

# SOURCES OF TECH PLATFORM POWER

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A handful of tech platforms mediate a large and growing share of our commerce and communications. Over the last year, the public has come to realize that the power these firms wield may pose significant hazards. Elected leaders ranging from Senator Elizabeth Warren (D-MA) to Senator Ted Cruz (R-TX) have expressed alarm at the level of control that firms like Amazon, Alphabet (Google’s parent company), and Facebook enjoy. In a recent poll, a majority of Americans voiced concern that the government wouldn’t do enough to regulate U.S. tech companies.<sup>1</sup> As the editor of *BuzzFeed* observed, a “major trend in American politics” is “the palpable, and perhaps permanent, turn against the tech industry,” now viewed as “sinister new centers of unaccountable power.”<sup>2</sup>

New revelations continue to expose the degree of power these firms wield and the consequences that flow from that power. The potential effects range from stifling startups and undermining innovation to manipulating the flow of information and enabling foreign interference in our elections. Despite growing recognition of platform power, public conversation about why this power exists and what to do about it is still in its early stages. This essay seeks to advance that discussion. Part I identifies forms of platform power, identifying gatekeeper power, vertical integration, and information asymmetries, and explores how this power is being or could be exploited. Part II examines historical analogies for these forms of power and identifies legal hooks that could help us tackle it.

## I. FORMS AND SOURCES OF PLATFORM POWER AND ITS ABUSES

Amazon, Google, and Facebook share key forms and sources of power. Generalizing these forms of power helps identify a toolkit for

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<sup>1</sup> Ali Breland, *Americans Want Tougher Regulations for Tech Companies: Poll*, HILL (Apr. 20, 2018) <http://thehill.com/policy/technology/384144-poll-americans-want-tougher-regulations-for-technology-companies> [https://perma.cc/3DN9-GLDB].

<sup>2</sup> Ben Smith, *There’s Blood in the Water in Silicon Valley*, BUZZFEED (Sept. 12, 2017, 3:37 PM), <https://www.buzzfeed.com/bensmith/theres-blood-in-the-water-in-silicon-valley> [https://perma.cc/C9ZJ-SVA8].

tackling platform power, even as the specific mechanics of their business models vary. While more extensive studies of platform power would benefit from being platform-specific, identifying the common bases of their dominance helps place them within existing legal frameworks.

The first is gatekeeper power. This power stems from the fact that these companies serve effectively as infrastructure for digital markets—they are distribution channels, the arteries of commerce.<sup>3</sup> They have captured control over technologies that other firms rely on to do business in the online economy. Fifty-five percent of online shopping searches, for example, now begin on Amazon’s platform; last year the company enjoyed over 40 percent of online sales revenue in the United States. Google and Facebook together capture 73 percent of all digital advertising in the country and 83 percent of all growth, while Apple and Google’s Android jointly account for 99 percent of the world’s smartphone operating systems. For producers, retailers, advertisers, and app developers looking to reach users and consumers, these platforms are vital intermediaries, the railroads of the 21st century. Newcomers that have attempted to compete with a platform in a platform market (like Jet.com) have been acquired by other giants (Walmart).

The degree of market control enjoyed by dominant platforms is protected both by network effects and the self-reinforcing advantages of acquired data, which serve as barriers to entry. This means that not only are the platforms vital intermediaries, but—in many instances—they are the only real option. Even when producers, retailers, advertisers, publishers, and app developers manage to find alternate channels to reach consumers, those narrower paths can only really supplement access on the margins. The platforms generate too much business and attract too many eyeballs for firms to bypass them entirely. This renders businesses highly dependent on the platforms for access to users—a finding confirmed by a recent study undertaken by the European Commission (EC). The EC wrote,

Many of the business users have indicated that they try to avoid any conflict with platforms, fearing a negative impact on their business. This applies especially to conflicts with the largest platforms, as business users indicate that often no viable alternative for these major platforms exists due to

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<sup>3</sup> For a detailed account of how platforms serve as infrastructure, see K. Sabeel Rahman, *Private Power, Public Values: Regulating Social Infrastructure in a Changing Economy*, 39 CARDOZO L. REV. 5 (2017).

