

FTC Hearings on Competition & Consumer Protection in the 21st Century

FTC Project No. P181201

Comments of the International Center for Law & Economics

Topic 3: The regulation of consumer data

October 14, 2018

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We thank the Commission for the opportunity to comment on “Competition and Consumer Protection in the 21st Century Hearings, Project Number P181201.”

The International Center for Law and Economics (ICLE) is a nonprofit, nonpartisan research center whose work promotes the use of law & economics methodologies to inform public policy debates. We believe that intellectually rigorous, data-driven analysis will lead to efficient policy solutions that promote consumer welfare and global economic growth.¹

ICLE’s scholars have written extensively on competition and consumer protection policy. Some of our writings are included as references in the comment below. Additional materials may be found at our website: www.laweconcenter.org.

In this comment, we primarily address the third topic highlighted by the Commission (“The regulation of consumer data”).

Increasingly, people use the Internet to connect with one another, access information, and purchase products and services. The growth in the online marketplace brought with it numerous concerns, particularly regarding the privacy of personal information and competition issues surrounding this and other data.

While concerns about privacy are not unique to the Internet ecosystem, they are in some ways heightened due to the ubiquitous nature of information sharing online. While much of the sharing is voluntary, a group of scholars and activists have argued that several powerful online companies have overstepped their bounds in gathering and using data from Internet users. These privacy advocates have pushed the FTC and regulators in Europe to incorporate privacy concerns into antitrust analysis.

We have undertaken a classification of the various proposed approaches to incorporating privacy into antitrust law elsewhere.² Here, we focus on the two most-developed theories: (I) that privacy should be considered in mergers and other antitrust contexts as a non-price factor of competition, and (II) that the collection and use of data may facilitate anticompetitive price discrimination. In addition (III), we analyze the underlying conception of data as a barrier to entry, that is a necessary precondition for supporting either proposed theory of harm.

¹ ICLE has received financial support from numerous companies, organizations, and individuals, including firms with interests both supportive of and in opposition to the ideas expressed in this and other ICLE-supported works. Unless otherwise noted, all ICLE support is in the form of unrestricted, general support. The ideas expressed here are the authors’ own and do not necessarily reflect the views of ICLE’s advisors, affiliates, or supporters. Please contact us with questions or comments at icle@laweconcenter.org.

² See Geoffrey A. Manne & R. Ben Sperry, *The Law and Economics of Data and Privacy in Antitrust Analysis* (2014 TPRC Conference Paper, Aug. 2014), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418779.

I. Privacy as an Element of Non-Price Competition

Under antitrust law, according to some advocates, the best way to understand privacy is as a component of product quality. Thus some privacy advocates have argued that

privacy harms can lead to a reduction in the quality of a good or service, which is a standard category of harm that results from market power. Where these sorts of harms exist, it is a normal part of antitrust analysis to assess such harms and seek to minimize them.³

The Horizontal Merger Guidelines have long recognized that anticompetitive effects may “be manifested in non-price terms and conditions that adversely affect customers.”⁴ But this notion, while largely unobjectionable in the abstract, still presents significant problems in actual application.

First, product quality effects can be extremely difficult to distinguish from price effects. Quality-adjusted price is usually the touchstone by which antitrust regulators assess prices for competitive effects analysis. Disentangling (allegedly) anticompetitive quality effects from simultaneous (neutral or procompetitive) price effects is an imprecise exercise, at best. For this reason, proving a product-quality case alone is very difficult and requires connecting the degradation of a particular element of product quality to a net gain in advantage for the monopolist.

Second, frequently product quality can be measured on more than one dimension. For instance, product quality could include both function and aesthetics. A watch’s quality is in both its ability to tell time and how nice it looks on your wrist. A non-price effects analysis involving product quality across multiple dimensions becomes exceedingly difficult if there is a tradeoff in consumer welfare between the dimensions. Any such analysis would necessarily involve a complex and imprecise comparison of the relative magnitudes of harm/benefit to consumers who prefer one type of quality to another.

³ *Behavioral Advertising: Tracking, Targeting, and Technology: Town Hall Before the FTC*, (Oct. 18, 2007) (testimony of Peter Swire, Professor, Moritz College of Law of the Ohio State University), available at <http://www.americanprogress.org/issues/regulation/news/2007/10/19/3564/protecting-consumers-privacymatters-in-antitrust-analysis/>.

⁴ See, e.g., 2010 Merger Guidelines, sec. 1 (“Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation. Such nonprice effects may coexist with price effects, or can arise in their absence.”); 1997 Merger Guidelines, sec. 0.1 & note 6 (“The unifying theme of the Guidelines is that mergers should not be permitted to create or enhance market power or to facilitate its exercise. Market power to a seller is the ability profitably to maintain prices above competitive levels for a significant period of time. . . Sellers with market power also may lessen competition on dimensions other than price, such as product quality, service, or innovation.”).

A. Privacy Advocates Have Failed to Prove a Product Quality Case

The understanding of how quality-adjusted price may be affected by monopolization of data or a merger of entities with large quantities of data requires considerably more analysis than that offered by privacy advocates so far.

In the merger context (where most of the antitrust-relevant concerns about privacy-as-product-quality have been raised), one claim is that the accumulation of “too much” information about too many consumers is itself (or perhaps will inevitably lead to) a degradation of quality affecting the merging parties’ products.

