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Antitrust for Internet Giants

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ANTITRUST FOR INTERNET GIANTS

ABSTRACT

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There can be no doubt that the FANG companies – Facebook, Amazon, Netflix and Google, as well as Twitter – have transformed society since their emergence. Like all social transformations, the changes wrought by their services have had ripple effects that are both positive and negative. On the positive side, soaring consumer access to information, news, social networks, and entertainment has been stimulated by the ever-more ubiquitous and falling prices of broadband fixed and mobile bandwidth. E-government has transformed the delivery of public services.

However, negative effects have likewise been stark. Certainly, there have been huge disruptions caused by e-commerce. Retail industries, industrial supply chains, banking and publishing are just a few obvious examples. State tax collectors are fighting the loss of sales tax collections. These problems tend to get highlighted by the losers from the process of “creative destruction.”

Because Facebook and Google are two-sided markets, their economic rents are “hidden” from the public. On the user side of the market, prices are zero – “free.” The other side, advertising rates are “hidden.” Facebook’s and Google’s revenues are derived from advertising which appear when you go to their sites. They can extract exorbitant prices for ads, since they are virtually the only source that can target ads directly to potential clients. Because these companies can identify you, the ads can be targeted to your specific wants and needs, even creating “wants and needs” based on your profile. So, what the “customer” – you – perceived as free is not. Indeed, you are the commodity being sold to the advertisers.

While Facebook and Google Herfindahl-Hirschman indices (HHI) are high, indicating a concentrated market or highly concentrated market by several different definitions of their markets. For example, Google has 93 percent of the search market. Combined Google and Facebook currently control over half of digital advertising and one-third of total advertising. Nevertheless, no serious antitrust case or legislation has addressed this monopoly power.

This paper examines the antitrust cases against Facebook and Google. In this paper, we attempt to go back to first principles to discern whether there is a more appropriate approach to examine the underlying economics of these industries in the hopes that tools can be applied that more directly address the problems,

KEYWORDS:

Advertising, antitrust, competition, internet, media, regulation, pricing.

JEL:

D4, K2, L1, L2, L5, L9

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OVERVIEW/INTRODUCTION

There can be no doubt that the FANG companies¹ – Facebook, Amazon, Netflix and Google, as well as Twitter – have transformed society since their emergence all social transformations, the changes wrought by their services have had ripple effects that are both positive and negative. On the positive side, soaring consumer access to information, news, social networks, and entertainment has been stimulated by the ever-more ubiquitous and falling prices of broadband fixed and mobile bandwidth. E-government has transformed the delivery of public services.

However, negative effects have likewise been stark. Certainly, there have been huge disruptions caused by e-commerce. Retail industries, industrial supply chains, banking and publishing are just a few obvious examples. State tax collectors are fighting the loss of sales tax collections. These problems tend to get highlighted by the losers from the process of “creative destruction.”

The use of social media on Facebook and Twitter, in particular, to spread misinformation and facilitate fraud has raised legitimate concerns about their responsibility for undermining democratic institutions, instigating cyber-bullying, enabling identity theft and distorting public opinion. On the other hand, social media has also facilitated the Arab Spring, the Orange Revolution, and March for our Lives. Policy makers and regulators are caught between conflicting values of free speech and expression on the one hand and the desire to mitigate these and other injuries to social and government institutions on the other. One can hardly pick up a newspaper or business magazine without multiple references to allegations of privacy intrusions made possible by Facebook.

The size and ubiquity of these undertakings have caused many to turn to antitrust and competition policy as a tool to address these issues. The European Union famously forced Microsoft to separate its media player from its operating system.² That case addressed the classic competitive violation of tie-in sales. More recently, the European Commission has alleged that “... Google treats and has treated more favorably, in its general search results pages, Google's own comparison shopping service "Google Shopping" and its predecessor service "Google Product Search" compared to rival comparison shopping services.”³

Conventional antitrust and competition policy tools are probably suitable for addressing conventional problems of customers – facing abuse of dominance. Discrimination, tie-in sales, monopolistic pricing, and merger analysis seem amenable to such approaches.

