

THE UNDERGRADUATE RESEARCH JOURNAL OF BOSTON COLLEGE

THE DEMON OF THE BELFRY

INVESTIGATING THE EVOLUTION OF THE PENNY PRESS AND THE EMMANUEL CHURCH MURDERS

ALSO FEATURING

- *The Digital Pandemic*
- *The Force on the Front*



WRESTLING WITH GIANTS

Probing the Pertinence of Antitrust Law for Big Law

LUC RIORDAN

IT IS UNQUESTIONABLE THAT THE COMPANIES THAT HOLD THE PUBLIC EYE TODAY ARE MOSTLY FROM THE TECHNOLOGY SECTOR. GROWING RAPIDLY FROM THE 1990S AND ONWARDS, THE CURRENT LEADERS IN THE FIELD NOW SEE THEMSELVES AT THE CENTER OF CONCERNS OVER MONOPOLY AND TRUST FORMING ISSUES THAT HAVE LED TO RENEWED INTEREST FROM THE US ATTORNEY GENERAL'S OFFICE. TRUST BUSTING HAS BEEN A STAPLE OF AMERICAN COMPETITION LAW, PARTICULARLY IN THE PAST FEW DECADES AND FOCUS IS NOW BEING TURNED ON THE SOCIAL MEDIA GIANTS THAT HAVE BECOME KEY PLAYERS IN EVERYDAY LIFE. THIS PAPER LOOKS TO ANALYZE THE REASONS FOR SUCH ACTION AND THE CONCERNS SURROUNDING LITIGATION OF THIS TYPE WITH PARTICULAR REFERENCE TO CURRENT COMPLAINTS AGAINST GOOGLE, FACEBOOK AND MICROSOFT. WHILE SHOWING THE BENEFITS OF ACTION TO PROTECT LEGITIMATE COMPETITION, THE PAPER SEEKS TO CAUTION AGAINST THE NOTION OF OVERLITIGATION AND THE PERVERSE INCENTIVES IT MAY PROVIDE. FINALLY, IT OFFERS SOME ALTERNATIVES TO THE STANDARD TRUST-BUSTING SOLUTION OF COMPANY BREAKUPS TO ACCOUNT FOR THE ADVENT OF THE DIGITAL AGE IN WHICH THESE TECH GIANTS EXIST.

INTRODUCTION

Of the ten most valuable companies in the world as of November 3rd 2020, seven are technology companies, with five of those seven based in the United States and leaders in their respective sub industries. Google, through Alphabet Inc., Facebook and Microsoft are three of these companies that have come under scrutiny for allegations of monopolistic or monopoly-forming behavior that could violate competition law of the United States in order to benefit themselves to an outsized degree. As the age of industrial power in the United States has waned, these types of companies have risen to take the place of the JP Morgans and Standard Oils, at least in the eyes of consumer groups and trust-busting minded politicians of Capitol Hill. However, the fears of these groups are not entirely unfounded. Dating back to the earlier telecoms boom and the rise of AT&T, there have been fears of a growth of a new age of Robber Barons in the technology field that could come to dominate competition, forming their own trusts and ensuring that control of their markets is uncontested.

Dissent appears in this topic over whether or not so-called 'high technology' should be considered to fall under the purview of antitrust law, and there was considerable opposition to *United States v. Microsoft Corp.* in the academic world, with a combined 240 economists from institutions across the country coming together to warn of the dangers of overzealous enforcement of antitrust measures. Worried that this prosecutorial appetite would hamper innovation, scholars wrote an open letter that demonstrated the complexity of the issue and raised the question of how far to go when it came to efforts to protect competition and consumers from monopolistic tendencies.

In this paper, I intend to lay out a brief history of antitrust in the United States and how it relates to the technology industry, focusing on a few major cases that relate to ongoing investigations being conducted by the Department of Justice and Federal Trade Commission today. I will attempt to show the damages that monopolies can have on an economy, relating these to actions undertaken by certain companies before discussing the merits and demerits of enforcement and current laws enforced in the present day. The issue at hand is not solely an economic one, as even being perceived as a monopoly can prove to be detrimental to a company's image, adding increased social costs to real or perceived economic costs. Greater scrutiny and an increase in bureaucratic oversight can hamper development as more resources are dedicated to litigation, fact finding,

and lobbying to counteract these developments. Ultimately, there seems to be little agreement on the facts of antitrust measures going forward, with a general fear of 'big tech' and concerns over innovation incentives and protectionism weighing down the progress of the issues.