But that “problem” is almost certainly fully internalized by individual consumers. Consumers, with the assistance of consumer protection agencies like the FTC itself, are generally able to assess the risks of disclosure or other misuse of their information, and to assess the expected costs to themselves if such misuse should occur. Unless the collection of data on *other* people increases the uncertainty of this risk assessment or makes harm to the individual consumer more likely (and it is difficult to see why either would necessarily be true), it is difficult to see why a company’s mere *possession* of private information about *other* people is of much concern to any particular consumer. In other words, the size of the database (i.e., the number of consumers on whom data is collected) doesn’t seem like a particularly relevant aspect of product quality in and of itself, and for each consumer, the “problem” of a large concentration of information being accumulated in a single company is seemingly insignificant. Meanwhile, to the extent that collection of data from more consumers is a function of increasing network effects, such accumulations of data are almost certainly more likely to correlate with improvements in product quality rather than degradations.

While an increased amount of aggregated data at the disposal of one entity is not likely a significant harm in and of itself, it is surely the case that specific privacy policies that may affect a company’s treatment of a consumer’s *own* information may be relevant to his assessment of product quality. Particularly where consumers are paying a zero price (as search engine users and advertising consumers do in the Google case), nonprice competition, including over privacy policies, may be the only source of cognizable effects.

But in that case it must still be shown that a dominant firm would have the ability and the incentive (and, in the case of a merger, that these would be merger-specific) to curtail privacy protections as a means of exercising its monopoly power. But this seems unlikely.

In the normal case, a monopolistic firm would have an incentive to degrade quality if doing so would lower its costs and the demand elasticity were smaller for downward adjustments in quality than for corresponding increases in price. But in the case of privacy protections, where, for example, one “harm” might be the maintenance of personal information on a firm’s servers for extended periods without deletion, it would seem that such a firm might actually incur more cost in degrading privacy (by storing information for longer) than in maintaining privacy (by deleting cumbersome

information from limited storage space). At the same time, alleged harms arising from increased sharing of data with third parties (typically advertisers) is necessarily ambiguous, at best. While some consumers may view an increase in data sharing as a degradation of quality, the same or other consumers may see the better-targeted advertising it facilitates as a quality improvement, and in some cases “degraded” privacy may substitute for a (procompetitive) price increase that would be far less attractive.

Similarly, claims that concentration will lead to a “less-privacy-protective structure”⁵ for online activity are analytically empty. One must make out a case, at minimum, that a move to this sort of structure would reward the monopolist in some way, either by reducing its costs or by increasing revenue from some other source. Absent a coordinated effects argument (which has not to our knowledge ever been raised), increased data concentration alone would seem to be insufficient; unilateral effects must be shown for such a merger to be anticompetitive. There appears to be little incentive for a monopolist to lower quality on its own, unless the barriers to entry are so high that no possible alternatives could exist.

In short, proponents of the theory of product-quality harm arising from monopolization of data need to make out an economically sound case for why the feared privacy degradation would occur at all or ever be anticompetitive if it did, and this they have not done.

B. Most Consumers Prefer “Free and Useful” to “More Private”

As suggested above, on top of the difficulty in parsing out price effects from product quality effects, there seems to also be a tradeoff in consumer perception of product quality from increased data collection between the algorithmic improvements it may facilitate and (posited) privacy harms it entails. A decrease in privacy protection is not simply a transfer from consumers to producers, creating the famous deadweight loss of antitrust textbooks. Rather, the collection and use of larger amounts of information by a company like Google has the ability to improve the quality of Google’s products, whether by improving the relevance of its search results or the successful targeting of its ads. In either case, improving product quality while maintaining a constant zero price — i.e., decreasing quality-adjusted price — is not normally an antitrust injury.

In fact, as we describe in more detail below, several critics assert that the collection and use of more data amounts to a data barrier to entry precisely because it *improves* the quality of Google’s algorithm in ways that competitors can’t replicate. While there may not be a one-to-one correlation between

⁵ Swire, *supra* note 2 (“For these individuals, their consumer preferences are subject to harm if standard online surfing shifts to a less privacy-protective structure due to a merger or dominant firm behavior. In essence, consumers “pay” more for a good if greater privacy intrusions are contrary to their preferences. Under standard economic analysis, and standard antitrust analysis, harm to consumer preferences should be part of the regulatory homework for the competition agencies—such harms should be considered along with other harms and benefits from a proposed merger.”).

data collection and product quality, it certainly cannot be said that there is an obvious *decrease* in quality for consumers when more data is collected, either.

The question of antitrust-relevant product quality really comes down to the relative numbers and magnitude of harm of consumers who prefer more privacy protection versus those who prefer a better search experience and/or a lower monetary price. Most of the available data suggests that the vast majority of consumers value privacy quite a bit less than they do other product attributes, including price.⁶ For instance, revealed preferences in search and elsewhere suggest that viewing a targeted ad (to access a news article, for example) amounts to a much lower “price” (i.e., psychic burden) on most people than does paying even just a few cents per month for an otherwise identical, ad-free experience. By the same token, consumers almost always choose free (ad-supported) apps over the 99 cent alternative without ads.⁷

To make out an antitrust case based on such privacy “harms,” antitrust regulators would have to compare the magnitude of the harms to what appears to be a small group of privacy-sensitive consumers (who have not otherwise protected themselves by use of marketplace tools like track-blockers or by use of opt-out options provided by major ad networks and data brokers) to the benefits received by the supermajority of consumers who are less privacy-sensitive. Beside the enormous difficulty of actually performing such an analysis, it seems unlikely that the harms would outweigh the benefits on net.

Unfortunately for proponents of a nonprice competition theory of privacy and antitrust, not only is there no obvious reason why monopolists would have an incentive to degrade privacy, there is also no necessary (or even likely) connection between more data collection and use and harm to consumer welfare.

