

Working paper series

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for digital networks**

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Interoperability as a competition remedy for digital networks

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Introduction

Today in the United States, antitrust enforcers, academics, policy makers, and the press are focused on large technology companies, such as Google, Facebook, Amazon, and Apple. There is vigorous discussion and speculation over whether these platforms have become monopolies and whether they have violated, or are violating, the antitrust laws. Voices in the media have called for a wide variety of remedies for big tech harms running from break ups to bright-line rules for mergers to eliminating certain kinds of contracts to regulators with various powers.² Experience with even the most successful monopoly prosecutions such as AT&T and Microsoft, however, teaches us that developing an effective remedy is difficult; courts, for a variety of reasons, are poorly suited for the task. A break-up requires balancing competing interests, overseeing commercial relationships, and being flexible enough to respond to unforeseen market circumstances. And, in most cases, a court must design a case-specific remedy from the ground up.

For antitrust enforcement to be effective at protecting competition, it is not enough to be successful on liability. Before embarking on what Professor Wu calls battleship cases,³ we need to maximize the chances that the remedy being sought would be effective. This approach may seem like putting the cart before the horse but think of it as saying we should have a design for the cart before we decide what horses to use. An effective remedy starts with understanding why the anticompetitive conduct occurred and was effective. In digital platform markets we see a common pattern. The monopolist operates in a market with significant network effects, scale and scope economies, and low distribution costs. Therefore, the competition that matters most is often *for* the market not *within* the market. Anticompetitive conduct is more likely to succeed. And, the harm to consumers is greater because the market tends to be winner-take-all, or most, (it “tips”).

The tipping caused by network effects need not be permanent. Repeated periods of competition *for* the market provide significant benefits to consumers and therefore should be a focus of antitrust enforcement. Often by the time the pattern becomes evident, however, the market has tipped, meaning all or most customers and other “sides” of the platform use it

² See Elizabeth Warren, “It’s Time to Break Up Amazon, Google and Facebook” Medium (March 8, 2019), <https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c>; Sally Hubbard, Statement to House Judiciary Committee, (April 17, 2020) on behalf of Open Markets Institute and others. <https://openmarketsinstitute.org/wp-content/uploads/2020/04/OMI-House-Letter-4.17.20.pdf>

³ Tim Wu “The Curse of Bigness: Antitrust in the new gilded age” 2018.

exclusively, rivals exit or become niche providers, and market power is established. These network effects become high barriers to entry so that it is harder for subsequent entrants to succeed, and therefore fewer of them will try. In these conditions, it may be challenging for an antitrust authority to devise a remedy that will restore the lost competition. A successful remedy will neutralize or significantly reduce the barrier to entry caused by network effects that the incumbent employed to protect its monopoly.

In this article we argue addressing entry barriers created by network effects is critical to remedying a monopolization violation in a social network market (e.g. Facebook). For a social network, interoperability is likely a necessary, but not necessarily a sufficient, condition for an effective remedy. Mandatory interoperability based on robust and effective rules could overcome the network effects that protect the incumbent from entry, maximizing the potential for new entrants to enter at minimal cost, compete in the market, and take share from the incumbent. This remedy could be ordered in addition to other relief such as a divestiture, and indeed could be complementary to it, or stand on its own. In today's internet-based network markets, interoperability carries no incremental costs such as dedicated wires and machines that were true of the telecom interoperability of past decades. Its main cost is the establishment of an open standard to exchange commonly used functionalities (e.g. text, images) of social networks.

Interoperability could be a remedy in a case where the defendant's refusal to interconnect with a rival was illegal. But interoperability could be an appropriate remedy in any situation in which the dominant firm has exploited network effects by violating the antitrust laws. For example, if a firm illegally protected its monopoly through serial acquisitions, network effects and susceptibility towards tipping made the serial acquisition strategy effective. Interoperability will make the serial acquisition strategy less effective, should it be tried again. New entry is more likely because the network effect would not be a barrier to entry.

Although interoperability as concept is straightforward, effectively implementing it raises challenges for the adjudicative process. A successful interoperability remedy requires more than the technical capability for users to communicate across platforms; it must balance the needs of multiple actors, promote entry, enhance the user experience (including protecting privacy) and not be manipulated by the defendant. The remedy must include provisions that will deter the defendant from violating the order, require standards that many entrants can meet, and not favor

large incumbents. The process for determining whether the defendant has violated the order must be fast enough to provide relief to a harmed competitor before it fails, and the penalties must be significant enough that the defendant will be worse off for having violated the remedy order.

Creating a technical committee overseen by the antitrust enforcer is the most promising option to solve these implementation challenges.⁴ Such a committee could adopt workable standards, revise them on a regular basis, and adapt to changes in technology or deal with technical challenges. It would include representatives of all relevant industry segments, but the antitrust enforcer would control the decision-making to prevent capture by the defendant. Parties could appeal those decisions to the courts, but those appeals would likely be less frequent and burdensome than if a court had to resolve every issue.

Developing an effective interoperability scheme from scratch will be challenging in the context of adjudication. Remedy details will be technical, but important, and time will be short. Moreover, interoperability affects multiple parties, not simply the litigants, which the court will want to consider. The adversarial process is poorly suited to addressing these tasks. The two sides may not adequately represent the full range of interests. And, the defendant platform has incentives to push for standards that protect its monopoly position. The government or plaintiff is likely to be focused on the broadest order, while the defendant has incentives to fight a war of attrition on every detail. The court has other matters to turn to and is not fundamentally constituted to engage in ongoing regulation. Judge Greene's oversight of the AT&T break-up, although admirable, reveals the challenges facing a court tasked with implementing a significant remedy.

A Federal Trade Commission rulemaking can address these limitations and improve the remedy process. By developing a default order on interoperability, a rulemaking could provide the foundation for a remedy in monopolization cases involving strong network effects. Although each case is different, certain remedy principles are particularly effective for harm caused by a platform that is dominant and protected by strong network effects. An FTC default relief order can be designed around these similarities to take advantage of basic principles and avoid re-inventing the

⁴ Because we address rulemaking, for simplicity, we focus on the FTC as the enforcer as a remedy in administrative legislation. As we discuss later, however, a court could rely on the rule as a basis for remedy in a federal action. In that case, the DOJ would have oversight of the technical committee, see *infra* at page 35.

wheel when these cases arise. The FTC could require the order be the starting point in administrative cases, and courts could adopt it when they believed it facilitated effective remedies.

The adjudicator would modify the default order to suit the situation presented by that particular case. In this way the order provides a useful base that can be adjusted as necessary, saving the court time and effort and improving the likelihood that the relief would be effective. Of course, a federal court could ignore the default order if it thought a different remedy would be more effective at restoring competition. Nevertheless, especially given the complexity of the issues, in appropriate cases, the government's request to use the default order would likely help focus remedy issues and give the factfinder (whether the Commission or a federal court) comfort that its remedy is based on reasoned principles. As a result, courts and the Commission would be more efficient in deciding remedies in individual cases and more likely to undertake the task. And, the existence of such an order might make a court more willing to order preliminary relief.⁵ The proposed rule would avoid many of the objections raised to FTC competition rulemaking because it is procedural and would apply only after a finding of liability.

Facebook provides an example that lets us explore the challenges of designing an effective remedy. The alleged anticompetitive conduct includes exclusion of social network rivals, acquisition of multiple potential and nascent competitors, and misleading and deceptive privacy policies that raised rivals' costs.⁶ According to critics of Facebook, the purpose of the anticompetitive acquisition strategy was to remove those nascent competitors just as they were about to create competition for the market.

A rule would offer a default structure for remedying a monopolization or attempted monopolization (or, technically, conspiracy to monopolize) violation found by the FTC when the defendant benefits from strong network effects that impede entry, it could also be adopted by a court in litigation brought by the FTC, DOJ, or state enforcers. It could also provide guidance in any case in which interoperability could address network-created entry effects. And, it provides a model that regulators might consider as well.

⁵ Conceivably, the Commission could issue guidelines to try to achieve the same goals. Rulemaking, however, has at least two advantages. A rule would apply as the mandatory starting point in administrative litigation. And, a rule would likely receive more weight from courts.

⁶ Fiona M. Scott Morton and David C. Dinielli, "Roadmap for a Digital Advertising Monopolization Case Against Google" Omidyar (May 20, 2020).
<https://www.omidyar.com/sites/default/files/Roadmap%20for%20a%20Case%20Against%20Google.pdf>

The article assumes that Facebook has been found liable in a monopolization case in order to explore these remedy issues. Suppose the FTC brings an antitrust case against Facebook in the near future. Further suppose that it successfully proves that Facebook engaged in illegal monopolization in violation of Section 5 of the FTC Act.⁷ The elements of such a case have been explained elsewhere, but we briefly review the type of facts the government might show here.⁸ Facebook acquired a series of rivals that threatened its monopoly in social networks, for example Instagram and WhatsApp.⁹ In addition, Facebook engaged in exclusionary conduct by denying interoperability to potential social network competitors that began as applications (complements) on its platform but which Facebook judged carried the risk of becoming substitutes.¹⁰ Lastly, Facebook foreclosed its rivals in digital display advertising, the publishers. It did this by misleading and deceiving both users and publishers about the extent of its data harvesting, which it carried out in a way that raised the costs of its rivals, independent publishers, and drove advertisers away from them to Facebook.¹¹ Assume the evidence shows that these actions were carried out and formed an active strategy to exclude or acquire rivals. In carrying out these anticompetitive actions, Facebook created and maintained its monopoly power and reduced competition in social networks and in display advertising. The harms from the conduct include higher prices paid by advertisers (and passed through to consumers), fewer publisher users and lower ad prices leading to less publisher content, and lower quality and less innovation in social networks.¹² We assume going forward that

⁷ Any violation of the Sherman Act is a violation of Section 5 of the FTC Act, which prohibits unfair methods of competition. In this article, violation of Section 5 means conduct that violates Section Two of the Sherman Act. It does not refer to a "stand alone Section 5 violation," conduct that escapes condemnation under Section 2 of the Sherman Act but violates Section 5 of the Federal Trade Commission Act. Maureen Ohlhausen. "Section 5 of the FTC Act: principles of navigation." *Journal of Antitrust Enforcement* 2.1 at 1-24 (2013).

⁸ C. Scott Hemphill, C. Scott and Tim Wu, *Nascent Competitors*, University of Pennsylvania Law Review, Forthcoming (2020). https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=3665&context=faculty_scholarship; Dinelli and Scott Morton *supra* n. 6; Ohlhausen, *supra*, n. 7. "Section 5 of the FTC Act: principles of navigation." *Journal of Antitrust Enforcement* 2.1 at 1-24 (2014).

⁹ Competition and Markets Authority, *Online Platforms and Digital Advertising: Market Study Interim Report* (Hereinafter CMA Interim Report) 44-46 & Box 2.4 (2019). Available at https://assets.publishing.service.gov.uk/media/5dfa0580ed915d0933009761/Interim_report.pdf

¹⁰ CMA Interim Report *id* at 104. 'Twitter axes Vine video service' BBC (October 27, 2016). See section 3.c. of this paper for further discussion.

¹¹ Dinielli and Scott Morton, *supra* n. 6 at 20-21.