Criticism of antitrust action is not likely to recede whether it be related to increased or decreased measures, but as the United States raises new concerns regarding the nature of companies in the the technology field like Facebook and Google, there is likely to be increased discussion that relates to how far to go with the current and following rounds of antitrust action undertaken. However, the end goal will likely always remain the same in the technology industry and the general idea underpinning all antitrust regulation: ensure innovation and a lower barrier to entry is protected while making sure that no one individual or cartel can exert undue control over the market.

HISTORY

Monopolization and anti-competitive actions have spanned the history of the United States, dating back to the progressive era and the Robber Barons who dominated much of the early industrialization of the North American continent. More recently, there have been serious instances where the issue of monopolization was brought to the forefront of the legal and political world, based on the understanding of the Sherman Act of 1890.

The Sherman Act sought to ensure that no one company, or grouping of companies, could accrue so much power that they were able to dictate the nature in which trade, primarily with foreign powers but also across state boundaries, to allow for free competition and avoid the associated costs that could arrive with a coercive monopoly in the United States.

Trust Busting and enforcement of the antitrust laws in the United States were prominent in the Progressive Era of the early 1900s. Theodore Roosevelt was particularly prominent in this effort and presided over one of the largest antitrust efforts of the era with the Northern Securities Co. case ruled to have violated competition law in 1904. The case held that the merger of the Great Northern and Northern Pacific railroads was unlawful as it would have created an effective monopoly over railroad traffic in the Western half of the United States, and at the time would have become the single largest company in the world. The major consideration underpinning the judgement was the

assertion that by combining these two railroads under a single holding, they would cease to be in competition with each other and would therefore constitute the creation of a restraint on interstate commerce (*Northern Securities Co. v. United States*, 1904).

More recently, technology companies have become the target for much of the antitrust action undertaken in the last forty or so years. AT&T became a target in the case in 1982, breaking up the company's local holdings into separate Regional Bell Operating Companies. It was suspected that AT&T was using profits from Western Electric in order to subsidize the operation of their telecoms network. Eventually a settlement was reached where the company was found to be in breach of US antitrust law and was ordered to divest from their network of Bell companies and relinquish control of the Yellow Pages, creating the regional bell operating company system (Enis & Sullivan, 1985).

Twenty years later, Microsoft came under attack for what was perceived to be acting in an uncompetitive manner. Much of the complaint, filed by the US attorney general and twenty other states' attorney generals, was based on the belief that the bundling of Microsoft programs into their operating system was in the pursuit of a monopoly. This act was alleged to give away a Microsoft-created product for free in order to further the control of the market that they already enjoyed. Specifically, Microsoft was alleged to have forced the inclusion of Internet Explorer into the Windows suite, claiming it was an integrated feature of Windows and not an extra product that they were bundling into the separate Windows product. The court held that the bundling of Microsoft's own browsing program was indeed a violation of the Sherman Act and therefore anti-competitive. Judge Jackson ordered the breakup of Microsoft into software development and operating system development components, but this was later reversed by an appeals court (*United States v. Microsoft Corp.*, 2000). After this we see the continuation of antitrust laws in technology and telecoms focused on software and programs with the more recent filings against both Facebook and Google. In the past few months, the CEOs of Amazon, Facebook, Twitter and Google all appeared before Congress in order to testify over their practices in the virtual space and whether or not these actions have constituted a violation of US competition law. In a 2010 article, *Fortune* stated that, "it's safe to say social networking is Facebook" demonstrating just how prominent that company in particular is in the popular imagination (Kevin Kelleher, 2010). However, popular

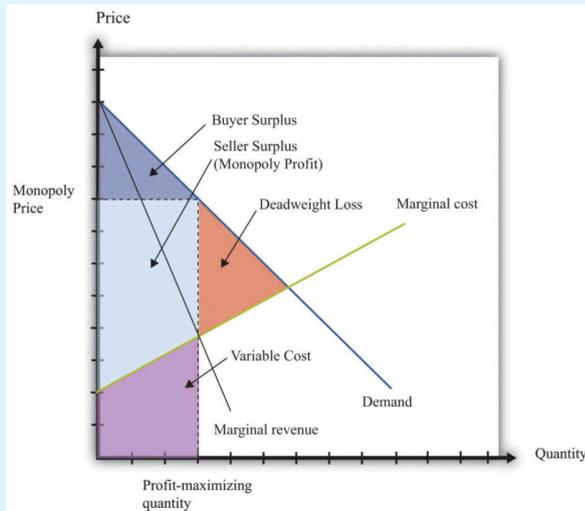
image is not the only aspect in which these companies are seen as juggernauts of industry. As with Microsoft becoming involved in action by the federal government, recent months have seen the growth of the Department of Justice and Federal Trade Commission interest in pursuing action against both Facebook and Microsoft under the provisions of the Sherman Act. In complaints issued on October 20, 2020 and December 9, 2020 respectively, the federal government seems to be increasing their interest in antitrust action. Citing both the 1974 and 1998 cases against AT&T and Microsoft, Deputy Attorney General Rosenstein called the suit against Google, "[an enforcement of] the Sherman Act to restore the role of competition and open the door to the next wave of innovation ... in digital markets" (Office of Public Affairs, DoJ, 2020).