their scale, geographic range and the number of (potential) customers active on the platforms.<sup>4</sup>

Platforms can use their gatekeeper power to extort and extract better terms from the business users that depend on their infrastructure. For example, Amazon has disabled the “buy-buttons” for book publishers in order to extract better terms; executives have also described how the company tweaks algorithms during negotiations to remind firms of its power to sink their sales, through demoting their rank below where users usually look when making purchases.<sup>5</sup> Recently, the company has started offloading costs onto suppliers by subsidizing shipping costs through increased fees for the companies that sell through its platform. Merchants attempting to negotiate with Amazon risk seeing their accounts suspended, and getting kicked off its platform often means not just seeing lower revenue, but having to lay off employees.<sup>6</sup> Google and Facebook, meanwhile, capture such an outsized share of user attention online that publishers and digital advertisers feel compelled to sell there. Their duopoly position gives these two firms power to raise prices. Last quarter, Facebook hiked the average price per ad by 43 percent.<sup>7</sup>

Platforms also use their gatekeeper power to entrench their gatekeeper power, limiting the ability of third-party merchants to reach

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<sup>4</sup> ECORYS, *Business-to-Business Relations in the Online Platform Environment* (May 22, 2017), <http://businessdocbox.com/Marketing/69772826-Business-to-business-relations-in-the-online-platform-environment.html> [<https://perma.cc/QDB8-LMXW>].

<sup>5</sup> George Packer, *Cheap Words*, NEW YORKER (Feb. 17, 2014), <https://www.newyorker.com/magazine/2014/02/17/cheap-words> [<https://perma.cc/Z73Q-Q3WM>].

<sup>6</sup> For accounts describing the relationship between Amazon and third-party sellers, see Olivia LaVecchia & Stacy Mitchell, *Amazon's Stranglehold: How the Company's Tightening Grip Is Stifling Competition, Eroding Jobs, and Threatening Communities*, INST. FOR LOC. SELF-RELIANCE 10 (Nov. 2016), [http://ilsr.org/wp-content/uploads/2016/11/ILSR\\_AmazonReport\\_final.pdf](http://ilsr.org/wp-content/uploads/2016/11/ILSR_AmazonReport_final.pdf) [<https://perma.cc/6KAS-2GUY>]; Olivia Solon & Julia Carrie Wong, *Jeff Bezos v the World: Why All Companies Fear 'Death By Amazon'*, GUARDIAN (Apr. 24, 2018, 11:32 AM), <https://www.theguardian.com/technology/2018/apr/24/amazon-jeff-bezos-customer-data-industries> [<https://perma.cc/AB7A-ABDX>]; Angel Gonzalez, *Third-Party Sellers Giving Amazon a Huge Boost*, SEATTLE TIMES (May 31, 2016, 8:26 PM), <https://www.seattletimes.com/business/amazon/amazon-to-host-forum-for-its-marketplace-merchants> [<https://perma.cc/V8F3-H9ES>] (“‘There’s a whole class of businesses out there who live in fear of going out of business as a result of the fiat of Amazon and their algorithms,’ said a seller who declined to be named”); Lina M. Khan, *Amazon's Antitrust Paradox*, 127 YALE L. J. 710 (2017).

<sup>7</sup> Max A. Cherney, *Facebook Earnings Send Stock to Record After Massive Ad Price Increase*, MKT. WATCH (Feb. 1, 2018, 12:58 PM), <https://www.marketwatch.com/story/facebook-earnings-stock-touches-record-after-massive-ad-price-increase-2018-01-31> [<https://perma.cc/YW32-J4E5>].

users independently—and thereby cultivating deeper business dependence on their infrastructure. Amazon, for example, closely monitors communications between third-party Marketplace merchants and consumers, penalizing merchants who direct consumers to their own independent websites or other sales channels.<sup>8</sup> Gatekeeper power now also risks shaping the content and production of news. Dependence on Facebook and Google for traffic has led publishers to package news according to the dictates of the platforms' algorithms. As a bill recently introduced by House Representative David Cicilline stated,<sup>9</sup> “[a]n entity with the power to dictate the terms of distribution of news has the power to dictate the content of news.” The head of the Newspaper Association of America noted,<sup>10</sup> “Facebook and Google are our primary regulators.”