¹² For a comprehensive discussion of harms caused by big tech companies, see Fiona Scott Morton and David C. Dinielli, *supra* n 6, at 31.

the FTC demonstrates these points to the satisfaction of the court and Facebook is found to have violated Section 5 of the Federal Trade Commission Act.

If the FTC were to establish that Facebook's acquisitions and exclusion of nascent competitors allowed it to maintain an illegal monopoly, would interoperability be part of an effective remedy? And how could an administrative rule lay the groundwork for that effective remedy? Looking forward, a successful remedy restores that lost competition; it creates the greatest opportunity for new competitors to quickly enter the market and provide alternatives for users. But network effects make entry harder because users are unlikely to leave Facebook until a critical mass of their friends leave. Interoperability eliminates that barrier; the network effects would no longer be firm-specific but apply at the market level. As a result, the past exclusion would be less protective, and competition would more likely be restored through entry. And Facebook would be less likely to try to exclude competitors in the future because the entry barriers will have fallen. For the purposes of discussing the remedy, we use the example of acquisition of nascent competitors. But, interoperability, and, therefore, the benefits of the rulemaking, would also apply whenever a digital platform employed exclusionary conduct more generally to illegally monopolize the market.

The remainder of the article describes the general competitive concerns that arise in digital platform markets with strong network effects, explains how requiring interoperability can remedy illegal monopolization by creating the potential for disruptive competition to arise and thrive, addresses how to make an interoperability requirement effective, discusses the problems or dangers of relying solely on adjudication for developing remedies for complex monopolization violations, and explores how rulemaking could ameliorate this challenges., including a proposed draft rule.

1. Lowering entry barriers: the challenge for remedies in digital platform markets.

There is little doubt that society has benefited greatly from digital platforms: “The speed, scale, and scope of the internet, and of the ever-more powerful technologies it has spawned, have been of unprecedented value to human society.”¹³ Digital markets, however, also pose challenges for antitrust enforcement. They combine economies of scale, economies of scope, and network effects.¹⁴ As a result, they have high barriers to entry and are susceptible to a winner-take-all (or most) dynamic.

Anticompetitive conduct is more likely to be profitable in digital markets. Because of the high entry barriers, a dominant firm faces fewer threats, and the potential for tipping increases the rewards for successful exclusionary conduct. Moreover, there may be long periods of time between competitive threats. The remedy must both “prevent a recurrence of the violation” and “eliminate its consequences.”¹⁵ Those dynamics have implications for remedy as well. Unless the remedy lowers the entry barriers, the remedy will not restore competition or prevent future anticompetitive conduct. The dominant firm will have the same incentives and ability to create and protect a monopoly. Traditional remedies, including penalties or prohibitions on the specific conduct are unlikely to remedy a violation. Even divestiture, alone, may not be sufficient to fully restore the lost competition.

a. Network effects and potential for tipping markets and creating entry barriers.

Although economies of scale, economies of scope, and network effects can lower prices and raise quality, they also make it easier to harm competition and erect entry barriers.¹⁶ Strong network effects are of particular concern due to the market power they create.¹⁷ Network effects

¹³ *Center for the study of the Economy and that State, Committee for the Study of Digital Platforms, “Market Structure and Antitrust Subcommittee”* Stigler Center July, 2019), <https://research.chicagobooth.edu/-/media/research/stigler/pdfs/market-structure-report.pdf> (hereinafter *Stigler Report*).

¹⁴ For a comprehensive discussion on how digital platforms leverage these characteristics to propagate and maintain their monopoly, see *Stigler Report, id.* Although many industries have some of these characteristics, digital marketplaces are unique in the degree of the characteristics and their combination.

¹⁵ *National Soc. Of Professional Engineers v. United States*, 435 U.S. 679 (1978); see also *Ford Motor Company v. United States*, 405 U.S. 562, 573 (1972) (“The remedy should “so far as practicable, cure the ill effects of the illegal conduct, and assure the public freedom from its continuance.”); The other two are stop the illegal conduct and end the illegal monopoly. See *United States v. Microsoft*, 263 F.3d 34, 103 (2001).

¹⁶ *Stigler Report, supra* n. 13 at 13-17.

¹⁷ *United States v. Microsoft Corporation*, 253 F.3d 34 (D.C. Cir. 2001).

occur when the more people use a platform, the more valuable the platform's services become.¹⁸ The entry barriers created by network effects make it more difficult for an entrant to come along and attract consumers and advertisers with higher quality and/or lower prices.

Digital platform markets are often susceptible to “tipping” or winner-take-most scenarios.¹⁹ As one platform gains a slight advantage, that advantage reinforces itself and leads to dominance. Take the example of a social networking site. The more people who use it, the more friends a new user finds on it, which makes it more valuable to her. New users therefore tend to join the largest network. Even if there are multiple competitors initially, this dynamic makes it likely that the market will “tip” so that a large fraction of users is on one platform. It is easy to see that anticompetitive conduct at the right time in such a market can have a very high payoff. Not only is the entrant excluded, but it faces higher entry barriers to returning or growing later.

“Instead of the day-to-day competition *in* a market (such as Ford, General Motors, Honda, Volkswagen, and Toyota all competing to win each customer) the meaningful competition is *for* the market (such as more than a decade ago when Google.com dethroned AltaVista.com or Facebook.com overtook Myspace.com).”²⁰ When network effects are strong, anticompetitive conduct by a dominant firm is more likely to feature conduct (including acquisitions) that eliminates or limits existing or potential competitors. Although the elimination of potential or nascent threats that might not raise issues in traditional markets, it can be far more concerning in a market with strong network effects. If General Motors acquires a small start-up that designs and manufactures transmissions, it may be unlikely to affect competition between GM, Toyota, Ford,

¹⁸ Report of the Digital Competition Expert Panel, “Unlocking digital Competition,” at 35 ¶1.80. (2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf (hereinafter U.K. Competition Report).

¹⁹ U.K. Competition Report, *id.* at 4; Jacques Cremer, Yves-Alexandre de Montjoye, and Heike Schweitzer, “Competition Policy for the digital era,” at 20 (European Union 2019). <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf> (hereinafter “EC Competition Report”).

²⁰ Michael Kades, “A Consistent if not Unified Vision: A Summary of the Stigler, UK Competition and EC Competition Reports” at 4, Submission to 2019 American Bar Association Antitrust Fall Forum Tech Summit, at <https://equitablegrowth.org/wp-content/uploads/2019/11/Michael-Kades-A-Consistent-if-not-Unified-Vision.pdf>

and other manufacturers. In contrast, if Myspace had acquired Facebook in 2004 (when Myspace had 5 million users and Facebook had 70k), social networking would look far different today.²¹

In a digital market with strong network effects, nascent or potential competitors “may be the most important source of competition faced by the incumbent firm.”²² These companies enter because they have a product that is sufficiently attractive to consumers that they can overcome the incumbent’s network effects and create their own successful network. Such an entrant, whether it succeeds or fails, puts competitive pressure on the incumbent to improve its product. That pressure will be stronger the more likely the entrant is to succeed. Therefore, acquisition of such companies poses a threat to competition.

In this situation, the incumbent’s deployment of the underlying network effects as a barrier to entry creates a challenge for an effective remedy. Ideally, the remedy will allow future innovator or disruptive competitors to succeed or fail on the competitive merits of their technology, business model, and user experience, and not because of the incumbent’s conduct. Is the new technology superior or the new platform more attractive? If so, it will enter because it expects consumers to adopt its platform -- rather than being kept out by the entry barrier. Restoring competition requires that nascent or potential competitors not fail simply because they could not break-through the incumbent’s network advantage, and thereby not reach viable scale, despite having an attractive product.

As long as the entry barriers remain high, exclusionary conduct is likely to recur, and it will be a challenge to create potential competition. Because entry barriers and the potential for tipping made the anticompetitive conduct attractive and successful, lowering the entry barriers are critical for a successful remedy. It will make it easier for potential competition to thrive and develop and reduces the value of excluding competition

²¹ Sam Thielman, “Myspace: site that once could have bought Facebook Acquired by Time Inc.,” *The Guardian*, (Feb 11, 2016) <https://www.theguardian.com/technology/2016/feb/11/myspace-time-inc-facebook-acquisition-ownership> In 2004, Facebook had 70,000 users. Alyson Shontell, “As a two month start up, Facebook had a staggering 90 million monthly page views,” *Business Insider* (August 20, 2012). <https://www.businessinsider.com/facebooks-traffic-and-pitch-deck-from-april-2004-2012-8>. In 2004, Myspace was by 2006, responsible for approximately 80 percent of all traffic related to social networking sites. Elise Moreau, “Is Myspace dead”, *Lifewire*. (January 20, 2020) <https://www.lifewire.com/is-myspace-dead-3486012>.

²² *Stigler Report*, *supra* n. 13, at 67.

b. Traditional remedies alone may not fully restore the lost competition or prevent future violations

The courts have “large discretion to model their judgments to fit the exigencies of the particular case.”²³ Many traditional remedies, however, are unlikely to achieve those goals. Remedial action will often come too late for the targets of the anticompetitive conduct. Stopping the particular anticompetitive behavior may accomplish little if the monopolist already has successfully eliminated the threat and is protected from all but the most unusual entrants by entry barriers, nor will it necessarily be obvious where the next competitive threat will arise. A monopolist that eliminated potential competitors by serial acquisition today may employ a different strategy in the future. Given the existing market power, excluding or limiting competition by different means will still be an attractive strategy.

Divestitures are an obvious option and may be fairly straightforward and administrable. For example, the court could order divestiture of a social network that operates its own interface with its own network effects. Alternatively, the court could restrict the defendant platform from additional acquisitions or require prior approval of any future acquisition unless the acquired company is not a potential or nascent threat to the platform. The AT&T consent went even further and imposed a line of business restriction that limited the regional Bell companies’ activities.²⁴ This is another option in the Facebook case. Yet in the AT&T case, the court devoted substantial time and effort enforcing the restriction, and today’s high-tech industries are arguably just as complicated, if not more. More importantly, line of business remedies or restrictions on further acquisitions may not diminish the defendant’s existing market power. A divestiture may reduce the existing market power of the dominant network but not eliminate the market power due to network effects that was achieved through anticompetitive conduct. And, alone, divestiture may not prevent future tipping. Thus, divestitures, on their own, risk being insufficient to fully restore the lost competition.

²³ *Ford Motor Company*, *supra* n. 14. At 64 (*quotations omitted*); *see also* *Chicago Bridge & Iron Co. v. Federal Trade Commission*, 534 F.3d 410, 441 *quoting* *Federal Trade Commission v. National Lead Co.*, 352 U.S. 419, 428 (1961) (“The Commission is “‘clothed with wide discretion in determining the type of order that is necessary to bring an end to the unfair practices found to exist.’”).

²⁴ *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982), *aff’d* *mem. sub nom* *Maryland v. United States*, 460 U.S. 1001 (1983).

