

DAY ONE PROJECT

Open Interface and Interoperability Standards
for an Open and Transparent Digital Platform
Marketplace

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February 2021

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Summary

The United States leads the world in the market share – and ‘mindshare’ – of massive digital platforms in domains such as advertising, search, social media, e-commerce, and financial technologies. Each of these digital domains features one or two dominant market players who have become big through the ‘network effect,’ wherein large volumes of customer activity provide data inputs to make these platforms work even better. However, the gains that big players enjoy from the network effect often come at the expense of the platform’s customers. The network effect is further amplified by platform lock-in, whereby new platforms are unable to interoperate with existing market players. A more serious risk manifests when the dominant platform provider provides the same services as that of businesses using the platform, thus becoming a competitor with a built-in information advantage. This prevents new entrants to the market from growing big, limiting the choices available to consumers and creating the conditions for harmful monopolies to emerge.

Therefore, the Biden-Harris Administration should advocate for legislation and enact policies designed to bring openness and transparency into the digital platforms marketplace. A key aspect of such policies would be to require a set of interoperability standards for large digital platforms. Another would be to require open Application Programming Interfaces (APIs) that allow customers (end-users as well as businesses) to seamlessly take their data with them to competitors. These actions will unleash greater competition in the digital marketplaces that are becoming the mainstay of the US economy and increase transparency, choice and opportunities that the US consumer and businesses can benefit from.

Challenge and Opportunity

The digital platform services market is at a crossroads. In a span of two decades, this sector of the economy has gone from non-existence to being a primary means through which citizens access services such as search, shopping and inter-personal communication. The digital services landscape is characterized by large market players, with at most one or two dominant players per platform function (i.e. Google/Bing for search, PayPal/Square for digital payments, Facebook for social network/messaging). New entrants are unable to enter the market since they cannot grow to a large enough user base to obtain the gains of network effects. This constraint means that only large market players have the ability to offer new services to users, which they can choose to do - or not - at their discretion. Such limits on organic, free-market-driven rapid innovations have the potential to harm customers.

This position is akin to the status of incumbent local exchange providers (ILECs) in the telecom sector at the start of the 1990s. Very large incumbents were monetizing all aspects of their services without offering much choice to the US consumer. Competitors had to make prohibitively costly investments

to offer reasonable services. In the platform economy of today, the 'network effect' provides an equivalent advantage to incumbents (such as Amazon, Google, PayPal and Facebook) that the telecom infrastructure offered to the ILECs.

The Telecommunications Act of 1996 levelled the playing field by mandating interconnectivity among networks of incumbents and new entrants at reasonable rates, providing new entrants access to the incumbents' customers and unleashing competition. Doing the same with digital platforms could allow new firms to emerge and compete on better service offerings. Imagine a new social networking startup that can connect its social network to Facebook's social network, but offer a more privacy-friendly experience. In response, Facebook could choose to offer a similar or better service, and users can select their social network of choice without losing their friend network. Similarly, a seller on Amazon's marketplace should be able to access the pricing statistics on Amazon's products that compete with its own products. Currently, Amazon has exclusive insight into such products, which has led to accusations of it undercutting competitors on its own marketplace.

The Biden-Harris Administration has an opportunity to confer such benefits and more to the digital platforms marketplace by promoting competition through a series of measures that can unleash the combined power of innovation, open marketplaces and data portability to make the US the undisputed leader in the next generation of digital services. Using the current platforms as exemplars will ensure that future platforms in other emerging domains and services markets also support a healthy approach to promoting competition and innovation.

Digital platform interoperability standards are necessary along four different fronts:¹

- a) Protocol interoperability: allows two complementary services to work with each other. Most digital platforms support various versions of this today, which allows users to use Facebook or Google logins to log in to other websites.
- b) Full protocol interoperability: allows users to move from one provider to another without any material impact to service. While this is common in cellular carriers, digital platforms do not allow this today.
- c) Data portability: ability of a user to take their data from one service to another. It is possible today to move your data from Amazon Web Services to Azure Cloud, but Facebook users cannot take their data to a competing social network.
- d) Data interoperability: allows access to one provider's data by other competing services, typically through the use of standards and/or APIs.

