beach. Fellow beach goers see your ice cream, and it appears that you have set a trend, as they head to the parlor as well.

So far, you could be forgiven for thinking that the example is trivial. Who could possibly mind whether people know a readily accessible, humdrum piece of information like your choice of ice cream flavor? Yet when you saw the choices made by others in the ice cream parlor, did you not gain some data about your fellow beach goers? And when you were seen by others on the beach, did they not gain some data about you? Especially if you stopped at the car to pick up a beach umbrella: that license plate number is an identifier and, if recorded in a computer system, surely means we are firmly in the world of personal data! After all, the link between your car choice and your ice cream may be public, but it was not "manifestly" made public *by you* as required so as to be classed as exempt public data under the strict terms of Article 9 GDPR. You cannot eat an ice cream at the parlor other than in public, so how was it *you* who "manifestly" created the publicity? And more importantly, there is a law requiring license plates, so it can hardly be said that the plates were made public *by you*. Someone should pass a law to stop people knowing that drivers of cherry red convertibles like rocky road ice cream!

It is a common observation that data is just like the "grains of sand on a beach": ubiquitous, and even if not always easily accessed, certainly something which is always around us, at least in its unprocessed form. Indeed, sand can be made into many useful things: glass, concrete, cement, golf course sand traps. This is where things get difficult for interoperability. Suppose the ice cream parlor uses data to invest in the most popular flavors, and perhaps gives you a discount on your next visit. Imagine it has a loyalty app to help with this. Would it not have a major compliance burden, at least in the European Union, under the GDPR? Unless burdensome consent steps are taken under Art 6(1)(a) GDPR, which would be actively anti-consumer in a busy ice cream parlor, it is arguable that the requirements are not met: and the more processing and the more useful the data, the more must be asked under Art 6(1)(a) to achieve consent. There is no threshold at which the processor can say, *no one cares*; let alone, *it is net beneficial to the consumer not to ask*. So, there is personal data in the app; even if it is trivial, and useful in all conceivable applications, it is personal data nonetheless. Difficult and expensive pseudonymization rules apply, and even then, the GDPR only gives the benefit of a recital rather than a pass.<sup>2</sup> Nowhere is the question asked, is protection merited in the first place?

However pro-consumer the data use, still the regulatory burdens apply.<sup>3</sup> In a word: why? Despite no clear evidence of even the slightest risk of any consumer harm from innocuous use, the ice cream parlor is treated like Cambridge Analytica.<sup>4</sup> This creates a major barrier to interoperability in data: useful, albeit perhaps somewhat personal data, cannot be exchanged without detailed consent that may far exceed what consumers want; and useful data may be foregone as processing strictures like sample sizes are applied: red convertible + rocky road + Treasure Island + June 8<sup>th</sup> = 1 user, thus potentially identifiable data excluded by dint of GDPR. It is not an answer to point out that the consumer would want the parlor to know to have the ice cream ready, and would rather not be asked about this.<sup>5</sup>

3 Article 25 GDPR refers to the context of processing, including cost, but still affirmatively requires "state of the art" protection, despite the possibility that this is not merited. It would be a brave business who would argue that "state of the art" can be interpreted to be zero, even where this is the pro-consumer outcome.

<sup>2</sup> Article 25 GDPR encourages pseudonymization as a "privacy by design" measure, but it does not affirmatively allow this expensive step to be omitted where there is no consumer interest in privacy; nor does it create a safe harbor where pseudonymization is employed. Instead, recital 26 of the GDPR states: "data which have undergone pseudonymization, which could be attributed to a natural person by the use of additional information, should be considered to be information on an identifiable natural person." This provision is stylistically verbose ("should be considered to be" = is), but more importantly, strips pseudonymization of safe harbor status since the risk of re-attribution is still a gate to liability, even if re-attribution poses no material consumer risk (e.g. attribution of ice cream flavor). It is also poorly drafted: if re-attributable, why pseudonymous in the first place? It would be more helpful to define the concept better than to create a half-baked exception. It is notable that the California CCPA is somewhat more precise, though still far from a safe harbor: § 1798.140(r) - Pseudonymization "[M]eans the processing of personal information in a manner that renders the personal information no longer attributable to a specific consumer without the use of additional information, provided that the additional information is kept separately and is subject to technical and organizational measures to ensure that the personal information is not attributed to an identifiable consumer."

<sup>4</sup> I am grateful to Sherif Malak for this colorful example.

<sup>5</sup> Very oddly, if the enterprise gets the data wrong (e.g. green convertible listed, not red), EU guidance suggests that GDPR does not apply at all as the information is then not personal under Art 4 GDPR: <a href="https://gdpr.eu/eu-gdpr-personal-data/">https://gdpr.eu/eu-gdpr-personal-data/</a>. This is the height of legal formalism. The test appears to operate in opposition to the gathering of relevant data — the question unposed, much less answered, is: *Why should regulation change because of clerical error, as opposed to consumer-relevant risks and benefits from the decision to collect the data?* 

Now imagine that the ice cream parlor has the temerity to sell the data on ice cream to a large concern interested in providing people with the products that they want. Or to a marketing consultancy, keen to identify trends in ice cream consumption — "Dairy Free ice cream: Fun free, or the future?" Perhaps a start-up beach app has nifty Al to combine data on length of beach stay, parking costs, the quality and number of sunset pictures, and the number of ice cream flavors available — a dynamic pro-consumer innovation, especially for time-poor holidaymakers or those unfamiliar with a stretch of coastline. Moreover, in a competitive market, the consumer benefits from the data sale even on a static analysis, as the sale will be at least partially passed on in lower prices.

Yet all of these are regulated uses, especially as data sources are combined, such that the GDPR's legalistic view of informed consent bites — and many of the uses cannot be specified by the ice cream parlor in advance since the end use, despite being pro-consumer, is unknown. Indeed, Article 25 GDPR specifically limits the ice cream parlor to the minimum processing necessary for *its* purposes.<sup>6</sup> This ignores relative competence and gains from specialization. The transfer follows from relative competence: sale of data *because* the parlor does not have the expertise in processing. The sale is economically efficient and pro-consumer — and for precisely this reason, informed consent cannot be obtained exactly where interoperability in data sets is most valuable. In effect, the GDPR forces the supervision of data collection to be vertically integrated, banning interoperability and harming competition.

If consulted on *why* this scale of protection is necessary, even for innocuous data, the legalistic GDPR instead repeats like a scratched vinyl record... "consent by the user... consent by the user... manifestly made public *by the user*..." The beachgoer would promptly tune out of that radio station — and with good cause. Instead of an assessment of relative risk of damage and consumer benefit, as would be routine in antitrust, there is instead a major compliance burden on combining the data: even though the large database, or analyst's report, or start up app, would simply be about ice cream trends and a nice day out at the beach.

## **II. CONSUMER WELFARE AS THE GATEWAY TO INTEROPERABILITY**

A survey of the major GDPR definitions and requirements recalls the *Hound of the Baskervilles*: They are remarkable for what they do not do. Nowhere in the definitions is there direct analysis of consumer welfare. This in turn undermines interoperability in data. Yes, some *collected* data can sometimes be combined and traded, but there is a large "known unknown": potentially interoperable data which is never collected, because innocuous consumer data must still comply with potentially expensive requirements, even where this is actively anti-consumer by increasing costs and decreasing innovation.

This will be clearest from a redline edit on some of the most offending provisions. The underlines are edits on the GDPR from a pro-consumer point of view. Behold, the CDPR (*Consumer* Data Protection Regulation):

#### Data subjects: Art 4(1)

any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person who has a reasonable basis for material concern about that data;

#### Data processing: Art 4(2)

'processing' means any operation or set of operations which is performed on personal data or on sets of personal data, whether or not by automated means, such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction <u>which, on the basis of reasonable evidence, is likely to give rise to consumer harm</u>;

At a stroke, these two small edits would release innocuous use from any burden. Instead, the regulation would target only those practices harming consumers on an evidenced basis.

#### Profiling: Art 4(4)

'profiling' means any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular only to analyze or predict aspects concerning that natural person's identified categories raising evidenced concerns about performance at work, economic situation, health, personal preferences, interests, reliability, behavior, location or movements where these give rise to a material risk of consumer harm;

6 Art 25(2) GDPR: "Only personal data which are necessary for each specific purpose of the processing are processed."



The CDPR drafter might note that "in particular" in Art 4(4) is vague, since almost any characteristic qualifies for the list that follows. If there is a concern, it should be specified on an evidenced basis: automation alone cannot be the concern, since that logic would object to *any* automation — a luddite superstition, unless there is evidence that the automation is causing a problem. A consumer might ask: why is a power to regulate in the absence of evidence of a problem needed, since principled regulation would always be able to show evidence of harm?

#### Consent: Art 6 1 (a)

Processing shall be <u>un</u>lawful only if and to the extent that at least one of the following applies: the data subject has <u>not</u> given consent to the processing of his or her personal data, for one or more specific purposes and only if such processing raises material <u>consumer concerns</u>;

• • •

(f) processing is <u>demonstrably unnecessary, leading to harm, giving particular weight to harm to minors.</u> for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child.

The CDPR drafter notes another vague provision: "one or more specific purposes": is an open-ended list acceptable then ("or more"), or not? Perhaps the CDPR should simply require evidence of harm, rather than dissect processes of consent.

More philosophically, further vagueness creeps into another crucial definition: "rights and freedoms." This ignores an important Anglo-American contribution to jurisprudence: Hohfeldian analysis of rights, based on the same well-known error in *Quinn v. Leathem.*<sup>7</sup> As Hohfeld noted, rights and freedoms are not the same thing and should not be used interchangeably.<sup>8</sup> The drafter appears to have in mind a right, creating duties in others, precisely to *curtail* liberties. This masks an important trade-off: the right curtails liberties (here, in data processing), and is this wise? The liberty interest might be just as important, but in a (possibly deliberate) sleight of hand, it is opaquely bundled in a mélange of rights-as-liberty.

A more precisely specified approach would identify *both* the right and liberty interest, and try to define a balance between their opposition, rather than (assertively) skating over the difference — not least as this avoids empowering the regulator to define a balance which might be better defined in law. This can easily be done by specifying which rights give rise to *which* duties, and when, carving out of a general starting position of liberty. It is routine in many areas of the common law: consider the duty of care in tort as one such departure from general liberty — only applicable where a duty of care can be shown to arise based on evidence; out of respect for liberty, there is no duty of care to smile, however beneficial this might be to others! Significantly, the consumer welfare standard in antitrust does the same — and could be used here to define the correct balance between the data protection right and the liberty interest of data processors, as explored further below.

Article 6(1)(f) also breaches a basic tenet of liberal enlightenment thinking: it reverses the burden of proof as regards data use, even where innocuous. "Necessary" for "legitimate interests" according to whom? A regulator subject to capture risks? By what standard? *Why* is it not specified? Contract law developed, at least in common law jurisdictions, *not* to ask these questions, and instead to defer to parties: the starting point is that the spontaneous order is valuable and should not be lightly altered.<sup>9</sup> Certainly, if there is evidence of consumer harm, the question is different, and consumer protection laws or unconscionability doctrines would apply. But as a general proposition: the mere fact of use is suggestive of value, such that the law should not require justification, absent evidence of harm supporting tailored exceptions. Moreover, the provision violates the basic principle that the creator of new property, e.g. processed data products, has the strongest claim to it; if there are human rights in data, it is unclear why they do not extend to this proprietary interest, as well.<sup>10</sup>

#### 7 [1901] AC 495.

8 Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning and Other Legal Essays* (1913 and 1919, pub'd Yale UP 1964). As early as 1980, this was said to be "...now a standard part of legal thinking." Walker, *Oxford Companion to Law* p. 575 (OUP, 1980) — but not, it would seem, in drafting the GDPR in Brussels.

9 Consider the following common law contract rules: No assessment of adequacy of contract value: *Chappell & Co Ltd v. Nestle Co Ltd* [1959] UKHL 1 ("A peppercorn does not cease to be good consideration if it is established that the promisee does not like pepper and throws away the corn"); no general doctrine of unequal bargaining power: *Universe Tankships Inc. of Monrovia v. International Transport Workers' Federation* [1982] 2 All ER 67; risks of all but most serious mistakes to be managed by parties, not courts: *Bell v Lever Bros Ltd* [1932] AC 161; near-impossibility required, not just changed circumstances, before courts will invalidate obligations: *J. Lauritzen A.S. v. Wijsmuller B.V, ("The Super Servant Two")* [1990] 1 Lloyd's Rep 1. These tests all deliberately exclude vague references to "legitimacy," out of respect to party autonomy and the presumptive efficiency of the spontaneous order.