In the case of Facebook, the most intuitive remedy is to directly undo the illegal conduct by requiring a divestiture of Instagram, WhatsApp, and any other anticompetitive acquisitions. A court must be convinced that such a remedy would restore the lost competition, which means that the divested businesses can operate effectively at a reasonable level of quality. For example, for some years after the Instagram and WhatsApp acquisitions, those companies were held and operated separately, which would likely have enabled a clean divestiture during that period.²⁵ When the news came that the FTC would/might open an investigation into the company concerning these acquisitions, however, Mark Zuckerberg ordered employees to integrate the functions of all three platforms within a year.²⁶ If Facebook employees began “scrambling the eggs,” as it is known, in January 2019, then by the time any current government case is resolved, one should expect the backend functions of the three platforms to be fully integrated, making a breakup messier and costlier. A possible solution to this problem is to give the current version of the backend software and data to all divested businesses (because software and data can be duplicated cheaply). A second problem is the underlying ad monetization function that generates the advertising revenue for two of the three social networks (the third network appears to be cross-subsidized by the others).²⁷ This functionality must be deployed for each divested platform in order for it to have a revenue source and viability. And in general, the divested platforms must not only be viable competitors but put real competitive pressure on Facebook. A court would need to wrestle with all of these issues if it required divestiture.

2. Interoperability as a Remedy

Lowering entry barriers is likely to be critical to remedy monopolization violations in any digital market, but the approach may be different for a social network, control of an app store, a marketplace, or digital advertising. Interoperability eliminates or lowers the entry barrier, which is the anticompetitive advantage the platform has maintained and exploited. Users will not switch to a new social network until their friends and families have switched. It allows someone who is not a member of the dominant social network to continue to communicate with friends or families on

²⁵ Mike Isaac, *When Zuckerberg asserted control, Instagram's founders chafed*, N.Y. Times (September 25, 2018), <https://www.nytimes.com/2018/09/25/technology/instagram-cofounders-resign-zuckerberg.html>

²⁶ *Id.*

²⁷ Jeff Horwitz and Kirsten Grind, *WhatsApp backs off controversial plan to sell ads*, Wall Street Journal (January 16, 2020) <https://www.wsj.com/articles/whatsapp-backs-off-controversial-plan-to-sell-ads-11579207682>

that platform. Therefore, people could switch to new social networks without losing their connections. Using Facebook.com as an example, because Facebook.com would be required to interoperate with other platforms, consumers who would rather not be a Facebook.com user can easily leave to join a rival. Facebook.com would have lost the benefit of its anticompetitive conduct.

Interoperability causes network effects to occur at the market level – where they are available to nascent and potential competitors – instead of the firm level where they only advantage the incumbent. An example that helps build intuition is the phone system. Imagine if an entering phone company, e.g. DISH, was not permitted to interconnect with Verizon, AT&T, and T-Mobile. Obviously, a DISH phone would be much less useful than a Verizon phone under those conditions and DISH would have a difficult time attracting customers. A requirement that the existing phone companies interoperate with DISH would significantly lower entry barriers for the entrant. Such interoperability requires an incumbent network to share its illegally acquired monopoly advantage to help the entry and growth of competitors.

a. The Telephone as an Example of Successful Interoperability

We continue with the telephone analogy to expand our argument. In its early days, AT&T built its monopoly by refusing to connect independent local phone companies. Smaller rival phone networks had low value if they could not connect their users to the large network, and this handicap forced those independent competitors to sell themselves to AT&T – which generated one large monopoly.²⁸ Another setting where a dominant network may engage in exclusion by refusing to interoperate is when a popular complement arrives and threatens to grow into a substitute. AT&T’s refusal to connect MCI to its exchanges over a half-century later was a central allegation in the government’s case that led to the break-up of AT&T.²⁹ Often its claimed reasons for refusing to connect were clearly pretextual, as in the famous Hush-A-Phone case where the product was a simple rubber attachment placed on the handset.³⁰ Facebook’s treatment of Vine

²⁸ Steve Coll, *The Deal of the Century: The Break-Up of AT&T*, 58 (Anthem 1986). This pattern of behavior matches Facebook conduct described in the CMA Interim report, *supra* n. 9.

²⁹ Coll, *id.*, 28, at 264.

³⁰ *Hush a phone v. AT&T* case about third party’s right to attach devices to the Bell system. AT&T argued: “It would be extremely difficult to furnish ‘good’ telephone service if telephone users were free to attach to the equipment, or use with it, all of the numerous kinds of foreign attachments that are marketed by persons who have no responsibility for the quality of telephone service but are primarily interested in exploiting their products.”

raises similar issues.³¹ Twitter bought Vine in 2013 when it was an application that ran on top of Facebook. Vine allowed users to post six-second videos and share them with their Facebook friends-- until Facebook cut off Vine's access, with Mark Zuckerberg's express approval.³² Vine eventually failed. The concern is that Facebook cut off Vine, as opposed to other apps, because it saw Vine as a nascent competitor and knew that without access to Facebook's large network, Vine would lose customers and users.³³ Facebook's justification for cutting off Vine - that it was duplicative of what Facebook offered³⁴ - echoes the argument that AT&T used to oppose MCI's interconnection efforts on the ground (among others) that its additional microwave systems would be "*wasteful duplication*" of telecommunication services.³⁵ AT&T refused to interconnect MCI's long distance service with AT&T local phone exchanges.³⁶

Now consider a hypothetical example. Suppose that Verizon, AT&T, T-Mobile, and Sprint each ran incompatible wireless services: Verizon customers could only phone other Verizon users and not T-Mobile or AT&T users. Note that these services are horizontal competitors and direct substitutes. In this world the wireless industry would have very different competitive dynamics. Users would want to connect with work, family, and friends that might be spread across other wireless networks. Users would therefore tend to find the smallest network worse than larger ones. High income users might carry two phones, but most people would not want to do that. New users would tend to buy a phone from the largest network, making it larger still. The market could very well tip to an effective monopoly of one firm - primarily because of this network effect. Instead of having four national wireless services, without interoperability we might well have ended up with only one.

Luckily, the US does not regulate phones as we do social media networks, but rather requires interoperability among carriers. Standards of interoperability allow each carrier's customers to interconnect with all other carriers. This interoperability breaks the power of network

³¹ CMA Interim Report, *supra* n. 9.

³² Adi Robertson, "Mark Zuckerberg personally approved cutting off Vine's friend-finding feature," The Verge, Dec. 5, 2018. <https://www.theverge.com/2018/12/5/18127202/mark-zuckerberg-facebook-vine-friends-api-block-parliament-documents>

³³ See CMA Interim Report, *supra* n. 9, at 104 ¶¶ 3.153-3.155.

³⁴ <https://developers.facebook.com/blog/post/2013/01/25/clarifying-our-platform-policies/>

³⁵ *MCI Communications Corp. v. American Tel. & Tel. Co.*, 708 F.2d 1081 (7th Cir. 1983).

³⁶ *Id.*

effects. A Verizon user does not care *per se* how many other Verizon users there are because she can phone Sprint and AT&T users just as easily as other Verizon users. Rather, the network effects occur at the level of the market; she cares how many other users have *phones* because she can call them all and therefore benefits from the total number of people on the system. A new phone entrant takes advantage of network effects established at the level of the market, not the level of the company.

b. Email as an example of successful interoperability

When interoperability works, it is seamless. Everybody uses email. We send and receive messages all over the world. An email can be sent successfully from a desktop computer, a laptop, a phone, or even a watch without regard to the receiver's device or ISP. An email message crosses any number of networks and computers, different countries, and languages. Interoperability is what allows this communication to occur.³⁷

“Email is an open, interoperable protocol. Someone can use Google's service, spin up a server of her own, or send messages through Microsoft's enterprise software. And yet all of these people can communicate seamlessly.”³⁸

Interoperability existed for email before the internet or the web was a commercial success, which is fortunate. Entrants that wanted to compete with America Online (remember them?) would have had a much greater challenge if AOL members could only have received email from each other and not from the entrant. The standards enabling this interoperability are created by the Internet Engineering Task Force, an SSO, and updated regularly in order to incorporate technological change while maintaining the ability of any interested party to interconnect with any of the vast number of email users. Those users are free to change email providers according to the monetary price (formerly positive but now often zero) and quality (data harvesting, storage, spam filters, etc.) those providers offer, which encourages providers to compete for users.

³⁷ Becky Chao and Russ Schulman, “Promoting Platform interoperability,” New American Foundation (2020) <https://www.newamerica.org/oti/reports/promoting-platform-interoperability/>

³⁸ Alexis Madrigal, “Email is Still the Best Thing on the Internet,” The Atlantic (August 14, 2014), <https://www.theatlantic.com/technology/archive/2014/08/why-email-will-never-die/375973/>

c. The costs of an interoperability requirement are likely to be low

One might worry that the required standards for interoperability among social networks would cause reduced innovation. We believe the opposite is more likely. The ability of the consumer to easily leave a social network, provides a strong financial incentive for that platform to improve its user experience in ways that do not involve the standard. Participating social networks would be free to innovate in any way on their own platforms. A post could have functionality specific to the platform on which it was created that goes beyond the standard. Such incremental functionality (e.g. location tags, emojis, stickers, polls, music + lyrics, animations including GIFs, etc.) would not be passed outside the network, so it would be one way for platforms to differentiate and attract users.³⁹ Users who cared greatly about these features would choose a platform on that basis. They would be free to make this choice because they could communicate at a basic level with all their friends on other participating social networks. Under the remedy we propose, no rival social network would be *required* to interoperate with Facebook.com. An entrant with amazing innovations that judged it could succeed without interoperability could choose that path and simply compete as a stand-alone entity.

Unlike the familiar AT&T example, there would be no cost to interconnection in the digital platform context. The standard is simply a way to present and transfer information that is already being presented and transferred. No wire needs to be connected to achieve it, nor do machines need to be co-located, or special workers employed. Transferring digital files has almost zero cost, but regardless of that cost, Facebook would be transferring those files to serve its users in any case. Facebook might need to pay some costs to redesign the format in which it transfers text and images, but if it has been found liable for monopolization by a court, it is expected that a remedy will have costs. The real cost of ongoing interoperability to Facebook.com is the possibility that it loses customers once the barriers to entry fall. But that risk is what every firm faces in a competitive market and represents a benefit to consumers.

³⁹ For example, Twitter uses hashtags to allow people to follow topics of interest. Under an interoperability standard, Facebook.com would have to allow a twitter user to make a friend request of a Facebook user, even if the Twitter user is not on Facebook.com. If the request is accepted, the tweets would appear on the Facebook user's news feed, but Twitter would not have to share the functionality of hashtags, and Facebook would not have to share the functionality of Facebook.com's marketplace or stories.

Interoperability would be far less costly for Facebook to implement up front than a breakup because no change would be needed in the way Facebook runs internally. Interoperability could only benefit consumers because the main change it makes is to increase choice. For this reason, interoperability is not very risky for consumers. Facebook would join the group of industry participants, consumer representatives, technology experts, and potential entrants developing the standard. After implementation, when a user posted content, Facebook would deliver it both internally and to the external platforms on which its users had already identified friends. (The receiving platforms would deliver the content to the individual accounts.) Facebook.com would accept incoming messages that adhered to the technical standard and would deliver them to the correct accounts. Interoperability could also be combined with divestiture, allowing Instagram and WhatsApp to participate in the standard as independent companies. Indeed, a divestiture would benefit consumers more with such interoperability. If a divestiture caused the failure of one or more of the social media sites, but interoperability was present, other entering sites would create competition, making divestiture a less risky solution.

