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Threat of Internet Platforms: Facebook, Google, etc.

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THREAT OF INTERNET PLATFORMS: FACEBOOK, GOOGLE, ETC.

ABSTRACT

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Free!! Google and Facebook!!! We all know them, what to worry about? Everything!

The giants of the internet are expanding into every corner of the economy, politics and our lives. They control the majority of digital advertising; Alphabet, Google's parent, and Facebook receive more than 60 percent of digital advertising revenue (*Media Buying* 2017); Google controls over 90 percent of search on the web (Statcounter 2017); Facebook and Google represent 40% of consumption of digital content (*Economist* 2017c). Facebook dominates the social media market (Galloway 2017, p. 96); Amazon has nearly 40 percent of online Xmas sales and is destroying the traditional retail outlets (Galloway 2017, p. 28). Apple earns over 90 percent of smart phone profits, although it has less than 20 percent of the market (Galloway 2017, p. 75).

This paper will examine the threat to social order and democracy posed by Facebook and Google, as well as others in the internet space. Facebook, and Google have control over what information and news we receive though "black-box" algorithms; they select what "we need." In addition, these platforms have not taken significant measures to address "fake-news", bots, trolls, or other malicious software on the internet. Indeed, they make money off the proliferation of this misinformation. For example, even by its own calculation, "Facebook has estimated that Russian content on its network, including posts and paid ads, reached 126 million Americans, around 40% of the nation's population." (*Economist* 2017c) Up to 60 million Facebook accounts are fake, according to its own estimate (Shane and Isaac 2017). And according to the *Economist* (2017c), in the United States' presidential campaign, one out of every five political messages was posted by robots (bots) on Twitter. FANGs have a business models which encourages this type of practice (Shane and Isaac 2017). These models are designed to maximize growth and maintain users. Thus, they involve easy sign up, lack of verification of authenticity; and only, reluctantly, if at all, closing accounts with significant cause (Shane and Isaac 2017, Zittrain 2014). This paper will examine these issues in depth.

KEYWORDS: Advertising, Antitrust Policy, Democracy, Elections, Propaganda ICT, Internet Platforms, Political Economy.

JEL: K21, L1, L2, L4, L5, L9

INTERNET PLATFORMS' THREATS: FACEBOOK, GOOGLE, ETC.*

Free!! Google and Facebook!!! We all know them, what to worry about? Everything!

INTRODUCTION/OVERVIEW

The giants of the internet are expanding into every corner of the economy, politics and our lives.[1,2] They control the majority of digital advertising; Alphabet, Google's parent, and Facebook receive more than 60 percent of digital advertising revenue (*Media Buying* 2017); Google controls over 90 percent of search on the web (Statcounter 2017); Facebook and Google represent 40% of consumption of digital content (*Economist* 2017c). Facebook dominates the social media market (Galloway 2017, p. 96); Amazon has nearly 40 percent of online Xmas sales and is destroying the traditional retail outlets (Galloway 2017, p. 28). Apple earns over 90 percent of smart phone profits, although it has less than 20 percent of the market (Galloway 2017, p. 75).

These firms dominate the economy. They 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 platforms with serious antitrust policy implications. Control over the digital platform means that Facebook and Google (and the other major FANGs) have an essential infrastructure facility that potential rivals need and, thus, can command monopoly prices, making it more difficult for rivals to be economically viable. In addition, because of network effects the companies can achieve economies of scale (and scope) quickly, 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, lower their costs, thus punishing rivals. Nevertheless, antitrust laws have not been applied to their business (Khan 2017, Taschdjian & Alleman forthcoming).[3]

But just as serious, if not more so Facebook and Google – have control over what information and news we receive though "black-box" algorithms; they select what "we need" and maintain our attention with click-bait and other software tricks. In addition, these platforms have not taken significant measures to address false-news[4], bots, trolls, or other malicious software on the internet. Indeed, they make money off the proliferation of this misinformation.