10 John Locke, Second Treatise of Government, Chapter V, paragraph 3: "Nor was this appropriation of any parcel of land, by improving it, any prejudice to any other man, since there was still enough and as good left, and more than the yet unprovided could use... Nobody could think himself injured by the drinking of another man, though he took a good draught, who had a whole river of the same water left him to quench his thirst." Provided that data flows — a principled threatened by GDPR — there seems to be a strong parallel between Locke's river and an innocuous data flow (e.g. information on ice cream flavors).

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With its many limitations in expression and philosophy, it appears that 6(1)(f) requires a complete redraft before it can be used in the CDPR. Rather than a final sub-section exception — notably, addressed after various state interests are listed — there should be a clear and crisp provision mandating evidence of consumer harm *before* justification is required. A new provision cutting across the entire edifice would appear to be required — limiting the power of regulators absent evidence of harm, and certainly not empowering them to decide for society what is "legitimate," unless evidence of harm can be shown.

As for Article 25, "Privacy by design," a simple edit would be that "state of the art" is only necessary where merited by demonstrated consumer needs.

### **III. THE CONTRAST WITH CONSUMER PROTECTION LAW**

Perhaps the most curious point about the paternalistic stance of the GDPR is how much farther reaching it is than analogous EU law on consumer protection. The GDPR again seems not to take account of well-known debates. Consider the contribution by Bradner and Ulmer, requiring consumer protection law to leave core terms in consumer bargains to the market, immunizing them from challenge.<sup>11</sup> This has been implemented by exempting the price and other core terms in consumer transactions from challenge.<sup>12</sup>

The core terms exception is carefully framed to apply only to those core terms where shopping around is likely, e.g. price; this will sometimes be true for data (e.g. loyalty cards — discount for data) but the prospects of shopping around may sometimes be limited. However, the Bradner and Ulmer contribution paved the way for a balanced approach to evidence specification in consumer protection law. In contrast with the GDPR, this has been meticulously crafted to capture some, but not all, claims to consumer protection, thereby striking a balance between the market, and paternalism:

A commercial practice is a misleading omission if, in its factual context, [it omits or hides] ... material information... and as a result it causes or is likely to cause the average consumer to take a transactional decision he would not have taken otherwise.<sup>13</sup>

The same materiality requirement and protection of only the *average* consumer preference are seen in several other EU-derived consumer protection laws.<sup>14</sup> The balance was meticulously chosen: not all interests are protected; a regulator must put forward evidence of *average* consumer harm and materiality, to avoid the risk of over-regulation and to mitigate the risk of capture by special interests.

Significantly, this also helps force the use of necessarily scare enforcement resources into consumer-relevant issues, e.g. is the fuel mileage accurate? Are the power and emissions figures reliable? What are the warranty terms? Few consumers would have much if any interest in how the electronic systems in the car intercommunicate, or the strength of the structural steel used in the body, and the car connoisseur's esoteric preferences are left to general contract law and the market since they fail the test of average consumer materiality.

It is unclear why a materiality test would apply to consumer protection law in general, but not to data use. The underlying concepts are identical: arguable market failure from unequal information or bargaining power; possible economic efficiency from requirements to flush information out into the market, to allow preferences to be revealed. Yet when buying a car, a materiality test based only on the average consumer applies; but it does not when signing up to the car dealer's newsletter.

It can hardly be argued that the average consumer is more informed about a modern car than about a newsletter email address storage system, and the consumer would presumably desire more protection in the larger purchase (although it should be noted that this is not the same thing as showing the net merits of protection). The legal protection appears to be exactly the wrong way around, and is even anomalous within the terms of other EU regulation.

<sup>11</sup> The authors noted that: "the consumer would no longer need to shop around for the most favourable offer, but rather could pay any price in view of the possibility of subsequent control of its reasonableness"

E Brandner & P Ulmer, "The Community Directive on Unfair Terms in Consumer Contracts: Some Critical Remarks on the Proposal Submitted by the EC Commission" (1991) 28 Common Market Law Review 647, p 656.

<sup>12</sup> See e.g. UK Consumer Rights Act 2015, s.64.

<sup>13</sup> See e.g. Regulation 6, Unfair Terms in Consumer Contracts Regulations 2008, the UK implementation of Directive 2005/29/EC.

<sup>14</sup> See e.g. UK Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013, Rules 10 and 13.

## IV. THE NEED FOR A RISK-BASED APPROACH

None of this is to say that there are not evidence-based consumer harms from data abuse. Well-known examples include the 2017 Equifax data breach, which released sensitive digital identity data of as many as half of Americans — despite evidence of foresight of a problem.<sup>15</sup> The oddity in the GDPR, seen through a competition telescope, is that nothing appears to be done to prioritize these risky cases: even if regulators can exercise triage and look only at the worst cases — objectionable anyway from a common law rule of law perspective for its excessive discretion<sup>16</sup> — the compliance burden is broader. Why not frame the law so that the compliance efforts address issues like those in Equifax, and not the car dealer's newsletter? Is that not a marginal improvement in the application of scarce resources?

There may be difficulties in gathering evidence from consumers on consumer harm. There is a significant gap in data on *subjective* consumer preferences relating to data protection. In its influential report on online markets, the UK CMA specifically notes a gap in the literature:

"Few surveys examine what UK consumers perceive the specific benefits or harms of data processing and targeted advertising to be. Instead, consumer surveys tend to focus on the high-level benefits and harms resulting from all forms of online targeting."<sup>17</sup>

There is some survey evidence that consumers would like more protection of their data. However, as the CMA notes, these studies are high-level, and often fail to identify trade-offs, e.g. free content vs data retention. This is not unlike asking whether someone would like more pay, a larger car, etc.: yes please, to the free lunch. In the rare studies asking about the trade-off, consumers offer answers which are inconsistent with their revealed preference, e.g. stating that they would pay to retain more data, yet not giving preference to sites behind paywalls. For instance, an influential 2016 study noted that only 15 percent of consumers saw an exploitation risk from data, yet 57 percent disagreed with the statement that they were willing to give access to personal information for free access to a website.<sup>18</sup> 69 percent thought that they did not benefit from the sale of data to other companies, yet presumably a large number had benefited from free newspaper access, cheaper phones, etc., under precisely such a business model: the examples given by the survey were nowhere near the level of specificity to identify a tradeoff, let alone require consumers to reveal a preference. Indeed, a recent charitably funded study went so far as to call this a "web of paradoxes."<sup>19</sup>

It may be that consumers are ill-placed *subjectively* to identify harms under existing systems: but this would be an argument for assessing *other* evidence of consumer harm, rather than to assume harm. The point then is that *objective* evidence of market failure should be collected — not that harm should be assumed.

It will immediately strike the antitrust lawyer that this is exactly the same question asked under the consumer welfare standard: is the average consumer harmed? What is the evidence? Subjective evidence of consumer harm is not the point: the point is to enhance economic efficiency through well-functioning markets, driving growth. There is no obvious reason why data protection should not apply a similar concept, to ensure relevance from the consumer point of view, rather than from the point of view of producers or regulators.

<sup>15</sup> See U.S. Federal Trade Commission, Equifax Data Breach Settlement, available at https://www.ftc.gov/enforcement/cases-proceedings/refunds/equifax-data-breach-settlement.

<sup>16</sup> A.V. Dicey, *Introduction to the Study of the Law of the Constitution* (1885; Macmillan reprint, London 1915).

<sup>17</sup> CMA (2020) Appendix L: para 285. Summary of research on consumers' attitudes and behaviour.

<sup>18</sup> See e.g. IPSOS, "Digital Footprints: Consumer concerns about privacy and security" (Nov. 2016), p.45-52.

<sup>19</sup> P. Akman, "A Web of Paradoxes: Empirical Evidence on Online Platform Users and Implications for Competition and Regulation in Digital Markets," April 28, 2021, available at https://papers.srn.com/sol3/papers.cfm?abstract\_id=3835280.

## V. FOREGONE INNOVATION: INTEROPERABILITY ISSUES AND REGULATORY CAPTURE

The greatest concern from the lack of focus on consumer outcomes in the GDPR shows up in limited interoperability of data sets: unless the GDPR requirements are met, the data is non-compliant and cannot be used, regardless of the balance of consumer harm and benefit from the activity. This creates a powerful barrier to entry in the collection of data by new entrants, and tilts the data market towards large, established providers who have existing data troves.

Indeed, as regulation increases, the more valuable these existing troves become. There appears to be no prospect of disgorging over a decade's collection of past data, even if arguably non-compliant: the regulator worries only about the new data, potentially creating market power in the existing data. Legacy concepts are still in use, like first-party and third-party data, which *deliberately* aim to undermine interoperability: click once on a mega-platform, and you may have consented to significant data processing; but Bob's AdTech needs a new consent click and cannot sell or combine its data until it goes back to get consumer permission to innovate — a powerful tilt towards vertically integrated models, and a de facto ban on later innovative use that was not foreseen.<sup>20</sup> This fails the first rule of innovation, as noted by the Nobel prize winning economist Phelps. It is worth quoting his comment on this in full:

"Innovations... are not determinate from current knowledge, thus are not foreseeable. Being new, they could not have been known before."<sup>21</sup>

In other words. the GDPR, in its informed consent requirement, applies the fallacy that innovations can be foreseen. This gives little to no weight to innovative use from interoperating data sets.

By contrast, the antitrust experience is that competition in vertically related markets has sometimes been an important spur to innovation — consider the well-known examples of the PC hardware and software markets, or long-distance telephony, following unbundling. There is no reason to think that interoperation of data sets would be any different. A consumer might legitimately ask, why is innovation not being given more weight, when it is so important to my welfare? No consumers have access to a product until it is created, and stasis does not serve their interests — unlike corporatist producers. Yet when it comes to data, a powerful stasis bias has been created in favor of those with vertically integrated systems and existing data troves.

Allowing interoperability so as to serve the consumer is important because the static account of data privacy can support significant regulation, raising barriers to entry. Regulators and legislators should not be taken at face value on this point, as they will have their own agendas (notably, budgetary growth) which do not necessarily align with those of consumers or wider society. Indeed, rent seeking under the GDPR may be the answer to the riddles in the curiously broad definitions chosen: the broadest test creates the largest compliance function. The EU's appetite for the GDPR may thus partially be explained: like agricultural policies, fishing quotas, or anti-dumping tariffs, there is scope for negotiators to trade the resulting economic rents. Unfortunately for the consumer, this prioritizes state interests over those of the consumer. This is where consumer-friendly law has an essential role: constraining political entrepreneurship by limiting state action, so as to liberate the market. By contrast, a bureaucratic discretion to define "legitimate" data operability as in Art 6(1)(f) is ripe for rent-seeking, as it creates concentrated benefits and diffuse costs.<sup>22</sup>

<sup>20</sup> UK Information Commissioner's Office, *Guidance on the use of cookies and similar technologies [under the Privacy and Electronic Communications Regulations]*, "What are first party and third party cookies?"

<sup>21</sup> Edmund Phelps, *Mass Flourishing*, p.32 (Princeton Univ. Press, 2006).

<sup>22</sup> J. Buchanan & G. Tullock, The Calculus of Consent (Michigan Univ. Press, 1962).