Interoperability is particularly attractive as a policy solution because its cost to Facebook will scale to the level of Facebook's (poor) performance. Facebook will no doubt argue during litigation that it does not have a monopoly position because it engaged in anticompetitive conduct, but rather because it has a superior product. Interoperability will give it a chance to prove that. To the extent that Facebook.com has many users because those users love the interface and the privacy protections, entry by competing sites will not succeed in attracting many users. To the extent that users are unhappy with Facebook.com's services but stay on the site because of network effects, then entering sites will experience strong demand and Facebook.com will lose many customers. Therefore, the extent to which interoperability punishes Facebook financially will be scaled to the harm Facebook imposed on users.

d. Interoperability is a long-established remedy

The history of AT&T is again instructive about how interoperability can be managed to benefit consumers. In 1913, the government's settlement with AT&T required AT&T to connect its long distance service with the remaining, independent local telephone companies.⁴⁰ The Federal

⁴⁰ John E. Nuechterlein and Phillip J. Weiser, *Digital Crossroads* at 5 (MIT Press 2d. 2013); Tim Wu, *The Master Switch: the rise and fall of information empires* 55-56 (Vintage 2011).

Communications Commission later developed⁴¹ the Part 68 Rules that required AT&T to interconnect any device that satisfied the rule’s technical specifications.⁴² Interconnection caused innovation by leading to the development of new technologies such as modems and fax machines.⁴³ The AT&T consent decree in 1982 forbade the regional Bell companies from favoring AT&T in the access to local exchanges; each regional Bell had to interoperate with long distance carriers without discrimination.⁴⁴

And, regional Bell companies, initially, could not offer mobile or cellular services outside their local regions. Because no single carrier could create its own national network, they had to interoperate to create a national network. In the AT&T court’s view, limiting the reach of the regional Bell companies was critical to creating a national telecommunication network.⁴⁵ If a regional Bell company could enter and obtain control over a neighboring local exchange, it would have an incentive to undermine the national network and develop an alternative that it controlled.⁴⁶ Interoperability is such a central feature of phone service that we do not think about it. But it exists in large part due to regulatory and judicial decisions that protected and promoted it.

3. A successful interoperability order requires both strong substantive requirements and effective procedures.

As a principle, the role of interoperability in lowering entry barriers and restoring potential competition is straightforward. Implementing interoperability raises a number of issues, both substantively—what the scope of the requirements should be—and procedurally—how to make sure the remedy is flexible enough to accommodate changes and effective enough to deter obstructionist conduct. This section explores existing interoperability among social network

⁴¹ See *Id.* at 43.

⁴² *Id.*

⁴³ In 1968, the Federal Communications Commission, in what was known as the “Carterfone rules”, made an order that non-Bell equipment could be attached to AT&T’s telephone system. See *In re Use of the Carterfone Device in Message Toll Tel. Serv.*, 13 F.C.C.2d 420, Federal Communications Commission, 1968. This case was a progeny of the 1956 D.C. Circuit order that allowed noise reduction systems developed at firms other than Bell to attach to the Bell telephone system. See *Hush-A-Phone Corp. v. U.S.*, 238 F.2d 266, D.C. Circuit, 1956 See Wu, *supra* n. 40, at 189-90.

⁴⁴ Joseph D. Kearney, “From the Fall of the Bell System to the Telecommunications Act: Regulation of Telecommunications Under Judge Greene,” 50 *Hastings L.J.* 1395, 1412 (1999).

⁴⁵ *United States v. Western Elec. Co.*, 627 F. Supp. 1090, 1108 (DDC 1986).

⁴⁶ *Id.*

platforms, describes the contours of what functions should be interoperable as a remedy, and concludes by addressing how to make the remedy effective.

a. Existing Interoperability

The current situation in social media is the opposite of what we enjoy today in email and mobile phones. Social networks have a similar importance to society as phones did in the last century. Unlike AT&T, which was heavily regulated, Facebook sets its own prices, amplifies users' posts if that benefits Facebook, and controls the amount and type of advertising. There has generally been very little interoperability in social media over the last two decades. By this, we mean that a user of Myspace would post on that platform, and only other users of Myspace would see the content. Likewise, a post of a Facebook.com user who was an offline friend of the Myspace user would not be delivered to the account of the Myspace user, but only to online "friends" on Facebook.com. Unlike Verizon and T-Mobile, the networks could not connect their users. Other networks such as Google+, Orkut, Hi5, Tumblr, Friendster, Bebo, and Foursquare show vanishingly little interoperability.⁴⁷ A near zero level of interoperability is likely inefficient. Users would gain from being able to communicate with all their (chosen) friends by sending a message through whatever network those friends are using, just as they do with email today.

Interestingly, however, such interoperability has existed for some pairs of networks during some time periods, so we know it is both technologically possible and not costly. We can also infer that consumers value such interoperability. Indeed, Facebook.com itself (and some other social networks) has, at times, allowed consumers to post content from other social media platforms onto its own. In the case of Facebook.com, this functionality was enabled through the 'Public Actions' API which, tellingly, did not enable Facebook users to post content *from* Facebook.com out onto other social media platforms.⁴⁸ This asymmetry probably led to greater

⁴⁷ There were, however, third party applications like 'Flirtable' that connected users across Hi5, Myspace, Orkut, Bebo. BusinessWire, 'Frenco Connects Users Across Myspace, Facebook, hi5, Orkut and Bebo Social Networks,' BusinessWire May 6, 2008. Available at <https://www.businesswire.com/news/home/20080506005549/en/Frenco-Connects-Users-MySpace-Facebook-hi5-Orkut>

⁴⁸ Facebook deprecated this API in 2018. See New Facebook Platform Product Changes and Policy Updates. Available at <https://developers.facebook.com/ads/blog/post/2018/04/24/platform-product-changes/>

and more varied content being shared on Facebook.com compared to the social media platforms from which content is shared, according to the UK's Competition and Markets Authority.⁴⁹

The lack of interoperability between networks is likely to be one cause of consumer multi-homing, the practice of one person using multiple social networks. For instance, 97% of Instagram's audience also visited Facebook.com, as did 95% of Snapchat's audience. In contrast, only 66% of Facebook.com's audience also used Instagram while 68% used Snapchat.⁵⁰ This asymmetric level of interoperability between Facebook.com and other social networks persists in current interactions Facebook has with other platforms. For instance while TikTok and LinkedIn users can cross-post material onto Facebook.com, it is impossible, without the use of third party Apps, for Facebook.com users to share their material on TikTok or LinkedIn.⁵¹

We see from the fact that Facebook.com and other social networks can interoperate with other sites when it is in their individual interest that an interoperability requirement is technologically feasible. Another current example of interoperability is Shazam, which interoperates with multiple other apps including SnapChat.⁵² Zoom interoperates with Microsoft Outlook.⁵³ Password lockboxes like LastPass interoperate with all the browsers (even those browsers have integrated a similar feature). The barrier to interoperability in social media is not fundamentally technological, it is commercial.

b. The Idea

The interoperability we propose is basic, which means it applies to functionalities that are well-enough established to permit a useful and popular standard to be developed. Keeping interoperability simple allows social networks to innovate on dimensions of their service that they think will attract users. We give an example to motivate the discussion below. Suppose the technical committee developed a standard for transferring text, calendars, images, and video. Network A might have a feature that allows users to make text bold and flashing, but these features

⁴⁹ CMA Interim Report, *supra* n. 9, at 104-105.

⁵⁰ CMA Interim Report, *supra* n. 9, at 93 (Quantifying the traffic effect of FB's asymmetric interoperability).

⁵¹ CMA Interim Report, *supra* n. 9, at 105.

⁵² <https://support.apple.com/en-us/HT210237>

⁵³ Sometimes interoperability is used to drive users to the rival service. For example, when Zoom interoperates with Google Calendar, the Google Calendar automatically displays the link for its own Google Meet application at the top of the entry, even when the organizer is setting up the meeting in Zoom.

are not in the standard, which is plain text. When a message in flashing bold is sent by a user on A to her friends, those on network A will see the full effect; those on networks B and C will see plain text. Users of networks B and C, however, would receive A's posts such as a photo and plain text saying, "Lee's wedding was beautiful." Network A might have a feature that alerts a user's friends on her birthday. If that feature is not in the standard, friends on Networks B and C will not receive those alerts about birthdays of friends on network A. Senders who wanted to serve followers across all networks could take care to design their posts to stay within the standard. For example, institutions like schools could design their notifications (e.g. field trip forms, snow day alerts) to conform to the standard so that parents would all receive the same information no matter their home networks. Thus, the standard would allow all users to receive useful information about their friends on other networks through the most common functionalities. The technical committee would update the standard regularly and could add more features as desired.

With interoperability of this kind, a user could choose the social network she preferred to join according to its features, user interface, privacy policies and more. In addition, the technical standard would be supplemented with further conduct conditions. Under interoperability, a user would be entitled to send and receive friend requests from outside her network. She could accept or deny each friend request. Subsequently, her own social network would be required to pass her posts to her friends' networks, and their networks would display her posts to her previously-designated friends. Similarly, her home social network would be required to pass through posts from off-network friends to her as it would for posts from her friends on her home network. Social networks would not be permitted to discriminate against content from off-network friends. For example, suppose an incoming post violated the terms of service of the social network (e.g. it was an incitement to violence). If the policy of the home network is to remove all such posts, it should remove the incoming as well as local posts of that sort.⁵⁴ Under the standard, social networks would be free to have their own different terms of service, but would not be permitted to remove,

⁵⁴ We do not see a First Amendment issue. Interoperability requires a platform to deliver a post to a member of its social network, which the member previously agreed to accept. Interoperability would not require the social network to allow the post to spread across its network, so it does not infringe on the First Amendment rights of the social network. The network could apply whatever terms of service to what can be shared as long it does not discriminate against competitors.

promote, suppress, or otherwise handle content from other networks any differently than posts originating on their own networks.⁵⁵

We provide an illustrative example of how an interoperability remedy would function should the government prevail in a case against Facebook. Suppose a new platform entered that was run by Consumers' Union (publisher of the well-known Consumer Reports service), charged a monthly subscription fee, collected no data about its users, and showed no advertising. A user of the Consumers' Union site could make "friend requests" of their relatives, friends, schools, and so forth who are users of Facebook.com.⁵⁶ Facebook would be required to pass on those friend requests, explain that the potential friend is located outside of Facebook.com on the Consumers' Union site, and allow the Facebook.com user to agree to be friends if they so choose. After that point, when either friend posted content consistent with the standard, those posts would flow to the other platform and be delivered to (all) the user's designated friends on that platform according to the algorithm employed by the home network. Users would gain from the ability to communicate with all friends regardless of platform, making interoperability, as with the telephone, a consumer benefit.

In this way a user could belong to a non-Facebook.com social network, and if her child's school maintained a Facebook.com page, she could still receive notifications, photos, calendars, etc., from the school. Facebook would have to compete to gain or keep that parent as a user of Facebook.com based on the quality of the user interface, privacy protections, advertising policies, quality of news, and so forth. Facebook could not keep the parent by effectively denying her access to the school calendar if she left the platform. If she did not like Facebook's policy concerning lies in political ads, for example, she could move her account to a rival social network without losing touch with the school.