¹ Facebook, Amazon, Netflix, and Google are referred to by the acronym FANGs (in Europe, Apple and Microsoft are added to the list and are referred to as GAFAMs).

² Commission Decision, 24 March 2004, Case COMP/C-3/37.792 Microsoft.

³ Commission Sends Statement of Objections to Google on comparison shopping service Brussels, 15 April 2015.

However, these are generally not the issues that have aroused such concern about these undertakings. Indeed, it often seems that, lacking more direct tools to address the social problems raised by social media and information technology, authorities turn to antitrust proceedings as a way to assert authority and exert some control. “When one’s only tool is a hammer, all problems are treated as nails.”⁴

The paper is divided into five sections beginning with this Overview/Introductory section. The next section describes the market failure: Why and how Facebook and Google are an economic threat and why economic incentives promote anticompetitive behavior. The third section estimates the magnitude of the markets. What are the reaches of these firms? The fourth section addresses market structure: Are these firms dominant, do they have significant market power. The HHI indices suggest they do. The fifth section suggest remedies and solutions. And why remedies require more than the internal controls that have been proposed by the firms. The last section summarizes and makes tentative conclusions.

THE MARKET FAILURE?

For Facebook, Twitter, and perhaps Google, the relevant market failure is not that they are natural monopolies in the traditional utility sense, i.e. enjoying ever-declining average and marginal costs throughout the extent of the market.⁵ That is a supply-side concept. Rather, they gain their position from the existence of positive externalities, i.e. network effects, such that the service becomes more valuable to users, the more users there are. Adding users makes the service more valuable, which attracts more users, which makes it more valuable, etc. The expansion of network effects is underpinned by a business model that provides their services free to end users and relies on advertising revenues. This is a demand-side concept.

By contrast, Amazon’s revenues are derived from two lines of business: its e-commerce role that relies on rock-bottom pricing and a low-cost distribution system, and its cloud computing platform, Amazon Web Services. Amazon’s strategy unleashed a wave of creative destruction on brick-and-mortar shops, but their e-commerce is more like a modern version of the Sears catalog. If Amazon has an unfair advantage over conventional retail rivals like Walmart, it may arise from sales tax advantages from doing business online. On the other hand, it incurs shipping costs that foot traffic stores avoid. It is hard to discern a significant market failure there. However, what is overlooked is the power of the information it has on users and potential competitors; the integration across businesses, and control of the platform infrastructure (Khan 2017). In some cases Amazon, the traditional tools of antitrust abuses do

⁴ For a particularly explicit example, see “The tech titans must have their monopoly broken – and this is how we do it” Vince Cable, *The Guardian* 20 Apr. 2018 https://www.theguardian.com/commentisfree/2018/apr/20/tech-monopoly-apple-facebook-data-extreme-content?utm_source=esp&utm_medium=Email&utm_campaign=GU+Today+USA+-+Collections+2017&utm_term=272129&subid=4050296&CMP=GT_US_collection. [6.05.2018]

⁵ That is not to say that these firms do not exhibit economies of scale and scope, but this is not their main competitive advantage.

fit. In a recent French case, the Competition Council applied the usual tools and arrived at a finding that the allegations of abuse of dominance by Amazon were unfounded.⁶ However, Khan has made a compelling case that antitrust should be applied to Amazon, but the model should not be based on the Chicago School’s model of consumers’ harm. Structure, conduct and performance – metrics of old – should be applied. One of the issues is that policy makers have not viewed the internet platforms as two-sided markets.