II. Price Discrimination as a Privacy Harm

If nonprice effects cannot be relied upon to establish competitive injury (as explained above), then what can be the basis for incorporating privacy concerns into antitrust? One argument is that major data collectors (e.g., Google and Facebook) facilitate price discrimination.

The argument can be summed up as follows: Price discrimination could be a harm to consumers that antitrust law takes into consideration. Because companies like Google and Facebook are able

⁶ See, e.g., Alastair R. Beresford, Dorothea Kübler, Sören Preibusch, *Unwillingness to Pay for Privacy: A Field Experiment* (SFB 649 Discussion Paper 2011-010, 2011), available at <http://edoc.hu-berlin.de/series/sfb-649-papers/2011-10/PDF/10.pdf>; Jens Grossklags & Alessandro Acquisti, *When 25 Cents is too much: An Experiment on Willingness-To-Sell and Willingness-To-Protect Personal Information*, in PROCEEDINGS OF THE SIXTH WORKSHOP ON THE ECONOMICS OF INFORMATION SECURITY (2007), available at <http://weis2007.econinfosec.org/papers/66.pdf>.

⁷ Mary Ellen Gordon, *The History of App Pricing, and Why Most Apps are Free*, THE FLURRY BLOG (Jul. 18, 2013), <http://blog.flurry.com/bid/99013/The-History-of-App-Pricing-And-Why-Most-Apps-Are-Free>.

to collect a great deal of data about their users for analysis, businesses could segment groups based on certain characteristics and offer them different deals. The resulting price discrimination could lead to many consumers paying more than they would in the absence of the data collection. Therefore, the data collection by these major online companies facilitates price discrimination that harms consumer welfare.

This argument misses a large part of the story, however. The flip side is that price discrimination could have benefits to those who receive lower prices from the scheme than they would have in the absence of the data collection, a possibility explored by the White House Report on Big Data and Differential Pricing.

While privacy advocates have focused on the possible negative effects of price discrimination to one subset of consumers, they generally ignore the positive effects of businesses being able to expand output by serving previously underserved consumers. It is inconsistent with basic economic logic to suggest that a business relying on metrics would want to only serve those who can pay more by charging them a lower price, while charging those who cannot afford it a larger one. If anything, price discrimination would likely promote more-egalitarian outcomes by allowing companies to offer lower prices to poorer segments of the population – segments that can be identified by data collection and analysis.

If this group favored by “personalized pricing” is as big as or bigger than the group that pays higher prices, then it is difficult to state that the practice leads to a reduction in consumer welfare, even if this can be divorced from total welfare. Again, the question becomes one of magnitudes that has yet to be considered in detail by privacy advocates.

Further, this analysis fails to consider the dynamic efficiencies of price discrimination. In a static model of third-degree price discrimination, some buyers receive lower prices (and purchase higher quantities), while other buyers receive higher prices (and purchase lower quantities). Thus, the net impact of price discrimination on output is ambiguous. But in a dynamic model, price discrimination may often be procompetitive because the prospect of higher profits provides incentives for entry and allows for additional investments in innovation, increasing product variety, expanding retail outlets, or research and development. As mentioned above, price discrimination may allow for increased competition to all consumers, including previously unreached and poorer consumers, another procompetitive outcome. Contrary to the received wisdom, economists have noticed that price discrimination is present in even competitive markets.

Under a proper error cost framework, courts and antitrust regulators should refrain from declaring conduct anticompetitive unless the likelihood of procompetitive outcomes is low. In this case, it appears very difficult for antitrust regulators to differentiate positive price discrimination from negative price discrimination. Here, it seems unlikely that the price discrimination “facilitated” by major data collectors is anticompetitive.

For instance, Google analytics is used by many businesses, any number of which compete with one another in the same markets to offer the best deals to consumers through targeted advertising. It seems just as, if not more, likely that Google is increasing consumer welfare by helping businesses find consumers interested in their products and by serving up more relevant advertisements to those consumers – thus increasing the amount of positive-sum transactions overall.

Finally, price discrimination as a harm in itself is rarely antitrust-relevant. The Robinson-Patman Act, a New Deal-Era amendment to the Clayton Act's prohibitions on price discrimination, does not extend to price discrimination against end consumers. Further, the Robinson-Patman Act has fallen into disrepute because of the outdated economic model it was based upon, leading the Anti-trust Modernization Commission to call for its repeal in 2007:

By broadly discouraging price discounts, the Robinson-Patman Act potentially harms competition and consumers. The goal of the antitrust laws is to protect competition that benefits consumers. The Robinson-Patman Act does not promote competition, however. Instead, the Act protects competitors, often at the expense of competition that otherwise would benefit consumers, thereby producing anticompetitive outcomes. The Act prevents or discourages discounting that could enable retailers to lower prices to consumers. "The chief 'evil' condemned by the Act [is] low prices, not discriminatory prices." The Act thus reflects "faulty economic assumptions" and a significant "misunderstanding of the competitive process."

Price discrimination, even if facilitated by data, is not a privacy harm a court or competition agency is likely to accept.

III. Data Barrier to Entry

Either of these theories of harm is predicated on the inability or difficulty of competitors to develop alternative products in the marketplace – the so-called "data barrier to entry." The argument is that upstarts do not have sufficient data to compete with established players like Google and Facebook, which in turn employ their data to attract online advertisers and to foreclose their competitors from this crucial source of revenue. There are at least five reasons to be dubious of such arguments:

1. Superior competition is not a barrier to entry
2. Data is useful to all industries, not just online companies;
3. It's not the amount of data, but how you use it;
4. Competition online is one click or swipe away; and
5. Access to data is not exclusive.