A second form of power is leveraging. The source of this power is the fact that the platforms not only serve as critical infrastructure, but are also integrated across markets. This enables a platform to leverage its platform dominance to establish an advantageous position in a separate or ancillary market. By placing a platform in direct competition with the firms using its infrastructure, this form of integration also creates a core conflict of interest, incentivizing a platform to privilege its own goods and services over those offered by third parties. Amazon, for example, sells Amazon-branded apparel alongside apparel by independent designers; an independent study found that Amazon prioritizes its own brands on and restricts rivals' access to certain prominent promotional areas on its website.<sup>11</sup>

Last year, the European Commission announced that this form of self-bias or discrimination violates European competition laws. It fined Google \$2.7 billion for “systematically giv[ing] prominent placement to its own comparison shopping service” and “demot[ing] rival comparison shopping services in its search results,” leading traffic to third-party

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<sup>8</sup> Amazon Seller Central, “Prohibited seller activities and actions,” <https://sellercentral.amazon.com/gp/help/external/200386250> (“Any attempt to circumvent the established Amazon sales process or to divert Amazon users to another website or sales process is prohibited.”) [<https://perma.cc/4Y8J-SWLM>].

<sup>9</sup> Journalism Competition and Preservation Act of 2018, H.R. 5190, 115th Cong. § 2 (2018).

<sup>10</sup> Nitasha Tiku, *Publishers Could Get a New Weapon Against Facebook and Google*, WIRED (Mar. 7, 2018, 7:00 AM), <https://www.wired.com/story/bill-would-let-publishers-gang-up-versus-facebook-and-google> [<https://perma.cc/9NFX-EVH5>].

<sup>11</sup> *Amazon: By Prioritizing Its Own Fashion Label Brands in Product Placement on Its Increasingly Dominant Platform, Amazon Risks Antitrust Enforcement by a Trump Administration*, CAPITOL F. (Dec. 13, 2016), <https://thecapitolforum.com/wp-content/uploads/2016/07/Amazon-2016.12.13.pdf> [<https://perma.cc/L654-WLTQ>].

websites to plummet.<sup>12</sup> The EU competition authority is also conducting investigations into potentially anticompetitive leveraging tactics Google engaged in through its Android operating system and AdSense.<sup>13</sup> Apple, meanwhile, has previously blocked updates to Spotify from the App Store—a tactic that Spotify alleges Apple pursued to undermine Spotify as a rival to Apple Music.<sup>14</sup> If gatekeeper power gives platforms the ability to extort, leveraging power gives platforms the incentive to discriminate in favor of their own goods, services, and applications over those offered by other businesses.

A third form of power is information exploitation. The source of this power is the various forms of data that platforms collect on consumers and business users. Platforms gather enormous amounts of information, ranging from the amount of time you hover your mouse over a particular button and the number of days an item sits in your shopping basket, to every location you've visited with your phone and how you psychologically react to different posts and words. In some cases, platforms also track user activity on third-party websites and applications. Platforms can exploit this data in a host of ways, altering what information you see based on your profile. For example, Facebook may display certain job postings only to younger workers, or certain housing advertisements only to non-minorities.<sup>15</sup> Platforms can also harness this data to engage in first-degree price discrimination,<sup>16</sup> charging each consumer a different

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<sup>12</sup> European Commission Press Release IP/17/1784, Antitrust: Commission Fines Google 2.42 Billion Euros for Abusing Dominance as a Search Engine by Giving Illegal Advantage to Own Comparison Shopping Service (June 27, 2017).

<sup>13</sup> Foo Yun Chee, *EU Antitrust Chief Says Investigation of Google's Android, AdSense is Advancing*, REUTERS (Apr. 18, 2018, 4:25 PM), <https://www.reuters.com/article/us-eu-google-antitrust/eu-antitrust-chief-says-investigation-of-googles-android-adsense-is-advancing-idUSKBN1HP2YL> [<https://perma.cc/LH7U-Y2CW>].

