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Conference Paper

Antitrust Failures: The Internet Giants

29th European Regional Conference of the International Telecommunications Society (ITS): "Towards a Digital Future: Turning Technology into Markets?", Trento, Italy, 1st - 4th August, 2018

Provided in Cooperation with:

International Telecommunications Society (ITS)

Suggested Citation: Taschdjian, Martin; Alleman, James (2018): Antitrust Failures: The Internet Giants, 29th European Regional Conference of the International Telecommunications Society (ITS): "Towards a Digital Future: Turning Technology into Markets?", Trento, Italy, 1st - 4th August, 2018, International Telecommunications Society (ITS), Calgary

This Version is available at: https://hdl.handle.net/10419/184969

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ANTITRUST FAILURES: THE INTERNET GIANTS

ABSTRACT

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Facebook, Amazon, Netflix and Google, as well as Twitter – the FANG companies – have transformed society with both positive and negative effects. Soaring consumer access to information, news, social networks, and entertainment has been stimulated by the ever-more ubiquitous and falling prices of broadband services. 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. State tax collectors are fighting the loss of sales tax collections.

Because Facebook and Google 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.

Because Facebook and Google are two-sided markets, their economic rents are "hidden" from the public (and, apparently, from the antitrust authorities). 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 appears 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.

This paper examines the potential for antitrust cases against Facebook and Google as a response to their perceived threats to consumer privacy, political influences and advertising dominance. The argument for antitrust action against them is based on the following arguments. Formally, their Herfindahl-Hirschman index (HHI) for search is 8,476. Combined they currently control over half of US digital advertising; these companies together have an HHI of 2,024. In terms of "social media" United States share of visits, Facebook and Google's HHI is "highly concentrated" at 2,471. Each has obtained *de facto* monopoly or oligopolistic power without any concern on the part of government. Their economic rents are "hidden" from the public because their revenues are derived from advertising which appear when you go to their sites. Thus, they can extract exorbitant prices for ads.

Facebook and Google Herfindahl-Hirschman indices (HHI) are high, indicating a concentrated market or highly concentrated market by several different definitions of their markets. Nevertheless, no serious antitrust case or legislation has addressed this monopoly power.

KEYWORDS:

Advertising, antitrust, competition, internet, media, regulation, pricing, two-sided market.

JEL:

D4, K2, L1, L2, L5, L9

ANTITRUST FOR INTERNET GIANTS

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. 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). One might include Twitter in the list.

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."

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.⁶ 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

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/techmonopoly-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.

⁶ Another way to look at it is that users of these 'free' services are actually participating in a barter market, whereby you get services in exchange for the user – generated data that you provide. The economics, law and policy of barter markets deserves scrutiny, but not in this paper.

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 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. 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 policy makers not viewing 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 (Wohlsen 2014). 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 (Young 2017). 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).8

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Antitrust for Internet Giants

⁷ https://concurrence.public.lu/content/dam/concurrence/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

 $[\]frac{\text{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}.$

⁸ Recall, Facebook owns Instagram, which ranks fifth in visits.

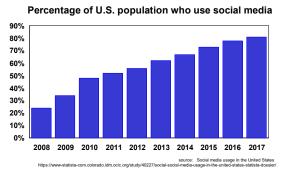


Figure 1. Population who use Social Media in the U.S.

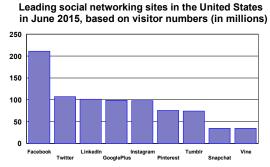


Figure 2. Visitors to Social Network Site in the US

Facebook also dominates the users of social media in the United States. 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).

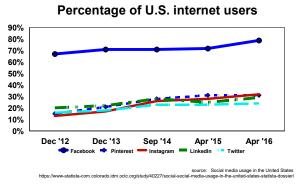


Figure 3. Percentage of US Users belong to a Social Media Site

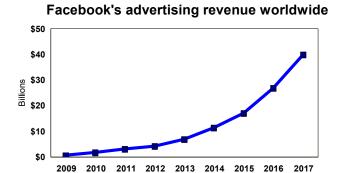


Figure 4. Facebook's Advertising Revenue

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

In these terms, Facebook dominates the field, and this is reflected in its revenue of nearly 40 billion dollars (Figure 4). Its latest results show a growth of revenue of 40 percent.

With respect to search, Google dominates with over three-quarters (75.8 %) of the search advertising revenue in the United States (see 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).

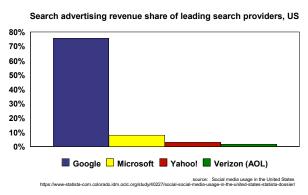
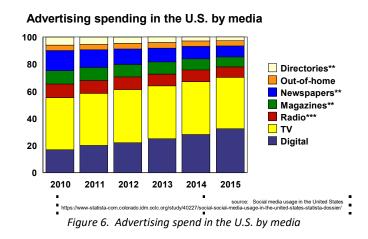


Figure 5. Search Market Revenue Share, US

The Product Market:

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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' profiles are the product, and the advertisers are the customers. So, it is plausible to define the product market as advertising.



As shown in Figure 6, the percentage of digital advertising has been growing, primarily, at the expense of TV and newspapers. Digital advertising 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 United States total advertising revenue.

But is a product market definition of "digital advertising" too narrow? Many commentators focus on "digital advertising" by which they seem to mean online advertising. This approach places online advertising in a separate product market than direct mail, print, outdoor, and broadcast advertising. Including those categories of advertising in the market definition substantially diminishes the share representing 'digital' and even more drastically reduces the shares of Facebook and Google. 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 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 product. 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 maybe 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 TV 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 economics 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?