Additionally, and more recently, the filing of a suit against Facebook may be one of the largest and most expansively supported actions taken by the FTC in technology antitrust cases. Supported by an investigation from "attorney generals of 46 states, the District of Columbia and Guam" the complaint issued on December 9, 2020 describes the anti-competitive actions of Facebook as including the strategic acquisitions of growing competitors WhatsApp and Instagram (Office of Public Affairs, FTC, 2020). It also focuses on platform conduct that required companies developing applications that could interface with Facebook to refrain from creating any competing products, effectively locking the developers into subservience to Facebook's own applications. The complaint specifically cites the case of Vine, a social media app launched by Twitter, that was denied access to friends lists originating from Facebook due to the perceived threat the new application represented (Office of Public Affairs, FTC, 2020). This suit is not without merit, as Consumer Watchdog submitted a complaint to the FTC alleging anti-competitive practices in Facebook's gaming department, requiring that developers using Facebook as a social aspect of their games exclusively use Facebook Credits. Consumer Watchdog estimated this would bring in \$2.1 billion in 2011 alone (Simpson, 2011).

ANALYSIS

From an economic theory standpoint, the issues present in monopolization cases are clear. Monopolization is harmful by nature due to the incentives to maximize the individual profit of monopolists rather than producing at the free market equilibrium. As shown by even the most basic economics textbook, a monopolist will not produce at the intersection of the supply and demand curves, but will

instead produce at a point where marginal revenue equals marginal costs, creating a market where a smaller quantity of goods are produced for a higher price than we would see in even a marginally more competitive market. Additionally, monopolized markets will see issues arise with consumer and producer surplus.



GRAPH 1: GRAPH ILLUSTRATING THE SHIFTS IN PRICE AND QUANTITY SUPPLY AS A MARKET CHANGES FROM A PERFECTLY COMPETITIVE MARKET TO A TRUE MONOPOLY. (COURTESY OF SAYLORDOTORG.GITHUB.IO)

As the number of suppliers drops to a single one and production shifts back on the price-quantity scale, we will see a combined increase in producer surplus with a similar, but not equal, decrease in consumer surplus along with the deadweight loss of this monopolized market. Therefore, we can see that there is a clear and basic need for action to be taken against monopolizers, since the presence of these market practices leads to not only a decrease in the well-being of consumers but also for society as a whole in the deadweight loss. All this for the benefit of just an individual company or consortium.

As it relates to technology companies, there are some economic concerns that arise as the government looks to prevent the formation of monopolies in the market—chief among these being the network effects that are so prominent in the technology industry. In the Department of Justice suit against Microsoft in 1994, competitors of Microsoft submitted a brief with a warning of the network effects

that were far more prominent in technology than in almost any other market (Elzinga et al., 2001). The economic section of this brief argued that by allowing Microsoft to grow to such an extent, that the simple nature of their products would lock users into their use, which could lead to the crowding out of potentially superior technology.

Monopolization in the technology market is not just about the nature of the market itself, nor is antitrust law limited to simply growing too large through that. The Sherman Act outlaws assaults on competitive practices, and this concern in the tech industry was raised by Cornell and Cessna when discussing the effects that acquisitions can have on the technology market. Citing the idea of ‘Killer Acquisitions’, the article talks about predatory practices in mergers and acquisitions that are outlined in the Sherman Act as anti-competitive actions (Cornell & Cessna, 2019). According to their article in *Competition Law International*, these acquisitions can be termed ‘acquihires’ due to their goal of taking in talented workers while denying the acquired firms the ability to present new products to the market. Data from 2020 may support this assertion of strategic and anti-competitive acquisitions, with a total of 406 mergers and acquisitions in the technology service sector in 2020 with a combined value of over \$114 billion. As seen in Graph 2, the technology sector had the second largest number of mergers and acquisitions behind only commercial services but outperformed all other sectors in value by at least \$70 billion. In fact, the only sector coming anywhere near that number being the health services industry with only \$41.8 billion in value from 108 transactions. This suggests that the technology market is seeing vast consolidation of valuable companies that completely outpaces the rates of consolidation of other industries.

