ONLINE PLATFORMS AND MARKET POWER, PART 1: THE FREE AND DIVERSE PRESS

HEARING

BEFORE THE

SUBCOMMITTEE ON ANTITRUST, COMMERCIAL AND ADMINISTRATIVE LAW

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ONLINE PLATFORMS AND MARKET POWER, PART 1: THE FREE AND DIVERSE PRESS

TUESDAY, JUNE 11, 2019

HOUSE OF REPRESENTATIVES

SUBCOMMITTEE ON ANTITRUST, COMMERCIAL AND ADMINISTRATIVE LAW

COMMITTEE ON THE JUDICIARY

Washington, DC.

The subcommittee met, pursuant to call, at 2:37 p.m., in Room 2141, Rayburn House Office Building, Hon. David Cicilline [chairman of the subcommittee] presiding.

Present: Representatives Cicilline, Nadler, Johnson, Raskin, Jayapal, Demings, Scanlon, Neguse, McBath, Collins, Gaetz, Armstrong, and Steube.

Also Present: Representative Jackson Lee.

Staff Present: David Greengrass, Senior Counsel; John Doty, Senior Advisor; Madeline Strasser, Chief Clerk; Moh Sharma, Member Services and Outreach Advisor; Amanda Lewis, Counsel; Joseph Van Wye, Professional Staff Member; Lina Khan, Counsel; Slade Bond, Chief Counsel; Daniel Flores, Minority Chief Counsel; and Andrea Woodard, Minority Clerk.

Mr. CICILLINE. The committee will come to order.

The chair is authorized to declare recesses of the committee at any time.

We welcome everyone to our first hearing on Online Platforms and Market Power Focusing on the Free and Diverse Press.

I now recognize myself for an opening statement.

In recent years, there has been a cascade of competition problems on the Internet. Concentration in the digital advertising market has pushed local journalism to the verge of extinction. The combination of predatory acquisitions, a growing innovation kill zone, and high network effects and switching costs appear to have undermined entrepreneurship and startup rates.

And the sheer dominance of some platforms has resulted in worse products and significantly less choice leaving people without a competitive alternative to services that harvest their data, manipulate their behavior, and monetize their attention.

In response to these trends, the committee announced last week that we will conduct a bipartisan investigation into competition in the online marketplace. The purpose of this investigation is to document anticompetitive conduct online, examine whether dominant firms are engaging in anticompetitive conduct, and assess whether our competition system and current enforcement levels are adequate to address these problems.

Over the coming months, we will conduct a top-to-bottom review of online markets through a series of hearings on these topics, request information that is relevant to the investigation, and engage in a series of discussions with key stakeholders and policy experts.

This is the first significant antitrust investigation undertaken by Congress in decades. In the past, these investigations, which included studies of monopoly power in the airline industry, banking, oil and Ma Bell led Congress to consider whether it needed to make changes to our laws and agencies. I strongly believe that this investigation is long overdue.

This subcommittee has a constitutional responsibility to conduct oversight of our antitrust laws and competition system to ensure that they are properly working. Congress, not the courts, agencies, or private companies, enacted the antitrust laws. And Congress must be responsible for determining whether they are equipped for the competition problems of our modern economy.

Today's hearing is the first step in this process for examining these trends. The free and diverse press is the backbone of our vibrant democracy. As Justice Louis Brandeis wrote in 1927, those who want our independence believe that public discussion is a political duty, that the greatest threat to freedom is an uninformed citizenry and that the freedom of thought and speech are indispensable to the discovery and spread of political truth.

But over the past decade, the news industry has been in a state of the economic free fall. From 2006 to 2017, advertising revenue has fallen from $49 billion to $15.6 billion resulting in mass layoffs of newspapers—mass layoffs or newspapers folding altogether. This year alone, roughly 2900 reporters and other news staff have already lost their jobs.

These massive cuts are happening to traditional news companies and online news sources alike. For example, earlier this year, The Cleveland Plain Dealer announced another round of layoffs due to advertising losses reducing its staff by 80 percent from employment levels just 7 years ago. BuzzFeed and the Huffington Post have also announced significant layoffs. These are online publishers that have never relied on revenue from classified sections or subscriptions and are designed to appeal to readers on social media sites and mobile devices.

This raises a critical question. If online news publishers can't survive, then who can? During this same period, online platforms that are gateways to news online have operated with virtual immunity from the antitrust laws. Since 2007, Google has acquired several of its competitors in the online advertising market resulting in significant concentration and a complete lack of transparency in this market.

And since 2011, another dominant online platform, Facebook, has acquired two of its rivals, Instagram and WhatsApp, in an effort to corner the market for social media services and advertising on these services. Facebook now controls a user base of 2.7 billion people worldwide, the largest communications platform in human history. It soon plans to combine its products into a single platform, a move critics have suggested Facebook is making to thwart antitrust enforcement.

As Australia's competition authority noted in its preliminary report on digital platforms, both Google and Facebook have substantial market power in a number of markets that is unlikely to erode over time through new competitive threats. There have also been numerous reports of these platforms engaging in anticompetitive conduct such as favoring their own products or discriminating against rivals that has gone unchecked by Congress and unchallenged by antitrust enforcers in the United States.

These trends strongly suggest that the decline of the new industry is not the inevitable result of the arrival of the Internet, but is instead a direct consequence of enforcement choices that have created a market structure where a small number of platforms are capturing the value created by journalists and publishers.

This has affected news publishers in two key ways. First, news publishers rely on Google and Facebook for the vast majority of traffic online. Even minor changes to the platform's algorithms can have significant effects on the news industry overall.

Furthermore, as a result of this immense concentration of economic power, news publishers, and local news in particular have little bargaining power with the online platforms exacerbating the economic crisis for trustworthy news.

Second, these platforms have a dominant position in the advertising market. Last year, Facebook and Google amassed more than $60 billion from online advertising, the majority of all online ad revenue, while controlling 90 percent of the growth in this market. As David Chavern, the president of the News Media Alliance, will testify today, this dynamic has resulted in economic catastrophe for news publishers forcing them to cut back on their investments and quality journalism.

In response, I have introduced the Journalism Competition and Preservation Act with Ranking Member Collins to give news publishers an even playing field to collectively negotiate with dominant platforms to improve the quality, accuracy, attribution, and interoperability of news online.

While I do not view this legislation as a substitute for more meaningful competition online or antitrust scrutiny, it is clear that we must do something in the short-term to save trustworthy journalism before it is lost forever. This bill is a life support measure, not the remedy for long-term health.

Whether it is an online publisher or a local newspaper, we cannot have a democracy without a free and diverse press. Our country will not survive if we do not have shared facts, if corruption is not exposed and rooted out at all levels of government, and if power is not held to account. This is the very reason the press is called the fourth estate.

I view today's hearing as an opportunity to continue the conversation on how to address this crisis. Both I and the ranking member are open to exploring ways to strengthen the Journalism Competition and Preservation Act. My hope is that today's hearing will serve as the starting point in this discussion.

I thank our panel of extraordinary experts for participating in today's hearing, and I look forward to hearing your testimony.

At this time, I yield to Mr. Armstrong for his opening statement.

Mr. ARMSTRONG. I don't know where the button is over here.

So, no, I appreciate that. And I—at this time, I would ask unanimous consent to enter Congressman Sensenbrenner's statement into the record.

Mr. CICILLINE. Without objection, so ordered.

[The statement of Mr. Sensenbrenner follows:]

MR. ARMSTRONG FOR THE RECORD

Statement of Subcommittee Ranking Member

F. James Sensenbrenner

Subcommittee on Antitrust, Commercial and Administrative Law Hearing on Online Platforms and Market Power, Part 1: The Free and Diverse Press

Tuesday, June 11, 2019

Thank you Chairman Cicilline. Today's hearing kicks off the Subcommittee's work investigating competition in digital markets. It will focus on how the dominance of big technology companies is affecting the economic viability of local news organizations.

Though more news is being consumed than ever, news publishers are strained financially. Publishers have lost more than $30 billion in ad revenue since 2006 while Facebook and Google made more than $60 billion in ad revenue just last year alone. Not only is advertising revenue declining but so is readership. Only 20 percent of adults in the U.S. receive news regularly from a print paper, the Pew Research Center found last year; that drops to 5 percent among 18- to 29-year-olds.

Journalism, especially local journalism, is certainly in need of new revenue streams, as the industry faces a fundamental challenge to its business model. While some have found success offering digital subscriptions, local newspapers especially continue to struggle across the country. Journalists are being laid off and newspapers are disappearing. The U.S. has lost almost 1,800 papers since 2004. Roughly half of the remaining 7,100 are located in small and rural communities.

Publishers argue they receive little, if any, compensation from Google and Facebook for their shared work and little, if any, say in how and where it is shared. Acting individually, they argue, provides them with very little leverage to improve their situation.

In response, Chairman Cicilline and Ranking Member Collins recently introduced the Journalism Competition and Preservation Act. The bill would provide a temporary "safe harbor" — a four-year antitrust exemption for news publishers as they negotiate with Google and Facebook over how news content is used and how advertising dollars are distributed. The goal of which would give news publishers greater leverage.

The loss of print and digital newsrooms should be cause for concern. I look forward to hearing from today's witnesses and to discuss efforts to protect the future of news publishers and high-quality journalism in the United States and legislative efforts to address those challenges.

However, moving forward, I would caution against using antitrust law for purposes of "breaking up big tech". America's leading technology companies have brought us massive benefits both as consumers and as citizens. Most leading internet companies were founded in this country in large part because they were not blocked by government interference. While many acknowledge tighter regulations are needed, to go further would likely stifle growth and innovation.

I yield back the rest of my time.

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Mr. ARMSTRONG. And the best thing I can do for all of you is give you as much time as possible. So with that, I will yield.

Mr. CICILLINE. I thank the gentleman.

The chair now recognizes the chairman of the full committee, the gentleman from New York, Mr. Nadler, for his opening statement.

Mr. NADLER. Thank you, Mr. Chairman, for holding today's hearing.

And before I deliver my statement, let me apologize. I am going to have to leave afterwards. We have a slight resolution on the floor I have to deal with.

Over the course of the last 200 years, Congress has routinely passed laws to protect and advance a free and diverse press. Whenever new technologies have transformed how Americans produce and share news, be it the telegraph, the radio, the telephone, or broadcast television, Congress has sought to ensure that these new markets were structured to facilitate the free flow of information and to protect the independence and financial viability of the press.

Today as the Internet becomes the dominant platform for accessing news and as this platform grows more and more concentrated in the hands of just two major companies, the news media once again faces serious threats. And congressional action, once again, may be required.

As avenues for accessing news have narrowed in recent years, advertising revenue, which is the primary means of support for most news publishers, has steadily declined as well. And as revenue has fallen, so too has the number of journalists whose work can be supported by news publications.

Local news outlets have been the most severely affected by this trend, with nearly 2,000 local news publishers ceasing operations since 2007. In fact, the majority of counties in the United States no longer have a publisher of local news at all. Hundreds of other publishers have been forced to consolidate or shrink their operations.

This journalism crisis is also a democracy crisis. As sources of trustworthy news disappear, American civic life suffers. The majority of local newspapers and television stations no longer even assign a reporter to cover State and local government matters.

With a less informed citizenry, communities without quality local news generally see lower rates of voter turnout. And cities where newspapers shut down have even seen their borrowing costs rise suggesting, according to one study, that diminished transparency may enable governments to engage in riskier and more inefficient or perhaps more corrupt financing arrangements.

While there are a number of causes of this multi decade decline in the news industry, including reduced print circulation and reduced revenue from classified advertisements, one of the major concerns that has emerged in recent years is the power of a small number of gatekeepers over the news and information that citizens see.

Today, the vast majority of Americans consume their news online. And two online platforms have immense control over how Americans access their news sources. A single algorithm change by one of these private corporations can entirely distort what information the public shares and consumes and what revenue the publisher receives.

Moreover, these same platforms dominate the online advertising market, and they account for nearly all of the growth in this market in recent years. No single factor has led to this immense concentration of control, but it is incumbent on Congress to understand the sources of this problem and to address it urgently.

The American tradition has long recognized that preserving an open marketplace of ideas is vital to safeguarding the 1st Amendment and vital to a Democratic form of government. The antitrust and antimonopoly laws have been a primary way that lawmakers and regulators have policed the problem of overly concentrated markets. When Congress enacted the antitrust laws, it was with the purpose of protecting economic opportunity and political equality.

Senator John Sherman, the author of the Sherman Antitrust Act, referred to the first antitrust law as a bill of rights and a charter of liberty. Overly concentrated—and he didn't regard it as simply a question of economic efficiency or reducing prices. Overly concentrated markets concentrate economic and political power and stifle competition.

It is important to keep these broad goals of reducing concentration and promoting competition in mind as we examine how online platforms impact the free and diverse media. As the judge reviewing the consent decree breaking up AT&T wrote, quote, "in promoting diversity and sources of information, the values underlying the 1st Amendment coincide with the policy of the antitrust laws," closed quote.

Congress also has a constitutional duty to ensure that markets are structured in a way that is compatible with our democratic values. While new technologies may upend how news and information are shared, it is vital that we maintain open and competitive markets which will best foster a robust independent press.

With this in mind, I welcome today's hearing as the beginning of the committee's investigation of competition in digital markets, and I look forward to hearing from our panel of experts.

And I thank the chairman, and I yield back.

Mr. CICILLINE. I thank the chairman for yielding back.

The chair now recognizes the ranking member of the full committee, the gentleman from Georgia, Mr. Collins, for his opening statement.

Mr. COLLINS. Thank you, Chairman Cicilline. And thanks for holding this hearing today. I am glad that you and I have found some commonality in this and look forward to working together.

This is the first of many hearings and oversight activity the subcommittee expects to hold over the coming months on the important antitrust and competition issues in the tech sector.

I firmly support this initiative. The conversations we will have in our committee are critical as Congress evaluates the depth, breadth, and importance of these tech issues and whether any amendments to the antitrust laws are needed. The public understanding of these issues and the evolving role of tech in the daily lives of the American people are equally important as we have these discussions.

If we do identify needs for new legislation, it is important we keep two principles in mind. First, like the existing antitrust laws, new legislation be consistent in keeping the free market free. Proposals to construct broad new regulatory regimes should be viewed with caution. Experience shows that regulatory solutions often miss the mark, solve problems less efficiently than free markets, and can create new opportunities for anticompetitive companies to suppress competition through rent seeking. That is especially true when regulation attempts to take on evolving problems in fast moving markets like tech. I speak from experience here. I have worked through these before.

And we have to make sure that we are not looking for an immediate solution to the soreness in our foot and recognize that we have a problem with our leg. We need to make sure we are working this through.

Secondly, big is not necessarily bad. Companies that offer new innovations, better solutions, and more consumer benefit at lower prices often become big to the benefit of society, shockingly. Proposals to break up big companies just because they are big risk throwing out the baby with the bath water. And any discussion that simply moves to that discussion first is not the right way to move.

It is because I embrace these principles that I am excited to have joined Subcommittee Chairman Cicilline in the introduction of the Journalism Competition and Preservation Act. This bill takes head on the problem of local and other news organizations disappearing from the public square as news consumption moves increasingly online.

A vibrant press has been critical to the success of our democracy since the founding of the republic. In the old days, press organizations were able to thrive based on their subscription and advertising revenues. But as news consumption has moved to the Internet, traditional subscriptions are speedily drying up, and online advertising revenues are increasingly becoming dominated by online platforms. As a result, news organizations across the country are rapidly losing their economic lifeblood and disappearing from the public square.

If individual news outlets could count on being able to negotiate fair attribution and advertising revenue agreements with the online platforms, the bleeding could be stopped. The problem, however, is that smaller news organizations don't stand a fair negotiating chance when they try to negotiate deals with a platform giant. These giants stand as a bottleneck, a classic antitrust problem but consumers—between consumers and the producers of news content.

Journalism Competition Preservation Act seeks to solve this problem simply: By allowing news publications to take the platforms bottleneck together. Specifically, the bill allows the publications 4 years in which they can collectively negotiate with the platforms without fearing antitrust enforcement against that activity. In other words, the bill allows news publications to take on an antitrust problem without worrying that the antitrust laws themselves will stand in the way.

It does not propose any new regulatory structures. It does not threaten to break up any company. It does promise to simply and effectively solve the problem.

Today's hearing provides an excellent opportunity to examine this bill and other issues related to journalism in an online environment. These issues include matters as diverse as a boon in tech mergers and acquisitions to the mushrooming problem of online outlets that freeze viewpoints out of the online public square.

As we begin this, for all that are here, and many of you are here representing a large diverse group, I met with many of you over the years. Understand from my position as I have stated clearly the principles that I have laid out. And as we go forward this, anything that happens should be done when everyone comes to the table.

Everyone has a chance to share their opinion. Everyone has a chance to offer what may or may not be good legislative solutions. It is up to this body to hear honestly from the people and the companies involved. If we take everybody at face value, it is the American people at the end of the day that will benefit.

I promise from my perspective, and our side will not rush to judgment. We encourage you to decide to not rush to judgement and companies to participate in a positive solution. When this body does that, we have seen great things happen. When we do not, we end up with more problems than we began with.

With that, I yield back.

Mr. CICILLINE. I thank the gentleman for yielding back.

It is now my pleasure to introduce today's witnesses. Our first witness is David Chavern, the president and CEO of the News Media Alliance, where he has been since 2015. Mr. Chavern spent 10 years at the United States Chamber of Commerce in a number of executive roles, including executive vice president, chief operating officer, and chief of staff. He is a member of the board of directors of Transamerica Insurance and serves on the board of trustees at the University of Pittsburgh, his alma mater. Mr. Chavern received his bachelor of arts at the University of Pittsburgh, his MBA from Georgetown University, and his JD from Villanova University School of Law.

Our second witness is the president and CEO of Public Knowledge, Gene Kimmelman. Before his time at Public Knowledge, Mr. Kimmelman served as the director of the Internet Freedom and Human Rights Project at the New America Foundation and as the chief counsel for the U.S. Department of Justice Antitrust Division. He has also served as chief counsel and staff director for the Antitrust Subcommittee of the Senate Judiciary Committee as well as the legislative director for the Consumer Federation of America. Mr. Kimmelman currently serves as an adjunct professor at Georgetown Washington University School of Law, a senior fellow at the Silicone Flatirons Center for Law, Technology, and Entrepreneurship at the University of Colorado and on the boards of both International Media Support and Global Partners Digital. He received his BA from a spectacular university, Brown University in Providence, Rhode Island, and his JD from the University of Virginia.

Our third witness is Sally Hubbard, the director of enforcement strategy at the Open Markets Institute. Prior to her time with Open Markets, Ms. Hubbard was the senior editor of antitrust enforcement and regulation of tech platforms at the Capitol Forum. She has also spent 7 years as the assistant attorney general at the New York State office of the attorney general's antitrust bureau. Ms. Hubbard earned her bachelor of arts at the college of William and Mary and her JD at New York University School of Law.

Our fourth witness on the panel is Matthew Schruers, the vice president of law and policy at the Computer and Communications Industry Association. As vice president, he advises Internet and technology companies on matters including Internet law, intellectual property competition, and trade. Additionally, he is an adjunct professor at Georgetown University Law Center, the Georgetown Graduate School, and the American University, Washington College of Law. Mr. Schruers received his BA from Duke University and his JD from the University of Virginia Law School.

Our fifth witness is David Pitofsky, executive president and general counsel at News Corp, the son of the dean of Georgetown Law School when I attended it. Prior to joining News Corp, Mr. Pitofsky was a partner at Goodwin Procter LLP where he focused on white collar defense and securities litigation and enforcement. He has also served as an assistant U.S. attorney in the Eastern District of New York where he was the deputy chief of the criminal division. Mr. Pitofsky is a member of the executive committee of the Federal Bar Counsel and an officer of the Federal Bar Foundation. He received his BA from the University of Michigan and his JD from Georgetown University Law Center.

It is now my pleasure to yield to the gentleman from Georgia for our final introduction, Mr. Collins.

Mr. COLLINS. Thank you, Mr. Chairman.

I appreciate this. This is an interesting thing from my—from being a member of Congress now to be introducing a member of the press from my own State, which I am please to do.

It is an honor and a privilege to welcome Kevin Riley to Capitol Hill today. Kevin serves as the editor of the Atlanta Journal Constitution in my home State of Georgia. As those of you from Georgia know, the AJC is one of the best in the business. Even though it is located in Atlanta, I would argue it is where the entire State of Georgia goes to get their news.

Kevin has served as editor for nearly 10 years now and has worked in the news industry for nearly 40. In 2001, the Newspaper Association of America named Riley one of the industry's 20 under 40 up-and-comers, and he is well-known as an effective collaborative and innovative leader.

But you know sometimes you need to say a little more. So we asked one of his reporters, Greg Bluestein of the AJC that works for Kevin describe how he would describe his boss. I think it is very telling.

Kevin is the type of editor who encourages the reporters to experiment and try new things by doing it himself. Shortly after the AJC unveiled a personal journey feature, he wrote a masterful story about a World War II veteran returning to the French battlefield for the fist time since the fight helping to unlock a 69-year-old mystery in the process. And when we started getting involved in the podcast, Kevin headlined a season of the Breakdown show focusing on the murders of two young Atlantans. As we in the newspaper industry face more demands to tell stories in different ways, Kevin has been on the forefront of going on TV and radio to share our work.

He goes on to say, I am not just sucking up by saying this. Kevin is a perfect example of the case to lead.

And I think another one of your reporters Tamar Hallerman is here as well and probably would say the same thing. The perfect cases lead by example, and I can't think of a better compliment.

Earlier this year before we even introduced the Journalism Competition and Preservation Act, Kevin called to explain how critical this bill is for the AJC, for communities across Georgia, and for the entire newspaper industry. Local journalism is a core part of every community in Georgia and nationwide, and it is an honor to have a member of our local media here today.

And I yield back.

Mr. CICILLINE. I thank the gentleman.

We welcome all of our very distinguished witnesses and thank you for participating in today's hearing.

Now, if you would please rise, I will begin by swearing you in. Please raise your right hands.

Do you swear or affirm, under penalty of perjury, that the testimony you are about to give is true and correct to the best of your knowledge, information, and belief, so help you God?

Thank you.

Let the record reflect that the witnesses answered in the affirmative.

You may be seated.

Please note that each of your witness statements will be entered into the record in its entirety. Accordingly, I ask that you summarize your testimony in 5 minutes. And to help you stay within that time, there is a timing light on the table. When the light switches from green to yellow, you have 1 minute to conclude your testimony. When the light turns red, it signals your 5 minutes have expired.

Mr. Chavern, you may begin. You are recognized for 5 minutes.

TESTIMONY OF DAVID CHAVERN, PRESIDENT, NEWS MEDIA ALLIANCE; GENE KIMMELMAN, PRESIDENT, PUBLIC KNOWLEDGE; SALLY HUBBARD, DIRECTOR OF ENFORCEMENT STRATEGY, OPEN MARKETS INSTITUTE; MATTHEW SCHRUERS, VICE PRESIDENT, LAW AND POLICY, COMPUTER AND COMMUNICATIONS INDUSTRY ASSOCIATION; DAVID PITOFSKY, GENERAL COUNSEL, NEWS CORP; AND KEVIN RILEY, EDITOR, ATLANTA-JOURNAL CONSTITUTION

TESTIMONY OF DAVID CHAVERN

Mr. CHAVERN. Thank you. Chairman Cicilline, Chairman Nadler, Ranking Member Collins, Representative Armstrong, and members of the subcommittee, thank you for inviting me to participate in today's hearing.

My name is David Chavern, and I am the president and CEO of the News Media Alliance, a nonprofit trade association representing over 2,000 publishers across the United States. Our members include some of the largest news organizations covering events around the globe as well as local publishers focussing on the issues that impact communities and the daily lives of citizens in every state and congressional district.

The news media has played a key role in our democracy since its founding. The mission has been to enrich society's understanding and foster public discourse that is vital to a healthy democracy. And over the years, the news media has filled that mission extremely well.

We are also an industry that has fully embraced a digital future. Publishers offer a wide array of innovative and compelling online experiences sustained by truly great journalism. And my membership includes a number of digital only news publishers.

But the rise of digital news distribution has also introduced new and potentially existential threats to the news industry. Specifically the emergence of dominant tech platforms as intermediaries between publishers and their audiences. Online platforms serve an important purpose. Today, 93 percent of Americans get at least some of their news online. These platforms help users find great journalism. And in doing so, they have contributed to the enormous growth in news audiences over the past 2 decades.

In the same way the digital platforms are critical for online news, online news is critical for the digital platforms. The public demand for quality journalism is massive and growing, and that has driven deep engagement with Facebook and Google. A study we released yesterday estimates that news content generated some $4.7 billion for Google in 2018.

The platforms and news organizations mutual reliance would not be a problem if not for the fact that the concentration among the platforms means that a small number of companies now exercise an extreme level of control over the news. And, in fact, a couple of dominant firms act as regulators of the news industry. Only these regulators are not constrained by legislative or Democratic oversight.

The result has been to siphon revenue away from news publishers. This trend is clear if you compare the growth in Google's total advertising revenue to the decline in the news industries' ad revenue.

In 2004, Google's U.S. revenue was 2.1 billion while the newspaper industry accounted for 48 billion in advertising revenue. In 2017, in contrast, Google's U.S. revenue had increased over 25 times to 52.4 billion while the newspaper industry's ad revenue had fallen 65 percent to 16.4 billion.

The effect of this revenue decline in publishers has been terrible, and they have been forced to cut back on their investments in journalism. That is a reason why newsroom employment has fallen nearly a quarter over the last decade. One question that might be asked is if the platforms are on balance having such a negative impact on the news media, then why don't publishers do something about it?

The answer is they cannot, at least under the existing antitrust laws. News publishers face a collective action problem. No publisher on its own can stand up to the tech giants. The risk of demotion or exclusion from the platforms is simply too great. And the antitrust laws prevent news organizations from acting collectively. So the result is that publishers are forced to accept whatever terms and restrictions are imposed on them.

The Journalism Competition and Preservation Act introduced by Chairman Cicilline and Ranking Member Collins is an innovative market-oriented solution to this collective action problem. Markets work best when both parties have some leverage to ask for better terms and to credibly withdraw from negotiations if the other side's demands are unreasonable.

Our goal is actually to find a way to work sustainably with the online platforms to give Americans the best journalism possible. Present trends in the news business simply cannot continue. Without some action to give news publishers a voice in their future, we will all experience the effects of deep financial stress in this industry and the loss of great important journalism in communities across the country.

It is not too much to say that the very fabric of our civic society is at risk. And this is not a problem that will be solved by private charity, from individuals, or even the big platforms themselves. What we need are sustainable business relationships that return value to the great important journalists who create the news content on which we all depend.

Again, thank you very much for having me here today.

[The statement of Mr. Chavern follows:]

Committee on the Judiciary
Subcommittee on Antitrust, Commercial and Administrative Law
United States House of Representatives

Testimony of David Chavern
President and CEO
News Media Alliance

June 11, 2019

Chairman Cicilline, Ranking Member Sensenbrenner, and members of the subcommittee, thank you for inviting me to participate in today's hearing.

My name is David Chavern, and I am president and CEO of the News Media Alliance, a nonprofit trade association representing over 2,000 newspapers across the United States. Our members include some of the largest news organizations covering events around the globe, as well as local newspapers focusing on the issues that impact the communities and daily lives of citizens in every state and congressional district. Our members publish both online and in print.

The news media has played a key role in our democracy since our founding. Its mission has been to enrich society's knowledge base and to foster the public discourse that is vital in a healthy democracy. And over the years, the news media has fulfilled that mission.

We are an industry of innovators. News organizations have always been among the first to adopt new technologies and to find new ways to connect with the public. That has never been more true than with the advent of the Internet. Over the past two decades, news organizations have rapidly evolved from providing content solely in print to offering digital access across a range of mediums and devices. In doing so, they have reimagined the ways in which they report news and distribute content:

- They have invested in making sure their audiences have up-to-the-minute facts about rapidly developing world events.

- They have personalized news by delivering stories that are most relevant to individual readers.

- They have developed new ways to gather, analyze, and present data that gives people a deeper understanding of their world.

- They have created apps and websites to offer a better user experience that invites audiences to engage more deeply in current events.

- And they have invested in video, podcasting, and other online media formats to connect with audiences in new ways.

The news media has thus been at the forefront of embracing and adapting to the digital age. But at the same time, the rise of digital news distribution has introduced new, potentially existential threats to the news industry. Specifically, the emergence of dominant tech platforms as intermediaries between news organizations and their audiences threatens to bring to naught the news industry's investments in a digital future.

Online platforms serve an important purpose. Today, 93% of Americans get at least some of their news online.[1] Digital platforms help online users find news and other content that they might otherwise miss. In doing so, they have contributed to the enormous growth in digital news audiences over the past two decades.

In the same way that digital platforms are critical for online news, online news is critical for the digital platforms. According to a study conducted by NMA, approximately 40% of clicks on "Trending Queries" and 16% on high-volume queries in Google Search are news content.[2] That translates into big money for Google. Our researchers estimate that links to news content have earned approximately $4.7 billion annually for Google in search advertising revenue—and that number does not even include the revenue Google generates from ads that appear on news organizations' own sites.[3] Facebook's reliance on news content to drive user engagement (and revenue) is similarly high.

Estimation of Google Revenue from News Search Results

Year	Revenue from Google Properties	Google Stated Value of Google News	Google News Fraction of Properties Revenue	Google News to Google Search Scaling Factor	Fraction of Google Property Revenue attributable to news on Google Search	Estimated value of news on Google Search	Estimated value of news on Google Search and Google News
2014	$14b	$100m	0.7%	6	4.2%		
2018	$96b		0.7%	6	4.2%	$4.0b	$4.7b

The platforms' and news organizations' mutual reliance upon one another would not be a problem if not for the fact that concentration among the platforms means a small cadre of tech giants exercise an extreme level of control over news. At the same time, those same platforms also control the digital advertising technologies that news organizations use to monetize traffic. This has proven to be a dangerous combination.

[1] http://www.journalism.org/fact-sheet/digital-news/; http://www.journalism.org/2016/07/07/pathways-to-news/.

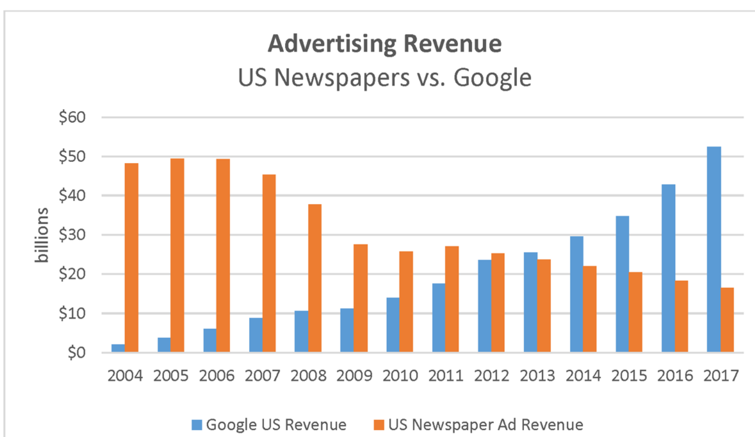
[2] To conduct this study, NMA researchers scraped Google desktop search results pages on a daily basis between February 8, 2019 to March 4, 2019 after generating query terms based on ahrefs.com and Google Trends. The researchers then cross-referenced the results against news domains identified by NMA and Google News. They then developed click-through data and other data based on third-party research.

[3] This estimate is based off of Google's public statements that Google News alone—which accounts for only a fraction of Google's news-related content and traffic—generated an estimated $100 million in yearly revenue in 2008. http://fortune.com/2008/07/22/whats-google-news-worth-100-million/. Although Google has provided no more recent estimates of the value of news content, the $100 million figure quoted by Google can be extrapolated in a straightforward way to suggest an estimated $4.7 billion of news-related revenue in 2018.

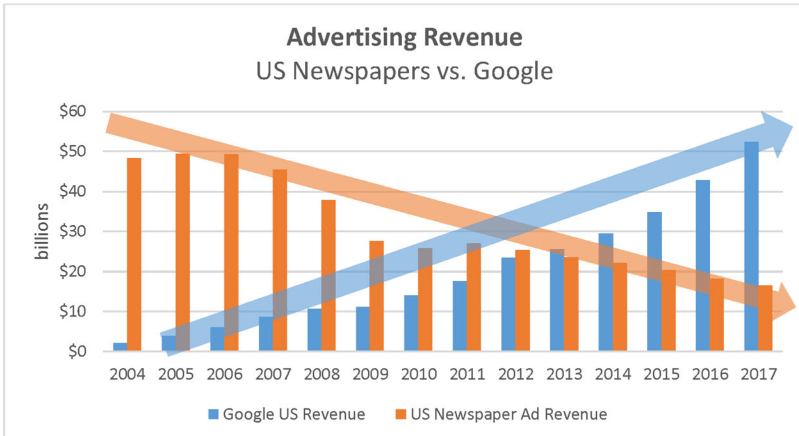
In today's digital age, the tech giants' dual control over news distribution and monetization threatens the very survival of news organizations. These tech giants use secret, unpredictable algorithms to determine how and even whether content is delivered to readers. They scrape news organizations' content and use it to their own ends, without permission or remuneration for the companies that generated the content in the first place. They also suppress news organizations' brands, control their data, and refuse to recognize and support quality journalism.

In effect, a couple of dominant tech platforms are acting as regulators of the digital news industry. Only these regulators are unconstrained by legislative or democratic oversight. And their primary motivation is not to serve the public interest, but rather to maximize their own advertising revenues. Indeed, two dominant platforms—Google and Facebook—now take the vast majority of U.S. online ad revenue through their online advertising services, leaving news organizations with little to reinvest in high-quality, original journalism. They capture that revenue in two ways. First, they scrape news organizations' content and display it on their own pages, where they can monetize it through ads. Second, they control the advertising technology news organizations use to sell ads on their own sites, and the platforms charge increasingly exorbitant fees for the use of those technologies.

The result of the tech platforms' regulation of the news industry has been to siphon revenue away from news organizations. This trend is clear if you compare the growth in Google's total advertising revenue to the decline in the newspaper industry's ad revenue. In 2004, Google's US revenue (which came overwhelmingly from digital advertising) was $2.1 billion, while the newspaper industry accounted for $48 billion of advertising revenue. In 2017, in contrast, Google's US revenue had increased over twenty-five times to $52.4 billion, while the newspaper industry's ad revenue had fallen 65% to $16.4 billion.



Source: Google 10-K filings; NAA Estimates



Source: Google 10-K filings; NAA Estimates

	Google US Revenue ($b)	US Newspaper Ad Revenue ($b)
2004	2.1	48.2
2005	3.8	49.4
2006	6.0	49.3
2007	8.7	45.4
2008	10.6	37.8
2009	11.2	27.6
2010	14.1	25.8
2011	17.6	27.1
2012	23.5	25.3
2013	25.6	23.6
2014	29.5	22.1
2015	34.8	20.4
2016	42.8	18.3
2017	52.4	16.5

The effect of this revenue decline on news organizations has been catastrophic, and they have been forced to cut back on their investments in journalism. That is the reason that newsroom employment has fallen by nearly a quarter over the last decade.[4]

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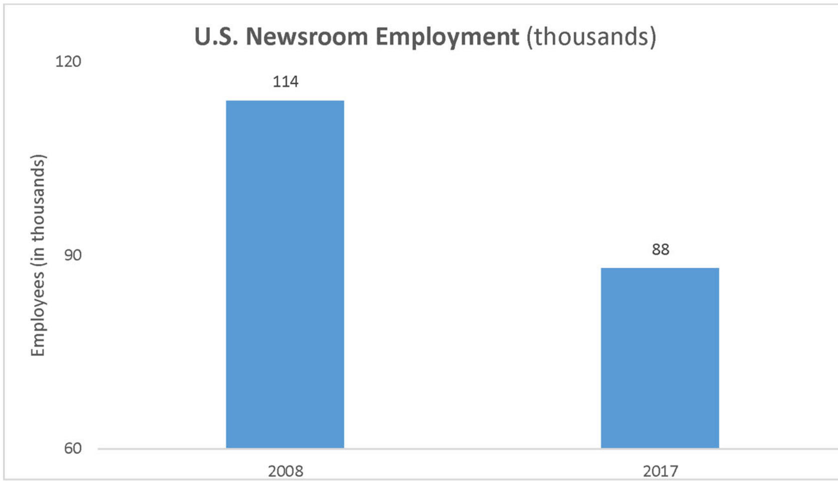
[4] Elizabeth Grieco, Newsroom employment dropped nearly a quarter in less than 10 years, with greatest decline at newspapers, Pew Research Ctr. (July 30, 2018), https://www.pewresearch.org/fact-



Source: Pew Research Center

One question that might be asked is, "If the platforms are, on balance, having such a negative impact on the news media, then why don't news organizations do something about it?" The answer is that they cannot—at least not under the existing antitrust laws.

News organizations face a collective action problem. It is in each of their interests to resist harmful or exploitative policies imposed by platform monopolists. It is in their interest to resist scraping, to demand attribution for their content, to demand better remuneration for their content, and to demand a greater focus on originality and reliability. But no news organization on its own can stand up to the platforms. The risk of demotion or exclusion from the platforms is simply too great. And the antitrust laws prevent news organizations from acting collectively, so the result is that publishers are forced to accept whatever terms or restrictions the dominant platforms choose to impose.

The Journalism Competition and Preservation Act, introduced by Chairman Cicilline and Ranking Member Collins, is an innovative, market-oriented solution to this collective action dilemma. Markets work best when different parties can negotiate with one another on reasonably even footing—and where both parties have some leverage to credibly withdraw from negotiations if the other side demands unreasonable or exploitative terms. Monopolies frustrate this dynamic because monopolists know the other side cannot afford to resist their demands, so they are free to impose welfare-reducing, inefficient terms on their negotiating partners. The Journalism Competition and Preservation Act helps remedy this imbalance by allowing news organizations to bargain collectively against dominant tech platforms. Our expectation is that, by doing so, news organizations

tank/2018/07/30/newsroom-employment-dropped-nearly-a-quarter-in-less-than-10-years-with-greatest-decline-at-newspapers/.

will be better situated to partner with tech platforms to find better ways to reach audiences, generate content, and support high-quality journalism.

Ultimately, our goal is to work with online platforms to give Americans the best news content and experience possible. Today's market dynamics—in which a few tech intermediaries have been permitted to thoroughly monopolize their distribution channels—is not conducive to that goal. The Journalism Competition and Protection Act promises to help solve that problem while remaining true to the spirit of free market competition that animate the antitrust laws.

Present trends in the news business cannot continue. Without action by the Congress, we will all experience the effects of deep financial stress in the industry, and the loss of great, important journalism in communities all across the country. The very fabric of our civic society is at risk. And this is not a problem that will be solved by private charity from the wealthy – or even from the big platforms themselves. What we need to sustainable business relationships that actually return value to the great and important journalists who create the news content on which we all depend.

Mr. CICILLINE. Thank you, Mr. Chavern.

Mr. Kimmelman, you are now recognized for 5 minutes.

TESTIMONY OF GENE KIMMELMAN

Mr. KIMMELMAN. Thank you, Mr. Chairman, members of the subcommittee. On behalf of Public Knowledge, I appreciate the invitation to testify today.

Your opening statements across the—across the board highlight what I think are the natural economic tendencies of what has happened in the digital marketplace. We have enormous sunk cost in platforms that then return scale economies and scope economies with declining costs. These are network effect industries. It is not new to our economy. This is a new form of it. And what we see is a tendency towards a few companies dominating in that space. It is the natural economics of the space.

And you have also highlighted the concern about gatekeeper roles and bottlenecks. And we have a history of this, of concern about this. And the history includes all of the media including the newspapers, for abusive power when we have had too much concentration, too few players in the marketplace, too few independent voices that stifle a marketplace of ideas.

So we have had these problems in the past with previous technologies. We are having them again now. In some instances, antitrust has been the right tool to address them. In some instances, Congress has stepped in with other policy solutions. I urge you to consider all of that.

We have massive power here in the marketplace of ideas, and it stems both on the technology side and on the content and distribution side. I think all of it needs to be looked at.

It is important to fight against concentrated power and dominance at all levels of the distribution chain and to maximize competitive market forces, particularly when they involve the marketplace of ideas. Clearly we need strong enforcement of the antitrust laws, and we need to consider new laws. I appreciate the committee stepping in to begin this detailed study.

But it is important that, as we attempt to stop these abuses where we find them, that we don't create new monopoly power just to take on dominance. It is critical to tackle dominance head on and not create more monopoly.

The digital marketplace, as we all know, has totally transformed our lives. It has destroyed all kinds of brick-and-mortar players, industries, companies, and that includes classified and display ads in the print business. It is much broader than just news, news as being important.

What I am afraid we need to confront is the money from that old model, from that business model, will never come back. It is gone. I think journalism needs to consider a new business model, and we should do everything we can with public policy tools to help. The digital age will require new forms of creative financing in order to get local news and fight misinformation in the marketplace. Public support will be necessary.

I urge you to consider creating some kind of public service duty of care to deliver trustworthy information, not subsidizing companies or industries but instead promoting fact-checking information accuracy services that deliver value and that can be supported to protect local media and news in particular.

In a digital platform space, I think what is most important is to look at those natural economic tendencies towards—tipping towards dominance, creating barriers to entry that make it very difficult to foster competition and innovation in the markets and examine whether anyone is putting their thumb on the scale either in violation of the antitrust laws or otherwise principles of fairness in our society.

That is why your inquiry is so important, and I commend your effort to look carefully both at what the problems are and what the possible solutions should be.

Consumers themselves are actually reinforcing the problem. We are on the negative side lazy but mostly just complacent to do what is simple. That reinforces the power of those who have our attention in the first place and can find ways to make it very attractive for us not to consider competitive options, new options, better news as opposed to just salacious information.

It is important that we look at all policy tools that are available to address these concerns. Antitrust can do something to try to improve enforcement. But where you have dominance in markets, few players, little entry, often you need broader policy tools. I urge you to consider nondiscrimination, interoperability where there is bottleneck problems. We have done this in telecommunications before. We have done it in the cable industry. This would not be a first for Congress. Now is the time to consider it for digital platforms.

Thank you.

[The statement of Mr. Kimmelman follows:]

Public Knowledge

Testimony of
Gene Kimmelman[1]
President and CEO
Public Knowledge

Before the
United States House of Representatives
Committee on the Judiciary

Subcommittee on
Antitrust, Commercial, and Administrative Law

Hearing on:
Online Platforms and Market Power, Part 1: The Free and Diverse Press

Washington, D.C.
June 11, 2019

[1] I want to thank Charlotte Slaiman, Competition Policy Counsel, and Sanjay Jolly, Legal Advocacy Intern, for their support in preparing this statement.

Given the important role large digital platforms play in virtually every aspect of our economy and democracy, we welcome the House Judiciary Committee's decision to launch an investigation into competition in digital platforms. As a few companies have grown to increasingly dominate key elements of the digital marketplace, this investigation is very timely and necessary.

Just as this committee and the Energy & Commerce Committee engaged in economic marketplace analysis through extensive hearings and legislative deliberations in the 1980s and 90s, seeking to understand potential market disruptions in the telecommunications and media industries, it is now appropriate to do the same in the digital marketplace. We hope the Committee will focus on information gathering to determine the ways in which the market is not performing optimally and identify what legal changes are necessary. We believe that strong antitrust enforcement and updated understanding of market dynamics can address many competitive shortcomings. However antitrust alone cannot maximize competition and sustain the democracy to which we aspire. Congress must do more to address these challenges.

Communications platforms have played a critical role in the dissemination of news and information and the practice of democracy in our society for almost two hundred years. Whether it was the telegraph, radio, telephone, television, cable, broadband or the internet, these distribution systems have influenced the way journalism is amplified throughout our society to extend the power of news and print media with each technological advancement. Each of these communications platforms also embodied economic and technological attributes that made robust market competition across platforms difficult, if not impossible, without policy intervention. Whether it was spectrum limitations, monopoly franchising arrangements, or network economics, we have constantly struggled to bring maximum market competition and diversity of ownership and viewpoints to bear in the dissemination of news and information in our society. Today is no exception.

Critical analytical journalism, a pillar of the democratic process, should benefit from a mass communications distribution platform to reach the broadest public. But as with past platforms, the internet distribution system needs public policy oversight to prevent monopolistic players from limiting robust, diverse, and thought-provoking journalism from reaching the public.

The harsh realities of the journalism marketplace coincide with the growing importance of digital platforms as an essential tool for news and information dissemination. More and more consumers get their newspaper and media news information online, relying upon platforms like Google, Apple, and Facebook to deliver the content they desire. As we consider policy interventions necessary to overcome the digital market's natural inability to generate enough revenue to support the highest quality journalism, it is important to consider whether the major digital platforms should play a more meaningful role to help overcome these problems.

The Crucially Important News Industry Faces Economic Challenges Today

A thriving news industry benefits our democracy immensely. News that is independent, follows the ethics of journalistic integrity, and that is focused at the state and local level, provides an important check on the power that large institutions--corporations and the government--have over the people. The news helps us hold these institutions to account, and make sure we are making informed choices at the ballot box and with our purchase decisions.

Local news is particularly important and faces more difficult challenges. In the last decade, several hundred newspapers have shut down, merged or cut back from daily to weekly publication. Most of the approximately 8,000 local newspapers that survive are small dailies and weeklies with a circulation of less than 15,000. Many are the primary, if not sole, source of local news. Since 2004, more than a third of the country's newspapers have changed ownership; some sold two or more times. Faced with steep declines in revenue, many long-time owners have declared bankruptcy. At the end of 2004, the three largest companies owned 487 newspapers with a combined circulation of 9.8 million. In 2016, the three largest companies own about 900 papers that have a combined circulation of 12.7 million. In contrast to 20th century media companies that would "buy and hold" newspapers for many years, today's investment groups actively manage the newspapers they own, keeping a short-term focus on the bottom line. Because the media barons acquire newspapers primarily—or solely—as an investment, often as a relatively modest part of a diverse portfolio of non-media assets, they do not pay close attention to the quality of journalism produced by their newspapers.[2] As the realities of the digital marketplace started taking hold, profit-maximizing newspapers and media felt increasing pressure between preserving quality and making money, often choosing consolidation to the detriment of diverse ownership to preserve their embedded business structure. The result is lower quality news.

[2] Abernathy, P.M. (2016). The Rise of the New Media Baron and the Emerging Threat of News Deserts. Center for Innovation and Sustainability in Local Media, University of North Carolina at Chapel Hill. Available at http://newspaperownership.com/wp-content/uploads/2016/09/07.UNC_RiseOfNewMediaBaron_SinglePage_01Sep2016-REDUCED.pdf

Today, the economics just don't work for most newspapers. As readers transitioned to consuming news online, several important changes occurred in the industry. Classified ads, historically a major source of revenue for newspapers, have largely been replaced by online products like Craigslist, AutoTrader, and Zip Recruiter. More accurate data identifying what sources of information people actually spend most time on, now possible in the digital realm, has had the duel effects of decreasing the value of ads, and highlighting which types of news achieve the best "bang for the buck" in terms of obtaining many readers for a low investment. Unfortunately, it's not the type of high-quality journalism we'd like to imagine people seek out from newspapers. Print ad revenue has declined as data demonstrated to advertisers that they were not placing their ad money where consumers were spending the most time.[3]

Misinformation

As we consider the plight of journalism and the news industry in today's digital marketplace, one fact must not be forgotten. The historically powerful television media and the most prominent print journalism entities contribute some of the most powerful sources of news and information on the internet. Whether it is Fox News, NBC, the New York Times or the Wall Street Journal, these established media "brands" have a supersized and amplified role in today's internet driven information marketplace as redistributed content. In other words, traditional media, and its most powerful players, are integrally connected to the most powerful ways that the internet informs and influences consumers in the digital marketplace.