<sup>14</sup> Peter Kafka, *Spotify Says Apple Won't Approve a New Version of Its App Because It Doesn't Want Competition for Apple Music*, RECODE (June 13, 2016, 12:45 PM), <https://www.recode.net/2016/6/30/12067578/spotify-apple-app-store-rejection> [<https://perma.cc/VE6B-4B5W>].

<sup>15</sup> Julia Angwin, et al., *Dozens of Companies Are Using Facebook to Exclude Older Workers from Job Ads*, PROPUBLICA (Dec. 20, 2017, 5:45 PM), <https://www.propublica.org/article/facebook-ads-age-discrimination-targeting> [<https://perma.cc/4SPZ-VZ7F>]; Julia Angwin & Terry Parris Jr., *Facebook Lets Advertisers Exclude Users by Race*, PROPUBLICA (Oct. 28, 2016, 1:00 PM), <https://www.propublica.org/article/facebook-lets-advertisers-exclude-users-by-race> [<https://perma.cc/U6S2-CVCY>].

<sup>16</sup> Firms that engage in first-degree price discrimination charge different consumers different prices for the same good or service. Although this form of price discrimination previously existed largely as a thought experiment for economists, surveillance-based data collection enables companies today to determine the maximum price that each consumer will be willing to pay for a product. Neil Howe, *A Special Price Just for You*,

price for the same good or service. Uber,<sup>17</sup> for example, has admitted that it engages in personalized price discrimination. The degree to which other platforms are engaging in similar practices has not been publicly documented. Separate from the risks of discrimination, the extent of platforms' data-gathering creates significant privacy threats. Even robust privacy controls would only go so far to protect users, given the security vulnerabilities that inevitably arise when data is concentrated in a single entity.

Platforms also engage in information exploitation against the businesses that use their services to reach markets. Amazon, for example, collects swaths of information on the merchants selling through its Marketplace. It routinely uses this data to inform its own sales and products, exploiting insights generated by third-party retailers and producers to go head-to-head with them, rolling out replica products that it can rank higher in search results or price below-cost.<sup>18</sup> In this way Amazon's platform functions as a petri dish, where independent firms undertake the initial risks of bringing products to market and Amazon gets to reap from their insights, often at their expense.<sup>19</sup> Notably, it is the other forms of power—the fact that Amazon is a gatekeeper and integrated across lines of business—that enable it to exploit information in this way; those two forms of power enhance its ability to leverage the third.

Facebook has similarly developed the systematic ability to exploit information. A few years ago it acquired Onavo, a virtual private network that disguises browsing traffic to ensure users greater privacy. But news reports document that Onavo also lets Facebook closely track which competing applications are diverting attention from Facebook's own app.<sup>20</sup> Using this information, Facebook can either make an aggressive

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FORBES (Nov. 17, 2017, 5:56 PM), <https://www.forbes.com/sites/neilhowe/2017/11/17/a-special-price-just-for-you/>.

<sup>17</sup> Eric Newcomer, *Uber Starts Charging What It Thinks You're Willing to Pay*, BLOOMBERG TECH. (May 19, 2017, 3:19 PM), <https://www.bloomberg.com/news/articles/2017-05-19/uber-s-future-may-rely-on-predicting-how-much-you-re-willing-to-pay> [<https://perma.cc/QNX3-EHSA>].

<sup>18</sup> Julie Creswell, *Amazon, the Brand Buster*, N.Y. TIMES (June 23, 2018), <https://www.nytimes.com/2018/06/23/business/amazon-the-brand-buster.html> [<https://perma.cc/QM8A-D3CW>]; Spencer Soper, *Got a Hot Seller on Amazon? Prepare for E-Tailer To Make One Too*, BLOOMBERG (Apr. 20, 2016), <http://www.bloomberg.com/news/articles/2016-04-20/got-a-hot-seller-on-amazon-prepare-for-e-tailer-to-make-one-too> [<http://perma.cc/79GL-5A8E>].

<sup>19</sup> Greg Bensinger, *Competing with Amazon on Amazon*, WALL ST. J. (June 27, 2016), <https://www.wsj.com/articles/SB10001424052702304441404577482902055882264> [<https://perma.cc/353H-YPRH>].