Netflix relies on content licensing and recently, self-provision of content combined with access to broadband capacity paid for by broadband subscribers to deliver traditional TV and movie content, replacing the cable TV and Over-the-Air networks with the internet. The enormous demand for entertainment services has driven noted increases in the demand for broadband network capacity. Disputes arise from accusations that network operators must invest in broadband capacity that enables Netflix and YouTube, for which those and similar companies do not pay. Yet, since the capacity is paid for by broadband end-users, these accusations seem strategically designed to allow more value capture by networks of the returns to investments made by the Over-the-Top (OTT) operators such as Netflix and YouTube.

Antitrust and Competition laws are suitable as *ex post* tools to remedy abuses of dominance that are structural and enduring, i.e. that will not be quickly remedied by market forces through new entry or the actions of rivals.

WHAT ARE THE RELEVANT MARKETS?

Magnitude of Markets:

The percentage of the population that uses social media has grown dramatically over the last decade. In the United States, as of 2015, data indicate that over eighty percent (81%) of the adult population use social media (Statista 2018) (Figure 1). When one examines what sites are visited, Facebook dominates, with twice as many visits as any other site (Figure 2).⁷

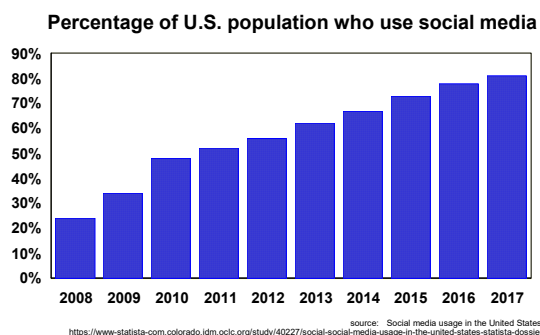


Figure 1. Population who use Social Media in the U.S.

⁶ <https://concurrency.public.lu/content/dam/concurrency/fr/decisions/abus-de-position-dominante/2017/decision-2017-c-02/decision-2017-C-02-version-publique.pdf>. A summary is available in English at <http://www.mondaq.com/404.asp?404;http://www.mondaq.com:80/x/621960/Antitrust+Competition/Rejection+Of+Competition+Law+Complaint+Against+Amazon&login=true>.

⁷ Recall, Facebook owns Instagram, which ranks fifth in visits.

Leading social networking sites in the United States in June 2015, based on visitor numbers (in millions)

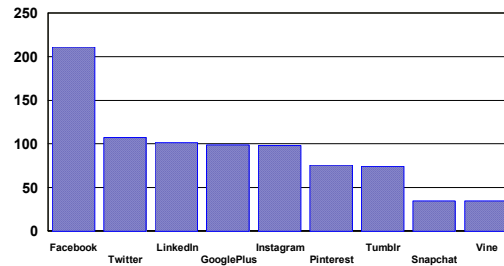
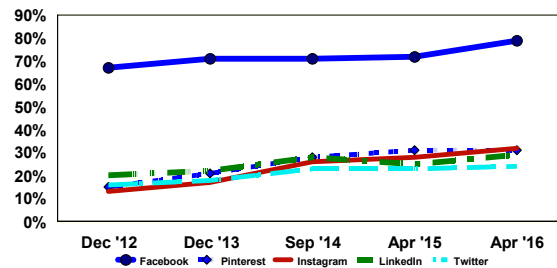


Figure 2. Visitors to Social Network Site in the US

Facebook also dominates the users of social media. Nearly eighty percent (79%) of users belong to Facebook while less than one-third of the users have accounts on the other social media sites (Figure 3).