## VI. CONCLUSION: ANTITRUST CONCEPTS TO THE RESCUE?

Competition law used to apply form-based reasoning that might once have regulated interactions in the ice cream parlor: e.g. access to the freezer on the questionable assumption that entry in a neighboring commercial unit is impossible. More recent law looks to the effects from practices rather than their form, applying a consumer welfare test so as to exclude potential rent-seeking in the definition of "public interest."<sup>23</sup> Happily, very recent thought leadership in data protection appears to be more sensitive to the consumer. The UK ICO/CMA joint statement suggests that antitrust enforcers can work with information regulators to develop a pro-consumer approach:

- The UK data protection regulator has published a joint statement with the competition authority, setting out an approach under which competition supports data protection. For example, paragraph 51 states that " 'take it or leave it' terms regarding the use of personal data [are] particularly acute where the platform has market power, such that the user has no meaningful choice but to accept the terms."<sup>24</sup> This is an interesting reinterpretation of the UK Data Protection Act 2018, passed during EU membership, but now open for reconsideration following British independence: is a market power gateway to be applied? If so cue applause from the competition bar.
- Likewise, paragraph 9 firmly rejects the first party/third party distinction, which had already been removed from GDPR, but was still
  applied de facto because informed consent is difficult to show in data interoperation. Instead, the ICO notes that "whether information
  is personal data depends on whether it relates to an identified or identifiable individual." No ifs, no buts, no "in particular... [vague
  laundry list]" as in GDPR. A major risk-based gateway is being reasserted.
- The most remarkable point is very well-hidden: see fn 16, which defines *loss* from data abuse: "These harms can be wide-ranging and include individual tangible harms such as financial or bodily harm, or the cost of avoiding or mitigating harm; individual intangible harms such as discrimination, unwarranted intrusion, misuse of personal information, or loss of control of personal data; and societal harms such as loss of trust, damage to the rule of law or democracy." This may be the start of a move towards a more robust definition of loss, so as to define harm, and supports the statement that the document seeks a "risk-based approach."<sup>25</sup>
- Paragraphs 50-63 set out consumer-centric definitions of harm, notably admitting that switching may discipline privacy practices: implicitly, if switching is undertaken by a portion of the market, the argument can be made that the remainder choosing *not* to switch is evidence of consumer benefit to those users.
- The statement specifically flags the need to enable data interoperation at paragraph 62: "Data sharing that engenders trust in how personal data is being used is a driver of innovation, competition, economic growth and greater choice for consumers and citizens."

The statement stops short of changing some of the most restrictive rules,<sup>26</sup> but signals a significant change in emphasis. Those steeped in antitrust history may recall similar changes to the definition of core terms, including "significant lessening of competition," "monopolization," and "abuse of dominance." Form-based approaches were changed without changing the letter of the law. Bringing the right cases, rather than changing the law, showed that the law was capable of redefinition to suit developments in economic thought and skepticism as to the benefits of regulation to society at large, unless specific evidence of harm to consumers could be shown.<sup>27</sup> Will the same happen to data protection law? The cause of interoperability appears to be intertwined with the application of a consumer welfare standard to data protection law.

<sup>23</sup> See especially UK CMA, "Single-wrapped impulse ice cream: suspected anti-competitive conduct," case closure of 10 August 2017, finding no grounds for action applying contemporary antitrust principles to allegations of exclusionary discounting.

<sup>24</sup> I am grateful to Maria Constantin for the insights into the CMA/ICO joint statement and the changes from the status quo ante.

<sup>25</sup> ICO/CMA joint statement, Para 39 and fn 16.

<sup>26</sup> Most prominently, the Privacy and Electronic Communications Regulations: see above fn.17.

<sup>27</sup> The classic example is U.S. v. General Dynamics Corp., 415 U.S. 486 (1974), the appropriately named case integrating dynamic analysis into merger control without changing the letter of the law.

## HOW SELF-PREFERENCING CAN VIOLATE SECTION 2 OF THE SHERMAN ACT





1 Policy Analyst, Open Markets Institute. The author would like to thank the staff of Competition Policy International for their edits and suggestions. All errors are my own.



## I. INTRODUCTION

Self-preferencing occurs when a firm unfairly modifies its operations to privilege its own, another firm's, or a set of firms' products or services. For example, Google can manipulate its search rankings to favor its own shopping platform and prevent dependent (often rival) firms from obtaining visibility on its site.<sup>2</sup> Exhaustive investigations into Google's, Apple's, Facebook's, and Amazon's (collectively, "GAFA's") operations by private and public institutions show the harms self-preferencing can cause to market participants and consumers by allowing a firm to extend and fortify its dominance across multiple markets.<sup>3</sup>

This article will explain how self-preferencing can constitute a form of monopolization and can violate Section 2 of the Sherman Act. Google's conduct, in particular, provides an excellent foundation for analyzing how the Sherman Act can apply to self-preferencing.

### **II. THE SHERMAN ACT PROHIBITS UNFAIR COMPETITION BY MONOPOLISTS**

Congress enacted the Sherman Act to be a "Magna Carta of free enterprise" that acts as a "comprehensive charter of economic liberty" and "does not confine its protection to consumers, or to purchasers, or to competitors, or to sellers" encompassing "all who are made victims of [its] forbidden practices."<sup>4</sup> In other words, Congress structured the Sherman Act to reach nearly all firm conduct.

Congress did not condemn monopoly as a *per se* offense.<sup>5</sup> Nevertheless, the Sherman Act does impose a significantly higher duty of conduct on monopolies and other dominant firms that prohibits them from engaging in a plethora of exclusionary and unfair actions that could allow the firm to acquire, maintain, or extend its power.<sup>6</sup> Congress wanted to prohibit certain kinds of conduct because in the decades preceding the Sherman Act's enactment in 1890, it became clear that when a firm's market power increases and as market concentration increases, it leads to foreseeable and almost certain adverse effects on markets, consumers, and democracy itself. Since the early 20<sup>th</sup> century, the Supreme Court has acknowledged that to protect markets, consumers, and democracy, stringent limitations on monopolies and other dominant firms are necessary. For example, in the often-cited 1919 Colgate decision, the Supreme Court stated that a firm can choose its customers and suppliers so long as the firm is not acting to "create or maintain a monopoly[.]"<sup>7</sup>

To facilitate its broad public policy goals, Congress structured the Sherman Act to prohibit firms from using a vast range of tactics to win in the marketplace. For example, the Sherman Act prevents a firm from solely using its access to superior financial resources to maintain or acquire a dominant position; using its manufacturing capacity to price below the cost of production as a means of crushing rival firms out of the market;<sup>8</sup> imposing exclusivity deals or practices that foreclose a substantial share of the market,<sup>9</sup> or tying products together when the firm has "appreciable economic power."<sup>10</sup> The Sherman Act also prohibits firms from engaging in unfair and unethical conduct, such as using deception or other tortious offenses, which can often be costless for a firm to engage in.<sup>11</sup>

4 United States v. Topco Associates, Inc., 405 U.S. 596, 610 (1972); Northern Pacific R. Co. v. United States, 356 U.S. 1 (1958); Mandeville Island Farms v. American Crystal Sugar, 334 U.S. 219 (1948); Blue Shield v. McCready, 457 U.S. 465, 472 (1982).

5 United States v. Int'l Harvester Co., 274 U.S. 693, 708 (1927).

6 *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 488 (1992) (Scalia, J., dissenting) ("Behavior that might otherwise not be of concern to the antitrust laws—or that might even be viewed as procompetitive—can take on exclusionary connotations when practiced by a monopolist."); *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S 585, 605 (1985); *LePage's Inc. v. 3M*, 324 F.3d 141, 151–52, 169 (3d Cir. 2003) (en banc).

7 United States v. Colgate & Co., 250 U.S. 300, 307 (1919).

8 Christopher R. Leslie, *Predatory Pricing and Recoupment*, 113 Colum. L. Rev. 1695, 1717–18 (2013).

9 Jefferson Parish Hospital District No. 2 v. Hyde, 466 U.S. 2 (1984); Tampa Electric Co. v. Nashville Coal Co., 365 U.S. 320 (1961).

10 Eastman Kodak, 504 U.S. at 462.



<sup>2</sup> First Amended Civil Complaint, Dreamstime.com, LLC v. Google, LLC (N.D. Cal.) (No. 18-01910) [hereinafter Dreamstime Amended Complaint].

<sup>3</sup> See Majority Staff of House Subcomm. on Antitrust, Commercial & Admin. Law, 116<sup>™</sup> Cong., Investigation of Competition in Digital Markets 182–83 (2020) [hereinafter House Report].

<sup>11</sup> Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 500 (1988); Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp., 382 U.S. 172, 176–78 (1965); Prof'l Real Estate Investors v. Columbia Pictures Indus., 508 U.S. 49, 60–61 (1993). See also Susan A. Creighton et al., Cheap Exclusion, 72 ANTIRUST L. J. 975, 977, 989–90 (2005).

Thus, the Sherman Act delineates between two avenues of conduct. First, the act prohibits firm conduct that is unfair and harmful to consumers, market participants, and society. Prohibiting specific unfair and exclusionary conduct prevents a firm from unfairly gaining a competitive advantage, fortifying a dominant position, or monopolizing a market. Second, the Sherman Act fosters fair competition between market participants by promoting and encouraging firm conduct that is beneficial to consumers and society as a whole.<sup>12</sup> By forbidding the use of certain unfair and exclusionary tactics, the Sherman Act structures a firm's operations to encourage a vast range of beneficial conduct, including competition through reductions in price, product improvements, research and development expenditures, investments in infrastructure or other distribution channels, offering more favorable terms to distributors and suppliers, and increasing benefits to workers.

### III. WHAT IS SELF-PREFERENCING AND WHAT ARE ITS HARMFUL EFFECTS?

By unfairly modifying its operations to privilege its, another firm's, or a set of firms' products or services, self-preferencing enables a firm to unilaterally distort the relationships between dependent firms and customers to monopolize a market, fortify its dominance, destroy a competitor, or leverage into a new market. Self-preferencing can thus violate the Sherman Act and violate the principles of fair competition embedded in it.

Self-preferencing is not a novel behavior, but that does not put it outside the protections afforded by the Sherman Act.<sup>13</sup> For example, the concern that a dominant technology company would use its infrastructure to sustain its dominance, leverage into new markets, and give favorable terms to some companies was a primary concern of the Department of Justice when it initiated its lawsuit that led to the breakup of AT&T in 1982.<sup>14</sup> Other more modern examples of self-preferencing include manipulating search rankings to give a company's own products or services an artificial boost or giving favorable search rankings for a selected few companies while blocking off access to such terms for others to monopolize an industry.<sup>15</sup>

Self-preferencing causes two primary harms to market participants and consumers. First, since self-preferencing artificially weakens a rival firm's competitive position (who is often dependent on the provided service), it allows the perpetrator to unfairly maintain and extend its market power. When this happens, barriers to entry in an industry can increase, leading to less consumer choice, increased bargaining leverage of incumbent firms to extract or impose more favorable terms of service and conduct on dependent firms, and increased costs to dependent firms.

Second, self-preferencing causes significant exclusion and foreclosure effects, which can lessen consumer choice for alternative services. The exclusion of a firm can also cause consumers to lose out on the benefits of increased firm rivalry and potential innovation derived from it.<sup>16</sup>

The foreclosure effects caused by self-preferencing can also deprive a firm of the necessary scale to be a viable market participant.<sup>17</sup> Moreover, even the threat of foreclosure can cause harm to consumers by deterring the entry of potential competitors since they will likely not risk entering a market that they can be unilaterally excluded from if they start challenging the dominant incumbent firm.<sup>18</sup>

16 Jonathan B. Baker, Exclusion As A Core Competition Concern, 78 ANTITRUST L.J. 527, 560 (2013).

<sup>12 21</sup> Cong. Rec. 3151 (1890) (statement of Sen. Hoar) ("[Monopoly is more than just commercial success] it involve[s] something like the use of means which made it impossible for other person to engage in fair competition."); 21 Cong. Rec. 2457 (1890) (statement of Sen. Sherman) (His namesake act was meant to secure "free and fair competition").

<sup>13</sup> See generally American Needle, Inc. v. National Football League, 560 U.S. 183, 198 (2010) ("[A] history of concerted activity does not immunize conduct from § 1 scrutiny.").

<sup>14</sup> United States v. American Tel. & Tel. Co., 552 F. Supp. 131, 184 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983). Press Release, Department of Justice Files a Civil Antitrust Suit Charging American Telephone and Telegraph with Monopolizing Telecommunications Service and Equipment in the United States 3 (Nov. 20, 1974), https://www.justice.gov/archive/atr/public/press\_releases/1974/338834.pdf.