As Harvard Law Professor and news industry researcher Yochai Benkler points out in his book Network Propaganda, we cannot understand the power of internet information distribution without also accounting for the manner in which traditional powerful media voices fuel the information that flows on the internet. In 2016, he says, "Something fundamental was happening to threaten democracy, and our collective eye fell on the novel and rapidly changing— technology. Technological processes beyond the control of any person or country—the convergence of social media, algorithmic news curation, bots, artificial intelligence, and big data analysis—were creating echo chambers that reinforced our biases." But that wasn't quite the whole story according to Benkler and his co-authors. "Facebook didn't create the asymmetric architecture of the American public sphere. Nor did the internet or the blogosphere. The asymmetry is already clear in patterns of attention to cable news networks and talk radio." Even without the choices made by digital

[3] Mary Meeker, Internet Trends 2018, Kleiner Perkins, Slide 96, available at https://techcrunch.com/2018/05/30/internet-trends-2018/; compare to Meeker, Internet Trends 2015, Kleiner Perkins, Slide 16, available at https://techcrunch.com/2015/05/27/the-mary-meeker-internet-trends-2015-report/.

platforms, we see the problems of misinformation in the news media. Benkler's in depth analysis showed that, "On the left, politicians and partisans have to navigate the scrutiny and fact checking of objective media sources to reach broader audiences. On the partisan right, the gatekeepers are Fox News, talk radio, Breitbart, and the Drudge Report." Needless to say, Benkler does not consider these news outlets to be responsible curators of high quality news.

Another important source of misinformation and political radicalization has been YouTube, owned by Google's parent company, Alphabet.[4] YouTube's recommendation algorithm, the computer program that decides which video to recommend to users after they have watched one video, appears to have discovered that extreme content is more likely to keep users watching.[5] Even if you yourself don't take recommendations from the algorithm, 70% of time spent on the site is watching algorithm-suggested videos.[6] Just as sensational headlines helped sell more papers during the height of the original "fake news" at the turn of the last century, sensational videos increase user engagement, helping YouTube and its content creators make more money.

The Role of Digital Platforms

We have witnessed the early power of the internet explode to the point where today, there is no area of human life that has not been affected by it. We now buy goods and services, do banking, pay bills, find information, and talk with multiple groups of friends and acquaintances on the web. The speed, scale, and scope of the internet, and of the technologies it has enabled, have been of unprecedented value.

In particular, digital platforms have aided citizens in their role as information producers and disseminators. While the curatorial role of traditional news outlets is incredibly valuable, it is not infallible. In 2014, Michael Brown was fatally shot by police officer Darren Wilson in Ferguson, Missouri. This tragedy, and the ensuing protests that it sparked, were initially ignored by mainstream media outlets. Regular people, "citizen journalists," took to Twitter to share what they were seeing, and eventually the mainstream news had no choice but to pay attention. Black Lives Matter activist DeRay McKesson said,

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[4] Kevin Roose, "The Making of a YouTube Radical", New York Times, June 8, 2019. Available at https://www.nytimes.com/interactive/2019/06/08/technology/youtube-radical.html.
[5] Just last week, YouTube announced that it is planning to change some of its content moderation policies to try to address this problem. It remains to be seen what impact this change will have. YouTube Official Blog, "Our ongoing work to tackle hate", June 5, 2019. Available at https://youtube.googleblog.com/2019/06/our-ongoing-work-to-tackle-hate.html.
[6] Kevin Roose, "The Making of a YouTube Radical", New York Times, June 8, 2019. Available at https://www.nytimes.com/interactive/2019/06/08/technology/youtube-radical.html.

"In no uncertain terms, if it were not for Twitter and Instagram, the majority would have tried to convince you that we did not exist."[7]

At the same time, the exploding digital marketplace has effectively wiped out the market for print classified and display advertising. Because digital advertising is much cheaper, can be more personally targeted, and fits well with today's disaggregated news delivery, it is hard to imagine that the newspaper and news media industry could replace its lost print advertising online, even if all ad revenue flowed back to journalism. Therefore, the financing of quality news in the digital market will require new sources of revenue far beyond advertising to remain a positive force for democracy.

I have attached a report I recently co-authored that analyzed the economics of digital platforms and potential policy solutions.[8] The report found that digital platforms, such as Google, Amazon, Apple, and Facebook, often have strong economies of scale and economies of scope. They have low marginal costs since their products are digital rather than physical, and they benefit from increasing returns to data collection and aggregation. They often have strong network effects. This leads platform markets to be prone to tipping towards monopoly or dominance. As a result, we see significant barriers to entry into these markets by any new competitor. The winner in these settings often has a large cost advantage from its scale of operations and profit advantage from the scale of its data. An entrant cannot generally overcome these without a similar user base which is difficult to obtain quickly and cost-effectively.

Additional barriers to entry are generated by consumer behavior. Economists increasingly recognize that consumers do not always behave perfectly rationally, and sometimes it's rational not to expend the extra time to allow products to compete for your business. Crucial to the power of digital platforms, the report found that, "Consumers do not scroll down to see more search results, they agree to settings chosen by the service,

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[7] Jenee Desmond-Harris, "Twitter forced the world to pay attention to ferguson. It won't last.", Vox.com, available at https://www.vox.com/2015/1/14/7539649/ferguson-protests-twitter. Also see Zeynep Tufekci, Twitter and Tear Gas, for an excellent and nuanced discussion of this topic.

[8] The University of Chicago Booth School of Business, George J. Stigler Center for the Study of the Economy and the State hosted its annual Antitrust and Competition Conference this year on the subject of digital platforms. The Market Structure and Antitrust Subcommittee Report is appended to this statement, and it is available at https://research.chicagobooth.edu/-/media/research/stigler/pdfs/market-structure---report-as-of-15-may-2019.pdf. Hereinafter, the Chicago Report. Harold Feld also recently discussed these issues in his ebook "The Case for the Digital Platform Act." See http://www.digitalplatformact.com

they single-home on one platform, and they generally take actions that favor the status quo and make it difficult for an entrant to attract consumers. In general, the findings from the behavioral economics literature demonstrate an under-recognized market power held by incumbent digital platforms."[9] This impact can be purposefully exacerbated by platforms using the very detailed large datasets they acquire from us to identify and exploit consumers' many behavioral shortcomings and biases in real time. "Framing, nudges, and defaults can direct a consumer to the choice that is most profitable for the platform," often staying on the platform for as long as possible, also known as "engagement".[10]

The role of data in digital sectors is critical. Personal data of all types allows for targeted advertising to consumers, a common revenue model for platforms. The report shows that the returns to more dimensions and types of data may be increasing, which again advantages incumbents. Consumer data in the United States is not regulated in any way that gives useful control or privacy to consumers; and additionally, most consumers have little idea what is being collected about them and re-sold. One way in which digital platforms often exploit their market power – and increase their profits – is by requiring consumers to agree to terms and conditions that are unclear, difficult to understand, and constantly changing, but which give the platform freedom to monetize consumers' personal data.

New entrants are crucial to market dynamism, provide more choice, different features, and a chance of higher quality. Even just the threat of new entry spurs an incumbent to provide lower prices, higher quality and innovation, and to do so more quickly. New competition in digital platforms would also provide broader societal benefits, that we believe should lead to a market that offers a better financial situation and more opportunities for news. Persistent market power by one or a few firms leads to stagnation. It is impossible to know what innovations we are missing out on today because there has been dampened competition in this crucial portion of the digital economy for the last few years.

Policy Solutions

These market realities present significant challenges for antitrust enforcement. Even if the Federal Trade Commission (FTC) and Department of Justice (DOJ) enforce the antitrust laws to the fullest, as we advocate for them to do, that may not be enough to generate competitive digital markets in a timely fashion. That's why we think this Committee's investigation into competition and the necessary tools to promote increased competition in digital markets is crucially important.

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[9] Chicago Report, 6.
[10] Chicago Report, 7.

Ultimately we cannot rely on antitrust alone to address the problems of platform power. We need a sector-specific regulator with expertise in how digital platforms operate and authority to affirmatively promote competition. The potential problems posed by the power of digital platforms are myriad, and impact not just the news industry, but all of digital commerce and communication. The tendency of these platforms to tip toward monopoly once a sufficient size is reached requires policy tools than can be deployed much more quickly than the antitrust investigation process tends to allow for. This means a regulator with broader authority and a speedy rulemaking process is needed for competition to thrive. I look forward to the Subcommittee's continued investigation of this broader subject.

Any solution focused on news must address the concerns of misinformation and lack of trust in the news. The new expert regulator can set up systems of content moderation for platforms to pay for various mechanisms of information reliability. This includes products like NewsGuard, which analyzes the news outlet and its news gathering processes to give a certification of compliance with journalistic ethics. It could be expanded to include direct fact-checking and information analysis of individual articles and even other internet-distributed content the public tends to rely upon as sources of information. It's important to note, that although the digital platform may, and we believe should pay for these content moderation services, it does not make sense for the platform itself to provide these services. The key is to separate these functions from the ad-driven goal of increasing engagement and compensate those who provide the public with information analytics to help separate fact from fiction.[11]

We believe Congress should provide new incentives for investment in high-quality local journalism.[12] Any method of public funding that Congress devises must focus on supporting local news outlets to provide quality local news. This is the type of news that is most needed and yet is least supported in today's market.

In addition, the digital platforms that have grown dominant through scale, scope, and control of data must not be allowed to use their market power to in any way impede

[11] This concept was proposed at the same Chicago Conference by the subcommittee focused on the media. That subcommittee has published an executive summary, but their full report is still forthcoming. It will be available here when it is published: https://research.chicagobooth.edu/stigler/events/single-events/antitrust-competition-conference. We also believe their other proposals are worthy of discussion and may indicate a path forward.

[12] The media subcommittee, after extensive research, identified public funding for news as its top priority.

fair market pricing for valuable journalistic products. Even when fully complying with the antitrust laws, it also makes sense to require dominant digital platforms to contribute to sustain the positive benefits to our democracy that flow from the dissemination of quality news and information on their platforms.

We do not believe this problem will be solved by allowing more consolidation of power, whether among platforms or media. And we believe exceptions to the antitrust laws should be a tool of last resort, if they are ever used.[13] Enabling excess market power to challenge the existing dominant platforms does nothing to address the long term need to develop market forces that promote strong local journalism, and does nothing to reduce any undue market power that may have made current market conditions worse.

Conclusion

Congress must address the market externalities and any unfair practices that are undermining opportunities to invest in and make money through sound journalism. We are firmly committed to working with Congress and law enforcement agencies to modernize our laws and update enforcement practices to achieve this important goal. We urge the Committee to use this investigation process to evaluate where markets are not performing properly and what policy tools are best suited to addressing these harms. A thorough investigation of the digital marketplace should inform policy proposals both for antitrust and other pro-competition tools that can most effectively open markets to expanded competition while simultaneously preventing abusive practices by dominant firms. We urge the Committee to methodically probe market problems and determine the most effective policy tools necessary to address them.

[13] Newspapers and others have alternative ways to band together with the blessings of antitrust enforcers, which prevent industry collusion. https://www.justice.gov/sites/default/files/atr/legacy/2010/04/01/257318.pdf

Mr. CICILLINE. Thank you, Mr. Kimmelman.

The chair now recognizes Ms. Hubbard for her opening statement for 5 minutes.

TESTIMONY OF SALLY HUBBARD

Ms. HUBBARD. Chairman Cicilline and members of the subcommittee, thank you for inviting me to speak with you today.

In my view as a former antitrust enforcer, the starving of journalism and the disinformation crisis are both, in good part, monopoly problems. I have been writing about antitrust and tech platforms since the summer of 2016 when I noticed that the tech giants, Google, Apple, Facebook, and Amazon, were all doing the same types of things that Microsoft had been sued for nearly 20 years earlier. They were leveraging their market power to make fair competition impossible.

These tech giants are gatekeepers that also compete against companies that must get through their gates to reach users. News publishers must get through Facebook and Google's gates due to the two platforms' concentrated control over the flow of information.

But Facebook and Google compete against news publishers for user attention, data, and ad dollars. They are controlling the game and playing it too.

Publishers never had a fair shot, nor do they have bargaining power against the platforms. The platforms can cut them off with a simple tweak of their algorithms. Facebook and Google exploit their middleman positions to divert ad revenue away from publishers and into their own pockets. And the platforms can hyper target users based on their 360-degree views of what their users read, think, and do, thanks to their ability to track users across millions of websites and even offline.

Last year, Facebook and Google accounted for approximately 85 percent of the growth of more than—of the more than $150 billion digital ad market in the U.S. and the EU according to Digital Content Next, which is a main trade association for publishers.

As for disinformation, Facebook and YouTube program their algorithms to prioritize engagement which amplifies propaganda. Through surveillance, Facebook and Google learn what messages people are susceptible to whether ads or propaganda. Then they rent out these manipulation machines to others for huge profit.

The scale of the manipulation is massive because of Facebook and Google's dominance. And the platform's lack of competitive pressure to fix the disinformation problem because the closest subsidy for Facebook users is Instagram which Facebook owns. Users need to be able to vote with their feet and switch to alternatives.

To their credit, Facebook and Google started on their paths to dominance with innovation. But their monopoly power is not purely the result of competing on the merits. Facebook has repeatedly acquired rivals including Instagram and WhatsApp. And Google's acquisition cemented its market power throughout the ad ecosystem as it bought up the digital ad market spoke by spoke including Applied Semantics, AdMob, and DoubleClick.

Together Facebook and Google have bought 150 companies in just the last 6 years. Google alone has bought nearly 250 companies. Thus far, antitrust enforcers have not stood in their way nor have they stopped Facebook and Google from leveraging their monopoly power to exclude competition.

Weak antitrust enforcement set the stage for these platforms to extract the fruits of publishers' laborer as much as monopolies are extracting wealth across most sectors of our economy. Monopolies are putting the American Dream at risk as people, including journalists, are not rewarded for their efforts.

Beginning immediately, antitrust enforcers should prevent Facebook and Google from acquiring competitive threats and companies that fortify their monopoly power. They should unwind anticompetitive deals and divest subsidiaries to open up competition, and they should stop exclusionary practices.

Antitrust enforcement alone won't solve everything discussed here today, but we won't be able to solve anything unless we weaken monopoly's power. It is a necessary but not sufficient condition. News is a social good that is essential to hold power account. It was a journalist named Ida Tarbell that took down the most notorious monopoly in U.S. history, Standard Oil.

News deserves special protection like it has had throughout American history through nondiscrimination and interoperability rules. We also need rules to curb invasive data collection by default and to give citizens ownership of their data.

The good news is we have been here before, as Gene pointed out. We have—these are not new challenges. We have stood up to powerful tech monopolists. Each time we are better for it. We only see new waves of innovation. We have restored our markets and removed gatekeepers.

But if we don't act now to change the structure of our markets, titans will continue to control speech, journalism will continue to wither, and so will our democracy.

Thank you.

[The statement of Ms. Hubbard follows:]

Testimony of Sally Hubbard

Director of Enforcement Strategy
Open Markets Institute

Before the
House Judiciary Committee
Subcommittee on Regulatory Reform, Commercial and Antitrust Law

On

"Online Platforms and Market Power, Part 1: The Free and Diverse Press"

June 11, 2019

Table of Contents

I. Introduction

Over the last two years, Americans have come to understand two fundamental problems relating to digital concentration. First is the realization that political actors abroad and in the United States had figured out how to exploit digital platforms to distribute propaganda and misinformation – popularly called "fake news" – in ways that disrupt our electoral systems and politics. Second is that the advertising-dependent business models of Facebook and Google (and increasingly Amazon) are based on an intimate surveillance of the actions and communications of hundreds of millions of individuals, and on the manipulation of user and business data.

These two private corporations simultaneously have centralized control over the flow of information and news between reporters and readers and diverted advertising revenue away from both traditional and Internet "native" publishers, at both the national and local levels, into their own coffers. With the ability to control the distribution of information, ad money, and the relationship between the reader and the news outlet, tech platform monopolists now have unprecedented power over reporters and news publishers themselves. This dynamic poses a threat to American democracy and to the most fundamental liberties of the individual.

Americans have faced similar challenges before, with the rise of then-revolutionary technologies such as the telegraph and telephone in the 19^{th} century and of radio and television in the 20^{th} Century. In each instance, we used government and competition policy to ensure the independence and financial viability of the news media. Over the course of more than two centuries, Americans developed many regulatory and policy tools that can be of use to us today.

II. Threats to Democracy

For today's hearing, I will focus on three main ways that digital platform monopolies threaten American democracy: (1) disinformation and propaganda; (2) the starving of journalism; and (3) control over speech.

A. Disinformation and Propaganda

First, digital platforms like Facebook and Google, and the Google-owned YouTube, are the main source of disinformation and propaganda. Facebook and Google track people both on their platforms and off, in order to target and influence them with advertising. And just as these platforms enable advertisers to influence people's purchasing decisions, they likewise enable propagandists to influence people's political decisions. Propagandists and disinformation agents are not hacking these platforms or misusing them. Rather, they are using these platforms exactly as designed, for influence and manipulation.

The problem is not just that Facebook and YouTube cannot properly identify and quickly take down disinformation, but rather that these platforms actually amplify propaganda. Facebook and YouTube program their algorithms to prioritize engagement to keep people on their platforms longer, collecting more of their data and showing them more ads. Their algorithms boost disinformation and propaganda because fear and anger "engage" humans the most.

Even worse, through ubiquitous tracking and compiling the data sets of billions of people, Facebook and Google learn what messages people are susceptible to – whether advertisements, extreme political propaganda, or election meddling.

Facebook and Google make a lot of their money by renting out their manipulation machines to just about anyone who comes along. In 2016 alone, the year of the U.S. presidential election and the Brexit vote, Facebook nearly *doubled* its ad revenue.[1] The scale of the manipulation is massive because of Facebook and Google's dominance and control of the flow of information globally.

These problems are not inevitable, but rather are the result of business choices. If Facebook and Google stopped collecting massive amounts of user data to feed their targeted advertising business models, foreign agents would not be able to so easily interfere with our elections by precisely targeting and manipulating users. If Facebook and YouTube stopped programming their algorithms to prioritize engagement, fake news and incendiary, hateful and polarizing content would not rise to the top of news feeds. Facebook and YouTube make business choices to prioritize engagement, keeping users on their platforms as long as possible to show them ads and collect their data.

We cannot have Democracy if we turn our broadcast platforms over to control by foreign agents and purveyors of disinformation.

B. The Starving of Journalism

A second important threat is that Facebook and Google exploit their middlemen positions to divert advertising away from publishers and into their own pockets in ways that starve trustworthy journalism. Last year Facebook and Google accounted for approximately 85% of the growth of the more than $150 billion North American and European digital advertising market.[2]

That's because Facebook and Google can hyper-target users based on their 360-degree views of what their users read, think, and do, thanks to their ability to track users across millions of websites and even offline. Facebook got so good at tracking consumers –

1 "Facebook Ad Revenue Tops $10bn," BBC News. November 01, 2017. https://www.bbc.com/news/business-41835989

2 Canada. Parliament. House of Commons. Standing Committee on Access to Information, Privacy and Ethics. *Testimony of Jason Kint.* 1st sess., 42nd Parliament, Meeting No. 151, 2019. https://www.ourcommons.ca/DocumentViewer/en/42-1/ETHI/meeting-151/evidence#Int-10649964

whether on Facebook or on millions of other websites with Facebook pixels[3] – that it could target ads better than any publisher could. Google likely knows more about consumers than even Facebook does.[4]

No publisher has anything similar, which means no publisher can really hope to compete with Google and Facebook for the advertising dollars needed to support journalism. As a result, we have seen our society hugely disrupted by the collapse of journalism at the local and state level. This means thousands fewer reporters and editors are covering the news.

The story of *Women You Should Know*, a pioneering online publisher that has been telling empowering women's stories for years, illustrates these first two threats to democracy. The site's founders, Jen Jones and Cynthia Hornig, built their small business with Facebook at its core, growing their Facebook fan base to more than 350,000 loyal followers. Their digital ad-supported business thrived, with Facebook followers regularly clicking to read their articles on their website.

But recently they began getting confusing messages from their followers, messages criticizing *Women You Should Know* for only sharing negative stories of violence against women and straying from their positive brand. Jen and Cynthia were baffled. Sure, they occasionally shared a story about gender-based violence, an important issue, but the uplifting stories outnumbered those articles by 20 to 1. Jen and Cynthia realized that Facebook's algorithms often were not showing followers their positive stories, but rather serving up the stories the provoke fear and anger. Jen and Cynthia wanted to empower women, but Facebook's algorithms were programmed to prioritize engagement, and so Facebook made women afraid instead.

Then Facebook tweaked its algorithm in 2018, promising to show more posts from friends and family.[5] Facebook's flip of a switch decimated *Women You Should Know*'s website traffic, as it did to many other publishers, a stark demonstration of Facebook's monopoly and gatekeeper power. Jen and Cynthia tried to enlist financial support from their huge base of Facebook followers. But Facebook, again, had other plans. All posts that used words like "donate" or "contribute" got buried by Facebook's algorithms and did not show up in their followers' news feeds. Why? Facebook had vertically integrated into fundraising, and in order to get donations to show up in followers' feeds, Jen and Cynthia needed to use Facebook's own fundraising feature. This is a common tactic of big tech platforms, using their monopoly power to steer users to their own products and services.

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3 "Facebook Letter to UK Parliament." Rebecca Stimson to Damian Collins Chair, Digital, Culture, Media and Sport Committee House of Commons. June 8, 2018. https://www.parliament.uk/documents/commons-committees/culture-media-and-sport/180608-Rebecca-Stimson-Facebook-to-Chair-re-oral-ev-follow-up.pdf.
4 "What Google and Facebook Know About You," Al Jazeera, March 29, 2018; https://www.aljazeera.com/news/2018/03/google-facebook-180329092252320.html
5 Mark Zuckerberg's Facebook Page. January 11, 2018. https://www.facebook.com/zuck/posts/10104413015393571

Women You Should Know is a publisher that is digital-native, with a huge Facebook following, and Facebook nonetheless managed to decimate them. Publishers like Mother Jones,[6] Vox[7] and Slate[8] also reportedly had their livelihood threatened by the 2018 algorithmic change. If Facebook had not consolidated gatekeeper power over the internet, its changes – even purportedly well-intentioned ones – would not determine which news publishers get to exist.

Jen and Cynthia are still struggling like so many other publishers to find a new, sustainable business model.

C. The Automation of Fear

On top of amplifying propaganda and starving journalism, Facebook and Google can exploit their control over access to the market to silence potential criticism. In most cases, people won't speak up in the first place, due to fear of retribution.

Wired Editor-in-Chief Nicholas Thompson and Fred Vogelstein in February 2018 published what may be the most concise description of today's relationship between reporters and publishers and the platform monopolists, a relationship characterized increasingly by dependence, exploitation, and fear.

"Every publisher knows that, at best, they are sharecroppers on Facebook's massive industrial farm... And journalists know that the man who owns the farm has the leverage. If Facebook wanted to, it could quietly turn any number of dials that would harm a publisher – by manipulating its traffic, its ad network, or its readers."[9]

Nick recently updated that piece in an article titled "15 Months of Fresh Hell Inside Facebook."[10] He wrote that, just after the first article appeared last year:

"[T]raffic from Facebook suddenly dropped by 90 percent, and for four weeks it stayed there. After protestations, emails, and a raised eyebrow or two about the coincidence, Facebook finally got to the bottom of it. An ad run by a liquor advertiser, targeted at

6 Monika Bauerlein and Clara Jeffery. "How Facebook Screwed Us All." *Mother Jones*, March 2019. https://www.motherjones.com/politics/2019/02/how-facebook-screwed-us-all/
7 Jeremy Barr. "Post-Facebook News Feed Tweaks, Vox Media Lays off 50 Employees." The Hollywood Reporter, February 21, 2018. https://www.hollywoodreporter.com/news/vox-media-laying-around-50-people-1086869.
8 Will Oremus. "The Great Facebook Crash." Slate, June 27, 2018. https://slate.com/technology/2018/06/facebooks-retreat-from-the-news-has-painful-for-publishers-including-slate.html.
9 Nicholas Thompson and Fred Vogelstein. "Inside The Two Years That Shook Facebook – And The World." *Wired*, January 2018. https://www.wired.com/story/inside-facebook-mark-zuckerberg-2-years-of-hell/.
10 Nicholas Thompson and Fred Vogelstein. "15 Months of Fresh Hell Inside Facebook." *Wired*, April 2019. https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/.

WIRED readers, had been mistakenly categorized as engagement bait by the platform. In response, the algorithm had let all the air out of WIRED's tires. The publication could post whatever it wanted, but few would read it. Once the error was identified, traffic soared back."

Nick concluded by doubling down on what he wrote last year: *"It was a reminder that journalists are just sharecroppers on Facebook's giant farm."*

The same relationship applies to Google. As Jim VandeHei of *Axios* wrote recently, "The media is obsessed with Facebook."[11] But publishers and reporters are "exponentially more dependent on Google." The corporation, he wrote "is a gigantic octopus, with sprawling, growing tentacles reaching deep into every nook and crevice of media companies."

Today, in America, news publishers understand very well that digital platforms have the power to cut off their pathway to the reader and to cut off what little revenue remains. We cannot have democracy unless every one of us, every citizen and every journalist, feels free to speak their mind.

III. The Role of Weak Competition Policy

These threats to democracy are not an inevitability of the internet, but rather they result from bad competition policy and poor enforcement of the law. In this section, I will explain why these threats are monopoly problems and how weak antitrust enforcement impacted where we are today.

A. Unfair Competition Between Facebook, Google, and Publishers

A major problem in the age of big tech is that platform monopolists are internet gatekeepers that also compete against companies that must get through their gates to reach users. But of course, this is not a fair competition. Rather, tech platforms have what I call *platform privilege* – the incentive and ability to prioritize their own products and services over those of competitors. Tech platforms get to both umpire the game and play in it too.

As an example of platform privilege, Google was found by the European Commission to have abused its dominance by prioritizing its own comparison shopping services in Google search and tweaking its algorithms to demote competitors in search results.[12] Amazon has reportedly preferred its own goods and services on its platform.[13] And Apple

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11 Jim VandeHei, "Behind the Curtain: How Google Got Media Companies Addicted," Axios, May 8, 2018. https://www.axios.com/google-media-companies-facebook-tech-industry-a10898ee-e0b7-46ef-bcfc- d2561a2e0630.html
12 European Commission. "Antitrust: Commission Fines Google €2.42 Billion for Abusing Dominance as Search Engine by Giving Illegal Advantage to Own Comparison Shopping Service." News release, June 27, 2017. http://europa.eu/rapid/press-release_IP-17-1784_en.htm.
13 Julie Creswell, "How Amazon Steers Shoppers to its Own Products," New York Times, June 23 2018. https://www.nytimes.com/2018/06/23/business/amazon-the-brand-buster.html

has been accused of discriminating against Spotify and giving favorable treatment to Apple Music.[14]

In the same way, Facebook and Google compete against news publishers that must get through their gates to reach users, due to the two platforms' concentrated power over the flow of information. But Facebook and Google compete against news publishers for user attention, data and advertising dollars.[15] Because Facebook and Google control the playing field for this competition, publishers never had a fair shot. How can publishers compete against platforms that can tweak their algorithms at any time to bury them?

Facebook and Google can simply change their algorithms or adjust their product design to keep users within their digital walls and reduce traffic to news publishers' properties, depriving publishers of the revenue essential to fund journalism and to counter disinformation.

Facebook's goal is to keep users engaged with content on its platform as much and as long as possible. The more time users spend on Facebook's platform, the more data it collects, the more ads it shows, and the more money it makes. On Facebook's first quarter 2016 earnings call, CEO Mark Zuckerberg announced that users spend on average more than 50 minutes per day using Facebook, Instagram and Messenger, up ten minutes from the number reported in 2014.[16]

And about 70 percent of Alphabet's total 2016 revenue came from the ads that the company sells on its own digital properties, including Google web search pages, YouTube and other Google apps.[17] Google thus has the incentive to steer search users to its own properties. YouTube benefits from prioritization in Google search results, and, like Facebook, makes more revenue the more people engage with content on its platform.

Because disinformation is more likely to gain attention and foster engagement, it better serves both Facebook and YouTube's advertising-based business models than does trustworthy news. The more outrageous content is, the more it elicits likes, shares, comments and clicks, and the more the algorithms promote it.

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14 Daniel Ek. "Consumers and Innovators Win on a Level Playing Field." *For the Record* (blog), March 13, 2019. https://newsroom.spotify.com/2019-03-13/consumers-and-innovators-win-on-a-level-playing-field/.
15 Sally Hubbard. "Fake News Is a Real Antitrust Problem." Competition Policy International Antitrust Chronicle, December 2017. https://www.competitionpolicyinternational.com/wp-content/uploads/2017/12/CPI-Hubbard.pdf.
16 James B. Stewart. "Facebook Has 50 Minutes of Your Time Each Day. It Wants More." New York Times. May 5, 2016. https://www.nytimes.com/2016/05/06/business/facebook-bends-the-rules-of-audience-engagement-to-its-advantage.html.
17 Shira Ovide. "Google Has a Chink in its Ad Armor," Bloomberg. January 27, 2017. https://www.bloomberg.com/gadfly/articles/2017-01-27/google-s-high-powered-ad-juggernaut-has-a-weak-spot.

B. Loss of Choice and Bargaining Power Due to Market Concentration

Because they lack meaningful competition, Facebook and Google can tailor their algorithms to serve their financial interests, rather than making profit-reducing changes to combat disinformation. Without choice and lacking bargaining power, consumers who want trustworthy news prioritized instead of disinformation and propaganda have limited ability to switch to alternatives. Hence the normal checks and balances of a free, competitive market do not constrain Facebook and Google from pursuing profits to democracy's detriment.

News companies also lack alternatives and bargaining power against Facebook and Google. Facebook and Google are constantly changing terms and adjusting their algorithms, and publishers have little choice but to adapt and accommodate regardless of how the changes may negatively affect their own profitability. In 2009, Rupert Murdoch accused Google of stealing media content and threatened to withdraw his media companies' articles from Google search, but he could not viably follow through on the threat.

Imagine instead a world with robust competition against Facebook and Google. Purveyors of disinformation would have less impact. News publishers would have bargaining power. Journalists and citizens would not be afraid to speak out. Users could vote with their feet when Facebook and Google amplify disinformation or abuse their privacy. The ability to switch to an alternative would apply competitive pressure on Facebook and Google to fix their problems because profits would be at stake.[18]

C. The Use of Anticompetitive Mergers and Conduct to Grow Monopoly Power

Facebook and Google started on their paths to dominance with innovation, but their monopoly power is not purely the result of competing on the merits or being the best.

Acquisitions of competitive threats have helped both firms amass and maintain market power, and weak merger enforcement is a big part of how we got where we are today. Instagram built a thriving social network with 27 million users on iOS alone, centered around sharing images.[19] Then Facebook bought it. WhatsApp succeeded in getting the attention of 450 million users and was also acquired by Facebook. Facebook even reportedly has its own app to detect new apps that could be competitive threats, so that it

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18 See Transcript of The Capitol Forum Conference Call with Professor Scott Galloway Vol. 5 No. 371, November 6, 2017 ("When big tech starts making noises that old media and the government seems to buy into that something would be impossible, that's Latin for we would be less profitable if we did this.").

19 "Facebook Buys Instagram For $1 Billion; Turns Budding Rival Into Its Standalone Photo App," TechCrunch. April, 2012. https://techcrunch.com/2012/04/09/facebook-to-acquire-instagram-for-1-billion/.

can build its own version.[20] DoubleClick was the leader in display advertising, and then Google bought it. Google's acquisitions cemented its market power throughout the vertical stack of the ad ecosystem, as it acquired the digital ad market spoke by spoke.[21]

Together Facebook and Google have bought over 150 companies just since 2013.[22] Google alone has acquired nearly 250 companies since 2006.[23]

Anticompetitive conduct has also grown Facebook and Google's monopoly power. Google has not competed purely on the merits, according to the European Commission decisions finding abuses of dominance regarding Google Shopping, Android, and AdSense.[24] In the Android case, the European Commission found that Google required phone manufacturers to install a suite of apps on Android phones as a condition of installing the must-have Google Play app, conduct that mirrors the *Microsoft* antitrust cases regarding Internet Explorer. The contracts also prohibited manufacturers from preinstalling competing search engines and other competing apps in Android phones, helping Google maintain its monopoly in search as the world moved from desktop to mobile. Google has also integrated into search verticals like reviews, maps and travel, and has been accused of degrading its search quality results in order to prioritize its own verticals or content that keeps users on Google search pages.[25]

As for Facebook, the German cartel office recently determined that the social media platform abused its dominance by excessive and improper collection of user data, in violation of Europe's privacy law, the General Data Protection Regulation.[26] And documents recently published by the UK parliament provide evidence of Facebook cutting

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20 Elizabeth Dwoskin. "Facebook's Willingness to Copy Rivals' Apps Seen As Hurting Innovation," The Washington Post. August 10, 2017. https://www.washingtonpost.com/business/economy/facebooks-willingness-to-copy-rivals-apps-seen-as-hurting-innovation/2017/08/10/ea7188ea-7df6-11e7-a669-b400c5c7e1cc_story.html.
21 "Infographic: Google's Biggest Acquisitions." Digital image. June 10, 2019. https://www.cbinsights.com/research/google-biggest-acquisitions-infographic/.
22 Rani Molla. "Amazon's Ring buy gives it the same number of acquisitions this year as Facebook and Google," ReCode by Vox, March 4, 2018. https://www.vox.com/2018/3/4/17062538/amazon-ring-acquisitions-2018-apple-google-cbinsights
23 "Infographic: Google's Biggest Acquisitions." Digital image. June 10, 2019. https://www.cbinsights.com/research/google-biggest-acquisitions-infographic/.
24 European Commission. "Antitrust: Commission Fines Google €2.42 Billion for Abusing Dominance as Search Engine by Giving Illegal Advantage to Own Comparison Shopping Service," Supra note 4. News release, June 27, 2017. http://europa.eu/rapid/press-release_IP-17-1784_en.htm.
25 Luca, Michael, Timothy Wu, Sebastian Couvidat, Daniel Frank, and William Seltzer. *Does Google Content Degrade Google Search? Experimental Evidence*. Working paper no. 16-035. Business School, Harvard. September 2015, (Revised August 2016); Jack Nicas. "Google Has Picked An Answer For You—Too Bad It's Often Wrong," November 16, 2017. https://www.wsj.com/articles/googles-featured-answers-aim-to-distill-truthbut-often-get-it-wrong-1510847867.
26 Germany. German Federal Cartel Office. *Bundeskartellamt Prohibits Facebook from Combining User Data from Different Sources*. 2019. https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2019/07_02_2019_Facebook_FAQs.pdf?__blob=publicationFile&v=5

off competitors' access to its API.[27] Such conduct likely amounts to a discriminatory refusal to deal, which is prohibited under Section 2 of the Sherman Act.

Thus far antitrust enforcers have not stopped Facebook and Google from using acquisitions to grow and maintain their monopoly power and leveraging their monopoly power to exclude competition. Weak antitrust enforcement deserves a large part of the blame for publishers' lack of bargaining power and alternatives to Facebook and Google, and it set the stage for these platforms to extract the fruits of publishers' labor.

IV. History of the American System of the Free Press

The failings of competition policy are not the only cause of the devastation of journalism in America. Government has also failed to protect the free press through public policy.

To understand what went wrong, the history of American journalism is instructive. That history is one of ceaseless private initiative and innovation, as individual citizens strive to figure out better ways and smarter business models to a) keep a check on government and private power, b) inform citizens, and specific communities within society, of the basic events and challenges of the day, and c) pay the costs of reporting, editing, and distributing the news.

From even before the Declaration of Independence, Americans used government both to promote the building of technologically sophisticated infrastructures to distribute the news, and to directly address threats to the free press posed by either private monopolists or by government actors.[28]

By the first decades of the 19th century a basic American model of the Free Press had been shaped. The model had three main components:

• **Local ownership of newspapers**. Most towns of any consequence came to have at least one and often more, independent papers.

• **An advertising-based business model**. Although many early papers were supported in part by various forms of government and party patronage, by the early 19th century American newspapers were supported, crucially, by subscriptions and local advertising.

• **A politically neutral network for distributing the news**, strongly buttressed where necessary by government funding, initially in the form of the Post Office system.

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27 United Kingdom. Parliament. House of Commons. *Disinformation and Fake News: Final Report*. 2019.
28 Paul Starr, The Creation of the Media: Political Origins of Modern Communications (New York: Basic Books, 2004)

A. Protecting the "American System" Against the First Tech Monopolies

The first great technological challenge to the basic balances of this "American System" of the free press came in the 1840s with the rise of the railroad and, especially, the telegraph. These technologies greatly sped the movement of news both in the form of the physical newspaper and in the form of the news story itself, which could now be distributed almost instantaneously across hundreds of miles by the telegraph. These technologies, however, also created chokepoints in the flow of information and ideas. During this period, the distribution of news became dependent on infrastructures developed and owned by rich and powerful private corporations that often enjoyed positions as *de facto* monopolies – over both communications and transportation – across large swaths of the nation.[29]

In response, American legislatures and courts at all levels of government began enacting policies designed to ensure that the private ownership and operation of these crucial technologies did not privilege some people's speech while suppressing others. Although there were widespread calls simply to nationalize the telegraph system, and perhaps attach it to the Post Office (as many European nations were then doing), Americans generally focused more on using other legal and policy tools to prevent these networks from discriminating in favor of, or against, any one person, party, or corporation, while leaving ownership and management of the networks in private hands.[30] Hence, perhaps the single most important action during this period was to impose various forms of common carriage rules, or common-carriage-like principles, to these new networks.

One of the first such efforts was New York State's Telegraph Act of 1848. Its goal was to check what one journalist at the time called the "stupendous power" of telegraph monopolies over the flow and content of news by making it easier for new competitors to join the market.[31] The law did so by prohibiting telegraph operators from discriminating in favor of any one person's or company's messages, which it did by mandating that the operator carry messages on a first- come, first-served basis, and that it charge all senders the same price and terms.

By the beginning of the 20th century, monopolists such as John D. Rockefeller and J.P. Morgan had captured control over great swaths of the American economy and American politics. Yet despite numerous attempts by the powerful to exploit the monopoly nature of the telecom and transportations networks of the day, Americans managed to protect and perpetuate the American System of the free press.

Indeed, it was America's magazines and newspapers which published the most powerful investigations and exposes of the Rockefellers and Morgans of the country, and of the

29 Richard John, Network Nation: Inventing American Telecommunications (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2010)
30 John, Network Nation, 124-125, 138.
31 John, Network Nation, 91

politicians in Washington who served them, helping to catalyze public support for greater anti-monopoly action from the federal government.

B. Perpetuating the "American System" in the Era of Radio and Television

During and immediately after the First World War, Americans allowed the federal government to monopolize control over key communications and transportations systems, and over the use of the new wireless technologies. But after the end of the war, Americans moved swiftly to return telecommunications and transportation networks to private control. Despite the fact that radio (and later television) introduced entirely new ways to broadcast the news and sped up communications dramatically, Americans began to shape these technologies to make them fit with the American System of free press that had worked so well for so long.

Indeed, while other major nations moved to centralize communications and the news under the control of the government – as in the case of the United Kingdom's BBC – Americans took a directly opposed path, working to ensure that the new wireless networks would be as decentralized and democratic as possible, composed of thousands of local stations that would be locally owned, locally directed, and locally funded, mainly through local advertising.[32]

Within a few years, Americans had established policies that strictly limited the number of broadcast licenses a single person or corporation could control. They did so, for instance, by blocking any one corporation or individual from owning more than one TV or radio station in the same market, and by blocking corporations from owning more than seven TV stations, seven AM radio stations, and seven FM stations nationally.[33] They also limited how many networks any one independent broadcaster could affiliate with.[34]

American legislatures and courts also continued to promote and enforce "common carrier" rules that prohibited price discrimination in communication markets and kept networks open and neutral.

C. The American System in Crisis – Neoliberalism and the Internet

Over the last generation, the American System of Free Press has come under unprecedented pressure. Although many Americans only really began to focus on the state of the news media following the revelations about Russian meddling in the last general election, there has been a sharp and persistent decline in the number of American

32 Starr, Creation of the Media, 9
33 U.S. Library of Congress, Congressional Research Service, The FCC's Rules and Policies Regarding Media Ownership, Attribution, and Ownership Diversity, by Dana A. Scherer, R43936 (2016), 9, 11, 20.
34 Tim Wu, *The Master Switch: The Rise and Fall of Information Empires* (New York: Random House, 2010), 83.

journalists working at the local, national, and international levels.[35] This is true for the journalism that aims to keep a check on our governments. And it is true for the journalism that is designed to keep a check on large private enterprises, such as business corporations and financial institutions. The overall result is a grave and growing threat to American liberties and American democracy.

Two radical changes are largely responsible for the dangerous state of American journalism today.

The first is intellectual, in the form of a new philosophy of competition. From the founding, Americans used government to promote open markets and wide distribution of power and opportunity. This played out in policies that promoted independent farms, independent business, and local control of enterprise and finance, across the whole American political economy, in almost exactly the same way as Americans promoted wide distribution of ownership over the news media. To the extent there was an organizing concept behind this approach to political economy, it was to protect and promote the interests and rights of a thinking, acting, productive citizenry.

But a generation ago, in the late 1970s and early 1980s, an alliance from across the political spectrum promoted the adoption of a new approach to competition policy. The new goal, they said, should be to promote more “efficient” forms of production, distribution, and business organization, in theory to create more material wealth to share across society. To the extent there was an organizing concept, it was to protect and promote the interests of the American as a “consumer.” This movement is sometimes known as the “Chicago School,” as many of its early promoters taught at the University of Chicago. It is also widely known as “neoliberalism.”

This radical shift from a philosophy that promoted diversity and the distribution of power, to a philosophy that promoted efficiency—and hence the concentration and centralization of power— directly affected the American System of the free press in profound ways. Following the insights of the Chicago School, antitrust enforcers permitted private actors to concentrate far greater control than ever before over American news and entertainment media. And policymakers made a series of decisions that actually made it easier for powerful actors to further centralize control over news and information flows.

The second radical change over the last generation was the development and deployment of the Internet. Much in the same ways that the telegraph and the radio disrupted preexisting balances in the 19th and early 20th centuries, the rise of globe-spanning Internet-based communications corporations such as Facebook and Google similarly broke down existing structures and practices. These new tech platforms consolidated

35 Elizabeth Greico, ”Newsroom employment dropped nearly a quarter in less than 10 years, with greatest decline at newspapers,” Pew Research Center. (July, 30, 2018). https://www.pewresearch.org/fact-tank/2018/07/30/newsroom-employment-dropped-nearly-a-quarter-in-less-than-10-years-with-greatest-decline-at-newspapers/

power over America's news system, controlling and manipulating the flow of news and information across the internet.

And, closely related, these platforms developed a new system of automated advertising that depended on the intimate surveillance of individuals, and that – over the course of a few short years - allowed them to capture control over much if not most of the advertising market that once sustained America's independent press, and especially its local news media. The result, in a remarkably short period of time, was the choke pointing of news across a few vital platforms, the creation of extreme or even complete dependency by journalists and publishers on these platforms, and the development by the platforms of ever more automated systems for controlling and manipulating news flows in ways that promote their own financial – and ultimately their own political – interests.

Google and Facebook erected a duopoly over online advertising. Because these companies command far more data than other advertising-based businesses can hope to bring in, Google and Facebook can offer ads that are more targeted, more precise, and which reach more people than those sold by newspapers, magazines, and other journalistic outlets.

This is a significant change from the previous structure of the U.S. advertising market, under which news organizations drew in advertising revenue by creating products that attracted local audiences. Under the new system, it doesn't matter if newspapers attract local audiences or forge a strong connection with local readers. No matter what, advertisers can reach those audiences by going to Google or Facebook directly, bypassing local media entirely.

The rise of Facebook and Google's advertising businesses neatly coincides with the declining ad revenue of America's newspapers. Google launched its digital advertising business in 2001 and made its first billion from digital advertising in 2003. Facebook started its digital advertising business in 2009, after which it grew every single year. The two corporations in 2017 grossed just under $140 billion in advertising revenue, which represents 73% of the entire digital advertising market. Meanwhile, newspapers' aggregate revenue fell from the 2005 high of nearly $50 billion to less than $20 billion in 2017, when adjusted for inflation.[36]

The main difference in recent years from previous periods in American history is that for the first time ever, America's citizens have not used government to neutralize the power of today's monopoly communications networks. As a result, the executives and financiers

36 "Google's ad revenue from 2001 to 2017," Statista, accessed June 11, 2018 https://www.statista.com/statistics/266249/advertising-revenue-of-google/ ; "Facebook's advertising revenue worldwide from 2009 to 2017," Statista, accessed June 11, 2018 https://www.statista.com/statistics/271258/facebooks-advertising-revenue-worldwide/; Jillian D'Onfro, "Google and Facebook extend their lead in online ads, and that's reason for investors to be cautious," CNBC, Dec. 20. 2017, Accessed June 11, 2018 https://www.cnbc.com/2017/12/20/google-facebook-digital-ad-marketshare-growthpivotal.html; "Estimated aggregate revenue of U.S. newspaper publishers from 2005 to 2017," Statista, accessed June 11, 2018 https://www.statista.com/statistics/184046/estimated-revenue-of-us-newspaper-publishers-since2005/

in charge of these corporations have been left almost entirely free to further increase their power through the buying of potential rivals, to manipulate the flow of news between reporters and readers through such practices as personalized ("first-degree") discrimination in pricing and terms, and to divert the great bulk of remaining advertising dollars away from local and even national news media into their own pockets.

V. Solving the Crisis: Towards Regulated Competition[37]

Drawing on these lessons from history, saving the free press will require organizing market structures around four principles.

1. Business models must exist that allow for independent news gathering, because independent news gathering is a social good critical to democracy.

2. Any policy levers must preserve free speech and avoid government censorship.

3. Markets should be decentralized so that information production can be decentralized. Local communities need to be able to produce and distribute information about their own communities.

4. There should be no price and terms of service discrimination against consumers, advertisers, or publishers. Relationships between publishers and the audience should be kept under the control of publishers and audiences, and not structured to enable third parties to monetize relationships they don't invest in to produce.

Specific solutions include: a) non-discrimination regulations; b) structural separation; c) stronger antitrust enforcement; d) interoperability; and e) data privacy rules.

A. Non-Discrimination

Tech platforms that are providers of essential communications and information services should be subject to common carrier style regulation, which we have applied to every previous network monopoly in our history. There must be no discrimination in price or terms, be it towards the user or the publisher. When private companies become the infrastructure of the economy, policymakers must impose neutrality, non-discrimination, and equal access regulations.

B. Structural Separation and Market Segmentation

Both Google and Facebook have not only enormous advertising power but also multiple dominant networks as subsidiaries. As discussed above, each has an incentive to unfairly and inefficiently prioritize the content of its subsidiaries.

37 This section is excerpted, with additions and modifications, from the forthcoming, "Financing Free Speech: Tech Platforms and Advertising Markets," Matt Stoller, Open Markets Institute.

By applying common sense standards to network products to split up Facebook and Google, policymakers would produce new independent companies that can compete: Instagram, WhatsApp, Facebook, Messenger, Maps, Search, YouTube, Android, Play, Analytics, DoubleClick Advertising, Analytics, Chrome, Gmail, and infrastructure services. This has been done before. One model for such a simplification would be the Public Utility Holding Company Act of 1935, which forced utility holding companies to break themselves up into component parts.

C. Stronger Antitrust Enforcement Against Mergers and Anticompetitive Conduct

First, the Department of Justice or Congress should recreate vertical merger guidelines to prohibit mergers that create anticompetitive market structures. These guidelines should establish "bright lines" for market share thresholds that make enforcement simple and market expectations clear.

Second, policymakers should establish a new strengthened framework for vertical restraints and monopolization. Congress could implement rules by statute, or the FTC could use its Section 5 rule-making authority to bar exclusionary practices by dominant internet platforms. It should also bar the use of dominant platform power to foreclose on or discriminate against competitors using that platform, and bar the use of data acquired as a result of platform dominance in anti-competitive ways.

The U.S. Department of Justice brought its antitrust case against Microsoft 18 years ago. The dearth of enforcement in the meantime is partly attributable to legal precedent that imposes high bars for prevailing on monopolization claims. Legal precedent involving monopoly, monopoly leveraging, attempted monopoly, predatory pricing, tying and bundling all require adaptation for Sherman Act Section 2 to optimally serve its purpose of preventing monopolization. Even under existing U.S. law, however, antitrust enforcers have the tools to combat illegal conduct and are beginning to gain the political will as well.

Immediately, antitrust enforcers should bar Facebook and Google from acquiring competitive threats and companies that fortify their monopoly power. Enforcers should also unwind anticompetitive deals to open up competition and sue to stop exclusionary practices.