We imagine that a popular type of entering social network would be those geared to parents choosing a site for their children. Parents might be very interested in a platform that was

⁵⁵ The rule would provide the agency overseeing interoperability with the power to stop the defendant from, for example, using an "algorithm" to promote content that has the differentiated features of its own platform, thereby downgrading all content from rival platforms. Regulating this type of attempted evasion of interoperability would be an ongoing activity for the agency, one that a court would likely prefer to outsource.

⁵⁶ To make such a request, the user would need to have a personal identifier (email or phone number) and a network identifier (perhaps a name). Or the requester could be required only to have a personal identifier. The former would be more secure; the latter would make interoperability easier to achieve.

especially strict about the types of content, ads, and news that could be circulated among users. While a social network with no ads would likely require a subscription as an alternate revenue source, an ad-supported platform for children could differentiate itself by showing ads that met certain suitability criteria. One could imagine a company like Walt Disney Corporation entering with a social networking site of this type and using their existing entertainment content as a feature.

Successful interoperability would turn this sector from a monopoly into a vibrantly competitive market, with social media sites for all types of users. Sites might specialize in particular types of content moderation desired by users. For example, a site might market to Christian conservatives and both show content attractive to that group as well as remove content its members find unacceptable. Another site might partner with the Washington Post and only show news from that source along with ads. Some sites might be very strict about dangerous or hateful content and market themselves to families. Affinity groups of all kinds might want to run social media networks and include in them the kinds of features and content those users most value.⁵⁷ Rather than complaining that Facebook.com does not show the type of content they want, users could simply leave the social network for one they like better. In this setting each user would choose a social network in part based on its rules about their own speech as well as on the basis of how well the platform shields them from, or exposes them to, speech of others. Interoperability directly increases consumer choice and therefore consumer welfare for these reasons.

c. What a successful Interoperability Order requires

A successful Interoperability Order (IO) will require strong procedures and conditions in order to prevent the (liable) dominant defendant from continuing to exclude potential competitors. The rule we set forth below is designed for an environment where the dominant firm has market power and profit, interoperability will reduce that market power and profit, and so the agency must expect the dominant firm to be working in every way it can to obstruct the standard and the conduct rules.

The standard would be created and imposed on Facebook as part of the remedy for its violation of the antitrust laws. However, interoperability necessarily involves another party. We

⁵⁷ E.g. AARP, the NRA, the Sierra Club, music fan groups, universities, etc.

envision the standard embodied in a royalty free license offered - under the rule - to compliant platforms who wish to participate. We describe the conditions for both parts of the remedy below.

The technical standard for the interoperability of networks would need to be established so that platforms could carry out basic functions such as sharing text, calendar, photos, and videos. As in the case of the telephone, a standards body of industry participants, consumer representatives, technical experts, and government representatives can be created to design it. Facebook and potential competitors would be invited to participate. The standard would need to be updated regularly to handle new features in the market that had become common enough to deserve inclusion in the standard. For example, if such a standard existed today, perhaps such a committee would meet to consider whether GIFs should be included. Because only a small set of functionalities are controlled by the standard, every other aspect of the platform could be designed in any way the platform thought would benefit it, thereby allowing differentiation that appeals to users as described above. These could include better layout of the page, better suggestions for people you might know, stricter privacy protections, etc. Such differentiation and innovation by platforms would let them compete for share within the market. But participating licensed platforms would be required to use the standard technology to transfer covered content.

Beyond technical standards, the government and the interoperability committee would set the conduct requirements rival platforms must satisfy to participate in the standard. For example, a platform that wanted to license the standard would have to demonstrate it was in compliance with all relevant laws, especially laws controlling privacy and data access, had appropriate governance and training, and might need to submit some element of its code for review before it could obtain a license from the FTC. Once a platform obtained a license, it would be required to interoperate using the standards in the license with all other license holders and the defendant platform and not evade this interoperability requirement. The license terms would require non-discrimination as between content originating on rival platforms versus the home platform. Rival platforms would be free to leave the standard at any time.

Privacy protection on a social network would work as it does now. Each platform would set a policy and each user would need to agree to that policy if she wanted to open an account. A key aspect of privacy protection concerns the exposure users have to users on the networks their friends belong to. We are particularly concerned about a user who values privacy but has friends

on networks with more lax privacy rules that aggressively monetize users. A user of a strict social network might be concerned about her privacy should she send a post for display on a lax social network. Under the license, social networks would not be permitted to store information contained in incoming posts on their users' friends, learn from that data in any way, or monetize those friends in any way. A network would simply deliver the information to the friend only. Only the receiving person could decide to share the content further on her own social network.

While participation in the interoperability standard would be mandatory for Facebook, it would be optional for all other platforms. Existing platforms, e.g. LinkedIn or Twitter, would not be required to participate, nor would we necessarily expect them to want to.⁵⁸ Their existence, despite Facebook's dominance, indicates that they are not dependent on interconnection with Facebook for success. If an existing platform wishes to license the standard, it is welcome to do that of course. A new entering platform would likely want to interoperate with Facebook in order to attract users by offering them the types of features mentioned above. Critically, such a participating platform would be required to interoperate *with any other platform complying with the standard*. If this condition is not in place, then entering platforms would each have a bridge to Facebook.com, but not to each other, which would make for a dysfunctional market.

Interoperability is therefore designed to be symmetric under the license; a network that benefits from its users' posts flowing to and from the dominant social network also must provide interoperability to all other licensees. Thus, if there were an entering platform run by AARP and another by the NBA and another by Disney, and all three of those entrants chose to operate under the standard, their users could not only connect to friends on Facebook.com, but the AARP users could "friend" users of the Disney and the NBA platform as well as users on Facebook.com, and vice versa. Reciprocity will help new networks launch and flourish. Users will be able to freely move across social networks without losing connections (access to friends) on other platforms. Consumers can choose networks in response to the features and policies they like best, thus stimulating competition that benefits them

As mentioned above, some have raised concerns that too much interoperability could undermine innovation. In their recent report, the Competition and Markets Authority recognized

⁵⁸ The CMA notes that the social media platforms it surveyed did not want interoperability. However, as we explain above, this is not a surprise as we would expect the social media that has survived today to have a different strategy than a new entrant responding to interoperability. CMA Interim Report, ¶ 8.65.

both the benefits and costs of interoperability.⁵⁹ On the one hand, interoperability reduces network effects as an entry barrier.⁶⁰ But, as we described above, standardization can promote innovation “in the non-standardized functionality.”⁶¹ On the other hand, there could be less innovation on the functionality that is incorporated into the standard.⁶² This latter concern is theoretically correct, but we judge its magnitude to be far outweighed by the innovation generated by entrants competing for users in the market. For incumbents, stoking fears of interoperability provides an easy way to oppose rules that could increase competition. AT&T’s statements to this effect provide an instructive comparison.⁶³ In telephones, the AT&T order spurred, rather than limited, innovation. Similarly, in the EU’s case, Microsoft’s competitors argued that Microsoft should have to provide detailed technical information on its interfaces, which would help competitors design code to interoperate with Windows. In response, Microsoft argued that releasing such information would discourage it from innovating. The EU weighed the requirements impact on the whole industry to innovate against the impact on Microsoft’s own incentives and rejected Microsoft’s argument:

“a detailed examination of the scope of the disclosure at stake leads to the conclusion that, on balance, the possible negative impact on Microsoft’s incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including MS)”⁶⁴

The Commission’s parenthetical mention of Microsoft is insightful. Even as to the dominant firm, interoperability has ambiguous effects. Mandatory interoperability may decrease the dominant platform’s incentive to innovate. Innovations on functions that are part of the interoperability rule have to be shared with competitors. The dominant firm could worry that if it innovates on functions not part of the standard, those technical committee could sweep them into the

⁵⁹ CMA Interim Report, *supra* n 9, at 247-25 ¶¶ 6.76-6.88 and Appendix K.

⁶⁰ *Id.*, “Appendix W: assessment of pro-competition interventions in social media,” at W5 ¶ 27. https://assets.publishing.service.gov.uk/media/5efb5fcbd3bf7f769a4e776b/Appendix_W_-_Interventions_in_Social_Media_v.3.pdf

⁶¹ These are the types of features that can be substantial and disruptive or more modest. For some examples, see, *supra*, pp. 20-23.

⁶² *Id.*

⁶³ In the 1940’s, AT&T ran advertisements stipulating that, “it takes a totally unified system to make it all work. One system. AT&T.” AT&T would later argue in the Caterfone case that its absolute control over all equipment on the network was necessary for the efficient functioning of its telephone system (a familiar stance it had taken in the Hush-a-phone case, two decades earlier). Fortunately, the FCC rejected AT&T’s rules and arguments as “unduly discriminatory.”

⁶⁴ *Microsoft Corp. v. Commission of the European Union*, Case T-201/04, at ¶ 706 (2007).

interoperability rule, allowing competitors to free ride on the dominant firm’s innovation. At the same, even if it knows that innovations could become part of the interoperability rule, the dominant firm still has incentive to innovate. Because interoperability minimizes network-created entry barriers, the dominant firm faces increased competitive pressure. If it does not innovate, someone else might. Innovating quickly allows the social network to reap the greatest benefits before such innovations might be included in revisions to the standard.

Regardless, interoperability as a remedy to an antitrust violation is particularly unlikely to deter innovation. The remedy is being applied in a setting where the incumbent platform has been found to have anticompetitively stifled competition, which likely means innovation has also been retarded. As discussed below, the process for developing the interoperability standard involves all affected parties, with a particular emphasis on entrants. A competitor worried about losing its innovative edge is always free to choose not to participate in the standard.

4. Adjudication alone is poorly suited for developing an interoperability remedy

Although the concept of interoperability is straightforward, implementation requires careful attention to detail. The dominant platform could intentionally make interconnection difficult. When its competitors complained, the platform would claim it was a technical, not competitive, issue. Microsoft took such an approach in defending its conduct, claiming it would be nearly technologically impossible to separate its browser from its operating system.⁶⁵ As one government enforcer characterized AT&T’s defense, it warned a break-up of the Bell system would “silence the dial tone across America.”⁶⁶ As in those cases, sometimes (maybe often) such arguments will be pretextual, but other times they may be legitimate. A process involving experts and a government agency with discretion will expedite review of these issues.

In the social network context, there will likely be ample disputes. For example, the defendant platform rejects interoperability with an entrant because it claims the entrant traffics in hateful and deceptive information, which the defendant’s platform forbids (leaving aside that this is the opposite of the current Facebook situation). The entrant responds that it does not allow such information to be posted and retorts that the defendant discriminates against the posts of the

⁶⁵ *United States v. Microsoft Corporation*, 253 F.3d 34 (D.C. Cir. 2001).

⁶⁶ Interview by Michael Kades with Phil Verveer, former prosecutor in *United States v. AT&T*, United States Department of Justice, Antitrust Division (May 29, 2020).

entrant's members. Or, the defendant platform cuts off a competitor platform because the defendant claims the competitor keeps violating privacy protections or other standards. The competitor disagrees and says it is being cut off because it is gaining users and is a threat to the defendant's profit. Those are simply examples of the types of disputes one would expect to see. In all likelihood, there will be unforeseen issues that will arise as market conditions change.