<sup>15</sup> Jack Nicas & Keith Collins, *How Apple's Apps Topped Rivals in the App Store It Controls*, N.Y. TIMES (Sept. 9, 2019), https://www.nytimes.com/interactive/2019/09/09/ technology/apple-app-store-competition.html (describing an example of Apple's self-preferencing). For an example of Amazon's self-preferencing, see Julia Angwin & Surya Mattu, *Amazon Says It Puts Customers First. But Its Pricing Algorithm Doesn't*, PRoPUBLICA (Sept. 20, 2016), https://www.propublica.org/article/amazon-says-it-puts-customersfirst-but-its-pricing-algorithm-doesnt. *Amazon: By Prioritizing Its Own Fashion Label Brands in Product Placement on Its Increasingly Dominant Platform, Amazon Risks Antitrust Enforcement by a Trump Administration*, CAPITOL FORUM (Dec. 13, 2016), https://thecapitolforum.com/wp-content/uploads/2016/07/Amazon-2016.12.13.pdf.

<sup>17</sup> United States v. Microsoft Corp., 253 F.3d 34, 60 (D.C. Cir. 2001) (en banc). Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theorem*, 123 HARV. L. REV. 397, 413 (2009) ("[F]oreclosing a market can create anticompetitive effects by depriving rivals of network effects or economies of scale, scope, distribution, supply, research, or learning.").

<sup>18</sup> Daniel A. Hanley, A Topology of Multisided Digital Platforms, 19 CONN. PUB. INT. L.J. 271, 282 (2020).

## IV. SELF-PREFERENCING CAN VIOLATE SECTION 2 OF THE SHERMAN ACT

The Supreme Court has stated that monopolization under the Sherman Act requires "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."<sup>19</sup>

Monopoly power is "the power to control prices or exclude competition" and must be "accompanied by an element of anticompetitive conduct."<sup>20</sup> Plaintiffs can show anticompetitive conduct by presenting direct or circumstantial evidence. Additionally, the Supreme Court requires that the anticompetitive conduct at issue cannot just adversely affect a single firm, but rather the conduct must harm the "competitive process."<sup>21</sup> Willful acquisition or maintenance includes predatory, exclusionary, or unfair practices as well as practices that unnecessarily and arbitrarily impair the market to the detriment of rivals.<sup>22</sup>

With this framing, Google's conduct exemplifies how a dominant firm can use self-preferencing to monopolize a market and violate Section 2 of the Sherman Act. Numerous government reports and anecdotal accounts detail the exclusionary effects Google's conduct has on market participants and consumers.<sup>23</sup>

Google's market share in search far exceeds required thresholds for monopoly power under the Sherman Act.<sup>24</sup> Multiple comprehensive investigations into the company's operations found that Google's market share in search is almost 90 percent.<sup>25</sup> Other evidence also shows that Google is an "indispensable medium" and essential for a firm's success.<sup>26</sup> For example, Google is the top referral site for internet traffic; thus, if a site is not on Google, it is close to not existing at all on the internet for most consumers.<sup>27</sup> Multiple accounts show that the corporation also has monopoly power in several other markets.<sup>28</sup>

Google has also engaged in "willful acquisition or maintenance of its monopoly" that harms the competitive process. In multiple instances, comprehensive reports show that Google obtained its dominant position by engaging in a surfeit of exclusionary conduct that includes the use of self-preferencing, making hundreds of acquisitions, and imposing many restrictive contracts on third parties rather than as a consequence of a "superior product, business acumen, or historic accident."<sup>29</sup> Specifically, concerning Google's use of self-preferencing, two cases are particularly illustrative.

In 2011, the Federal Trade Commission investigated Google for self-preferencing its comparison shopping and local shopping sites.<sup>30</sup> Google decided to explicitly demote the search rankings of rival sites like Yelp to promote and advantage its own digital properties, such as Google Maps and Google Shopping.<sup>31</sup> Google effectively used its horizontal monopoly in general search (i.e. Google.com) to extend its market power into vertical search services (i.e. restaurant ratings and reviews).

19 United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966).

20 United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956); Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004) (emphasis omitted).

21 NYNEX Corp. v. Discon, Inc., 525 U.S. 128, 135 (1998).

22 *Trinko*, 540 U.S. at 407; *Aspen Skiing*, 472 U.S. at 605 n.32; *Microsoft*, 253 F.3d at 66 ("[Maintaining market power] through a means other than competition on the merits, [] is anticompetitive."); *Morris Commc'ns Corp. v. PGA Golf Tour, Inc.*, 364 F.3d 1288, 1294 (11th Cir. 2004) (citing *Eastman Kodak Co. v. S. Photo Materials Co.*, 273 U.S. 359 (1927)).

23 House Report, *supra* note 3, at 174–246; Australian Competition & Consumer Comm'n, Digital Platforms Inquiry - Final Report (2019) [hereinafter Australian Report], https://www. accc.gov.au/publications/digital-platforms-inquiry-final-report; Report of the Digital Competition Expert Panel, UNLocking Digital Competition (2019) [hereinafter UK Report], https:// assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/785547/unlocking\_digital\_competition\_furman\_review\_web.pdf.

24 United States v. Aluminum Co. of America, 148 F.2d 416, 424 (2d Cir. 1945).

25 HOUSE REPORT, supra note 3, at 78; AUSTRALIAN REPORT, supra note 23, at 42; UK REPORT, supra note 23, at 25.

26 Lorain Journal Co. v. United States, 342 U.S. 143, 152 (1951). FRANKLIN FOER, WORLD WITHOUT MIND: THE EXISTENTIAL THREAT OF BIG TECH 81–82 (2017) ("Every writer, every media outlet, every book publisher depends on [the GAFA companies] for their financial survival.").

27 Viola Eva, Where is all That Traffic Coming From? A Referrer Traffic Analysis., FLow SEO (Oct. 3, 2019), https://www.flow-seo.com/seo/referral-traffic-data/.

28 Hanley, supra note 18, at 346–48; HOUSE REPORT, supra note 3, at 174–246.

29 HOUSE REPORT, supra note 3, at 78; AUSTRALIAN REPORT, supra note 23, at 8, 13, 58; UK REPORT, supra note 23, at 11, 23. Grinnell, 384 U.S. at 570–71.

30 Leah Nylen, How Washington Fumbled the Future, PolTico (Mar. 16, 2020), https://www.politico.com/news/2021/03/16/google-files-ftc-antitrust-investigation-475573.

31 *Id*.

In another instance, starting around 2015, Google wanted to maintain its dominant position in digital images. To do this, Google changed its search ranking algorithm and entered into agreements with Shutterstock and Getty Images to supply it with high-quality stock photos. Google's changes and agreements significantly demoted the search ranking of Dreamstime, a rival stock photo provider. Since Google relegated Dreamstime's site to the back pages of its search results, it effectively made Dreamstime's site and other similarly situated sites that do not have an agreement with Google invisible to consumers and depriving consumers of an alternative service.<sup>32</sup> Dreamstime even tried to increase their spending by millions of dollars on Google's advertising platform, hired advertising and search consultants, and implemented a series of changes recommended by Google to improve their search ranking, all to no avail.<sup>33</sup>

Both of these instances provide an adequate basis for a violation of Section 2 of the Sherman Act. In both examples, Google used selfpreferencing derived from its "dominant economic power" to "foreclose competition, to gain a competitive advantage, or to destroy a competitor" and harm the competitive process, — as opposed to succeeding on account of "superior service, lower costs, and improved efficiency."<sup>34</sup> Since Google is indispensable to third parties,<sup>35</sup> an artificially lower search ranking from self-preferencing can be devastating for a firm's competitive position. As such, self-preferencing not only leads to substantial foreclosure of a rival site, but it also can raise the costs to dependent firms because a firm may have to either enter into a special deal with Google or pay for advertising on Google's search platform to ensure they are at a higher search position.<sup>36</sup> All of this has the effect of raising a rival's costs or forcing a dependent firm to operate in a significantly weaker bargaining position as a direct result of the firm's market power and self-preferencing.<sup>37</sup>

Google's actions are similar to those in a previous Supreme Court case that affirmed a finding of monopolization and a violation of Section 2 of the Sherman Act in 1973.<sup>38</sup> Like Google, Otter Tail Power Company was a vertically integrated corporation (in this case, an electrical utility) that had monopoly power in its relevant market.<sup>39</sup> Like Google's search engine, Otter Tail's electrical generation and distribution infrastructure were not easily replicable by rivals.<sup>40</sup> Like Google's actions toward Dreamstime, Yelp, and others, Otter Tail used its "strategic dominance" and control of its infrastructure to disadvantage and foreclose municipal rivals by refusing to transmit power over its own power lines from generators to municipal utilities to protect its distribution monopoly.<sup>41</sup>

The primary rationale for the Supreme Court's decision that Otter Tail violated Section 2 of the Sherman Act is because the company "[used its] monopoly power to destroy threatened competition[.]"<sup>42</sup> Importantly, the Court also distinguished Otter Tail's conduct from fair competition principles in which firms, including monopolists, succeed through "superior service, lower costs, and improved efficiency" rather than the use of unfair or exclusionary tactics.<sup>43</sup>

In addition to Google's monopoly power and exclusionary tactics, other aggravating factors increase the likelihood that the corporation is seeking to maintain its monopoly in violation of the Sherman Act. First, similar to other exclusionary monopolization offenses (like exclusive dealing or tying), self-preferencing does not need to be used against every possible competitor or cause full foreclosure of a rival or dependent firm to obtain the desired adverse effect.<sup>44</sup> For example, Google does not need to demote the search rankings of every rival vertical search engine

32 Dreamstime Amended Complaint at 5, 20–23, 27.

33 Civil Complaint at 39-42, Dreamstime.com, LLC v. Google, LLC (N.D. Cal.) (No. 18-01910).

36 GoogleAds is a service where advertisements can be shown to users on Google.com and are located either above traditional search results or on the side of search results. GoogleAds, https://ads.google.com/home/ (last visited Apr. 19, 2021).

37 Sanderson v. Culligan Int'l Co., 415 F.3d 620, 623 (7th Cir. 2005).

38 Otter Tail, 410 U.S. at 370.

39 Id. at 368-71.

40 *Id*.

41 Id. at 371, 377.

42 Id. at 377 (internal quotations omitted).

43 Id. at 380.

44 *Eastman Kodak*, 504 U.S. at 462 (Tying requires "appreciable economic power"); *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 283 (3d Cir. 2012) ("'[T]otal foreclosure' is not required for an exclusive dealing arrangement to be unlawful."); *MetroNet Services Corp. v. Qwest Corp.*, 383 F.3d 1124, 1132–33 (9th Cir. 2004) ("An offer to deal with a competitor only on unreasonable terms and conditions can amount to a practical refusal to deal.").

<sup>34</sup> Otter Tail Power Co. v. United States, 410 U.S. 366, 380 (1973); Aspen Skiing, 472 U.S. at 605; Image Technical Services, Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1208 (9th Cir. 1997) (quoting United States v. Griffith, 334 U.S. 100, 107 (1948)).

<sup>35</sup> HOUSE REPORT, *supra* note 3, at 180; FOER, *supra* note 26, at 81–82.

or even remove a rival firm like Yelp or Dreamstime from their site entirely. Detailed analysis shows that less than 1 percent of users clicked on a link on the second page of a Google search result, and most user clicks are confined to the first few search results.<sup>45</sup> Thus, getting demoted even slightly would effectively relegate a site to digital jail. Similar effects exist across other sites like Amazon.<sup>46</sup> In fact, selective manipulation, exclusion, or demotion of a site like Yelp or Dreamstime may actually be just as, if not more of, an effective indicator to determine whether a firm is intending to exclude a rival to leverage into a market or attempting to succeed in the marketplace by providing "superior service, lower costs, and improved efficiency."<sup>47</sup> Additionally, excluding individual firms by self-preferencing may also prove to be an easier path to maintain a firm's dominance.<sup>48</sup> As the Supreme Court stated in 1959, violations of the Sherman Act are "not to be tolerated merely because the victim is just one merchant whose business is so small that his destruction makes little difference to the economy. Monopoly can as surely thrive by the elimination of such small businessmen, one at a time, as it can by driving them out in large groups."<sup>49</sup>

Along similar lines, since self-preferencing needs to be only applied selectively to obtain significant exclusion of a rival or dependent firm, consumers would generally be unable to know or discover that such actions are taking place.<sup>50</sup> The founders of Google admitted this and were acutely aware that self-preferencing would also be "very difficult to detect" and have "a significant effect on the market."<sup>51</sup>

Second, many technology industries, like internet search, have high barriers to entry and the GAFA corporations have durable and persistent monopoly power.<sup>52</sup> In Google's case, no competitor has meaningfully challenged its dominant position in almost two decades. Such a situation increases the presumption that antitrust action is warranted.<sup>53</sup>

Third, self-preferencing facilitates other kinds of predatory and exclusionary behavior condemned by the antitrust laws, including tying.<sup>54</sup> Self-preferencing can operate as a form of tying since a company like Google, by preferencing its own services (or the services of other companies) and demoting rivals, encourages users to adopt its products and services together, potentially locking them in. Thus, self-preferencing can raise barriers to entry such that a rival service is unfairly inhibited from obtaining a sufficient number of users to be a viable market participant.<sup>55</sup>

Lastly, while benign forms of self-preferencing exist, such as a non-dominant grocery store changing the shelving placement of food items to favor its own in-store brands,<sup>56</sup> there are critical differences that distinguish that conduct from Google's and similarly situated digital giants.<sup>57</sup> Unlike an individual grocery store, Google has monopoly power.