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* During the writing of this paper, the news broke that 50 million (later revised to 87 million) Facebook users' data were compromised by Cambridge Analytica, a voter-profiling company, for use in the United States' Presidential elections. While a serious issue for a variety of reasons, this paper examines the threat to democracy based on the internal working of the internet platforms.

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 *The Four* by Scott Galloway (2017) gives a useful, informative and entertaining background to Amazon, Apple, Facebook, and Google.

3 The European Union has been less tolerant of some of these practices.

4 Here we refer to "real" false-news, not the legitimate news which the President co-opted and refers to as "fake." Already we are into the strength of the media in distorting facts.

This paper explores this threat to the civil society and democracy, primarily by Facebook, but also includes observations on Google and other internet platforms which exhibit similar traits.[5] While the current news is about Russia's involvement with American elections and more recently Cambridge Analytica misuse of Facebook data impacting 87 million users in the United States for a similar purpose, the problem is much deeper and more insidious than that (*Economist* 2017a). A few oligarchs have control – over our time, what we see and what we think. Using click-baits, trolls, bots, big data, and analytics they direct ads, news and propaganda with the recipients unaware of how much they are being manipulated (Wu 2016). Much more insidious than Vance Packer's *Hidden Persuaders* (1957) of the advertising industry, indeed, the FANGs are destroying the traditional advertising industry with Facebook and Google now accounting for over fifty percent of digital advertising revenue (Galloway 2017 & 2018). Facebook has a virtual monopoly on social media and Google has a monopoly on search without or little regulation, which in turn allows them to restrain and thwart competition, prevents innovation, and small firms' entry into their markets (Khan 2017; Taschdjian & Alleman forthcoming)

Facebook and Google lack of democratic (and competitive/economic) controls over their actions which makes them a power unto themselves.[6] These companies are in large part responsible for cyber-security and protection (or lack thereof), control over false advertising, "fake" news (the real fake news), *etcetera*, but do not fulfil these responsibilities. But yet, governments have no control over their actions. They are polarizing society with directed click-baits, targeted ads, focused blogs, etc. In this way they are a threat to a democratic society. When examining their business model, however, it is a result one would expect. Their incentives are to produce advertising revenue which means keeping the user on their platform, ensuring that the ads are targeted to the defined individuals (Galloway 2017 and Wu 2016)

Although it is always in the background of this narrative, others have covered the extent of the massive concentration and economic power of the FANGs – see for example, Galloway (2018 & 2017); Khan (2017)[7] and Taschdjian & Alleman (forthcoming); it will not be addressed here except to point out that it is unlikely that the FANGs will be driven out of the market anytime soon and the threat eliminated.

The paper is divided into five sections beginning with this introductory section. The next section describes, analytically, why and how the FANGs are a threat to civil society and democracy by*, inter alia,* the disregard for privacy, lack of democratic controls and polarization

[5] While paper focuses on Facebook, Google has similar issues which will be noted in passing. The other FANGs represent threats of through the control of the internet platforms, predatory pricing, anticompetitive behavior, etc. but this analysis is beyond the scope of this paper.

[6] Even their stockholders have little control over the firms since the founders' issue stock to themselves with enhanced voting rights over the common stockholder. "There is not a scintilla of doubt over who controls Facebook. Not only does Mr. Zuckerberg, its founder, serve as its CEO and chairman; owning 16% of its shares, he controls 60% of the voting authority through a special class of stock with ten times normal voting rights." (*Economist* 2107c).

[7] Khan (2017) makes a strong case for the failure of antitrust policy in the United States due to its reliance on the "Chicago School's" approach and the policymakers lack of understanding of the new technologies, particularly in the case of Amazon.

of society with directed click- baits, tolls and bots, focused "news". We discuss why economic incentives promote this behavior. And why remedies require more than the internal controls that have been proposed by the firms. The third section estimates the magnitude of the issues. What is the reach of the firms? What is the magnitude of the bots, focused ads, directed propaganda and other forms of manipulation of consumers by these firms? The fourth section suggests remedies and solutions. The last section concludes.