A. First, superior competition, notably through data, is not a barrier to entry

The logic of entry barriers implied by many who assert *data* as an entry barrier is a curious one. Because data (in the context relevant here) are used to improve the quality of products and/or to

subsidize their use, the idea of data as an entry barrier suggests that any product improvement or price reduction made by an incumbent could amount to an entry barrier to any new entrant. The effect is magnified with network effects. And if the product improvement itself is in the product's processing of data or its ability to access data, it's doubly magnified.

Of course, it is more complicated than that (in theory, at least, product improvements could be predatory, for example), but any assessment of the data barrier to entry argument should consider whether it is tantamount to an argument that competition itself is a cognizable barrier to entry.

Without more, such a concept of barriers to entry means the concept has no intrinsic antitrust relevance – it's merely a statement that the better the incumbent is (or the cheaper its product), the harder it is for new entrants to compete. It would be a curious approach to antitrust if this were treated as a problem, as it would imply that firms should under-compete – should forego consumer-welfare enhancements – in order to bring about more competition.

Even if somehow we thought this were true, how would it be implemented? At what point would competition, product improvements, and price reductions become anticompetitive? It can't be at *any* point at which they make entry more difficult, because on the margin that must happen at every single point in the product lifecycle. But otherwise the dividing line may be essentially arbitrary. And, of course, any approach here that impedes competition on the merits for incumbents would also, on the margin, make new entrants compete less vigorously, invest less in their own products, etc., where competition is for the market (as it often seems to be in high-tech, platform markets) – which could easily undermine the entire “entry over innovation” rationale.

And there is a fundamental underlying error in the entire barriers to entry enterprise: It is rooted in the idea that barriers tend to determine the number of firms, and the number of firms determines competitiveness. But this is a far too simplistic view.

For example, firms can compete against each other by investing in the development of new products, in the promotion of the product, or in the reduction of costs. All these features are determined in equilibrium together with industry concentration. One can show in these models that as markets grow in size, the industry structure that can emerge is not one of atomistic competition with constant quality but rather one where concentration remains high but product quality increases. Therefore, competition along nonprice dimensions can explain why concentration does not necessarily diminish as industries grow. The significance of this point cannot be overstated. Models that focus on only price competition may fail miserably to correctly predict industry concentration and consumer welfare when there are other product dimensions along which competition occurs. This is likely to be particularly true in industries requiring investment and creation of new products. It is no coincidence that many of the most controversial antitrust and regulatory cases have arisen in high- technology industries

*(e.g., computers and telecommunications) where competition in research and development and new products is paramount.*⁸

The confusion surrounding the meaning of “barriers to entry” often results because the precise consequence of having an entry barrier is unclear. If there are such “barriers,” is anticompetitive conduct facilitated by them? The proper analysis doesn’t end with entry barriers; it starts with analysis of what would happen without barriers, and then assesses whether barriers change anything. In so doing, it must also account for the benefits of existing conduct, including the benefits of market conduct and structures that may operate to impede new entry (“barriers”), but also facilitate new investment and innovation by incumbents. Where it does not, it again tends the assessment toward protection of the *status quo*.

A key *status quo* or nostalgia bias problem in the analysis of entry barriers is the assumption of essentiality of inputs or other relationships created by early movers.

I. Microsoft and the applications pathway to entry

Consider this error in the *Microsoft* court’s analysis of entry barriers: The court pointed out that new entrants face a barrier that Microsoft didn’t face, in that Microsoft didn’t have to contend with a powerful incumbent impeding its entry by tying up application developers.⁹

But while this may be true, Microsoft did face the *absence* of any developers at all, and had to essentially create (or encourage the creation of) businesses that didn’t previously exist. In fact, although the court dismissed this argument (in a different context), it noted that, “[a]ccording to Microsoft, it had to make major investments to convince software developers to write for its new operating system, and it continues to ‘evangelize’ the Windows platform today.”¹⁰ Yet, the court also notes:

Because the applications barrier to entry protects a dominant operating system irrespective of quality, it gives Microsoft power to stave off even superior new rivals. The barrier is thus a characteristic of the operating system market, not of Microsoft’s popularity, or, as asserted by a Microsoft witness, the company’s efficiency.¹¹

The point about quality may be true, and it may even be true that the extent of the purported barrier didn’t correlate with Microsoft’s popularity or efficiency. But it is *not* true that the applications

⁸ Dennis W. Carlton, *Barriers to Entry*, in 1 ISSUES IN COMPETITION LAW AND POLICY 601, 603-04 (ABA Section of Antitrust Law, 2008).

⁹ *United States v. Microsoft Corp.*, 253 F.3d 34, 56 (D.C. Cir. 2001) (“When Microsoft entered the operating system market with MS-DOS and the first version of Windows, it did not confront a dominant rival operating system with as massive an installed base and as vast an existing array of applications as the Windows operating systems have since enjoyed.”).

¹⁰ *Id.*

¹¹ *Id.*

barrier to entry was independent of Microsoft's efforts or investment: it was not merely a "characteristic of the operating system market," as if exogenous to any conduct undertaken by Microsoft in order to obtain its scale in the first place.

Rather, as noted, Microsoft invested heavily to create the network of developers in the first place. It entered a market with a unique barrier to entry of its own – the absence of any applications for its platform – and proceeded to expend considerable resources to facilitate their creation.

Moreover, having done so, Microsoft created a huge positive externality for new entrants: existing knowledge and organizations devoted to development, industry knowledge, reputation, awareness, incentive for schools to offer courses, etc. It could well be that new entrants in fact faced *lower* barriers with respect to app developers than did Microsoft when it entered.