The point is not that those issues make a remedy impossible. Rather, they foreshadow the issues with which a court overseeing a remedy will grapple. Interoperability will affect competitors, content suppliers, and users, while the relief must be flexible enough to address unknown future developments. For example, although the AT&T consent directly addressed mobile phone service, it is doubtful anyone understood that mobile phones would eventually replace landlines or the full scope of the coming digitization of telecommunications. These types of issues are the very ones with which adversarial adjudication process struggles.

a. Challenges of Antitrust Litigation Generally

Antitrust cases are difficult, complicated, and time consuming, particularly when the focus is on exclusionary conduct and monopolization theories. Moreover, a victory on liability does not help the harmed consumers in a monopolization case if the remedy fails. But liability is a necessary precondition for seeking a remedy. Unsurprisingly, litigators and courts focus on liability first and foremost, and remedy can become an afterthought during litigation. As a result, having spent years on liability, the process begins all over again. And, when a court tries to circumvent that process, as in *Microsoft*, by streamlining the process by not having an additional evidentiary hearing, it may find its relief overturned.⁶⁷

Remedies fail frequently in antitrust cases even in more straightforward situations than a monopolization case presents. In merger cases, the government has a well-defined goal: restore the competition that otherwise would be lost. In theory, a divestiture should remedy an otherwise anticompetitive merger if the divested assets are an ongoing business and the buyer is financially sound and competent. But the execution is more challenging. In a number of recent cases, a

⁶⁷ *United States v. Microsoft*, 253 F.3d 34, 183 (DC Cir. 2001) (“In sum, the District Court erred when it resolved the parties’ remedies-phase factual disputes by consulting only the evidence introduced during trial and plaintiffs’ remedies phase submissions, without considering the evidence Microsoft sought to introduce.”).

buyer, despite the government’s vetting, failed.⁶⁸ And, a number of studies find that mergers were anticompetitive despite government-required divestitures.⁶⁹ The monopoly context is far more challenging. Even a break-up is not simply cutting a company in two. The remedy must define how the new companies interact with each other and others in the marketplace.

b. Lessons from AT&T Remedy litigation.

A remedy that is designed to last for years in a technology market will be complicated to administer. The government and AT&T had spent years, on-and-off-again, negotiating the break-up remedy before submitting the settlement to the court in 1982. The ultimate consent decree was effective, “premised on an articulable economic theory,” and administered by the court.⁷⁰ Judge Greene proved that the approach “can be a defensible judicial enterprise.” Even so, over the next 15-plus years, Judge Greene would issue hundreds of orders implementing and interpreting the agreed upon settlement.⁷¹ Only the Telecommunications Act of 1996 ended the judicial oversight.

The implementation of the AT&T settlement, which was largely successful, underscores the challenges that a court faces. The court had to moderate among a cacophony of conflicting interested parties. Over 100 parties had intervened in the settlement and could have overwhelmed the court with requests for oversight and relief. At the same time, the court also created a waiver procedure that allowed parties to seek modification or relief from the order’s line of business prohibitions: Within four months, “the RBOCs [Regional Bell Companies] had filed nine requests for waivers.”⁷²

⁶⁸ Jeff Wells, “Brief: Lawsuits between Dollar Tree and Dollar Express expose problems underlying 2015 deal,” Grocery Dive (June 8 2017) (Failed divestiture in Dollar Tree’s acquisition of Family Dollar); <https://www.grocerydive.com/news/grocery--lawsuits-between-dollar-tree-and-dollar-express-expose-problems-underlying-/535024/>; Anna Marum, “Failed divestiture: Albertsons is bidding on 36 Haggen stores, including some it used to own,” OregonLive (Nov. 10, 2015) (Failed divestiture in Albertson acquisition of Safeway). https://www.oregonlive.com/window-shop/2015/11/albertsons_bids_on_36_haggen_s.html; Brent Kendall and Jacqueline Palank, “How the FTC’s Hertz Antitrust Fix Went Flat,” Wall Street Journal (Dec. 8, 2013) (Failed divestiture in Hertz Global Holdings acquisition of Dollar Thrifty). <https://www.wsj.com/articles/how-the-ftc8217s-hertz-antitrust-fix-went-flat-1386547951>

⁶⁹ John Kwoka, *Mergers, Merger Control, and Remedies: A Retrospective Analysis of U.S. Policy* 158 (MIT 2015).

⁷⁰ Joseph D. Kearney, *supra* n. 44, at 1402 (1999).

⁷¹ *Id.* at 1400 n.1 (1999).

⁷² *Id.* at 441424.

The demands of overseeing the consent were beyond the capacity of the court, even for the focused and diligent Judge Greene. He created a process that delegated oversight to the Department of Justice’s Antitrust Division. Rather than appealing to the court for enforcement in the first instance, interested parties would have to ask the Department of Justice to enforce the order.⁷³ Similarly, Judge Greene channeled waiver requests from the RBOCs, through the Department of Justice. Petitions for modification were also filed with the Department of Justice. It would publish the request, allow public comment, consult with interested parties, and conduct analysis. Only then would the court consider the request.⁷⁴ Examining Judge Greene’s approach is useful because it provides guidance on what procedures can work. Our proposed rule is a similar, but more structured approach than the ad hoc process Judge Green developed for himself.

Judge Greene, as a practical matter, relied on the Antitrust Division in much the same way that an agency such as the Federal Communication Commission or the Federal Trade Commission relies on professional staff. A judge with two law clerks simply cannot manage an order that affects hundreds of individual parties differently and involves complicated waiver requests without additional help.⁷⁵ Judge Greene’s solution was necessary, creative, and largely successful. But it required the court to use resources from the Antitrust Division to be successful, an idea our proposed rule adopts.

c. Lessons from Microsoft Remedy Litigation

In contrast, the remedy in the *Microsoft* case was less successful on its own terms. Although successfully bringing the case itself may have deterred future anticompetitive activity, the remedies provisions did not lead to increased competition. A full discussion of the *Microsoft* remedy is beyond the scope of this article.⁷⁶ At issue in *Microsoft* was whether Microsoft had illegally maintained its monopoly for Intel-based operating systems. A network effect – the “applications barrier to entry” – gave Windows protection from competition. An operating system has more value when many software developers write programs to run on it, but those developers are attracted by users, who are themselves attracted by developers, creating the virtuous circle that

⁷³ *Id.*

⁷⁴ *Id.* at 1426.

⁷⁵ Interview with Phillip Verveer (May 28, 2020).

⁷⁶ For a general discussion of the *Microsoft* Antitrust cases, see Andrew w. Gavil and Harry First, “The Microsoft Antitrust Cases: Competition Policy for the Twenty-First Century, (MIT 2014).

characterizes network effects. The threat Microsoft faced from the Java middleware was that it would create interoperability between applications and rival operating systems. Instead of writing software for each operating system, a developer would write for Java middleware -- which was capable of running on each operating system. An analogous situation applied to servers. In addition to other relief that barred several practices Microsoft had used to suppress competitors, the final settlements required Microsoft to allow interoperability with middleware and servers.⁷⁷ The settlement also created a three-person technical committee to oversee compliance with the provisions.

The interoperability provision had little impact for a number of reasons, providing lessons for the future.⁷⁸ Instead of considering how to lower entry barriers new operating systems faced, the court focused too narrowly on protecting middleware because Microsoft had suppressed the threat from middleware:⁷⁹

“The idea that the only appropriate remedy in the case should be directed at middleware seems curiously misplaced. Conduct directed at middleware wasn’t a competitive problem for its own sake in the plaintiffs’ monopolization but was of concern because it maintained the applications barrier to entry into the market for operating systems. By the time of the remedy, however, middleware was not a threat it had been nor could it have been. Rather, the court should have been “looking broadly for ways to lower the applications barrier to entry,”⁸⁰

The court should have focused on provisions that would have lowered the barriers to entry facing the most likely threats at the time of the settlement: Apple and Linux. Arguably, the interoperability requirements applied too narrowly, did not lower entry barriers, and did not spur new potential threats to the Windows operating system.⁸¹

⁷⁷ Andy Gavil and Harry First, “The Durable Meaning of the *Microsoft Antitrust Litigation*,” 2006 Utah L. rev. 679, 73032 (2006).

⁷⁸ See Herbert Hovenkamp, “The Antitrust Enterprise: Principle and Execution 298 (2005) (citations omitted).

⁷⁹ *Id.* at 758.

⁸⁰ *Id.*

⁸¹ See, Carl Shapiro, “Microsoft: A Remedy Failure, 75 Antitrust Law Journal 739, 758 (2009).

The interoperability provisions regarding servers and PCs was one area where compliance became an issue. Microsoft initially refused to use Adobe Acrobat to image the necessary protocols and continually missed its deadlines to produce the protocols. The Technical Committee was unable to resolve issues. Eventually, the judge extended the length of the decree because Microsoft had not complied with these interoperability requirements.⁸² It was not until the last report to the court before the final judgement would expire on May 12, 2011, that the plaintiffs were satisfied that Microsoft's interoperability procedures were sufficiently complete.

This example demonstrates that remedy challenges increase when the parties remain adverse as in *Microsoft*. Though the trial court found a violation in 2000 and adopted the plaintiffs' proposed divestiture, the Court of Appeals rejected the remedy and criticized the lower court for deferring to the plaintiffs. Another two years of litigation and settlement negotiations would occur before the settlement was entered, and almost another decade before Microsoft fully complied with its requirements.

5. **FTC rulemaking would improve remedies**

Our rulemaking proposal builds on lessons from Judge Greene's handling of the AT&T cases and Judge Kollar-Kotelly's approach in the Microsoft case, but adds three important features. To deal with both the volume and complexity of issues, the AT&T court relied on the Antitrust Division to be a gatekeeper. Rather than rely on the *sui generis* process that developed in the AT&T case and the somewhat more formal Technical Committee in Microsoft, we propose formalizing the process so that the contours of the remedy would be known at the beginning of any case. Historically, the most effective competition rules are those that "ease barriers to market entry in related or even new markets unknown at the time of entry."⁸³

The standing default rule creates a technical committee to set the standard needed for the case at hand, and to monitor compliance with that standard.⁸⁴ This committee is akin to a standard setting organization, except that it is overseen by the FTC to ensure it focuses on entry and competition and to prevent capture by dominant firms. The technical issues involving

⁸² See *Generally*, Gavil and First, *supra* n. 77.

⁸⁴ The defendant would have to fund the cost of the committee, including the salaries of the members. In terms of compliance, if a company has a complaint, it would raise it with the FTC, and the FTC would determine whether to deal with it directly or refer it to the technical committee.

interoperability are likely to be too time consuming and difficult for an agency to handle by itself. Standard setting organizations are common in the economy and they ensure interoperability of everything from cell phones to mechanical parts such as screws to computer memory chips and computers. Of course, standard setting organizations can be abused.⁸⁵ Therefore, the composition and oversight of the standard setting body is critical to define in any FTC rule.