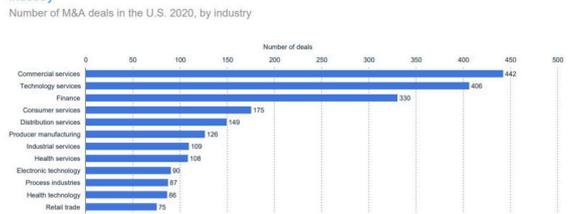
Linking this back to the concerns of network effects brought to the forefront in the 1994 case, there is a clear concern here that domination of the technology market can lead to the dumbing down of the field with inferior products, with market share protected only by the size of the networks and financial power given to them and the use of said power to absorb smaller firms that may threaten their dominance.

Even though the fears of monopoly are clear in the already mentioned Microsoft case, there is a key factor that does cast some doubt on how truly anti-competitive Microsoft was in their actions leading up to the suit. An open letter, published by The Independent Institute and run in both the Washington Post and New York Times, decried the suit

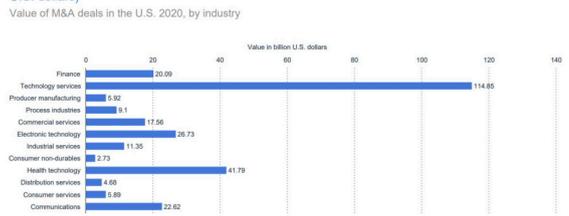
brought against Microsoft as nothing more than action that would benefit none but the company's competitors. The letter, signed by 240 economists from across the United States, claimed that by allowing the action to go forward, the government would in effect be hampering the innovation of the technology industry that had driven Microsoft to its position of dominance in the market. The signatories claimed that consumers saw falling prices rather

than rising, suggesting that monopoly power was not being exerted by Microsoft and that the dominance of Bill Gates' company could be attributed to the free markets and dynamism of technology. This dynamism was also credited with driving competitors of the company in 1994 to provide the economic brief mentioned earlier. Decrying actions that were being taken as protectionist, the letter warned that too much government overreach into the market would invariably lead to a situation where "Successful innovators are penalized, scale economies are lost, and competition is thwarted, not enhanced. Instead of preventing prices from rising, antitrust protectionism keeps prices from falling" (The Independent Institute, 1999).

Number of merger and acquisition deals in the United States from November 2019 to April 2020, by industry



Value of merger and acquisition deals in the United States in September 2020, by industry (in billion U.S. dollars)

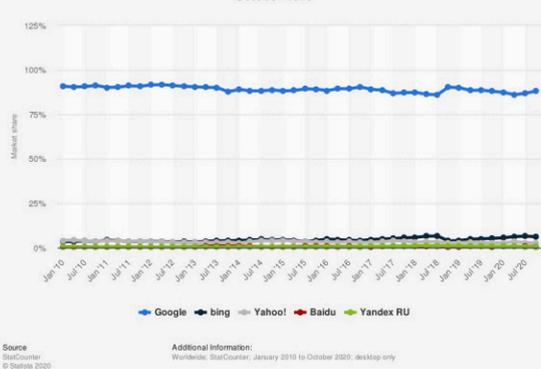


GRAPH 2: GRAPHS SHOWING THE NUMBER AND VALUE OF MERGERS AND ACQUISITIONS IN SELECTED INDUSTRIES. (COURTESY OF STATISTA)

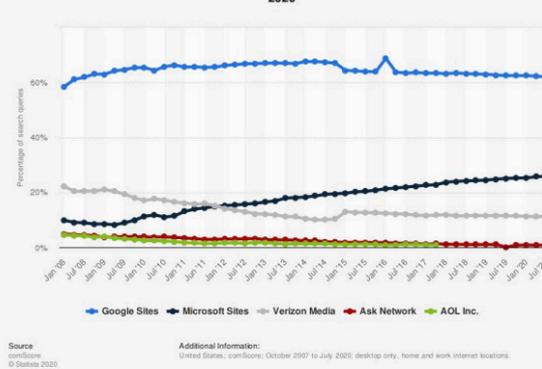
In terms of the formal determination of what is a monopoly, the United States has a relatively robust understanding that allows for market domination but likely not complete control. "A rough rule of thumb in the United States is that a 90% share of a well-defined relevant market is a monopoly, 66% may be a monopoly, and 33% clearly is not." (Waller, 2012, p. 1776) As it pertains to both Google as a search engine, it is almost certainly a monopoly.