This is crucial in considering the distinction between data pre- and post-entry. Much of the "analysis" of data as a barrier to entry casually speaks as if, because an incumbent has data, new entrants must also have data in order to compete. But the reality is that incumbents entered *without* data and produced it subsequent to entry – again, sometimes creating entirely new businesses and business models around it. Facebook is an obvious example of this dynamic, but so are Uber and Google and many others.

Data in this respect is like reputation. Nearly all new entrants suffer reputational disadvantages. And yet new entry happens all the time. Likewise, the more successful the incumbent – the larger its network, the stronger its reputation, the better its product – the more difficult is new entry. And yet this is competition.

In the US, courts have consistently rejected the idea that reputation operates as a barrier to entry. The Ninth Circuit has noted:

*We agree with the unremarkable proposition that a competitor with a proven product and strong reputation is likely to enjoy success in the marketplace, but reject the notion that this is anticompetitive. It is the essence of competition.*¹²

Or the Third Circuit, for example, noted:

¹² *Omega Environmental, Inc. v. Gilbarco, Inc.*, 127 F.3d 1157, 1164 (9th Cir. 1997) (Citing *American Professional Testing Service, Inc. v. Harcourt Brace Jovanovich Legal and Professional Publications, Inc.*, 108 F.3d 1147, 1154 (9th Cir.1997) (“[R]eputation alone does not constitute a sufficient entry barrier in this Circuit.”); *United States v. Syufy Enterprises*, 903 F.2d 659, 669 (9th Cir.1990) (“We fail to see how the existence of good will achieved through effective service is an impediment to, rather than the natural result of, competition.”)).

*New entrants and customers in virtually any market emphasize the importance of a reputation for delivering a quality good or service.... [Plaintiff's] argument, without some limiting principle (that it fails to supply), implies that there are barriers to entry, significant in an antitrust sense, in all markets. We find this proposition implausible and... precluded by Supreme Court precedent.*¹³

It is possible that, under some conditions, reputation or product differentiation can operate as a barrier to entry.¹⁴ But there must be special circumstances for that to be true – most notably it has arisen in cases where incumbents have undertaken actions to prevent or preclude new entrants from developing their own brand reputation in order to compete.¹⁵ But it can't be always and everywhere true, or else every market would be characterized by anticompetitive barriers.

The same holds true for data. Data is typically generated by companies *after* they enter markets, as a by-product (or intended consequence) of their operations, or else in some case it is *purchased* beforehand.¹⁶ It cannot be the case that doing so in the abstract creates an entry barrier, or else every market would be marked by entry barriers and the risk of antitrust liability for incumbents – including offline markets. By definition, data produced as a consequence of ongoing market operations is something only incumbents will have – and incumbents will always have. Defining the possession of data in this context as an entry barrier would be tantamount to inviting antitrust challenges on the basis of a company's mere existence (and even more so, success) in a market competitors wish to enter.

What seems to be required in order that data may be treated as a potential entry barrier is that the data at issue be some combination of essential, unique, exclusive, and rivalrous. If a suitable dataset can be created by new entrants or obtained elsewhere, or if other data can be used in its stead, or if alternatives other than data can be used (e.g., synthetic data or artificial intelligence), then it is hard to see any relevant competitive significance from data, *regardless of the amount*.

A key aspect of the mistake here is a sort of availability heuristic: It is often assumed that the successful way something has been done, and is done today, is the *only* way to do it, or the only way new entrants can do it and be competitive.

But of course that's never actually true. Facebook uses a very different method and different data than does Google to match advertisers and users – and yet it entered the online

¹³ *Advo, Inc. v. Philadelphia Newspapers, Inc.*, 51 F.3d 1191, 1201-02 (3d Cir. 1995).

¹⁴ See *Id.* at 1202.

¹⁵ See *US Philips Corp v. Windmere Corp.* 861 F.2d 695 (Fed. Cir. 1988).

¹⁶ Daniel L. Rubinfeld and Michal S. Gal, *Access Barriers to Big Data*, 59 ARIZ. L. REV. 339, 357 (2017) (“More commonly, data are collected as a (valuable) side-effect of other productive activities.”).

advertising/matchmaking market and became enormously successful without adopting Google's model (and without obtaining Google's (or anyone else's) existing data). Uber entered the transportation network market with a business model that didn't require capital outlay on a large fleet of vehicles. Digital cameras made film irrelevant and didn't need to rely on suppliers of film to enter. Fax machines went through a series of improvements – until email and cloud services completely replaced them.

The examples are endless. But they are key to understanding the non-essentiality of data: For some entrants – those adopting incumbents' business models, minimizing their own innovations, or even piggy-backing on incumbents – it *seems* indispensable. And they may find a willing ear at some anti-trust agencies. But innovation has never required implementation of the same business model as incumbents, and especially not access to the particular, proprietary inputs incumbents have created.

And, as noted above, new entrants may face even more welcoming environments *because of* incumbents. Consider how much Google contributed to the creation of the online advertising industry and consumer acceptance of advertising-financed websites, and web page and app developers' expectations that advertising would need to be accommodated. Whatever the data used to deliver it, there can be no doubt that a new provider of online advertising today faces an environment in which its product is known, and even invited. That wasn't always true in the past.

2. *The mistaken assumption of the essentiality of data*

Which raises another key point: However important incumbents' data may be, it is never as important as many make it out to be at the margin. Consumers want accurate video recommendations, for example, but they also want a variety of content, an attractive and functional user interface, high-quality streaming, etc. Even in something like search, users care about interfaces, mobile-specific (including voice) input, attractive results pages, limited clicking, etc. These elements of design and of algorithmic processing are arguably decisively important, while the "quality" and amount of data are significantly less important by comparison.