45 Brian Dean, *We Analyzed 5 Million Google Search Results*, BackLINKO (Aug. 27, 2019), https://backlinko.com/google-ctr-stats. In fact, the first result is often extremely important too. See Matt Southern, *Over 25% of People Click the First Google Search Result*, Search Engine J. (July 14, 2020), https://www.searchenginejournal.com/google-first-page-clicks/374516/.

46 Loren Baker, Amazon's Search Engine Ranking Algorithm: What Marketers Need to Know, SEARCH ENGINE J. (Aug. 14, 2018), https://www.searchenginejournal.com/amazon-search-engine-ranking-algorithm-explained/265173 (stating 70 percent of users on Amazon never go past the first page of search results).

47 Otter Tail, 410 U.S. at 380; Aspen Skiing, 472 U.S. at 605 ("If a firm has been 'attempting to exclude rivals on some basis other than efficiency,' it is fair to characterize its behavior as predatory."); Lorain Journal, 342 U.S. at 154–55; Chicago Board of Trade v. United States, 246 U.S. 231, 238 (1918) ("[K]nowledge of intent may help the court to interpret facts and predict consequences [of an exclusionary practice]."). Mark R. Patterson, Antitrust, Consumer Protection, and the New Information Platforms Antitrust, 31 ANTITRUST, Summer 2017, at 100–01 (2017).

48 Lorain Journal, 342 U.S. at 149-53, 157.

49 Klor's Inc. v. Broadway-Hale Stores, Inc., 359 U.S. 207, 213 (1959).

50 Patterson, *supra* note 47, at 100–01; Oren Bracha & Frank Pasquale, *Federal Search Commission? Access, Fairness, and Accountability in the Law of Search*, 93 Connell L. Rev. 1149, 1178–79, 1183 (2008). *Eastman Kodak*, 504 U.S. at 473–77.

51 Sergey Brin & Lawrence Page, *The Anatomy of a Large-Scale Hypertextual Web Search Engine*, 30 Computer Networks 107 (1998), http://infolab.stanford.edu/~backrub/google.html.

52 Hanley, *supra* note 18, at 291–308; Bracha & Pasquale, *supra* note 50, at 1182 (detailing how personalized search may also lock in users and increase switching costs); Creighton et al., *supra* note 11, at 986–87, 989.

53 Sandeep Vaheesan, *Resurrecting* "A Comprehensive Charter of Economic Liberty": *The Latent Power of the Federal Trade Commission*, 19 U. Pa. J. Bus. L. 645, 684 (2017); Jonathan B. Baker, *Taking the Error Out of "Error Cost" Analysis: What's Wrong with Antitrust's Right*, 80 ANTIRUST L.J. 1, 11–12 (2015).

54 See generally Jefferson Parish, 466 U.S. 2 (1984). Eastman Kodak, 504 U.S. 451.

55 See note 50. *Microsoft*, 253 F.3d at 79 ("[S]uffice it to say that it would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will[.]"); Maurice E. Stucke & Allen P. Grunes, *Data-opolies*, (March 3, 2017) at 10 (CONCURRENCES No. 2-2017 (2017) (Univ. Tenn. Knoxville Legal Studies Research Paper Series No. 316), available at <a href="https://srn.com/abstract=2927018">https://srn.com/abstract=2927018</a> (stating, "A dominant data-driven company can use exclusionary tactics to prevent rivals from achieving the minimum efficient scale.").

56 Patterson, supra note 47, at 100.

57 Bracha & Pasquale, supra note 50, at 1183; Patterson, supra note 47, at 100–01.

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Also, as opposed to the physical world, in the digital realm, users confine their searches to the first set of results they are shown. In the digital realm, searching for a particular website or product is a nearly endless process. There will always be more results than a user can review. Thus, in part, there is a "paradox of choice" that exists, and consumers feel that it is not worth their time to endlessly explore options they are presented with.<sup>58</sup> As such, users, across multiple technology platforms, confine their search to the first page they are presented with rather than engage in a more scrupulous search as they likely would for a product if they were at a physical retail outlet.<sup>59</sup> Thus, self-preferencing in the digital realm can have significant foreclosure effects that are not analogous to physical retailers. All these aggravating factors can just as easily apply to the conduct or industries of the other digital giants.

## **V. CONCLUSION**

Self-preferencing can violate Section 2 of the Sherman Act, as Google's conduct shows. Fortunately, antitrust enforcers have a range of remedies at their disposal that would inhibit the use of self-preferencing or substantially weaken its adverse effects.<sup>60</sup> Structural separation would immediately enhance competition so that the effect of any one firm's self-preferencing would not result in near-total foreclosure of a rival and dependent firm. Interoperability requirements would also significantly inhibit the adverse effects of self-preferencing by lowering barriers to entry into an industry and allowing dependent firms or new firms to create an alternative service for consumers or other dependent firms.

58 See Barry Schwartz, The Paradox of Choice - Why More Is Less 55 (2004).

<sup>59</sup> See generally Terry Clark, *Benefits of Physical Store vs Online Shop*, RETAIL Focus (Mar. 23, 2020), https://www.retail-focus.co.uk/benefits-of-physical-store-vs-online-shop (detailing the differences of online sales versus in-stores sales and how it affects a consumer's shopping habits).

<sup>60</sup> Daniel A. Hanley et al., *Financing Free Speech: A Typology of Government Competition Policies in Media and Communications Markets*, CTR. FOR JOURNALISM & LIBERTY (Sept. 2020) (detailing many antimonopoly remedies), https://www.journalismliberty.org/publications/basics-financing-free-speech.

## INTEROPERABILITY AS A LENS ONTO REGULATORY PARADIGMS

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Throughout the early days of the internet ecosystem, antitrust was rarely used as a means of investigating allegations of harm from a single company.<sup>2</sup> In the late 2010s, that began to change. In the European Union, antitrust actions were brought against Google,<sup>3</sup> Facebook,<sup>4</sup> Apple,<sup>5</sup> and Amazon;<sup>6</sup> followed by the United States with federal and state antitrust suits against both Google<sup>7</sup> and Facebook.<sup>8</sup> Academic and government studies in the United States, the United Kingdom, and the European Union have now led to major legislative proposals: the Judiciary Committee report in the House of Representatives,<sup>9</sup> the Final Report of the Competition and Markets Authority in the UK,<sup>10</sup> and the EU's Digital Markets Act.<sup>11</sup> These proposals aren't focused solely on the mechanics of antitrust litigation, but rather include new theories of harm and new obligations for companies perceived to be operating as anticompetitive gatekeepers beyond the boundaries of traditional single-firm monopoly injury. Interoperability is among these obligations, and examining it in depth reveals deeper underlying tensions in how regulators are viewing the internet market today. The push for greater interoperability shows the limits inherent in understanding the internet ecosystem through traditional regulatory paradigms.

Interoperability is best understood as something quite different from traditional antitrust. While it bears some similarity to the essential facilities doctrine,<sup>12</sup> it simultaneously bears a resemblance to communications regulatory frameworks and common carrier expectations, like must-carry<sup>13</sup> and the obligation to offer interconnection on reasonable terms.<sup>14</sup> Neither of these paradigms fit perfectly, though, and creative thinking and care will be needed when governments intervene to advance interoperability.

The core objective of this article is not to engage in the merits of interoperability as a policy objective; rather it is to explore the tensions that arise between interoperability and regulatory paradigms. This includes differences in the promoted values as well as the challenges of achieving the clarity necessary for existing regulatory paradigms to succeed. These complexities in applying traditional regulatory structures coupled with conditions that change at the pace of technology counsel in favor of two precautionary principles: restraint in the adoption of *ex ante* restrictions on specific behavior and a flexible, iterative approach to applying remediary regulation. In service of both caution and iterative flexibility, multi-stakeholder engagement could add value in the near term, in particular through a collective effort that includes the contributions of industry, civil society, and government actors. Such engagement could help develop a better understanding of challenges to, and opportunities to improve, interoperability and a meaningful diversity of online experiences.

4 Foo Yun Chee, Facebook in EU antitrust crosshairs over data collection, REUTERS (Dec. 20, 2019), https://www.reuters.com/article/us-eu-facebook-antitrust-idUSKBN1Y625J.

5 European Commission, Antitrust: Commission opens investigations into Apple's App Store rules, PRESS CORNER (June 16, 2020), https://ec.europa.eu/commission/presscorner/detail/en/ip\_20\_1073.

6 European Commission, Antitrust: Commission opens investigation into possible anti-competitive conduct of Amazon, PRESS CORNER (July 17, 2019), https://ec.europa.eu/ commission/presscorner/detail/en/ip\_19\_4291.

7 United States Department of Justice, *Justice Department Sues Monopolist Google For Violating Antitrust Laws*, JUSTICE NEWS (October 20, 2020), https://www.justice.gov/ opa/pr/justice-department-sues-monopolist-google-violating-antitrust-laws; Jesse Paul, *Colorado spearheads 35-state lawsuit accusing Google of operating a search-engine monopoly*, COLORADO SUN (Dec. 17, 2020), https://coloradosun.com/2020/12/17/colorado-google-lawsuit-anticompetitive-conduct/.

8 Federal Trade Commission, FTC Sues Facebook for Illegal Monopolization, PRESS RELEASES (December 9, 2020), https://www.ftc.gov/news-events/press-releases/2020/12/ ftc-sues-facebook-illegal-monopolization.

9 House Committee on the Judiciary, Judiciary Antitrust Subcommittee Investigation Reveals Digital Economy Highly Concentrated, Impacted By Monopoly Power, PRESS RE-LEASES (Oct. 6, 2020), https://judiciary.house.gov/news/documentsingle.aspx?DocumentID=3429.

10 Competition and Markets Authority, Online platforms and digital advertising market study, CMA CASES (July 1, 2020), https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study#final-report.

11 European Commission, *The Digital Markets Act: ensuring fair and open digital markets*, STRATEGY (Dec. 15, 2020), https://ec.europa.eu/info/strategy/priorities-2019-2024/ europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets\_en.

12 E.g. Matthew Lane, Antitrust in 60 Seconds: What Is the "Essential Facilities Doctrine" in the U.S.?, CCIA (April 4, 2018), https://www.project-disco.org/competition/040418antitrust-in-60-seconds-what-is-the-essential-facilities-doctrine-in-the-u-s/.

14 Communications Act, 47 U.S.C. § 251.

<sup>2</sup> The *Microsoft* case in the 1990s is the exception that proves the rule. The Department of Justice ultimately settled its anti-monopoly suit against Microsoft in a settlement approved on appeal to the U.S. Court of Appeals for the D.C. Circuit. *United States v. Microsoft Corporation*, 253 F.3d 34 (D.C. Circ 2001).

<sup>3</sup> European Commission, Antitrust: Commission fines Google €1.49 billion for abusive practices in online advertising, PRESS CORNER (March 20, 2019), https://ec.europa.eu/ commission/presscorner/detail/en/IP\_19\_1770.

<sup>13</sup> E.g. Turner Broadcasting System, Inc. v. FCC, 520 U.S. 180 (1997).