The antitrust laws, however, should not be used against journalists who collectively negotiate against tech platforms. The Open Markets Institute thus supports the *Journalism Competition and Preservation Act* proposed by Representative Cicilline. Although Open Markets ordinarily does not favor exemptions from the antitrust laws, this measure is now necessary due to the absence of bargaining power against tech platform monopolists. The exemption is structured in a way that is limited in scope and duration.

D. Interoperability

Policymakers should impose interoperability requirements to end the chokehold over the flow of commerce.

Interoperability requirements for tech platforms would be a mechanism to organize pro-competitive regulations to reduce the market power of any specific choke point for information flow. The National Institute of Standards and Technology (NIST) is a branch of the Commerce Department designed to organize standards. It has promulgated standards recently on fingerprinting technology, SMART grid interoperability frameworks, industrial control system security, and cybersecurity. NIST and the FTC could jointly serve as a convening body for the development of interoperability standards for platform.

Interoperability requirements would allow competitors to emerge by reducing entry barriers to competition. Such requirements were imposed by both regulators and antitrust enforcers against AT&T and by antitrust enforcers in *US v. Microsoft*.[38]

E. Data Privacy Rules

Policymakers need to restore the bargaining leverage of publishers and the ability of individuals to protect their right not to be tracked.

Since the late 1990s, consumer groups and technologists have been proposing various mechanisms to enable more consumer control. One popular idea is a Do Not Track list, a global list maintained by the Federal government barring collection of personalized data across the web by companies whose business model is largely studying, monitoring, or analyzing user behavior. Such a Do Not Track list would mean a single toggle switch for a citizen in which that citizen could prevent third-party tracking of their data or use of that data by an intermediary whose business model is oriented around behavioral manipulation or targeting.

Such a law, if structured and implemented well, could reorient bargaining power and protect privacy towards institutions that build trusted relationships with users by creating useful content. Each entity in the market – whether an entertainment website or the New

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38 The Wilson Department of Justice "endorsed the interconnection of Bell and non- competing independent operating companies and ordered Bell to devise protocols necessary to give these noncompeting independents access to Bell's long-distance network." See John, Network Nation, p. 360; "The Microsoft Settlement: A Look to the Future," Statement of Charles A. James, Assistant Attorney General Antitrust Division before the Committee on the Judiciary, United States Senate. December 12, 2001. p. 8; "And Microsoft will be required to license any intellectual property to computer manufacturers and software developers necessary for them to exercise their rights under the proposed decree, including, for example, using the middleware protocols disclosed by Microsoft to interoperate with the operating system." p. 8

York Times – would have to compete with each other with only the data they have on each user from a first-party relationship.

A related concept would simply bar the tracking of individuals for personalized behavioral ad targeting and the combination of personalized third-party data for such targeting. Individually targeted ads would be legal when the user has a first-party relationship with a publisher, but that targeting can only use data acquired from that relationship.

For instance, the New York Times can segment and target its readers with ads, but only based on their use of the New York Times apps and website. Facebook, however, could not individually target users with ads based on their purchase of Mastercard data, or their acquisition of data through social plug-ins on third-party sites, or their use of the Facebook Audience Network. Such a market structure would prohibit publishers from using data not acquired in that direct relationship with the publisher.

Implementing either policy would end up protecting the rights of publishers to control their subscriber and user data, because publishers have a first-party relationship with their audience. Publishers would be allowed to engage in granular targeting, but the use of third-party user-specific data to engage in ad targeting would be significantly restricted. In this framework, you can only target your own readers. This would restore the power imbalance in the market and reduce intermediaries to their rightful place of matching ad buyers and publishers.

VI. Conclusion

At the Open Markets Institute, we believe the American people have both a right and a duty to use government to ensure the independence and financial viability of both national and locally based news organizations. As a country, we have been here before. We have stood up to powerful tech monopolists. Each time, we were better for it. We unleashed new waves of innovation. We dispersed opportunity. We restored our markets and removed gatekeepers. But if we don't act now to change the structure of our markets, titans will continue to control speech, journalism will continue to suffer, and so will our democracy.

Mr. CICILLINE. Thank you, Ms. Hubbard.

The chair now recognizes Mr. Schruers for 5 minutes.

TESTIMONY OF MATTHEW SCHRUERS

Mr. SCHRUERS. Thank you, Mr. Chairman, members of the committee. On behalf of the Computer and Communications Industry Association, an association of technology, Internet, and communications firms, I appreciate the opportunity to appear today.

Let me begin by acknowledging that success brings scrutiny. Digital technology and the Internet has revolutionized the U.S. economy and the global economy. The industry leaders are names recognized around the world. Some of the most prominent brands we know. We welcome an evidence-driven conversation and examination of this transformation and the firms that are leading it.

But declining newspaper prospects are an independent phenomenon. Firms that date, at the oldest, from the 1990s did not start this trend in the 1980s. Technology has challenged some news publishers business models in part by ushering in extensive new competition, globalizing the advertising market, and disrupting the dominant local advertising position that many publishers once had.

Because journalism is important to any democracy, we share the goal of ensuring that it continues. Digital services play an important role in doing that. In fact, digital services provide benefits to three separate constituencies, users, news producers, and advertisers.

We know users attribute thousands of dollars in value to free-of-charge online services and turn to them for answers, entertainment, education, connection, and communication, and commerce.

These services also provide users with access to a range of news content across multiple devices and formats in a way that enables participation which surveys tell us increase civic engagement and interest in news producers content. News producers, in turn, receive 10 billion viewers a month from digital services, traffic which they can monetize with digital tools.

Many publishers have embraced the Internet using technology to better engage their audiences. Numerous digital native news outlets have appeared, and the Bureau of Labor Statistics estimates that 13,000 employees worked in these digitally enabled newsrooms in 2017.

Digital services also enable and benefit advertisers. As the saying goes, an advertiser knows half his ad budget is wasted. He just doesn't know which half. With technology, advertisers can now figure out where their budget is best optimized and where their money actually is, in fact, wasted and direct funds accordingly. This is increasingly important for small firms who now have a global reach regardless of the size of a business.

So how does antitrust law fit into this? U.S. antitrust law focuses on maximizing consumer welfare, enforcement, seeks lower prices, higher quality, more innovation. Separate policy goals are usually pursued elsewhere through legislative means, and this ensures consistent and apolitical application of the law.

The law doesn't punish success. Instead, it applies additional obligations when successful firms possess market power in a defined market. But these markets aren't defined ad hoc by arbitrary line drawing. We use economics. We see if consumers respond to changes in prices given factors like competition and substitutes. Enforcers then assess whether a firm can unilaterally raise prices or decrease quality.

I note that some digital firms are sometimes subjectively identified as, say, being in the search or social media market. But this is not necessarily a relevant market. Economic analysis would show us that news publishers and digital services fight fiercely for ad dollars. And, indeed, that is one reason why we are here today.

This intense intermedium competition is generally healthy. And undermining it with antitrust exemptions is unlikely to achieve the goal we all share. If competitors collude, prices will be higher, quality will decrease, and innovation will slow.

And the U.S. experience with antitrust exemptions for newspapers specifically is not encouraging. Before the Internet, when broadcast threatened newspapers, which led to the Newspaper Preservation Act of 1970, we tried this. And it is widely regarded as having been unsuccessful. Some argue the MPA actually fostered press monopolies.

So in conclusion, let me remind us all that the Antitrust Modernization Commission of 2007 looked at many of these issues and considered them at length. They, as well as antitrust enforcers from both parties, have criticized antitrust exemptions.

Now, that being said, we do share the objective of promoting diverse robust economically sustainable news production. Proposed alternatives, which are discussed in our testimony, include tax incentives and deductions, grants, new nonprofit categories. All of these options deserve consideration, and CCI welcomes the opportunity to participate in that conversation.

Thank you.

[The statement of Mr. Schruers follows:]

Statement of

Matt Schruers
Vice President for Law and Policy
Computer & Communications Industry Association

"Online Platforms and Market Power, Part 1: The Free and Diverse Press"
Committee on the Judiciary, U.S. House of Representatives
Subcommittee on Antitrust, Commercial and Administrative Law

June 11, 2019

Chairman Cicilline, Ranking Member Sensenbrenner, and Members of the Subcommittee, thank you for the opportunity to discuss these issues with you today. My name is Matt Schruers. I serve as Vice President of Law and Policy for the Computer and Communications Industry Association, an international trade association which represents Internet, technology, and communications firms. Since 1972 CCIA has promoted competition in the technology and communications industry. Today, our member companies created hundreds of thousands of jobs in states and districts across the country, with the digital economy as a whole contributing $1.35 trillion to U.S. GDP and generating a trade surplus of $172.5 billion each year.

My remarks today address four items. First, I will discuss how online digital services offer extensive benefits and opportunities to multiple groups, including users, content and media producers, and advertisers. Second, I acknowledge that success brings scrutiny. CCIA welcomes the examination of how the industry's successes have affected aspects of the economy, including news publishing. Third, I note that antitrust law is a specific tool for a specific goal: protecting consumer welfare through lower prices, higher quality, and greater innovation. Historically, attempts to exempt certain industries from complying with these protections have negatively affected consumers and the economy as a whole. Providing another antitrust exemption to news publishers in addition to the existing exemption—which is widely regarded as unsuccessful—is not advisable. My testimony concludes by observing that CCIA nevertheless supports the objective of encouraging the production of diverse public interest news content, and identifies other strategies that have been proposed to achieve this goal.

I. Online digital services benefit users, media and content producers, and advertisers

The availability of online digital services has provided enormous benefits and opportunities to Internet users, media and other content producers, and advertisers.

A. Benefits for users

Consumers greatly value the access to information and functionality that modern digital services provide. This includes providing a means for accessing news, but these services are not limited to—or even primarily focused on —providing news content. Economists have found that users attribute thousands of dollars in value to these free-to-the-user online services and turn to them for answers, education, entertainment, to engage in commerce, and to keep up with friends and family.[1]

Digital services also provide Internet users with ready access to a broad range of choices of news media content, in convenient formats, on multiple devices, in a way that enables

[1] *Erik Brynjolfsson, Avinash Collis & Felix Eggers*, *Using massive online choice experiments to measure changes in well-being*, 15 Proceedings of the Nat'l Academy of Sciences 7250 (Mar. 2019), https://www.pnas.org/content/116/15/7250. The study's findings show that the median user would require compensation of $17,530 to forgo search engines, $8,414 to lose access to email, and $3,648 to forgo digital maps for a year, among other services analyzed.

participation.[2] Unlike other media, users can easily engage with news online by sharing, commenting, and participating in communities of interest.

Internet-enabled distribution of news has fostered an ecosystem of communities that share and comment. Research suggests that the news sharing behavior increases readers' involvement and interest in news topics.[3] The contribution of social media to news consumption and informal discussion networks has been found to promote civic engagement and individual participation in public affairs.[4]

Beyond the distribution and consumption of news, digital services have enabled individual Internet users to generate, disseminate, and commercialize their own content. In 2017, individual creators earned $6.8 billion by posting their creations on nine popular digital platforms, including services like Amazon Publishing, eBay, Etsy, Instagram, and YouTube.[5] Revenue sharing models have enabled independent content creators to convert followers and fan bases into revenue, thus contributing to aggregate growth in earnings and output in the creative industries. Digital services have further empowered individual entrepreneurs to build online and offline businesses. Small and medium-sized enterprises (SMEs) across the United States have leveraged online services to engage in global trade. These services have increased economic opportunity by erasing distances, enabling micro-enterprises to reach multiple foreign markets.[6]

B. <u>Benefits for content and media producers</u>

Content and media producers have used digital services to build and engage their audiences, to monetize content, gather information, and build informed communities.

These services enable publishers, journalists, and other content producers of all sizes to reach a larger, global audience at a fraction of the cost of traditional formats. This has permitted traditional publishers and media outlets to greatly expand their audience through their websites,

[2] *See* Elisa Shearer, *Social media outpaces print newspapers in the U.S. as a news source*, Pew Research Center (Oct. 10, 2018), https://www.pewresearch.org/fact-tank/2018/12/10/social-media-outpaces-print-newspapers-in-the-u-s-as-a-news-source/.

[3] *See, e.g.*, Anne Odldorf-Hirsch & Shyam Sundar, *Posting, Commenting, and Tagging: Effects of Sharing News Stories on Facebook*, 44 Comp. in Human Behavior 240 (2015). Observing other people's news sharing activities also leads to more news exposure and exposes segments of the population to news who might not have gotten it otherwise. *See, e.g.*, Annika Bergstrom & Maria Jervelycke Belfrage, *News in Social Media: Incidental Consumption & the Role of Opinion Leaders*, 6 Digital Journalism 583 (2018).

[4] *See, e.g.*, Gary Tang & Francis Lee, *Facebook Use and Political Participation: The Impact of Exposure to Shared Political Information, Connections with Public Political Actors, and Network Structural Heterogeneity,* Social Science Computer Rev. (Jun. 20, 2013), https://journals.sagepub.com/doi/abs/10.1177/0894439313490625.

[5] Robert Shapiro, *The Growth of America's New Creative Economy*, Re:Create Coalition (2019), https://www.recreatecoalition.org/wp-content/uploads/2019/02/ReCreate-2017-New-Creative-Economy-Study.pdf; Michael Masnick & Leigh Beadon, *The Sky Is Rising*, Copia Institute & Computer & Commc'n Industry Ass'n. (Apr. 2019), https://skyisrising.com/TheSkyIsRising2019.pdf.

[6] *United States Small Online Business Trade and Inclusive Growth Report*, eBay Public Policy Lab (May 2019), https://www.ebaymainstreet.com/unitedstates. The transactions data from the eBay Marketplace in 2017 revealed that 96% of eBay's small businesses (sellers with sales of $10,000 or more annually) export goods, and that these small business reach on average 17 different countries annually.

apps, and social sharing. Newspaper website traffic continues to grow. The average monthly unique visitors for the top 50 newspapers rose from 8.2 million in 2014 to 11.5 million in 2017, an increase of 40%.[7]

Publishers and journalists use digital services to engage with their audience to distribute better content. Social media platforms in particular have offered unique functionalities and features which have redefined user involvement.[8] Users may share and amplify the reach of news stories, and help "road-test" journalists' story ideas.[9] Journalists and reporters may also solicit information from the news audience, crowdsource information, and involve them in the process of news construction. Newsrooms can use digital services to monitor their competition's coverage, audience-posted feedback, and topics trending on social media to find stories they might have missed. Digital services have also empowered news audiences to provide immediate feedback, improving accuracy by holding publishers more accountable for their content.[10]

Digital services also offer new opportunities for news content monetization. Before the advent of modern advertising networks, the Internet introduced significant competition for media organizations. Many had enjoyed decades of profits stemming from the previously limited channels available to local advertisers (*e.g.*, one local paper and a few local broadcasters). New websites like Craigslist disrupted publishers' classic revenue models (such as lucrative classified listings), at the same time readers could obtain any news content online from around the world. This naturally led to a decline in local publishers' revenues as advertising prices fell to more competitive rates.

In the face of these challenges, however, many publishers have embraced the opportunities provided by the Internet. A range of business models are available to today's news publishers, including subscription-based, ad-based, and hybrid models. Many traditional publishers have opted for the subscription model, offering digital subscriptions that leverage many readers' willingness to pay for high-quality journalism and premium content by specialists. Online targeted advertising provides news publishers significant revenue,[11] while high-priced display advertising is popular on digital-only publishers' webpages that attract the most traffic.[12]

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[7] *Newspapers Fact Sheet*, Pew Research Center (June 13, 2018), https://www.journalism.org/fact-sheet/newspapers/ ("According to the independently produced reports from The New York Times and The Wall Street Journal, however, both companies saw large gains in digital circulation in the past year: 42% for the Times and 26% for the Journal, on top of gains in 2016. If these independently produced figures were included in both 2016 and 2017, weekday digital circulation would have risen by 10%.")

[8] *See* Arne H. Krumsvik, *Redefining User Involvement in Digital News Media*, 12 Journalism Practice 19 (2018), https://www.tandfonline.com/doi/abs/10.1080/17512786.2017.1279025.

[9] Andrea Carson & Denis Muller, *The Future Newsroom*, Univ. Melbourne (Sept. 2017) (noting publications' use of Twitter to "road test" story ideas, where high engagement was taken as a sign to publish a story).

[10] Terry Flew, Fiona Suwana & Lisa Tam, *Digital Platforms and Australian News Media: Report*, QUT Creative Indus. (Apr. 2018). ABC political reporter Annabel Crabb describes the stark contrast between writing offline versus online, and how receiving feedback on news stories posted online holds journalists more accountable.

[11] According to the Pew Research Center, 31% of newspaper advertising revenue came from digital advertising in 2017, an increase from 17% in 2011. *Percentage of newspaper advertising revenue coming from digital advertising,* Pew Research Center (June 13, 2018), https://www.journalism.org/chart/sotnm-newspapers-percentage-of-newspaper-advertising-revenue-coming-from-digital/.

[12] *Id.*

Even when these monetization opportunities are facilitated by digital services, the intermediaries typically share the revenues with news publishers.[13]

News services are also experimenting with native advertising, selling access to databases, memberships and public donations, and crowdfunding. Content providers can also use online data analytical services to monitor web traffic, measure performance, and optimize timing and placement of news stories to drive revenue.

Digital technology has also permitted many new online-only news publishers to enter the market. Young digital-native news outlets now contribute to the reporting of political news, and can target niche audiences and underserved demographics, thus broadening the range of topics that are covered and the range of voices that are published.[14] According to the Bureau of Labor Statistics, roughly 13,000 employees worked as reporters, editors, photographers or videographers in the newsrooms of these digital-native outlets in 2017.[15] The existence of these digital-native news publishers has created new opportunities for journalists and readers, but has also engendered fierce competition for attention and advertisers.

C. Benefits for advertisers

As noted above, Internet advertising offers advertisers a new and effective medium through which to connect with audiences.[16] Even as digital services have increased users' access to information, they have lowered costs for advertisers and provided many with a significantly higher return on investment (ROI). At the same time, advertisers can leverage the improved feedback available from ad technology to more accurately reach interested audiences.

Lower costs, higher return: With digital advertising services, entrepreneurs and small- and medium-sized businesses can reach interested national and global audiences to whom their content may be relevant. This is achieved through a large array of competing intermediaries and service providers, including ad networks, exchanges, and demand- and supply-side platforms. These intermediaries are essentially matchmakers working at scale, connecting advertisers, who bid for impressions, with publishers, who seek to maximize the value of their advertising 'stock.' Previously, most of these businesses would have been unable to afford the national print or television placements needed to achieve the same reach. Today, small businesses can effectively target focused groups of potential customers, worldwide. Of course, these services are only an

[13] *See, e.g.*, Richard Gingras, *Proposed copyright rules: bad for small publishers, European consumers and online services*, The Keyword, Dec. 6, 2018, https://www.blog.google/around-the-globe/google-europe/proposed-copyright-rules- bad-small-publishers-european-consumers-and-online-services/ (stating that 70% of ad revenue generated by Google ad services is retained by publishers).

[14] *Id.* For example, sites such as *HuffPost* have focused content produced by and for LGBTQIA communities.

[15] *Digital News Fact Sheet*, Pew Research Center (June 6, 2018), https://www.journalism.org/fact-sheet/digital-news/.

[16] Due to the overall growth of digital advertising opportunities, the global advertising market grew by a record 17% in 2018 to reach a total of $552 billion across 70 countries. Non-digital advertising segments have not lost out to the growth of digital, holding steady at approximately $300 billion. MAGNA, *Press release: MAGNA Advertising Forecasts (Winter 2018 update)* (Dec. 3, 2018), https://magnaglobal.com/magna-advertising-forecasts-winter-2018-update/.

option; news publishers and advertisers continue to strike direct deals for ad placement without the use of intermediary services.

Both news publishers and advertisers can mix-and-match services throughout the ad tech "stack," switching or "multi-homing" between competing providers. One study shows that advertisers will use, on average, more than four different demand-side platforms per month to buy inventory for advertising campaigns.[17] Content publishers use roughly six different supply-side platforms per month to sell their advertising inventory.[18] At the recent DOJ workshop on TV and digital advertising, one panelist observed that advertising media platforms have converged over time, such that advertisers can now place the same ads, to the same audiences, across local broadcast TV, cable, digital ad exchanges, and streaming video sites.[19]

Improved feedback: To paraphrase the observation of 19th century marketing pioneer John Wanamaker, an advertiser knows half his ad budget is wasted—he just doesn't know which half. For the first time in the history of advertising, technology now enables advertisers to immediately assess how effective their message is and where their efforts are wasted. The availability of digital tools that allow advertisers to identify advertising channels with the best ROI and quickly steer advertising budgets accordingly has implications for innovation. Instantaneous feedback on an advertisement's performance provides an easy, low-cost way for advertisers and marketers to evaluate the performance of a given service. Advertising networks and exchanges must therefore compete constantly to attract and retain customers—who can easily switch to other providers—whether it is by enhancing their ability to target specific groups of consumers, presenting the ads in ways that are more valuable to viewers, or improving metrics to measure ad performance.[20]

II. Scrutiny of successful firms is appropriate

None of this encouraging information around the positive impact of digital services is to suggest that America's leading technology firms are above scrutiny. We appreciate that large and successful businesses will receive additional examination by regulators and policymakers. In less than a generation, the Internet sector has become a significant part of the U.S. economy, a considerable portion of our exports and GDP growth, and the leaders of that industry are among the most admired brands in the world.[21] Policymakers should want to examine these

[17] Ross Benes, *Five Charts: The State of Programmatic Bidding*, eMarketer (June 5, 2018), https://www.emarketer.com/content/five-charts-the-state-of-programmatic-bidding.

[18] Ross Benes, *Publishers Are Using Fewer Sell-Side Vendors*, eMarketer (July 17, 2018), https://www.emarketer.com/content/publishers-purged-one-fourth-of-their-ssps-over-two-years

[19] Comments of Dave Lougee, President and CEO of TEGNA, https://www.justice.gov/atr/public-workshop-competition-television-and-digital-advertising (panel 3).

[20] Catherine Tucker, *ACCC Digital Platforms Inquiry Submission* (Nov. 27, 2018). Today, there are many competitive software options for cross-channel marketing campaigns, including Adobe Campaign, IBM Watson Marketing, Oracle Marketing Cloud, and Salesforce Marketing Cloud.

[21] *See, e.g.*, Daniel Roth, *Top Companies 2019: Where the U.S. wants to work now*, LinkedIn (Apr. 3, 2019), https://www.linkedin.com/pulse/top-companies-2019-where-us-wants-work-now-daniel-roth/; *The World's Most Admired Companies*, Fortune (Jan. 2019), http://fortune.com/worlds-most-admired-companies/; The *Axios Harris*

developments, and we welcome evidence-driven discussions about the economic transformation that is happening and the firms that are driving it.

Nevertheless, CCIA believes that the primary subject of discussion in this hearing is not, at its root, the technology industry. Rather, as noted above, technology has challenged the business model of some news media producers, mainly by globalizing the advertising market and disrupting the dominant local advertising position that many publishers had held for decades. CCIA agrees that the production of objective and diverse public interest news coverage is important to a democracy, and discussion of how to ensure that continues is warranted.

III. Competition law and policy in the context of digital content

A. Objectives and approach of U.S. antitrust law

U.S. antitrust has evolved over time to focus on maximizing consumer welfare. As the legal regime has matured, enforcement actions have been guided by the metrics of lower prices, higher quality, and promotion of innovation. Separate public interest concerns are generally addressed through other legislative means. Firewalling off policy goals other than consumer welfare from the antitrust analysis has ensured a consistent application of the law by courts and enforcement authorities, limiting political considerations in the decision-making process. This characteristic of the U.S. competition system has benefited consumers and the economy as a whole, and should be preserved.

The approach of U.S. competition law is to preserve incentives for companies to become successful. It includes obligations that only apply in specific situations to successful firms that possess market power in a defined market. For antitrust law purposes, relevant markets are not defined on a subjective, ad hoc basis, or by arbitrary line-drawing. Rather, a relevant market is defined using economic analysis of the elasticity of demand -- that is, how significantly consumers respond to price changes in light of factors like competitors and substitutes. Enforcers and courts then assess whether or not a firm has the power to unilaterally raise prices in the relevant market. This economic analysis is crucial to understanding complex market dynamics, including those occurring in the digital sector.

A good example of these complexities are zero-price services, such as free digital services or free online news sites. These services are not excluded from antitrust analysis. As the Assistant Attorney General for antitrust recently observed, "[t]raditional conduct that is unlawful under the antitrust laws is still unlawful in the zero-price models more prevalent in today's digital economy."[22]

Poll 100 reputation rankings, Axios (Mar. 6, 2019), https://www.axios.com/axios-harris-poll-corporate-reputations-bcc0c03d-0bb5-4eb1-b591-4622bb4b01ed.html.

[22] Makan Delrahim, Assistant Att'y Gen., U.S. Dep't of Justice Antitrust Division, Silicon Flatirons Annual Technology Policy Conference at The University of Colorado Law School (Feb. 11, 2019), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-keynote-address-silicon-flatirons.

Digital services are often structured as what economists call "multi-sided business models," meaning that they unite at least two different groups of customers in a match-making function, with one or more sides being charged a price for accessing the service, thus supporting the cost of service at no charge to the other sides. This business model, which has become popular in the digital sector, is not new. It can be observed elsewhere in the economy, including in free broadcast radio and television, credit cards, and shopping malls.

Understanding market definition is important to the question of market power, and when discussing competition dynamics among digital services this should not be misconceived. Many successful digital services are closely identified with a particular function they provide, such as search or social media. However, this function is not necessarily coterminous with a "relevant market" when the robust economic analysis described above is applied. An economic analysis of the advertising sector, for example, would show that ad-supported online news publishers and digital services compete against each other for advertising dollars.

Online services also compete with broadcast and cable. Television industry representatives state that there is "no doubt that national traditional TV is converging with digital video",[23] and acknowledge "relentless competition for viewers and advertising" between television and digital platforms.[24] Thus, offline ads provide a competitive check on digital advertising companies, further incentivizing lower prices and higher quality across the board.

The intense competition taking place in the advertising sector is generally healthy and benefits the U.S. economy. It has given people more access to information at lower costs. But some traditional news publications have struggled to compete in the face of changing consumer habits and a new media environment. Policies to address this effect may be appropriate, but should tackle directly the news production problem, and not impair competition in the broader advertising market.

B. U.S. experiences with previous antitrust exemptions for news publishers

Antitrust exemptions generally have had limited success in achieving their stated goals, and are frequently criticized.[25] These exemptions or immunities typically invite competitors to cartelize, engage in price fixing, or collusive bargaining. These exemptions distort the free

[23] *Id.* "[T]his starts with the consumer and how she is consuming content across all different devices. So, what used to be traditional TV being consumed on one device in the household, now it's being consumed on a number of devices—a connected TV, the set-top box, the mobile device, etc. And even actually different OTT apps, different app experiences where from the delivery standpoint it looks very fragmented, but for a consumer it's a unified and single experience." (remarks of Christina Beaumier (Vice President Product, TV Platform, Xandr), panel 4 video, at 45:17).

[24] Public Workshop on Competition in Television and Digital Advertising (May 2-3, 2019), *available at* https://www.justice.gov/atr/public-workshop-competition-television-and-digital-advertising (presentation of David Morgan, CEO, Simulmedia, Inc., p.7).

[25] AM. ANTITRUST INST.,WORKING GRP. ON IMMUNITIES & EXEMPTIONS, COMMENTS OF THE ANTITRUST INSTITUTE 2 (2005), available at http://www.antitrustinstitute.org/files/433.pdf (noting that many antitrust exemptions are unnecessary, harmful to competition, and the "product of special interest pressure").

market and impair its efficiency.[26] When competitors collude to collectively set prices or agree on terms in negotiations against other relevant market players, consumers lose. Prices tend to be higher, and quality decreases for lack of a competitive incentive to improve.

The Journalism Competition and Preservation Act of 2019, H.R. 2054, proposes such an exemption to the U.S. antitrust laws. It would allow competing news publishers to collude in negotiations with digital services with large user bases. Although these negotiations cannot be limited solely to price, price can nevertheless be a focal point.[27]

Attempting to preserve public interest news with another antitrust exemption for news publishers is unlikely to succeed. Permitting favored businesses to cartelize runs counter to U.S. antitrust norms and would disrupt an otherwise functioning market economy.

Moreover, the U.S. experience with preserving newspaper diversity through antitrust exemptions is not encouraging. The Internet is not the first new communications medium to challenge print news publishers. Arguably, it is the third, following broadcast radio and then broadcast television, which could provide news instantaneously and at zero marginal cost to an entire locality. The competitive threat of broadcast news prompted previous proposals to exempt the newspaper industry from antitrust norms. This was eventually implemented with the Newspaper Preservation Act (NPA) of 1970, 15 U.S.C. §§ 1801-04, which exempted from antitrust scrutiny certain agreements between otherwise competing newspapers in the same geographic vicinity. The goal was to keep competing newspapers publishing in areas where readership was declining by allowing them to reduce costs by eliminating overlapping costs, including non-editorial/reportial personnel and facilities. Unfortunately, the Act failed to achieve the stated goal of Congress to maintain independent competing voices. In fact, historians and journalists have argued the NPA fostered monopolies and chains instead of producing independent voices.[28] Given the cautionary history of the previous exemption for local newspapers, another would be ill-advised.

Due to experiences with the NPA and other antitrust exemptions, the 2007 report of the Congressionally chartered Antitrust Modernization Commission criticized existing exemptions

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[26] ANTITRUST MODERNIZATION COMM'N, REPORT AND RECOMMENDATIONS 335–37 (2007), https://govinfo.library.unt.edu/amc/report_recommendation/amc_final_report.pdf ("Typically, antitrust exemptions create economic benefits that flow to small, concentrated interest groups, while the costs of the exemption are widely dispersed, usually passed on to a large population of consumers through higher prices, reduced output, lower quality, and reduced innovation.").

[27] H.R. 2054, § 2(b)(1)(A).

[28] Felicity Barringer, *A 1970s Act to Preserve Faltering Newspapers Seems Only to Delay the Inevitable End*, The N.Y. Times (Aug. 16, 1999), https://www.nytimes.com/1999/08/16/business/media-1970-s-act-preserve-faltering-newspapers-seems-only-delay-inevitable-end.html; Daniel Gross, *JOA DOA: It's time to kill the antitrust exemption that allows rival newspapers to act like partners*, Slate (May 8, 2003), https://slate.com/business/2003/05/the-folly-of-joint-operating-agreements.html.

and cautioned against new ones.[29] Similarly, antitrust enforcers in this Administration and the previous Administration have criticized antitrust exemptions.[30]

IV. Potential policy solutions for promoting public interest news reporting

Given the widely shared objective of preserving news media production, how can we meet these challenges, consistent with existing U.S. policy? While CCIA has not endorsed any one particular strategy, studies have suggested other policy options that may be considered. In fact, U.S. policymakers have previously devoted attention to this subject. A 2009 FTC staff discussion draft on this topic explored various measures to promote public interest news reporting in the Internet era.[31] The proposed measures included options that have since been proposed or implemented in other jurisdictions, such as federal tax deductions and grants to universities to conduct investigative journalism.

For example, the recent Cairncross review requested by the United Kingdom Department for Digital, Culture, Media & Sport, suggests that tax incentives for news productions and news subscriptions could help the news business.[32] Another possible point of reference is the recent Canadian tax benefits package. Last year, the Canadian federal government introduced a CAN$595 million tax package to bolster the country's journalism market over 5 years, including a temporary tax credit allowing news subscribers to deduct a portion of eligible digital news media subscriptions, a new tax category for qualified non-profit journalism organizations,[33] and a refundable tax credit for qualifying news organizations that "produce a wide variety of news and information of interest to Canadians."[34]

Several EU Member States also have state aid programs that directly subsidize news or media producers, particularly to promote diversity of independent news producers in small

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[29] *Id.*, *supra* Antitrust Modernization Comm'n, at 337.

[30] Christine A. Varney, Assistant Att'y Gen., U.S. Dep't of Justice Antitrust Division, Remarks for the Newspaper Association of America on Dynamic Competition in the Newspaper Industry (Mar. 21, 2011), https://www.justice.gov/atr/speech/dynamic-competition-newspaper-industry ("The antitrust laws are flexible and adaptive, and do not stand in the way of procompetitive solutions to the challenges facing the newspaper industry. At the same time, it is important to note that government needs to tread lightly when dealing with newspapers because a news industry free from government management is important to our democracy."); Makan Delrahim, Assistant Att'y Gen., U.S. Dep't of Justice Antitrust Division, Remarks at the Antitrust Division's First Competition and Deregulation Roundtable (Mar. 14, 2018), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-antitrust-division-s-first.

[31] Public Workshops and Roundtables: From Town Crier to Bloggers: How will Journalism Survive the Internet Age? Fed. Trade Comm'n (Dec. 2009), https://www.ftc.gov/sites/default/files/documents/public_events/how-will-journalism-survive-internet-age/090930mediaworkshopnotice_1.pdf.

[32] Dame Frances Cairncross, *The Cairncross Review: A sustainable future for future of journalism* (Feb. 12, 2019), https://www.gov.uk/government/publications/the-cairncross-review-a-sustainable-future-for-journalism.

[33] Christine Schmidt, *Canada introduces a $595 million package in support of journalism*, NiemanLab (Nov. 26, 2018), https://www.niemanlab.org/2018/11/canada-introduces-a-595-million-package-in-support-of-journalism/. This package aims to help digital news organizations achieve a "more financially sustainable business model."

[34] The tax credit will apply to the labor costs associated with producing original content and will be open to both nonprofit and for-profit news organizations. The measure will allow outlets to claim a portion of their labor costs.

geographic and language markets.[35] CCIA cautions against a European-style "link tax," however, which was piloted unsuccessfully in Germany and Spain and resulted in lost traffic for local publishers.[36] Such a tax was nevertheless incorporated in the controversial Digital Single Market Copyright Directive earlier this year. This new Directive is more expansive than German and Spanish laws, and appears to violates international commitments and treaty obligations.[37]

V. Conclusion

In conclusion, the value that digital services provide to users, content publishers, and advertisers is considerable, but have also affected some traditional business models, including news producers. While antitrust exemptions have proven to be an inadvisable solution to the business model challenges of news publishers, other potential solutions remain.

Thank you for the opportunity to provide an industry perspective today. CCIA welcomes the opportunity to work with the committee in its ongoing inquiry.

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[35] 2013 O.J. (C 371) 56—Production and innovation aid to media in DK; 2013 O.J. (C 077) 56—Slovenia Promotion of publishing industry in Slovenia; 2016 O.J. (C 369) 59—Spain Aid to local media published in the Basque language. This is a non-exhaustive list of examples from EU Member states.

[36] Joe Mullin, *New study shows Spain's "Google tax" has been a disaster for publishers*, Ars Technica (July 30, 2015), https://arstechnica.com/tech-policy/2015/07/new-study-shows-spains-google-tax-has-been-a-disaster-for-publishers/; Greg Sterling, *German Publishers To Google: We Want Our Snippets Back*, Search Engine Land (Oct. 23, 2014), https://searchengineland.com/german-publishers-google-want-snippets-back-206520.

[37] By imposing a levy on quotations, these entitlements violate quotation rights under the Berne Convention, including Berne Article 10(1)'s mandate that "quotations from a work . . . lawfully made available to the public" shall be permissible, and Berne Article 2(8)'s exception for "news of the day" and "miscellaneous facts having the character of mere items of press information."

Mr. CICILLINE. Thank you, Mr. Schruers.

Mr. Pitofsky is recognized for 5 minutes.

TESTIMONY OF DAVID PITOFSKY

Mr. PITOFSKY. Chairman Cicilline, members of the subcommittee, thank you for inviting me to speak with you today.

My name is David Pitofsky and I am the general counsel of News Corp, the proud home of news publishers like the Wall Street Journal and HarperCollins book publishers.

I am here today because the marketplace for news is broken. Healthy markets incentivize risk, investment, and effort by rewarding companies that develop superior products. Unfortunately, in the news business, free writing by dominant online platforms, which aggregate and then re-serve our content, has led to the lion's share of online advertising dollars generated off the back of news going to the platforms.

Many in Silicon Valley dismiss the press as old media failing to evolve in the face of online competition. But this is wrong. We are not losing business to an innovator who has found a better or more efficient way to report and investigate the news. We are losing business because the dominant platforms deploy our news content to target our audiences to then turn around and sell that audience to the same advertisers we are trying to serve.

The erosion of advertising revenue undercuts our ability to invest in high quality journalism. Meanwhile, the platforms have little, if any, commitment to accuracy or reliability. For them, a news article is valuable if viral not if verified.

To address these challenges, we need meaningful dialogue. It is, therefore, dispiriting when the platforms claim that their products only help consumers and publishers ignoring the mounting facts clearly showing the harms they have inflicted on the news industry. The fact is news publishers have been busy innovating online expanding our reach to digital audiences while the dominant platforms have benefited from our innovation and premium content.

In part, this is made easier by the platform's control over the Internet ad tech space. They control the tech infrastructure, the data, and the tools used to sell and serve ads online. And at the same time, they also compete against news publishers for those same ad dollars.

News publishers have no good options to respond to these challenges. Any publisher that tried to withhold its content from a platform as part of a negotiating strategy would starve itself of reader traffic. In contrast, losing one publisher would not harm the platforms at all since they would have ample alternative sources for news content.

To escape this prisoner's dilemma, news organizations need to act collectively, but this is prohibited by antitrust law.

So what is the solution? First, we need more dynamic and modernized antitrust enforcement. We are hopeful that reinvigorated antitrust is on the horizon. After a generation of obsession with price effects without adequate consideration of the other aspects of consumer and social welfare, including quality, innovation, and choice, some very recent encouraging signs of reexamination have occurred.

Second, and in the meantime, news publishers need a fighting chance. The Journalism Competition and Preservation Act is well designed to help restore the proper balance between content generators and distributors on the Internet. This bipartisan legislation is narrowly tailored both in scope and duration.

I would like to close by sharing a quote from my late father, Robert Pitofsky, who you mentioned earlier, Mr. Chairman. He was a giant in the antitrust law. In academia, in private practice, and in government where his service culminated in his term as chairman of the FTC from 1995 to 2001. He recognized the need for antitrust regulators to give a higher degree of scrutiny to competition matters implicating 1st Amendment concerns. Because of the implications for Democratic values.

In a November 2000 newspaper article on the topic, he was quoted as saying, Antitrust is more than economics. And I do believe that if you have issues in the newspaper business, in book publishing, news generally, entertainment, I think you want to be more careful and thorough in your investigation than if the same problems arose in cosmetics or lumber or coal mining.

In a Seminole Law Review article from 1979 that has been happily rediscovered, he wrote, quote, "It is bad history, bad policy, and bad law to excluded certain political values in interpreting the antitrust laws," closed quote.

Informed by history, policy, and the political values, the antitrust laws should protect the pillars both of our economy and our democracy. And there is no industry more central to our democracy than the news media.

Thank you.

[The statement of Mr. Pitofsky follows:]

U.S. House of Representatives Committee on the Judiciary
Subcommittee on Antitrust, Commercial and Administrative Law

Hearings on "Online Platforms and Market Power,
Part 1: The Free and Diverse Press"

Remarks of David Pitofsky, General Counsel, News Corp

Chairman Cicilline, Ranking Member Sensenbrenner, and members of the subcommittee: Thank you for inviting me to speak with you today.

My name is David Pitofsky. I am the General Counsel and Chief Compliance & Ethics Officer of News Corp, a global media and information services company that creates and distributes authoritative and engaging content to consumers and businesses around the world. The company, which came into existence in 2013 when it split from what was formerly known as 21st Century Fox, comprises businesses across a range of media, including but not limited to: news and information services such as *The Wall Street Journal*, book publishers such as *HarperCollins*, and digital real estate services, including *realtor.com*.

It is a privilege for me to contribute my views today, as the subcommittee kicks off these important hearings. A small number of online platforms act not only as gateways, but often gatekeepers to the Internet, and their impact on today's economy cannot be overstated. I commend the subcommittee for beginning its inquiry by focusing on the impact these dominant platforms have on a free and diverse press.

I am here today because the marketplace for news is broken. Healthy markets should incentivize investment, risk and effort by rewarding companies that actually develop superior products. When it comes to news, the companies that invest in original journalism should reap the financial rewards of their creations. Unfortunately, free-riding by the dominant online platforms has resulted in a massive siphoning off of profits, such that the lion's share of online advertising dollars generated off the back of news content goes to the platforms, not to the content creators. As a result, while the tools consumers use to find news on the Internet may continue to develop, there is less and less reliable, quality news for consumers to find.

Throughout our history, Congress has recognized that news publications are not just consumer products but also part of the infrastructure of our democracy. Few private industries are referenced in the Constitution, but the press is; for good reason. And at appropriate moments, this institution has enacted legislation to enable the press to overcome some of the economic difficulties associated with providing a public good.[1] This is one of those moments.

We commend the subcommittee for these hearings, which begin the hard work of shining a light into dark, critical corners of 21st century commerce. And we thank Chairman Cicilline and Ranking Member Collins for introducing the Journalism Competition Preservation Act, which is an important step toward re-establishing marketplace conditions that allow publishers to meaningfully negotiate with the dominant platforms.

News organizations are under siege by the dominant online platforms

Many in Silicon Valley assert that members of the press are nothing more than a relic of the "old media," displaced by the "new media" thriving in the digital world. That is not the case. Dominant online platforms have not invented a better way to gather or report the news. And news publishers have not failed to adapt to the digital world. Only 2% of the U.S. population regularly went online to get news in 1995, but as of last year 93% of U.S. adults accessed at least some news online.[2]

Instead, online platforms are placing news organizations under siege through massive free-riding. They deploy *our* highly engaging news content to target our audiences, then turn around and sell that audience engagement to the same advertisers news publishers are trying to serve. Dominant platforms take the overwhelming majority of advertising revenue without making any investment in the production of the news, all while foreswearing any responsibility for its quality and accuracy. As a result, one of the pillars of the news industry's business model, advertising revenue, is crumbling.

Part of the problem is that news content traditionally has thinner protections under intellectual property law. This is a reflection of the fact that no one creates the "news" and that it is important—and sometimes critical—that news be disseminated quickly. Despite this, in the pre-Internet era, content was protected to some degree because it took time to copy, rewrite, print, and distribute follow-on articles, giving the original publisher a vital, valuable period of exclusivity.[3] But now, in the digital era, stories are copied, republished, and distributed within minutes.[4] And, as I will explain, the platforms

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[1] For example, the Post Office Act of 1792 permitted newspapers to distribute their papers through the mail at extremely low rates, and the Newspaper Preservation Act of 1970 relaxed antitrust laws to authorize the formation of joint operating agreements among competing newspaper operations within the same market area.

[2] *News Audiences Increasingly Politicized*, PEW RES. CTR. (June 8, 2014), https://www.people-press.org/2004/06/08/i-where-americans-go-for-news/; *Digital News Fact Sheet*, PEW RES. CTR. (June 6, 2018), https://www.journalism.org/fact-sheet/digital-news/.

[3] These limits initially met public policy objectives to encourage the widespread diffusion of information by allowing others to build upon news output without jeopardizing the incentives of professional news organizations to profit from their investments and efforts.

[4] The issues facing the professional news industry are rooted in *competition*, regardless of the applicability of copyright. Copyright alone does not and cannot address the broad use of dominance by online platforms to induce consent or engage in bias and discrimination. The damage is profound. Publishers across the

actually facilitate and promote the copycat articles over the originals. All of this has led to the commoditization of news and the flattening of brand identities. As economists can explain, commoditized industries lower incentives to invest and innovate because it is extremely difficult to realize a fair return on investment. Although stronger intellectual property protection for news may be necessary to address fundamental changes resulting from the mass distribution and copying of news on the Internet, the industry will continue to decline so long as dominant platforms maintain and exercise monopoly power over distribution and advertising.

In the so-called "ad tech" space, where publishers and advertisers buy and sell digital advertising inventory, a dizzying array of acquisitions and other anticompetitive conduct has eliminated any meaningful competition. By some accounts, only 30 cents of each advertising dollar reaches publishers (as opposed to 85 cents in the pre-Internet era).[5] The other 70 cents is eaten up by the opaque, multilayered algorithmic software products that make up the ad tech infrastructure. Dominant online platforms control the infrastructure, data, and tools for news publishers to sell and serve online ads, while simultaneously competing against those publishers for the very same ad dollars. This presents a significant conflict of interest.

Many news publishers have responded by trying to shift to a business model more reliant on subscription revenue. To boost subscriptions, news publishers must invest in generating high-quality content that will be a compelling product to subscribers. But the dominant platforms have thwarted these efforts by, for example, demoting in their search results news websites that charge for access on the grounds that this is a "bad user experience" for search users, who prefer free content. Consider this for a moment: consumer choice has been all but eliminated by a false and fateful decree that all search users prefer free news, not quality news.

This is obviously a bad deal all around for publishers, but the absence of competition denies us other options. In a competitive marketplace, we would seek fairer terms from the search and social media providers that surface our stories, and we would take our digital ad inventory to other ad tech providers, who would need to compete for our inventory by offering better terms. But there is no competition, and as a result we are powerless to negotiate a fair price, either for our news content or for our digital ad inventory.

Dominant tech platforms dispute the allegation that they have obtained or maintained their dominance through means that violate the antitrust laws, but one cannot reasonably argue about the *existence* of their dominance, and its effect on news publishers. Many of the key facts about the mysterious operation of their algorithms, and in particular whether they are designed to advance consumer interests or to unfairly block competition, reside

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world, including News Corp, are laying off professional journalists and editors at alarming rates. Publishers are diverting scarce funds to pay for search engine optimization (SEO) and other click-generation strategies and writing news to appeal to algorithms rather than readers.

[5] David Pidgeon, *Where did the money go? Guardian buys its own ad inventory*, MEDIATEL (Oct. 4, 2016), https://mediatel.co.uk/newsline/2016/10/04/where-did-the-money-go-guardian-buys-its-own-ad-inventory/.

with the platforms themselves. But we look forward to these hearings and other enforcement efforts to surface the relevant facts and thereafter take appropriate enforcement or legislative action.

News organizations are now financially dis-incentivized to invest in high-quality reporting

High-quality news reporting, especially investigative journalism, is expensive and requires the expertise of experienced, professional journalists and editors. The value of such reporting extends far beyond its ability to sell news content. Journalism has played a pivotal role in our Nation's most trying moments and greatest achievements. By serving as a forum for national debate and faithfully reporting the facts necessary for an informed citizenry to hold its leaders accountable, the news industry plays a crucial role as the Fourth Estate.

But for the reasons I outlined above, news publishers are increasingly dis-incentivized to invest in high-quality journalism, because the costs cannot be recouped. Reader attention and user data, the life-blood of the Internet, is spirited away by the platforms and by the copycat publishers they have enabled.

Let me give a concrete example from *The Wall Street Journal*. Last November, the *Journal* published an important investigative piece regarding payments to Stormy Daniels. Five reporters and multiple editors and lawyers worked on the story for months, at significant expense. Within a few hours of its publication, however, the Internet was full of rewrites by online sites that made no investment in the story. The dominant platforms benefited from the *Journal*'s hard work because the large majority of online readers access their news through these platforms. And copycat publishers also enjoyed an outsized and unearned benefit by investing in copying rather than original reporting. Because the *Journal* has a subscription paywall, search results demoted the original, *Journal* version of the article below scores of copycat rewrites—on a mobile device, it was the equivalent to scrolling down through five pages. Because of the press convention of citing original sources, the demoted search result for the *Journal* story did note that it was "highly cited," meaning the search engine knew it was the original, authoritative source, but demoted the *Journal* story anyway.

There is no comprehensive data examining the phenomenon I just described. But a study we did on a different, high-profile story published in our flagship Australian newspaper last year indicated that rewrites earned approximately *22 times* the traffic (*i.e.*, readers) of the original story. And these examples do not touch on the even larger problem that fake and fraudulent news stories have found a profitable place on the Internet.

Publications that used to pride themselves on producing investigative, hard-hitting journalism now compete to see how quickly they can free-ride off each other's stories and optimize to the top of search results pages. Other, less scrupulous, entities resort to publishing fake news and sensationalist, polarizing stories that are rewarded with high placement. In other words, clickbait.