Two-sided market

Under the Chicago School doctrine, the Department of Justice (DOJ) and Federal Trade Commission (FTC) do not see any consumer harm, since the consumers' price is zero with Facebook and Google (Khan 2017, Bork 1993). They are not, apparently, aware of the research over the last decades on two-sided market (Parker, *et al.* (2005).

A two-sided market is one in which the firm sells to the consumer on one-side and the advertiser, for example, on the other side. Newspapers are among many examples. In some cities, newspapers are free to the consumer, but "paid for" by the advertisers. In other cases both sides of the market have a positive price. The former, free to the consumer, represents the Facebook-Google model and the latter major newspapers or the online *Wall Street Journal* model. What the DOJ and FTC have failed to consider is the second side of the market. They do not consider the harm done to the consumers by the high price of the advertising. These prices get reflected to consumers in the higher prices they must pay for the goods and services advertised.

With network effect, the rationalization for "free-to-the -user" is amplified. Since the user is, presumably, more price sensitive, lower prices on this side of the market will increase the number of users, and the value to the advertiser, the second side of the market. Google and Facebook do not have to be concerned with advertisers switching, to other platforms since they are virtually the only game in town.

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. In the United States, Google/YouTube and Facebook/Instagram together garnered 63.1 percent of net digital ad revenues. 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. 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. ¹² 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)

The Herfindahl-Hirschman index (HHI) for search is 8,476! Not surprisingly, since Google has 93 percent of the search market. Facebook and Google 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 2,471. ¹³ Each has obtained *de facto* monopoly or oligopolistic power without any concern on the part of government. ¹⁴

However, "bigness" is not *per se* bad under United States antitrust laws; thus, conduct must be examined.¹⁵ Moreover information, which is indestructible and reusable, is a different kind of product from the industrial and manufacturing sectors for which antitrust was designed. Nevertheless, these firms may have the power to constrain trade if they abuse their dominance of digital platforms to undertake predatory pricing of their services to potential competitors. They might also exclude potential competitors by acquisition or by pre-emptively emulating

⁹ "WPP squeezed by advertisers and disruption" Financial Times, March 3,4, 2018, p. 12.

¹⁰ https://www.emarketer.com/Article/Google-Facebook-Tighten-Grip-on-US-Digital-Ad-Market/1016494

¹¹ Op *cit.*, fn 3.

¹² In contrast to Amazon's announced increase in the price on Amazon Prime by nearly twenty percent (Stewart, 2018).

¹³ 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.

¹⁴ 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.

¹⁵ 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]

their services on their larger platform¹⁶. As yet, a serious look at the application of antitrust policy has not taken place. Control over the digital platform means that Facebook and Google (and the other major FANGS¹⁷) 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, which could both extend their networks, and in the presence of economies of scale, lower their cost while punishing rivals. Moreover, while the antitrust laws may apply to some aspects of their business, the laws have not kept pace with digital technology.

REMEDIES AND SOLUTIONS

Internal Tools: Promises not fulfilled

Facebook, Google and others could internally fix their problems, if they desired to, but there are no incentives for them to do so. They are always quick to apologize when they get caught doing something inappropriate, questionable, or illegal and promise to take corrective measures. However, the promises are not fulfilled in many cases. Indeed, Facebook, Google and others have not and do not conform with the current rules. How can we expect them to correct their behavior without external measures? We cannot, so we turn to external remedies.

Antitrust

Antitrust action is an obvious method to reduce the power of the giant internet platforms by breaking them up. Facebook and Google have significant market power as measured by their Herfindahl-Hirschman indices (HHI) by several different definitions of markets. They range from 8,476 for Google in the market for search to 2,024 for Facebook in the market for social media – representing "highly concentrated" to "moderately concentrated" markets, as noted earlier. They have acquired many different firms with little or no antitrust scrutiny. Many of which have become major parts of their business. Alphabet (Google) has acquired over 200 companies (Wikipedia 2018a). Facebook has acquired Instagram, WhatsApp, Oculus VR, and some sixty other companies, many of which could be spun off (Wikipedia 2018b). The breakup of these companies would be complex but feasible. Smaller firms would ameliorate some of the issues.

Unfortunately, based on the lack of action on the various acquisitions of FANGs, this may not be a realistic strategy. Amazon's behavior illustrates how antitrust policy has been eroded. It recently raised the price of Amazon Prime by 20 percent, a clear sign of monopoly power. It also 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). For Facebook and Google, the DOJ and FTC, apparently, only view one side of the market – the consumers' side – not the advertisers' side, who pay excessive prices because of the unique market position of the platforms. But if these regulatory units were to look more

¹⁶ 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, virtually destroying Snapchat.

¹⁷ 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). One might include Twitter in the list.

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

closely at the old tools of antitrust – structure, conduct and performance, as well as the advertising side of the market. – they might have a different view (See Khan 2017). Google, Microsoft, Apple have profit margins of over twenty percent; Facebook's profit margin of nearly forty percent (37 %), one can suspect these include significant monopoly rents (Figure 7).

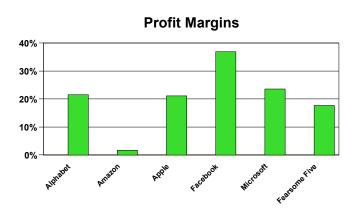


Figure 7. Profit Margins of Internet Firms

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

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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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[&]quot;Kevin and Farhad's Week in Tech: Did the 'Techlash' Matter?"

[&]quot;But, still: For all the fireworks in Washington, there's been little movement on regulation or legislation to curb some of the excesses in tech."

[&]quot;...all of the scrutiny seems to be affecting companies' public images more than their business mode."