## I. THE INTERNET DOESN'T FIT WELL WITH EXISTING REGULATORY PARADIGMS

The concept of interoperability harkens back to the earliest days of communications networks. Interoperability is the characteristic of telephone systems that ensures phone calls can be placed between customers of different carriers within the United States, and between customers in the United States and the United Arab Emirates. But interoperability as a principle is broader and more fluid than the sometimes narrow technical definitions used to characterize it. In practice, internet services "interoperate" whenever they exchange information, a process that can take place either through shared communications protocols (languages and formats, such as Internet Protocol or "IP") or through asymmetric one-way interfaces known as Application Programming Interfaces ("APIs") or other means. Traditional network engineering tends to refer to interoperability to mean specifically the former, the use of a shared static language by multiple services, such as email. However, public policy conversations embrace both shared protocols and APIs under the umbrella of interoperability, <sup>15</sup> and in this article "interoperable" means the broader concept.

The internet is something new against the history of interoperability as a remedy for problems involving competition,<sup>16</sup> and yet it is still generally examined through old frames of reference. Large, successful businesses engage in actions perceived by smaller competitors to limit market entry and fair competition, who then raise antitrust concerns. While antitrust is not irrelevant, it doesn't tell the full story, and the antitrust toolkit may well not have the right metrics or remedies to evaluate and redress the underlying harms.<sup>17</sup>

Take structural separation, which is a powerful intervention with rising calls for use in tech. Often, advocates for structural separation continue to follow the logic of industrial supply chain integration and concentration, advocating, for example, for the reversal of historical mergers of companies with different user-facing services such as Facebook and Instagram.<sup>18</sup> From a classic corporate mergers perspective, this is logical. And in the context of an action filed under current law, it is the logical remedy to put in the complaint.

At the same time, an entirely different concept of structural separation is equally viable: popular user-facing internet services seamlessly integrate components that feel like infrastructure or basic services — such as cloud computing — with end-user facing social and retail experiences. In some circumstances separating these components would lead to the most potential for encouraging competition across different levels of the internet's modern stack of services. Technical segregation is quite different from splitting two combined corporate structures each of which contained integrated infrastructure and end-user facing components prior to merging. Neither type of separation is necessarily better or more apt from an antitrust perspective; however, casting both of them as "structural separation" illustrates the challenge of applying traditional logic to the modern internet, as well as the possibility that optimizing for technical and for economic ends might lead to different conclusions.

No matter which approach to structural separation one takes, both boil down to reshuffling market participants in the hopes that competing with each other will force them to offer better consumers a more palatable consumer product. In the tech industry, though, where the advertising revenue model is overwhelmingly dominant, none of this reshuffling changes the incentives of digital platforms. Even medium-sized platforms tend toward lock-in, optimize for advertising dollars instead of privacy, and provide only desultory or self-serving interoperation. When applied to the tech sector, competition law is founded on the theory that it is better for a hen to be eaten by a pack of coyotes than by a lone wolf.

The problem is that antitrust is mostly about the power of market participants. Government intervention changes the amount of power held by different companies, but these interventions happen far from the consumers that regulation tries to protect. Competition analysis assumes that shifting the balance of power between competitors will trickle down to benefit consumers. Too often, though, competitive concerns simply don't apply to the problems that consumers want to solve.

In addition to the principles and practices of competition intervention, some commentators look to communications regulations for inspiration. Such regulations function, in part, by accepting the market positions of incumbents who offer communications services. They mitigate the potential for harm through specific structural and behavioral obligations derived from classical common carriage principles. While less frequent

<sup>15</sup> For example, the European Commission's expert report on digital competition defined three classes of interoperability: protocol interoperability, data interoperability, and full protocol interoperability. Jacques Crémer, Yves-Alexandre de Montjoye, & Heike Schweitzer, *Competition Policy for the Digital Era*, 58-59 (2019), https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf.

<sup>16</sup> See, e.g. the final judgment in the DOJ's Microsoft suit, which required disclosure of APIs. Department of Justice, Second Revised Proposed Final Judgment: U.S. v. Microsoft Corporation, https://www.justice.gov/atr/second-revised-proposed-final-judgment-us-v-microsoft-corporation-0.

<sup>17</sup> Chris Riley, Comments of Mozilla Corporation to the Federal Trade Commission Re: Competition and Consumer Protection in the 21st Century Hearings, Project Number P181201, 3-4 (August 20, 2018), https://blog.mozilla.org/netpolicy/files/2018/08/Mozilla-FTC-filing-8-20-2018.pdf.

<sup>18</sup> See FTC v. Facebook, https://www.ftc.gov/system/files/documents/cases/051\_2021.01.21\_revised\_partially\_redacted\_complaint.pdf.

than calls for competition reform, such utility regulation is considered at times for application to the internet under a similar spirit.<sup>19</sup> Often, these calls relate to the perception of bias in the operation of online services, a perception that is widely held though not supported by clear evidence.<sup>20</sup> It is difficult to find strong, thorough arguments for applying common carriage to large digital platform businesses. One reason for this lack is that, like traditional competition frameworks, common carriage access analysis is often a poor lens through which to view modern internet services.

## **II. DIVERSITY OF EXPERIENCE IS A NEW GOAL, AND INTEROPERABILITY HELPS**

First and foremost, competition is a tool for improving quality and reducing the consumer-facing price of products and services. Common carriage, on the other hand, focuses on improving access for users and for broader interconnectivity. On the internet, meanwhile, prices are low and every service dreams of scaling to a billion users. The internet is an ecosystem of high-quality, low-or-no-cost goods, with substantial openness and readily available access. Certainly, there may be room for improvement but the intensity and urgency of calls for reform would be unsubstantiated if they were grounded in objections to consumer-facing costs or lack of access to existing products.

The divergence in principle here comes about because the driving value for interoperability in particular, and possibly for other forms of gatekeeper restrictions, is a desire for diversity. In this context, diversity means a diversity both of voices and venues with different providers offering different experiences that serve different user preferences and collectively offering real options and meaningful agency to choose among them.

From this perspective, the biggest problem with the internet today isn't the size of major services *per se*, nor the number of people who shop at Amazon or use Facebook to connect with friends and family. Similarly, it's not a challenge of protecting user access to new services or ensuring they can conduct their businesses over the internet. Rather, problems arise when individual internet users feel constrained agency — when they feel like they are forced to use certain services, and unable to take advantage of a true diversity of experiences.<sup>21</sup> Those constraints pinch especially hard when users find themselves locked into services they perceive as selling their privacy, restricting their speech, invisibly steering them to certain content, and encouraging discord.

At some level, the size of internet giants has translated into effective ubiquity.<sup>22</sup> That ubiquity is reinforced with two different kinds of lockin: network effects (where the value of a service grows geometrically with increased use by virtue of increased connectivity) and switching costs (the practical effort required to port various data and communications pathways to new services).<sup>23</sup> Interoperability offers the potential to help with both of these lock-in factors as an efficient pathway to promoting diversity. Interoperability builds on the ubiquitous presence of existing services while enabling the creation and operation of new downstream services that can provide end users with different social and retail experiences that are nevertheless connected to critical networks and functions.

This functionality presents a new kind of goal. In particular, it doesn't seek to rearrange the underlying networks and infrastructure as traditional competition intervention would, although it can limit the ability of those services to internalize all of their downstream benefits.

For reform advocates, applying and extending traditional competition regulation frameworks to stretch towards this new goal might be the fastest and most politically viable route to regulatory progress. Such frameworks would succeed at keeping prices low and maintaining wide access to products and services. Those frameworks, in other words, are meant to solve problems that don't currently exist. At the same time, they are not a great fit for the new challenges facing the internet ecosystem. The analysis they foster has too little to say about achieving a diversity of online experiences.

23 Cory Doctorow, Why it's easier to move country than switch social media, WIRED (April 12, 2021), https://www.wired.co.uk/article/social-media-competitive-compatibility.

<sup>19</sup> In a recent concurrence, Supreme Court Justice Thomas wrote, "There is a fair argument that some digital platforms are sufficiently akin to common carriers or places of accommodation to be regulated in this manner." *Biden v. Knight First Amendment Institute at Columbia Univ.*, 593 U.S. \_\_\_\_\_ (2021) (Thomas, J., concurring). *See generally* John Bergmayer, *What Makes a Common Carrier, and What Doesn't*, PUBLIC KNOWLEDGE (January 14, 2021), https://www.publicknowledge.org/blog/what-makes-a-common-carrier-and-what-doesnt/ (theorizing that common carrier regulations make more sense the more proximate a service is to infrastructure). Note that no commentator has given the argument for common carriage full retreatment, though some have taken it up to refute it.

<sup>20</sup> Paul M. Barrett & J. Grant Sims, *False Accusation: The Unfounded Claim that Social Media Companies Censor Conservatives*, NYU STERN CENTER (February 2021), https://bhr.stern.nyu.edu/bias-report-release-page.

<sup>21</sup> See, e.g. David Morar & Chris Riley, A guide for conceptualizing the debate over Section 230, BROOKINGS TECHSTREAM (April 9, 2021), https://www.brookings.edu/techstream/a-guide-for-conceptualizing-the-debate-over-section-230/ (describing a lack of meaningful agency as one of the problems motivating calls for Section 230 reform).

<sup>22</sup> See Kashmir Hill, *I Cut the 'Big Five' Tech Giants From My Life. It Was Hell*, GIZMODO (February 7, 2019), https://gizmodo.com/i-cut-the-big-five-tech-giants-from-my-lifeit-was-hel-1831304194 (focusing on the technical ubiquity of services, including back-end infrastructure, in online life, and the difficulty of removing all traces of connectivity from large companies).

None of this is to say the old frames and regulations must be rejected categorically. Antitrust remains a useful hammer, and the regulatory toolbox would be poorer without it. Yet, that toolbox needs other tools and must be smarter and more diverse than a box of hammers. To get there, more "net-native" theories of governance are needed, grounded in a vision of providing individual internet users with the power to choose among a diversity of online experiences. Interoperability might be exactly the right tool for the purpose if approached through new paradigms.

## **III. REGULATION IS HARD**

In many circumstances, interoperability is a positive for the platforms that implement it, and requires no intervention to be maintained. Offering effective interoperability can be a valuable prerequisite for gaining scale when services are new and have not yet attracted a critical mass of users, as it encourages the creation of new user value between the service and existing popular services and platforms. However, large and vertically integrated platforms often face different incentives, in that the positive externalities generated from interconnection are easier to internalize when they develop or acquire their own downstream services as opposed to third party offerings.<sup>24</sup>

Many reform advocates view the status quo of interoperability as insufficient<sup>25</sup> and call for proactive, mandated interoperability on a going-forward basis. Typically viewed as a complement to economic remedies within the traditional domain of antitrust law, such as changes to standards for merger review, interoperability as a competition remedy would require internet services of various forms to make technical interfaces to their systems available to third parties, often explicitly under fair, reasonable, and nondiscriminatory terms and conditions.<sup>26</sup>

However, the design and implementation of an interoperability legal remedy is not an exercise to take lightly.<sup>27</sup> It's not technically feasible to determine today what specifically must be done, both now and in the future, for a platform to be considered to be offering sufficient interoperability. Early interoperability legislative attempts in the US and Europe have by and large recognized that when it comes to regulation, it's not clear yet how and when to apply interoperability requirements. The Senate's 2019 ACCESS Act delegates the Federal Trade Commission to undertake a rulemaking process to consider interoperability obligations in more depth.<sup>28</sup> The European Commission's Digital Markets Act similarly places interoperability-related obligations for gatekeepers into its category of rules "susceptible of further specification."<sup>29</sup>

Traditional regulatory models, particularly in the American legal context, must describe specific actions required of companies. This description must be sufficiently clear that businesses can take these actions with confidence with no need to seek specific review or permission from a government agency. Such a standard is difficult if not impossible in the broad and constantly evolving tech sector. Specifying particular interoperability outcomes is virtually certain to be either over- or under-inclusive, even if done sector by sector such as by starting with messaging services only, for instance. Solutions will inevitably over-restrict behavior in ways that limit flexibility, innovation, and growth. Alternatively, restrictions will leave gaps that prevent third parties from realizing sufficient opportunities for value generation in the face of first party advantages.