Can a new entrant make it without *some* of that data to begin with, though? Of course. Because it can differentiate its product, offer other services designed to attract users to the platform and then obtain data (the old fashioned way), offer an alternative not dependent on data, find ways to make better use of more limited amounts or different kinds of data, or, finally, purchase the relevant data. Moreover, data are not monolithic. They vary along multiple dimensions, any of which can be more significant than the others. Even incumbents' business models were built using data with different characteristics:

[T]he quality and value of data are affected not only by their volume, but also by their velocity, variety, and veracity. As a result, once one characteristic of big data exhibits high entry barriers, another characteristic might grow in importance in order to overcome the competitive advantages created by the first. For example, where past data are not easily available (therefore reducing the

*volume or temporal variety of data available), veracity or variety might gain importance in order to create a higher level of predictive certainty based on a smaller data panel.*¹⁷

And recall that every incumbent had to face the same constraints itself.

There is a longstanding debate whether an entry barrier is properly conceived of as “some source of disadvantage to potential entrants as compared with established firms” (the Joe Bain version¹⁸), or “a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry” (the Stigler version¹⁹).

The former rejects sunk costs as relevant – it rejects, in other words, the importance of evolution over time, and looks only at relative costs today – meaning every advantage enjoyed by incumbents can be an entry barrier, regardless of what it cost to get them. The latter says that costs incurred similarly by both incumbents and entrants impose the same constraints on each, regardless if one has already incurred the costs and another has yet to do so.

In part the claimed justification for this approach is the importance of entry to police incumbents *ex post* – and entry is made in the short term. Yet it is crucial to consider this (often neglected) economic reality: Even in the short term, an incumbent that doesn’t sell its assets (whether goodwill, data or installed base, etc.) to a new entrant incurs an opportunity cost (economic cost) equal to the new entrant’s cost of obtaining those things. As a result, properly considered even under the *ex post* model both incumbents and new entrants face the same or similar economic costs regarding alleged entry barriers.

More important perhaps, it is imperative to consider what the “real” sources of barriers to entry are, and whether they first provide important benefits that should not lightly be taken away or discounted. In many cases (and leaving aside government-created barriers), they come down to information costs. Why does reputation matter? Because it conveys information to consumers. Why does longevity in a market matter? Same reason. Scale economies are just a manifestation of the same thing in markets with declining marginal costs: They are indicia of established quality.

Those realities don’t help new entrants any, but they do suggest why being quick to use antitrust or other regulatory measures to overcome such barriers is a problem: It means less such capital will be created in the first place. We’ll get less longevity, less investment to build reputation and scale, if it is going to be taken away. It’s possible that is worth it in order to induce more competition, but it’s

¹⁷ *Id.* at 370.

¹⁸ JOE S. BAIN, BARRIERS TO NEW COMPETITION: THEIR CHARACTER AND CONSEQUENCES IN MANUFACTURING INDUSTRIES (1956).

¹⁹ GEORGE STIGLER, THE ORGANIZATION OF INDUSTRY 67 (1968).

at least as possible that it simply transfers more of the information costs back onto consumers, at a rate that more than offsets whatever presumed gains there may be from having more firms – especially in a market that tends because of its fundamental economics toward a single firm or small number of firms.²⁰

Treating data as an essential facility is akin to removing IP protection: It may lower costs of existing products, but it also lowers the incentive to create competing products. Large amounts of data (if effectively employed, and if they do deter imitators) may raise costs, but they also create an incentive for new entrants to innovate around the costs and to differentiate their products (innovate). As one antitrust authority has noted:

*Antitrust issues generally do not arise when firms collect more data and antitrust does not usually impose on firms an obligation to share data that they have collected and developed. To do so may very well chill innovation, which is the very behaviour that antitrust is designed to protect.*²¹

All of which points back to the problem of nostalgia: If all we want is multiple exact copies of existing firms, with minimal further innovation, then treating data as a common good or essential facility may be fine. But if not, it makes no sense to do so.

3. *Data as a simulacrum and information asymmetry*

It can be hard for users to know the value of their data *ex ante*, but it can be hard for platforms or other intermediaries to know underlying information *at all*. On the one hand, users know far more about themselves than any platform does, but, on the other, they don't necessarily know how valuable that information is. While the latter information asymmetry is often assumed to be pervasive and important, the latter is virtually always ignored.

But platforms incur significant costs in order to obtain the former information, and they possess the latter only if and when they apply high-quality processing to the data in order to learn its value.

Data is a simulacrum: Platforms are locked in an ever-evolving battle to identify, collect, process, interpret, and use data in order to figure out user preferences or to predict consumer behavior. There is no silver bullet amount and kind of data to accomplish this. Every data set represents some collection of pieces of information that are an effort to guess at the user's mind, as is every aggregate set of data about a large group of people (for which errors are more likely to cancel out, but for which the representational value of the data is less likely to be very accurate or useful because it encompasses

²⁰ See generally Giuseppe Colangelo & Mariateresa Maggolino, *Data Accumulation and the Privacy-Antitrust Interface: Insights from the Facebook case for the EU and the U.S.*, TTLE Working Paper No. 31 (2018), available at <https://ssrn.com/abstract=3125490>.

²¹ Canadian Competition Bureau, *Big data and Innovation: Implications for Competition Policy in Canada*, Discussion Paper (2017), available at <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04304.html>.

significant noise relative to signal). Big data sets do, however, allow for pattern recognition (i.e., in order to plot out likely traffic issues, mapping apps don't really need to know where a given user is, *per se*, but only whether a large mass of drivers are likely to be in the same place at the same time...).