Dominant platforms have deep conflicts of interest

In their initial incarnations, the dominant online platforms acted more like matchmakers, connecting users with content and *vice versa*. But increasingly, publishers' relationships with the platforms are not complementary; instead, the platforms act as substitutes. The platforms have configured their pages so that customers seeking news are increasingly "satisfied" by search results or news feeds without the need to click through to the underlying source. The platforms are creating walled gardens that tighten their stranglehold over advertising dollars and consumer data.

And because, under current law, online platforms—unlike news publishers—cannot be held legally responsible for any harm caused by inaccurate reporting, the platforms have little if any commitment to accuracy or reliability. When it comes to dominant online platforms, a news article is valuable if it is viral, not if it is verified. Keep in mind this key difference between platforms and publishers: they provide news—both false and real—to readers, but they do so without having any reporters who verify the facts, without having any editors to check the reporters' work, without having any publishers to whom people can complain, without having any op-ed page or letter to the editor or correction column for public recourse. Power without responsibility, without accountability, is a recipe for disaster.

The shuttering of news publishers does not negatively affect the online platforms. So long as platforms have sources of news to serve to their users, the clicks and resulting advertising dollars will flow. But the silencing of editorial voices, particularly at the local level, is having profound negative effects on media plurality and the news media's ability to play its constitutionally-enshrined role. Although most of our publications are national or international in scope, we still care deeply about the vibrancy of local journalism; just as a rising tide raises all ships, a tide in ebb eventually puts all ships at risk of running aground. The depletion of local press is also a problem for democracy itself.

In the ad tech space, the dominant platforms control the algorithmic decision-making software that matches ad inventory and ad spend. But they are also a critical source of ad inventory themselves, with a clear incentive to direct ad money toward their own products and services.

To be clear, we do not seek to demonize the dominant online platforms, nor to deny the innovations they have made and the many benefits they have brought to consumers. Dominant online platforms have designed businesses that exploit actual or perceived weaknesses in the enforcement of the antitrust laws, particularly as they relate to vertical integration. They have exploited these weaknesses because doing so has served their shareholders through the generation of immense profits. We suggest the focus needs to be on reinvigorating antitrust enforcement, reconsidering narrow precedents, and assessing whether new legislation is needed to fill blind spots exposed by modern market dynamics.

News Corp has embraced technological change

I would like to dispel the myth that somehow the news industry has been slow to innovate. The news industry at large is marked by innovation. The reason so many people access news content through search engines and social media products is because news organizations are investing in the production of immersive and informative online experiences. Speaking for News Corp, we have long viewed the Internet as an opportunity to reach wider audiences and connect with readers in new ways. Digital content and products have been at the core of our business for over a decade.

We invest in developing online experiences for our audience. For example, News Corp has been at the forefront of developing immersive experiences for the consumption of news on phones and tablets. *The Wall Street Journal* was among the first companies to develop immersive news experiences for Apple's iOS. Even today, *The Wall Street Journal* app is among the most popular and highest ranked apps available on Apple's App Store.

We also invest tens of millions every year to monetize our products through online advertising and subscription services. Indeed, News Corp was an online advertising pioneer and among the first — if not the first — customers of a fledging online ad serving company called *DoubleClick*, which Google eventually acquired.

And we invest in reporting and creating innovative news content. News Corp has modernized its newsrooms to deliver high-quality, up-to-the-minute journalism across the world in milliseconds. We have reporters stationed across the world covering important world events in real-time with the rigor and precision of professional journalism.

All of these investments have contributed to News Corp's success in creating content for the new digital era. Popular and trusted mastheads at News Corp in the U.S., U.K., and Australia are profitable, though not at a scale commensurate with their quality and the demand for premium news.

Platform concentration has forced news organizations into a classic prisoner's dilemma

Although publishers technically have a choice to withhold their content from online platforms, that choice is not a meaningful one. The online platforms are simply too dominant. Withholding content unilaterally would starve the publisher of access to traffic sourced through the platforms. Platforms have no incentive to negotiate a fair deal in return for access to news content. It is therefore no surprise that dominant platforms engage with the press from a position of overwhelming strength and with a degree of indifference and impunity that would offend the consciences of the Founders who sought to protect the press for the benefit for the public.

The only way out of the prisoner's dilemma is to act collectively. If publishers could band together they might be able to use their collective leverage to bring the platforms to the negotiating table. But doing so is made impossible by the antitrust laws.

We are hopeful that reinvigorated antitrust enforcement is on the horizon. After a generation of obsession with price effects, without adequate consideration of the other aspects of consumer and social welfare, including quality, innovation, and choice, some very recent, encouraging signs of regulatory re-examination and re-energization have emerged. However, that road will be long. The complexity of the facts will likely require years of investigation and litigation, and it will take work to get the judiciary to update its application of the antitrust laws for the 21st century. If current laws prove unable to support healthy competition, Congress will need to consider new statutes, which also requires a lengthy process.

In the interim, news publishers need a fighting chance. The Journalism Competition and Preservation Act is well-designed to help restore the proper balance between content generators and content distributors on the Internet. This bipartisan legislation is narrowly tailored, both in scope and duration, to balance the dual policy goals of ensuring that news organizations have sufficient resources to generate high-quality content while allowing for widespread distribution. The Act establishes a limited safe harbor for publishers—which ends after 48 months—so they can cooperate and coordinate before negotiating with the online platforms. The safe harbor is designed to encourage negotiations that improve the development and distribution of high-quality and original journalism.

The Act requires that all news organizations will benefit from collective negotiations with the dominant online platforms. The benefits of any collective negotiation extend to all news content creators, not just those directly involved in the negotiations. So, whatever terms *The Wall Street Journal* and *The New York Times* negotiate with a platform, local media outlets seeking to distribute their content across that platform may also benefit from those terms should they wish to do so.

The Journalism Competition and Preservation Act is consistent with the underlying policy goals and values expressed by the Founders in the First Amendment and consistent with the antitrust laws.

Concluding remarks

Through my engagement with these issues, I have had a chance to reconnect with the work and scholarship of my late-father, Robert Pitofsky. As you may know, he was a giant in antitrust law—in academia, in private practice, and in government, where his service culminated in his term as chairman of the Federal Trade Commission from 1995 to 2001.

He was acutely aware of and sensitive to the need for antitrust regulators to give a higher degree of scrutiny to competition matters implicating First Amendment concerns. In a November 2000 newspaper article on the topic, he was quoted as saying:

> "Antitrust is more than economics. And I do believe that if you have issues in the newspaper business, in book publishing, news generally, entertainment, I think you want to be more careful and thorough in your investigation than if the same

> problems arose in cosmetics, or lumber, or coal mining. I mean, if somebody monopolizes the field of cosmetics, they're going to take money out of consumers' pockets, but the implications for democratic values are zero. On the other hand, if they monopolize books, you're talking about implications that go way beyond what the wholesale price of the books might be."[6]

In a seminal law review article from 1979 that has been happily and appropriately rediscovered, he wrote: "[i]t is bad history, bad policy, and bad law to exclude certain political values in interpreting the antitrust laws."[7]

Informed by history, policy, and political values, the antitrust laws should protect the pillars of both our economy *and* our democracy. And there are few industries more central to our democracy than the news media.

Thank you.

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[6] Alec Klein,A *Hard Look at Media Mergers*, WASH. POST, (Nov. 29, 2000), https://www.washingtonpost.com/archive/business/2000/11/29/a-hard-look-at-media-mergers/d8380c2d-92ee-4b1b-8ffd-f43893ab0055/?utm_term=.8c4ac8503319.

[7] Robert Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051, 1051 (1979).

Mr. CICILLINE. Thank you, Mr. Pitofsky.

Mr. Riley is recognized for 5 minutes for his opening statement.

TESTIMONY OF KEVIN RILEY

Mr. RILEY. Chairman Cicilline and members of the subcommittee, thank you for inviting me here today. I am Kevin Riley, the editor of the Atlanta Journal Constitution.

A few years ago, journalists at the Atlanta journal Constitution established that 80 doctors in Georgia had sexually abused patients, including patients under anesthesia, and those doctors were still licensed. The newspaper investigated and found a nationwide problem. Hundreds of doctors were abusing patients and getting away with it.

The investigation prompted reforms. It was a finalist for the Pulitzer Prize. And of equal importance, readers of that investigation told us that is what they want from their newspaper, that kind of coverage. The victims of those doctors called our reporters and thanked them for telling their stories.

About a year before that story, dozens of educators in the Atlanta public schools had been found guilty of altering students standardized test scores in the largest cheating scandal in the Nation's history. The convictions culminated a year's long journalistic effort by the Atlanta Journal Constitution.

AJC reporters had noticed that student scores on Georgia's standardized tests showed extraordinary improvement. They analyzed the scores. The improvements in some schools defied statistical possibility. The reporting triggered a State investigation that found systemwide cheating in 44 Atlanta public schools; 178 teachers and administrators participated. The test cheating inflated the scores of thousands of students giving the false impression of progress. It cheated those students.

The story would never have been uncovered without the AJC. Educators would never have faced justice. The system would not have been fixed. And most important of all, students wouldn't have been offered the chance to gain the knowledge that they had been denied.

No other news organization in Atlanta has the capacity for such deep reporting. No other organization could have withstood the relentless pressure to back off unleashed by the school district and the business community. No other news organization would have stuck with the story for 5 years.

This kind of investigative reporting is hard. It is upsetting. It is important. It has real impact. And we are proud of it.

But newspapers do other important stories too. I was reminded of one last week as I prepared for this testimony.

Let me tell you about the woman Congressman Collins mentioned. Her name is Shirley Sessions. She is the widow of a World War II veteran they lived in Carrollton, Georgia. She had spent decades trying to unearth the story behind her reticent husband's service. I had been able myself to discover many details about our husband's time in combat, and I had written about it.

After her husband died, Ms. Sessions still hungered to know about his service. She was so enthralled that she journeyed to France for a reunion of her husband's military unit. I joined her.

Bearing witness while a widow paid an inspiring tribute to her husband.

And the story I wrote about brought AJC readers along on her emotional journey. She literally retraced the steps of that young private, the man who would later be her husband, through combat in tiny French towns during World War II.

It was the unknown story of a local hero and one that only the Atlanta Journal Constitution could tell. It would be lost to history without us.

Ms. Sessions sent me a text as I prepared for this testimony. She said, in part, Your stories have become a touchstone in my life. I watched the coverage of D–Day, cried a lot. But I am more grateful than ever.

We invested a lot of time, money, and effort in these stories I mentioned. That is what newspapers do. We use our resources to tell our community stories, the good ones and the hard ones. Telling them makes our community better.

I share these examples because they illustrate the everyday challenge faced by local journalists. We must be vigilant to tell important, well-reported, and thoughtful stories. We must care that they get wide distribution. That is our job and crucial to our communities. We are accountable to people like Ms. Shirley and her neighbors in Carrollton, Georgia.

Almost always, the debate about media and tech is framed within the discussion of international news brands. But the greatest peril for our Nation lurks at the local level where a regional or community newspaper must cope with fast-changing, technological, and financial matters.

We are the ones who are concerned with our communities, their government, and their well-being. Our staffs live in our community. They have a big stake in informing the public. Social media and technology companies have enormous influence on the distribution and availability of news. But we should be worried about losing newspapers. The fountainheads within the local news ecosystem. It is worth considering stories that would go untold.

Thank you.

[The statement of Mr. Riley follows:]

U.S. House Committee on The Judiciary
Subcommittee on Antitrust, Commercial and Administrative Law

"Online Platforms and Market Power, Part 1: The Free and Diverse Press"

Testimony of Kevin G. Riley
Editor
The Atlanta Journal-Constitution

June 11, 2019

Chairman Cicilline, Ranking Member Sensenbrenner, and members of the Subcommittee on Antitrust, Commercial and Administrative Law: thank you for inviting me to testify at today's hearing.

My name is Kevin Riley, and I am the Editor of The Atlanta Journal-Constitution (AJC), a position I have held since 2011. I have been a professional journalist for 36 years and was a judge for the 2019 Pulitzer Prizes. In short, I have spent a career in the business, and I'm passionate about what I believe it takes to provide quality local journalism, the core to any successful paper. The Atlanta Journal-Constitution is the largest newspaper in Georgia. We have a rich 150-year history, and members of our staff have won 11 Pulitzer Prizes. The AJC has always been a watchdog for Georgia's citizens and the home of journalists who shaped our city's history – and that of our state and nation. I am responsible for the AJC's news coverage in print and in digital formats.

About four years ago, in a downtown Atlanta courtroom, a Fulton County jury convicted 11 educators in one of the longest trials in Georgia history. With those convictions, 32 educators had been found guilty of altering students' standardized tests in the largest school cheating scandal in the nation's history. The reading of that verdict culminated a heroic journalistic effort by The Atlanta Journal-Constitution.

AJC reporters had noticed that Atlanta Public School student scores on Georgia's standardized tests showed extraordinary improvement. They decided to analyze the scores and set off down a remarkable path. Their analysis showed that some schools had improved so much that it raised questions about cheating on the tests. Their first story showed the gains of some schools defied statistical possibility.

Later, after many more stories, an investigation ordered by the governor as a result of the AJC's reporting found system-wide cheating in 44 Atlanta public schools, with 178 teachers and principals routinely erasing incorrect answers on standardized tests and replacing them with correct ones. The cheating inflated the scores of thousands of students, giving the false impression of their -- and the school district's -- success.

The story would never have been uncovered without the AJC. And the educators would have never faced justice, the system would not have been fixed, and most important of all, students wouldn't have been offered the chance to gain the knowledge they had been denied.

No other news organization in Atlanta has the capacity and expertise to do that kind of work. No other organization could have stood up to the relentless pressure to back off, unleashed by the school district and the business community. No other news organization would have stuck with the story for years, as the AJC did. It would be impossible to even put a cost estimate on the work.

That story illustrates the vital importance of today's hearing. Preserving local journalism means that these kinds of stories will be reported. Too often, the debate about media and tech platforms is framed within a discussion of international news brands. But the greatest peril for our nation lurks at the local level, where a regional or community paper must cope with a fast-changing technological and financial landscape.

Social media has forever altered the local news ecosystem and changed the way people consume news. In the sea of fast-moving, 24-hour news, newspapers provide deeply reported, authoritative local news amidst the frenzy. Local newspapers employ reporters and have a very real stake in a local community's well-being and economy. Only a local newspaper would commit to telling an important story like the Atlanta Public Schools cheating scandal. Only a local newspaper would make the years-long commitment. Only a local newspaper could document the impact on a community's children.

It's important to note that newspapers spend money to appear in news feeds and create stories specifically designed to gather online audience. Besides the expense of creating our content, we must attract users to our web site to expose them to the important, reliable, well-reported local journalism we've created. In fact, at the AJC we have numerous staffers assigned to monitor social media, create content for social media and search engines, and to evaluate its performance. Remaining viable and visible on these important platforms is a constant, expensive challenge for news organizations like the AJC. Fortunately, the AJC can afford to fund these positions. Smaller newspapers have a bigger challenge.

Social media and technology companies have enormous influence on the distribution and availability of news. But we should be worried about losing newspapers, the fountainheads within the local news ecosystem. It is worth considering what will be lost – those things only a local newspaper does:

- **We produce in-depth local journalism that lets the community know what's really going.** The Atlanta community deserved to know why those test scores were improving in defiance of logic.
- **We protect the public's right to know.** Newspapers demand public records be available on behalf of citizens.
- **We document our communities' moments, milestones and people.** What do people want when their team wins the Super Bowl or World Series? A copy of the front page.

We produce journalism that is distinguished by its depth, accuracy and originality. That costs money and is expensive, but if the system works correctly, it also makes money that the paper uses to investigate and develop the next story or cover the next local event. If others repackage our journalism and make money off it, yet none of that money makes its way back to the local paper, then it makes breaking that next story or exposing the next scandal more challenging. If that cycle continues indefinitely, quality local journalism will slowly wither and eventually cease to exist.

It's worth noting what ingredients and qualities make up the journalism of a newspaper.

Newspapers dig for original, often hidden information. At The Atlanta Journal-Constitution, journalists pursued a long investigation into public records abuses by the former Atlanta mayor's administration. Reporters showed that spending and other records, which should be available to the public, were hidden and obscured. The Georgia Attorney General stepped in, based on our reporting, and filed criminal charges. That action was a first under the Georgia Open Records Act.

Newspapers constantly monitor local and state institutions with beat reporting. Newspaper reporters are often experts at what they cover and monitor their beats to assure that they are the first to discover news of value. For example, The Atlanta Journal-Constitution has a reporter who covers the state budget and has for decades. It's hard to find anyone in Georgia with a better understanding of the state's finances.

Newspapers take the time to get it right. Our journalists might spend many months developing an important original investigation or analysis and know they can invest the time many stories need to develop. For example, in the case of the school cheating case, a team of reporters stuck with that story for years, using computerized analysis and meticulously working on accuracy and fairness in the reporting.

Newspapers master the details. Because we know our topics with depth and context, we are able to report with clarity and certainty. The format and mindset of newspaper journalists allows for thoughtful explanations of important stories – like the controversial financing of a new development in downtown Atlanta.

Newspapers hold officials and politicians accountable. We devote the resources, time and expertise needed to develop and produce high quality investigations that shape the community we live in. The Atlanta Journal-Constitution produced the most extensive review of police shootings ever undertaken in Georgia and cast doubt on claims by police that deadly force was always justified. Working with a local TV station as a partner, the newspaper showed that nearly half the 184 Georgians shot and killed by police since 2010 were unarmed or shot in the back. The year-long investigation exposed flaws in the way the state handles police shootings and led to grand jury reform. Reporters analyzed thousands of pages of records and conducted more than 100 interviews with prosecutors, police, grand jurors, family members and others.

Newspapers master public records laws. We have the highest level of expertise in the state on the public's access to documents and other information that is important to how the state and local governments operate. The AJC was an active participant in Georgia's 2012 revision of its public records laws. We retain an attorney to counsel us on these laws – while we advocate on behalf of the public.

In conclusion, a final anecdote.

Each year during Georgia's legislative session, I spend a day at the Capitol with our statehouse reporting staff. The Atlanta Journal-Constitution maintains the largest staff in the state to cover Georgia's government. Much has been written about how statehouse bureaus have shrunk around the nation, and that's true in Georgia. At times, the AJC's reporters appear to be among the only journalists covering the bills, the lobbyists and the political developments. It's an enormous responsibility to know that Georgia's citizens are so dependent on us. But as other newsrooms have been unable to commit to the cost of traveling from Macon, Savannah, Columbus or Valdosta, I recognize how that hurts our state. We miss those competitors and would welcome them as the competition makes us all better and is better for the citizens we serve.

Every day, we take on the job to inform and empower our readers who value credible, in-depth journalism. By providing this important public service, we help build a better Atlanta and Georgia for generations to come. All newspapers pursue similar missions.

Original journalism is difficult, time consuming, expensive and complicated. And perhaps not well understood.

But it's crucial to our democracy.

Thank you, and I welcome your questions.

Mr. CICILLINE. Thank you, Mr. Riley.

We will now proceed under the 5-minute rule with questions. And we will begin with the gentleman from Georgia, Mr. Johnson.

Mr. JOHNSON. Thank you, Mr. Chairman. And thank you, witnesses, for being here today. And I would like to extend a particularly warm welcome to the editor of my hometown paper, Mr. Riley, from the AJC.

The purpose of this hearing is to face an important problem head on, the media, from local newspapers to major publishers to online innovators is dying. This is, in some part, because of a shift in how we consume our news, but it is also because of the mass availability of information on digital platforms.

While the news media's market presence is increasing, their revenue is decreasing. This is untenable. No business can prosper this way and no reasonable investor would want to get involved. We cannot continue to rely on the good grace of concentrated wealth to do the right thing.

A free market approach as applied to the duopolistic online platform gateway and its relationship to a free and diverse press is not working. Moreover, it poses a direct and pressing threat to our republic and, therefore, to our freedom. Something must be done to level the playing field, and I am looking forward to talking with all of you about potential solutions to this problem. And I thank the chair for hosting this very important hearing.

Lastly, I will note that a free press—or that free press content has a cost, and that price is profoundly expensive and could price freedom out of the fragile marketplace for freedom.

Mr. Riley, according to a recent Pew study, Americans have shifted from traditional media sources for local news to the television and Internet. Interest in local print news in particular has declined resulting in massive downsizing at newspapers. In fact, newsroom staff declined by 45 percent from 2008 to 2017.

How has the AJC worked to overcome this challenge?

Mr. RILEY. Well, thank you for that question, Congressman Johnson. And I think that one important point to make about the statistics that you cite in terms of preference of news sources is this: We are typical, I think, of most newspapers of our size and in a market similar to ours in this way, our audience has never been larger than it is now. When you can combine the people we have who read the printed newspaper and that audience that we can garner online in our markets, we have more people reading the Atlanta Journal Constitution than at any other point in our history.

The challenge here is sort of simple, which is in what kind of world do you grow your audience, reach a bigger market, and somehow face even greater financial challenges than you did before? Something is out of whack in that equation, and it is just counterintuitive to how American business works where, when you invest and you succeed, you reap the benefits of that investment. That is the missing piece for newspapers.

Mr. JOHNSON. Thank you.

What are your projections for the AJC? And how has your digital platform presence—well, you have explained that. Let me move to my next question.

Mr. Chavern, how many local papers does your organization represent?

Mr. CHAVERN. Approximately 2,000, sir.

Mr. JOHNSON. Is there any requirement that local newspapers be prioritized on general—on digital platforms?

Mr. CHAVERN. Prioritized in terms of the search, sir?

Mr. JOHNSON. Yes. In any respect.

Mr. CHAVERN. Yeah. They are—there is no requirement that they be prioritized. But the digital audience, as was noted, is exploding across the board.

Mr. JOHNSON. Mr. Pitofsky, one of the major issues in market dominance today is the ability to use individual's data in targeted advertising.

How do you—how do the online giants control user data? And why is this such a powerful phenomenon?

Mr. PITOFSKY. Thank you, Congressman.

Advertising has changed profoundly so that rather than reaching an audience, advertisers now reach individuals. And to the degree that they are able to get more and more detailed data about those individuals, they can send them targeted data.

So the more data a company has, the more it can segment the market, the more it can deliver targeted ads. And the dominant platforms are light years ahead of other competitors in terms of the amount of their data, thus their dominance in the digital ad space.

Mr. JOHNSON. Thank you.

I yield back.

Mr. CICILLINE. I thank the gentleman.

The chair now recognizes the ranking member of the full committee, Mr. Collins, for 5 minutes.

Mr. COLLINS. Thank you, Mr. Chairman.

Mr. Chavern, one of the interesting things—that I have been asked this question a good deal since we actually introduced it. And I think it is—but I think it is vitally important, because sometimes we can put things out there. But at the end of the day, if it is not actually a workable solution, then, simply, we are just talking about things and, you know, generating a lot of, you know, basically hype that doesn't actually end up in solving something. I am not a member of Congress who believes that we ought to just, you know, simply throw ideas out there but actually find ideas that can actually work.

So the question that has come up a great deal about that is how can we be sure that any agreement that the news publications negotiate with the online platforms under what we are proposing in this legislation will be adequate and flexible enough to endure for a long time in this quickly evolving market. I believe it is more than just right this minute. How does it play out 10, 15 years down the road?

Mr. CHAVERN. Well, thank you, Representative.

Obviously there is never going to be guarantees about infinite solutions. But I think what there is a real chance for us to develop an enduring partnership with the platforms.

Again, at the end of the day, the platforms, I view them as a solution, a potential solution for news and journalism rather than a problem. And I think the issues are well understood and pretty well defined. We have issues about revenue. We have issues about data. We have issues about algorithms and our brand.

But these are all things that I think are solvable, achievable. And that I am confident that we could develop a solution that would greatly support journalism for some significant period of time. I don't think this is one of those issues that is not solvable. I think it is imminently solvable.

Mr. COLLINS. Would you also agree that this is an issue that both parties, really, in a lot of ways need each other? That this is not really one upset at the other and the other upset at—you know, that there is not mutually exclusive positions here. That the online platforms need the local content spoken of by others and at the same point in time they all wind in the local and also need, you know, to have this, you know, divergent technology, disruptive technology that has been good in many, many ways.

Do you see that as a symbiotic kind of relationship that should be instead of an adversarial relationship?

Mr. CHAVERN. Yeah. Absolutely. I mean, these are amazing wonderful distribution platforms that, by the way, have allowed us to grow our digital audience larger than it has ever been in terms of any audience. And they need good content to engage their users, and we need access to those users. It is just in this world where we can't act collectively. That means that we have this problem of any one publisher really doesn't get a say in how its content is distributed to those users.

Mr. COLLINS. One of the things that we came up with last year in this committee worked, and my friend Hakeem Jeffries and I worked this for a long time, and that was the Music Modernization Act, which actually had a very similar kind of issue where you had the content owner and the disruptive technology, which has been great for many segments, but there was a disconnect of many of our rules and many other things going forward where the content—and I think this is something that I have emphasized in this committee for years is that spark, that original idea, that content which both tech platforms have and also the local platforms do as well, is something worth protecting.

You can't sort of kill the goose with the golden egg. You can't go and say the one producing the content is bad and we're just going to keep taking, keep taking, keep taking, because one of these days they are not going to exist anymore.

My hometown paper that I have grown up with for years, it was a 7-day-a-week paper. It had—you know, just 20 years ago, had, you know, 25-, 30,000 on it. It is down to now only a 5-day-a-week paper. It could possibly, unfortunately, may go further.

Most of the district—my district is a one paper per county. But yet, at the same time, we do have Internet. We do have broadband issues. That is because of a very terrible carrier. But there are some other issues that we have there.

But as we look at that, you know, we need to make sure that both are involved in this. And I think that is the concern that I have.

I think as we go further in this process, knowing that there is the online capability, knowing what we have heard so far in this, this—I want this to be understood. And, unfortunately, I have had to do a lot of interviews where it came at me as if this was an adversarial—these whole hearings are adversarial. Not really. They are just simply saying from my perspective what do we need to do in a perspective now.

I appreciate all the witnesses here giving this directive, because when we engage, people win. When we start talking about this, we win. And I think that is the biggest win that we have going forward here.

With that, Mr. Chairman, again, thanks for this and thanks for the partnership on this bill. And let's look forward to continuing to work together.

I yield back.

Mr. CICILLINE. I thank the gentleman for yielding back.

I now recognize the gentlelady from Washington, Ms. Jayapal, for 5 minutes.

Ms. JAYAPAL. Thank you, Mr. Chairman. And thank you all for being here.

I represent a district that includes Seattle. And, you know, we used to have a number of papers in Seattle. We are down to one now. And so—and I am also somebody who read the morning paper, like the actual paper for a very long time.

But digital technology is amazing. And I am continually astounded by the proliferation of information that feels like it is at our fingertips. I have watched my child grow up immersed in the digital world. They know no other world. And they have access to a breadth of information that I think could never have been imagined several decades ago.

My district is a hub of innovation. We have a lot of the tech companies right there in the district. And there are these exciting new ways that I think we are finding to use technology and share information.

However, I will tell you that many of my constituents who work for those very tech companies want us to make sure that we are utilizing that technology with appropriate regulations.

A very small number of companies exert a great deal of control over what news and information each of us sees when we go online or we use our phones. And those companies do have sophisticated systems that track what we do, where we are located, what we are interested in. It never ceases to amaze me if I go to a shopping site and I plug in something, and then the very next day I have five of that same thing constantly coming back at me to see if I will buy it.

So we know that our information is being monetized, that these companies are selling access to our attention to advertisers and using their own proprietary algorithms to determine what information and articles we see and what we don't see. And it is easy to forget that when we do a very quick Google search for news about a particular topic or we click on an article and our Facebook feeds. It is easy to forget that when we go online or into our phones looking for good information, we are actually being controlled by those corporations and the algorithms that are being used.

So, Ms. Hubbard, let me start with you. You were an assistant attorney general for New York State's antitrust division. You have also worked as a journalist.

Which online platforms would you say are most impacting the public's access to trustworthy sources of journalism and why?

Ms. HUBBARD. Thank you for the question, Congresswoman.

I think in terms of disinformation, the platforms are having the most impact are Facebook and YouTube. And that is because of their business models which are to prioritize engagement, engaging content because of the human nature that, you know, survival instinct. We tend to tune in to things that much us fearful or angry.

And so by prioritizing engagement, these platforms are actually prioritizing disinformation as well. It serves their profit motives to keep people on the platforms as long as possible to show them ads and collect their data. And because they don't have any competition, they are free to pursue these destructive business models without having any competitive constraint. They have also lacked regulation. Normally, corporations are not permitted to just pursue profits without regard to the consequences.

Ms. JAYAPAL. So let's go to that question of regulation. The Federal Trade Commission has repeatedly declined to interfere as Facebook and Google have acquired would-be competitors.

Since 2007, Google has acquired Acquired Semantics, Double Click, and AdMob. And since 2011, Facebook has acquired Instagram and WhatsApp.

What do these acquisitions mean for consumers of news and information? I think sometimes antitrust is seen, and In regulation is seen as something that is out there. But this has very direct impact for consumers.

Can you explain what that means as these companies have acquired more and more?

Ms. HUBBARD. Sure.

So in my view, those—all of the acquisitions that you just mentioned were illegal under the Clayton Act which prohibits mergers that may lessen competition.

Looking back, it is clear that all of those mergers did lessen competition. And when you lessen competition, the harms to consumers are not just high prices, which are harder to see in the digital age. But it is loss of innovation. It is loss of choice and loss of control.

So when we approve antitrust mergers, consumers are harmed.

Ms. JAYAPAL. And do you think that the FTC—what do you think about the FTC's current work around these? Do you think the FTC should be doing more and how?

Ms. HUBBARD. I definitely think the FTC should be doing more. I think there is a possibility of unwinding some of the mergers that are now obviously illegal now that we have the evidence, particularly Facebook's acquisition of WhatsApp. There have been public documents showing that Facebook had identified WhatsApp as a competitive threat using its VPN technology. And that it also deceived the European commission and likely—I don't know if it told anything different to U.S. regulators, but it has been fined for deceiving the European Commission saying it couldn't share data from what—between WhatsApp and Facebook.

So I do think that the FTC needs to do much more in this regard.

Ms. JAYAPAL. Thank you.

I see my time has expired.

I yield back.

Mr. CICILLINE. I thank the gentlelady.

I now recognize the gentleman from North Dakota, Mr. Armstrong, for 5 minutes.

Mr. ARMSTRONG. Thank you, Mr. Chair. And I especially appreciate Mr. Riley talking about small town papers, because if large publishers are having this problem, you can about imagine how adversely affected smaller publishers that do business in North Dakota are by this issue.

And my first grown-up job was coaching our summer American Legion baseball team. And I learned two things very early in life when dealing with the press and dealing with the kids of parents. One, you never get in trouble for what you don't say. And, two, you should always criticize in private and praise in public. So I have carried those with me for a long time, and so I appreciate that.

But just earlier we had heard—so Mr. Chavern and Mr. Pitofsky and Mr. Kimmelman talked about antitrust. And so we assume that we know there is—that there exists a competition problem in the market. But we already have longstanding remedy, and that is antitrust enforcement, if necessary. And I think there might be a little disagreement about whether that is actually sufficient. So supporters of this bill will argue that we need an exemption from antitrust laws which allows them to come together to negotiate terms.

Why should we enact the Journalist Completion Act as opposed to just enforcing antitrust law? And I will just start with Mr. Chavern.

Mr. CHAVERN. Thank you very much.

You know, the current antitrust laws protect Google and Facebook from us, interestingly, which is both wrong and ironic from our perspective.

What we are suggesting is, really, what we view as the lightest touch option on the table in terms of giving us the power just to stand up for ourselves.

And also, I have to note, there is a real urgency in the industry currently. This is an industry that really can't wait years and years for antitrust solutions. We are at a crisis point now. And what we are asking for is relatively simple, relatively straightforward. We are not asking the government to regulate anyone or tax anyone. We are just really asking to be left alone to defend ourselves.

Mr. ARMSTRONG. Thank you.

Mr. Kimmelman.

Mr. KIMMELMAN. So I do think antitrust can help. I think we have had a lapse in antitrust. Ms. Hubbard referred to it. I don't know about the specific cases. It is always easier in hindsight to say something was anticompetitive. Hard to tell at the time. But there is no doubt that we have had underenforcement and we need stronger enforcement.

I do not believe it solves this problem. It certainly doesn't solve an immediate crisis. But I do worry that you should look very carefully at whether the kind of negotiation that Mr. Collins was talking about and the way it would happen is what would actually happen in the marketplace. I am not at all sure that is how it would work. I am not at all sure who is a news content creator. You have wonderful news creators here in front of you today. There are tabloids. There are a lot of purveyors of mis—there are a lot of bad people out there too.

So I just think this is very complicated. You ought to take a very careful look at what would actually create a better marketplace dynamic. I actually believe there are better ways to do this, but it requires a different approach.

Mr. ARMSTRONG. And Mr. Pitofsky.

Mr. PITOFSKY. Yes. I would say that antitrust has been interpreted relatively narrowly for the last 40 years. And these markets are presenting new challenges, that it is going to take time. And this committee's investigation is helping move in that direction of understanding how these new markets work.

So, for example, when some of these mergers were approved, some of the people objecting raised privacy concerns. But the regulators felt that privacy was not an area that antitrust could cover.

I think as we have had experience with these platforms, we understand that privacy is an aspect of product quality. All of the users of these tools have expectations that those tools carry privacy that is in their interest. And antitrust just hasn't really stretched its muscles in a long time to understand those kinds of quality issues. And it is going to take a while. The facts are complicated. The law is complicated. Judicial precedence need reexamination. And so the bill is a good short-term remedy while the larger issues are tackled.

Mr. ARMSTRONG. Ms. Hubbard, do you want to talk?

Ms. HUBBARD. I agree with Mr. Pitofsky. I caution what—I worry about what Mr. Kimmelman is saying, that sometimes when we say things are too complicated, it is a way of not doing anything. And that is what we have been saying in this space for a long time where we have seen regulators around the world and enforcers around the world address this problem.

And we have just been sitting back worrying it is too complicated. And I think it is important to take action quickly and not keep kind of viewing complication as a reason to do nothing.

Mr. ARMSTRONG. And I agree with that. I don't think too complicated is ever an answer. But I would also say, and this is not an apples-to-apples comparison. But we are going to get to watch this play out a little bit, because the EEU just adopted really strict Internet rules. And one of the goals was to increase and remove barriers entry.

But by holding the platforms themselves liable for copyright violations, they may have—the cure may actually be worse for them than the disease. And time will tell. But automatic filter programs and scrubber programs that—such as YouTube uses, because you mentioned YouTube earlier, are incredibly expensive to run. And so—and plus—I mean, least in the EEU, it is not quite the same.

And I am sorry for going over.

Mr. CICILLINE. That is okay.

Mr. ARMSTRONG. I didn't do an opening statement.

Mr. CICILLINE. I am not trying to gavel you down yet.

Mr. ARMSTRONG. But, I mean, while they pass the rules, each member country is going to have promulgate their own laws in association with those rules which can cause all kinds of problems in that companies are going to have to operate in that patchwork of different laws or just follow the most strict laws of any of those countries. Or probably the worst-case scenario is not do business in some of those countries.

So when you come from a small State and knowing that States like California and New York will dictate a marketplace, you always get concerned about that.

So I agree with you. But we are going to get to watch it.

Ms. HUBBARD. Can I respond really quickly that we do have a tool that we have had for a very long time, which is the antitrust laws. So before you were looking at kind of different solutions that Europe is pursuing, we used the antitrust laws against Microsoft, it led to innovation. Many people say if it weren't for our antitrust enforcement against Microsoft, Google would never actually have been able to come onto the scene.

So it is not actually a novel problem or novel tool, so we have these tools.

Mr. ARMSTRONG. No. And I agree, which is why I asked the antitrust question to start the questioning process.

Sorry about that.

Mr. CICILLINE. No. No.

I now recognize the gentlelady from Florida, Mrs. Demings, for 5 minutes.

Mrs. DEMINGS. Thank you so much, Mr. Chairman, and thank you to all of us—all of you for being here with us today.

Mr. Chavern, we talked about many newspaper publishers have seen significant growth in digital subscriptions, but yet they continue to struggle, and many have shut down which is truly unfortunate. Would you please talk a little bit about why the news industry continues to struggle despite the increase in online readership and digital subscriptions?

Mr. CHAVERN. Certainly. Thank you. Again, the audience—our audiences both growing and moving very quickly to online spaces, and those spaces are dominated by just a few companies that take the vast bulk of the advertising revenue, determine everything about the experience you get with your news publisher.

Again, I call them our regulators because they get to decide what news is delivered to who and when. How the news is delivered to me is different than the news delivered to you, and whether we can monetize it and on what terms.

Mrs. DEMINGS. I think it is so important for everyone to hear your words on that topic. Please go ahead.

Mr. CHAVERN. They are incredible and powerful advertising engines that do great targeted advertising often around our content, and they take the bulk of the digital advertising revenue. So, really, the rules of the game for online engagement of news are set up against content creators, publishers, and—but again, one of the things we do know is that people love news. The audience is bigger than ever. It drives a lot of engagement, and certainly the platforms know this.

Mrs. DEMINGS. Interesting what we define as news these days, but please go ahead.

Mr. CHAVERN. The platforms know this. They know that people go online to consume that product, and then they get to make money monetizing them to our detriment.

Mrs. DEMINGS. Thank you.

Ms. Hubbard, some researchers have estimated that for every dollar an advertiser spends on digital ads, only $0.30 go to the publisher meaning that ad tech mediaries could be capturing around 70 percent of all digital ad spending. What, if anything, does the 70 percent figure tell us about the market? I would love to hear from you about that.

Ms. HUBBARD. Yeah. As an enforcer, I would say—as a former enforcer, I would say that 70 percent cut shows that there is extraction that is happening, and it is not—there is not fair bargaining power between the press and the tech platforms because that is not, you know, a fair price. It is a monopoly rent, really.

Mrs. DEMINGS. And why is the fair bargaining power so important to this industry and to the consumers?

Ms. HUBBARD. Right. So as I said, you know, throughout the economy, when you don't have—when you have such concentrated markets, there is a lack of bargaining power. That means that everyone else has to play by the terms of the dominant companies, and we are talking about the press here which is so critical to our democracy. We do not want them playing by the terms of dominant companies. It is, you know, critical that they have bargaining power and can have a fair deal with getting this important content to the world.

Mrs. DEMINGS. And finally, Mr. Riley. You know, the 20-second sound bites are fine, and being able to click on a lot of different things which many times, they really don't have the same effect as a headline does, but there is just something about reading the newspaper. I believe you get not half of the story, you get more of the whole story. And I heard an editor say once and the other big benefit is that you may bump into another story that you had no intentions on reading. I think an informed America is a better equipped and a smarter America.

Could you tell me what is lost when a local or regional newspaper goes out of business, and what effect does that have on the local community? You have shared two very powerful stories with us today, but when a newspaper goes out of business, what is that effect on a local community?

Mr. RILEY. Well, let me try to explain it this way. You know, there were several references to the engagement of citizens and voting and that sort of thing, but let me give a real world Georgia example, you know. We cover the State. We have a big group of reporters who cover the State legislature in Georgia when it is in session. And I try to go down there each year and spend a day with our reporters and editors who do that so that, you know, I can meet the legislators and really get a good idea of the work.

Well, I have been down there, and sometimes it feels like we—our reporters are the only ones there, and what is happened is it has gotten too expensive to send reporters from Macon or Valdosta or Columbus, Georgia. And what kind—that is not good. That is not good for our democracy. That is not good for Georgia. That is not good for any of those communities because of what is happening in the industry. And I'll be honest you with you. It is not good for us because the competition, we like to see them around, and it would make us better, and we would all be better. The state would be better, and all those local communities would be better. And that is a kind of real world example. And all of this discussion about these complicated issues, that's how it really plays out.

Mrs. DEMINGS. Thank you so much. I am out of time.

Mr. Chair, I yield back.

Mr. CICILLINE. I thank the gentlelady.

I would just advise the witnesses on the panel they have called votes. We only have two. So we are going to have Mr. Gaetz, the gentleman from Florida, do his questioning and then we'll briefly adjourn, go vote quickly and come right back, and I apologize for the inconvenience. Mr. Gaetz is recognized for 5 minutes.

Mr. GAETZ. Thank you, Mr. Chairman. And I believe that we are presented with an historic opportunity here where right wing populists and left wing populists have joined together under Chairman Cicilline's leadership to attempt to change the way consumers interface with major technology platforms. In a committee that so often sees division, it is nice to be working towards such an important goal, and it truly is historic that we are working together.

Mr. Chairman, it seems as though there are three ways that the consumer experience can be altered. Initially, technology companies can voluntarily choose to be more transparent with consumers about their data and information, and they could choose to act in better faith with partners in the news industry.

The second way is that through investigations and hearings like this, we would be able to animate the Department of Justice to engage in a more rigorous enforcement of existing antitrust laws.

And then the third option would be a legislative option. So obviously someone's voluntary action is self-evident, but Mr. Pitofsky, if our goal here were the second of sort of the three legs of the stool I outlined, to animate the Department of Justice in their antitrust enforcement, what specific guidance would you give in that light?

Mr. PITOFSKY. I think that the committee's goal of investigating is a very good first step. There is a lot of opacity in these markets. There is a lot that is not understood about fees that are taken out through the ad tech stack, about how the algorithms work, about how they are structured, if they are, in fact, structured to benefit consumers as the platforms say, or if they are structured with the intent of blocking competition. So I think the most important first step is for the committee to really dig into the facts and bring some transparency.

Mr. GAETZ. That transparency objective is a virtuous one, one that I believe in. What specific types of allegations would you want the Department of Justice to lay out to achieve that outcome?

Mr. PITOFSKY. Well, to coin a phrase, I think I would follow the money at this point. The engine of these platforms is the advertising that they sell, and the amount, the paucity of competition, the fact that they are able to extract so much from that ad tech stack suggests something fundamentally broken in the lack of competition in those markets which are the key profit generators of the business, so I think I would go with the ad tech first.

Mr. GAETZ. That is very helpful.

Mr. Chavern, I am going to ask you about the third leg of the stool, the legislative options that we have available to us. And I know we can enforce our antitrust statutes, but another element of the Communication Decency Act applies to major technology platforms and doesn't apply to the people you represent, Section 230.

Section 230, as I understand it, and I am happy to be corrected by others, would say that if a technology platform is a neutral public platform that they enjoy certain liability protections that newspapers don't enjoy, that Newscorp doesn't enjoy with its assets. And so does it make the anticompetitive posture of technology platforms more pronounced that they have access to this special liability protection that the people you represent don't have access to?

Mr. CHAVERN. Absolutely. There is a huge disparity, frankly, when our content's delivered through these platforms. We get the liability, and they get the money, so that is a good deal from that end. You know, we are responsible for what we publish. Publishers can and do get sued. On the other hand, the platforms are allowed to deliver and monetize this content with complete lack of responsibility. I think that is a disparity that will have to be addressed. I think Section 230 had a reason, a raison d'etre at the beginning. I think—particularly with regard to the massive platforms, I think it is time to relook at that.

Mr. GAETZ. Thank you.

And Mr. Chairman, that is very instructive testimony, I think, because as we look at the ways to rebalance the scale, there is legislation that you have introduced with Mr. Collins to give the people before us the ability to band together in that negotiating practice.

But I hope we wouldn't exclude from our gaze the other statutory advantages that are baked into these business models that, as Mr. Chavern says, shift liability to one particular segment of the industry while at the same time giving others liability protection in absence of the transparency that Mr. Pitofsky noted that would demonstrate that they are worthy of that liability protection.

And so I am not—I agree with Mr. Chavern that I am sure there was a virtuous reason for Section 230. There is likely an incarnation of Section 230 that would fulfill that initial obligation. But in the absence of the transparency that requires these platforms to show that they are a neutral platform, that they are not putting their thumb on the scale either in the way they operate their business or in the way they can control content, I just think that is an important part of the legislative function.

And I would finally add I am grateful that the President has tried to enhance the voluntary actions of some technology platforms by pointing out where he sees bias in that. And so again, among those three things, I look forward to our great work, and I yield back to the chairman.

Mr. CICILLINE. You are doing very well with that final comment, Mr. Gaetz. No. You are absolutely right, and I want to assure you that this investigation is intended to look at a broad range of practices on these platforms and a broad range of remedies, so I look forward to working with you on that as well.

And we will just stand in recess very briefly.

[Recess.]

Mr. CICILLINE. The meeting will come to order. I now recognize the gentlelady from Georgia, Mrs. McBath, for 5 minutes.

Mrs. MCBATH. Thank you so much, Mr. Chairman. I would like to say to everyone that is here testifying today, thank you so much. We really appreciate you being here. And because I do represent Georgia's 6th Congressional District, I would like to give a warm welcome, a special thank you to a fellow Georgian, Mr. Riley.

Mr. Riley, your written testimony examines the decline in competition in the Georgia press. What has that meant for the information that Georgians are going to receive, Georgian citizens, about their government at all levels?

Mr. RILEY. Thank you for the question, Congresswoman. And in a way, I guess you could probably answer it after that spirited campaign in the 6th District. I think it was clear that, you know, the Atlanta Journal Constitution—we devoted an awful lot of our folks to covering that.

And I mention that because, see, I think that is what can be lost, you know, crucial elections where other news organizations may not be in a position in different parts of Georgia to exhaustively cover a campaign, to vet the candidates, to deal with the controversies, to sort through potentially misleading television ads, that sort of thing.

And I also think that it creates a situation where we are not competing with each other as news organizations as much. And as has been acknowledged, I mean, everyone is better off with true competition, and I mention that as well because that is what has made the American press such a powerful part of our democracy for our country's existence. We have always had a healthy, vibrant press, and I think that we can point to that and recognize it is part of the reason our country has enjoyed so much success.

Mrs. MCBATH. Thank you. So, Mr. Riley, I heard from editors and journalists that they really value their brand reputation, and I understand a lot about brand, and that leaders can trust their content. And, of course, we all know that in our online world, misinformation is always a click away.

What are some of the ways that online platforms could help the AJC maintain that relationship with its readers and help readers know that they are getting information from a reliable source?

Mr. RILEY. Well, I am going to offer you a brief answer to that and then suggest Mr. Chavern jump in because he has spent a lot of time on this issue. But one of the things that is important to us as a media organization is that it is clear when users of any service come to our content that it is clear to them that it is from the Atlanta Journal Constitution and all that that means to people in terms of its accuracy, its fairness, and how well presented that it is. And when it is confusing to anyone about the source of content, we do invite that idea of misinformation and people struggling to get to the truth.

Mrs. MCBATH. Thank you.

And would you like to add to that, please?

Mr. CHAVERN. Sure. There has always been crazy conspiracy theories. They usually were delivered to us by a crazy uncle over the dining room table, and you knew that was different than what was in the newspaper and what was on TV. And the internet platforms, often these—all the indicators about brand are suppressed, and that is not only bad for my members and the publishing business because we are in the trust business. It is bad for the public because they lose signals about where information is coming from. So brand suppression is a serious issue that we—that does need to be addressed with the platforms.

Mrs. MCBATH. Thank you.

And Mr. Pitofsky, some have argued that reforms to preserve local journalism could have the effect of causing higher prices for advertisers, including small businesses. Do you buy that argument? Why or why not?

Mr. PITOFSKY. I don't buy that argument. I think the lack of competition in the ad tech space for digital advertising is raising prices for advertisers. And if there was more competition in the space, the various platforms competing with each other would need to give—offer better deals to one another.

I don't know if you have seen—if you have it here that Uber and Lyft are constantly sending notifications to their riders of special deals, and that is healthy competition. That is them having to give better deals to their customers to get their business. I think that is what we would see if we introduced more competition into the ad tech space.

Mrs. MCBATH. Thank you.

And for any of you, are there reforms that could preserve and promote journalism, also ensuring that small businesses have access to affordable advertising, and any one of you I would love to hear from.

Mr. SCHRUERS. If I may, Congresswoman. So as my testimony notes, leaders in industry have already committed hundreds of millions of dollars to supporting advertising initiatives and provide tools that are currently allowing news publishers to monetize their content.