¹ Jacques Crémer, Yves-Alexandre de Montjoye, and Heike Schweitzer, *Competition policy for the digital era*, European Commission Directorate-General For Competition (Luxembourg: Publications Office of the European Union, 2019), <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>.

Multiple studies have highlighted the lack of interoperability in the context of the challenge of creating an appropriate regulatory regime for digital platforms.^{2,3} These studies go significantly further than merely offering recommendations to mandate interoperability, with calls for antitrust reform, strong regulatory regimes, and enforcement actions. The challenges posed by digital platforms are complex and hence require careful consideration. However, it is essential to identify key features that we can implement today.

This call for action focuses on creating openness and transparency – targeting a narrow, but critical, piece of the larger problem. Recent antitrust investigations by Congress and regulatory actions taken by federal agencies indicate that this realization has now become part of mainstream thought.⁴ This makes it the right time for such actions to be taken by the Administration.

Plan of Action

Bringing openness and transparency to the digital platforms marketplace will require discrete actions by multiple federal agencies and Congress. Each of these actions are equivalent to laying a brick in the foundation for an innovation-driven digital economy, and are independent yet benefit from each other.

- 1) Federal Trade Commission (FTC): As the principal agency governing trade, as well as setting regulation regarding competition in the marketplace, the FTC plays a vital role in ensuring fair and competitive trade practices as well as enhancing informed consumer choice. The FTC should immediately take action to define dominance, address data portability, enforce platform neutrality and protect competition. These four steps will greatly stimulate innovation as described below.
 - a. Define ‘dominant position’ as it applies to digital platforms: Since digital markets are not restricted by state or local boundaries, dominance in position must be defined at the national scale. Dominance should be defined from the perspective of the acquiring sufficient scale to be deemed as benefitting from the ‘network effect.’ For most digital platforms noted here that deal with individuals as their end-customers (as opposed to business as the primary customer), a dominant position is typically reached after the number of users exceeds ten million users. Definitions should also incorporate scenarios where the primary users of the platforms are small and medium enterprise (SME) businesses.

² Stigler Committee on Digital Platforms, *Final Report* (University of Chicago Booth Stigler Center for the Study of the Economy and the State, September 2019), <https://www.chicagobooth.edu/-/media/research/stigler/pdfs/digital-platforms---committee-report---stigler-center.pdf>

³ The Australian Government the Treasury, *Regulating in the Digital Age: Government Response and Implementation Roadmap for the Digital Platforms Inquiry* (Commonwealth of Australia, 2019), <https://treasury.gov.au/sites/default/files/2019-12/Government-Response-p2019-41708.pdf>

⁴ “Digital Markets Investigation,” House Judiciary Committee, <https://judiciary.house.gov/issues/issue/?IssueID=14921>, 2019

- b. Cross-platform data and content portability (including media licenses): Data gathered by platforms about their customers and data provided by users to platforms should be available for the customers to take with them to competitors with the same level of ease it takes for the customer to use a given platform for its intended use. Users should also have the ability to transfer digital content to which they own the rights to competing platforms with the same level of ease they have when purchasing content on the platform. The FTC should establish requirements for such data and content portability for all platforms. A key requirement is for each platform to publish the set of interfaces whereby such data from other platforms can be incorporated/interpreted. This will allow, for example, 'social network graphs' of one company to be accessed by other companies or customers of one payment services to send/receive money from customers of other payment services.
 - c. Platform neutrality: When a platform owner operates as a seller on the platform, it creates conflicts with other sellers (business customers) when the platform owner utilizes information about them to its own advantage. (Amazon Marketplace offers a potential example of this.)⁵ The FTC should require platform neutrality when a platform takes on such a dual role, making available the same information that it collects for its role as a seller to other potential sellers.
 - d. Competition protection as a defining principle for dominant digital platforms: When two platforms merge, or one acquires another, the users of these merging/acquired platforms should be allowed to benefit from similar services that were available prior to the merger/acquisition. This prevents cases wherein the competition is bought out to eliminate consumer choice as one of the goals, if not the principal goal. The FTC should ensure that this principle is applied unequivocally to any applications for mergers and/or acquisitions that lead to an increase in dominance of a platform.
- 2) Consumer Financial Protection Bureau (CFPB): The CFPB plays a very underappreciated but critical role in regulating the offerings of consumer financial products and services. With the meteoric rise of digital banks and financial technology (fintech) platforms, the CFPB should play an important role in ensuring transparency and openness through the following measure:

Require dominant money-transfer platforms to inter-operate with each other. There are a few dominant platforms in this space, and a range of upstart competitors. Without access to the vast user base of the dominant platforms, innovative services offered by these competitors will never see the light, causing harm to the consumer. This is equivalent to a large bank not allowing money to be sent from/to an account in a small bank. The CFPB

⁵ "Amazon Faces Antitrust Charges From European Regulators," NPR, November 10, 2020, <https://www.npr.org/2020/11/10/879643610/amazon-faces-antitrust-charges-from-european-regulators>

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should immediately mandate interoperability across these platforms whereby a user of one money transfer platform should be able to send money to a user of another such platform. Successful efforts such as the Unified Payments Interface (UPI) used widely in India could be considered as a template for action.⁶

- 3) National Institute of Standards and Technology (NIST): The mission of NIST is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. In alignment with their mission, NIST should prioritize the establishment of standards for the digital platforms marketplace, focusing especially on interoperability across platforms, data/content portability and fin-tech standards. The NIST Information Technology Laboratory is well-known for its work in information technology metrology, and could be a potential host for such a critical effort.

Such standards development can happen in collaboration and consultation with industry, with NIST serving as the convener for such activity and working to maintain standards that can be relied on by new competitors entering the marketplace. These standards can be developed within a year with cooperation from industry and federal agencies such as the CFPB, Federal Trade Commission (FTC) and the Department of Commerce. If there is resistance from industry to NIST developing standards, then NIST should be able to define such standards for the federal government's use and adoption of digital platform marketplaces. The federal government, through its purchasing power, could act as an influencer driving adoption of these standards in the private sector.

- 4) U.S. Congress: Congress has been actively examining this problem for several years, and many bills to better regulate the platforms have been proposed. Given that any regulatory activity without the protection of law can be overturned by a subsequent Administration, laws passed by Congress can effect lasting change and send a strong signal to companies to invest in adherence to standards. The Biden-Harris Administration should work with Congress to pass legislation that enshrines the concepts of data and content portability and platform neutrality into law.
- 5) Office of Science and Technology Policy (OSTP): The OSTP could assume the role of convenor of various stakeholders in the digital platforms marketplace, bringing industry and the various federal agencies named above to the table. The OSTP should impress upon industry the need to take active steps to promote open interfaces for inter-operability.

⁶ Mohit Bansal, Shekhar Lele, Ashish Punjabi and Pooja Lad, "UPI 2.0: Towards a complete digital ecosystem," Pricewaterhouse Cooper India, June 2018, <https://www.pwc.in/consulting/financial-services/fintech/fintech-insights/upi-2-0-towards-a-complete-digital-ecosystem.html>.

Conclusion

The United States is at a crossroads, facing rapid innovation and growth in the digital economy, driven by large-scale digital platform services. It is also experiencing the effects of reduced competition in many of these services and should take an active role in preventing anti-competitive behavior. This requires immediate action to promote openness and transparency in the digital platforms' marketplace. By enhancing the ability of new competitors to innovate, U.S. consumers will benefit greatly, and the most innovative U.S. companies can also grow globally.

Frequently Asked Questions

Why focus on just these problems when there is larger need to reform the digital economy?