DESCRIPTION OF THE PROBLEM

Why?/How?

We are the input to the internet platforms – our data. It is free, we give it to them. Users are not compensated for their data, but data is valuable, particularly for advertisers. They do not need to mass market their products, but can focus their ads to a demographic which is most likely to buy their product. Facebook, Google and other platforms can use this data – our data! – and other data they have collected on us to place targeted ads when we get on their platforms. Google, Facebook and other social media have a standard profit motive. They obtain revenues and profits from advertisers. Advertisers, obviously, want to direct ads to potential purchases, and not waste their time with those who would have no interest in their products. This is what social media offer. The users of social media produce the data: their likes, previous purchases, their travel, what they have done and are doing. Moreover, they have already provided their education level, where they went to school, how old they are, where they work, and in addition, they tap into other data bases. Thus, most user provide a complete demographic profile. When coupled with large data analysis and focused algorithms, these become a gold-mine for advertising and product sales. Moreover, with access to one's mobile phone, additional data can be obtained, including current location. Thus, ads can target your location as well as preferences.[8]

This monopoly extends beyond the above-mentioned datasets because the Facebooks of the world can sweep up data about their users from other sources on the web. They can track you when you are not even using their application.[9] Thus, Google and Facebook, even if they did not have monopolistic power, can charge a premium for their advertising. Their virtual monopoly of the data allows them to charge even more, since they are virtually the only game in town (in the world!) (Shane & Isaac 2017).[10]

While the recent scandal around Cambridge Analytica has generated *mea culpa*s from Facebook and its Chair, Mr. Zuckerberg, its practices have changed little. Indeed, for over a decade the company has promised to make privacy a priority but fails to do so (Frenkel and Singer 2018).

From the advertisers' side, this focusing on users who have a high propensity to buy their products is a "dream-come-true." They do not have to waste time and resources on mass

[8] For an analysis of the plethora of data that Google and Facebook collects on its users, see Curran (2018) and Chen (2018a). To see what they collect on you, see the URLs in Curran (2018).

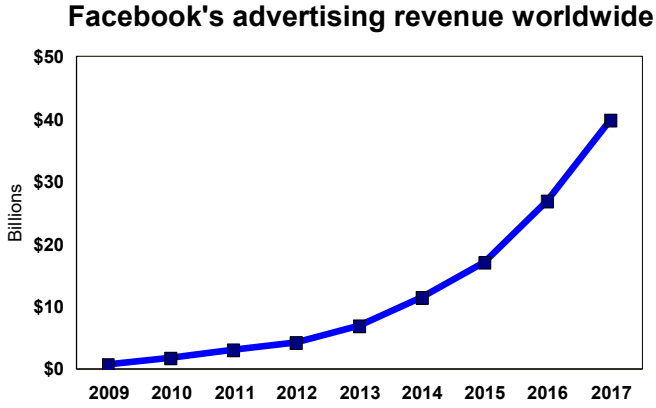
[9] Google's tracking may even be included in the customer data bill! (Reuter 2018).

[10] In addition, Facebook will reward people who generate content, whether true or false, if it retains their clients.

audiences, most of whom will not have any interest in their products nor the money to buy them. These customers are prequalified!

Incentives

From the Facebook side, the unique data set identifying potential customers can command monopoly rents from advertisers. So much so, that Facebook's worldwide advertising revenues climbed from under one billion dollars ($794 million) to nearly 40 billion dollars ($39,942 billion) billion in eight years (Statista 2018). (See Figure 1)



Source: Statista (2018)

Figure 1. Facebook's Revenue

Thus, to ensure users become buyers, the internet platforms have a strong incentive to keep the users on the system. The longer they are on platform, the greater the likelihood that they will click on an ad (meaning dollars in the pocket of the platform) and/or the purchase of a product.