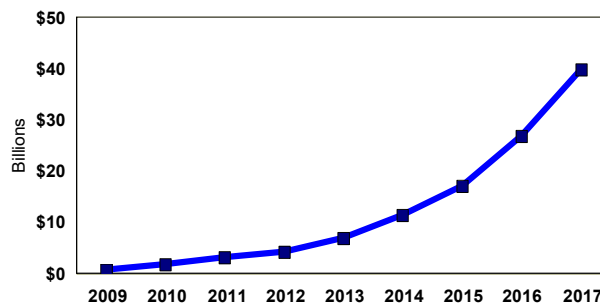
Percentage of U.S. internet users



source: Social media usage in the United States
<https://www-statista-com.colorado.idm.oclc.org/study/40227/social-social-media-usage-in-the-united-states-statista-dossier/>

Figure 3. Percentage of US Users belong to a Social Media Site

Facebook's advertising revenue worldwide



source: Social media usage in the United States
<https://www-statista-com.colorado.idm.oclc.org/study/40227/social-social-media-usage-in-the-united-states-statista-dossier/>

Figure 4. Facebook's Advertising Revenue

In these terms, Facebook dominates the field, and this is reflected in its revenue of nearly 40 billion dollars (Figure 4).

With respect to search, Google dominates with over three-quarters (75.8 %) of the search advertising revenue Figure 5. Some estimates suggest it is even higher, approximately ninety percent. On the other hand (being good economists), Khan (2018) reports that Amazon is

Googles’ biggest rival in terms of search. Forty percent of product search begins with Amazon (Khan 2017).

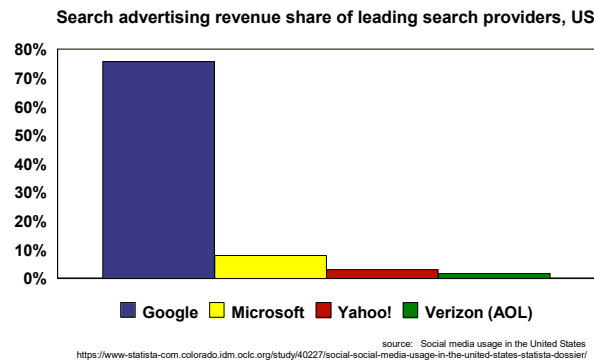


Figure 5. Search Market Revenue Share, US

The Product Market:

It is the usual practice with advertising-supported business models to talk about a two-sided market. The downstream market represents the end-users-buyers of retail services – information, entertainment and communications services. The upstream market represents the wholesale buyers of advertising that targets the users of those services. The fragility of this dichotomy is evident once one realizes that Facebook, Google and Twitter provide their services to end users for free. (Netflix’s business is based on subscription fees. Amazon Prime is also subscription based.) The product provided is the information about end-users that is provided to advertisers. The users’ data profiles are the product, and the advertisers are the customers. So, it is plausible to define the product market as advertising.

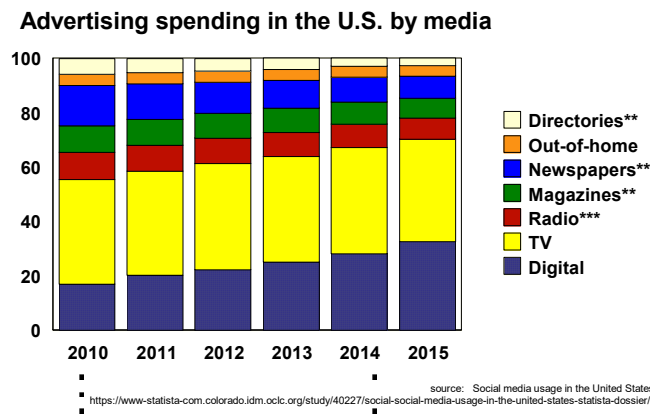


Figure 6. Advertising spend in the U.S. by media

As shown in Figure 6, the percentage of digital advertising has been growing, primarily, at the expense of TV and newspapers. Digital’s has doubled between 2010 and 2015 – growing to one-third of the US market as of 2015. At that growth rate it could reach 50 percent of the total advertising revenue.

But is a product market definition of “advertising” too broad? Many commentators focus on “digital advertising” by which they seem to mean online advertising. This approach places online advertising in a separate product market from direct mail, print, outdoor, and broadcast advertising. And it is in the realm of online advertising that the greatest complaints about privacy have emerged, because of “big data” generated by tracking of searches.