We are in the early stages of the digital economy, which has been growing by leaps and bounds since the early days of the World Wide Web. Compared to the arc of the evolution of economic thought, the last twenty years are just a small blip. The digital economy is evolving quite rapidly, and a virtuous and continuous feedback cycle of regulation/oversight and market support is needed to ensure that the digital economy thrives.

This proposal targets just a small set of actions with the following characteristics:

- 1) Multiple market policy studies have identified these actions as necessary, despite providing varying and diverse policy prescriptions for the digital economy more broadly.⁷ The fact that these interventions are agreed upon is a good place to start the process of reform.
- 2) These actions can be performed using the current authority provided to the federal agencies identified here. While Congress can (and will) act on these issues in a more comprehensive manner, but federal action is possible in the interim through these actions.

Why hasn't this been done before?

This has been done before, at least once, in a different domain: telecommunications. Until the mid-1990s, there was very little choice offered to the consumer, despite the breakup of AT&T. Very large Incumbent Local Exchange Carriers (ILECs) were monetizing all aspects of their services without offering much choice to the US consumer. Competitors had to make prohibitively costly investments to offer reasonable services. The Telecommunications Act of 1996 sought to level the playing field. Among other actions, it promoted interconnectedness by requiring incumbent carriers and new entrants to interconnect their networks with one another, imposing additional requirements on the incumbents because they might desire to restrict competitive entry.⁸ In addition, the Act required the ILECs to make available to entrants, at cost-based wholesale rates, those elements of their network necessary to offer telecommunications services. These aspects of the law are widely credited with lowering prices for local and long-distance phone services across the country within a short period of time, providing significant cost-savings for consumers, while unleashing new types of services (such as free caller ID, and free voicemail) from competitors that forced the incumbents to match such innovative service offerings.

We are now in the early stages of the digital economy. The rapid growth of online platforms has occurred within the last decade. Despite high levels of competition in the early days, a good understanding of the importance of the 'network effect' for business success has been realized

⁷ See the reports referenced in footnotes 9-12 below.

⁸ "Telecommunications Act of 1996", Wikipedia, https://en.wikipedia.org/wiki/Telecommunications_Act_of_1996.

only in the last four to five years. Recent antitrust investigations and actions taken by both Congress and the FTC indicate that this realization has now become part of mainstream thought. This makes it the right time for such actions to be taken by the Biden-Harris Administration.

Are other countries doing it? Why should the US do this?

The dominance of online platforms has been a matter of concern for many countries. Some of these have investigated these extensively and have produced recommendations for their governments to consider. These include Australia, United Kingdom, the European Union, India and China. These countries are addressing market dominance from the perspective of antitrust actions with recommendations ranging from breaking up dominant tech companies to specific legislation aimed at eliminating barriers to competition that stem from network effects. The latter two countries have produced regulations that have curtailed unfettered access and growth of these platforms with a view to promoting competition. Reports from the EU,⁹ the UK,¹⁰ and Australia¹¹ provide excellent resources for policymakers in this domain. China, most recently, has issued antitrust guidelines for the platform economy with policies seeking to prevent dominance by monopolies or duopolies.¹²

⁹ Jacque Crémer, Yves-Alexandre de Montjoye, and Heike Schweitzer, *Competition policy for the digital era*, European Commission Directorate-General For Competition (Luxembourg: Publications Office of the European Union, 2019), <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>.

¹⁰ Digital Competition Expert Panel, “*Unlocking digital competition: Report of the Digital Competition Expert Panel* (United Kingdom Crown, March 2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf.

¹¹ The Australian Government the Treasury, *Regulating in the digital Age: Government Response and Implementation Roadmap for the Digital Platforms Inquiry* (Commonwealth of Australia, 2019), <https://treasury.gov.au/sites/default/files/2019-12/Government-Response-p2019-41708.pdf>.

¹² State Administration for Market Regulation, China, *Guidelines for Anti-monopoly in the Platform Economy*, 2020. See highlights at: <https://www.chinalawinsight.com/2020/11/articles/compliance/10-highlights-of-the-antitrust-guidelines-for-platform-economy/>



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