Over the last 10 years, Google has maintained between 86% and 92% of the global search engine market, making it by definition a monopoly or near monopoly by the standards of the United States, while in the United States alone, there is less clear evidence of this with market share maintained only a little over 60%. Since 2008 we can see that it did peak at 68.8% in January of 2016, but this would only make it a likely monopoly by US standards.

Worldwide desktop market share of leading search engines from January 2010 to October 2020



Share of search queries handled by leading U.S. search engine providers as of July 2020



GRAPH 3: GRAPHS SHOWING GLOBAL SEARCH ENGINE MARKET SHARE AND DOMESTIC US SEARCH QUERY SHARE BY SELECT SEARCH ENGINES. (COURTESY OF STATISTA)

When we consider the growth of Microsoft market share in search query handling, which peaked in July 2020 at 25.9%, it becomes questionable as to how strong is Google's monopoly over this aspect of technology. In 1994, the antitrust case against Microsoft was driven in part by evidence brought to the judge by Gary Reback, an attorney for some of Microsoft's competitors. The evidence consisted of a 96-page amicus brief that provided details he claimed was pertinent to the case (Elzinga et al., 2001, p. 637). The clients represented by Reback were kept confidential, which raises some questions regarding the incentives for antitrust action in the technology sphere, especially when you consider that Reback was also involved in lobbying for such action against Microsoft before the suit was brought (Elzinga et al., 2001, p. 637). Fighting against calls to break up Microsoft in 1995, the Department of Justice had called the attempt a remedy that might advance the interests of Microsoft's competitors but would invariably act against the interests of the public. They claimed that the actions of Microsoft had brought benefits to the technology sector as a whole, increasing the rate of innovation and providing a lower barrier to entry for new firms (Elzinga et al., 2001, pp. 640–641).

Year	Number of Firms
1990	6,970
1992	7,617
1994	8,143
1996	9,972
1998	10,236
2000	11,061

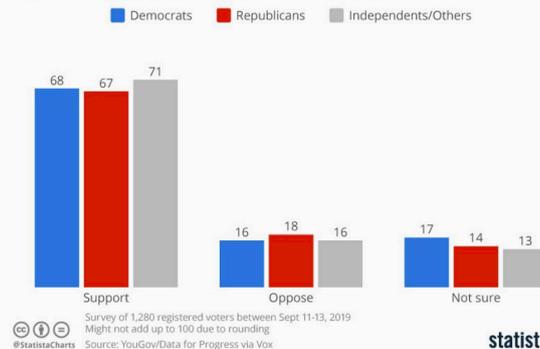
TABLE 1: CORPORATE TECHNOLOGY INFORMATION SERVICES, CORPTECH DATABASE, UNPUBLISHED TABULATION (2000)

Table 1 includes the findings from Corptech as to the number of software firms in the market around the time of the suits against Microsoft. While Microsoft may have shown dominance in the market, it is clear that they could not have been acting as an effective monopoly with firm formation occurring in such a way. By allowing for suits that target industry drivers, there is ample incentive for companies to latch on to these actions if it will reduce the market share of their competitors. As discussed before, a concern with the technology industry is the presence of strong network effects that could drive monopolization. Yet, should monopolization be avoided, hindering companies for fear

of these effects could hamper the growth of the industry as a whole in favor of what would ostensibly become a cartel that controls development for their own needs. Potential monopolization in technology has not only created vast economic reserves for the companies suspected of the practices but has also given them vast lobbying power and a reputation in the eyes of the American public as predatory corporations that seek nothing more than the extension of their monopoly power in the market.

Majority of Americans in Favor of Breaking up Big Tech

Support for breaking up big tech companies to level playing field for all content (in percent)



GRAPH 4: THE BREAKDOWN OF OPINION REGARDING BREAKING UP 'BIG TECH' BY POLITICAL AFFILIATION IN THE UNITED STATES (COURTESY OF STATISTA)

Graph 4 displays a breakdown of just how pervasive the idea of monopolization in the technology industry has become in the United States. Indeed the attitudes expressed here are not only held by the average public, but also by academics. Discussing the classification of social media in 2013, Adam Thierer referenced academic Zeynep Tufekci and her categorization of Facebook and Google as potential "social utilities" that are at risk of becoming corporatized regardless of their nature as "essential to one's social existence" (Thierer, 2013, p. 254). However, this approach to classifying social media is warned against in the article, regardless of the beliefs of academics. Thierer argues that while networks like Facebook and Twitter provide strong networked services, they are not the endpoint of social media interaction, pointing out that applications like Friendster and MySpace have faded from the spotlight despite being dominant (Thierer, 2013, p. 275).