There are consumer benefits from receiving targeted information. Advertisers have always used markers like age, income, residency areas, etc. to target commercial messages. But with online usage data, that information can now be pinpointed and customized to the individual’s current and anticipated needs and wants. To the consumer, this looks a lot like surveillance, but the difference is in the end use of the data. Selling by firms is not the same as surveillance by governments. As long as consumers are not compelled to buy a product, the negative social effects of advertising in the form of on screen clutter or pop ups may be outweighed by the consumer and producer surplus that results from the substantially reduced search costs on both sides. However, this information is also a tool used by the platforms to support their other business, inhibit competition, unearth competitive intelligence, etc.

With this in mind, the research question that emerges is whether the cross-elasticity of the “probability of purchase” between traditional media and digital media is so low that the two may be considered different products. It may be that the cross-elasticity is not symmetric, i.e. that digital advertising is a good substitute for traditional advertising, but not vice versa. We saw a similar debate between dial-up internet access and broadband internet access. Broadband is a substitute for dial-up, but not vice versa.

The Geographic Market:

It is hard to discern geographic markets on the internet. Most often, these are defined by legal or political jurisdictions rather than strictly by markets. However, it is possible to analogize from television advertising. Traditionally, some advertisers undertake nationwide campaigns, some are regional, and some are targeted very locally. The scope of an ad campaign depends on estimates of the “probability of purchase” on the part of targeted customers. There is no point in advertising your bookstore in Portland to viewers in Calgary. However, with the rise of the internet, the scope of advertising has become national, if not international. A buyer of a used car in Colorado can search for sellers in Florida on CarMax, for example. Political ads, even for national office, are targeted at local or regional viewers who vote in districts that are often gerrymandered. The probability of purchase calculation for advertisers has become nationwide if not worldwide.

The Temporal Dimension:

Markets change over time, usually as a result of entry and/or exit, often as a result of changes in technology, sometimes as a result of changes in consumer tastes and sometimes due to regulatory intervention. With the success of Facebook, it is hard to remember firms like MySpace; Firefox/Mozilla has largely displaced Netscape; Napster is a distant memory. Limewire is deceased due to its violation of copyright laws. Few now worry about the market power of Microsoft. Creative destruction is a process, not an event. But network effects combined economies of scale and scope and with first mover advantages are hard to dislodge.

WHAT IS THE MARKET STRUCTURE? IS THERE DOMINANCE OR SIGNIFICANT MARKET POWER?

Google and Facebook dominate worldwide digital advertising revenues followed by Alibaba, Baidu, Microsoft, Tencent, Oath, Twitter, Amazon and Snapchat. “Other” represents under thirty percent (29.3%) of total digital advertising revenues.⁸ In the United States, Google/YouTube and Facebook/Instagram together garnered 63.1 percent of net digital ad revenues.⁹ But when the market is defined by total ad revenues, that market share drops. While it is clear that digital advertising is large and growing, it remains below traditional ad media. Traditional advertising agencies are getting squeezed, not by the advertising platforms, but by their customers shifting their advertising programs to internal staffs, and using zero-based budgeting.¹⁰ It can be reasonably argued that advertisers have many options and many also seem to have buying power.

The small-but-significant-and-non-transitory-increase-in-price (SSNIP) test, which is normally applied to test for market power as well as to define relevant markets, is not helpful in the case of retail services that have zero prices.¹¹ But it is applicable to advertising markets: If Facebook (Google, Twitter) were to permanently increase the price for advertising, would advertisers shift their purchases, either to competing venues or by reducing advertising overall? This again raises the issue mentioned above regarding cross-elasticities of demand between various types of advertising. Moreover, these elasticities may be changing over time.