The rate at which that revenue is usually split is 70/30. I know that was cited previously in the hearing, saying that news publishers are receiving 30 percent. The figure is right. Who is getting the amount is wrong. The split is traditionally 70 percent going to the news publishers, and that is substantiated by a U.K. government report cited in my testimony as well as a number of other publicly available sources.

All that being said, we recognize that more can be done to promote news journalism, and as our testimony suggests, there is a variety of sources, of solutions including tax treatment for incentives, deductions as well as non-profit status, and, of course, grants beyond what our industry has been providing to various programs for journalism promotion.

Mrs. MCBATH. Thank you so much.

I yield the balance of my time.

Mr. CICILLINE. I thank the gentlelady, and I recognize the gentleman from Colorado, Mr. Neguse.

Mr. NEGUSE. Thank you, Mr. Chairman, and thank you for hosting this bipartisan hearing. I certainly appreciate the bipartisan nature of the questions and certainly appreciate the witnesses testifying today on such an important topic.

A thriving and diverse press, as we all know, is the gateway for so many of our communities to learn about and participate in our political discourse. In a world in which three out of four Americans now access their news online through two platforms, multiple newspapers are being forced to merge or shut down. Local newspapers have seen the biggest negative impact as we have heard from many of our witnesses today. Since 2007, we have lost nearly 1800 newspapers, 500 from rural communities. One of those was my State's very own Rocky Mountain News, Colorado's oldest newspaper, which closed down in 2009.

And we also know from empirical studies that when communities are left with no local newspaper, there is a direct correlation to lack of communication and government accountability. So that is why again today's hearing is so important, and certainly the testimony and the questions that have been posed underscore that fact.

Mr.—is it Sures?

Mr. SCHRUERS. Schruers thank you.

Mr. NEGUSE. Mine is a tough one. It is Neguse.

Mr. SCHRUERS. I feel your pain.

Mr. NEGUSE. Thank you for being here. I have a couple questions for you, sir.

First, I want to talk about your comments regarding antitrust exemptions. I reviewed your testimony. My sense, based on your testimony, I will quote you, note a couple of things. You say attempts to exempt certain industries from complying with these antitrust protections have negatively affected consumers and the economy as a whole.

You later talk about the fact that while you agree that there need to be potential solutions that antitrust exemptions have been proven to be, quote, an inadvisable solution to the business model challenges of these publishers.

So I take it from your testimony, you are not a fan of antitrust exemptions. Am I safe in presuming that you would then agree also that the firms you represent, the companies you represent, that they are also are subject to the antitrust laws because obviously, a variety of them have made arguments in the past that they were not. Is that a fair——

Mr. SCHRUERS. The firms we represent are subject to antitrust enforcement just like any other that doesn't benefit from an exemption.

Mr. NEGUSE. And I presume you would oppose any effort legislatively to try to draw up an exemption for those firms. Fair to say?

Mr. SCHRUERS. CCIA has never supported antitrust exemptions of any kind. In fact, we argued against them during the antitrust monetization commission that I cite in my testimony.

Mr. NEGUSE. Thank you. The second point I would like to follow up on was regarding the ad revenue piece because I just want to clarify for my own understanding and the record, and I missed the exchange regarding the 70/30 split. My understanding from your testimony is the example they are citing relates to Google. Does that same ratio apply to the other companies, or is that——

Mr. SCHRUERS. Thank you for the question, Congressman. So Google has publicly stated that on a few occasions. The Cairncross report that I identify cites revenue splits between other major internet services that are at 70 and above, depending on the particular product that is being used by different platforms. And in some case, it is 85 or even 100 percent of the revenue is retained by the news publisher, so it varies greatly by the platform.

I know of no revenue split whereby the news publisher only receives 30 percent. I am not saying there aren't some, but these reports that are cited——

Mr. NEGUSE. I have limited time, and I appreciate your answer. I would be interested, and perhaps we can follow up on this after the hearing, in getting a detailed breakdown of the revenue sharing across firms because I just—it is painting with a broad brush. Citing one single example I think is not advisable.

The last piece. I would just—so on page 3 of your testimony, your written testimony, you talk about the benefits. The fact that social media platforms in particular have offered unique functionalities and features which have redefined user involvement. Quote, users may share and amplify the reach of news stories and help, quote, road test journalists' story ideas, and you talk about that in a favorable sense.

The footnote—and I went up because I was struggling to understand who would promote this idea that road testing journalists' ideas or journalists' stories, I should say, is a good approach to journalism. You cite a study that was called The Future Newsroom, University of Melbourne, September 2017. It is on page 3, footnote 9.

And in the parenthetical, you state this study essentially stands for the proposition noting publications use of Twitter to road test story ideas where high engagement was taken as a sign to publish a story.

Mr. SCHRUERS. Yes.

Mr. NEGUSE. Do you know who commissioned the study?

Mr. SCHRUERS. I do not, no.

Mr. NEGUSE. So I would encourage you to look it up—Facebook commissioned the study. I Googled that and found on page 2 that it was commissioned, and I am not—I say that only because a lot of the discussion we have had in this committee over the course of the last several months, as you may well know, has been around election interference by a foreign adversary in 2016. And so much of that related to social media disinformation and precisely these types of actions where engagement on Twitter is used to proliferate or even propagate stories that happen to be false.

And I guess what I would just—I would caution that I don't—I think there is reason to be concerned about this notion that road testing and using the engagement on Twitter as a sign as to whether or not the stories should be further published, that that is the true test of success or a barometer of success I just think is not a tenable position, in my view, and I am happy to give Mr. Riley and Mr. Pitofsky a chance to respond to that question.

Mr. CICILLINE. The time of the gentleman has expired, but the witnesses may answer the question.

Mr. RILEY. I am not familiar with the study, and I do know that a lot of times in some of the social media platforms, on the same story, people will experiment with different headlines or invite users to make suggestions. To me, that is sort of a tangent to the core thing that we really worry about with local journalism which is getting out there, finding out what is really going on, digging deep into it, and making sure we get it to an audience. But again, I am not familiar with the study.

Mr. PITOFSKY. I would just add that some of your earlier questions pointed out a factual dispute in the room which is the percentage of fees that goes to the publishers versus the platforms which is a critical fact. I would encourage the committee as part of its investigation to look there because it is a profound question, and there is a lot of disagreement. I think you are going to find the statistics are closer to the ones cited by the Congresswoman earlier in the proceedings.

Mr. CICILLINE. I thank the gentleman. I now recognize myself for 5 minutes.

Mr. Schruers, I want to start with you. Google captures 88 percent of the U.S. online search market, 94 percent of all searches on smartphones, 78 percent of the search ad tech market, and 59 percent of the third party display ad market. I take it you agree that these don't, at least on their face, appear to be competitive markets?

Mr. SCHRUERS. Which precise market are we talking about?

Mr. CICILLINE. Well, let's start with searches on smartphones, 94 percent of the market controlled by one platform. You would agree that is not competitive under any definition?

Mr. SCHRUERS. Well, I think I would say 94 percent of a relevant market would be something worthy of considering, but I think——

Mr. CICILLINE. The mobile search ad market is not a relevant market?

Mr. SCHRUERS. I think the relevant market in that case would be what economists would tell us compete with that. And I know that searching on my phone in the browser, I can also search on my phone by asking Siri. I can search talking to the digital assistant smart speaker in my room.

There are a lot of places that users today can go to get answers that extend beyond the browser search experience, and these are increasingly pageless tools that don't require a search engine. And so, you know, I think economists might not agree that desktop search is a discrete market.

Mr. CICILLINE. I don't actually know any economist who doesn't agree that that is not a competitive market. I guess I am asking you. Do you agree that that is not a competitive market when it is operating at 94 percent of the market share?

Mr. SCHRUERS. I think 94 percent of the market share, of a market, of a relevant market is something worth consideration. I guess is question is whether that is a market.

Mr. CICILLINE. International competition authorities have found that Google has given preferential treatment to its own services in the online shopping and online search markets. Do you see or do you at least acknowledge a risk of self-preferential treatment in the digital ad market?

Mr. SCHRUERS. So the—well, let me start by saying I think that is a reference to the European case, and obviously, European antitrust law is not the same as U.S. antitrust law, and as I understand it, is actually stricter on the question of self-preferencing.

Mr. CICILLINE. I am asking whether or not the kind of self-preferential treatment, whether or not that, in fact, is—there is a risk of that in this market and whether there currently is any way for a publisher to identify this self-preferential treatment?

Mr. SCHRUERS. So I don't have sufficient information about the internal decision-making of any of our companies to speak to precisely that issue, but I would be concerned about a rule that says, for example, that the grocery store can't put its own grocery store brand products at eye level in the store because that is where they find more things——

Mr. CICILLINE. I don't think I was contemplating a rule that does that. It would be helpful, though, as this investigation is undertaken that we, at least, agree to a common set of facts. And we will discuss solutions later on in the process, but I think sort of the fact finding and evidence gathering is really important.

You encouraged caution when enforcing antitrust against big tech platforms, but in many ways I think caution is what we have had for the last decade which I think has resulted in the emergence of advertising monopolies, and I think many of us think it is time to try something different, in any event.

But Ms. Hubbard, I would ask you. The Press Gazette recently reported that a single algorithm change at Google resulted in Google directing traffic to the mail online that caused it to fall by 50 percent. Nick Thompson, the editor of Wire, shared that a single tweek by Facebook caused Facebook-based traffic to Wire to drop by 90 percent.

How does this power dynamic, the fact that a platform can effectively shut off a publisher's traffic, affect the independence of the press, and you know, the ability of people to access trustworthy and reliable news?

Ms. HUBBARD. Well, clearly it is a monopoly problem because no one company should have the ability to decide which publications can exist and which ones can't. And this ability to turn off basically the traffic to any publisher is hugely problematic from a democracy standpoint because it basically is a shield from criticism. There are a lot of people who are never—a lot of journalists are not even going to have the courage to speak out and criticize big tech in the first place knowing that this can be done.

Mr. CICILLINE. Thank you.

Mr. Kimmelman, several media leading economists have commented that antitrust enforcers have been too permissive of mergers that involve a loss of competition among nascent rivals of potential competitors. For example, Dr. Carl Shapiro of the University of California Berkeley has noted that Google's acquisition of Double Click in 2007 and Facebook's acquisition of Instagram in 2012 are examples of mergers that involved the loss of competition.

Do you agree? And if so how can merger enforcement be tightened to address these concerns? And also, you note in your written testimony that we can't rely on antitrust alone to adjust the problems of platform power, and I wonder if you would share what tools you think Congress has traditionally used to promote competition in communication markets and what we ought to be thinking about as we confront these challenges?

Mr. KIMMELMAN. So Mr. Chairman, I do think that potential competition is an area of dramatic underenforcement. When I was at the Justice Department, we did raise concerns about Comcast's purchase of NBCU at the time and raised the question of impact on online video distribution. It was not the first time, but it was very seldom that that tool was used. I think antitrust enforcers need to use it much more aggressively.

I think going back and looking at those transactions, there probably are some that ought to be reviewed now to determine whether they were rightly decided, whether there is a basis under antitrust law to revisit those, but potential competition is critical.

And I would say most importantly in the marketplace of ideas where you have communication platforms that are the most critical way in which we get content for our news and information, we ought to be most careful to be promoting as many entrants, as much potential competition as possible.

Mr. CICILLINE. Thank you. I just want—excuse me.

Mr. Chavern, I just have one final question. You know, I think you made reference to the increasing number of people that obtain their news from digital services. You know, participation by subscription, lots of interesting engagement in news, so a huge increase in consumer and in customer use of your product but declining revenues. But I think Mr. Schruers has said that is just the way it is. That is just the market. That is just sort of the moment we are in. What is your response to that?

Mr. CHAVERN. Present trends can't continue. If we continue on this path, we are going to lose vast amounts of quality journalism, particularly in communities all around the country. That is not just a bad business outcome. That is utterly destructive through our civic society and can't be allowed to happen. And what we have asked for is a chance, a chance for a different kind of future, and we need that future collectively.

Mr. CICILLINE. Thank you, Mr. Chavern.

I would like to ask unanimous consent to allow a member of the—not a member—a member of the full Judiciary Committee but not a member of the subcommittee who has joined us, the gentlelady from Texas, be allowed to ask a question.

Without objection, so ordered.

Ms. JACKSON LEE. Mr. Chairman, let me thank you for the journey that you have started this subcommittee on, and out of your courtesies, I hope to be able to join you as you make this journey. Forgive me for my delay, but I was in the Rules Committee which is a long process dealing with ongoing amendments.

I have served on the full committee for a pretty long time and have served on this committee in the past, and my recollection might serve me. I might have even been ranking member at some point in time, but it is an important committee, but there is important work as we speak. And so I will try to be focused in my questions but to read a statement that I think will guide my questioning.

A small number of digital platforms appear to have outsized control over access to trustworthy news online. And I am a partaker of the National—the NNPA which is the Association of African American Newspapers, newspapers that have an enormous history back to reconstruction periods after slavery as the vehicle of information for many. I am familiar in a diverse community like Houston that speaks 98 languages that there are many papers that reflect different communities, newspapers, maybe online as well, but they seem to be adhering to newspapers.

So—and then in the last election, of course, and 2018 and 2016, we know the conspicuous invasion of the foreign adversaries who utilize online tools to mislead voters, to utilize Russian bots which we expect to occur in the coming 2020 elections. So we are putting ourselves in a very difficult challenge if we don't look at the source of news.

And then as I see the gentleman from the Atlanta Journal Constitution, I know that the paper newspapers are online. We understand that. But I think I would ask this question of everyone, and I think—was that Mr. Chavern who as I came in said that we can't last this way. And so I am going to ask the question as we begin this journey of how do we deal with online digital.

I know that Mr.—Chairman Cicilline who I compliment will also have some overlapping digital privacy issues which we are dealing with in Homeland Security. But I want to have everyone answer if they would, the Achilles heel of dealing with online truth and a correction that they would want to see this committee engage in.

And Mr. Chavern, are you the first because I can't see your placard there. And if everyone would take that question, maybe the Atlanta Journal might want to comment on what it is doing to newspapers even though I know you may be online as most are.

Go ahead, sir. Thank you.

Mr. CHAVERN. Just briefly, the answer is more quality and more responsibility. My members produce quality journalism for which they are responsible. If the platforms have a problem with quality information, and they do, the answer is more content from quality publishers. We need a sustainable partnership. We could have one. We can have one. It is achievable, but the platforms have been unwilling to do that to date, and that is why we are here.

Ms. JACKSON LEE. Thank you.

Sir.

Mr. KIMMELMAN. Congresswoman, I totally agree that we need quality content. I think that we have a problem both in online platforms that comes from every user of those platforms and every media company that is not doing careful, trustworthy curation of information. It comes all across the marketplace with the same incentives for the most salacious material.

I would urge you to consider as you do your fact gathering and investigation to consider whether you need legislation to recreate some public service duty for everyone online, whether it be a news media company, a newspaper, or a platform to deliver trustworthy information and create the financial incentives to produce that. That would give the marketplace better information, better signaling of what is fact and what is fiction, and hopefully it would create the kind of money that we are hearing from local newspapers they need to sustain themselves.

Ms. JACKSON LEE. Thank you. Is it Ms. Hubbard?

Ms. HUBBARD. Yes. Thank you.

Ms. JACKSON LEE. Thank you.

Ms. HUBBARD. Thank you, Congresswoman.

So as I said earlier, I think competition is—would help with this disinformation problem because consumers right now don't have an option of choosing a platform that doesn't boost disinformation with its engagement algorithms.

Facebook and YouTube both use these engagement algorithms that actually boost the propaganda and disinformation. So consumers need to be able to vote with their feet, and the same with publishers so that Facebook—so that YouTube and Google actually have a risk of losing profits. And they are motivated to fix this problem by not losing profits.

And the other thing I would like to add quickly is privacy regulation would also help because it is this 360-degree view of users collecting their data across the web that allows this information agent to then precisely target people based on the data collected about them.

So if we collected less data about people, especially not in ways that they would never expect, there would be less ability to hypertarget them with this information.

Ms. JACKSON LEE. Thank you.

Mr. CICILLINE. Thank you. The time of the gentlelady has expired.

I am now going to ask unanimous consent to add a number of letters and statements to the record regarding the subcommittee's recently announced investigation into major technology firms' potential anticompetitive behavior. A statement from Consumer Reports expressing their support of the investigation. Without objection. A joint statement from Laura Basset and John Stanton, two journalists who were laid off by the Huffington Post and Buzzfeed respectively, without objection, and a letter from EPIC, the Electronic Privacy Information Center, without objection.

[The information follows:]

MR. CICILLINE FOR THE RECORD

Written Statement for the Record

by

Laura Bassett and John Stanton

for a hearing before

The House Judiciary Subcommittee on Antitrust, Commercial and Administrative Law

titled

Online Platforms and Market Power, Part I: The Free and Diverse Press

Rep. David Cicilline, Chair
Rep. James Sensenbrenner, Ranking Member

Tuesday, June 11, 2019

Thank you, Chairman Ciclline and Ranking Member Sensenbrenner, and full Committee Chair Jerry Nadler and Ranking Member Collins, for your critical leadership in launching this investigation into the monopolistic power of the tech giants and for convening this hearing on the crucial subject of the impact the tech giants have had on the journalism industry. And thank you for accepting our written testimony on the existential threat that the journalism industry faces from the tech giants' monopolistic control of the online marketplace. This has impacted us personally, as it has many others in the industry. But it is also affecting hundreds of entire communities across the country as they lose access to high-quality journalism and local news. This is a crisis for our democracy.

We are among the roughly 2,500 journalists and media staffers in the United States who have lost our jobs in the first few months of 2019.

Laura was laid off in January, after nearly a decade in the newsroom. *The Huffington Post* had hired her in November 2009 to write what about the stories of the impact of the financial crisis—people losing their jobs, plunging underwater on their mortgages, hocking their wedding rings to put food on the table. Her first beat was economic suffering. Little did she know at the time that journalism was staring down its own Great Recession. Nobody, it seems, was on that beat.

The staff at *HuffPost* knew the cuts were coming. They'd been the subject of happy-hour chats for weeks. Verizon, *HuffPost's* parent company, had declared our website essentially worthless in late 2018 and directed staff reductions across the board. Even so, Laura's layoff still came as a shock. As a senior politics reporter for the site who represented it on cable news every weekend, Laura's job had felt like an integral part of her identity.

In a brief, surreal phone call, Laura's boss told her she'd had to make some tough choices and that Laura's job had been eliminated. She had five hours to clean off her desk, turn in her laptop, phone, and badge, and say goodbye to the newsroom that had been a second home.

John spent more than 20 years covering Congress, the White House, federal agencies, and federal courts before also being laid off in January. He'd even served as the first bureau chief of BuzzFeed's Washington office, and played a pivotal role in establishing the company as a legitimate, hard news organization.

News of the impending layoffs came not through management, but a tweet from the Wall Street Journal, which announced them two days prior. Like Laura, the entire experience was surreal: the company was not only laying John off, he was told, but the entire national affairs desk, the national security desk, and the LGBT desk were being eliminated entirely.

The reason was simple: while those desks had combined for some of the biggest news stories BuzzFeed had ever covered, there simply wasn't enough money to go around anymore. And the sorts of stories these desks produced, which led to changes in state and federal law, the jailing of criminals, and the exposure of corruption and wrongdoing, cost money. Money that is increasingly gobbled up by Google and Facebook.

In the days that followed, what was harder than losing our jobs was having to watch the whole industry crumble along with us. Layoffs at *Vice* came soon after ours at *HuffPost* and *BuzzFeed*. Gannett, the largest newspaper publisher in the country, cut 400 jobs from local papers. In April, more job cuts hit the Cleveland *Plain Dealer*, which has shrunk to less than a tenth of its former size over the past few years, leaving just 33 journalists to cover a metro area of two million people. And in May, the New Orleans *Times-Picayune* was folded into a competitor, ending a 182-year run, with its entire staff, including 65 editors and reporters, let go.

Tom Feran, a 66-year-old reporter at the *Plain Dealer* who heroically volunteered to be laid off to save the job of a younger staffer, aptly described the feeling as that of "a cartoon character running off a cliff into space and then looking down and noticing I'm not standing on solid ground anymore. Or like the end of 'She's So Heavy,' by the Beatles, which just suddenly ends."

When we were working at *HuffPost* and *BuzzFeed*, we never paid much attention to the financial side of journalism. But since being laid off, we've made it our mission to understand how the digital marketplace works and how Big Tech is killing the journalism industry. That's why we launched the Save Journalism Project last week to educate our colleagues about the very real and dismal future that awaits if they don't get organized and start fighting back against the tech giants.

Companies like Apple, Facebook, and Google are using their tech muscle to monetize news for their own profit, but at the expense of the journalists and news publishers who produce the content. The numbers are staggering.

In the year 2000, when the internet was still relatively new, traditional news publishers made an estimated $48.7 billion in advertising revenue, according to a study by the Pew Research Center on Journalism and the Media. News publishers earned an estimated $10.5 billion from subscriptions and circulation at that time. By 2017, subscription and circulation revenue was basically flat—$11.2 billion—despite substantial population growth during this time, while total advertising revenue collapsed to $16.5 billion, a 67 percent reduction. The economic sustainability of the journalism industry is in real doubt.

The reason advertising revenue has fallen so steeply is that Google and Facebook dominate the digital ad market, consuming more than 60 percent of all revenue. And their share is growing, because Google and Facebook devour nine out of every ten new dollars that are spent on digital advertising. Apple is leveraging its iPhone and Mac users to roll out its own news subscription product, Apple News+. Sadly, this product undercuts the subscriptions sold by existing publishers while Apple takes 50 percent of the revenue.

This has had a crippling effect on the journalism industry. Newspapers slashed 32,000 jobs in the decade between 2008 and 2017, a loss of 45 percent. More than 1,700 newspapers have closed since 2004. The loss of so many newspapers has created “news deserts” across the country. Daily newspapers are vanishing, leaving nearly two thirds of America’s 3,143 counties without one. And 1,300 communities across have lost all local news coverage.

This is not just a story about the death of the newspaper. Previously successful digital outlets are shedding jobs and news coverage at an alarming rate. The stranglehold that Google and Facebook have on the digital ad market has severed the link between increasing readers and increasing revenue. *BuzzFeed* increased monthly visitors to its site by more than 400 percent but still experienced major revenue shortfalls and it was forced to cut staff. All told, 15,500 media professionals lost their jobs in 2018.

The dominance of the tech giants gives them too much power over the online marketplace. Google’s Chrome browser has nearly two-thirds of the market share for web browsers. Apple’s Safari browser is a distant second, but the two combined have roughly 80 percent of the browser market. This incredible reach means that these companies can make small changes to their browsers that without warning can have sweeping consequences for entire industries.

Google announced at its developer conference in May that it was changing the way Chrome treats third party cookies. Just last week, Apple declared at its own annual conference that it was requiring apps in its app store to offer a sign in with Apple capability if the app offers a sign in with a social media account option. These changes to Google’s and Apple’s platforms could have major effects on the ability of news publishers to monetize their content online and sustain their business.

Both Google and Apple framed these changes in terms of online privacy—a real and important concern for Americans. Google's CEO Sundar Pichai wrote an op-ed for the *New York Times* declaring that "privacy should not be a luxury good." He is right, privacy is indeed high in the minds of many Americans and should not be the preserve of the wealthy. But it is a bit rich to read Google's CEO extoll the virtues of his company's initiatives to protect privacy when it collects more data on Americans than any other company, even Facebook.

These changes are not about whether data on users will be collected. Rather, they are about who does the collecting. In these instances, the changes simply consolidate more data in the hands of the tech giants. That would likely increase their already dominant position in the digital advertising marketplace and squeeze out more revenue that should be going to content producers like news publishers.

Should one or two companies, on their own and without warning, be able to make changes to their products that could potentially destroy an entire industry? Especially when that industry is one of the foundations of our democracy? Those questions are why the investigation undertaken by this Committee to examine the monopolistic power of the tech giants and the impact on the journalism industry is so important. Nothing less than one of the foundations of our democracy is at stake.

Tech companies are well aware of their negative impact on journalism and have pledged $600 million toward efforts to support it. That's a lot of money, but this is a drop in the bucket compared to the $35 billion lost annually in advertising revenue for news publishers. And it's a small price to pay to ensure publishers become more reliant on the data Google and Facebook harvest from users across their multiple platforms. It would be far more helpful for them to facilitate a flow of digital advertising dollars back to the publishers who hire the journalists and create the content.

A robust and well-funded news media is vital to a healthy democracy. The public should be aware of Big Tech's death grip on publishers and the power they have over the online marketplace. Congress should be discussing legislative solutions to regulate or break up the tech giants and restore fairness to the digital ad market.

It's uncomfortable for journalists to talk or write about ourselves, or to elevate an issue that's in our own self-interest. We're taught not to be the story. But as tech monopolies siphon off our revenue streams, it's never been more necessary for us to link arms to fight for the health and future of our industry. One or two companies should not have the power to cripple the free press in the United States.

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June 11, 2019

The Honorable David Cicilline, Chair
The Honorable F. James Sensenbrenner, Ranking Member
House Committee on the Judiciary
2138 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Cicilline and Ranking Member Sensenbrenner:

We write to you regarding the hearing on "Online Platforms and Market Power, Part 1: The Free and Diverse Press."[1] We appreciate your interest in this important issue. EPIC was also the first organization to examine the structure of internet-based advertising.

Over the past two decades, an absence of privacy regulation has led to a growing concentration of internet services. Privacy rules could help level the playing field. And the states must continue to have the freedom to respond to new privacy challenges as they emerge.

There are many problems today caused by a lack of regulation – increasing concentration of providers (Google and Facebook), profiling and tracking of Internet users, the loss of support for editorial content, and preferencing the advertiser's products over competitor's. All of these issues require careful examination by this Committee. The threats to innovation and competition are real.

It didn't have to be this way. More active regulation by the government could have sustained online platforms and digital advertising models that were good advertisers and businesses, big and small, and good also for consumers.

In the early days of the commercial Internet, EPIC favored the development of digital advertising techniques and explained that online advertising could both safeguard privacy and promote new forms of revenue.[2] We expressed support for the digital advertising firm DoubleClick when it first announced that it would develop an advertising model that did not require the collection of personal information.[3] Among the first privacy policies on the Internet were those developed by

[1] *Online Platforms and Market Power, Part 1: The Free and Diverse Press*, 116th Cong. (2019), H. Comm. on the Judiciary, Subcomm. on Antitrust, Commercial, and Administrative Law, https://judiciary.house.gov/legislation/hearings/online-platforms-and-market-power-part-1-free-and-diverse-press (June 11, 2019).
[2] Marc Rotenberg, EPIC Executive Director, Testimony before the Senate Commerce Committee, *On Internet Privacy and Profiling* (June 13, 2000), https://epic.org/privacy/internet/senate-testimony.html.
[3] Marc Rotenberg, EPIC Executive Director, Testimony before the Senate Commerce Committee, Subcomm. on Communications, *Hearing on S. 809, The Online Privacy Protection Act of 1999* (July 27, 1999), https://www.epic.org/privacy/internet/EPIC_testimony_799.pdf.

websites that partnered with DoubleClick. They assured users that no personal data would be collected.[4] As DoubleClick explained in 1997:

> DoubleClick does not know the name, email address, phone number, or home address of anybody who visits a site in the DoubleClick Network. All users who receive an ad targeted by DoubleClick's technology remain completely anonymous. Since we do not have any information concerning names or addresses, we do not sell or rent any such information to third parties. Because of our efforts to keep users anonymous, the information DoubleClick has is useful only across the DoubleClick Network, and only in the context of ad selection.[5]

But then, in 1999, DoubleClick proposed to merge with Abacus, a large customer database firm that collected detailed information of Internet users' offline purchases. EPIC immediately objected and launched a national campaign to block the Abacus-DoubleClick merger.[6] We filed one of the first privacy complaints with the FTC.[7] Many agreed that the proposed merger was unlawful and deceptive, and the case also provided one of the first opportunities for the FTC to address new challenges to consumer privacy.[8]

Eventually, DoubleClick backed off the deal, stating that it had made a "mistake by planning to merge names with anonymous user activity across Web sites in the absence of government and industry privacy standards."[9] But the message was clear: Internet advertisers, even those who began with good business models, would seek to expand their reach and build their profiles of Internet users.

And when a Google later proposed to acquire DoubleClick, EPIC went to the FTC with an extensive complaint and warned of the danger to online privacy, competition, and innovation if the leading search engine also became the Internet's primary advertiser.[10] Much of what we predicted happened. Google broke many of the agreements to protect privacy that DoubleClick had established.[11] And then in 2009, Google took a dramatic step with online advertising that has diminished journalism and contributed to the growth of fake news. Google moved from contextual

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[4] *Id.*
[5] In the Matter of DoubleClick, Inc., EPIC Complaint, Request for Investigation, Injunction, and Other Relief (Feb. 10, 2000) at 4, https://epic.org/privacy/internet/ftc/DCLK_complaint.pdf [hereinafter "EPIC DoubleClick Complaint].
[6] EPIC, *DoubleTrouble*, https://epic.org/privacy/doubletrouble/.
[7] EPIC DoubleClick Complaint, *supra* note 5.
[8] *Privacy advocates rally against DoubleClick-Abacus merger*, CNET (Jan. 2. 2002), https://www.cnet.com/news/privacy-advocates-rally-against-doubleclick-abacus-merger/.
[9] *Statement of DoubleClick CEO Kevin O'Connor re: Online Privacy Practices* (Mar. 2, 2000), *available at* http://techlawjournal.com/privacy/20000302.htm.
[10] *In the Matter of Google, Inc. and DoubleClick, Inc.*, EPIC, Center for Digital Democracy, and U.S. Public Interest Research Group Complaint, Request for Investigation, Injunction, and Other Relief (April 20, 2007), https://epic.org/privacy/ftc/google/epic_complaint.pdf.
[11] Press Release, Federal Trade Comm'n, Google Agrees to Change Its Business Practices to Resolve FTC Competition Concerns In the Markets for Devices Like Smart Phones, Games and Tablets, and in Online Search (Jan. 3, 2013), https://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc.

advertising to behavioral advertising, a change it said it would not make and which its founders knew could bring great damage to the Internet.[12] And it has.

In most simple terms, contextual advertising is the advertising that is placed in the newspaper or magazine or the TV show. It is the ad in the radio show. It is the ad on a website that reflects the content of the site. It is tied to content and it is targeted toward individuals not because of data about them, but rather because of their interest in a particular magazine, tv show, or web site. Contextual advertising allows the advertiser to reach the customer without the deep intrusion into private life. It is effective. And a new, small business can offer it without the troves of customer data currently consolidated into a handful of tech giants.

The original DoubleClick model relied on contextual advertising to provide revenue to support websites. And it was a good model. The behavioral model is entirely different. It targets the consumer directly. It relies on deep profiles. It provides no benefit to content providers, such as news organizations. In fact, the behavioral models attack the revenue model that has sustained news organizations in the United States since the early days.

The internet advertising system today is not healthy. Advertising should provide consumers with information about products. Instead the big Internet firms – Google and Facebook -- are providing advertisers information about consumers who have become the product. The problems are growing worse. As *The Boston Globe* recently explained:

> Along with Facebook, Google owns sites and services that, by some estimates, influence 70 percent of all Internet traffic. Not coincidentally, the two companies also form a duopoly that gets 73 percent of all digital advertising in the United States, and virtually all the growth in ad spending, on the Internet. Once the lifeblood of a vital free press, and later of a vast array of independent sites serving every possible interest, ad dollars increasingly flow to two tech giants that organize information produced at other people's expense.[13]

The Right to Access Information

Algorithms that rank and index search results must be scrutinized for distorting web users' access to information with limited transparency and accountability. Virtually every search engine, social media company, and web operator develops its own unique algorithm to curate content for individual users to control how information is fetched and displayed from search queries.[14]

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[12] Scott Gilbertson, *Google's New Ad Network Knows Where You've Been, What You Do*, WIRED (Mar. 11, 2009), https://www.wired.com/2009/03/googles-new-ad/.; Letter from the Founders, N.Y. Times, Apr. 29, 2004, https://www.nytimes.com/2004/04/29/business/letter-from-the-founders.html ("founders Larry Page and Sergey Brin. The letter is located in Google's registration statement filed with the Securities and Exchange Commission.")

[13] Editorial, *Break Up Google*, Boston Globe (June 14, 2018), https://apps.bostonglobe.com/opinion/graphics/2018/06/break-google/.

[14] *See*, Jaap-Henk Hoepman, *Summary of the CPDP Panel on Algorithmic Transparency* (Jan. 26, 2017) (summarizing remarks of Marc Rotenberg, EPIC President), https://blog.xot.nl/2017/01/26/summary-of-the-cpdp-panel-on-algorithmic-transparency/.

There are many dangers with these information-mediating techniques:

- Filtering algorithms can prevent individuals from using the Internet to exchange information on topics that may be controversial or unpopular;
- Content may be labelled and categorized according to a rating system designed by governments to enable censorship and block access to political opposition or specific keywords;
- ISPs may block access to content on entire domains or selectively filter out web content available at any domain or page which contains a specific keyword or character string in the URL;
- Self-rating schemes by private entities will turn the Internet into a homogenized medium dominated by commercial speakers;
- Self-rating schemes will embolden and encourage government regulation on access to information on the Internet; and
- The majority of users are unaware of how algorithmic filtering restricts their access to information and do not have an option to disable filters.

Several years ago, EPIC encountered the problem of opaque algorithms deployed by a dominant platform. At the time, EPIC, an organization whose mission is to educate the public about emerging privacy issues, provided several videos that were among the top-ranked search results on YouTube for a search on "privacy. At the time, YouTube's search results were organized by the objective criteria of "hits" and "viewer rankings." Both of these are objective criteria and easy to verify.

But after Google acquired YouTube, EPIC's search rankings fell. Google had substituted its own subjective, "relevance" ranking in place of objective search criteria. Google's ranking algorithm was opaque and proprietary. And significantly, Google's subjective algorithm preferenced Google's video content on YouTube concerning "privacy" over that of EPIC and others. Suddenly, the Google videos rose in the rankings.

At the time, we prepared a detailed report for the FTC when it undertook its investigation of anti-competitive behavior of Internet companies. [15] The FTC took no action on EPIC's complaint. But last year, after a seven year investigation, the European Commission found that Google had abused its dominance as a search engine by rigging its search results to give preference to its own shopping service.[16] The Commission required Google to change its algorithm to rank its own shopping comparison the same way it ranks its competitors.

[15] Letter from EPIC to Commissioners of the Federal Trade Commission (Sept. 8, 2011), https://epic.org/privacy/ftc/google/Google_FTC_Ltr_09_08_11.pdf.
[16] Press Release, European Commission, *Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service* (June 27, 2017), http://europa.eu/rapid/press-release_IP-17-1784_en.htm.

Facebook's recent release of its community guidelines is a good example of what transparency can look like.[17] It is a step in the right direction, but more must be done. For example, Twitter could make public its search algorithm to make clear that it is not preferencing accounts affiliated with certain views.

EPIC recommends legislative solutions based on the Universal Guidelines for Artificial Intelligence (UGAI).[18] The UGAI "are intended to maximize the benefits of AI, to minimize the risk, and to ensure the protection of human rights."[19] These principles can provide the framework for any successful legislative efforts. Broadly, the guidelines address the rights and obligations of AI systems to ensure 1) fairness, accountability, and transparency; 2) autonomy and human determination; 3) data accuracy and quality; 4) safety and security; and 5) minimization of scope. Congress should enact legislation, based on the Universal Guidelines for AI, to address concerns about bias and establish accountability for companies who collect personal data.

Conclusion

The consolidated market power of online platforms today is not healthy. Two companies dominate the market. The privacy of Internet users is under assault. The revenue model that sustained journalism and allowed small businesses to break into the market is broken. The current model is not sustainable. Privacy rules can help level the playing field.

We ask that this letter be entered in the hearing record. EPIC looks forward to working with the Committee on these issues of vital importance to the American public.

Sincerely,

/s/ *Marc Rotenberg*	/s/ *Caitriona Fitzgerald*
Marc Rotenberg	Caitriona Fitzgerald
EPIC President	EPIC Policy Director

[17] Facebook, *Publishing Our Internal Enforcement Guidelines and Expanding Our Appeals Process (*Apr. 24, 2018), https://newsroom.fb.com/news/2018/04/comprehensive-community-standards/.
[18] The Public Voice, *Universal Guidelines for Artificial Intelligence*, https://thepublicvoice.org/AI-universal-guidelines.
[19] A full list of endorsers is available at The Public Voice, *Universal Guidelines for Artificial Intelligence: Endorsement*, https://thepublicvoice.org/AI-universal-guidelines/endorsement.

Mr. CICILLINE. This concludes today's hearing. I want to say thank you again to our very distinguished witnesses for their testimony.

Without objection, all members will have 5 legislative days to submit additional written questions for the witnesses or additional materials for the record.

This hearing is adjourned.

[Whereupon, at 5:09 p.m., the subcommittee was adjourned.]

APPENDIX

Consumer Reports®

June 10, 2019

The Honorable David N. Cicilline	The Honorable F. James Sensenbrenner
Chairman	Ranking Member
Subcommittee on Antitrust,	Subcommittee on Antitrust,
Commercial and Administrative Law	Commercial and Administrative Law
Committee on the Judiciary	Committee on the Judiciary
U.S. House of Representatives	U.S. House of Representatives
Washington, DC 20515	Washington, DC 20515

Dear Chairman Cicilline and Ranking Member Sensenbrenner:

Consumer Reports is pleased that the Subcommittee is embarking on this examination of the threats posed to our marketplace and to our society by the growing power of giant online platforms over commerce and communications.

A handful of big tech corporations have come to dominate the online marketplace, shaping what we buy and how we communicate. While they bring benefits, their market power, and their increasingly pervasive reach into all aspects of our interactions, threaten to restrict and diminish our choices, and the pathways for all who seek to reach us – including manufacturers, service providers, content creators, and other voices. At the same time, they have unprecedented insight into our everyday lives, and are tailoring ads and information through opaque and unaccountable artificial intelligence systems.

To restore a balance of power and control to consumers in the marketplace, we must ensure that the power of these corporations is reined in where it is being abused. Not just tech giants like Facebook, Google, Amazon, and Apple, but likewise internet service providers who control our online access and also face few – if any – competitors who can offer alternatives. Vigorous antitrust enforcement needs to play a key role, along with strong privacy laws and other consumer protections.

Over the years, our antitrust laws have been instrumental in keeping our marketplace open and vibrant. On several occasions, Congress has found it necessary to strengthen those laws to better ensure their continued effectiveness. This may prove to be another such occasion. Meanwhile, a renewed commitment to ensuring that the existing laws are vigorously enforced is needed, along with substantial additional resources for strapped enforcers.

Ultimately, all options need to be considered, both antitrust enforcement and additional measures. In the competition policy realm, those measures might be something relatively simple, like requiring interoperability among platforms; or they might be more far-reaching, like regulating aspects of platform operations like common carriers, potentially even separating ownership and control of the platform from using it to compete in providing products and services.

Your Subcommittee's investigation is an important and welcome catalyst to this effort. We look forward to working with you to ensure that the antitrust laws can and will continue to play their essential part in making the marketplace work for consumers, and for everyone.

Sincerely,

George Slover
Senior Policy Counsel
Consumer Reports

Justin Brookman
Director, Privacy and
Technology Policy
Consumer Reports

Jonathan Schwantes
Senior Policy Counsel
Consumer Reports

cc: Members, Subcommittee on Antitrust, Commercial and Administrative Law

George J. Stigler Center for the Study of the Economy and the State
The University of Chicago Booth School of Business

Committee for the Study of Digital Platforms

Market Structure and Antitrust Subcommittee

Report

DRAFT
15 May 2019

Stigler Center
for the Study of the Economy and the State

Subcommittee members

Fiona Scott Morton (chair), Theodore Nierenberg Professor of Economics, Yale School of Management

Pascal Bouvier, Managing Partner, MiddleGame Ventures

Ariel Ezrachi, Slaughter and May Professor of Competition Law, The University of Oxford

Bruno Jullien, Senior Researcher, CNRS, Toulouse School of Economics

Roberta Katz, Senior Research Scholar, Center for Advanced Study in the Behavioral Sciences, Stanford University

Gene Kimmelman, President and CEO of Public Knowledge

A. Douglas Melamed, Professor of the Practice of Law, Stanford Law School

Jamie Morgenstern, Assistant Professor of Computer Science, Georgia Institute of Technology

Acknowledgements

We thank Luigi Zingales and Guy Rolnik for inviting us to spend our time on this interesting and complex project, and all the wonderful staff at the Stigler Center for the Study of the Economy and the State. We particularly thank Rachel Piontek for her logistic and document skills, and Filippo Lancieri for guiding the intellectual work along from the very start. Many thanks for outstanding help with content go to students Doni Bloomfield, Rachel Cheong, and Steffi Ostrowski of the Yale Law School. We are grateful to the reviewers at other institutions who took time to give wise and helpful comments. We additionally want to thank our colleagues in other nations whose reports came out before ours and provided stimulating ideas and frameworks. We particularly build on the "*Unlocking digital competition: Report of the Digital Competition Expert Panel*" chaired by Jason Furman for the Government of the United Kingdom and the European Commission's Special Advisors' report "*Competition Policy for the Digital Era.*"

DISCLAIMER:

The purpose of these preliminary reports is to identify what are the new challenges digital platforms pose to the economic and political structure of our countries. These reports also try to identify the set of possible tools that might address these challenges. Yet, there is potential disagreement among the members of the committees on which of these problems is most troubling, which tools might work best, whether some tools will work at all or even whether the damage they might produce is larger than the problem they are trying to fix. Not all committee members agree with all the findings or proposals contained in this report. The purpose of these preliminary reports, thus, is not to unanimously provide a perfect list of policy fixes but to identify conceptual problems and solutions and start an academic discussion from which robust policy recommendations can eventually be drafted.

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Boxes

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I. Introduction

When the global, interactive, many-to-many communications network called the internet became available for broad public use in 1995, people were overjoyed with the new power at their fingertips. It is easy to forget that in the early years of the internet, that power was limited to visiting shops and getting news from the relatively small number of enterprises that had built websites on the World Wide Web. Over the past 25 years, that power has exploded with head-spinning velocity: Today, there is no area of human life that has not been affected by the technological innovations made possible by the internet. We now buy goods and services, do banking, pay bills, find information, and talk with multiple groups of friends and acquaintances on the web. The speed, scale, and scope of the internet, and of the ever-more powerful technologies it has spawned, have been of unprecedented value to human society.

History teaches us that social institutions must adapt after major technological advances. In just the past century, we saw this after the introduction of the automobile, the airplane, radio and television, and cell phones, to name but a few examples. New occupations—for example, bus drivers—arise to replace others—for example, buggy whip producers. At the same time, new behavioral norms and expectations replace those associated with past technologies—consider the social and economic changes wrought by the automobile, or the changes in both the rules and norms of the workplace in the age of mobile devices. As unintended and unforeseen social problems and harms arose, society responded with governance mechanisms aimed at addressing the problems or harms without impeding the clear benefits associated with the advances. These have ranged from the adoption of new social norms to the creation of new laws and regulations. Examples abound, encompassing everything from crosswalks and traffic lights to legal remedies addressing unfair competition in the marketplace. Ideally, the goal is to steer technological advances to ensure widespread benefit without attendant widespread harms—to protect and preserve innovation and advancement while minimizing harms so that all of society reaps net benefits. Such a goal often involves government intervention and always involves tradeoffs as society wrestles with the prevalence and cost of harms and how to balance them against the prevalence and size of benefits. While often messy, this is a healthy and desirable debate.

This working group came together to address specific problems arising from the digital platforms' reach, scale, scope, and use of data. We were asked to examine concerns stemming from the market structure contemporary platforms have created, and to investigate their competitive behavior, including the consequences of network effects that can create barriers to entry for new innovators and entrench incumbents. The global nature of many of today's platforms, a result of their scale, scope, and business models, creates novel complexities and considerations, particularly a concern that the digital platform may be a unique combination of economic forces that require both new analysis and new public policy. Regulatory authorities throughout the world are now turning their attention to these same questions. This report contributes to this international analytical project by providing some of the necessary frameworks and inputs. We intend it to be a complement to other recent work, as experts across the world wrestle with how to ensure that markets remain open and healthy, allowing beneficial technological and social advancements to continue. Many of our conclusions and suggestions echo the findings of reports that have come out in the past year, and we hope they will be helpful to those reports not yet released. The list of antitrust experts and agencies working on this problem includes Australia, the United Kingdom, Germany, the European Commission, France, Israel, and Japan.[1]

The issues are global in their scope, and these various jurisdictions are all engaged in analyzing how best to ensure that societies in general, and competition in particular, continue to thrive in the Digital Age. Our charge was restricted to market structure and competition, while other committees considered the equally important topics of the impact of digital platforms on politics, the media, and the nature of privacy. We note that monopolies can concentrate political power, reduce media plurality, and provide insufficient competition on dimensions such as privacy. In this way the findings of this report and the others are linked and quite consistent. Digital markets and platforms have already delivered great benefits to consumers, and the global concerns that have surfaced relating to actual or potential consumer harms may require action to ensure that the benefits are not undermined. Our report concludes that with deliberate government action to protect competition and consumers, the benefits from innovative firms could be even greater and more equitably spread, ensuring that the public is not short-changed in firms' pursuit of profit. Accordingly, this report is offered in the spirit of ensuring a future of continued technological and economic progress and social well-being as we move further forward into the Digital Age.

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[1] *See* JACQUES CREMER, YVES-ALEXANDRE DE MONTJOYE, & HEIKE SCHWEITZER, EURO. COMM'N, DIRECTORATE-GENERAL FOR COMPETITION, COMPETITION POLICY FOR THE DIGITAL ERA (Apr. 4, 2019), http://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf [hereinafter EC COMPETITION REPORT]; JASON FURMAN ET AL., H.M. TREASURY (U.K.), UNLOCKING DIGITAL COMPETITION: REPORT OF THE DIGITAL COMPETITION EXPERT PANEL (March 13, 2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf [hereinafter U.K. COMPETITION REPORT]; AUSTL. COMPETITION & CONSUMER COMM'N, DIGITAL PLATFORMS INQUIRY: PRELIMINARY REPORT (Dec. 2018), https://www.accc.gov.au/system/files/ACCC%20Digital%20Platforms%20Inquiry%20-%20Preliminary%20Report.pdf [hereinafter AUSTRALIA COMPETITION REPORT]; Japanese Ministry of Economy, Trade, & Industry, Fundamental Principles for Rule Making to Address the Rise of Platform Businesses Formulated, (Dec. 18, 2018), https://www.meti.go.jp/english/press/2018/1218_002.html; HEIKE SCHWEITZER ET AL., GERMAN BUNDESMINISTERIUM WIRSCHAFT UND ENERGIE, MODERNISING THE LAW ON ABUSE OF MARKET POWER: REPORT FOR THE FEDERAL MINISTRY FOR ECONOMIC AFFAIRS AND ENERGY (Apr. 9, 2018), https://www.bmwi.de/Redaktion/DE/Downloads/Studien/modernisierung-der-missbrauchsaufsicht-fuer-marktmaechtige-unternehmen-zusammenfassung-englisch.pdf [hereinafter GERMAN COMPETITION REPORT SUMMARY]; L'AUTORITÉ DE LA CONCURRENCE [FRENCH COMPETITION AUTHORITY], PORTANT SUR L'EXPLOITATION DES DONNÉES DANS LE SECTEUR DE LA PUBLICITÉ SUR INTERNET [ON THE EXPLOITATION OF DATA IN THE INTERNET ADVERTISING SECTOR] (Mar. 6, 2018), http://www.autoritedelaconcurrence.fr/pdf/avis/18a03.pdf [hereinafter FRENCH COMPETITION REPORT]; Press Release, The Israel Antitrust Authority invites interested members of the public to submit their comments, towards an inquiry into competition issues in the digital economy, Reishut HaTachrut [Israel Antitrust Authority] (Apr. 9, 2018), http://www.antitrust.gov.il/eng/subject/177/item/35246.aspx.

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Executive Summary

a. Attributes

The market structure and antitrust report begins by discussing the characteristics of digital markets. These markets often have extremely strong economies of scale and scope due to low marginal costs and the returns to data. Moreover, they often are two-sided and have strong network externalities and are therefore prone to tipping. If so, the competitive process shifts from competition *in* the market to competition *for* the market. This combination of features means many digital markets feature large barriers to entry. The winner in these settings often has a large cost advantage from its scale of operations and a large benefit advantage from the scale of its data. An entrant cannot generally overcome these without either a similar installed base (network effects) or a similar scale (scale economies), both of which are difficult to obtain quickly and cost-effectively.