<sup>20</sup> Deepa Seetharaman & Betsy Morris, *Facebook's Onavo Gives Social-Media Firm Inside Peek at Rivals' Users*, WALL ST. J. (Aug. 13, 2017), <https://www.wsj.com/articles/facebooks-onavo-gives-social-media-firm-inside-peek-at->

acquisition bid, taming the nascent threat by bringing it in-house, or can introduce an identical app, eating into its business.<sup>21</sup> The issue here is not that the platforms introduce rival goods—thereby increasing competition—but that their strategies are based on a significant information asymmetry that exists between the platforms and everyone else. The ability to intervene at the very earliest stages of a rival's growth means platforms can effectively eliminate competition before it becomes a threat.

To be sure, platforms exhibit other forms and mechanisms of power. But these three sources—gatekeeper power, leveraging power, and information exploitation power—explain to a good extent the current dominance these firms enjoy.

## II. ADDRESSING PLATFORM POWER

Breaking down platform power into its specific forms and sources allows us to distill what about platform power, if anything, is actually new. In other words, we can understand which facets of platform power we have grappled with in the past, and which aspects present new issues that require new thinking and/or new policy action.

Two of these forms of power—gatekeeper power and leveraging power—we have tackled in the past. Gatekeeper power can arise any time there is a network monopoly, a feature of industries with high fixed costs and network effects, or the phenomenon whereby a product or service becomes more valuable the more that users use it. Indeed, the gatekeeper power of the railroads—and the railroads' abuse of this power—gave rise to the anti-monopoly movement in the late 1800s, ultimately leading to the creation of the Interstate Commerce Commission in 1887 and the passage of the Sherman Antitrust Act in 1890.<sup>22</sup> Railroads abused their power through a host of practices, including, for example, imposing discriminatory pricing schemes, extorting the merchants and producers reliant on their infrastructure, and privileging the transportation of their own goods and services<sup>23</sup>. Determining that breaking up the railroads

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rivals-users-1502622003 [https://perma.cc/WU9E-Z9ZN]; Elizabeth Dwoskin, *Facebook's Willingness to Copy Rivals' Apps Seen as Hurting Innovation*, WASH. POST (Aug. 10, 2017), [https://www.washingtonpost.com/business/economy/facebooks-willingness-to-copy-rivals-apps-seen-as-hurting-innovation/2017/08/10/ea7188ea-7df6-11e7-a669-b400c5c7e1cc\\_story.html](https://www.washingtonpost.com/business/economy/facebooks-willingness-to-copy-rivals-apps-seen-as-hurting-innovation/2017/08/10/ea7188ea-7df6-11e7-a669-b400c5c7e1cc_story.html) [https://perma.cc/A2YM-GJHD].

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

<sup>22</sup> SUSAN P. CRAWFORD, *CAPTIVE AUDIENCE: THE TELECOM INDUSTRY AND MONOPOLY POWER IN THE NEW GILDED AGE* 15 (2013).

<sup>23</sup> Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1333–34 (1998).

would hamper our national transportation system, Congress designed a regime to prevent railroads from exploiting their power. Most notably, railroads had to abide by common carriage (or equal access) rules providing equal access on equal terms, and had to publicly list their prices. This helped scale back their power to arbitrarily hike prices and extort the farmers and suppliers reliant on the railroads to get to market.<sup>24</sup>

Indeed, common carriage has been a traditional tool for maintaining the benefits of network monopoly while preventing the private firms who manage this monopoly from exploiting their power. Mandating nondiscriminatory access in the form of common carriage has also been applied to inns, ports, stockyards, and grain elevators, to name a few. Most recently, the Federal Communications Commission under the Obama administration adopted common carriage rules in the form of “network neutrality,” prohibiting discrimination by Internet service providers. Specifically, net neutrality rules prevented broadband providers from blocking or slowing down access to content, or from charging more for certain content, as a way of creating equal access. Introducing common carriage for platforms would be one way to tackle their gatekeeper power. A platform neutrality regime could require a platform to treat all commerce flowing through its infrastructure equally, preventing a platform from using the threat of discrimination to extract and extort. Platform neutrality would prohibit Google, for example, from ranking less-popular Google properties above more-popular services offered by independent businesses.<sup>25</sup>

