

POLICY BRIEF 2018-10

Enhancing Competition with Data and Identity Portability

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Enhancing Competition with Data and Identity Portability

Maintaining robust competition is a challenge in many markets, but it is particularly difficult in the communications and information sectors. From Western Union to AT&T, to Microsoft, Google, and Facebook, each generation of primary communications infrastructure has led to a single firm dominating a market.

Part of the reason for this tendency toward monopoly is the existence of powerful network effects: in the communication and information sectors the more customers a business has the more valuable the service becomes, and the more difficult it is for other firms to compete. These network effects have operated differently for each technology, and government regulators have taken different approaches in each case. However, government interventions have generally aimed to open up existing networks and prevent firms from leveraging their position to dominate newer markets.

In a new Hamilton Project policy proposal, Joshua Gans of the University of Toronto describes the economic context in which

online platforms and users interact, focusing on the ways that this context limits the potential for strong competition. Gans draws from analogous experiences with other communications markets as well as the research literature to propose a new approach to regulating online platforms:

- First, platforms will be required to allow users to port their identity to other platforms so that messages can be sent between platforms in a nondiscriminatory manner on an ongoing basis.
- Second, users will be alerted when messages are being sent to other networks and will be able to opt out of having their messages sent, on a platform-by-platform basis.
- Third, platforms will bear the costs of identity portability and will choose the technology by which portability is achieved.
- Fourth, identity portability will begin with social networks before being extended to other online platform markets.

The Challenge

Online platforms have quickly grown in size and economic importance. Table 1 presents data on selected social media businesses for the U.S. population. Facebook and YouTube had the largest share of U.S. users in 2018, while Facebook, Snapchat,

TABLE 1.
Social Media Use in the United States

Platform	Percent of U.S. using (2018)	Percent daily users (2018)	Percent of U.S. using (2016)	Percent daily users (2016)
Facebook	68	74	68	76
Pinterest	29	–	26	25
Instagram	35	60	28	51
Twitter	24	46	21	42
LinkedIn	25	–	25	18
Snapchat	27	63	–	–
YouTube	73	46	–	–
WhatsApp	22	–	–	–

Source: Shannon Greenwood, Andrew Perrin, and Maeve Duggan, 2016, "Social Media Update 2016," Pew Research Center, Washington, DC; Aaron Smith and Monica Anderson, 2018, "Social Media Use in 2018," Pew Research Center, Washington, DC.

Note: – indicates no data available. Sample restricted to respondents aged 18 and older. "Percent daily users" is defined as the percent of a platform's users who visit the site at least once a day.

Roadmap

- Congress will require online platforms to allow users to port their identity from one platform to another, such that users can receive and send messages between platforms in a nondiscriminatory manner on an ongoing basis.
- Users will receive alerts when their messages are sent to other networks and they will be able to opt out of having their messages sent, on a platform-by-platform basis.
- Platforms will bear the costs of implementing identity portability and will thereby choose the technology that best suits the needs of both platforms and users.
- Identity portability will begin with social networks before extending to other online platform markets.

and Instagram had the highest shares of their respective users who used the platform daily.

Table 1 also highlights the changes in these shares from 2016 to 2018. The author points out that those shares were stable over those two years, with the exception of newer market entrants (e.g., Instagram) who grew over that time. Interestingly, despite the entry of new social media platforms and their growth, the user bases of the more established networks were stable.

The Importance of Network Effects

The size and market shares of the leading social media companies are striking but might not pose serious problems for competition if markets remain contestable—that is, if innovative new firms can enter the market and achieve success. Gans therefore outlines the data-driven network effects that reinforce the dominant positions of existing online platforms and limit both innovation and competition.

At the root of these network effects is a new trend: the generation, transmission, and use of data are increasingly important to the functioning of markets and to the business models of many firms. This is most obviously the case for firms that either provide online platforms or that conduct their business through those platforms.

The author distinguishes several ways that data are valuable to these firms. The first is the use of data to learn about users' wants and how their activity changes as elements of the platform change. For instance, a social media platform might use activity information to understand which advertisements are more likely

to be effective. Simply by virtue of having many users, an online platform will be able to train its algorithms to efficiently advertise and deliver services.

The second way that data are valuable to these firms is the use of data on a consumer's own activity to personalize products for them. For instance, a social media platform might track a consumer's likes and use this information to tailor the subsequent information it presents to them.

Finally, data generated by a user that flows to specific other users (e.g., posts on social media networks) are a large part of the value generated through an online platform. This dynamic clearly creates a network effect: when an individual user switches to another platform, they lose these messages that their correspondents send to them (incurring a switching cost, as the author describes). Any market entrant—regardless of how innovative its services are—must entice users to join a platform with fewer users and less opportunity for communication.