Deferring on details to subsequent processes and potentially to adaptive regulatory bodies that can make changes as technical circumstances change could help with the concerns of an overly rigid framework. However, deferring clarity in obligation risks a lack of clarity for platforms required to provide robust interoperability as well as a lack of clarity for downstream services seeking to build with reliance on forward-looking interoperability. And politically, even as a transatlantic convergence develops to include shared principles for government intervention such as the promotion of interoperability, the deferral of details means uncertain outcomes and thus uncertain alignment between the rules established in the United States, United Kingdom, and European Union.

26 Chris Riley, Interoperability Is Key To Tech Competition, THE AMERICAN CONSERVATIVE (October 20, 2020), https://www.tandfonline.com/doi/full/10.1080/23738871.202 0.1740754.

27 Sam Bowman, Why Data Interoperability Is Harder Than It Looks: The Open Banking Experience, COMPETITION POLICY INTERNATIONAL (April 12, 2021), https://www.competitionpolicyinternational.com/why-data-interoperability-is-harder-than-it-looks-the-open-banking-experience/.

28 ACCESS Act of 2019 sponsored by Warner (D-VA), Hawley (R-MO), and Blumenthal (D-CT), introduced in Senate October 22, 2019.

29 European Commission, Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) Article 6 (December 15, 2020) (specifying certain "obligations for gatekeepers susceptible of being further specified").

<sup>24</sup> A good example of this in action is Twitter's shift over time from a platform that welcomes third-party clients to one that restricts them. *See, e.g.*, Yoel Roth and Rob Johnson, *New developer requirements to protect our platform* (July 24, 2018), https://blog.twitter.com/developer/en\_us/topics/tools/2018/new-developer-requirements-to-protect-our-platform.html.

<sup>25</sup> See, e.g. Shiva Stella, *Public Knowledge Competition Policy Director Charlotte Slaiman to Testify Before House Judiciary on How Interoperability Can Rein In Big Tech* (February 25, 2021), https://www.publicknowledge.org/press-release/public-knowledge-competition-policy-director-charlotte-slaiman-to-testify-before-house-judiciary-on-how-interoperability (March 4, 2021), https://lincolnpolicy.org/2021/the-promise-and-perils-of-interoperability/.

One conservative approach to tackle this challenge would be to take advantage of the natural market dynamics of interoperability, and assume that the initial state of an API or other interoperability interface is sufficient when it is introduced. The focus of regulation could then shift to the review of subsequent changes to such interfaces that have the effect of restricting or limiting interoperability. Under this theory, it may prove sufficient to give government actors authority to hear complaints by competitors that a change to an API or other interface is anticompetitive, and to perform case-by-case evaluations (with the capability to investigate internal corporate justification and analysis), rather than engage principally in proactive rulemaking. This approach is unlikely to satisfy reform advocates calling for more forward-looking mandates for interoperability, and particularly for those concerned by the current practices of large services perceived to be dominant gatekeepers. It has the advantage, though, of nudging large, mature services to interoperate more like they did when they lacked the lock-in advantages of network effects and high switching costs.

For forward-looking interoperability mandates in particular, it will be important to resolve concerns that effective enforcement may require extensive new government resources and intervention.<sup>30</sup> Some amount of monitoring for potential violations must be assumed to be privatized, and this can happen without limiting the impact of remedies. In other words, if an API isn't offering effective interoperability in practice, but its limitations are not actually felt by any third parties to a degree where they raise complaints, perhaps the lack of interoperability does not justify government involvement.

## IV. MULTI-STAKEHOLDER ENGAGEMENT IS THE NEXT STEP

This paper suggests two shortcomings in current conversations around interoperability, first that the legal system currently lacks the right tools and remedies to reach optimal outcomes and second that interoperability must be understood and framed beyond the bounds of competition in its traditional interpretation. Beyond that, many possibilities remain for how to make progress. These possibilities should be explored further through multi-stakeholder engagement that yields narrowly-tailored remedies susceptible to flexible, iterative improvement.

Phil Weiser, now the Attorney General of Colorado and leading one of the active antitrust lawsuits against Google, in his earlier career as a law professor examined the use of interoperability as a component of the remedy in two historical antitrust contexts: AT&T and Microsoft.<sup>31</sup> In the case of AT&T, forward-looking compliance was implemented through an equal access requirement for competing long-distance competitors, designed to be enforced by the Federal Communications Commission.<sup>32</sup> In contrast, the Microsoft case resulted in direct *ex ante* judgment regarding future conduct towards "middleware" platforms,<sup>33</sup> essentially leaving future compliance to self-executing practices.

These cases were complex, and the complexities of the technical interconnections and business entanglements of the internet have only grown since then. As Weiser put it: "the antitrust remedial challenges of the future are likely to require more creativity, including the use of standard-setting bodies, than courts and enforcers have used to date." <sup>34</sup> Indeed, there is ample room and need for more creativity in regulation and enforcement, building on the historical success of standards processes such as the W3C<sup>35</sup> and IETF<sup>36</sup> in articulating and developing technical solutions that work for a range of stakeholders (although those bodies focus principally on the development of shared protocols rather than asynchronous interoperability). In particular, standards governance is designed around multi-stakeholder engagement to produce cautious, iterative improvements that reflect realistic industry conditions and promote interoperation. Whether within standards bodies or in other organizational structures, multi-stakeholder processes could help craft evolving codes of openness as a contribution to, or even substitute for, regulatory processes to promote interoperability.

32 ld. at 275-79.

33 Id. at 284.

35 World Wide Web Consortium, https://www.w3.org/.

<sup>30</sup> See, e.g. Hal Singer, *Congress Is Leaning Towards a Big Tech Breakup*, PROMARKET (March 9, 2021), https://promarket.org/2021/03/09/congress-anti-trust-big-tech-break-up-interoperability/ and Harold Feld, *Case for the Digital Platform Act* (2019) (arguing for creation of a new federal agency to oversee digital platforms), https://www.digitalplatformact.com/.

<sup>31</sup> Phil Weiser, Regulating Interoperability: Lessons from AT&T, Microsoft, and Beyond, 76 ANTITRUST L.J. 271 (2009), https://scholar.law.colorado.edu/articles/454/.

<sup>34</sup> Id. at 303. For purposes of this article, the prescience of Weiser's identification of the need for creativity outweighs the limitations of his chosen framing around antitrust.

<sup>36</sup> Internet Engineering Task Force, https://www.ietf.org/.

While it targeted a different subject matter, the European Union's experience with the Code of Practice on Disinformation may also prove informative here. In that process, the Commission worked directly with platforms to develop mitigation practices for the spread of disinformation,<sup>37</sup> with an implicit "sword of Damocles" of intrusive regulation always present in the background. The result was a set of officially voluntary commitments that, although perhaps not perfect nor perfectly implemented,<sup>38</sup> approached a very opaque policy problem and delivered measurable improvements while retaining flexibility in how exactly they achieved those results.<sup>39</sup>

Similarly, in the context of interoperability, a collective effort to develop commitments from industry could allow effective tailoring of solution engineering to specific technologies and services, and could transform a difficult government challenge of developing thresholds of good behavior into an easier (though still not easy) challenge of measuring company compliance with commitments.<sup>40</sup> Clear authority and resources for the Federal Trade Commission would help meet that challenge, together with the forward-looking power to adopt specific mandates if and to the degree that they become obvious (as a result of the multi-stakeholder process) or necessary (as a result of ongoing market activity), without enshrining in statute any specific obligations or immediate requirements to adopt new mandates.

Finally, for all that traditional frameworks of competition analysis match poorly with the current tech landscape, it may be possible to ground new approaches in old law. For example, lock-in structures that unduly restrict users can be an "unfair practice" and interoperation for diversity of experience could be a way to address consumer harm. Traditional competition regulation frameworks are grounded in the assumption that competition solves all problems, but statutory authority is much less prescriptive.

Politically, the internet is swinging on a pendulum between two extremes: first towards hands-off self-governance and second towards regulatory intervention that specifies particular business practices or outcomes. Neither extreme adequately facilitates responsible, transparent, adaptive innovation and growth. The opportunity is ripe to explore effective co-regulatory governance that creates incentives for an accountable tech industry, even at scale, that provides users with tremendous agency to create a diversity of experience, but without paternalism or undue *ex ante* restriction. Interoperability may be a compelling test case for such an approach. But it will be hard to think outside the box of hammers if the analysis remains mired in viewing modern internet challenges through classic regulatory frames.

37 European Commission, Code of Practice on Disinformation, https://digital-strategy.ec.europa.eu/en/policies/code-practice-disinformation.

38 Mozilla, *Mozilla Raises Concerns Over Facebook's Lack of Transparency* (January 31, 2019), https://blog.mozilla.org/blog/2019/01/31/mozilla-raises-concerns-over-face-books-lack-of-transparency/.

40 An example of an effort that approaches industry from this angle is Ranking Digital Rights, which coerces companies into transparency, then uses that transparency to coerce them toward protecting the rights of users.

<sup>39</sup> For example, the first annual self-assessment of signatories to the Code highlighted greater joint efforts between platforms and other stakeholders including researchers and civil society as well as greater awareness and adoption of the Code and its commitments; though the assessment also noted lags in actions to empower users as well as asymmetries and gaps in the provision of data and search tools to researchers. European Commission, *Annual self-assessment reports of signatories to the Code of Practice on Disinformation 2019* (October 2019), https://digital-strategy.ec.europa.eu/en/news/annual-self-assessment-reports-signatories-code-practice-disinformation-2019.

## INVIGORATING COMPETITION IN SOCIAL NETWORKING: AN INTEROPERABILITY REMEDY THAT ADDRESSES DATA NETWORK EFFECTS AND PRIVACY CONCERNS

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## I. INTRODUCTION

The persistent dominance of the largest digital platforms has led many scholars and policymakers to generate proposals to invigorate competition in these markets.<sup>2</sup> These proposals have ranged from splitting up firms, to stepping up antitrust enforcement, to imposing regulations on the sharing of data. In this piece, we address a remedy that has recently received renewed attention: interoperability for social media platforms.<sup>3</sup> Interoperability has the potential to open up markets in the digital sector, and we seek to build on the timely and well-crafted contributions made by authors so far in the context of social networking.

A primary goal of interoperability is to erode the barriers to entry that exist due to the presence of network effects. Network effects that endow firms with market power can arise from having a large number of users and from having access to large amounts of user data.<sup>4</sup> The ability of Facebook's AI algorithms to learn from users' behavior and generate compelling content for its users increases with additional data on how users interact with its content.<sup>5</sup> Without access to a continuous stream of rich user data, a social network is merely a static interface, with limited capacity to serve engaging or personalized content. In this piece, we propose a version of interoperability that will alleviate both types of platform-level network effects. Indeed, our proposal shifts user and data-generated network effects from the platform level to the market level and allows all competitors to benefit from these two types of network effects. We also explicitly address privacy concerns related to the monetization of data that invariably arise when data is shared across firms. We believe that our proposal can elevate the odds of success of competing entrants and thus elicit entry that will increase competition in social networking.<sup>6</sup>

## **II. INTEROPERABILITY BASICS**

One method of implementing an interoperability remedy would involve the use of compulsory royalty-free licenses that social media firms would be required to provide to each other.<sup>7</sup> For example, a user on an entrant social network that accepts the license from Facebook would be able to send a friend request to a user on Facebook. If the Facebook user accepts the request, then the two users would be connected even though they belong to different social networks. Any time the Facebook friend posts something on Facebook, the post (in some standardized form) would appear in the newsfeed of the friend using the entrant platform. The reverse would also be true in that the Facebook friend would be able to see posts by their friend on the entrant platform. The proposed license would impose restrictions motivated by privacy concerns on the use of the data shared across platforms. For example, one proposal imposes the restriction that a licensee "would not be permitted *to store information* contained in incoming posts on their users' friends, *learn from* the data in any way, or *monetize* those friends." (emphasis added).<sup>8</sup> We believe that any restrictions imposed on the licensees should balance the benefits of obtaining access to a potentially significant amount of user data that could lead to product improvements with the cost of privacy concerns.

4 See Cristian Santesteban & Shayne Longpre, "How Big Data Confers Market Power to Big Tech," *Antitrust Bulletin*, September 2020. See, also, Andrei Hagiu & Julian Wright, "Data-enabled learning, network effects, and competitive advantage," June 2020, http://andreihagiu.com/wp-content/uploads/2020/06/Data-enabled-learning-June2020.pdf.