Additional barriers to entry are, ironically, generated by the very consumers who are harmed by them. Consumers do not scroll down to see more search results, they agree to settings chosen by the service, they single-home on one platform, and they generally take actions that favor the status quo and make it difficult for an entrant to attract consumers. In general, the findings from the behavioral economics literature demonstrate an under-recognized market power held by incumbent digital platforms.

The theme that runs throughout the report is the difficulty of entry into digital platform businesses once an incumbent is established. Whether the entrant is vertical or horizontal, has succeeded to some degree, is nascent, is a potential entrant, or is a large platform in an adjacent space, its existence improves consumer welfare. Either the entrant provides more choice, different features, and a chance of higher quality, or the threat of those outcomes spurs the incumbent to provide lower prices, higher quality and innovation, and to do so more quickly.

The role of data in digital sectors is critical. Personal data of all types allows for targeted advertising to consumers, a common revenue model for platforms. The report shows that the returns to more dimensions and types of data may be increasing, which again advantages incumbents. Consumer data in the United States is not regulated in any way that gives useful control or privacy to consumers; and additionally, most consumers have little idea what is being collected about them and re-sold. One way in which digital platforms often exploit their market power – and increase their profits – is by requiring consumers to agree to terms and conditions that are unclear, difficult to understand, and constantly changing, but which give the platform freedom to monetize consumers' personal data.

Digital platforms are characterized by free services. "Free" is not a special zone where economics or antitrust do not apply. Rather, a free good is one where the seller has chosen to set a monetary price of zero and may set other, non-monetary, conditions or duties. It is possible that a digital market has an equilibrium price that is negative; in other words, because of the value of target advertising, the consumer's data is so valuable that the platform would pay for it. But the difficulty of making micropayments might lead a platform to mark up this negative competitive price to zero. As a result, barter is a common way in which consumers pay for digital services. They barter their privacy and information about what restaurants they would like to eat in and what goods they would like to buy in exchange for digital services. However, in principle, that information has a market price that can be analyzed.

b. Harms

Market power, consumer biases and an ad-supported platform model can generate significant consumer harms. First, market power in advertising markets will result in markups paid by advertisers. Secondly, while behavioral economists have studied consumer biases and firm responses in offline markets, these are swamped by what digital businesses can learn by using high-dimensional, large datasets to explore every nook and cranny of consumers' many behavioral shortcomings and biases in real time. Framing, nudges, and defaults can direct a consumer to the choice that is most profitable for the platform. A platform can analyze a user's data in real time to determine when she is in an emotional "hot state" and then offer targeted sales. These tactics reduce the quality of the zero-price content the user experiences on the platform.

In addition to *de novo* entry, platforms fear disintermediation by a partner or complement. If a platform's partner is able to directly access and serve the platform's customers, it might take them off the platform entirely, reducing the platform's profit. A platform that has total control of demand due to control over framing of consumer choices, policies for complements, and technical standards can steer customers to content and complements of most benefit to it. The most privately beneficial content might be owned by the platform itself rather than provided by independent firms that could extract rent or even challenge the platform's market power in the future. To the extent that consumers single-home, they may not be aware of such steering, or may not have competitive alternatives to which they can turn if they are aware.

Today's platforms understand that in some settings they can obtain higher margins if they either, make all of the necessary complements themselves, or, position themselves as a mandatory bottleneck between partners and customers. In particular, digital platforms are often very careful to maintain complete control over the user relationship so that they do not face any threat of disintermediation from a complement. These technological and policy choices can be used to reduce the possibility of successful entry by direct competitor. Other strategies such as exclusive contracts, bundling, or technical incompatibilities can also be used by platforms to restrict entry of competitors. Some of these strategies could be violations of existing antitrust law, as discussed below.

Insufficient competition and entry result in harms to investment and innovation. There is significant theoretical and empirical research that concludes that anticompetitive creation or maintenance of market power will cause a reduction in the pace of innovation. The lessening or blocking of innovative entry is of particular concern given its value to consumers. A VC will usually be wary of outright investing in an innovative startup that will implicitly or explicitly compete head-on with a tech giant. In that case, the best hope might be to be the preferred innovator of a complement and sell its business to the platform at an early stage. However, if entry barriers were reduced, the entrepreneur would not have to settle for a small fraction of the platform's profits, but could compete for all of them and try to replace the platform. This possibility would generate a much larger incentive to innovate.

c. Solutions

While some markets may self-correct, the findings of this report suggest that rapid self-correction in markets dominated by large digital platforms is unlikely.

While US antitrust law has long been flexible in combatting anticompetitive conduct, there is increasing concern that it has been underenforced in recent years. Antitrust law and its application by the courts over the past several decades have reflected the now outdated learning of an earlier era of economic thought, and they appear in some respects inhospitable to new learning. Antitrust enforcement better suited to the challenges of the Digital Age may therefore require new legislation.

Technology platforms present particular challenges for antitrust enforcement. Markets tip and the resulting market power is durable, so even effective antitrust enforcement is unlikely to generate fragmented markets. Nonetheless, enforcement that protects competition on the merits in the first stage and prevents exclusionary conduct in the second stage will help ensure that market-participants make unfettered choices among competing platforms and that entry and innovation are not inhibited by private rent-seeking.

Economists and lawyers will have to develop tools to explain to courts the role of behavioral biases in the creation of market power and in their effect on the quality of content. The existence of zero money prices means that measurement of quality will be critical. The law needs better analytical tools to take into account the impact of potential and nascent competitors and competition. Market definition will vary according to what consumers are substituting between, whether there is competition on the platform between complements, or competition between platforms, or competition between a platform and potential or nascent competitors regarding possible future markets. The need to identify the specific anticompetitive exclusionary conduct and analyze it may raise enforcement costs given all the possible variants of exclusionary conduct possible in digital markets.

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This report details the particular areas where antitrust law will need reform in order to adequately deliver competition to consumers. The report also suggests the establishment of a specialist competition court to hear all private and public antitrust cases which would allow judges to develop some expertise. The committee believes that vigorously enforcing the antitrust laws under these conditions would be likely to increase entry in digital platform industries, competition, and consumer welfare. Moreover, such enforcement would likely result in remedies to restore competition that has already been lost, as well as serve as a deterrent to future anticompetitive conduct.

However, because technology platforms present the enforcement challenges detailed above, even effective enforcement may not be enough to generate competitive digital markets in a timely fashion. Therefore, the report suggests that Congress should consider creating a specialist regulator, the Digital Authority. The regulator could be tasked with creating general conditions conducive to competition. The committee also suggests separating out some types of regulation that will apply to virtually all market participants while other regulation will apply only to companies with bottleneck power. “Bottleneck power” describes a situation where consumers primarily single-home and rely upon a single service provider, which makes obtaining access to those consumers for the relevant activity by other service providers prohibitively costly.

The Digital Authority could routinely collect data on digital transactions and interactions, with an emphasis on data from businesses with bottleneck power. These data – made public to the extent possible – would allow policy makers and researchers to assess the performance of the sector. The DA could have a mandate to create “light touch” behavioral nudges when they will make markets more competitive. An example of a regulation that would enhance competition is data portability. The DA could set up rules that allow users to easily port their data from one service provider to another and monitor compliance. The DA may also promote open standards in such areas as micro-payments and digital identities. Should Congress request it, the DA could oversee a mandate for interoperability in any market where market power has become entrenched and threatens long term harm to competition. The Report also suggests that the DA could carry out a parallel merger review that would be set up to incorporate necessary antitrust reforms and modern standards.

Some regulations could apply only to firms that meet the DA’s definition for bottleneck power. Because the cost of false negatives is high and there is uncertainty, the public interest requires the DA to take a more interventionist approach in these settings. The DA could have merger review authority over even the smallest transactions involving digital businesses with bottleneck power because nascent competition against these entities is very valuable for consumers. Non-discrimination rules could protect against a complement that is a potential competitor of the platform itself, or one that operates only on the platform as a rival provider of content.

When a company has been found liable for violating the antitrust laws, part of the current process is that antitrust authority devises a remedy to restore the lost competition. Data sharing, full protocol interoperability, non-discrimination requirements, and the unbundling of content from a platform are all tools that the regulator, in conjunction with the antitrust authority, could apply and monitor over time in order to restore competitive markets.

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II. IMPORTANT FEATURES OF THE DIGITAL BUSINESS ENVIRONMENT

Digital technologies are a central driver of future prosperity, hopefully delivering waves of innovation, efficiencies, and consumer welfare. These technologies have revolutionized the way consumers shop and communicate, the way businesses deliver value, the way people work together in collaboration, and—the subject of this report—the overall dynamics of competition.

These transformative changes, while immensely beneficial, have also triggered growing concerns about the power of a small number of firms to control and influence billions of lives. As an increasing volume and range of commercial activities have been digitalized, society has witnessed the emergence of certain key platforms and gatekeepers and a shift in market dynamics.

This section outlines the key features of the digital environment to set the foundation for the discussion of problems and solutions.

a. The Structure of Digital Markets

i. An Economic Perspective on the Digital Market Structure

Despite the predictions of some early observers that the internet would create competitive—even perfect—markets,[2] certain digital firms have been able to acquire significant market positions and preserve them over time. Many of the most innovative internet-derived digital markets, such as search engines, social networks, network operating systems, ecommerce, and ride-sharing, are highly concentrated and have been dominated by one or a few firms for a number of years. The lack of entry of competitors in these important markets—despite high profits—suggests either barriers to entry or exclusionary conduct, or both. We first discuss the nature of entry barriers in digital platforms and why they are difficult for an entrant to surmount.

1) A Unique Setting Subject to Tipping

From an economic perspective, there is no single new characteristic that would make competition in digital platforms different from more traditional markets. Rather, it is the coincidence of several factors at a scale that has not been encountered before that makes the problem unique and requires new analysis of market structure and market power. In particular,

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[2] *See, e.g.*, Erik Brynjolfsson & Michael D. Smith, *Frictionless Commerce? A Comparison of Internet and Conventional Retailers*, 46 MGMT. SCI. 563, 563 (2000) ("The conventional wisdom regarding Internet competition . . . is that the unique characteristics of the Internet will bring about a nearly perfect market."); Jeffrey R. Brown & Austan Goolsbee, *Does the Internet Make Markets More Competitive? Evidence from the Life Insurance Industry*, 110 J. POL. ECON. 481, 482 (2002) ("The traditional economic view suggests that . . . the Internet should reduce search costs for consumers and thereby reduce prices and make markets more competitive.").

the platforms with which this report is most concerned demonstrate extremely strong network effects, very strong economies of scale, remarkable economies of scope due to the role of data, marginal costs close to zero, drastically lower distribution costs than brick and mortar firms, and a global reach.

Markets with these combined features are prone to tipping—a cycle leading to a dominant firm and high concentration. Digital markets are prone to tipping for two primary reasons. First, because fixed costs play such an important role in digital markets, these markets feature especially large returns to scale. Second, many digital markets are driven by network effects that strengthen large incumbents and weaken new entrants.

When markets are prone to tipping, the competitive process shifts from competition *in* the market to competition *for* the market. In that case, consumers may only benefit from competition among several firms for the relatively short time period in which the firms compete to be the ultimate winner of very large economic profits. The winner's monopoly profits serve as the inducement for entry and investment. After a market has tipped, a potential rival for the market can only overcome the incumbency advantage of established networks through significant innovation. However, even an innovative entrant may not be able to create competition that benefits consumers in the presence of the factors that led to the tipping, leaving open a role for public policy to allow for competition for the market. Moreover, a competitor is even less likely to enter the market if the incumbent platform is able to leverage its powerful position to disadvantage or exclude potential entrants.

There are many well-known problems that follow from lack of competition, including higher prices, less innovation, and lower quality in all its forms. Policy may be needed to address the cause of such symptomatic problems. In the view of this committee, protecting entry for existing and potential competitors is the most important way to protect or improve consumer welfare in digital platforms. Initial competition for a market should be conducted on the merits without any anticompetitive practices, and later entrants should face a level playing field and no exclusionary conduct as they contest the market. Regulation may be required to prevent incumbents from erecting improper barriers to entry.

As it is traditionally recognized, the reward for the winner's innovative activity is the ability to extract rent from the platform through the exercise of market power.[3] However, we highlight three deviations from this principle. First, the winner must have "won" on the merits of its product, without the use of any anticompetitive conduct. Correcting illegal practices by dominant firms that have won in a tipped digital market can be difficult, but is necessary or the firm will earn profits from its illegal behavior—and harm consumers along the way. Second, the reward of the entire market that propelled the winner to innovate must be available to the next entrant. If

[3] *See* United States v. Alcoa, 148 F.2d 416, 430 (2d Cir. 1945) ("The successful competitor, having been urged to compete, must not be turned upon when he wins.") (Hand, J.).

the incumbent is able to withhold those rents by excluding the entrant, or reduce those rents by limiting the entrant's share, then the pace of innovation will slow. The economic literature demonstrates that vibrant innovation and entry is the most important source of consumer welfare over time—hence the focus of the report on ensuring that entry functions well both when a market is created and thereafter.[4] Third, there are sources of platform rents that society may determine through appropriate regulation should not be part of the winner's reward. For example, investments in complements offered on the platform may be best incentivized and encouraged to compete if the platform owner is not entitled to exclude them. (As used in this report, a complement is a good or service offered on or through the platform that increases the value of the platform to a consumer.) Digital markets at issue today may not have featured free entry and lack of anticompetitive conduct in the past. This report covers that case by describing how antitrust can be used to look backward, as well as forward, for antitrust violations. We also suggest regulation that can look forward to protect entrants, and thereby consumers, in these other cases.

2) Increasing Returns to Scale

Digital markets are used to exchange information goods and services. Typically, information goods involve increasing returns to scale because their production requires a fixed cost and no or little variable cost.[5] In other words, when an additional user is served, costs do not go up proportionately. For example, an eBook, once produced, can be distributed at almost no cost to all users with access to the internet. The same holds for information services that are subject to fixed design and development costs and fixed maintenance and updating costs; Google can update Google Calendar for 100 million users with similar fixed expenses as would be needed for only a fraction of such users.

In contrast to traditional media or cultural markets that have had to incur physical distribution costs, digital markets are largely able to avoid such costs. The fact that information services can be delivered to any geographic location with no or minimal cost is one reason for the abundance of such services. The capacity to reach a large scale at small cost changes the nature of business growth. While a traditional business often starts with local implementation followed by gradual expansion through investment as reputation and financial resources increase, many online businesses aim at rapid large-scale expansion. This rapid growth may reduce the length of the competition-for-the-market phase, as market winners can establish dominance and begin exercising their market power quickly. It took only five years for Facebook, the "move fast and

[4] *See, e.g.*, Joseph Farrell & Paul Klemperer, *Coordination and Lock-In: Competition with Switching Costs and Network Effects*, *in* 3 HANDBOOK OF INDUSTRIAL ORGANIZATION (Mark Armstrong & Robert Porter eds., 2007), https://www.sciencedirect.com/science/article/pii/S1573448X06030317; Wen Wen & Feng Zhu, *Threat of Platform-Owner Entry and Complementor Responses: Evidence from the Mobile App Market*, (Harvard Business School Working Paper 18-036, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=284853.
[5] Increasing returns to scale occur when the average unit cost decreases when sales expand.

break things" company, to go from a million users in 2004, the year of its founding, to more than 350 million users in 2009, when it overtook MySpace for good.[6]

The implications for market structure are well known: increasing returns to scale lead companies to invest in fixed costs in order to have the best product to attract customers.[7] Then, with a larger customer base, the firm can enjoy lower average costs per consumer, allowing it to make an offer to consumers that is attractive in both quality and price. The increasing returns to scale create barriers to entry: New firms cannot offer the quality of the incumbent without the same large-scale operation to pay for the fixed costs. But the firm can only achieve a large scale if quality is high. Thus, a potential entrant, foreseeing that it will not be profitable at the smaller scale, will not enter the market to challenge the incumbent.

3) Economies of Scope

Platforms also have powerful economies of scope in the form of their relationships with users and brands. In digital markets specifically, scale offers an additional advantage. Firms can apply machine learning to extensive data sets to improve their products and expand their activities into new areas. Because machine learning yields better insights when it is trained on larger datasets, firms with access to large amounts of data can raise the quality of their services in ways that smaller firms cannot. This creates a form of dynamic economies of scale, allowing large firms with large amounts of data to raise product quality at lower costs than small firms. Firms may also be able to leverage the data, or the insights due to machine learning, that they receive from an existing service to enter into an adjacent market with a higher quality product, demonstrating a novel form of economies of scope. Combining mapping software in a platform that already offers email, for example, allows that platform to offer a higher quality restaurant recommendation product. Moreover, firms serving a larger customer base with a greater variety of products are able to generate more advertising revenue per consumer through more effective targeting.[8] The development of machine learning technologies and data analysis is a source of increasing returns to scale and scope that can contribute to digital market concentration.

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[6] *See* Chloe Albanesius, *More Americans Go to Facebook Than MySpace*, PC MAG. (June 16, 2009), https://www.pcmag.com/news/241432/more-americans-go-to-facebook-than-myspace; Ami Sedghi, *Facebook: 10 Years of Social Netoworking, in Numbers,* GUARDIAN (Feb. 4, 2014), https://www.theguardian.com/news/datablog/2014/feb/04/facebook-in-numbers-statistics. *See also* Steven Levy, *Mark Zuckerberg on Facebook's Future, From Virtual Reality to Anonymity*, WIRED (Apr. 30, 2014), https://www.wired.com/2014/04/zuckerberg-f8-interview (reporting Mark Zuckerberg noting that "[w]e've changed our internal motto from 'Move fast and break things' to 'Move fast with stable infrastructure'").

[7] *See generally* JOHN SUTTON, SUNK COSTS AND MARKET STRUCTURE (1991).

[8] Such economies of scope are leading to a rapid expansion of the capture and use of personal information by firms. For example, many large firms are starting to expand beyond internet platforms in order to collect more data from consumers. The rise of voice-assistant products (including Microsoft's Cortana, Apple's Siri, Google's Google Voice, and Amazon's Alexa) can enable firms to gather information from offline consumer behavior and then feed that information into online advertisement-targeting algorithms. One study estimates that major internet platforms, data brokers, credit card companies, and healthcare data companies derived nearly $76 billion in 2018 from selling personal consumer information directly or indirectly via targeted ads. Robert Shapiro & Siddhartha Aneja, *Who*

4) Network Effects

Most information services involve some form of positive network effects, in which consumer benefit grows as the number of users increases. The simplest network effects flow directly from interacting with other users, as in social networks or peer-to-peer services, such as eBay or Venmo, where the more users there are on the network, the richer the users' experience is likely to be. (In these examples the platforms choose not to be interoperable, so the network effects apply to a single firm, rather than an industry.) Multi-homing lessens network effects because a consumer can enjoy the size of both networks, rather than having to choose one. For example, a consumer that carries both Visa and American Express credit cards can shop at stores that accept either card, or both. Many other network effects are indirect, in that they are mediated by a "complement" to the network. A complement is a good or service that increases the value of another good or service to a consumer. For example, the ability to not only make calls, but also to play music on a handset increases the value of the handset to users. Complements today often come in the form of applications ("apps") or a specific type of content. The more complements a platform has, the more popular it is with users. Just as customers of a popular app store receive an indirect network effect when more and better developers are attracted to app stores with big customer bases, customers of a widely-used social media site benefit from the many games designed for that social media site, which in turn are driven by the large number of consumers. These network effects can also be seen in recommendation systems or driving directions that exploit larger datasets of users' purchasing behavior or travel paths to offer higher quality advice.

Markets with network effects are prone to concentration because consumers benefit from being on the same network as other users. No one wants to be on their own social media site. However, when network effects are exhausted relatively quickly (as can occur, for example, in messaging apps[9]) or when there is heterogeneity in preferences (e.g. teenagers prefer not to be on the same social network as their parents[10]), the market structure may be oligopolistic.

Owns Americans' Personal Information and What Is It Worth?, FUTURE MAJORITY (Mar. 8, 2019), https://assets.futuremajority.org/uploads/report-for-future-majority-on-the-value-of-people-s-personal-data-shapiro-aneja-march-8-2019.pdf.

[9] To send a message to someone, a user only needs that single person to be on a particular messaging app, rather than everyone they would want to send a message to. This explains why many messaging apps can live alongside one another—WhatsApp, Snapchat, SMS, and Facebook Messenger all have significant customer bases. *See Most Popular Mobile Messaging Apps Worldwide as of January 2019*, STATISTA (Jan. 2019), https://www.statista.com/statistics/258749/most-popular-global-mobile-messenger-apps.

[10] *See* Mark Sweney, *Is Facebook for Old People? Over-55s Flock in as the Young Leave*, GUARDIAN (Feb. 12, 2018), https://www.theguardian.com/technology/2018/feb/12/is-facebook-for-old-people-over-55s-flock-in-as-the-young-leave.

Some indirect network effects are multi-sided: A user of one type (e.g., a buyer) benefits from the participation of other types of users (e.g., sellers). For instance, in ecommerce platforms, which intermediate trade between sellers and buyers, a buyer does not directly benefit from the presence of other buyers but does benefit from the presence of more sellers—who are in turn attracted by the presence of the buyers. Multi-sided network externalities are prominent on the internet for two reasons. First, business models like ecommerce are plentiful. Second, and more importantly, a great deal of activity on the internet is financed by paid advertising on the relevant site. Advertising-financed services are platforms exploiting two-sided network effects between advertisers and consumers. Advertising can be more valuable when there are more consumers viewing a site, while consumers are attracted by content that may be of higher quality when financed by many advertisers competing for space.

On multi-sided platforms, one or more sides may be subsidized if their participation attracts paying customers on the other side. Thus, we may see a monetary price of zero in one part of a very lucrative business model. Shoppers on eBay can buy without paying fees because eBay understands that fees would drive them away, whereas their presence draws in sellers who can be charged fees. Users of Gmail pay a monetary price of zero but allow Google to read their email so that advertisers can market to them based on personal information. Google can then charge a high price for the ads. Payment platforms such as credit cards or PayPal similarly charge end consumers low or negative fees because a large group of consumers bring in retailers who pay the payment platform for access.

Network effects can lead to consumer-friendly competition at early stages. Economic theory and market observation indicate that during the phase when competitors are all trying to tip the market towards themselves, they compete intensely. This phase is characterized by vigorous competition between firms trying to build market shares and generate bandwagon effects. For example, Uber and Lyft have hotly contested the market for ride-sharing—and spent billions of dollars subsidizing riders' fares along the way.[11] One 2016 estimate suggested that payments from Uber customers covered only about 40% of the cost of their rides.[12] If network effects are

[11] *See* Shannon Bond & Nicole Bullock, *Uber IPO Prospectus Shows Ride-Hailing Revenues Stalled*, FIN. TIMES (Apr. 11, 2019), https://www.ft.com/content/c68d3662-5c76-11e9-939a-341f5ada9d40 (Uber "has lost $12bn from its operations in total since 2014"); *id.* ("'We will not shy away from making short-term financial sacrifices where we see clear long-term benefits,' wrote Dara Khosrowshahi, [Uber's] chief executive."); Megan McArdle, *Uber and Lyft Are Losing Money. At Some Point, We'll Pay for It.*, WASH. POST (Mar. 5, 2019), https://www.washingtonpost.com/opinions/uber-and-lyft-are-losing-money-at-some-point-well-pay-for-it/2019/03/05/addd607c-3f95-11e9-a0d3-1210e58a94cf_story.html (In 2018, Lyft "lost more than $900 million after expenses").

[12] *See* Izabella Kaminska, *The Taxi Unicorn's New Clothes*, FIN. TIMES (Dec. 1, 2016), https://ftalphaville.ft.com/2016/12/01/2180647/the-taxi-unicorns-new-clothes. Many of the paradigmatic firms of the dot.com bubble also followed this strategy of subsidizing for growth—often sending the firm to oblivion. *See* Greg Bensinger, *In Kozmo.com's Failure, Lessons for Same-Day Delivery*, WALL ST. J. (Dec. 2, 2012), https://blogs.wsj.com/digits/2012/12/03/in-kozmo-coms-failure-lessons-for-same-day-delivery.

strong, however, the market will tip in favor of one competitor, who then becomes the monopolist.

5) Low Marginal and Distribution Costs

Digital goods often have low to zero marginal costs of expansion to another user, as mentioned above. Distribution costs, one of the major expenses of expanding in a brick and mortar world, are largely also zero on the internet. Indeed, poor internet infrastructure in the United States and elsewhere may be the main distribution cost for many digital platforms.[13] Some digital platforms do have positive distribution or marginal costs such as a piece of hardware, ecommerce warehouses, or maintenance of scooters for example.

6) Global Reach

Lastly, many of the digital platforms we discuss in this report have a global reach. Those that are focused on licensed digital content, rather than user-generated content, must negotiate licensing and other legal issues in new jurisdictions. Reaching consumers in many languages is another cost of expanding globally, as is dealing with local transportation regulations. However, the total cost of expansion is generally lower than in traditional brick and mortar businesses.

ii. Barriers to Entry and Expansion

In this section, we explore the implications of the characteristics discussed above and the possible effects of the increased market power created by barriers to entry. Outlined below are some of the drivers that make market power more sustainable and disruption less likely in digital markets.

1) Cost and Benefit Barriers to Entry

As mentioned above, network effects and scale economies are two significant barriers to entry. The winner in these settings has a massive cost advantage from its scale of operations, and a massive benefit advantage from the scale of its data. An entrant cannot generally overcome these without either a similar installed base (network effects) or a similar scale (scale economies), both of which are difficult to obtain quickly and cost-effectively. It is possible for an entrant to arrive with scale and an installed base because it is a competing digital platform. Such entrants may create effective competition for an incumbent platform that benefits consumers.

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[13] *See, e.g.*, Drew FitzGerald, *Facebook Looks to Build Underwater Ring Around Africa*, WALL ST. J. (Apr. 7, 2019); Michael Sheetz, *Here's Why Amazon Is Trying to Reach Every Inch of the World With Satellites Providing Internet*, CNBC (Apr. 7, 2019), https://www.cnbc.com/2019/04/05/jeff-bezos-amazon-internet-satellites-4-billion-new-customers.html; Press Release, Think Big With a Gig: Our Experimental Fiber Network, GOOGLE (Feb. 10, 2010), https://googleblog.blogspot.com/2011/03/ultra-high-speed-broadband-is-coming-to.html.

Barriers to equivalent data resources, a side effect of not having the history, scale, or scope of the incumbent, can inhibit entry, expansion, and innovation.[14] The same effects that drive the quality of digital services higher as more users join—a positive feedback loop—makes the strong stronger and the weak weaker.[15] Data feeds the development of algorithmic and AI training processes that enables more profitable exploitation of consumer attention through advertising. A data advantage over rivals can enable a company to achieve a virtuous circle of critical economies of scale leading to network effects, and a competitive balance in its favor, leading to the gathering of yet more data. A new entrant is likely to experience this in reverse—a vicious cycle—as it fails to surmount the entrance barrier.

Choosing a business model that is scalable, and has strong economies of scale, is of paramount importance to creating entry barriers. A social media platform that chose to monitor harmful content might need to hire many workers to keep ahead of users that game the algorithms. Hiring workers is costly, slows down the ability to grow, and makes the platform less profitable both in the short run and in the long run by limiting economies of scale. A platform aiming to tip the market in its favor quickly will not choose this business model if it can gain consumers at lower cost.

Because cost and benefit barriers are so powerful, digital platforms have powerful incentives to pull slightly ahead of any rival. Due to the positive feedback loop described above, a small advantage can turn into a large one. This powerful incentive to disadvantage a competitor raises the possibility that some competitors will choose to violate the antitrust laws in order to stay ahead. In general, to maintain or improve their competitive advantage, incumbents have strong incentives to limit openness or interoperability and to be averse to data-portability policies. For example, in a recent case, the upstart ethernet switch firm Arista alleged that the incumbent Cisco encouraged openness and interoperability while it was dominant, but once a rival mounted a serious challenge, claimed copyright protection on the previously open user interface, thus cutting off the entrant from locked-in users.[16]

[14] The key themes below are discussed in greater detail in ARIEL EZRACHI & MAURICE E. STUCKE, VIRTUAL COMPETITION: THE PROMISE AND PERILS OF THE ALGORITHM DRIVEN ECONOMY (2016). *See also* Ariel Ezrachi & Maurice E. Stucke, *Digitalisation and Its Impact on Innovation: Report Prepared for the European Commission* (DG Research & Innovation Working Paper, July 2018) (on file with authors).
[15] *See Data-Driven Innovation for Growth and Well-Being: Interim Synthesis Report*, OECD (Oct. 2014), http://www.oecd.org/sti/inno/data-driven-innovation-interim-synthesis.pdf, at 29 (citing CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY (1999)).
[16] *See* Jan Wolfe, *Arista to Pay $400 Million to Cisco to Resolve Court Fight*, REUTERS (Aug. 6, 2018), https://www.reuters.com/article/us-cisco-arista-settlement/arista-to-pay-400-million-to-cisco-to-resolve-court-fight-idUSKBN1KR1PI; Don Clark, *Arista Networks Files Antitrust Claims Against Cisco*, WALL ST. J. (Jan. 25, 2016), https://www.wsj.com/articles/arista-files-antitrust-charges-against-cisco-1453754642.

2) Barriers to Entry Created by Consumer Behavior

Market power is, ironically, generated by the very consumers who are harmed by it. Consumers do not replace the default apps on their phones, do not scroll down to see more results, agree to settings chosen by the service, and take other actions that may look like poor decisions if those consumers like to choose among options and experience competition. Often the actions needed to generate choice for the consumer seem trivial, such as a download and installation, opening another app, or a few clicks. Consumers make these "mistakes" because of inherent behavioral biases such as discounting the future too much and being too optimistic. The situation is worse when the information needed to counteract bias is hard to obtain. For example, consumers tend not to run the same search on a different search engine to compare the results, so they may never find out the relative quality of the default search engine they use.

Research into behavioral biases and their consequences is several decades old and has already produced ample and convincing evidence of the nature and existence of these biases on the part of consumers. In 2002, Daniel Kahneman received the Nobel Prize in Economic Sciences for his pioneering work on behavioral economics.[17] Fifteen years later, the Nobel Prize was awarded to Richard Thaler in recognition of the progress of research in this domain and of the huge amount of knowledge that has been produced.[18]

In his Nobel lecture, Thaler pointed to the key insight from Kahneman and Amos Tversky: people exhibit "bounded rationality," meaning that in a complex world they use consistent rules of thumb to make predictions and decisions. Thaler called on economists to use "psychological realism" to improve their understanding of human decision making.[19] That psychological realism combined with the economics toolkit produced the field of behavioral economics.

Behavioral economics has had a profound influence in the conduct of economic policy that will become even more prevalent as more knowledge is digested and applied.[20] It is of great relevance for our understanding of internet economics because, as information flows improve and some physical barriers are removed, human factors are more likely to provide the frictions that have increasing effects on market outcomes. These frictions in decision-making, and the fact that consumers can be manipulated to take advantage of their biases, render consumers sticky—

[17] *Daniel Kahneman—Facts*, NOBEL PRIZE (2019), https://www.nobelprize.org/prizes/economic-sciences/2002/kahneman/facts.
[18] *Richard Thaler—Facts*, NOBEL PRIZE (2019), https://www.nobelprize.org/prizes/economic-sciences/2017/thaler/facts.
[19] Richard H. Thaler, *From Cashews to Nudges: The Evolution of Behavioral Economics*, 108 AMER. ECON. REV. 1265, 1266-1267 (2018).
[20] *See, e.g.*, Cass R. Sunstein, *The Storrs Lectures: Behavioral Economics and Paternalism*, 122 YALE L.J. 1826 (2013); Richard H. Thaler & Cass Sunstein, *Libertarian Paternalism*, 93 AMER. ECON. REV. PAPERS & PROCEEDINGS 175 (2003).

that is, people are slower to move to a superior product than they would be absent the manipulation. This in turn makes demand less contestable and less favorable for an entrant.

One lesson from behavioral economics is that small differences (nudges) in how choices are presented can have large effects on what choices people make.[21] A nudge to use a particular browser as a default, for example, can entrench a platform's browser. Another lesson is that consumers overweight their immediate benefit relative to their welfare in the future. A consumer searching for a solution to a particular problem will be inclined to click or use the first result or recommendation, rather than searching on another page or scrolling down to examine many listings. The tendency to choose in this manner entrenches the market power of the platform that can control the display of content. Similarly, consumers' preference for instant gratification may lead them to sign away privacy rights they otherwise say they value.[22] This allows incumbent platforms to gather data from these consumers that further entrenches their market position. In general, the findings from behavioral economics demonstrate an under-recognized market power held by incumbent digital platforms.

A second way consumers create entrenched market power is by single-homing. A multi-homing user, for example, checks the price of a ride on both Uber and Lyft each time she needs a car. A user that single-homes bestows market power on the platform she uses exclusively because advertisers and other content providers *can only* get the user's attention by going through that platform. While users sometimes have the ability to employ multiple services, there is usually a convenience cost to doing so. Making multi-homing easier will be a key element in encouraging competition.

3) Barriers to Entry Created by an Incumbent Rival

Because platform market power is higher when users single-home, platforms try to get users to do so. Sometimes this results in higher quality services: A mapping service can alert a user that it will take 45 minutes to get to the airport when it sees a flight entry on the user's calendar. If the user buys those services from different platforms, she does not get the alert and experiences lower quality. However, it is often possible for the data from one service to be read by a rival, so platforms may also encourage single-homing by preventing interoperability.

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[21] *See* Thaler, *supra* note 19, at 1283.
[22] *See* Alessandro Acquisiti et al., *The Economics of Privacy*, 54 J. ECON. LIT. 442 (2016); Alessandro Acquisiti et al., *Privacy and Human Behavior in the Age of Information*, 347 SCIENCE MAG. 509, 510 (2015); Alessandro Acquisiti, *Privacy in Electronic Commerce and the Economics of Immediate Gratification* (Fifth ACM Conference on Electronic Commerce, 2004), https://www.cs.drexel.edu/~greenie/privacy/privacy-gratification.pdf; *see also Americans' Attitudes About Privacy, Security, and Surveillance*, PEW RESEARCH CTR. (May 20, 2015), https://www.pewresearch.org/wp-content/uploads/sites/9/2015/05/Privacy-and-Security-Attitudes-5.19.15_FINAL.pdf, at 17 (reporting that 74% of survey respondents believe it is "very important" to be "in control of who can get info about you").

By limiting a rival's access to data, dominant firms can make exclusive reliance on their service either inevitable or the clearly best decision. Sharing data or allowing access to certain pieces of information is often feasible at a technical level, but it is not normally in the interest of the platform that could lose its users. For example, Google has been able to limit its users from visiting (multi-homing on) competitors such as Yelp by displaying their information in the search window directly.[23] To some extent, the limited switchability to the rival is driven by asymmetric information in two places. First, consumers are generally not aware of, or attentive to, the costs of failing to switch; for example, the quality of the content and the extent to which the platform steers consumers to inferior content or product choices may be hard to see. Second, there is often no way to compensate the consumer directly with lower prices—as an entrant such as Warby Parker can do by selling eyeglasses directly to consumers at a lower price—because the money price of services from a platform is often fixed at zero for both the incumbent and the rival.[24]

For all of these reasons, digital platform market power can become entrenched. The United Kingdom, the European Commission, Australia, and Germany have all published reports concluding that digital platforms' market power has indeed become entrenched.[25] Surmounting the existing barriers to entry created by consumer behavior, cost structure, public policy, and any past anticompetitive conduct is extremely difficult. This fact has direct effects on consumers: *without entry or the credible threat of entry, digital platforms need not work hard to serve consumers because they do not risk losing their consumers to a rival*.

b. How Big Data Affects Digital Products and the Sale of Advertisements

i. What Makes Data Big? And Does Big Data Harm Consumers?

1) Targeted Advertising

Technology firms claim that they perform machine learning on big data, and that doing so gives them both a competitive edge over rivals and allows them to better tailor their services to their consumers. How might this work in practice? Consider a search engine with information about a

[23] *See* Charles Duhigg, *The Case Against Google*, N.Y. TIMES MAG. (Feb. 20, 2018), https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html
[24] *See, e.g.*, Competition Decision, Case COMP/AT.39740—*Google Search* (June 27, 2017), http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf. Indeed, as the U.K. Competition and Markets Authority has found, even in industries where prices exist but there are substantial search frictions, consumers do not make choices that would give them substantial savings. *See* note 31, *infra*, and associated text.
[25] *See* U.K. COMPETITION REPORT, *supra* note 1, at 75; EC COMPETITION REPORT, *supra* note 1, at 112; AUSTRALIAN COMPETITION REPORT, *supra* note 1, at 35; GERMAN COMPETITION REPORT SUMMARY, *supra* note 1, at 2.

given user's search history, including the fact that this user recently searched for a specific pair of Nike running shoes. The ad service can more effectively spend advertisers' budgets by showing the user ads focused on running-related products (or similar shoes to those the user searched for). Advertisers will get a greater return on investment because more of their ads will be shown to users who have demonstrated interest in running products—possibly very similar running products to the ones being advertised. Moreover, users may actually prefer seeing ads for other running products compared to more generic ads. The more personalized matching of advertisement to potential customer would appear to help both the producer and consumer of the advertisement.

This simplified example of personalized advertisement uses very little information about a particular user (only that she had a particular search query) and little to nothing about other users or another augmenting dataset, with the exception of a database of running-related items. Indeed, this level of personalization could be similarly achieved in many low-tech spaces (e.g., running products advertised in running magazines, whose readers have expressed interest in running simply by reading the magazine). What is different about personalized advertisement if the ad server has much more data at its disposal?

Box I
Platform vs. Brick-and-Mortar Advertising and Targeting

Traditional brick-and-mortar stores and online platforms differ greatly in their advertising and personalization capabilities.

At the highest level, local grocers tend not to force shoppers to identify themselves when they shop, rarely verify identification if used, and rarely have the ability to merge purchase history with other detailed information from other aspects of their customers' lives to design targeted advertising. Online retailers, on the other hand, almost always require account creation for purchasing, verify this information for each transaction, and have direct or easy access to detailed non-shopping information about their customers.

Local grocery stores are capable of some data collection and personalization. For example, they normally know that a majority of their customers live relatively close to the grocery store, so they can rely on their knowledge about the general demographics of the neighborhood population. The stores may also ask that consumers use a loyalty card to receive discounts, which then allows them to track per-customer purchasing patterns, offer particular customers with certain purchasing patterns particular coupons or free products, and see the result of such offers on a user's purchase history. Nonetheless, the effectiveness of these methods is limited in comparison to digital shops. Consumers normally retain the option to buy full-priced groceries without tracking (pay in cash), or to intermittently switch their cards with other people they know (for example). More importantly, even if grocers used fingerprints or other unique identifiers to remove the possibility of anonymity, the data they would track would still be entirely comprised of grocery purchase history for its customers.

Platform vs. Brick-and-Mortar Advertising and Targeting (Cont.)

This limitation does not apply to digital platforms. Online groceries require a customer to make an account prior to allowing any purchase. Thus, all purchases belong to a particular account, which also contains identifying information about a customer including their search history, billing, shipping, and email addresses. This ensures that (potentially) all search history and all purchases sent to a particular address (or paid for with a certain mailing address) can be collated and analyzed by the seller and used to design offers or other services for a customer. If this seller has a broader set of services than just grocery retail (for example, the seller is Google or Amazon), the information they can collate together with this purchase history might include email transcripts, calendar information, or search and purchase history of non-grocery products, amongst others. All of this information can allow for much more aggressive marketing to a particular consumer, based on many aspects of their lives beyond their historical grocery shopping habits. A grocery store can take advantage of hungry shoppers by placing a representative selection of junk food in the checkout line. A digital platform, by contrast, can design an individualized tempting "checkout offer" based on that particular consumer's purchase history, current behavior, time of day, and the emotional content of recent communications.

2) Dimensions Along Which Data Can Be Big

In order to discuss the use-cases of large-scale datasets in online personalized advertising, it helps to define in what sense a dataset can be big. Big data commonly refers to two very different properties of a dataset: either that the dataset has many people's data in it, or that the dataset has a great deal of information about each person in the dataset. For simplicity we refer to the former as "large population datasets" and the latter as "high dimensional data." These distinct ways in which a dataset can be big enable very different uses.

Large population datasets allow the possessor to infer both unknown attributes of current users, and statistical facts about individuals not currently in the dataset. If the dataset contains many instances of users' queries along with their locations at the time they made those queries, an advertiser could use future users' locations to help predict what those users might search for or be interested in seeing advertisements about. Numerous statistical techniques can be used to show that, for a large population dataset, simple statistics that hold true on the dataset should also hold true for fresh users, assuming they come from a similar pool as those in the dataset. For example, if 30% of queries in the database originating from Cape Cod searched for lobster rolls, there is a 30% chance that a query made by a future user based in Cape Cod will be for lobster rolls, assuming the user is visiting in a similar time frame that the dataset was gathered in, arrived at the search engine in a manner similar to other dataset users, and the number of queries in the dataset originating in Cape Code is sufficiently large. If the dataset has many queries but fairly few from Cape Cod, statistical techniques will provide lower confidence in their ability to predict future queries emanating from Cape Cod.

High-dimensional datasets allow for different uses than large-population datasets do. Suppose a dataset contains only a few users, but each user's entry contains their entire email history. A quick read of a user's recent emails could give an advertiser a very clear window into what *that* user might be looking to purchase. The richness of a given user's data entry can describe in great detail many facts about her, including her future travel itineraries, plans for large purchases, information about her career and social networks, and so forth. Looking only at that user's information, a deft advertiser could likely select any number of products this user would be much more likely than an average person to find interesting. Hotels in Cape Cod would much prefer to advertise to a user if her recent emails describe travel plans to Cape Cod. However, if only three or four users belong to the dataset, an advertiser can learn very little about new users from studying the rich but poorly-populated dataset; again, statistical techniques have much lower confidence when the datasets they operate on are small.

The most useful datasets, from the perspective of an advertiser or other service provider, are large in both senses: they contain rich information about a huge number of people. This is even more true when the rich information contains different types of data, for example, email, location, and search queries. A dataset of this type allows the provider to both learn high-level population statistics (for which it needs a large population in its dataset) and to carefully tailor its ads to each individual in its dataset (because it has very rich information about users in the dataset). Even more interestingly, the complexity of population-level statements one can make from such a dataset increases. This occurs both because each user's data has more dimensions, so there are more relevant hypotheses to explore, and because as the number of users in the dataset grows, so does the statistical significance of any particular statement that holds for the dataset.

3) Accuracy (and Utility) May Display Increasing Returns

Entrants could have an opportunity if marginal returns were to fall as providers' datasets grow, because the incumbent's marginal cost of acquiring new data would eventually exceed the marginal value. But a simple model shows this may not be the case. Given a fixed dataset of a particular number n of individuals with a certain number k of features (also referred to as attributes), the dataset owner does not face decreasing marginal returns with respect to either n or k.[26]

Why might datasets show increasing marginal returns in either the number of features or the number of rows already present in the dataset? For a formal treatment of this question, please see the discussion below which works out in detail a particular example in the advertising domain.

[26] This holds even in "natural" settings, where each member of the dataset is drawn identically from a normal distribution.

Informally, imagine you are trying to sell a service to people who live in Manhattan and are planning a wedding. Knowing either that a person lives in Manhattan, or that they are planning a wedding, may make almost no difference in determining their willingness to use the service because both are very low-probability events, while having both pieces of information together allows the Manhattan wedding planner to easily pinpoint interested consumers. More generally, as a firm accumulates more information about more people, its marginal returns to new data need not fall.

This last point helps us understand why data has increasing marginal returns. Even if the dataset is large enough that it allows a company to make accurate inferences about a given population, the company will always benefit from having specific information about a given individual, allowing it to become more and more confident about what the consumer wants, and to better tailor its services and ads.

Companies therefore have no incentives to stop looking for and accumulating new pieces of data, entrenching incumbents with large datasets vis-à-vis entrants with smaller databases. Consumers on the internet leave numerous traces of their activities across a range of applications (for example, their location, what they buy, who they talk to, and what they say), and technology allows platforms to identify and analyze these traces. The amount of data on individual behavior that can be collected, merged, analyzed, and stored is rising, and the combination of different dimensions of data generates valuable information about individuals' tastes and behaviors. As individuals rely more and more on a platform to organize their lives through their online social, cultural, or economic activity, their data become more informative about their future choices and firms are willing to pay to influence those choices. Furthermore, the emergence of the Internet of Things means that platforms will have access to yet more data generated by home appliances, cars, and other devices. Indeed, consumers' devices can now track eye movement, mouse movement, body movement, and body position. In parallel with the evolution of the internet that made tracking of billions of individuals possible, advances in data mining and artificial intelligence have enabled firms to learn more from data than was conceivable a few decades ago.[27]

Many digital markets have tipped and therefore there are only a few entrenched platforms able to gather this breadth of data. As Alessandro Acquisti and colleagues concluded in a recent study, "a few 'gatekeeper' firms [will be left] in a position to control the tracking and linking of . . . behaviors across platforms, online services, and sites."[28] When data exhibit increasing returns to

[27] Jaron Lanier, a creator of virtual reality, has warned of the problems associated with a "surveillance economy" in which users of digital tools and platforms would be enticed to give up personal data in exchange for "free" products and access. *See* JARON LANIER, WHO OWNS THE FUTURE? (2013). The data, Lanier argues, could then be monetized by the owners of the platforms and applications, largely through the sale of the data to advertisers and others finding value in the users' personal characteristics and proclivities.
[28] Acquisti et al., *supra* note 22, at 444.

dimensionality and size, platforms that can track many users across those dimensions will have economies of scale and scope; they will be able to sell more valuable advertising.

Nonetheless, this targeting can also raise the quality of services provided by platforms. When they can identify individual tastes at fine levels and personalize their services to this taste, they often improve people's lives. Search engines can better answer queries or find a nearby destination, cultural and news websites are able to suggest well-suited content, and ecommerce websites can improve matching between buyers and sellers. These are all part of the consumer benefit described previously.

4) Types of Data

The definition of what constitutes a consumer's data can become complicated. Suppose the consumer's data and those of similar consumers allowed the service to infer characteristics about the consumer (for example, that she has a tattoo) without any action or communication on the topic by the consumer. Is this piece of information part of the "consumer's" data, or is it the intellectual property of the algorithm owner?

The Vestager Report and the Furman Report categorize data as volunteered , observed, or inferred. Volunteered data is intentionally provided by the user to the service -- for example, when a user provides their favorite TV shows to a service in order to receive recommendations. Observed data, such as the history of shows that the consumer actually watches, are automatically gathered by a service. Some observed data may not be intentionally provided by users if they do not understand the privacy protections in the service -- for example, location tracking of a person using a video app. Finally, the service can process volunteered and observed data to *infer* additional information about the user or a group of users.[29] We include (but do not always distinguish among) all these types of data in this report's discussions.

[29] *See* EC COMPETITION REPORT, *supra* note 1, at 25. Famously, Target claims to have been able to predict a customer's pregnancy before she knew about it. *See* Charles Duhigg, *How Companies Learn Your Secrets*, N.Y. TIMES (Feb. 16, 2012), https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html.

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Box II
Why Data Has Increasing Marginal Returns

For a particular dataset, suppose the first feature is the one the owner wants to predict for future users. For example, this feature might refer to whether or not a user will book a particular hotel if shown an advertisement for it. If k=2, and the second feature represents the home zip code of a user, there might be some limited ability to predict interest in a hotel based on this zip code being sufficiently far from the hotel. If k=3, consider the case where the third feature refers to the annual household income of each person.

With both zip code *and* income available, we can express much more complex prediction rules for interest in hotel X. For example, we could predict that a user will book the hotel if

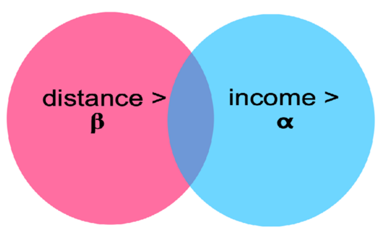
$$\alpha \cdot distance + \beta \cdot income \geq \gamma,$$

for some α, β, $\gamma \geq 0$. If the *true* relationship between these three features is in fact linear, then the utility of gathering the income variable will be marginally decreasing in the set of other (linearly relevant) features.