So far, antitrust law has seemed to work well as a measure against monopolization in technology, as it allows for the flexibility of the government in whether to break up com-

panies-as was the case with AT&T-or to allow companies to continue to exist as they were with simple changes to their own business practices-as was the case with Microsoft in 1994. However, in his testimony to Congress in October of 2020, Bill Baer of the Brookings Institute warned of underenforcement of antitrust measures (Baer, 2020). He claimed that the standards for antitrust action were far too high and had led to consolidation of firms in markets that would have been quashed in the 1990s. Highlighting the overturned decision against Microsoft in 2001, he stated that antitrust action is “too cautious, too worried about adverse effects of ‘over enforcement’ (so called Type I errors)” (Baer, 2020) and that consequently the minimum standard for enforcement was higher than the given black letter law standard of a preponderance of evidence. This fear of error is present in Elzinga et al.’s article on the cases against Microsoft, stating, “as in medicine, antitrust remedies must be considered for their side effects. The antitrust parallel to the hippocratic oath’s “do no harm” is “don’t make it worse.” (Elzinga et al., 2001, p. 689). Baer went on to decry current antitrust law as omitting the presumption that certain behaviours were likely to lead to the reduction of competition. This would then allow defendants in any antitrust case to simply claim that they were only acting in the same way that any other company would in their position. Baer’s final criticism on antitrust actions as of 2020 was not the law itself but the lack of resources available to those enforcing it. In fact, his assertion was not so much a call to action but a call to observation: “But second, more resources would allow for after-action studies of what happened in markets where the agencies decided not to bring enforcement actions or where the courts rejected an antitrust challenge. Developing that data would allow the antitrust enforcers to demonstrate to the courts what happens when there is under-enforcement” (Baer, 2020). This evaluation of the current state of law could avoid the pitfalls of the Type I errors he mentioned earlier in his testimony, as further understanding of how the market reacts to actions considered potentially anti-competitive could allow for a more concrete understanding of the ways

in which these actions affect the market. This can avoid either the problem of overenforcement or underenforcement that has damaged antitrust action over time.

CONCLUSION AND IMPLICATIONS

So far, the only unifying factor that we can see in antitrust law today is that there is little consensus on where it should go in the future. As discussed, there have been calls for the breakup of larger companies, particularly for Microsoft in the cases brought against them by the federal government between 1990 and 2001. All the while, there has also been pushback against this kind of bureaucratic involvement in the market from economists that credit control over the market to the dynamism of technological development and the natural flow of economic cycles. Yet what can be agreed upon likely is that there is too much that is currently unclear in antitrust measures as it pertains to technology.

Some broad conclusions can be drawn about the state of the technology market to give future policy makers an idea of what they are dealing with. Looking back to the analysis section, we can see that this sector of the economy is potentially the single greatest value creator of any market in which economic activity currently takes place. That provides lawmakers with a clear dilemma with regulation. Obviously the government would want to encourage growth of economic activity in this field, as more activity provides more jobs and higher tax income from profitable companies and employed citizens. However, this kind of market also incentivizes practices that the government may deem unwanted. The Department of Justice complaint filed this year details the practices said to be used by Google to ensure its dominance in such a valuable market, claiming the use of exclusivity agreements and irreversible pre-installations of their own products on devices regardless of the desires of customers. So a balance must be struck that must prevent exploitation but, as the Independent Institute warned in 1999, does not result in restrictions that muzzle innovation in the field.

“...a balance must be struck that must prevent exploitation but, as the Independent Institute warned in 1999, does not result in restrictions that muzzle innovation in the field.”

Additionally, there is a worry that over-enforcement of these actions as the opening of cases into a competitor by the government may provide a perverse incentive for companies to submit evidence or lobby the government to break up individual companies that have gained a dominant spot simply because of their business acumen, technology, or just random chance that the Sherman Act does allow for in a competitive market. Legislators and regulators must therefore be wary of being overzealous in their approach to the topic at hand, lest they create a less competitive market in search of just the opposite. Antitrust law can be tricky for these reasons and the success of the technology industry may be down to the laissez-faire approach the government in the United States has taken, as opposed to the stricter regulation that befalls the European markets. The public perception of companies in the technology sector does leave the average viewer wondering what can be done to restore trust in the technology sector and allow for the innovation that has led to such a growth of economic activity.