5 As Hagiu & Wright (2020) have pointed out, this learning can take place across users and within users. The former aggregates data from all users and allows for content to be improved for all users; the latter utilizes data from a single user to improve the product for that user only. Only the first type of data-driven learning they consider to be a data network effect. In the context of Facebook, there is both across-user and within-user learning; thus we can safely address this learning as a data-generated network effect. See supra 3.

6 Competition will be further enhanced if structural separations are imposed separating Instagram and WhatsApp from Facebook. However, these breakups would be effective in restoring competition in the long run only if data related remedies like interoperability are in place.

7 Alternatively, the licensing could be made compulsory only for those firms deemed to have substantial market power, such as Facebook, and optional for other firms and new entrants. The determination of which firms have substantial market power would be made by the regulatory body imposing the interoperability remedy.

8 See Kades & Scott Morton (2020) at p. 24.

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<sup>2</sup> See, e.g. the UK's Unlocking Digital Competition Report (2019), The Stigler Center Report on Digital Platforms (2019), the EU Competition for the Digital Era Report (2019), the Australia Competition and Consumer Commission Report (2019), and Tom Wheeler et al, "New Digital Realities; New Oversight Solutions in the U.S." Working Paper, Shorenstein Center, Harvard JFK School, August 2020.

<sup>3</sup> See, e.g. Michael Kades & Fiona Scott Morton, "Interoperability as a competition remedy for digital networks," Working Paper, Washington Center for Equitable Growth, September 2020; Sinan Aral, "Breaking up Facebook Won't Fix Social Media," Harvard Business Review, September 30, 2020; CMA Final Report on Digital Platforms (2020); "Investigation of Competition in Digital Markets," Majority Staff Report and Recommendations, Sub-Committee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, U.S. House of Representatives (2020); and Federalist Society's *Deep Dive*, Episode 141, "Interoperability and Data Sharing: An Antitrust Remedy in Search of a Market Problem?," https://fedsoc.org/events/interoperability-and-data-sharing-an-antitrust-remedy-in-search-of-a-market-problem (last visited on Oct. 26, 20). Related proposals include data portability and data sharing but we focus exclusively on interoperability here.

## **III. IMPORTANCE OF DATA IN AI APPLICATIONS**

Social networks rely heavily on AI algorithms for their content recommendations, personalized advertising, and other differentiating features. AI algorithms, especially those involving neural networks, require tremendous amounts of data to learn effectively and unleash their full predictive capabilities. Restrictions that prohibit storage and learning from data-rich networks like Facebook would impair an entrant's ability to offer its users compelling content and services. Social networks are first and foremost content generators and recommenders, and an entrant with limitations on its capacity to learn about how users interact with content will likely face diminished engagement. The fewer impediments placed on entrants on accessing data that allow its AI algorithms to learn, subject to limits imposed by privacy considerations, the more likely the entrant is to become an effective competitor.

## **IV. IMPORTANCE OF SHARING A RICH SET OF DATA TYPES**

A second consideration in the design of an effective interoperability remedy is determining the types of data that would be shared. As a preliminary matter, we believe that an effective interoperability proposal should include not only posted user content such as text, photos, and videos, but also all interactions with that content. For instance, when a user on a social media platform posts some content, it is typical that other users, friends and non-friends, will react to the post by adding comments or "liking" it. User engagement is maximized when a user sees not only their friends' posts, but also how other users, who may or may not be friends, interacted with those posts. If a user in an entrant platform cannot see how all users interact with their friends' posts, then it makes the content less appealing. Further, if the entrant platform cannot learn from information on how all users interact with a post, it would face significant blind spots that would impede its ability to discern and show compelling content for its own users.<sup>9</sup>

More generally, for its newsfeed and targeted advertising, Facebook's algorithms rely on: (i) engagement data (clicks, impressions, reactions, comments, mouse hovers), (ii) usage data (time spent on site/post, searches), (iii) personal data (biographical information, stated preferences, emails, phone numbers, friends), and (iv) inferred data (links to other accounts, interests, most popular friends).<sup>10</sup> These incidental and other data types are critical to the development of compelling content and should be candidates for inclusion in the licensing standard; however, they do raise significant privacy concerns that we address below.

## **V. PRIVACY CONSIDERATIONS**

When a user posts or comments on a social media platform, the platform has the ability to monetize the user's data by selling it to third parties or selling targeted ads. These targeted ads could be based solely on the user's behavior on the platform, e.g. based on the user's own posts or how the user interacts with others' posts. The targeting could also be based not only on a user's interactions on the platform but also on their interactions on other sites or apps where the social network tracks the user.<sup>11</sup> Finally, a user's data could also be sold to third-party data brokers that resell the user's data to advertisers that can target the user on other sites or apps. All of these types of behavior by the social network are forms of monetization of user data that may violate users' privacy if done without their consent.

With interoperability, a firm like Facebook would be able to obtain data on users who are on platforms with potentially stricter privacy restrictions than Facebook. For example, let's say that a user is on an entrant platform that doesn't sell user data to third-party data brokers. If this entrant platform now starts sharing a user's posts and comments with Facebook, Facebook could build a profile on that user and sell that data to third-party brokers.<sup>12</sup> Any interoperability proposal must ensure that whatever privacy restrictions exist on a network with regards to monetization will apply equally when a user's data is shared with other networks, regardless of the other networks' own privacy rules.

<sup>9</sup> How any user responds to a post is informative to determine the relevance or importance of a post. Of course, certain users' interactions with a post are more informative than others but limiting what the entrant platform observes impedes that platform from assessing its relevance accurately for its users.

<sup>10</sup> See, e.g. Josh Constine, How Facebook News Feed Works, TECHCRUNCH.COM (2016), https://techcrunch.com/2016/09/06/ultimateguide-to-the-news-feed/ (last visited Feb. 24, 2020).

<sup>11</sup> This tracking functionality is at the heart of the dispute between Facebook and Apple in light of the changes Apple is making to its app store. See, e.g. https://www.nytimes. com/2021/04/26/technology/personaltech/apple-app-tracking-transparency.html.

<sup>12</sup> It is also possible that when Facebook shares data with an entrant platform, the sharing of data itself could expose it to privacy violations more than if it stays within the walled gardens of Facebook. We do not find this argument convincing. If Facebook can protect data when it is shared across its own servers, it surely could design equally safe sharing protocols with servers owned by other firms. If these other firms do not follow industry-standard encryption or data-security protocols, then they would be ineligible for the license to begin with.

## **VI. OUR RECOMMENDATION**

In light of the above discussion, we envision a broad and flexible interoperability license that seeks to maximize the pro-competitive benefits of interoperability without ignoring privacy considerations.

*First*, we recommend that license holders be able to access a broad set of data types beyond intentionally posted data. We suggest that, at least initially, any data collected by Facebook on behalf of a user be automatically included as part of the protocol. These data types would include engagement data, but also usage and personal data (as described above). It would not include inferred data. This would simplify the work of any regulatory body in charge of implementing the interoperability remedy as the included data types would follow data collection standards already in place by the largest social media platform. As discussed above, these varied and complex types of data are highly relevant in the learning process employed by Al algorithms in social networks.

Second, we propose a license that is flexible in terms of the restrictions imposed on licensees with regards to learning for purposes of displaying more compelling content but strict in terms of the monetization of user data. In our proposal a licensee would be free to store and learn from any data shared by other platforms to improve its product offerings. However, the storage would not be permanent. For example, the license could impose a restriction that the shared data must be deleted after 90 days. With regards to monetization of the shared data, we recommend imposing a restriction on the license that prohibits the licensee from doing anything with the data that the licensor prohibits on its own network. For example, if an entrant network has a policy that prohibits the sale of user data to third-party data brokers, then a licensee of that entrant network would also be bound by that policy. That would prevent a network from selling profiles on users coming from networks that restrict the sale of their users' data to data brokers.

The licensee would be further limited by additional privacy restrictions a user may choose to impose on their home network on how their data is monetized. In our interoperability remedy, a user would be given a choice by their home network over different forms of monetization of their data (applicable both on their home network and across networks the home network shares data with). For example, one option could be to accept the default restrictions imposed by the platform. Other options available to the user as long as they were stricter than the platform's default restrictions could include: (a) to prohibit targeted ads on other sites or apps tracked by the network (targeted ads based on the user's behavior on the platform could still be allowed); and (b) to prohibit the selling of the user's data to third-party data brokers.<sup>13</sup> Each user would be offered a set of choices similar to those above when they open an account with a social network, and the chosen restrictions would then be applicable to any external platform receiving the user's posts or other data. For example, if a user chooses to prohibit tracking, that user's home network would be prohibited from tracking on other sites or apps. Moreover, if the user has friends on Facebook, the interoperability regime would also prevent Facebook from exploiting any data collected on the user and tracking the user on other sites or apps. Thus, if a user posts something on their home network and it shows up on a Facebook friend's newsfeed, Facebook would be free to learn from that content to improve its newsfeed, but it could not use that content to track the user elsewhere on the internet. (We provide an example of how this would work in the Breakout Box below.)

<sup>13</sup> To be clear, there would not be an option for the user that is more permissive than the level of permissiveness of the user's home network. For example, if the network operates under a subscription model and doesn't monetize its users' data, then the user would be limited to the default option of a prohibition on all monetization of its data.

## **VII. CONCLUSION**

In this piece, we propose an interoperability remedy that allows for the sharing of any type of data currently collected by Facebook on behalf of its users and not just intentionally posted data such as photos, text, or videos. We also recommend that social networks be free to temporarily store and learn from any shared data so they can create more compelling content for their users. However, our recommended interoperability regime imposes privacy-motivated restrictions on the monetization of shared data. These restrictions are based on the preferences of users about how their data should be monetized. In this way, we believe that interoperability will help to reduce the barriers to entry that arise from both user-based and data-generated network effects without ignoring privacy considerations. By facilitating an entrant's ability to learn from user data shared across platforms, we believe that our interoperability remedy will encourage entry and will invigorate competition in social networking.

## **BREAKOUT BOX**

Here we illustrate our proposed interoperability regime using the example of New Platform that has entered to compete with Facebook. New Platform does not monetize users' data because it operates on a subscription model, but it does store and learn from users' data in order to offer relevant content for its users. We focus on three users distributed across Facebook and New Platform as in the figure below.

- Shayne is friends with Luisa and Cristian.
- Cristian is friends only with Shayne.



- Now consider the following situation:
- Shayne posts a picture.
- Cristian comments on it.
- Luisa "likes" it.

Under any version of interoperability, because Shayne and Cristian are friends, Shayne's original post would appear on Cristian's newsfeed on New Platform, and Cristian's comment would appear on Shayne's newsfeed on Facebook. In our proposal, Luisa's "like" would also appear on both Shayne's and Cristian's newsfeeds even though Luisa and Cristian are not friends and are not on the same network.

What could New Platform do with Shayne's post and Luisa's "like"? What could Facebook do with Cristian's comment?

Both platforms would be able to temporarily store and learn from the data generated by each of these user activities. However, whether and how the platforms can monetize the data depends on both the default privacy settings of each network and the privacy restriction level chosen by each user. Assume that Shayne is indifferent to how his data is monetized and has chosen Facebook's default monetization option, which imposes no restrictions. In that case, a platform receiving Shayne's data could in principle monetize Shayne's data in any manner it chose. In the current example, however, New Platform would not be able to monetize Shayne's data because of New Platform's own strict monetization restrictions. (For the same reason, regardless of the privacy restriction level chosen by Luisa, New Platform would not be able to monetize Luisa's data.)

Now, what could Facebook do with Cristian's comment? This would typically depend on the licensing restriction level chosen by Cristian if it happened to be stricter than the policy of Cristian's home platform. However, in this case, because New Platform already has a policy of non-monetization, Facebook would be prohibited from monetizing Cristian's generated data, say, by building a profile on Cristian and selling it to third-party data brokers.

To summarize, we recommend that the interoperability license (i) allow temporary storage and learning from the broadest set of data currently collected by Facebook about a post – not only intentionally posted data, but also data from users interacting with a post, regardless of which platforms those users belong to; and (ii) allow each user to independently control their own level of privacy restriction, which would apply to every social network observing the user's content.



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