However, it might be that the best prediction of whether a hotel will be booked is a nonlinear function of distance and income; perhaps a person will book exactly when they live far enough away *and* make at least a certain amount of money:

$$distance \geq \alpha \text{ and } income \geq \beta$$

where users with distance > α and income > β make up 10% of the distribution. Suppose 40% of the users have distance > α, and 40% of the users have income > β.



Why Data Has Increasing Marginal Returns (Cont.)

Knowing a user's zip code (and corresponding distance) gives some limited ability to predict when both the income and distance are sufficiently large, but knowing both the zip code and income will allow them to perfectly predict the 10% of the population that might have interest in staying at the hotel. For this reason, the utility of data owners need not be marginally decreasing in the set of features they have.

To be explicit, fix an advertising firm for the hotel. If the advertising firm purchases the ability to see each potential advertisee's zip code, then showing the advertisement to customers as a function of their distance is now possible. For example, the advertiser could only show the advertisement to customers whose distance is more than β, increasing the probability that the ad is shown to an interested party from 10% to 25%. If the firm then acquired the ability to estimate each advertisee's income, it could use both features together and only show the advertisement to customers with both income > α and distance > β.

This would raise the probability that a targeted advertisee would be interested in the ad from 25% to 100%. The two features are otherwise identical, and so it would also be the case that first acquiring income and then distance would raise the probability of an advertisement reaching an interested customer from 10% to 25% to 100% if one started with no features, then added income, then distance. Therefore, the utility increase which comes from adding distance first is .15 * (value of showing the ad to an interested customer), while the utility increase from adding distance after first acquiring income is .75 * (value of showing the ad to an interested customer). That is, the distance feature is more valuable *after* first learning about income (and vice versa). This shows that the value of features may not be marginally decreasing in the set of features accrued thus far.

One can also use the same sort of relationship to argue that the dataset owner's utility need not be marginally decreasing in n, the number of people in the dataset. Again, suppose one can only predict interest in the hotel with the conjunction of zip code and income information, but that this relationship is not a priori known to the dataset owner, and they are instead trying to *learn* how to predict hotel interest based on a dataset they have available to them. Using statistical techniques, it won't be possible to learn rules of this form (if x and y then z) to a high degree of accuracy unless the dataset has sufficiently large n. The utility of adding additional people to the dataset can *increase* as the dataset grows, depending on the owner's utility for accuracy of the learned model.

ii. Data Control and Ownership

1) Status Quo

In the United States at present, a consumer has no property or control rights over their data. This stands in contrast to Europe, where the GDPR sets a standard for what a digital business can do with a consumer's data.

In the U.K., regulators have sought to give consumers *useful* control over their financial data. After a lengthy investigation showed that consumers rarely switch banks despite large gains to doing so, regulators sought to use Open Banking to give people the ability to seamlessly move between banks.[30] The Open Banking Initiative allows consumers to obtain, see, and transmit their banking activity in a standardized and secure fashion to regulated and approved third-party firms.[31] This is an example of data portability. Theory suggests that consumers will use that power to move their business to banks that lower prices and improve services. If Open Banking causes more competitive outcomes, it may provide a strong model for regulated portability and interoperability in other markets.[32] The Vestager Report defines protocol interoperability and data interoperability as stronger than data portability because they allow continuing communication between two services. It defines full protocol interoperability as a complete linking of the two services in a way that reduces network effects. We will return to these concepts below.

Data intermediaries collect consumers' information that they then sell to third parties. These intermediaries may be large websites obtaining the information through their service to consumers, or data brokers. Data have specific features that make this market unusual. For example, data are "non-rivalrous" meaning a broker can sell the same dataset to many buyers and still retain it, unlike, for example, the sale of apples. Once you've sold an apple, you're out an apple; once you've sold a given piece of information to one buyer, you can sell it again to another buyer. A key feature of data in this context is that data may be either directly shared with the buyer, or withheld (to prevent the buyer from achieving its own economies of scale and scope) but embedded into a service the buyer wants, such as targeting advertising.[33]

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[30] *See* Alasdair Smith et al., RETAIL BANKING MARKET INVESTIGATION: FINAL REPORT, U.K. COMPETITION & MARKETS AUTHORITY (Aug. 2016), https://assets.publishing.service.gov.uk/media/57ac9667e5274a0f6c00007a/retail-banking-market-investigation-full-final-report.pdf, at xiii-xiv.

[31] *See* U.K. COMPETITION & MARKETS AUTHORITY, THE RETAIL BANKING MARKET INVESTIGATION ORDER 2017 (2017), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/600842/retail-banking-market-investigation-order-2017.pdf; *see also* OPEN BANKING LTD., OPEN BANKING: GUIDELINES FOR PARTICIPANTS (2018), https://www.openbanking.org.uk/wp-content/uploads/Guidelines-for-Open-Data-Participants.pdf; Rowland Manthorpe, *What is Open Banking and PSD2? WIRED Explains*, WIRED (Apr. 17, 2018), https://www.wired.co.uk/article/open-banking-cma-psd2-explained. Third party firms that customers can elect to give data access are regulated and approved by the Financial Conduct Authority. *See* Press Release, U.K. Fin. Conduct Auth., FCA Finalises Revised Payment Services Directive (PSD2) Requirements (Sept. 9, 2017), https://www.fca.org.uk/news/press-releases/fca-finalises-revised-psd2-requirements.

[32] There are some signs that Open Banking has seen early success. *See* U.K. COMPETITION REPORT, *supra* note 1, at 70.

[33] *See* Dirk Bergemann & Alessandro Bonatti, *The Wild West of Information Markets: What We Need to Know Before Law and Order Can Rule*, VOX (Oct. 11, 2018), https://voxeu.org/article/wild-west-information-markets; Dirk Bergemann & Alessandro Bonatti, *Markets for information: An Introduction*, (Cowles Foundation Discussion Paper No. 2142, Aug. 29, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3240310.

2) Externalities

What can a person do with ownership over her data? The previous section describes two ways in which data might be used: First, it might be used to tailor services to a given person; second, it might be used to learn patterns that hold on average for the population from which the dataset was drawn. The former does not necessarily transfer any knowledge about one customer to the treatment of another, while the latter aims to learn about some fraction of a dataset and use that information to affect interactions with future customers. Note that this use of data creates externalities between consumers. Purchase or travel patterns by one person are used to create recommendations or suggestions for similar people, where "similar" is determined by machine learning. For this reason, the value of an individual person's data is more than the value of using it to market to them. A customer whose data predicts the behavior of many other consumers is very valuable to a platform.

3) Deletions

One might simplistically think that "owning" one's own data gives a person the ability or right to delete it. The ease with which a customer's data can truly be deleted depends on the way the firm has created and is using that data. If a user's own data is used only to personalize her experience, deleting her data will mean that the dataset—and the service's subsequent behavior—has no trace of the customer ever belonging to the dataset. If, however, the service used the customer's data to inform population-wide behavior (by analyzing the dataset including this customer and storing the results of those analyses), merely deleting the customer's data from the dataset does not truly erase her presence—her data will still have a lasting effect on the future behavior of the service.

For example, suppose the service scans the dataset for one representative user from each zip code and remembers the purchasing history of each representative user. Even if the service removes the initial entry corresponding to a particular user in the original dataset, if the service still uses this set of representative users' purchasing histories, some of the user's data can still remain in the system. While this example may seem contrived, many machine learning methods do some amount of memorization of some subset of their training data.[34]

Beyond memorization, there are other, more subtle ways in which a user's data can affect the long-term behavior of a system and what information the system holds on to. The natural tool to restrict how much a system's information is affected by one user's data is to impose *differential privacy*. Loosely speaking, differential privacy restricts the statistics created from the dataset to not reveal if any particular person or observation is in the dataset.

[34] For example, support vector machines are explicitly recorded as a small number of datapoints on which the model was learned.

4) Transparency, Choice, and Fraud

According to the Federal Trade Commission, the market for data suffers from a lack of transparency.[35] Most consumers have no idea how much information is being collected about them, sold, and used to make a profit.[36] One way in which digital platforms exploit their market power is by requiring consumers to agree to terms and conditions that are unclear, difficult to understand, and constantly changing. The terminology in these contracts is legal and the documents are often lengthy; the consequence of the different clauses is difficult to understand and foresee. Moreover, the user of a device or platform makes a choice to sink investments (posts, calendars, media, and so on) in a particular platform at a moment in time when a particular user agreement is in force. After the device or platform updates its terms of service, a user may be locked in. Having bought a phone, they won't immediately want to switch; having built a network of friends, they often won't want to leave. Thus, the user does not have the same set of choices as she did the first time she hit "agree," and some agencies have argued this is no longer a free choice.[37] Lastly, a digital platform may describe its data-use policy in its terms of service and then deviate from that, rendering the initial statement fraudulent.[38]

Box III
Digital Identities

Perhaps the next major shift in digital competition will be the quest to control the identification market. Once we create an account with any digital platform, we create a digital identity which incorporates select data on age, sex, address, email address, preferences, and, frequently, much more. These digital identities help companies identify and tag users to the data they generate, be it transactional, social, simple web navigation or even meta data. Digital identities work like access and tracking mechanisms, allowing a user to surpass a wall in exchange for enabling the company to link the data to a given dataset (e.g., using a Facebook login to access a website).

Identity data and control is highly valuable and platforms can monetize it in many ways. They can use it to personalize services and charge subscription fees, provide advertising or market intelligence, or as a way to increase bottleneck power and charge companies for user access . The more privacy protection technologies grow and limit widespread data collection online, the more being the single identification point for users will grow in importance and value.

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[35] FED. TRADE COMM'N, DATA BROKERS: A CALL FOR TRANSPARENCY AND ACCOUNTABILITY: A REPORT OF THE FEDERAL TRADE COMMISSION (2014), https://www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf.
[36] *See id.* at 42.
[37] *See* Press Release, Bundeskartellamt, Bundeskartellamt Prohibits Facebook from Combining User Data from Different Sources (Feb. 7, 2019), https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/07_02_2019_Facebook.html (determining that Facebook's take-it-or-leave-it under agreements constitute "abuse of market power").
[38] *See, e.g.*, Tony Romm & Elizabeth Dwoskin, *U.S. Regulators Have Met to Discuss Imposing a Record-Setting Fine Against Facebook for Privacy Violations*, WASH. POST (Jan. 18, 2019), https://www.washingtonpost.com/technology/2019/01/18/us-regulators-have-met-discuss-imposing-record-setting-fine-against-facebook-some-its-privacy-violations.

iii. Digital Platforms are Characterized by Free Services

"Free" is not a special zone where economics or antitrust do not apply.[39] A free good is one where the seller has chosen to set a monetary price of zero and may set other, non-monetary, conditions or duties. Zero is a number, just like 10 is a number. If a competitive price is $10 while the realized price is $15, there is a $5 markup above the competitive price. This is the same harm the consumer bears when the competitive price is -$5 (at this price the digital platform is actually paying the consumer for her data and information in addition to providing her with services) and the realized price is $0.

Barter is a common way in which consumers pay for digital services. They barter their privacy and information about what restaurants they would like to eat in and what goods they would like to buy in exchange for digital services. The platform then sells targeted advertising, which is made valuable by the bartered information. But, in principle, that information has a market price. It is not easy to see if the value of any one consumer's information is exactly equal to the value of the services she receives from the platform. However, many digital platforms are enormously profitable, and have been for many years, which suggests that in aggregate we do know the answer: the information is more valuable than the cost of the services. The economics literature has modeled this setting and is able to define a data markup.[40]

The current inability to use both positive and negative prices for digital goods means that the policy discussion cannot focus on dollars alone as the unit of cost. Rather, digital platforms should be analyzed using both price and quality. "Quality-adjusted price" is a metric often used by economists in this situation. If a platform's price is fixed at zero and the quality of the service improves, then its quality-adjusted price has fallen. Conversely, if a platform's price remains zero but its quality falls, its quality-adjusted price has risen. When the price is fixed at zero, it is possible to track quality-adjusted price over time: the movement in quality accurately reflects quality-adjusted price.[41]

Online platforms offer many services for zero monetary price while they try to raise participation in order to generate advertising revenue. Free services are prevalent on the internet in part

[39] See, for example, the current head of the U.S. Department of Justice's Antitrust Division describing the challenge faced by his division of defining markets when goods are free. Makan Delrahim, U.S. Assistant Att'y General, "I'm Free": Platforms and Antitrust Enforcement in the Zero-Price Economy, Address at Silicon Flatirons Annual Technology Policy Conference at The University of Colorado Law School (Feb. 11, 2019), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-keynote-address-silicon-flatirons (arguing, without regard for quality effects, that traditional antitrust market definition cannot work because "[w]e cannot look at the effects of a five percent increase in price because five percent of zero is still zero"). *See also id.* (arguing that "[c]hoosing variables for measuring market shares also can be more complicated where shares of revenue is not an option").

[40] *See* Dirk Bergemann et al., *The Design and Price of Information*, 108 AMER. ECON. REV. 1 (2018).

[41] The European Commission has noted the importance of assessing product quality in zero-price settings. *See* Samson Y Esayas, *Competition in (Data) Privacy: 'Zero'-Price Markets, Market Power, and the Role of Competition Law*, 8 INT. DATA PRIVACY L. 181 (2018).

because internet firms can harness multi-sided network externalities. While the low price can be a blessing for consumers, it has drawbacks for competition and market structure in a world where institutions have not arisen to manage negative prices. Because there is currently no convenient way to pay consumers with money, platforms are able to mark up the competitive price all the way to zero. This constraint can effectively eliminate price competition, shifting the competitive process to quality and the ability of each competitor to generate network externalities. Depending on the context this may favor or impede entry of new products. For example, entry will be encouraged when a price of zero leads to supra-competitive profits, and impeded when a zero price prevents entrants from building a customer base through low price. Moreover, unlike traditional markets where several quality layers may coexist at different price levels (provided that some consumers favor lower quality at low price), markets where goods are free will be dominated by the best quality firm and others may compete only in so far as they can differentiate their offers and target different customers. This strengthens the firm's incentive to increase quality through increasing fixed costs in order to attract customers (known as the Sutton sunk cost effect) and further pushes the market toward a concentrated market structure.[42]

It is a puzzle that, to date, no entrepreneur or business has found a way to pay consumers for their data in money. For example, a consumer's wireless carrier could aggregate micropayments across all manner of digital destinations and apply the credit to her bill each month. It may be that adverse selection, transaction costs, and coordination difficulties create too large a barrier for today's entrepreneurs, though technical solutions like a verifiable digital identity, mentioned above, would combat adverse selection.[43] Furthermore, a carrier that could bargain effectively with platforms on behalf of its subscribers for high payments would likely gain subscribers. Notice that an easy method to pay consumers, combined with price competition for those consumers, might significantly erode the high profits of many incumbent platforms. Platforms likely have no economic incentive to work diligently to operationalize negative prices.

[42] *See* SUTTON, *supra* note 7.
[43] *See* ERIC A. POSNER & E. GLEN WEYL, RADICAL MARKETS: UPROOTING CAPITALISM AND DEMOCRACY FOR A JUST SOCIETY (2018).

III. PROBLEMS ARISING IN DIGITAL MARKETS

The changing market dynamics, outlined above, raise doubts about the market's ability to ensure ongoing innovation and competition. Increased concentration levels, market power, network effects, and control over data and analytics have in many digital markets tipped the market in favor of the incumbents.

The theme we return to throughout this report is the difficulty of entry into digital platform businesses once an incumbent is established. Whether the entrant is vertical or horizontal, has succeeded to some degree, is nascent, or is a potential entrant, its existence improves consumer welfare. Either the entrant provides more choice, different features, and a chance of higher quality, or the threat of those outcomes spurs the incumbent to provide lower prices, higher quality and innovation, and to do so more quickly.

By focusing on this feature of digital platforms, we are highlighting the *cause* of the market power, not its result. Absent entry barriers of the type discussed above, the tremendous amount of profit available in these markets would stimulate entry. Protecting competition in these markets requires protecting competitors. Entry and potential entry create more competitors (in expectation), and that increase depends on competition working effectively so that a meritorious entrant can successfully dethrone the incumbent.

The categories of economic harms to consumer welfare from digital platforms are the standard ones: price, quality, and innovation. The report will primarily emphasize quality and innovation harms due to their greater complexity and generality. For example, by excluding competitors, dominant firms do not need to innovate as hard as they otherwise would be required to keep their customers. Likewise, when platforms do not face competition, they will be able to reduce quality, for example, by decreasing privacy protections, without losing customers or revenue.[44] When a service reduces quality without lowering price, it is *raising* quality-adjusted prices, which harms consumers. For example, if a phone service were to lower the quality of service but keep monthly fees the same, it would have raised quality-adjusted price. Because many digital services are purchased with barter, the monetary price paid by consumers is zero, and quality-adjusted prices cannot be directly seen the way a nominal price can be. On the advertiser side of the platform, where monetary prices *are* charged, harms to competition exist in the more ordinary form of higher markups for ads and other services. These markups are eventually paid by consumers because they are built in to the prices of the goods and services that are advertised online.

[44] *See* Agustín Reyna, *The Psychology of Privacy—What Can Behavioural Economics Contribute to Competition in Digital Markets?*, 8 INT. DATA PRIVACY L. 240 (2018).

a. Quality Harms

i. Personal Data and Behavioral Economics

1) Behavioral Economics

As discussed above, behavioral economics helps improve our understanding of real consumer choices and suggests that consumer exploitation is common. There are a number of systematic consumer biases that, when incorporated into economic analysis, affect outcomes and welfare. For instance, individuals can be subject to salience effects, putting excessive weight on the most salient information. Confirmation bias can lead them to change their preferences to conform with past choices.[45] Consumers are often biased toward the status quo even when it is no longer optimal.[46] Perhaps the most important consumer biases are impatience and lack of self-control. The former refers to the discounting of any payoff that occurs further in the future than the present. The latter is closely related and refers to the extent to which individuals fail to resist short-term impulses in order to achieve long-term goals. The literature in behavioral antitrust argues that status quo, salience, and impatience are the most relevant for antitrust analysis.[47] Platforms that analyze their consumers' behavior can exploit these biases by framing choices to make certain information salient, designing a status quo that is profitable, inducing addictive behaviors, generating sales through impulsive consumption, and exploiting consumers' disinclination to search. These strategies are common in the brick and mortar world. For example, the candy aisle in supermarket check-out lines, or the rug store that has a special 50%-off sale every day.

2) Using Machine Learning to Take Advantage of Consumers

There are now decades of economic research demonstrating consumer bias and firm responses in offline markets.[48] For example, gyms offer subscription memberships rather than pay-per-visit

[45] *Confirmation Bias*, WIKIPEDIA (Mar. 22, 2019), https://en.wikipedia.org/wiki/Confirmation_bias ("Confirmation bias is the tendency to search for, interpret, favor, and recall information in a way that confirms one's preexisting beliefs or hypotheses."); *see, e.g.*, Thaler, *supra* note 19, at 1266 ("People guess that in the United States today gun deaths by homicide are more frequent than gun deaths by suicide, although the latter are about twice as common. The bias comes because homicides are more publicized than suicides, and thus more 'available' in memory.").
[46] William Samuelson & Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 J. RISK & UNCERTAINTY 7, 8 (1988) ("[D]ecision makers exhibit a significant status quo *bias*. Subjects in our experiments adhered to status quo choices more frequently than would be predicted by the canonical model.").
[47] *See* Amelia Fletcher, *The EU* Google *Decisions: Extreme Enforcement or the Tip of the Behavioral Iceberg?*, COMPETITION POL. INT. ANTITRUST CHRON. (Jan. 2019), https://www.competitionpolicyinternational.com/wp-content/uploads/2019/01/CPI-Fletcher.pdf.
[48] *See, e.g.*, DANIEL KAHNEMAN & THOMAS GILOVICH, HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGMENT (2002); Nicholas Barberis & Richard Thaler, *A Survey of Behavioral Finance*, *in* HANDBOOK OF THE ECONOMICS OF FINANCE (René M. Stulz & George Constantinides eds., 2003); *see also, e.g.*, Daniel Kahneman, Jack L. Knetsch, & Richard H. Thaler, *Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias*, 5 J. ECON. PERSP. 193 (1991).

knowing that members will not come as often as they anticipate,[49] and credit cards offer teaser rates knowing that consumers plan to have no debt in 6 months' time.[50] However, the strategies firms have used to date are swamped by what digital businesses can learn by using high-dimensional, large datasets to explore every nook and cranny of consumers' many behavioral shortcomings and biases in real time. This strategy is of serious concern when combined with an understanding of the digital platform business model discussed above. The platform's goal is to use its knowledge of consumers, combined with its market power (and the resulting lack of consumer choice), to extract profit. Some of that profit may come from value creation, or "expanding the pie," but some will come from transfers to the platform from both the consumer side and the advertiser side. Because individuals are subject to behavioral biases, consumers are vulnerable to a platform's exploitative behavior. Additionally, when individuals are workers, as they often are in the "gig" economy, these tools can be used to advantage the platform against the worker.

Digital businesses not only have more information than traditional firms, but they have more variations of products or services and the ability to control the environment and the timing of choices and offers. For example, a firm can hide a component of a good's price to let consumers discover prices only once they have invested significant time and effort into buying the good. This strategy can be differentially employed depending on the consumer's past willingness to pay. Framing, nudges, and defaults can direct a consumer to the choice that is most profitable for the platform. A platform can analyze a user's data in real time to determine when she is in an emotional "hot state" and offer a good that the user would not purchase when her self-control was higher. Consider a supercomputer tracking a consumer, via her cell phone, around the town until she is tired and frustrated in some way, and at that moment presenting her ads and information about junk food. This type of exploitation could depend on input from devices such as eye-tracking sensors, the ability of AI to understand the emotion expressed in texts and email, and all the other data the platform has about the consumer combined at a very large scale. This same tactic can be used to gain advantage against an independent contractor, e.g. a driver, whose behavior and location can be tracked for long periods. [51] In addition, machine learning applied to big data may help differentiate well-informed and sophisticated consumers or workers from poorly informed or more naïve consumers, raising the possibility of further exploitation of those least prepared to resist it.

Internet firms make frequent use of digital defaults, framings, and nudges. When a user is signing up for a new service, the sign-up form may automatically check the box that permits the service to send the user emails.[52] A user can opt-out of receiving emails by unchecking the box,

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[49] *See* Stefano DellaVigna & Ulrike Malmendier, *Paying Not to Go to the Gym*, 96 AMER. ECON. REV. 694 (2006).
[50] *See* Oren Bar-Gill & Ryan Bubb, *Credit Card Pricing: The CARD Act and Beyond*, 97 CORNELL L. REV. 967 (2012).
[51] https://www.nytimes.com/interactive/2017/04/02/technology/uber-drivers-psychological-tricks.html
[52] This is no longer permitted in the European Union. *See* Regulation (EU) 2016/679 of the European Parliament and the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data

but doing so is harder than sticking with the default. The results of a search that fits onto one page may all be sponsored, whereas finding the organic links requires paging down. *Homo economicus* is hardly influenced by defaults—to a rational agent, scrolling down or unchecking a box is trivial—but real people are influenced. Nudges are not unique to digital products; for example, an employer offering a default health care plan to its employees nudges employees towards choosing that plan—employees can select a different plan, but doing so is harder than sticking with the default.[53] What is noteworthy, however, is the platform's detailed, personalized, minute-by-minute control over their interface. This control enables platforms to create a façade of competition, choice, and autonomy when in fact users are being directed with behavioral techniques.[54]

With big data and machine learning, firms are able to understand and manipulate individual preferences at a scale that goes far beyond what is possible in traditional markets. This capability is qualitatively new. The environment is characterized by extreme asymmetries of information and analytical capacity between the platform and the user. This enables firms to charge higher prices (for goods purchased and for advertising) and engage in behavioral discrimination, allowing platforms to extract more value from users where they are weak.[55] The problem is only growing; platforms continue to make investments to extract data, encourage stickiness and addiction, and promote ever-greater use, in order to run data analytics and enable more precise targeting.[56]

The economic literature suggests that competition by itself cannot resolve the issue raised by the exploitation of behavioral biases or poor consumer information. This is because staying profitable in a competitive environment may force firms to exploit behavioral bias to achieve maximal profitability. Firms abstaining from doing so may be driven out of the market. Rather, competition causes a shift of surplus to wiser consumers; profit from exploitation of biased consumers is used to compete for well-informed consumers. For consumers who can guard against exploitation, there are therefore significant gains to be had from competition. But this

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and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119/1), § 32 ("Silence, pre-ticked boxes or inactivity should not . . . constitute consent.").

[53] Thaler, *supra* note 19, at 1283. Default settings have very large effects, for example, in voluntary organ donation decisions. Countries with an op-in default generally have the vast majority of the nation's adults enrolled to donate, while countries with default opt-out decisions see the opposite result. *See* Eric J. Johnson & Daniel Goldstein, *Do Defaults Save Lives?*, 302 SCIENCE 1338 (2003).

[54] *See* ARIEL EZRACHI & MAURICE E. STUCKE, VIRTUAL COMPETITION: THE PROMISE AND PERILS OF THE ALGORITHM DRIVEN ECONOMY (2016) (comparing the façade of choice and autonomy on digital platforms to the Truman Show).

[55] For a discussion of the use of online price and behavioral discrimination, see Maurice E. Stucke & Ariel Ezrachi, *How Digital Assistants Can Harm Our Economy, Privacy, and Democracy*, 32 BERKELEY TECH. L.J. 1239 (2018); Maurice E. Stucke & Ariel Ezrachi, *Alexa et. al., What Are You Doing with My Data?*, 5 CRITICAL ANALYSIS L. 148 (2018).

[56] Haley Sweetland Edwards, *You're Addicted to Your Smartphone. This Company Thinks It Can Change That*, TIME (Apr. 13, 2018, 10:28 AM), http://time.com/5237434/youre-addicted-to-your-smartphone-this-company-thinks-it-can-change-that.

will not be true for all people; some will be taken advantage of under perfect competition if consumer protection regulations are insufficient. Hence, while this report focuses on the competition problems created by powerful platforms, related issues raise broader consumer protection concerns that cannot be solved through greater competition.

ii. The Harms from an Advertising-Supported Business Model

1) Market Power Leads to Markups

Access to high-quality data, scale, and scope has allowed a few large platforms to offer efficient targeting services for advertising and to dominate the advertising market. Facebook, Google, and, increasingly, Amazon act as gatekeepers to the online advertising market. The three platforms provide access to billions of users, as well as a data-rich environment, essential for modern online advertising. Being in control of the data and the assets—users—creates market power. That market power generates a profit margin which, for ad-supported platforms, comes from the sale of advertising. One of the characteristics of the digital advertising environment is its opacity: major platforms are able to leave bidders and publishers in the dark with respect to the true success, costs, and profits from placement of advertising. This can be exacerbated when the platform also supplies buyer or publisher tools and analytics. Opacity is partially a consequence of market power. Market power can be used to discourage, or even prevent, multi-homing by buyers. One additional concern is that this opacity may give firms not only the normal ability to exercise market power in intermediation but also to engage in fraud.[57] Lack of transparency also undermines buyers' ability to measure the effectiveness of digital advertising and therefore to understand its true value relative to price.[58]

A report by the French Competition Authority estimated that publishers received 40% of advertiser sales, with intermediaries collecting the rest.[59] What justifies such a large markup for intermediaries? Without detailed study we cannot know for sure. However, reasons likely include the fact that very few platforms can target customers (who may be single-homing) using detailed and accurate data, so advertisers cannot take advantage of competition. The platforms do

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[57] *See, e.g.*, Suzanne Vranica & Jack Marshall, *Facebook Overestimated Key Video Metric for Two Years*, WALL ST. J. (Sept. 22, 2016), https://www.wsj.com/articles/facebook-overestimated-key-video-metric-for-two-years-1474586951; Mike Shields, *Facebook Says it Found More Miscalculated Metrics*, WALL ST. J. (Nov. 16, 2016), https://www.wsj.com/articles/facebook-says-it-found-more-miscalculated-metrics-1479303984; Cyrus Farivar, *Advertisers Allege Facebook Hid the Fact That No One Watches Video Ads*, ARSTECHNICA (Oct. 17, 2018), https://arstechnica.com/tech-policy/2018/10/advertisers-allege-facebook-hid-the-fact-that-no-one-watches-video-ads (reporting allegations that Facebook's "average viewership metrics were not inflated by only 60-80 percent; they were inflated by some 150-900 percent").

[58] This in turn obscures the size of the platforms' markup. *See* SELECT COMMITTEE ON COMMUNICATIONS, HOUSE OF LORDS, 1ST REPORT OF SESSION 2017–19, HL PAPER 116, U.K. ADVERTISING IN A DIGITAL AGE 14, § 29 (2018), https://publications.parliament.uk/pa/ld201719/ldselect/ldcomuni/116/116.pdf; David Pidgeon, *Where Did the Money Go? Guardian Buys its Own Ad Inventory*, MEDIA NEWSLINE (Oct. 4, 2016), https://mediatel.co.uk/newsline/2016/10/04/where-did-the-money-go-guardian-buys-its-own-ad-inventory.

[59] FRENCH COMPETITION AUTHORITY REPORT, *supra* note 1, at 40, § 82.

not sell the data to advertisers, but promise to place the ad in front of the requested demographic. The advertiser lacks transparency or any ability to learn about its customers and potential customers. Moreover, a platform that operates in the advertising placement business holds the keys to a second black box through its control of the pricing process.[60] The integration of the business of running the price-discovery mechanisms as well as tools for each side of the platform enables opacity, which helps maintain market power. When a platform bundles services such as advertising placement and return-on-investment analysis with advertiser data such as completed purchases, it can further enhance its market power.[61] The platform generally never shares the data with advertisers or publishers, but keeps it to itself, preventing disintermediation by a brand or publisher, further sustaining its large profit margin.

2) Incentives Created by Markups

Ad-supported platforms' high markups provide a powerful reason to try and keep users online for another minute in order to show more ads. These profits push platforms to design their firms around "engagement"—an obsession with keeping users on their system for as much time, and with as much attention, as possible.[62] As much of the behavioral literature cited above shows, advertising-supported digital businesses can use consumer biases to hold people's attention in ways that ultimately harm them. Early empirical work has found such effects in social media. In a recent working paper, Hunt Allcott and colleagues found that Facebook users who were paid to leave the site for four weeks wound up with higher subjective well-being than similarly situated people randomly assigned to a group not offered the payment.[63] Users who took the break from Facebook had a "large and persistent reduction in Facebook use after the experiment," along with reduced political polarization and news knowledge.[64] For the platform, engagement serves two reinforcing purposes. First, the more time a user spends on a platform, the more the platform knows about her. Second, the longer a user is on the platform, the greater its income from ads and services. Thus, the more time a user is on the platform, the more ads the platform can sell, and the more it can charge per ad.

[60] For example, Google's ownership of the ad platforms formerly known as DoubleClick and AdWords. *See* Todd Spangler, *Google Killing Off DoubleClick, AdWords Names in Rebranding of Ad Products*, VARIETY (July 27, 2018), https://variety.com/2018/digital/news/google-doubleclick-adwords-rebranding-1202859088.
[61] *See generally* Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397 (2009).
[62] *See, e.g.*, Mark Bergen, *YouTube Executives Ignored Warnings, Letting Toxic Videos Run Rampant*, BLOOMBERG (Apr. 2, 2019), https://www.bloomberg.com/news/features/2019-04-02/youtube-executives-ignored-warnings-letting-toxic-videos-run-rampant ("The company spent years chasing one business goal above others: 'Engagement,' a measure of the views, time spent and interactions with online videos.").
[63] Hunt Alcott et al., *The Welfare Effects of Social Medi*a (NBER Working Paper No. 25514, Apr. 2019), https://web.stanford.edu/~gentzkow/research/facebook.pdf.
[64] *Id.* at 1.

This financial incentive may explain the growing use of tracking and the creation of ecosystems that are based on the ability to manipulate the user into staying longer on the platform.[65] This opens the door to exploitative tactics or content as a method of increasing engagement. Furthermore, a second element to the large margin earned by a platform may be the low cost of the purchased content that keeps users on the platform. An important question (addressed more fully by the Media committee) is whether the prices for that content are set competitively. In a bargaining environment, the market power of the platform may allow it to negotiate a price for content that is below competitive levels, potentially creating dynamic harm to input providers.[66]

The financial incentive created by a large markup can lead to anticompetitive behaviors as well as exploitative ones. Platforms may seek to reduce interoperability and awareness of outside options. For example, platforms may exclude certain services or increase friction in accessing third parties' services. High search and switching costs are used to "lock in" users and reduce the ability of competitors to access those users. Platforms may adopt strategies to reduce multi-homing to obtain more market power over their users. We will return to this theme below.

3) Resulting Quality of Content

As discussed in detail below, the cheapest way to keep users on a platform is to present content as being more attractive than users thought at the moment when they were ready to leave the platform, or to make departure more costly in other ways, so that users stay longer. (See a similar discussion in the Privacy Report.) The platform is essentially degrading the quality of the content offered in a way that present-biased human beings find engaging. As discussed further below, content that instantly engages most effectively is content that generates outrage, not necessarily content that is truthful or thoughtful. Simple strategies such as more advertising minutes per minute of content also lower quality. Low-quality content represents an increase in the quality-adjusted price of platform services experienced by consumers.

This business model, and the opacity that accompanies it, makes it difficult for either advertisers or consumers to realize they are being charged a markup and makes entry into these advertising markets extremely difficult. Because the advertiser side is where a platform earns its revenue, this is obviously a key entry barrier. The question of how an enforcer or regulator might enable entrants to overcome this barrier to entry is an important part of the discussion in Section III.B of the report.

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[65] *See* Maurice E. Stucke & Ariel Ezrachi, *The Subtle Ways Your Digital Assistant Might Manipulate You*, WIRED (Nov. 29, 2016, 8:00 AM), https://www.wired.com/2016/11/subtle-ways-digital-assistant-might-manipulate.
[66] *See* Maurice E. Stucke & Ariel Ezrachi, *Looking Up in the Data-Driven Economy*, COMPETITION POL'Y INT'L (May 15, 2017), https://www.competitionpolicyinternational.com/looking-up-in-the-data-driven-economy.

4) Welfare and Efficiency

When analyzing the impact of online advertising and the behaviors it creates, one should keep in mind that antitrust aims to promote effective competition for the benefit of consumers. Competition authorities tend to treat advertisers as any other customers of a service. The premise is that market power in advertising channels impedes the ability of brands to reach consumers and inform them about their products. Such a treatment of the welfare from advertising relies on the implicit view that i) the role of advertising is solely to inform consumers; and ii) competition in the advertising market leads to efficiency. The economic literature tells us that both assumptions are questionable, as does observation of digital markets.[67] In competition policy, when assessing the impact of a decision or a regulation involving advertising, it is important to focus on the final impact on consumers and market efficiency rather than on the advertisers' surplus.

On the one hand, targeted advertising to wise and well-informed consumers is welfare-improving insofar as it allows advertisers to send the right information to the right people, improving their choices and fostering competition among suppliers. On the other hand, in the modern economy this simple model becomes more complex because of the cost to the consumer, namely loss of privacy. There is an open empirical question as to whether the tradeoff is worthwhile to consumers.[68] We discuss the problem of measuring welfare in a setting where consumers are manipulated below.

iii. Online Exploitation and Addiction

1) Human Reward Systems

Digital platforms' manipulation of their users—in part designed to get users addicted—is getting a considerable amount of attention from the public. These actions lower the quality of a platform and harm users.

As discussed above, some platforms have deliberately incorporated features that feed human "reward" centers into their products to induce users to give more and more of their time—and data—to the platform. These tools are designed for scale—they become even more valuable the more traffic they carry and the more users they garner—and hence the competition among producers has been described as a competition for eyeballs.[69] Because the digital tools and

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[67] *See, e.g.,* Anderson, S. P., Waldfogel, J., & Stromberg, D. (Eds.). *Handbook of Media Economics, vol. 1A* (2016). Elsevier; Goldfarb, A., & Tucker, C. Digital economics. *Journal of Economic Literature*, *57*(1), 3-43 (2019).
[68] *See, e.g.*, Elizabeth Aguirre et al., *Unraveling the Personalization Paradox: The Effect of Information Collection and Trust-Building Strategies on Online Advertisement Effectiveness*, 91 J. RETAILING 34 (2015); Justin P. Johnson, *Targeted Advertising and Advertising Avoidance*, 44 RAND J. ECON. 128 (2013).
[69] *See, e.g.*, Doni Bloomfield, *High-Speed Ad Traders Profit by Arbitraging Your Eyeballs*, BLOOMBERG (Nov. 7, 2014), https://www.bloomberg.com/news/articles/2014-11-07/high-speed-ad-traders-profit-by-arbitraging-your-eyeballs.

networks have been designed for use at scale, and because there is relatively little cost and considerable benefit associated with adding more users, producers want as much user engagement as they can get. The creators of digital products have benefited from social science and neuroscience findings that concern, for example, how certain colors or mechanics can feed a user's dopamine, much as nicotine does.[70] The Center for Humane Technology, which calls the problem the "hijacking of our society," describes the issues as follows:

> Facebook, Twitter, Instagram, and Google have produced amazing products that have benefited the world enormously. But these companies are also caught in a *zero-sum race for our finite attention*, which they need to make money. Constantly forced to outperform their competitors, they must use increasingly persuasive techniques to keep us glued. They point AI-driven news feeds, content, and notifications at our minds, continually learning how to hook us more deeply—from our own behavior.[71]

This business model is based on acquiring a large volume of data to generate income, and it has led to unprecedented investment in addiction—ensuring continuing use of the interface. From diaper apps,[72] to rewarded ads (in which viewers are given in-app rewards, such as another "life" in a video game, in return for watching an ad)[73] internet firms harness their knowledge of second-to-second individual responses alongside social science learnings about human biases for maximum attention.[74] Researchers do not yet know the full extent of the harm (or potential harm) that may come from this sort of addiction and manipulation, but they are now actively engaged in relevant research.[75] What is known is that a business that depends on users staying online to watch ads and have their preferences harvested will focus its resources on keeping

[70] *See* Edwards, *supra* note 56.
[71] Ctr. for Humane Tech., *Our Society is Being Hijacked by Technology*, HUMANE TECH (2018), http://humanetech.com/problem.
[72] Edwards, *supra* note 56.
[73] *Rewarded Ads: A Win for Users, Developers, and Advertisers*, GOOGLE ADMOB (2018), https://admob.google.com/home/resources/rewarded-ads-win-for-everyone.
[74] The video app TikTok may have taken this approach to its logical conclusion. *See* John Herrman, *How TikTok is Rewriting the World*, N.Y. TIMES (Mar. 10, 2019), https://www.nytimes.com/2019/03/10/style/what-is-tik-tok.html ("TikTok assertively answers anyone's *what should I watch* with a flood . . . [the app] has stepped over the midpoint between the familiar self-directed feed and an experience based first on algorithmic observation and inference. . . . It's an algorithmic feed based on videos you've interacted with, or even just watched. It never runs out of material. It is not, unless you train it to be, full of people you know, or things you've explicitly told it you want to see. It's full of things that you seem to have demonstrated you want to watch, no matter what you actually say you want to watch.").
[75] *See, e.g.*, Daria J. Kuss et al., *Problematic Mobile Phone Use and Addiction Across Generations: The Roles of Psychopathological Symptoms and Smartphone Use*, 3 J. TECH. BEHAVIORAL SCI. 141 (2018); José De-Sola Gutiérrez et al., *Cell-Phone Addiction: A Review*, 7 FRONTIERS PSYCHIATRY 175 (2016) (noting "a consensus about the existence of cell-phone addiction, but the delimitation and criteria used by various researchers vary"). The field is still nascent and there is no consensus that internet addiction exists or is a distinct psychological condition. *See* Francesca C. Ryding & Linda K. Kaye, *"Internet Addiction": A Conceptual Minefield*, 16 INT. J. MENTAL HEALTH & ADDICTION 225 (2018) (criticizing the cavalier use of the term "internet addiction" without a firmer grasp of the problem); Kristyn Zajac et al., *Treatments for Internet Gaming Disorder and Internet Addiction: A Systematic Review*, 31 PSYCH. ADDICTIVE BEHAVIORS 979 (2017).

users online—for example, with intelligent and flexible algorithms.[76] The algorithm will learn from, and respond to, these basic human preferences, thereby delivering—perhaps along with good content—a large quantity of low-quality content.[77]

2) Examples

There are many examples of exploitation of consumers who have sunk costs in a platform and may not be fully informed. For example, app designers have enticed children into playing free games that are built around in-app purchases, leading children to make large purchases without parental knowledge or permission. The U.K.'s consumer protection agency, the Office of Fair Trading, found that such purchases could be pricey: "A My Little Pony game, for example, offer[ed] users a virtual 'mountain of gems' for a real-life £69.99."[78] Regulators around the world have cracked down to force companies to refund large payments that children make on their parents' phones.[79] More disturbing examples of low-quality content are YouTube recommended videos that lead the viewer towards false or dangerous content.[80] Prior to having these patterns made public and criticized, a Google search about the earth's geology would lead to a chain of recommendations that resulted in "flat earth" content;[81] YouTube would offer

[76] Beginning in 2014, Twitter followed Facebook in centering around algorithm-selected content rather than simply displaying tweets from accounts a user chooses to follow in reverse chronological order. *See* Will Oremus, *Twitter's New Order*, SLATE (Mar. 5, 2017), http://www.slate.com/articles/technology/cover_story/2017/03/twitter_s_timeline_algorithm_and_its_effect_on_us_explained.html.

[77] *See* Paul Lewis, *'Fiction is Outperforming Reality': How YouTube's Algorithm Distorts Truth*, GUARDIAN (Feb. 2, 2018), https://www.theguardian.com/technology/2018/feb/02/how-youtubes-algorithm-distorts-truth; Paul Lewis & Erin McCormick, *How an Ex-YouTube Insider Investigated its Secret Algorithm*, GUARDIAN (Feb. 2, 2018), https://www.theguardian.com/technology/2018/feb/02/youtube-algorithm-election-clinton-trump-guillaume-chaslot; *see also Aim of the Project*, ALGOTRANSPARENCY, https://algotransparency.org/methodology.html?candidat=Francois%20Fillon&file=ytrecos-presidentielle-2017-06-10.

[78] Hilary Osborne, *OFT Warns Free Online Games Pressure Children Into In-app Purchases*, GUARDIAN (Sept. 26, 2013), https://www.theguardian.com/money/2013/sep/26/free-online-games-children-apps.

[79] *See* Press Release, U.K. Competition & Markets Authority, CMA Refers 3 Games to the ASA (June 4, 2015), https://www.gov.uk/government/news/cma-refers-three-childrens-online-games-to-the-asa; Press Release, Fed. Trade Comm' n, Apple Inc. Will Provide Full Consumer Refunds of At Least $32.5 Million to Settle FTC Complaint It Charged for Kids' In-App Purchases Without Parental Consent (Jan. 15, 2015), https://www.ftc.gov/news-events/press-releases/2014/01/apple-inc-will-provide-full-consumer-refunds-least-325-million; Press Release, Euro. Union, In-app Purchases: Joint Action by the European Commission and Member States is Leading to Better Protection for Consumers in Online Games (July 18, 2014), http://europa.eu/rapid/press-release_IP-14-847_en.htm.

[80] *See* Bergen, *supra* note 62.

[81] *See* Casey Newton, *How YouTube Helps Flat-Earthers Organize,* VERGE (Feb. 20, 2019), https://www.theverge.com/interface/2019/2/20/18232524/youtube-flat-earth-recommendation-algorithm-conspiracy; Press Release, Google, Continuing Our Work to Improve Recommendations on YouTube (Jan. 25, 2019) (noting that the company was planning to "begin reducing recommendations of borderline content and content that could misinform users in harmful ways—such as videos promoting a phony miracle cure for a serious illness, claiming the earth is flat, or making blatantly false claims about historic events like 9/11"); *see also* Kevin Roose, *YouTube Unleashed a Conspiracy Theory Boom. Can it Be Contained?*, N.Y. TIMES (Feb. 19, 2019), https://www.nytimes.com/2019/02/19/technology/youtube-conspiracy-stars.html.

teenage girls interested in diets videos about how to get anorexia, and so forth.[82] It is important to realize that this content is not chosen by human curators at the platform. Rather, the algorithm learns what content people will click on, and what content will cause them to stay on the platform longer, through many millions of small experiments; that is the content that is suggested and viewed. Exploitation and addiction caused by the optimization of the platform is a harm to consumers because they are likely watching lower-quality content than they would choose if they were fully informed in advance about how the content is chosen, or perhaps if they had alternative platforms to choose among.

iv. Privacy

Another worry is that the privacy of consumers on digital platforms is violated; this too is a decline in the quality of the product. For example, Facebook recently announced that it will merge the infrastructures of Facebook Messenger, WhatsApp, and Instagram. As the New York Times noted, "[t]he integration plan raises privacy questions because of how users' data may be shared between services. WhatsApp historically required only a phone number when new users signed up. By contrast, Facebook and Facebook Messenger ask users to provide their true identities. Matching Facebook and Instagram users to their WhatsApp handles could harm those who prefer to keep their use of each app separate."[83] Germany's competition regulator responded to this announcement by prohibiting Facebook from combining data from different sources (such as WhatsApp or Instagram) with data from Facebook.com without a user's explicit and voluntary consent.[84] Facebook's eagerness to get third-party apps connected to its network has led to mass data leaks, exposing sensitive information from hundreds of millions of people.[85] And Facebook is hardly alone.[86]

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[82] *See* Nicholas Tompson, *When Tech Knows You Better Than You Know Yourself*, WIRED (Oct. 4, 2018), https://www.wired.com/story/artificial-intelligence-yuval-noah-harari-tristan-harris/ (reporting Tristan Harris, head of the Center for Humane Technology, arguing that "[t]he problem is [YouTube] doesn't actually care about what you want, it just cares about what will keep you next on the screen. The thing that works best at keeping a teenage girl watching a dieting video on YouTube the longest is to say here's an anorexia video").

[83] Mike Isaac, *Zuckerberg Plans to Integrate WhatsApp, Instagram and Facebook Messenger*, N.Y. TIMES (Jan. 25, 2019), https://www.nytimes.com/2019/01/25/technology/facebook-instagram-whatsapp-messenger.html.

[84] *See* Bundeskartellamt, *supra* note 37.

[85] *See, e.g.*, *Data on 540 Million Facebook Users Exposed*, BBC (Apr. 4, 2019), https://www.bbc.com/news/technology-47812470; *Millions of Facebook Passwords Exposed Internally*, BBC (Mar. 21, 2019), https://www.bbc.com/news/technology-47653656.

[86] *See, e.g.*, Douglas MacMillan & Robert McMillan, *Google Exposed User Data, Feared Repercussions of Disclosing to Public*, WALL ST. J. (Oct. 8, 2018), https://www.wsj.com/articles/google-exposed-user-data-feared-repercussions-of-disclosing-to-public-1539017194; Chaim Gartenberg, *Twitter Advising All 330 Million Users to Change Passwords After Bug Exposed Them in Plain Text*, VERGE (May 3, 2018), https://www.theverge.com/2018/5/3/17316684/twitter-password-bug-security-flaw-exposed-change-now.

b. The Assessment Problem

i. Measuring Consumer Welfare in a Behavioral World

Each of these issues results in fundamental difficulties in applying standard antitrust analysis—which is related to the assessment of the welfare effects of various practices or of a merger—to digital markets. Adequate measures of volume, quality, and consumer surplus may be difficult to obtain. The number of users choosing a certain option may not reflect their true preferences if the platform can make that choice a default that is difficult to see or to change. The number of clicks on ads may not correlate with greater welfare if higher volume of clicks is obtained by exploiting lack of self-control and addictive behaviors.