This is complicated by multi-homing and product differentiation, as well as by tools users use to hide their data. Asymmetry re value means that despite our concerns about big data, arguably users are *under*-producing data, not overproducing it, and/or they are spreading their data too thin.

Which is why it's also key to keep markets in mind: The story is different for advertisers than it is for users. But then, so are the ramifications of data. Advertisers want targeting, of course, but advertisers have enormous amounts of information on their own. They decide what keywords to bid on, for example, based at least in part on information they already have and would bring to any platform.

This information asymmetry point is important. It's commonly said or assumed that platforms have much more information than users, and can use it to their advantage. The same is said for incumbents vs. new entrants. But is it really true? Users know far more about themselves than any platform ever will. Whatever Google knows about a user, if a new entrant were to ask the right questions, or buy the right data, it could easily know more. Which is a key reason why Amazon is such a threat to Google: It knows what users shop for, what they buy, at what price, etc. That's of enormous value. Whatever Google knows about how often users search for terms like "Stigler entry barriers," it pales in importance compared to what Amazon knows about what books I buy, or what Facebook knows about who my friends are and how I interact with them. And tomorrow – who knows what will be most relevant?

Even today, if big data were so good at predicting users' behavior, then tech firms would be very good at, for example, predicting what future products and R&D projects will be most profitable. They are not, of course.

It is also important to account for incumbent platforms as facilitators of new entry. Without generalizing, there are some obvious examples, like Amazon's Web Services, that reduce the cost to smaller entrants of obtaining scale in backbone technology, or Google's making it easier for users to find new entrants that otherwise have to overcome the problem of anonymity.

In fact, to the extent that lack of information is a real entry barrier, the role of incumbent intermediaries in reducing search and other information costs (like providing reputation markets, etc.) can actually operate to *overcome* entry barriers. It is crucial in assessing the extent to which data might operate as a barrier to also assess the mechanisms it enables for reducing barriers, even for a company's direct competitors.

As suggested by the U.S. *Microsoft* court, however, the relevant question concerns not the "initial acquisition of monopoly power"; it concerns a company's "efforts to maintain this position through

means other than competition on the merits.”²² It is, presumably, possible for a company to deploy, use, or limit access to data in order to impede competition at the platform level, rather to compete – but this doesn’t convert data into an entry barrier *per se*.²³

B. Second, data is useful to all industries — this is not a new phenomenon particular to online companies

The market for data, even if narrowly described as data for targeted advertising, is much broader than the online world. Offline retailers have long used data about consumers to better serve them. Through devices like coupons and loyalty cards (to say nothing of targeted mailing lists and the age-old practice of data mining check-out receipts), brick-and-mortar retailers can track purchase data and better serve consumers.²⁴ Not only do consumers receive better deals for using them, but retailers know what products to stock and advertise and when and on what products to run sales.

And of course there is a host of others uses for data, as well, including security, fraud prevention, product optimization, risk reduction to the insured, knowing what content is most interesting to readers, etc. The importance of data stretches far beyond the world of online advertising, and far beyond mere retail uses more generally.

C. Third, it’s not the amount of data that leads to success but how you use it

Information is important to companies because of the value that can be drawn from it, not for the inherent value of the data itself. Companies don’t collect information about you to stalk you, but to better provide goods and services to you.

Consider companies like Uber, Lyft and Sidecar that had no customer data when they began to challenge established cab companies that *did* possess such data. If data were really so significant, they could never have competed successfully. But Uber, Lyft and Sidecar have been able to effectively compete because they built products that users wanted to use²⁵ – they came up with an idea for a

²² *United States v. Microsoft Corp.*, 253 F.3d at 56.

²³ It should also be noted that examples of conduct that might amount to the erection of unjustified barriers to competition are few and far between, and may not even be identifiable in actual markets. See, for example, Rubinfeld & Gal, *supra* note 16, which attempts to canvass possible “behavioral” data barriers, but essentially identifies only a limitation imposed on a national census form as a constraint employed without business justification. *Id.* at 363.

²⁴ See, e.g., Nancy Kross, *Big Data Analytics Revolutionizing The Way Retailers Think*, BIDNESS ETC (Jun. 26, 2014), <http://www.bidnessec.com/business/big-data-analytics-revolutionizing-the-way-retailers-think/>; Dianne Heath, *How Panera Uses Rewards Card to Increase Customer Loyalty & Attract Customers*, ANALYST DISTRICT (Nov. 4, 2011), <http://www.analystdistrict.com/2011/11/panera-increase-customer-loyalty.html>.

²⁵ See Karen Mathews & Verena Dobnick, *Uber Cars in New York Now Outnumber Yellow Cabs*, HUFFINGTON POST (Mar. 19, 2015), http://www.huffingtonpost.ca/2015/03/19/new-york-citys-storied-y_n_6900980.html.

better mousetrap. The data they have accrued came *after* they innovated, entered the market and mounted their successful challenges – not before.

In reality, those who complain about data facilitating unassailable competitive advantages have it exactly backwards. Companies need to innovate to attract consumer data, otherwise consumers will switch to competitors (including both new entrants and established incumbents). As a result, the desire to make use of more and better data *drives* competitive innovation, with manifestly impressive results: the continued explosion of new products, services and apps is evidence that data is not a bottleneck to competition but a spur to drive it.

D. Fourth, competition online is one click or thumb swipe away; that is, barriers to entry and switching costs are low

Somehow, in the face of alleged data barriers to entry, competition online continues to soar, with newcomers constantly emerging and triumphing. This suggests that the barriers to entry are not so high as to prevent robust competition.