The Economic Implications of Closed Platforms

Within a closed platform—defined as one that does not permit most data to flow to other platforms on an ongoing basis—consumer data are often unavailable to consumers themselves and to other businesses. This is a problem for two main reasons. First, unavailable data can constitute a barrier to entry for potential competitors, thereby increasing the market power of incumbents. Second, the nature of data is such that their use by one party does not prevent their use by another, making it socially efficient for data to be available for as many agents and as many uses as possible.

The data that are generated by the interaction of consumers and firms on online platforms can be quite valuable, and closed platforms appear to benefit from important network effects. For example, the author notes that new entrants have had difficulty matching the incumbent's product quality in web searches because they do not have access to similar quantities of data. In addition to deterring market entry, network effects also reduce competition between incumbents.

For those online platforms that do not charge general users, the standard price-increasing impact of market power is not applicable. However, Gans observes that other important effects are likely: higher prices charged to advertisers as well as lower-quality services delivered to users. Incumbent platforms are less likely to invest in innovative services themselves and are less likely to be displaced by innovative market entrants.

A New Approach

In principle, a digital platform could make data fully available to a user and relinquish exclusivity, which would reduce or eliminate some of the network effects described above. To the extent that a user can do so, taking their own data when switching to another

platform (i.e., data portability) would remove the network effect associated with personalized services. More importantly, if data were permitted to move between platforms on an ongoing basis (i.e., identity portability), network effects would be further mitigated.

Identity Portability

The author proposes that policymakers establish a user's right to both data and identity portability. Data portability—already provided by several leading online platforms including Google, Facebook, Twitter, and LinkedIn—is a partial solution to the problem of online platform market concentration driven by network effects. Any user switching platforms would be able to take the data that the original platform has accumulated about their activity and provide it to the new platform, which would then be able to personalize its services for that user.

Identity portability addresses the distinct and more important type of network effect that arises from users' desire to receive and transmit information to other users. Under the author's proposal, individual users would have a right to their identity and its verification if they change online platforms. This would mean that if others on a particular platform had given permission to send messages to a person (e.g., posts, photos, likes, comments, etc.), that person can opt to have all of those messages sent to them on a new network. Because users were already sending messages to a person with a verified identity, that identity should persist along with those permissions. This proposal would require online platforms to process external messages in a nondiscriminatory manner.

If any users make changes to their permissions, then the old platform will send these changes to the new platform, and vice versa. For instance, users on the old platform can opt to withdraw permission for their posts to be sent to the user and the user can opt to withdraw permissions to users on the old platform. The reverse would be true for new permissions.

The author notes that data sharing can be complicated by the need to protect privacy. However, personal data on a digital platform has already been disclosed to that platform; at issue is whether a consumer has a right to retrieve their data and disclose them elsewhere.

Experience with Analogous Markets

The author emphasizes that the idea of allowing messages to flow between distinctly owned and operated platforms is not new. For example, this interconnection was established for postal and telephone networks in multiple countries. When local telephone carriers were deregulated around the world in the 1980s and 1990s, regulators required that those networks be interconnected so calls from one network would be accepted by another.

Identity portability shares with interconnection the idea that messages can be intentionally sent to users across different

Learn More about This Proposal

This policy brief is based on the Hamilton Project policy paper, "Enhancing Competition with Data and Identity Portability," which was authored by

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platforms. Where the two concepts differ is that with identity portability comes a set of permissions for messages to be sent and received. Moreover, the identity itself persists as individuals change platforms. With interconnection such persistence was not (initially) a requirement.

This requirement came in the form of number portability. When a user switched between any landline or mobile networks, number portability allowed the user's phone number to follow them. Like the identity portability proposed here, number portability became a right for consumers who own their own number. In many jurisdictions consumers do not even have to inform their carrier directly of the change and can change their number when they sign up for a new network.

Another example of mandated interconnection was the interoperability between AOL's Instant Messenger application and other messenger applications that was required by the Federal Communications Commission in its approval of the AOL-Time Warner merger in 2002. Regulators were concerned that the market had tipped or would soon tip in AOL's favor, giving it network effects that would make market entry impossible. AOL was required to make changes so that its messaging application was able to accept messages from and send messages to other providers' products. AOL reported that its market share had fallen from about 65 percent before the merger to 59 percent in 2003 and by 2006 its market share hovered just above 50 percent, suggesting tipping had not occurred.

Benefits and Costs

Data portability addresses one aspect of network effects that can prevent market entry. Given that many firms voluntarily make users' data portable, the technical costs of managing and transferring the relevant data appear to be lower than the benefits.

Identity portability would provide important additional benefits through enhanced competition and innovation. The network effects insulating digital platforms from competitive pressure would be substantially mitigated if market entrants could rely on an expectation of user identity portability. Individuals would be

able to switch between platforms based on their individual tastes and preferences as well as the innovations devised by different platforms, leading to a better matching of users with the online platform services that are best suited to them.

Importantly, this change would not disadvantage incumbent platforms per se, but rather would place all platforms on an equal footing. Like new entrants, some incumbent platforms could benefit in terms of attracting more users.