HERFINDAHL-HIRSCHMAN INDEX (HHI)

In terms of “social media” share of visits, Facebook and Google’s HHI is “highly concentrated” at 2,471.¹² Each has obtained *de facto* monopoly or oligopolistic power without any concern on the part of government.¹³

Formally, Google’s Herfindahl-Hirschman index (HHI) for search is 8,476! Not surprisingly, since Google has 93 percent of the search market. Combined Google and Facebook currently control over half of digital advertising; these companies are a virtual duopoly with an HHI of 2,024. In terms of “social media” share of visits, Facebook and Google’s HHI is “highly concentrated” at

⁸ “WPP squeezed by advertisers and disruption” *Financial Times*, March 3, 2018, p. 12.

⁹ <https://www.emarketer.com/Article/Google-Facebook-Tighten-Grip-on-US-Digital-Ad-Market/1016494>

¹⁰ *Op cit.*, fn 3.

¹¹ In contrast to Amazon’s announced increase in the price on Amazon Prime by nearly twenty percent (Stewart, 2018).

¹² The United States Department of Justice would consider this to be “moderately concentrated” (HHI 1,500 to 2,000), which is considered “highly concentrated” in the United Kingdom. The threshold for “highly concentrated” is 2,500 in the United States.

¹³ Microsoft was subject to a United States antitrust suit initiated in 1998, which it overcame. The Europeans have been more vigorous and successful in the pursuit of “bad” behavior on the part of Frightful Five.

2,471.¹⁴ Each has obtained *de facto* monopoly or oligopolistic power without any concern on the part of government.¹⁵

However, “bigness” is not *per se* bad under United States antitrust laws; thus, conduct must be examined.¹⁶ Moreover, information is a different kind of product from the industrial and manufacturing sectors for which antitrust was designed. Nevertheless, these firms have the power to constrain trade by: The control of the digital platforms, predatory pricing of their services to potential competitors, and purchasing of potential competitors or emulating their services on their larger platform¹⁷. But yet, a serious look at the antitrust policy has not taken place. Control over the digital platform means that Facebook and Google (and the other major FANGs) have an essential infrastructure facility that potential rivals need. Because of network effects the companies can achieve economies of scale and scope, lowering costs and making it more difficult for rivals to enter. It also incents them to practice predatory pricing, since it both extends their network, lowering their cost and punishing rivals. Moreover, while the antitrust laws may apply to some aspects of their business, this analysis shows that the laws have not kept pace with digital technology.

REMEDIES AND SOLUTIONS

Internal Tools

Manjoo & Roose (2017) asked nine experts how to fix Facebook – solutions which could be relevant to the other FANGs. The experts suggested a series of, primarily, internal tools. Filters, transparency, and verifiable identity were among the suggestions. The FANGs could provide filters to keep out unverified accounts, as proposed by Kevin Kelly. Something analogous to a do-not-call list could be developed by the firms. In addition, he proposes the identity of the person be verifiable. etc. Ro Khanna suggests more transparency as does Eli Pariser: How their algorithms work to determine “news” feeds, what advertisers use to target you? Tim Wu has proposed that Facebook become a public benefit corporation. He has also proposed that rather than being free, the users should pay a subscription for their service. All of these would require good will on the part of the platform, which is problematic as demonstrated by Facebook, Google and others in conforming with the current rules.¹⁸

Antitrust

One method of ameliorating some of the issues would be to enact an antitrust suit against the FANGs, although, based on the lack of action on the various acquisitions of FANGs, this is not a realistic strategy. Amazon’s behavior illustrates how antitrust policy has been eroded. Amazon

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¹⁵ Microsoft was subject to a United States antitrust suit initiated in 1998, which it overcame. The Europeans have been more vigorous and successful in the pursuit of “bad” behavior on the part of Frightful Five.

¹⁶ Douglas, William (1948) Dissenting opinion in *United States v. Columbia Steel Co* United States Supreme Court. caselaw.findlaw.com/us-supreme-court/334/495.html#t2 [2.01.2018]

¹⁷ The most notable case in Snapchat which rejected a bid from Facebook only to see its service emulated in Facebook’s Instagram purchase for one-billion dollars, crippling Snapchat.