Again, despite the supposed data-based monopolies of companies like Facebook and Google, there exist powerful competitors in the marketplaces they compete in. Among many examples:

- If consumers want to make a purchase, they are more likely to do their research on Amazon than Google.²⁶
- Google flight search has failed to seriously challenge – let alone displace – its competitors, as critics feared. Kayak, Expedia and the like remain the most prominent travel search sites – despite Google having *literally* purchased ITA’s trove of flight data and data-processing acumen.²⁷
- Pinterest, one of the most highly valued startups today,²⁸ is now a serious challenger to traditional search engines when people want to discover new products.
- Likewise, Amazon recently launched its own ad network, “Amazon Sponsored Links,” to challenge other advertising players.²⁹

²⁶ See Rolfe Winkler, *Amazon vs. Google: It’s a War for Shopping Search*, WALL ST. J. (Dec. 13, 2013), <http://www.wsj.com/articles/SB10001424052702304173704579265421113585650>.

²⁷ See Rob Pegoraro, *Remember When Google Was Going to Annex the Travel-Search Industry?*, PROJECT-DISCO (Jun. 4, 2013), <http://www.project-disco.org/competition/060413-remember-when-google-was-going-to-annex-the-travel-search-industry/>.

²⁸ See Yoree Koh, *Pinterest Valued at \$11 Billion After Latest Funding*, WALL ST. J. (Mar. 16, 2015), <http://www.wsj.com/articles/pinterest-raises-367-million-at-11-billion-valuation-1426538379>.

²⁹ See Mark Sullivan, *Amazon’s new ad network has a secret weapon against Google AdWords: shopping data*, VENTURE BEAT (Aug. 23, 2014), <http://venturebeat.com/2014/08/23/amazon-will-use-shopping-data-to-target-ads-better-than-googles-adwords/>.

Even assuming for the sake of argument that data creates a barrier to entry, there is little evidence that consumers cannot easily switch to a competitor. While there are sometimes network effects online, as with social networking, history still shows that people will switch. MySpace was considered a dominant network until it made a series of bad business decisions and everyone ended up on Facebook instead.³⁰ Similarly, Internet users can and do use Bing, DuckDuckGo, Yahoo, and a plethora of more specialized search engines on top of and instead of Google. And Google itself was once an upstart new entrant that replaced once-household names like Yahoo and AltaVista.³¹

E. Fifth, access to data is not exclusive

Critics have compared Google to Standard Oil and argued that government authorities need to step in to limit Google's control over data.³² But to say that data is like oil betrays a serious misunderstanding. If Exxon drills and extracts oil from the ground, that oil is no longer available to BP. Data is not finite in the same way. Google knowing my birthday doesn't limit the ability of Facebook to know my birthday, as well. While databases may be proprietary, the underlying data is not. And what matters more than the data itself is how well it is analyzed.

This is especially important when discussing data online, where multi-homing is ubiquitous. Multi-homing can be accomplished by tools like the friend-finder feature on WordPress to search out Facebook friends, Google connections, and Twitter followers who also use the site for blogging. Most popular platforms make such APIs available to all comers, effectively permitting the transfer of large swaths of data to competitors.

Moreover, the recently announced merger between Verizon and AOL may be a harbinger of yet another source of competition for data for online advertising. As a recent NYT story details:

People in the ad-tech industry said that in buying AOL, Verizon's immediate goal may be to marry its data about customers to AOL's capacity to serve ads to increase this sort of relevancy.

"I think AOL was a little on their back foot on mobile," said Ari Paparo, chief executive of an ad technology company called Beeswax. He added that the most successful companies with mobile ads tended to be those that knew a lot about their customers — that explains

³⁰ See So What "Really" Happened To and What's Happening With MySpace?, NETWEEK (May 17, 2013), <http://www.thesba.com/2013/05/17/so-what-really-happened-to-and-whats-happening-with-myspace/>.

³¹ See Geoffrey A. Manne & William Rinehart, *The Market Realities that Undermined the FTC's Antitrust Case Against Google*, 2013 HARV. J. L. & TECH. 1, 14-17 (Online Paper Series, July 2013), available at <http://jolt.law.harvard.edu/antitrust/articles/ManneRinehart.pdf>.

³² Nathan Newman, *Taking on Google's Monopoly Means Regulating Its Control of User Data*, HUFFINGTON POST (Sept. 24, 2013), http://www.huffingtonpost.com/nathan-newman/taking-on-googles-monopol_b_3980799.html.

why Google and Facebook, which have close to perfect insight into what we do online, are such powerhouses.³³

Mobile ISPs like Verizon already have access to considerable data about consumers, likely at least comparable to what Google and Facebook have. What's more, mobile ISPs have uniquely good access to location data, increasingly the coin of the realm in a world where the most important and valuable consumer interactions are shifting to mobile. As suggested above, if there was a "barrier" to Verizon competing with other online platforms it almost certainly arose from the absence of an effective *use* of its data, not from any lack of data itself.

IV. Conclusion

Privacy advocates have thus far failed to make their case. Even in their most plausible forms, the arguments for incorporating privacy concerns into antitrust do not survive legal and economic scrutiny. In the absence of strong arguments suggesting likely anticompetitive effects, and in the face of enormous analytical (and thus error cost) problems, privacy should remain a matter of consumer protection, not of antitrust.

³³ Farhad Manjoo, *For Verizon and AOL, Mobile is a Magic Word*, THE NEW YORK TIMES (May 12, 2015), <http://www.nytimes.com/2015/05/13/technology/verizons-data-trove-could-help-aol-score-with-ads.html>.