The costs associated with identity portability would be minimized under the author's proposal by making portability a right, with market participants free to determine the ideal approach to implementation. The proposal could be implemented by an independent entity vested with responsibility for the management of identity verification and permissions. There might be competitive options for the provision of identity verification, as occurs currently with credit reporting. Alternatively, online platforms could handle identity porting themselves, if doing so would be less costly.

Conclusion

The size, influence, and market power of online platforms are the subjects of intense debate. Governments around the world are facing pressure to consider various regulations that potentially limit such power.

This proposal grounds issues of platform market power in terms that are familiar to competition policy experts. The ultimate concern is whether consumers have the widest possible range of choices when interacting with platforms. These choices are limited by switching costs and the network effects they produce. Thus, it is necessary to consider policies that mitigate those switching costs and, in the process, enable consumer choice. The rights-based approach of this proposal will achieve better outcomes than a more heavy-handed policy response.

While data portability is a well-established proposal and is being implemented both as policy and at the discretion of social networks, it does not address the larger switching costs associated with network effects. By contrast, identity portability targets those switching costs. Given the uncertainties of implementation, this proposal is a first step toward a digital platform market characterized by diminished barriers to entry, enhanced competition, and better outcomes for consumers.

Questions and Concerns

1. Could incumbent firms manipulate message communications?

Incumbent firms have some discretion as to how messages are presented when they are sent or received, and the speed at which communications flow. For instance, incumbents could delay messages sent to other networks or display messages received from other networks in a manner that is of lower quality and/or lower priority.

While these scenarios are possible, there are reasons for optimism. First, an incumbent platform engaging in these activities would harm both users who have switched and users who remain—that is, the incumbent’s own users. This may accelerate those users’ incentives to switch to a rival network to obtain a higher quality of service.

Second, as with telecommunications interconnection, quality of service can be monitored by regulatory authorities. If the identity portability requirement were legally robust in a way that enjoined discriminatory treatment of messages, then the threat of sanctions might be sufficient to counter potential manipulation of message communications.

2. How is this different from social graph portability?

In 2017 Luigi Zingales and Guy Rolnik proposed the term “social graph portability.” In an article published in the *New York Times*, they wrote, “It is sufficient to reassign to each customer the ownership of all the digital connections that she creates—what is known as a ‘social graph.’ If we owned our own social graph, we could sign into a Facebook competitor—call it MyBook—and, through that network, instantly reroute all our Facebook friends’ messages to MyBook, as we reroute a phone call.” They did not expand on the details of

this proposal, but their idea was that a consumer’s data and contacts would be given to the new platform. By contrast, the author proposes that a person’s verified identity would be ported while permissions to communicate with that identity would persist and could be modified.

3. Could this encourage cream skimming?

A potential concern that arises with identity portability is that new entrants might embark on a strategy designed to do very little but attract the highest-value users from incumbent platforms. For instance, they might opt for a reskinned version of an existing platform—almost the same, but with fewer advertisements.

While there is always this potential, the author predicts that identity portability would be unlikely to reduce switching costs to zero; new entrants would have to provide something of value to attract users. If they can provide an equivalent platform and be financially viable with less advertising revenue, then the result would arguably be a desired market outcome.

More critically, the back and forth of messages is supported by investments in infrastructure that permit platforms to transmit messages in a real-time manner even when there are millions or even billions of users. A new entrant would not be able to replicate that complete experience via reskinning.

That said, the author acknowledges that it is possible that new entrants might target valuable customer groups. The so-called best customers might migrate to the new network, which could have a disproportionate effect on the revenue of existing platforms. Once again, however, we would have to ask why the existing platforms are unable to serve specific customer groups—especially their most profitable customers—more effectively.

Highlights

In this paper, Joshua Gans of the University of Toronto describes the economic context in which online platforms and users interact, focusing on the ways that this context limits the potential for strong competition. The network effects that characterize the success of popular platforms can also constitute a barrier to entry for potential competitors. Gans draws from analogous experiences with other communications markets as well as the research literature to propose identity portability, a new approach to regulating online platforms.

The Proposals

Require platforms to allow users to port their identity from one platform to another.

Users should be able to receive and send messages (e.g., posts, photos, likes, comments, etc.) between platforms in a nondiscriminatory manner on an ongoing basis.

Allow users to opt out of cross-platform message sharing. Users will receive alerts when their messages are sent to other networks and they will be able to opt out of having their messages sent, on a platform-by-platform basis.

Enable platforms to choose the technology to implement identity portability. Platforms will bear the costs of implementing identity portability and will choose the technology that best suits the needs of both platforms and users.

Benefits

Identity portability would enhance innovation by mitigating many of the network effects that insulate dominant online platforms from competition. With user identity portability, new firms enter the market on equal footing. Individuals would be able to switch between platforms based on their tastes and preferences as well as the innovations devised by different platforms. This would help to better match users with the online platform services that are best suited to their needs.



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