Enter false news, bots, botnets, clickbaits and other techniques which retains users on the platform. In Facebook's business model, it has no incentive to eliminate false new, bots, etc. – malicious as they may be – because they help retain users on the network. Indeed, the more sensational the "news" the better. False news spreads faster and wider than real news (Vosoughi, *et al.* 2018). False news is good for profits! Moreover, fake accounts enhance profits; yes, even if they are fake! The more users on the platform, the more valuable the platform is to the advertiser.[11] Thus, the platform has no incentive to seek out, identify and remove fake accounts. The platforms wish to sign up and retain as many users as possible, because of network effects.

As noted, the lack of controls over privacy continue, in addition, Facebook and others take little or no controls over the hate speech, bogus propaganda, malicious political messages, bots and other malicious software. The firms have no incentive to stop this because it will reduce its revenue and profits. Moreover, sensational news is leveraged in its impact because it spreads faster and farther than actual news (Vosoughi, *et al.* 2018). Much of hate speech, false "news"

[11] Advertisers are beginning to question the reported audience sizes.

and propaganda is of this form. They even emulate the "tricks" used by the gambling industry to retain users' attention on their platform (Busby 2018, Schüll 2012).

MAGNITUDE

Reach

This issue would not be significant, if the FANGs were only a small part of the market for news and information, but they are not. The percentage of the population that uses social media has grown dramatically over the last decade. In the United States, as of 2015, over eighty percent (81%) of the adult population use social media (Statista 2018) (Figure 2). When one examines what sites are visited, Facebook dominates, with twice as many visits as any other site (Figure 3).[12]

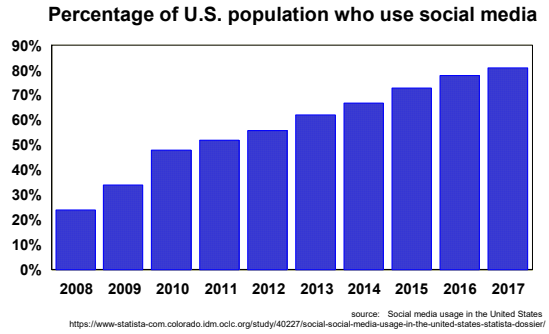


Figure 2. Population who use Social Media in the U.S.

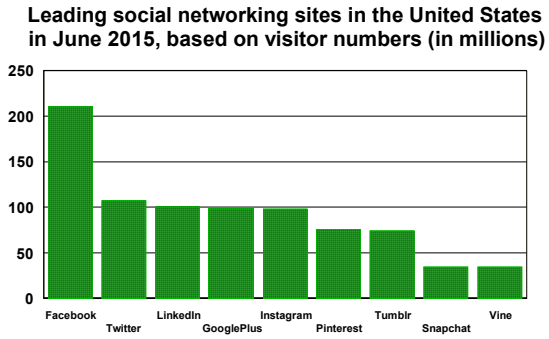


Figure 3. Visitors to Social Network Site in the US

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 the other social media sites (Figure 4).

[12] Recall, Facebook owns Instagram, which ranks fifth in visits.

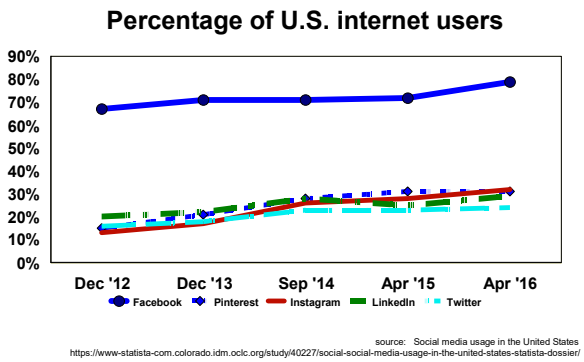


Figure 4. Percentage of US users by platform

In these terms, Facebook dominates the field and this is reflected in its revenue of nearly 40 billion dollars, as noted earlier.

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 (Galloway 2017).