The most prominent of ideas that could be implemented to answer the problem may be by protecting personal data as a way to reduce the control that large companies exert, particularly on social media. The largest concern about social media control has to do with the level of control to which they exert over the choice of platform. With the acquisition of Instagram and WhatsApp, Facebook was able to allow users to port their data from one platform to another, expanding their network between these three apps and creating a closed system that was mutually beneficial between them. Twitter data cannot be shared across these apps and in a similar way, Google can port data between devices that use their search engine and create a history and profile from a user's queries. Effectively, these companies control a user's data that they input into their network and can effectively lock them in using that data as a 'sunk-cost'. If a user has spent so much time on one platform or network, why would they switch over to another that requires them to build a completely new profile? No matter if the technology on this new network is superior, they simply do not have the interconnectivity that the original network provides.

The *MIT Technology Review* suggests that this policy of data regulation is the best way forward and indeed implies a breakup of technology companies would be more inefficient and costly than simply regulating their practices (Chen, 2019). By removing a user's data from the control of social media giants, the government could successfully

eliminate much of the detrimental lock-in network effects of 'big tech' and provide a jumping off point for increased innovation. Instead of exclusive access to data that user's provide to technology companies, the government could legislate to give control of said data back to consumers or mandate that data be considered an integral part of the online persona of internet users. These users would then be able to lend out that data to platforms and remove it at will. By doing so, technology companies would simply be purveyors of platforms for the data, turning the market from one driven by the collection and control of data to one that would again reward technology and innovation rather than consolidation.

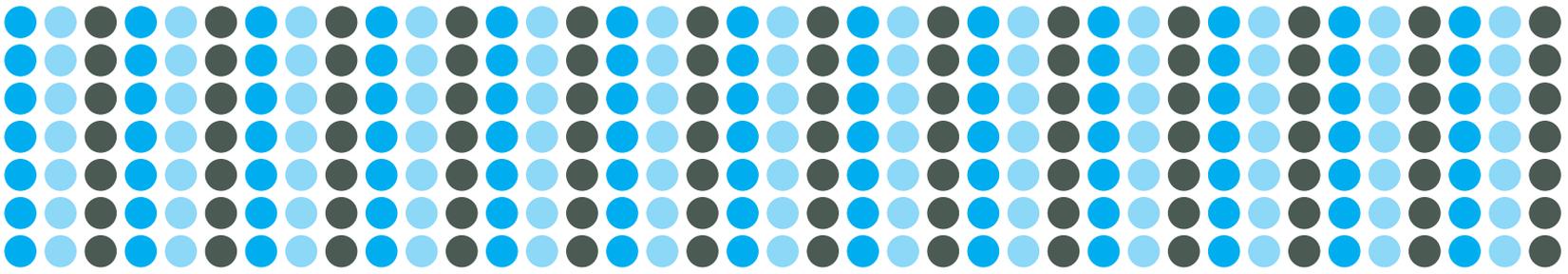
This does raise some questions about what kind of data could be shared across platforms and how those platforms could use said data. However, by forcing data to be shared between platforms the advertising market could be opened up as more suppliers enter the market and the barrier to entry for new firms in the social and technology space would be lowered by the newfound prevalence of data in the market.

Ultimately we would hope to see this policy boost the rate of innovation in the technology sector as mentioned, but some will be at a disadvantage, even as the market would likely grow. Facebook, Twitter, Google, and other technology giants would naturally see their market dominance decrease, particularly in social media, as Google seems well insulated in the search engine market. Depending on what legislation or amendments to the Sherman Act are passed, there would likely be litigation that challenges the nature of the data in a similar way to the 2000 Microsoft case, potentially claiming said data as a feature of the products and not separate entities over which they exert uncompetitive control. However, should a hands-off approach be taken, as suggested in Bill Baer's testimony to the House Committee on the Judiciary, a more scientific approach could lead to more concrete standards of what actions truly lead to monopolistic consolidation. Ultimately, the nature of the technology sector is unlikely to change drastically with new antitrust measures undertaken. Based on previous cases, if the court rules against Facebook and Google, there will likely be a challenge and potential settlement that allows for the maintenance of the companies but forces them to release data that they previously held exclusively and orders them to refrain from exclusivity deals, such as Google's deal with Apple as cited in the DoJ complaint of this year (Office of Public Affairs, DoJ, 2020). Ultimately, Americans may dislike "Big Tech," but many

believe they cannot live without it. Facebook and Google are unlikely to disappear in the same way that Microsoft is still a major player in the technology industry. However, should more effective standards be determined, we should hope to see a new growth in technology innovation that may upset the power of the established juggernauts.