¹⁸ See Singer (2018) for the several violations of regulatory rule by Facebook and Google.

practices predatory pricing, thwarts competition, creates barriers to entry, but the current view of antitrust law, the neoclassical one, does not consider these practices deleterious (Khan, 2017). As noted earlier, the Department of Justice (DOJ) and the Federal Trade Commission (FTC) only view one side of the market. But if these regulatory units were to look more closely at the old tools of antitrust – structure, conduct and performance – they might have a different view.

Subscription/ Public Benefit Corporation

Tim Wu (2018) has suggested the nonprofit, subscription model set up on the model of Public Broadcasting. He notes the difficulty of overcoming the network effect of Facebook's two billion plus users but notes Snapchat and Lyft have had some success in other arenas when facing larger competitors. It would be compatible with his proposed public benefit corporation. While competition could ameliorate many of the issues, it would be difficult, not only swimming upstream against network effects, but against all the other lines of business in which Facebook is involved.

European Union Example

The European Union (EU) has implemented the General Data Protection Regulation (GDPR), effective 25 May 2018 which protects users' data. It is aimed at giving users control over their data, including the right to be forgotten. It has prohibitions on export of the data out of the EU. It requires timely notification for data breaches, etc. (European Parliament 2016). While this type of regulation/legislation would be a step forward, it would not be a panacea. Facebook has modified its terms-of-service to take 1.5 million of its users out of these requirements (Bennhold 2018).

Regulation: Media not platform

The FANGs have continually indicated that they are not media companies, but rather platforms. By claiming platform status, they have no legal requirement to curate or censor any content. Whereas if they are defined as media companies, they would be more subject to regulation, as are the components of the television and radio industries. In particular, they would be required to identify sponsors of political and issue ads, verifiable accounts, and would be possibly liable for defamation, etc. A realistic case can be made that they are, indeed, media companies and therefore should be subject to similar constraints as broadcasters. This status would be one step toward transparency, which gets to the heart of the threat embodied by these firms.

SUMMARY/TENTATIVE CONCLUSIONS

Traditional antitrust tools rely heavily on static economic analysis to determine relevant markets and assess market power. Careless accusations of monopoly can lead to policy errors that undermine the dynamism of technological change and reduce consumer welfare. Technology is generally expanding the geographic scope of the market for advertising, diminishing market shares of existing firms. In a dynamic environment, antitrust oversight is necessary, but should be cautiously applied. It is not clear what thresholds of market share are sufficient to deliver market power.

Under these conditions, antitrust analysis is a poor tool as posited by the Chicago School. The precedent of imposing behavioral obligations on operators found to possess Significant Market

Power (SMP) was established in the telecom industry for purposes of establishing interconnection between incumbents and new entrants. Such an approach should be examined for FANG companies.

The valid criticism of the FANG companies, though stated in terms of their abuse of market power, is really about the social impacts of the changes brought about from the use of “big data” advertising techniques being applied to political and social institutions. In economic terms, such techniques applied to commerce have probably been positive on net. But in social terms, when they are used to spread propaganda, false or misleading “news” and/or advertising that undermines social and political norms and institutions, their activities seem better addressed in terms of fraud and/or consumer protection statutes. Treating the firms as media companies, i.e. following similar disclosure rule on advertising: Who is paying, are they real people, are they promoting “hate-speech” or discrimination, etc. Whether these legal tools at present are sufficiently robust to prevent or punish such behavior is a matter for legal analysis, but the swell of discontent and even outrage suggests that they are not. Even if legal and regulatory tools are believed to be sufficient and trusted, they must be accompanied by the political will and adequate resources to apply them. In the United States, this responsibility currently lies with the Federal Trade Commission.¹⁹

¹⁹ A New Day Is About to Dawn at the FTC. What's Next? by Allison Schiff // Tuesday, January 30th, 2018
<https://adexchanger.com/politics/new-day-dawn-ftc-whats-next/>

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