A set of tools also exists to tackle leveraging power. Structural remedies and prophylactic bans could limit the ability of dominant platforms to enter certain distinct lines of business.<sup>26</sup> Amazon, for example, would be prohibited from operating both as a platform for online commerce and as a producer of goods; Alphabet, meanwhile, would be prohibited from owning both an operating system and applications that run on it. This separations approach, in turn, would limit the ability of dominant platforms to leverage their platform advantage into other areas. As with common carriage, structural separations have been a mainstay tool for tackling the power of network monopolies and other firms that play an infrastructure-like role in the economy. Structural bans have been applied to railroads, telecommunications carriers, television networks, and

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<sup>24</sup> *Id.*

<sup>25</sup> For one take on how to implement platform neutrality, see Frank Pasquale, *Platform Neutrality: Enhancing Freedom of Expression*, 17 THEORETICAL INQUIRIES IN L. 487 (2016).

<sup>26</sup> For a detailed account of why structural remedies and prophylactic bans should be applied in the context of dominant tech platforms, see Lina M. Khan, *The Separation of Platforms and Commerce*, COLUM. L. REV. (forthcoming 2019).



banks. Introducing a separations regime for platforms would help prevent leveraging and eliminate a core conflict of interest currently embedded in the business model of dominant platforms.

Information exploitation power presents more of a challenge. To some extent, we have addressed information exploitation in the past through disclosure regimes and laws requiring public auditing of privately collected information. But two aspects of platforms' information exploitation power seem new. One is the sheer volume of information that these firms collect, and the security vulnerabilities created when a handful of platforms capture swaths of data. Partly the issue is structural: concentrated data is often more vulnerable to security breaches than is that same data dispersed. Partly it comes down to business model: as digital advertising firms, Google and Facebook make money through collecting information. So long as their business models are surveillance-based, they will continue to collect as much information as possible. The other challenge that information exploitation poses is not to privacy but to competition. Gathering data on business activity that relies on the platform gives the platform an information advantage it can use to extort value from those businesses by harvesting their insights, or to thwart nascent rivals in ancillary lines of business.

Tackling information exploitation power is not straightforward. One idea is to regulate their conduct, limiting what information platforms collect and how they use it. This would include introducing privacy regulations like those adopted by Europe in its General Data Protection Regulation (GDPR) and prohibiting platforms from using information collected on their platforms to advantage distinct lines of business. But these forms of regulation risk proving ineffective unless we also address the structure of platforms—namely, those that target the underlying incentive and ability of these businesses. These reforms would include, for example, structuring competition in platform markets (by creating a presumption against future acquisitions and undoing past acquisitions where necessary) and ending surveillance-based business models (by requiring platforms to spin off their ad networks).<sup>27</sup>

The discussion around how to tackle platform power is just beginning. As the debate develops, it's worth recalling that certain facets

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<sup>27</sup> For arguments explaining why platforms should be forced to change their business model, see Roger McNamee, *How to Fix Facebook: Make Users Pay for It*, WASH. POST (Feb. 21, 2018), [https://www.washingtonpost.com/opinions/how-to-fix-facebook-make-users-pay-for-it/2018/02/20/a22d04d6-165f-11e8-b681-2d4d462a1921\\_story.html](https://www.washingtonpost.com/opinions/how-to-fix-facebook-make-users-pay-for-it/2018/02/20/a22d04d6-165f-11e8-b681-2d4d462a1921_story.html) [https://perma.cc/W32Q-TEEJ]; Barry Lynn & Matt Stoller, *Facebook Must Be Restructured. The FTC Should Take These Nine Steps Now*, GUARDIAN (Mar. 22, 2018, 10:28 AM), <https://www.theguardian.com/commentisfree/2018/mar/22/restructure-facebook-ftc-regulate-9-steps-now> [https://perma.cc/55TE-26YS].

of platform power are not new, and that existing levers and concepts can be retooled to ensure that the platforms are structured to align with—and not undermine—open markets, fair competition, and the democratic oversight over and safe use of information.