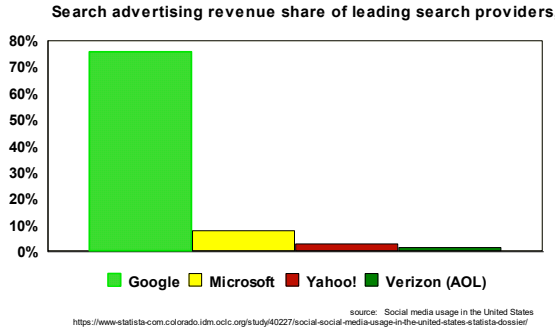


Figure 5. Search Market Revenue Share, US

Digital media has about one-third total advertising revenue; it is growing at the expense of radio and television.

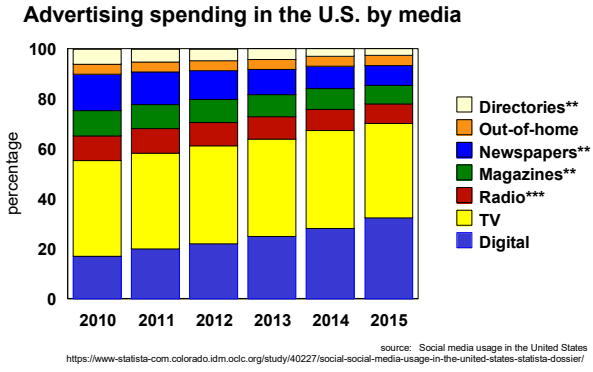


Figure 6. Advertising spending in the U.S. by Media

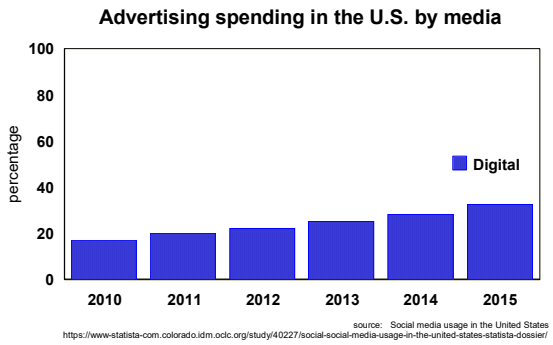


Figure 7 Percent of Digital Advertising Spending of Total

Focus/Magnitude

Up to 60 million Facebook accounts are fake, according to its own estimate (Shane and Isaac 2017).

And according to the *Economist* (2017c), in the United States' presidential campaign, one out of every five political messages was posted by robots (bots) on Twitter.[13]

Even by its own calculation, "Facebook has estimated that Russian content on its network, including posts and paid ads, reached 126 million Americans, around 40% of the nation's population" prior to the November elections (*Economist* 2017c).

This is only part of the chicanery that uses the giants of the internet platforms for malicious intent and profit. Facebook, Google and Twitter have business models which encourage this type of practice (Shane and Isaac 2017). These models are designed to maximize growth and retention of users on their sites. Thus, they involve easy sign up, lack of verification of authenticity; and only, reluctantly, if at all, closing accounts with significant cause. (Shane and Isaac 2017, Zittrain 2014)

As a result of Cambridge Analytica scandal, Facebook has tightened third-party access to its data. Thus, it will be difficult to estimate the extent of nefarious and false posting. Only self-reporting by the companies can provide additional insight, but their incentives to do so are limited. It is this opacity, coupled with their reach and economic power, which is the threat to democracy.

THREATS

Privacy

Facebook and other platforms represent a threat to democracy and social order for a variety of reasons. First is the question of privacy. Users easily agree to the terms and conditions of joining a social medium without reading through the pages of legalese which essentially forfeits their rights to the data they provide. This is the input that the platforms need to have a valuable product for their advertisers, political operatives, and "trouble-makers" so as to better target their messages. This topic has been discussed extensively in the press, so we will not go

[13] More information is coming out daily, for example the Mueller indictments of 13 Russians.

into detail here, except to note that the European Union has recognized the issue and has implemented a Regulation which will mitigate this issue.[14] Even some of the social media platforms have begun to simplify privacy settings following identification of the issue.