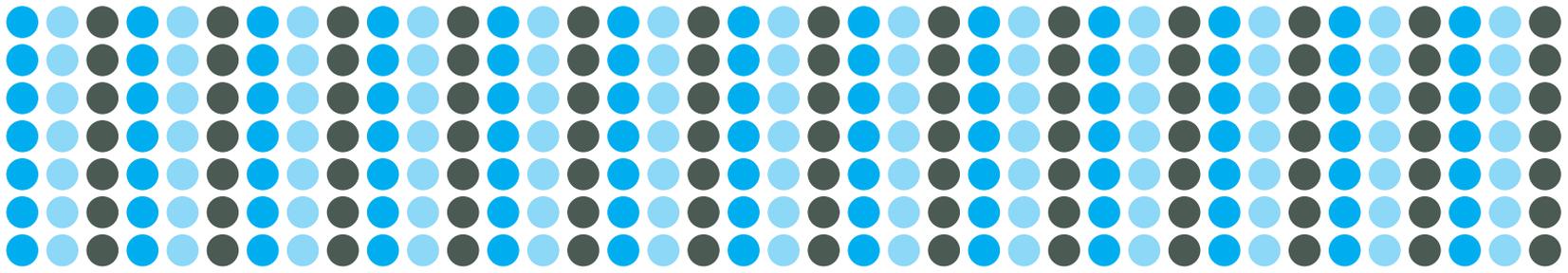
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LIST OF ARTWORK

- 13 THE BATTLE OF THE SOMME COMIC: THE STORY OF WILLIAM MCFADZEAN**
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- 15 EASTER PROCLAMATION OF 1916**
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- 28 FIGURE 1**
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- 28 FIGURE 3, PANEL A**
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- 28 FIGURE 3, PANEL B**
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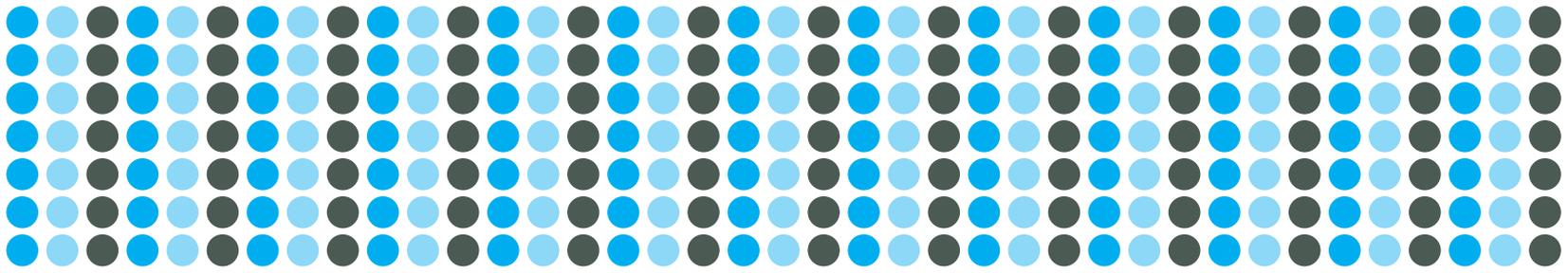
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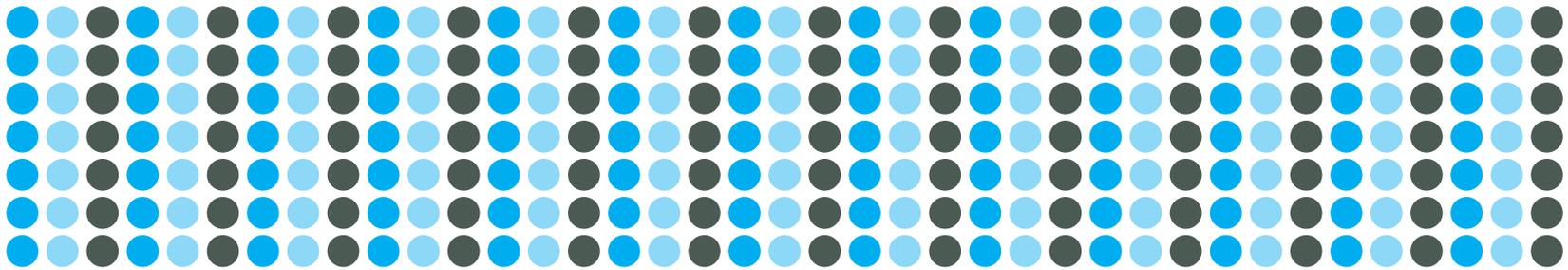
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