Because, in our setting, interoperability is a remedy for illegal conduct, it must be a *constant working assumption of the agency and the court* that the defendant does not wish interoperability, has market power, and will attempt to defeat interoperability and associated entry. Thus, in our hypothetical example, the body that creates the particular interoperability standard will include industry participants, and it must include Facebook, but it must not be manipulated by Facebook in a way that allows Facebook to maintain its market power. Under our proposal, we limit the competitive dangers because the FTC understands the defendant's strategy (it prevailed in the litigation), would be the final decision maker, and has substantial experience in assessing the competitive impact of Standard Setting Organizations. The technical committee in the proposal is a more robust and formal version of that developed in the Microsoft case and would be better placed to develop standards quickly.

Second, the rule incorporates strong penalty provisions. The markets for which this rule is designed are subject to tipping, which means that further anticompetitive conduct at just the right moment can maintain market power. The remedy structure must be responsive enough, and include a large enough penalty, to deter anticompetitive conduct. The remedy procedure must be fast enough that an Order violation cannot achieve its goals before the Commission makes a finding, so that the defendant will be unlikely to profit from the violation. Our draft rule provides what we believe would effectively deter order violation.

⁸⁵ *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988); *Am. Soc'y of Mech. Engr's v. Hydrolevel Corp.*, 456 U.S. 556 (1982); *Radiant Burners, Inc. v. Peoples Gas Light & Coke Co.*, 364 U.S. 656 (1961). When the standard incorporates intellectual property, there is a danger of hold-up. The standard covers a patent or patents where the patent holder did not disclose the patent, falsely promised to license the patent on reasonable terms, changes its mind on licensing terms, or otherwise abuses the power it has after the standard is adopted. For a more in-depth discussion, see Prepared Statement of the Federal Trade Commission Before the United States Senate Committee on the Judiciary, Subcommittee on Antitrust, Competition Policy and Consumer Rights "Standard Essential Patent Disputes and Antitrust Law" (Washington, D.C. July 30, 2013). https://www.ftc.gov/sites/default/files/documents/public_statements/prepared-statement-federal-trade-commission-concerning-standard-essential-patent-disputes-and/130730standardessentialpatents.pdf

We understand that there are unresolved legal issues such as how one determines what is a violation (is it by day, by user, etc.) or addresses areas with contrary authority (whether the FTC can assess fines and what counts as equitable relief). And, one case explicitly rejects the FTC's ability to obtain monetary penalties in its internal adjudication process.⁸⁶ Some of the issues would be less significant if a court adopted the rule as a framework and explicitly ordered the types of fines proposed in the rule or adjusted them according to relevant case facts. In a rulemaking, the Federal Trade Commission could and should consider these issues. We do not delve into the legal issues regarding monetary relief here. The point, rather, is that the most effective approach will have a mechanism that deters the defendant platform relying on the lack of consequence to achieve its goals.⁸⁷

Third, we propose that the FTC use its rulemaking authority to design a default order. The FTC could use this order in its own administrative litigation or offer it as a starting point for remedies in federal court litigation. The FTC could define the situations, such as the Facebook example here, where divestiture or other remedies are, alone, unlikely to be sufficient to fully restore the lost competition. Given the growth of digital platforms of all kinds, it seems likely that the agencies will continue to encounter defendants that have network effects and therefore designing such a rule would have a long-term payoff. The rulemaking process allows input from all parties potentially affected, potential competitors, content providers, and individuals. The Commission, unlike a court in litigation, can survey all evidence, including academic and technical literature, not just what meets the standards of the rules of evidence. A rule can address nuances including how to fine-tune enforcement mechanisms.

Rulemaking provides a tool that can be used instead of, or in conjunction with, ordering a break-up, and the Commission or a court can better tailor such a rule to limit any unintended costs, according to the case at hand.⁸⁸ Having a remedy in its toolkit that removes network effects at the level of the company - and instead makes them operate at the level of the market, available to all - will be of tremendous benefit to future consumers.

⁸⁶ See *Heater v. Federal Trade Commission*, 503 F.2d 321 (9th Circuit 1974).

⁸⁷ Congress could explicitly create a procedure for the FTC to assess fines or seek fines. See e.g. Monopolization Deterrence Act of 2019, S. 2237, 116 Cong. § 1 (2019).

⁸⁸ See Jonathan Baker, "The Sherman Act section 1 dilemmas: parallel pricing, the oligopoly problem, and contemporary economic theory," 38 *Antitrust Bul.* 143, 209, (1993).

a. Benefits of Rule Making

Rulemaking has several benefits over developing a remedy during litigation. One instance of rulemaking is likely to be less burdensome and time-consuming than litigating the same remedy issues in every case with network effects.⁸⁹ The rulemaking process allows input from all parties potentially affected in future cases like entrepreneurs, content providers, and consumers. The Commission, unlike a court in litigation, can survey all evidence, including academic and technical literature, not just what meets the standards of the rules of evidence. Because a rulemaking is not adversarial, it will be easier for the FTC to identify areas of consensus. The rulemaking process is likely to develop a better outcome.

The rule would improve decision-making in the FTC adjudication. The default rule would be binding on the Administrative Law Judge as a starting point and would provide a framework to work through the complicated issues that arise in crafting a remedy. For each case, the ALJ, and then the Commission, would have to decide whether the provisions address the issue and how they must be tailored to fit the specific issues of the case. The ALJ's initial decision could focus on the important areas of contention. In turn, the initial decision is more likely to be helpful to the Commission by focusing on the most important areas of contention. Enshrining a default order in the Commission's litigation procedures would be more effective than issuing guidance or a policy statement on remedy. Further, guidance or a policy statement would have less weight and formality than a rule.

The rule would function differently in federal court where the Commission would ask the court to enter the order with the same basic structure (technology committee, decision by the Commission, and stiff penalties). The order would largely be the same, but there would be some differences. For example, the Commission would ask for the court to include the stated penalties for order violations. If the court adopted the penalty provision (or some variant thereof), the Commission would later have the ability to seek penalties in the event of an order violation. The Department of Justice, in a monopolization case addressing a social network, could also build its relief from the default rule and ask the court to enter it as an order. In that situation, the Antitrust Division would be designated to oversee the technology committee.

⁸⁹ See *id.* at 215.

The court would be free to ignore the order, adopt it, or modify it. But many courts would likely use it as a starting point. Rulemaking is a multiparty process, which would make it more likely that the provisions would be effective and less likely that they would have unintended negative consequences. The rule's mere existence would make the remedy process more manageable and alleviate the challenges of the court attempting to craft and monitor a remedy on its own relying solely on the adjudicative process. The Department of Justice, states attorney generals, and private plaintiffs could also offer the rule as a starting point for developing a remedy.

The principles developed in the rulemaking could also form the basis for seeking preliminary relief. In the context of nascent and potential competitors, preliminary relief may be the only realistic way to protect the harmed competitors. The rulemaking would help focus the Commission and other enforcers on the most important principles for relief, allowing them to quickly propose preliminary relief in a variety of situations.

b. FTC Authority for Rule Making

Section 6(g) of the Federal Trade Commission Act gives the FTC the authority to issue rules and procedures “for the purpose of carrying out the provisions” of the FTC Act. Existing caselaw interprets this mandate broadly, upholding the FTC’s right to issue substantive rules.⁹⁰ Many have advocated that competition rulemaking could improve antitrust enforcement. Current Federal Trade Commissioner Rohit Chopra and Lina Khan argue that rulemaking has three main benefits over adjudication: the Commission can “issue clear rules to give market participants clear notice about what the law is, helping ensure that enforcement is predictable,” “relieve antitrust enforcement of steep costs and prolonged trials,” and provide “a transparent and participatory process, ensuring that everyone who may be affected by a new rule has the opportunity to weigh in on it, granting the rule greater legitimacy.”⁹¹ In May 2009, Professor Hemphill suggested rulemaking as a better approach than adjudication for addressing pay-for-delay (or reverse-payment) settlements.⁹² Earlier, Professor Baker advocated rulemaking to stop “practices

⁹⁰ *National Petroleum Refiners Association v. Federal Trade Commission*, 482 F.2d 672, 698 (DC Cir. 1973).

⁹¹ Rohit Chopra and Lina M. Khan, “The Case for ‘Unfair Methods of Competition’ Rulemaking,” 87 U. Chi. L. Rev. 357, 367-68 (2020).

⁹² C. Scott Hemphill, “An Aggregate Approach to Antitrust: Using New Data and Rulemaking to Preserve Drug Competition,” 109 Colum. L. Rev. 629 (2009).

facilitating oligopoly coordination.”⁹³ Professor Daniel Crane has also advocated for competition rulemaking.⁹⁴ Although much discussed, the Commission has issued only one competition rule (to prevent discriminatory practices in the sale of men’s and boy’s pants to retailers).⁹⁵ The Commission never enforced the rule and withdrew it in the 1990s.⁹⁶

Others, however, have raised concerns about rulemaking. According to Federal Trade Commissioner Phillips, the current Supreme Court could decide any rule declaring an act or practice an unfair method of competition would be unconstitutional under the nondelegation doctrine.⁹⁷

Our proposed rule avoids those controversies. Our rule is different because it is purely procedural, no different than the FTC’s rules of practice, which determine how the Commission operates and how it adjudicates cases. It would not declare conduct illegal and it would not institute general rules that regulate all companies in the market. It would define one method by which the Commission would address certain types of violations. The Commission would still have to find a violation. Even then, the order would not be binding. The default order would simply provide a starting point for how the Commission would address remedy.

c. Rule-Making Process

It is unlikely that the rule could be challenged until it was applied in a specific case because no one would have standing. To challenge an agency rule, the plaintiff must allege it has suffered injury in fact that is “(a) concrete and particularized, and (b) actual or imminent, not conjectural or

⁹³ See Baker, *supra* n.88, at 207.

⁹⁴ Daniel A. Crane, *The Institutional Structure of Antitrust Enforcement*, Oxford, Oxford University Press, 141-143, (2011).

⁹⁵ Trade Regulation Rule on Discriminatory Practices in Men’s and Boy’s Tailored Clothing Industry, <https://books.google.com/books?id=g-ji6XC6r48C&pg=PA1&lpg=PA1&dq=federal+Trade+Commission+rule+mens+and+boys+pants&source=bl&ots=T-TNvURSxg&sig=ACfU3U3giHEusyUG1XagKhWEN7NVj9TsWQ&hl=en&sa=X&ved=2ahUKEwid0ei1v4PqAhW9SjABHR4WCj0Q6AEwAnoECAUQAQ#v=onepage&q=federal%20Trade%20Commission%20rule%20mens%20and%20boys%20pants&f=false>

⁹⁶ Comments of Commissioner Noah J. Phillips Commissioner Noah J. Phillips, remarks at FTC Workshop on Non competes at pp 220; https://www.ftc.gov/system/files/documents/public_events/1556256/non-compete-workshop-transcript-full.pdf

⁹⁷ *Id.* at pp 216-222.

hypothetical.”⁹⁸ Until the Commission determines a company has violated the Federal Trade Commission Act, it has not suffered any harm. Nor is a company likely to argue that it is in imminent danger because its current behavior violates the law.