Lack of Transparency

The lack of transparency is another serious issue. When Russians can buy political advertising for United States' elections, the issue becomes obvious. However, it is not only Russians interference that is the issue; there is the recent exposure of Cambridge Analytica use of Facebook's data, affecting up 87 million users in the United States.[15] The latter company "...uses data to change audience behavior"[16] Policymakers were shocked because of the privacy issue, but what the company set out to do with the data was impacted US presidential election, and perhaps regional elections. Cambridge Analytica may have also have been involved in the UK's Brexit referendum and, maybe other affected areas which have not yet been revealed. But the targets had no idea they were being manipulated by Cambridge Analytica, what its biases and political agenda were and are, or who funded the effort. A central tenant of democracy is transparency. When political ads are run on broadcast television in the United States, the ad's sponsor is required to be identified.[17] This is not a requirement of internet platforms.

Yet, it has only recently been revealed that "…between January 2015 and August this year [2017], 146m users may have seen Russian misinformation on its platform. Google's YouTube admitted to 1,108 Russian-linked videos and Twitter to 36,746 accounts. Far from bringing enlightenment, social media have been spreading poison…reinforce people's biases." (*Economist* 2017a)

But only Russians? No, all sorts of groups with social or political agendas. For good or nefarious purposes, but without acknowledgement of source or group aim. As indicated earlier, social media platforms have no incentive to "police" or monitor this behavior. The latter adds to its medium count for "users" and makes the platform more valuable. It is not in the platforms' interest to control content. This has led to false news, polarization among the recipients and algorithms that amplify this polarization by directing content to those receptive to it. The internet – rather than broadening the base of news and information – has created silos of amongst its users and is certainly not creating "a well-informed electorate," as is essential for democracy. Note, this phenomenon cannot be corrected by increasing competition, because it does not change the incentives.

Let me be clear, it is not just the Cambridge Analytica or the Russians, but the internal workings and incentives of the platforms that create the problem. These former two are merely external

[14] General Data Protection Regulation (GDPR) effective 25 May 2018 protects users' data, notification for breaches, right to be forgotten, significant fines for transgressions, etc. (European Parliament 2016)
[15] *Economist* (2018f)
[16] https://cambridgeanalytica.org [28.03.2018]
[17] Internet platforms have claimed they are "just a platform," thus avoiding the reporting requirement of broadcast television.

exemplars of such. The Facebooks of the world exhibit the same behavior inside the firms as the Russians and Cambridge Analytica albeit with different motives and agendas. Indeed, the platforms are just as culpable as are Cambridge Analytica and the Russians.

This brings us to the third, and critical point: social control of these giants is lacking. Governments do not regulate these platforms in any meaningful manner. Antitrust policy has been lacking as the platforms grow, although these platforms control substantial shares of their market. As noted above, Facebook controls around 80 percent of the social media users (Figure 3) and twice as many visitor-minutes as its nearest rival (Instagram, ranked fifth, is owned by Facebook, as well) (Figure 4). And Google has virtually all of the search market (Figure 5).

Their economic rents are "hidden" from the public because their revenues are derived from advertising which appear when you go to their sites. Since they are the only game in town, they can extract exorbitant prices for ads. Moreover, 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.

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 platform.[18] But yet, a serious look at the antitrust policy and/or regulation has not taken place. No attempt has been made to keep the giants from buying potential competitors. Control over the digital platform means that Facebook and Google (and the other 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. These actions stifle innovation and competitive entry. 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/SOLUTIONS

Overview

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 algorithm works to determine "news" feeds, what advertisers use to target

[18] The most notable case is that of Snapchat which rejected a bid from Facebook only to see its service emulated in Facebook's Instagram purchase for one-billion dollars, weakening Snapchat's market and profitability.

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 fee for their service. All of these would require good will on the part of the platform, which is problematic

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 apologized 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.[19] 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. They have acquired many different firms with little or no antitrust scrutiny. Many of these 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 is not 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 (NYT 2018). 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 Department of Justice (DOJ) and the Federal Trade Commission (FTC) 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 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 and Taschdjian & Alleman forthcoming)

Regulation

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.