When the rule has been applied in a specific case, it will likely have been tailored to the specific circumstances. The review would focus on the actual order issued in the case, which would depend on the record in the specific case. Nevertheless, we consider whether the rule would be upheld on its own, which could occur in two situations. First, if a court found standing. Second, in a particular litigation, a party might challenge the default order under the Administrative Procedure Act (APA) and argue that because the default order is inappropriate, the specific remedy must be vacated. In our view, in either situation a court would likely uphold the rule.

The validity of the proposed rule would depend on whether it satisfies the requirements of the APA. Notice and Comment rulemaking is well established under the APA and gives the Commission flexibility in developing a rule. At a minimum, the Commission would need to issue a Notice of Proposed Rule Making, take comments, and issue a final rule that includes a statement of the rule’s purpose and the basis for the rule.⁹⁹ The Commission could hold workshops or even a hearing if it felt that would be helpful.

A court can vacate the rule if it is “arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with the law,”¹⁰⁰ “is in excess of statutory jurisdiction, or authority, or limitation, or short of statutory rights”¹⁰¹ or “without observance of procedure required by law.”¹⁰² These concerns are unlikely to be valid in our setting. Although there is dispute as to how stringent judicial review under the APA is, courts do not second guess the agency’s determination. As long as the FTC’s rule reflects the evidence in the record, employs acceptable reasoning, addresses concerns, and considers alternatives, the rule should not be found to be arbitrary and capricious.

⁹⁸ *Bloomberg L.P. v. Commodities Future Trading Commission*, 949 F. Supp. 2d. 91, 115 (DDC 2013) (internal quotations omitted).

⁹⁹ 5 U.S.C. §553.

¹⁰⁰ 5 U.S.C. § 706(2)(A). While other statutory bases for objecting to the rulemaking exist, they either do not apply to Notice and Comment rulemaking (section 2(c) and 2(F)) or are easily satisfied. As long as the agency follows the procedures identified in the APA, the agency has complied with the requirements under Section 2(B) that the rule making is not contrary “To constitutional right, power, privilege, or immunity.” *Vt. Yankee Nuclear Power Corp v. Nat. Res. Def. Council*, 435 U.S. 519, 542 n. 16 (1978).

¹⁰¹ 5 U.S.C. § 706(2)(C).

¹⁰² 5 U.S.C. § 706(2)(D).

As the discussion above illustrates, there is already a rich academic and policy discussion on the types of anticompetitive harms that can occur in digital markets and how to address them.¹⁰³

The rule could not be “in excess of statutory jurisdiction, or authority, or limitation, or short of statutory rights.”¹⁰⁴ This factor often depends on whether an agency receives *Chevron* deference. Here, however, regardless of the amount of deference, a court is unlikely to hold that any agency exceeds its statutory rights to make procedural rules to manage its adjudicative process. The rule simply organizes how the Commission addresses remedy in a particular class of cases in administrative litigation. It has no binding effect on federal cases, although a federal court could choose to adopt the rule in whole or in part. During the rule-making process itself, the Commission should consider whether assigning burdens of persuasion or production would transform a procedural rule into a substantive one.

A third objection would be that the Commission acted “without observance of procedure required by law.”¹⁰⁵ The type of rule proposed here is unlikely to raise such concerns. The rule does not regulate conduct in the first instance. It applies only after a finding that the respondent violated the Federal Trade Commission Act. Further, it does not limit respondent’s rights to argue for different relief.

As to the specific order in a case or the implementation of the order, the dominant firm could appeal the Commission’s decision (and might be likely to do so), but an appellate court would interfere only if “there is no reasonable relation between the remedy and the violation.”¹⁰⁶ If the case was in federal court, the court could order a similar process. If the dominant firm disagrees with a decision of the interoperability committee, the FTC would review and make a recommendation to the court, and then the court would resolve the issue.¹⁰⁷ Compared to leaving the decision to the incumbent or an incumbent-dominated organization, the proposed process is more likely to develop a standard that maximizes benefits and minimizes costs.

¹⁰³ See *supra*, nn. 13-22.

¹⁰⁴ 5 U.S.C. § 706(2)(C).

¹⁰⁵ 5 U.S.C. § 706(2)(D).

¹⁰⁶ See *Atlantic Refinery Co. v. Federal Trade Commission*, 381 U.S. 357, 376 (1965),

¹⁰⁷ These procedures are similar to Judge Green’s approach in *AT&T*, see, *supra*, nn. 71-74.

d. Draft Rule

We provide a draft of an interoperability rule as a concrete example of the principles we have discussed. In order for this desirable remedy to be a possibility in the event that the court finds Facebook liable, the FTC would want the capability to administer the adoption of interoperability to a defendant and an industry. If the FTC has such a capability in place, it can offer interoperability to the court as a potentially effective and predictable remedy. Enforcement will benefit if the FTC adopts an Interoperability Order immediately.

Upon a finding that,

- (1) the defendant has been found liable for violating Section 5 of the Federal Trade Commission Act by engaging in conduct that violates Section 2 of Sherman Act,
- (2) the defendant's product or service experiences strong network effects and these are a barrier to entrants, and
- (3) the market has tipped, competition has been suppressed to the detriment of consumers, and the harm cannot easily be restored because past nascent or potential entrants no longer exist or are severely weakened.

The Federal Trade Commission shall presumptively adopt the following provisions to establish interoperability as the best chance of restoring the lost competition in a way that benefits consumers.

- a) The Federal Trade Commission will create an interoperability committee. This committee will determine the standard for interoperability plus relevant accompanying privacy standards. Such committee will include the defendant, potential entrants, industry participants, independent technical experts chosen by the FTC, and representatives of the FTC. The standard will be chosen to facilitate entry as well as a positive user experience. The committee will not adopt technical standards that maintain market power of the defendant. The FTC will make the final determination of the standard in its sole discretion.
- b) An entrant that wishes to use the standard must obtain a license from the FTC. Such a license is royalty free and may be obtained on demonstrating to the FTC that

the applicant complies with all relevant US laws, maintains privacy rules of the standard, and will adhere to the interoperability rules set forth below.

c) The defendant will be required to use the interoperability standard. The defendant may not interoperate on the included functionality except through the formal standard. Other competitors who choose to license the standard must offer interoperability using the standard with the defendant and all other licensees without discrimination among them.

d) The FTC, (or the Court) in its sole discretion, may revoke the license of any licensee if that licensee systematically violates consumer protection or privacy laws. Any offending licensee may be fined up to \$19,000 multiplied by the total number of users on the offending site multiplied by the number of days of the violations, for privacy violations such as analyzing the data of, or otherwise monetizing, the off-platform contacts of its users.¹⁰⁸

e) The FTC will establish a procedure for evaluating the conduct of any platform's violation of the interoperability standard. Such a procedure must be prompt or network effects will impair competition. Upon credible report of lack of interoperability, the FTC will investigate and interview the offending platform within 24 hours. The FTC will determine if a platform is at fault within the subsequent 3 days and order compliance within an additional 24 hours. Thus, interoperability will be restored promptly.

f) Compliance of the defendant requires significant penalties due to the strength of network effects and the lucrative nature of a monopoly position. If the defendant fails to comply with the interoperability standard, entrants will not be able to offer quality service because the majority of users will still be on the defendant's platform. Entrants will not grow, and the defendant's market power and position will be retained. Thus, if the FTC finds failure to comply with interoperability, it has the power to levy a fine of 1% of the platform's annual revenue for each day of noncompliance, beginning on the

¹⁰⁸ "Sole discretion" applies to the relationship between the FTC and interoperability committee. The FTC's decision would be subject to judicial review under the Administrative Procedure Act if it was an FTC adjudication and would have to be approved by the court in a federal court action.

day the conduct was reported and ending on the day it was corrected.¹⁰⁹ Determination of whether this fine is warranted and the extent of its duration shall be at the sole discretion of the FTC. The amount of the fine shall be large enough to deprive the defendant of any revenue earned as a result of the violation in order to deter future violations.

g) If the period without interoperability causes any significant harm to competition, the defendant or licensee with market power shall be fined an additional sum representing treble the gains from the conduct. This provision is designed to deter the incumbent from targeted short periods of interoperability that would eliminate or severely hobble rivals. A failure of interoperability at a critical moment (perhaps during an important holiday or event) could set back entrants and prolong monopoly profits by the defendant. The FTC shall estimate the impact of the conduct on the preservation of monopoly profits using the best available existing economic tools. Those tools will necessarily be imperfect, but this uncertainty shall not be a barrier to levying a fine of treble the estimated gains to the incumbent from the conduct. The FTC shall further have the power to order the removal of the CEO or other executive who ordered the conduct.

h) The Commission will order additional relief that is necessary to remedy the violations.

In any matter, the respondent before the Federal Trade Commission may request modification, changes, additions, or deletions for the standard order. The Commission Judge shall grant such proposals if it (a) would not diminish competition and serve some legitimate purpose or (b) would more effectively restore competition. The Commission shall not modify the standard order if such modification would allow the respondent to maintain its monopoly by means other than competition on the merits, including increasing the respondent's ability to discriminate against, or deny access to the respondent's platform to, potential or nascent competitors.

6. Conclusion

The proposed rule we put forward in this paper causes the network effects of a particular product, e.g. social media networks, to be experienced at the level of the market as a whole, not

¹⁰⁹ As discussed above, whether the FTC has the power to impose fines in administrative litigation is beyond the scope of the article, *see* discussion, *supra* n. 86-87.

the level of one company. The rule lowers entry barriers to rival firms as well as raising the benefit that consumers get from the product, as it will connect them to more users. Application of the rule should generate a vibrant social network market where users can choose among many differentiated providers competing on dimensions of importance to them, such as the safety of the content or the user interface. While we have proposed our interoperability remedy as a rule for the FTC to adopt through its rule-making process, we want to stress that we view the rule as having much more general applicability. We chose this framing for the paper because of the possibility that the FTC's investigation of Facebook could lead to litigation (unknown at the time of writing), in which case the agency would need a practical remedy. An interoperability rule provides a possible solution to that problem. Further, in the context of litigation, interoperability is an issue precisely because there has been a violation of law, and the court or factfinder has an obligation to remedy the harm. Concerns about the need for the requirement or that it may be overly broad are less relevant than in other contexts such as legislation or regulation.

But our rule could form a model for those contexts as well. A legislature could pass a law similar to our rule that would open up the social media sector so that it resembles the email and telephone networks. A regulator, either in the digital or telecommunications area, might adopt such a rule to advance the public interest, or be instructed by a legislature to do so, but it would depend on the regulators' authority. If the regulator had authority over only a limited set of digital platforms judged to have gatekeeper status, it might have to approach the problem through a license scheme that requires reciprocal interoperability with all other license holders, as we propose here.¹¹⁰ A mechanism that has attracted a great deal of policy attention lately is the UK's Market Investigation tool. This tool permits the CMA to investigate an industry and, if it determines that competition is not working well in that industry, mandate changes to fix those flaws. If a Market Investigation of the social network industry found that it lacked competition and dynamism due to high entry barriers, mandatory interoperability imposed by the competition authority would be an attractive solution.

¹¹⁰ This tension is raised in Amelia Fletcher, "Market Investigations for Digital Platforms: Panacea or Complement?" UEA CCP working paper August 2020