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

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 for the democratic issues. [20]

Germany's Hate Speech Legislation

While much has been made of the difficulty of regulation of content on the internet, Germany has led the way with a law, NetzDG, that requires the removal of hate speech and other objectionable content. After broken promises by Facebook to remove such content, Germany, fed up with the unfulfilled promises to fix problems, passed legislation which requires the removal of inappropriate content within 24 hours of receiving notification or face significant fines, up to €50 million. As a result, Facebook has some 1,500 people policing Facebook posts. While difficult to implement, regulation can be effective. (Oltermann 2018).

Media Companies –Not Platforms

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 were and are media companies, they would be subject to more regulation, as are the components of the television and radio industries. They would be required to identify sponsors of political and issue ads 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.

Subscription/ Public Benefit Corporation

Tim Wu (2018) has suggested the non-profit, 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.

SUMMARY/CONCLUSION

Facebook and Google, as well as others in the internet space, have control over what information and news we receive; but these platforms have no incentive to take measures to address "fake-news", bots, trolls, or other malicious software on the internet, nor have they. Misinformation produces profit; therefore, there is no motivation for them to change their behavior. Competition among the platforms is not a solution due to their scale, scope and network economics. Nor has the government taken significant actions to address these issues: neither antitrust, legislation nor regulation. It has been negligent in allowing mergers and acquisitions.

[20] While Mark Zuckerberg promised to abide by the spirit of GDPR, Facebook has modified its terms-of-service to take 1.5 million of its users out of these requirements (Hern 2018b).

While privacy is recognized as a significant issue, the platforms lack attention to it. Even after personal data are deleted by the user, they remain with the platform in many cases. You are not forgotten! Third parties continue to have access to users' data. Being unconstrained, they can and do discriminate in a variety of ways: Polarizing the population in terms of politics, hiring practices and apartment rentals, for example. While the public and policymakers are becoming more aware of this issue, it has not yet been addressed adequately.

The opacity of the platform algorithms is another concern: How do their systems target users, are they providing a platform for discrimination against non-whites, women, gender preference, etc. Do they promote polarization of the society? Do they distort the electoral process? We do not know and cannot know unless the platforms become transparent.

These concerns are a threat to our democracy and to civil society. The lack of governance, privacy, and transparency are an anathema to our social order. The remedies are few: antitrust, regulation or legislation, but the political bodies are not taking any action. The giants of the internet are expanding into every corner of the economy, politics and our lives. The situation is only going to get worse if it is ignored as the Facebooks of the internet expand ever deeper into the economy and politics and our lives.

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GLOSSARY

Bots (robot): Can retransmit thousands or more e-mails, e. g. Tweets of an individual's rants.

Clickbait: Think of ads that say "lose five pounds in five days;" or "Eight surprising foods that are not good for you;" or clicks that resemble headlines seen in the *National Inquirer*, for example, a famous person is pregnant or cheating on a spouse, etc.

Dox (or Doxx): "Search for and publish private or identifying information about (a particular individual) on the internet, typically with malicious intent." https://en.oxforddictionaries.com/definition/dox [21.12.2017]

"Fake News": What President Trump and his minions labels news he/they does/do not like. Not to be confused with False News, see below, which spread for propaganda purposes or other malevolent motives.

False News: False information disguised as "news" designed to persuade people of particular positions or reinforce existing believes – true of false. In sufficient magnitude it can leads to a polarization of society.

Memes: Funny images to get attention. Think of dancing cats.

Phishing: Sending e-mails pretending to be a company or someone else in order to fool the recipient into divulging personal/financial information or clicking a link to insert and virus on the recipient's computer.

Troll (Internet): "An individual who posts false accusations or inflammatory remarks on social media to promote a cause or to harass someone. The anonymity of such venues enables people to say things they would not say in person, and they often like to ratchet up emotions to generate strong reactions." https://www.pcmag.com/encyclopedia/term/68609/internet-troll [21.12.2017] Or be a malevolent agent for a cause or government.