Given the prevalence of behavioral effects in the digital economy, the measurement of consumer welfare must be carried out very carefully. As we have mentioned, behavioral economics is now a well-established discipline that can help sort different online behaviors and business practices. Incorporating this knowledge into the legal practice's toolbox may help develop better measures of output and quality.[87] We caution, however, that the legal structure of US antitrust law is not well set up to accommodate this complexity as it opens the door for judges to weigh all manner of social concerns as well as traditional economic effects. We see two approaches that might be more fruitful. First, the fastest route to more accurate measures of welfare might well be for a digital regulator to limit the business models that serve harmful content, the way regulators limit the harm from mortgages by restricting debt to income ratios, the harm from prescription drugs by requiring access through a physician, and the harm from automobiles by requiring airbags and crash tests, to name a few examples. If platforms had little or no incentive to deliver harmful content to consumers, the standard consumer welfare toolkit would be more accurate in this market. Second, harmful content is also, from the viewpoint of the consumer's long run or ex ante self, low-quality content. Analytical paradigms in antitrust analysis commonly deal with low quality and quality-adjusted prices, and could incorporate the role of exploitative content in this way.

Another reason to be pessimistic about measuring traditional surplus concepts is related to the barter nature of the exchange: Users barter attention and personal data for services. With a "free" service, consumers are paying for any expansion of activity with their attention to content. When facing a zero-money price, and when quality is difficult to observe, consumers are not receiving salient signals about the social value of their consumption because the price they believe they face does not reflect the economics of the transaction, and they are ignorant of those numbers.

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[87] For a view of the role behavioral economics can play in legal practice, see THE OXFORD HANDBOOK OF BEHAVIORAL ECONOMICS AND THE LAW (Eyal Zamir & Doron Teichman eds., 2014).

ii. Assessing the Social Welfare of Advertising

Behavioral economics also calls for careful use of standard economic surplus measures when applied to the supply of advertising. Unlike supply of goods, higher value of advertising need not imply higher social value. As discussed above, when advertising efficacy relies on psychological nudges that bring people into consumption they would consciously avoid otherwise, more advertising may well mean less consumer welfare.

Moreover, while price competition directly benefits consumers, competition through persuasive advertising may waste resources.[88] To see this point, consider the following example: Two firms share the market equally without advertising. If one then uses advertising and shifts the demand toward that firm (perhaps by some psychological effect), it will then have a larger share of the market. However, if both firms decide to advertise, they will continue to share the market equally. If the advertising cost is not too large, both firms will advertise in order to preserve their market share. Therefore, despite advertising spending, the equilibrium sales and consumption are the same as without advertising. Here, allowing for advertising only induces wasteful spending, which in our setting is captured by the platform as profit. This is an extreme example, but it highlights that a higher volume of advertising—and greater platform profits—may not indicate an increase in social welfare in the same way we normally think a higher output of, for example, shoes, would indicate.

c. Harms to Investment and Innovation

i. Rents

Successful platform-style strategies pre-date the internet. For example, the key to Microsoft's business was the orchestration of ecosystem-wide innovation—the personal computer industry—to benefit its own core offering as well as complements provided by third-party partners.[89] The strategy we highlight in this section of the report is a successful platform's choice of how much rent to expropriate from these complementors. For example, Microsoft turned PC hardware—an essential complement to an operating system—into a commodity business with the main exception of the microprocessor made by Intel. However, PC applications software—again an

[88] Although subtler, the same point has been shown to hold in the economic literature about informative advertising that conveys useful information about products such as existence, location, and other product characteristics. *See* Kyle Bagwell, *The Economic Analysis of Advertising*, *in* 3 HANDBOOK OF INDUSTRIAL ORGANIZATION (Mark Armstrong & Robert Porter eds., 2007), https://doi.org/10.1016/S1573-448X(06)03028-7; Simon P. Anderson & Régis Renault, *Advertising Content*, 96 AMER. ECON. REV. 93 (2006). In this case advertising brings real value to consumers. But competition to steer consumers from other suppliers and/or to preserve market share may still lead to excessive spending on advertising.

[89] *See* ANNABELLE GAWER & MICHAEL A. CUSUMANO, PLATFORM LEADERSHIP: HOW INTEL, MICROSOFT, AND CISCO DRIVE INDUSTRY INNOVATION (2002) (detailing the characteristics of these types of platforms).

essential complement to the OS—remained (in part) an area where other firms could enter, compete, and earn profit.

The level of market power attached to a successful platform is so high that it often gives the platform owner the ability to expropriate almost the entire surplus available on its platform. And the ability to add that surplus to its existing core profit is the incentive to do so. For example, Microsoft's actions to favor Word over WordPerfect expropriated surplus from an existing software complement to its operating system. Importantly, in this example, WordPerfect was not a potential entrant into, or substitute for, a PC operating system, so there was not an exclusionary theme. The distinction between complementors that could disintermediate the platform and are therefore potential rivals, and those that cannot is critical for the antitrust analysis below. When the platform owner takes steps to disadvantage complementors who have no market power, the complementors may resist by using non-market (political and legal) strategies. Such complainants were part of the antitrust cases against Microsoft. We see this response to current platforms by firms in Europe today.

Chamath Palihapitiya, a venture capitalist, has quoted Bill Gates as arguing that a platform exists whenever "the economic value of everybody that uses it exceeds the value of the company that creates it."[90] In that world, complementors earn rents. By contrast, Ben Thompson, a tech journalist, argues that Facebook and Google are what he calls aggregators—firms that completely control the relationship between suppliers and users.[91] His point is that this control allows the aggregator to exercise market power over one side of the platform, control access by the other side, and extract all the rents. This emphasis on the creation of complementor rents and their distribution or expropriation is a theme that runs through this Report.

When and how a platform appropriates the rents of its complementors varies and may engender different responses from complementors. At root, the reason the complementor is there in the first place is because the platform originally needed content to attract consumers, so it invited the complementors onto the platform. Businesses selling widgets on ecommerce sites, games on social media, and mapping apps on handsets, are all examples of complements that were critical to successfully launching a platform. The complementors make these investments thinking they will obtain a return, and that expected return leads to efficient levels of investment. If investments were made knowing that the returns would be zero, there might well be dynamic harm because the platform would not be able to get off the ground. (Or alternatively, the owner of the platform would have to vertically integrate into many applications and provide them

[90] Interview by Semile Shah with Chamath Palihapitiya, CEO, Social Capital (Sept. 16, 2015), http://haystack.vc/2015/09/17/transcript-chamath-at-strictlyvcs-insider-series.
[91] Ben Thompson, *Tech's Two Philosophies*, STRATECHERY (May 9, 2018), https://stratechery.com/2018/techs-two-philosophies (contrasting platforms, such as Microsoft and Apple, which "need 3rd parties to make them useful and build their moat through the creation of ecosystems," with aggregators, such as Facebook and Google, which "attract end users by virtue of their inherent usefulness and, over time, leave suppliers no choice but to follow the aggregators' dictates if they wish to reach end users").

itself.) A significant source of discontent today seems to come from complementors who invested believing that they could capture surplus with a good product and who are later expropriated by the platform. A second discontented group are the complementors that existed in the brick and mortar world and now have no choice but to use a dominant platform, so they have no bargaining power despite providing valuable products or services.

If the expropriation is accomplished using a tool that is anticompetitive, it may violate competition laws. In the United States, this antitrust violation can be established when the complementor may be able to disintermediate the platform and is therefore a potential rival, for example, Netscape and Windows.[92] If such a move is not a violation of competition law but violates the expectations of market participants, it may be viewed as unfair. On the other hand, if the platform has significantly improved quality or engaged in innovation, market participants may think the platform fairly earned those rents.

Digital platforms have a variety of rent-extraction strategies that seem to be loosely related to the social scrutiny they are receiving.[93] For example, the news industry had no choice but to use Facebook. But Facebook has been reluctant to share any of its profits with news companies—and its market power has meant it hasn't had to.[94] Interestingly, when content providers have market power, the platform cannot always extract rents, even when it has a high market share. Take the hypothetical case of a fragmented travel platform industry in a geography where the airline market is concentrated. In that setting airlines could disintermediate a travel site by withholding their participation in the site, or by favoring their own sales channels. The equilibrium division of platform rents in this case will favor the powerful content providers, the airlines, rather than the platforms.[95] Market participants observe that Facebook has slowly commoditized most companies which supply attention to its users—from news and content markets to games and apps, companies' profits deriving from Facebook have slowly diminished as Facebook appropriated most of the gains.[96] These trends may be part of the reason there is growing attention to Facebook's business model today.

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[92] The antitrust theories of harm that cover this case are discussed below.

[93] *See, e.g.*, Josh Dzieza, *Prime and Punishment: Dirty Dealing in the $175 Billion Amazon Marketplace*, VERGE (Dec. 19, 2018), https://www.theverge.com/2018/12/19/18140799/amazon-marketplace-scams-seller-court-appeal-reinstatement (discussing the fear Amazon sellers have of the firm and its ability to shut them down with little or no explanation); Izabella Kaminska, *Amazon (sub)Prime?*, FIN. TIMES (Mar. 20, 2019), https://ftalphaville.ft.com/2019/03/20/1553085361000/Amazon--sub-Prime-.

[94] *See* Ben Thompson, *The Buzzfeed Lesson*, STRATECHERY (Jan. 28, 2019), https://stratechery.com/2019/the-buzzfeed-lesson ("[C]ontent suppliers are absolutely commoditized: Facebook doesn't need to do anything to keep them on the platform, because where else will they go? Might as well keep the money for itself.").

[95] For a related setting, see Fiona Scott Morton et al., *Benefits of Preserving Consumers' Ability to Compare Airline Fares*, (unpublished manuscript, 2015) (on file with authors).

[96] *See, e.g.*, Thompson, *supra* note 94; Pete Brown, *More Than Half of Facebook Instant Articles Partners Have Abandoned It*, COLUM. J. REV. (Feb. 2, 2018), https://www.cjr.org/tow_center/are-facebook-instant-articles-worth-it.php; Harrison Weber, *Facebook Kicked Zynga to the Curb, Publishers Are Next*, VENTUREBEAT (June 30, 2016), https://venturebeat.com/2016/06/30/facebook-kicked-zynga-to-the-curb-publishers-are-next.

Today's prominent tech companies most likely learned from older tech businesses that those older businesses had "lost," or shared, a too-high percentage of profits with their ecosystems. While older businesses were continually confronted with questions about what to own versus what to cede to partners on their platform, without today's technological advancements (including advanced data analytics and greater computational power), older platforms were not as swift and flexible in capturing value as current digital platforms can be. The increased scale and scope of control has provided modern digital platform owners with increased power over their ecosystems. Today's platforms understand that they can obtain higher margins if they either make all of the necessary complements themselves or position themselves as a mandatory bottleneck between partners and customers—leading to many platforms taking a significant commission on sales on their platform or extracting value through barter of information. In particular, today's digital platforms are very careful to maintain complete control over the user relationship so that they do not face any threat of disintermediation. These choices can be used to reduce the possibility of successful entry by an innovator in the platform's space. The next section turns to this problem of entry.

d. Harm to Entry, Including Disintermediation

i. The Practical Consequence of Entry Barriers

When evaluating entry as the main source of competition against a platform, as discussed above, the entrant has a significant disadvantage relative to the platform. Venture capitalist investors will often evaluate a startup based on its ability to either access or build enough data swiftly enough, all with the aim of reaching enough insights to take advantage of all the forces discussed above. In other words, a new entrant starved of data, quantitatively and qualitatively speaking, relative to a tech giant, is at a significant competitive disadvantage, and investors will be unlikely to invest if they view that data deficit as insurmountable. Although it can be attractive for a VC to invest in a firm that may be acquired by Facebook, Google, or Amazon, the road to a successful acquisition is fraught with danger, most notably the ability of any of these three giants to replicate a specific feature, functionality, or business model should other considerations such as intellectual property rights, team quality, defensibility, or time to market not weigh against such copycat strategy. Additionally, investors do not always fare well in these acquisitions.[97]

ii. Incumbent Incentive to Leverage Entry Barriers

There is growing evidence that conglomerate digital platforms are in an advantaged position to stop or block entry by more focused rivals when compared to traditional businesses. Companies like Alphabet, Amazon, and Facebook operate in multiple business verticals (for example, mail,

[97] *See, e.g.*, Rachel Kraus, *Amazon Bought Eero for $97 Million and Employees Still Got Screwed*, MASHABLE (Apr. 5, 2019), https://mashable.com/article/amazon-eero-wifi-router-sale/#HN0veV33jPqc ("Ultimately, thanks to a 'last in, first out' philosophy, Eero's Series D investors, led by Qualcomm, will recoup 84 percent of their investments. The seed round and Series A-C investors will all get back 31 cents on the dollar.").

maps, and search), collecting different dimensions of data on a consumer (for example, identity, location, and purchase intent) which give faster intelligence on competitive threats and new chinks in the platform's competitive armor. These companies can then derive superior insights into what firms they should block, which they should buy, and how they should grow strategically. This gives the platform an advantage over a rival entrant considering the same set of opportunities, and increases their abilities to exclude such rivals. A rival platform with similar economies of scope, data insights, and installed base may be a more formidable entrant.

If large digital platforms have both the incentive and ability to purchase and block entrants that compete with them, or might compete in the future, the question is whether they have done so. The evidence that platforms have bought a series of potential competitors in recent years is anecdotal but fairly robust.[98] For example, many observers believe that Instagram and WhatsApp might well have been serious competitors for Facebook.[99] The evidence that platforms have blocked potential entrants is likewise anecdotal[100] and was used in the Android and AdSense cases the European Commission has brought against Google.[101] More formal research in this area is essential.

iii. Disintermediation and Foreclosure of Potential Platform Entrants

In addition to *de novo* entry, platforms fear disintermediation by a partner. If a platform's partner is able to directly access and serve the platform's customers, it can overtake the platform. Disintermediation can also occur through commoditizing services so that one side (normally the end consumer) is willing to substitute away from the platform—leading to a loss of profits.

The threat of disintermediation has important implications for the analysis of market entry and foreclosure. Modern platforms have an incentive to regularly thwart companies that compete with them for user demand. A platform that has total control of demand can steer customers to content and complements it owns rather than to those provided by independent firms that might challenge its market power. And because of potential harm to competition and complements, US regulators have often been tasked with preventing discrimination, foreclosure, and similar strategies in specific industries.[102] Without a great deal of insight into the technology and the strategy of the platform, foreclosure will be difficult to observe by outsiders. Technological tools such as mobile hardware technologies, advances in computing power, communications technologies, application

[98] *See* U.K. COMPETITION REPORT, *supra* note 1, at 49, tbl.1A.
[99] Tim Wu, *The Case for Breaking Up Facebook and Instagram*, WASH. POST (Sept. 28, 2018), https://www.washingtonpost.com/outlook/2018/09/28/case-breaking-up-facebook-instagram.
[100] *American Tech Giants Are Making Life Tough for Startups*, ECONOMIST (June 2, 2018), https://www.economist.com/business/2018/06/02/american-tech-giants-are-making-life-tough-for-startups.
[101] Press Release, Eur. Comm'n, Antitrust: Commission Fines Google €1.49 Billion for Abusive Practices in Online Advertising (Mar. 20, 2019), http://europa.eu/rapid/press-release_IP-19-1770_en.htm.
[102] *See* Lina Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. R. (forthcoming 2019), https://papers.ssrn.com/id=3180174.

programming interfaces (API), cloud computing technologies, and data analytics enable a strategy of keeping the attractive content from establishing a relationship with the user and thereby possibly entering as a competitor. Platforms have bluntly moved to prevent disintermediation and have engaged in foreclosure to block potential rivals. For example, Facebook acted to suppress the growth video-capture-and-sharing app Vine when Vine attempted to link its users to their Facebook friends.[103] Facebook CEO Mark Zuckerberg personally approved the decision to prevent Vine users from finding friends on the app via Facebook.[104]

Exclusive contracts and loyalty contracts can also be used to achieve exclusion. For example, a long-term contract that requires an advertiser not to use an entrant can foreclose demand from that entrant, leading to exit. An exclusive contract with a global reach can prevent an able niche competitor from growing larger and obtaining economies of scale. Bundling of services by the incumbent platform can be designed to exclude entry or foreclose existing rivals. Contracts between platforms and advertisers that allow for individual negotiation can protect an incumbent from losing individual targeted sales to an entrant without requiring the incumbent to lower its prices across the board. An incumbent platform with market power will often have the incentive and ability to undertake these strategies and thereby preserve its profit.

iv. Foreclosure of Complements to Capture Rents

One critical place to control the relationship is platform access. Amazon and Facebook regularly make decisions over which app or vendor is able to sell or is denied access to their stores and customers. Platforms often have a financial incentive to steer customers to particularly profitable products and can use the power of defaults and ordering to accomplish that effectively. Vendors operate in a risky environment where the platform's whims can determine its future as much or more than consumer satisfaction. If it chooses, a platform can steer demand elsewhere and the vendor loses access to its customers—because these customers are another company's users who single-home and buy from the default choice at the top of the page. Provided the consumer continues to find the totality of the platform experience positive, this bargaining power allows the platform to dictate business terms. The Vestager Report describes the setting clearly:

> Other platforms impose rules and institutions that reach beyond the pure matching services and shape the functioning of the marketplace and, potentially, the relationship between the various platform sides, e.g. by regulating access to and exclusion from the platform, by regulating the way in which sellers can present their offers, the data and APIs they can access, setting up grading systems, regulating access to information that is generated on the platform, imposing minimum standards for delivery and return policies,

[103] *See* Adi Robertson, *Mark Zuckerberg Personally Approved Cutting Off Vine's Friend-finding Feature*, VERGE (Dec. 18, 2018), https://www.theverge.com/2018/12/5/18127202/mark-zuckerberg-facebook-vine-friends-api-block-parliament-documents.

[104] *See id*. Several years after buying Vine, Twitter shut it down. *See* Casey Newton, *Why Vine Died*, VERGE (Oct. 28, 2016), https://www.theverge.com/2016/10/28/13456208/why-vine-died-twitter-shutdown.

> providing for model contracts, imposing price controls and MFN clauses, etc. Such rule-setting and "market design" determine the way in which competition takes place.[105]

The way competition takes place determines the level of profit achieved by the platform and each complement. In and of itself, a platform setting the terms of trade, quality levels, services, and so on may not be problematic if the purpose of the change is to "grow the pie" in a way that complementors view as fair (i.e., not involving expropriation). For example, Amazon, Facebook, or Google know in real time which products are sold to whom, at what price, and which packaging or incentives work, which may drive their rules. However, if these rules become opaque and uncertain or the insights gleaned from an app or vendor are biased or used against it in an asymmetrical manner, then the rule changes may not be about increasing everyone's revenue, but about moving a larger share to the platform.

Merchants or vendors can find themselves banned, demoted in search results, or required to bear higher costs without the ability to move to a competing platform because either there is none or because the customers single-home, will not depart the platform because of the loss of one vendor, and cannot be reached elsewhere. The EC's Android case describes the disadvantage faced by independent apps that compete with the Google apps that are included in the mandatory bundle.[106] Twitter has vertically integrated into video streaming by foreclosing the rival service Meerkat.[107] Likewise, by selling logistics services to many of its sellers, Amazon gains an advantage when it wishes to launch a store brand. It can analyze the data from its rivals to develop an entry plan against those sellers. It is important to measure whether, and how much, quality increases with these strategies.

It is not clear what profits such complementors expected or achieved from the platform relationship, nor if there was significant relationship-specific investment required. Vendors may be less likely to enter the market at all, or to innovate, if they know they must distribute through a particular platform and their most successful products will be quickly copied. Businesses that could grow on a platform and increase the platform's attractiveness to consumers will be unwilling to invest if their profits are not secure, and this may be a source of dynamic inefficiency. However, platforms have an incentive to attract good complements in order to

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105 EC COMPETITION REPORT, *supra* note 1, at 60.

106 The recent Spotify complaint against Apple in Europe is another example. *See* James Vincent, *Spotify Files Antitrust Complaint Over 'Apple Tax,'* VERGE (Mar. 13, 2019), https://www.theverge.com/2019/3/13/18263453/spotify-apple-app-store-antitrust-complaint-ec-30-percent-cut-unfair.

107 *See* Feng Zhu, *Friends or Foes? Examining Platform Owners' Entry Into Complementors' Spaces*, 28 J. ECON. & MGMT. STRAT. 23, 23 (2018) ("Meerkat, a mobile app that enabled Twitter users to broadcast live video streaming to their followers, vanished after Twitter acquired its competitor Periscope and cut off Meerkat's access to Twitter's social graph."); *see also* Chris Welch, *Tumblr 'Truly Disappointed by Twitter's Decision' to Block Friend-Finding On the Blogging Service*, VERGE (Aug. 22, 2012), https://www.theverge.com/2012/8/22/3261270/tumblr-removes-twitter-find-people-you-know. Twitter acquired Periscope, a competing startup, and then decided to shut out Meerkat. On October 2016, Meerkat was shut down. Currently, Periscope is fully integrated with the Twitter platform and claims 1.9 million daily users (last updated and released info as of 2017).

attract users. This incentive limits the platform's desire to expropriate complementor rents under some circumstances.

e. Harm to Innovation

i. Competition Promotes Innovation

There is significant theoretical and empirical research that concludes that anticompetitive creation or maintenance of market power will cause a reduction in the pace of innovation.[108] This result is intuitive in the sense that firms "run faster" when they face competitors; competing firms will try to offer a better product on any dimension consumers care about, including innovation. Engaging in successful innovation is certainly both feasible and common for a large platform with its enormous collection of data and other assets. These companies routinely spend large sums on R&D, launch new products and services, and are more able than other competitors to derive superior insights into how they should innovate based on the data collected from aggregating demand and advances in machine learning and advanced data analytics. However, the relevant counterfactual is whether the pace of innovation would be faster if platforms faced more robust competition.

ii. Entry Barriers and Innovation

The lessening or blocking of innovative entry is of particular concern given its value. A VC will usually be wary of outright investing in an innovative startup that will implicitly or explicitly compete head-on with a tech giant. Given the tech incumbents' ability to block or foreclose a threatening entrant, the chance of successful entry is tiny. VCs would rather invest in businesses that are creating new categories or solving common technical issues. Take Google's search engine as an example. To our knowledge there is only one search engine that has reached a successful market size as a standalone business: Duck Duck Go. Google search is the dominant firm in this category with high entry barriers; despite the enormous size of this market, VC investors apparently do not want to fund an entrant. By contrast, VCs are attracted to startup teams that solve a specific issue for Google (and have a chance of buyout) as opposed to funding a team that wants to compete head to head. This dynamic leads to a self-fulfilling prophecy. Reduced VC investment due to the inability to enter successfully in fact causes less entry; and less investment also causes less differentiated innovation in the sector. This can be seen increasingly by evidence of platform acquisitions.[109] Despite very high and stable profit margins, markets like social media and search have faced little entry.

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[108] For a comprehensive survey of the innovation literature, see the literature summarized in Giulio Federico, Fiona Scott Morton & Carl Shapiro, *Antitrust and Innovation: Welcoming and Protecting Disruption* (NBER Innovation Policy and the Economy, Working Paper, 2019) (on file with authors).
[109] The number of potential competitors purchased by the tech giants is large. For example, Amazon has purchased Zappos, Fabric, CDNow, Quorus, Audible, Goodreads, and Quisdi; Facebook has acquired WhatsApp, Instagram,

As discussed above, large tech platforms can combine enormous financial resources with data resources. Digital platforms have an ability to produce free cash flows at a speed and level that is entirely new because of the combination of almost zero marginal cost, instant distribution, and global reach. This advantage creates both the incentive and the ability for the digital platform to outspend, to out-invest, or to acquire incumbents or new competitors. Incumbents have the incentive and ability to stand in the way of possibly disruptive innovation. With deep pockets, they can purchase possible future disruptors in order to align the path of innovation with their strategies or otherwise control it. This story is widely believed to be the reason that Facebook purchased Instagram and WhatsApp.[110]

Alternatively, platforms may create "kill-zones" around themselves.[111] For example, Facebook and Twitter's aggressive API foreclosure, acquisition of competitors, and copying of new services have boosted their market power.[112] Facebook even acquired a mobile phone monitoring app, Onavo, which allows it to spot up-and-coming rivals and buy them or snuff them out.[113] While investment in innovation will continue, the type of innovation that will be funded will be broadly determined by the incumbent and its strategies. Disruptive innovation in markets that are characterized by high concentration levels and network effects is likely to be reduced compared to a competitive market. One of the few sources of entry in digital platforms comes from rival platforms that enter each other's markets, as these large firms are more able to overcome entry barriers of all kinds.

FriendFeed, and tbh; Google has bought Nest Labs, DoubleClick, YouTube, Waze, AdMob, Teracent, BeatThatQuote.com, Admeld, and Tenor. *See List of Mergers and Acquisitions by Amazon*, WIKIPEDIA (Apr. 12, 2019), https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Amazon; *List of Mergers and Acquisitions by Facebook*, WIKIPEDIA (Mar. 25, 2019), https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Facebook; *List of Mergers and Acquisitions by Alphabet*, WIKIPEDIA (Apr. 12, 2019), https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Alphabet. At times, these firms have barely bothered to disguise their anticompetitive purpose. *See* Jacob Kastrenakes, *Facebook is Shutting Down a Teen App it Bought Eight Months Ago, Along with Two Others That Languished*, VERGE (July 2, 2018), https://www.theverge.com/2018/7/2/17528896/facebook-tbh-moves-hello-shut-down-low-usage.

[110] Tim Wu, *The Case for Breaking Up Facebook and Instagram*, WASH. POST (Sept. 28, 2018), https://www.washingtonpost.com/outlook/2018/09/28/case-breaking-up-facebook-instagram.

[111] Google's, Facebook's, and Amazon's annual conferences "held to announce new tools, features, and acquisitions, always 'send shock waves of fear through entrepreneurs,'" according to one investment firm, and "[v]enture capitalists attend to see which of their companies are going to get killed next." *The Future of Tech Startups: Into the Danger Zone*, ECONOMIST (U.K. edition) (June 2, 2018), at 61, http://weblogibc-co.com/wp-content/uploads/2018/06/The_Economist_UK_Edition_-_June_02_2018.pdf.

[112] *See* notes **Error! Bookmark not defined.-Error! Bookmark not defined.**, *supra*; *see, also, e.g.*, Erin Griffith, *Will Facebook Kill All Future Facebooks?*, WIRED (Oct. 25, 2017), https://www.wired.com/story/facebooks-aggressive-moves-on-startups-threaten-innovation.

[113] *See* Deepa Seetharaman & Betsy Morris, *Facebook's Onavo Gives Social-Media Firm Inside Peek at Rivals' Users*, WALL ST. J. (Aug. 13, 2017), https://www.wsj.com/articles/facebooks-onavo-gives-social-media-firm-inside-peek-at-rivals-users-1502622003l.

iii. The Reward for Innovation

Entrepreneurs may expect a low payoff to developing a free-standing product because of entry barriers and exclusionary conduct by the incumbent platform. In that case, its best hope is to be the preferred innovator of a complement and sell its business to the platform at an early stage. This source of financial reward is often cited as a reason why large platform acquisitions are good for society. Certainly, a reward of this type (a share in the platform's business model and flow of rents) is better than no payoff and will stimulate some level of innovation. However, it is important to see that this incentive is distorted relative to that of the competitive context. Suppose public policy could reduce entry barriers and prevent anticompetitive exclusionary conduct towards entrants. In that case, the entrepreneur would not have to settle for a small fraction of the platform's profits, but could compete for all of them and try to replace the platform. When a young firm has a chance to compete for the entire market on the merits of its innovation because there is no exclusionary conduct holding it back, success could lead to up to 100% of market profits, rather than a smaller acquisition payoff.[114] The availability of this option would allow entrepreneurs to develop improvements, complements, or replacements for a platform according to what has the highest returns. The inability to innovate in pursuit of the whole market leads to lower entry in tech sectors that are already dominated by a single large company.

iv. Current Trends in Innovation

The incipient but growing technical research supports a concern for the impact of big tech on innovation. Much of this research uses startup formation and its fuel, venture capital, as a proxy for innovation. In 2018, Facebook commissioned the consulting firm Oliver Wyman to write a report on this topic.[115] Using Facebook, Google, and Amazon as a proxy for big tech platforms, the authors drew four conclusions: i) Facebook, Google, and Amazon contribute a very small portion of the total venture capital in tech; ii) Facebook, Google, and Amazon M&A activity has no impact on aggregate investment levels; iii) Facebook, Google, and Amazon R&D has had no impact on venture capital investment levels; and iv) the presence of Facebook, Google, and Amazon does not dampen venture capital investment in technology relative to other mature sectors.

The first three conclusions are factual and unsurprising. But the fourth conclusion, that the presence of Facebook, Google, and Amazon does not dampen VC activity related to other

[114] As previously noted, many of these markets will tend toward concentration naturally, so the size of profits is not affected by effective competition enforcement, but the number of years they can be earned will be affected when an incumbent cannot block entrants.

[115] *Assessing the Impact of Big Tech on Venture Investment*, OLIVER WYMAN (July 11, 2018), https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2018/july/assessing-impact.pdf.

sectors, is surprising. Ian Hathaway has summarized a straightforward rebuttal.[116] The Facebook-commissioned report looked at industry-wide effects. However, as Hathaway points out, viewing the industry in the aggregate masks the effects of dominating firms. By looking at the sub-industries associated with each firm—social platforms (Facebook), internet software (Google), and internet retail (Amazon)—a different trend emerges. Since 2009, change in startup investing in these sub-industries has fared poorly compared to the rest of software for Google and Facebook, the rest of retail for Amazon, and the rest of all VC for each of Google, Facebook, and Amazon. This suggests the existence of so-called "kill-zones," that is, areas where venture capitalists are reluctant to enter due to small prospects of future profits.[117]

In a study of the mobile app market, Wen Wen and Feng Zhu come to a similar conclusion: Big tech platforms do dampen innovation at the margin.[118] Their study analyzed how Android app developers adjust their innovation strategies in response to entry (or threat of entry) by Google:

> [A]fter Google's entry threat increases, affected developers reduce innovation and raise the prices for the affected apps. Once Google enters, the developers reduce innovation and increase prices further. However, app developers' incentives to innovate are not completely suppressed; rather, they shift innovation to unaffected and new apps. Given many apps already offering similar features, Google's entry may reduce social inefficiency.[119]

Ultimately, these studies are suggestive but not determinative. Much more research needs to be done to property identify the existence and extent of "kill zones" for market entry and innovation. Nonetheless, the evidence thus far does suggest that current digital platforms face very little threat of entry and are negatively impacting investment in key digital areas. This is reinforced by the fact that the key players in this industry remained the same over the last two technology waves, staying dominant through the shift to mobile and the rise of AI.[120] In the past,

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[116] Ian Hathaway, *Platform Giants and Venture-Backed Startups*, IAN HATHAWAY BLOG (Oct. 12, 2018), http://www.ianhathaway.org/blog/2018/10/12/platform-giants-and-venture-backed-startups.
[117] *Id.*
[118] Wen & Zhu, *supra* note 4.
[119] *Id.*
[120] This dynamic affects where we see innovation, and by whom. While distributed technology seems to be a relatively open playing field with the potential for many entrants, the bulk of innovation in other spaces is dominated by tech giants. This is the case, for example, in the AI and voice-assistant space. In the AI field, innovation is driven by startups leveraging and customizing the existing technology and libraries developed by Microsoft, Amazon, Facebook, and Google. These companies have been quick to acquire promising ventures. Since 2011, Facebook has acquired seven AI startups: Face, Protogeo, Wit.ai, Bloomsbury AI, Dreambit, Grokstyle, and Ozlo. Since 2010, Amazon has also acquired seven startups in the AI space: Yap, ORbeu, GoButler, harvest.ai, Graphiq, Body Labs, and Dispatch. Finally, Google has acquired 20 AI startups since 2011, the most notable being Kraggle and DeepMind. *See List of Mergers and Acquisitions by Facebook*, *supra* note 109; *List of Mergers and Acquisitions by Alphabet*, *supra* note 109. The AI space may not see a successful IPO because of these dynamics. Similarly, innovation in voice-assistant technology has been dominated by tech giants. Microsoft's Cortana, Apple's Siri, Google's Google Voice, and Amazon's Alexa are examples of dominant firms leveraging their previous offerings to retain a first-mover advantage in the market.

dominant business found it difficult to navigate innovation or disruption waves. By contrast, Facebook, Google, Amazon, Apple, and even Microsoft were able to ride these waves without significant impact on market share or profit margins. This indirect evidence corroborates the argument that these companies are facing few competitive threats.

There is an informal sense from practitioners that in mobile, cloud computing, and AI the result is the same: Innovation at the core has slowed and is centered around the tech giants.[121] As a result, new innovation waves have emerged, centering around blockchain, distributed ledgers, and decentralized models (the new Silicon Valley growth paradigm); and with specialized AI, niche retail applications, or, in the enterprise sector, b2b models. It should be noted that, apart from blockchain, whose decentralization eliminates network effects (in theory), the other areas of innovation do not necessarily herald a change in future market structure. Some have also argued that, in markets that are characterized by significant market power, innovation will likely shift from focusing on consumer benefit (to entice a rise in market share), to consumer exploitation.[122]

In summary, unlike last-century's businesses, digital businesses will often lack competition *in* the market. This absence may be redressed by intensive competition *for* the market, as firms compete to be the winner that takes all. However, if dominant firms are able to maintain their dominance, even as the external environment and tastes change over time, consumers may be denied the benefits of competition for the market as well.

f. Old Wine in a New Bottle, or a New Reality?

The market characteristics and problems discussed above in Part I and Part II raise an important question: Is there something new or different about the digital economy, which justifies a revised approach to intervention? Is this simply old wine in a new bottle, the same old problems of network effects and concentration, or do we face a new reality? As we outlined above, we believe the digital platform may be a unique combination of economic forces that requires both new analysis and new public policy.

We expect some to argue that there is no need for action. It is in the interest of the powerful incumbent to deny there is any problem to solve in order to delay while the market remains in its hands. The waiting game allows incumbents to collect profit from the status quo and use those profits to raise doubts or marginalize concerns in order to delay or prevent effective intervention.[123]

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[121] *See, e.g.*, Griffith, note 112, *supra*; *Tech Monopolies Are Stifling U.S. Innovation. Antitrust Enforcement May Help*, BRINK NEWS (Dec. 11, 2018), http://www.brinknews.com/is-antitrust-enforcement-the-wests-best-weapon-against-chinese-tech; *Andreeson Horowitz Makes Big Bet on Blockchain*, REALDAILY (Feb. 13, 2018), https://realdaily.com/andreessen-horowitz-makes-big-bet-on-blockchain.
[122] *See* Ezrachi & Stucke, *supra* note 14.
[123] *See, e.g.*, Brody Mullins & Jack Nicas, *Pay Professors: Inside Google's Academic Influence Campaign*, WALL ST. J. (July 14, 2017), https://www.wsj.com/articles/paying-professors-inside-googles-academic-influence-

Of course, the rapid developments of our digital world are not yet fully understood and merit ongoing study. However, the material above makes clear that when market power becomes entrenched, it is difficult to return to a competitive market. Inaction could create decades of market power leading to weakened innovation, increased rent extraction, and social domination by gatekeeper tech firms. Making no policy change and standing back to let platforms carry out the strategies of their choice carries unusual risk. The new reality of the digital landscape presents new challenges that will not easily be resolved through organic competition or current US antitrust enforcement norms. The United States now risks missing the moment to confront a serious challenge to competition. That risk spurs our search for possible solutions, which we outline in Part IV.

campaign-1499785286 (relating Google's funding of professors for, among other things, research opposing antitrust intervention in the search engine market).

IV. SOLUTIONS

In this part, we outline a range of solutions to address the issues raised above. Needless to say, there is no magic pill. The legislature, judiciary, and regulators will each need to play a role. Each of the proposed solutions brings with it benefits and costs and should be considered as part of a balanced policy. Still, with these limitations in mind, these solutions have the power to address changing market dynamics and enable society to move toward a more efficient, open, and dynamic market environment.

Competition policy is only one facet of society's wider goals. Alongside the promotion of competition policy, policymakers may wish to implement policies to promote privacy, democratic accountability, and fairness. While these goals may be advanced indirectly through the measures proposed below, they can also be addressed more directly through laws and regulations that we do not consider here. Other committees provide valuable insights on possible advancements on that front.

Having established the impact of high entry barriers, we open with a fundamental question about the ability of a market to self-correct.

a. Will Markets Self-Correct When Competition Problems Arise?

The question whether the market will self-correct is central to antitrust policy. It affects the scope of illegality, as well as the zeal with which competition agencies approach intervention. It also affects the gain from implementing both ex ante and ex post solutions to insufficient competition. When there is a reasonable chance that technological progress and innovation will speedily prevent or remove bottlenecks and maintain an active competitive process, intervention should be limited. For example, the stock trading app Robinhood Markets, which slashed per-trade fees to zero, has forced competitors to scramble—even JP Morgan is now offering a free stock trading app for consumers.[124] Likewise, Amazon and Wal-Mart are currently vigorously competing for fast and cheap delivery services, forcing others to follow.[125]

Acolytes of the Chicago School have persuaded many federal officials and judges that markets will generally quickly self-correct, and that antitrust scrutiny should therefore be limited. This

[124] *See* Hugh Son, *JP Morgan to Unveil New Investing App With an Eye-Catching, Disruptive price: Free*, CNBC (Aug. 21, 2018), https://www.cnbc.com/2018/08/21/jp-morgan-to-unveil-new-investing-app-with-an-eye-catching-disruptive-price-free.html.

[125] *See* Suman Bhattacharyya, *To Compete with Amazon, Walmart and eBay are Spending on Logistics*, DIGIDAY (Jan. 15, 2019), https://digiday.com/retail/compete-amazon-walmart-ebay-investing-logistics; Andrea Cheng, *Amazon, Facing Growing Competition, Offers Free Shipping on All Orders for the First Time*, FORBES (Nov. 5, 2018), https://www.forbes.com/sites/andriacheng/2018/11/05/amazon-free-shipping-holiday-minimum-order-walmart-target/#6c459dc555e1; Nick Statt, *Amazon and Walmart's Rivalry is Reshaping How We'll Buy Everything in the Future*, VERGE (Aug. 3, 2018), https://www.theverge.com/2018/8/3/17630604/amazon-walmart-competition-tech-partnerships-grocery-delivery.

conviction has extended into digital markets. Opponents of government intervention point to the dynamic nature of technology, the role of disruptive innovation, and firms' strong investment in research and development. They defend the adequacy of a free-market, noninterventionist approach, and argue that the cost of over-intervention outweighs the benefits of intervention.

While some markets may self-correct, the findings of this report suggest that rapid self-correction in markets dominated by large digital platforms is unlikely, and that harms to economic welfare from the exercise of market power in such markets are substantial. As discussed above, entrants find it difficult to overcome the high barriers to take on digital platform incumbents. Economies of scale, economies of scope, network effects, and negligible marginal cost all work together to make entry difficult in existing markets. Moreover, while monopoly profits are a lure to competitors, incumbents can use those very profits to entrench themselves and protect their position. No matter how dynamic the technology, an entrant will not unseat a monopolist if the monopolist is permitted to buy the dynamic entrant for a share of monopoly profits. Both parties gain from such a transaction—and the public loses.

The result is less entry than a more competitive environment would create. Less entry into digital markets means fewer choices for consumers, stunted development of alternative paths of innovation, higher prices, and lower quality. Self-correction is not a realistic expectation in this environment—indeed, the available evidence suggests it has not happened—and public policy should not rely exclusively on it. Effective antitrust enforcement and regulation must take account of this reality. If there is a force toward self-correction, it may require active promotion to succeed, and in this way public intervention can be complementary rather than antagonistic to market forces. Indeed, the other reports that have addressed this problem around the world have accepted that policy changes are necessary in order to avoid stagnant and harmful digital markets. We now turn to what policy options exist, and which of these the government might adopt.

b. US Antitrust

i. Basic Principles

Antitrust law is intended to prohibit private conduct by firms that reduces economic welfare. Although application of antitrust principles can be complex and the specific doctrinal embodiments of those principles can seem arcane and arbitrary, at its core US antitrust law is simple.[126] It can be summarized in a single sentence: *Private conduct that creates or increases market power, other than by efficiency-based competition on the merits, is illegal.*

There are two fundamental components of any antitrust violation. The first is bad conduct, commonly called "anticompetitive conduct." The second is a resulting harm to economic welfare

[126] *See* A. Douglas Melamed, *Response: Antitrust Law is Not That Complicated,* 130 HARV. L. REV. F. 163 (2019).

from the creation of more market power than would otherwise exist. A firm gains market power when the competitive discipline imposed upon that firm by either actual or potential future rivals is reduced. One way to achieve market power is through price-fixing and other forms of collusion, but we will not address such behaviors here. Rather, this report will focus on antitrust law as it applies to mergers and non-merger exclusionary conduct.

Importantly, a firm does not violate the antitrust laws if it gains market power by competing on the merits rather than as a result of anticompetitive conduct. For example, if a firm enters the market with a fantastic new product that has strong network effects, competes solely on the merits of that product with no anticompetitive conduct, and finds itself with 95% market share, it would not have violated the antitrust laws. Similarly, a firm does not violate the antitrust laws if it engages in anticompetitive conduct but that conduct does not harm the market as a whole and fails to result in additional market power.[127]

Box IV
More About US Antitrust Law

There are four substantive elements to any US antitrust violation: Private, as opposed to government, conduct; anticompetitive conduct; creation or increase in market power; and a causal connection between the conduct and the market power. There are three basic types of conduct that can be anticompetitive. They are (i) mergers that lessen competition, (ii) conduct that excludes or weakens actual or potential rivals, and (iii) conduct that constitutes or facilitates collusion (e.g. cartels) among firms that would otherwise compete more vigorously. Possible antitrust problems involving digital platforms are most likely to arise from the first two types of conduct.

Anticompetitive conduct is conduct that is likely to lead to the creation or maintenance of market power for reasons other than an increase in allocative efficiency (i.e., by increasing output or decreasing price where price is not less than marginal cost) or productive efficiency (i.e., by reducing cost or increasing product quality). The range of potential anticompetitive conduct is nearly boundless and can include burning down a rival's factory, designing products to be incompatible with rivals' products, acquiring smaller rivals to shut them down or deny them to other suitors, exclusive dealing and Most Favored Nation clauses (MFNs) in some circumstances, and some forms of tying or bundling multiple products or services. Digital markets are prone to new and innovative violations of the antitrust laws because marginal costs are often close to zero, the business models themselves are often new and innovative, and firms are able to be creative with new product bundles, contracts, and transactions.

[127] Certain types of conduct, notably agreements among competitors fixing prices or allocating customers or service areas, are regarded as unlawful per se, which means that they are unlawful without proof of harm to competition in the market as a whole. Per se illegality in these circumstances is not a rejection of the principle described in this text. Rather, per se illegality reflects a pragmatic judgment that those types of conduct are so likely to harm competition and so unlikely to provide any welfare benefits that it would be needlessly costly and burdensome to require proof of harm to the market as a whole on a case-by-case basis.

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More About US Antitrust Law (Cont.)

Current popular debate often seems to imply that high market share in and of itself is a violation of the antitrust laws. It is important to understand that a firm can violate the antitrust laws *only if it engages in anticompetitive conduct*, even if its conduct causes the firm to gain monopoly power. Thus, for example, a firm does not violate the antitrust laws by gaining market power solely because it has a better product that consumers choose to buy for that reason or because it develops a better distribution channels that consumers find convenient.

Since at least the middle of the twentieth century, US antitrust law has embraced the view that those who do not engage in anticompetitive conduct are entitled to the fruits of their labor, including any market power or dominance that they might have gained. This view rests on the concern that breaking up or restricting firms that obtain their success by competition on the merits would deter the very kind of aggressive but procompetitive conduct that the antitrust laws are intended to encourage. Such no-fault intervention would deter such conduct, both because firms would fear that too much success would end up hurting them and because they would be uncertain about the antitrust implications of their conduct. While firms that achieve durable market power, especially in industries that are regarded as "natural monopolies," are sometimes subject to sectoral regulation, durable market power is not itself a sufficient basis for antitrust intervention. Society has other legal mechanisms to regulate an industry that is not delivering on social goals.

US antitrust law has also long required that antitrust plaintiffs prove, not just anticompetitive conduct, but also that the conduct harmed competition in the market as a whole.[1] This requirement limits antitrust enforcement to those matters that are important enough to warrant costly and burdensome antitrust proceedings and ensures that antitrust law remains focused on making markets work.

Both the anticompetitive requirement and the market power requirement protect the competitive process, another concern that arises in the popular debate. The conduct requirement does this by focusing antitrust enforcement on conduct that is not efficiency-based and can thus create market power only by distorting competition on the merits. The market power requirement does this by focusing antitrust enforcement on conduct that impairs the competitive discipline of rivals and, in that way, harms the competitive process. Many of the current proposals for more aggressive antitrust enforcement, although couched in antitrust language, would dispense with either the bad conduct requirement or the market power requirement.
Conduct that harms competition without creating any efficiencies can readily be characterized as anticompetitive. Examples of such conduct include mergers among competitors that do not create efficiencies by combining complementary assets, conduct whose only purpose is to harm or exclude competitors, and agreements among competitors about their prices or other terms of trade.

1 *See* Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 488 (1977) ("The antitrust laws . . . were enacted for the protection of competition, not competitors.") (internal citation and quote marks omitted).

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More About US Antitrust Law (Cont.)

When conduct both generates efficiencies and impairs the competitive efficacy of rivals, the question whether it is anticompetitive is less clear and will depend on specific facts. The conduct is more likely to be unlawful if substantially all of the efficiencies could be achieved by an alternative that is less harmful to rivals or if the efficiencies are insubstantial and the harm to rivals is great. Courts rarely deem conduct anticompetitive if it generates substantial efficiencies that cannot be realized by an available alternative, regardless of the impact of that conduct on rivals.

As explained in greater detail below, antitrust enforcement decisions are often made with great uncertainty about the efficiencies and market impact of the conduct at issue. For the past 30 years or so, antitrust law has reflected the view that mistakes in the direction of over-enforcement are more problematic than those in the direction of under-enforcement. One premise of this view is that under-enforcement results in market problems that are likely to be corrected by innovation or other market developments. As noted above, this report assesses the state of the evidence on entry and innovation and concludes that such self-correction is unlikely to be prompt and effective, in part because digital platforms that have achieved market power possess formidable barriers that inhibit entry and innovation. The assumption that over-enforcement is costly is reflected in aspects of antitrust doctrine applicable to exclusionary conduct, vertical contracts, and merger review as well as in courts holding antitrust plaintiffs to demanding standards of proof.

The relative concerns about the risks and cost of over-enforcement and under-enforcement embodied in current antitrust law has been subject to increasing criticism. This report concludes that the tolerance of antitrust law for under-enforcement should be reassessed and recalibrated. Careful recalibration of the benefits and costs of different mistakes is likely essential to the development of more aggressive antitrust law that remains consistent with the principles described above.

While US antitrust law has long been flexible in combatting anti-competitive conduct, there is increasing concern that it has been underenforced in recent years. First, there is increasing evidence that the enforcement agencies and courts have permitted too many mergers between competing firms that have led to post-merger price increases and other indications of increased market power.[128] Vertical mergers are rarely challenged by the enforcement agencies,[129] and claimed or expected merger-related efficiencies are often not realized. Second, monopsony—market power of buyers or employers—appears to be a growing problem.[130] Recent studies suggest that labor markets are less competitive than previously thought and employers have exercised market power against workers in those markets.[131] Third, there have been few antitrust challenges to exclusionary conduct since the government's 1998 case against Microsoft, and courts have in several instances been hostile to such cases and have imposed daunting proof requirements on plaintiffs. Apparent under-enforcement is in part due to courts' reliance on so-called Chicago School assumptions that do not have a sound theoretical or empirical basis.

Regardless of whether or not antitrust enforcement has failed to keep up with conduct in the economy more generally, the challenge of enforcing in the area of digital platforms presents new issues. The platforms create new competitive environments; they provide opportunities for new types of anticompetitive conduct; and they create new economic and conceptual challenges for antitrust enforcement. This section is focused on analysis and recommendations designed to help such future enforcement, though that enforcement will often be addressed to conduct that occurred in the past.

The challenges facing future antitrust enforcement are more than just analytical and intellectual. Antitrust law and its application by the courts over the past several decades have reflected the

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[128] *See* JOHN KWOKA, MERGERS, MERGER CONTROL, AND REMEDIES: A RETROSPECTIVE ANALYSIS OF U.S. POLICY 156, 159 (2014); Jonathan B. Baker, Presentation, Has the US Economy Become More Concentrated and Less Competitive: A Review of the Data (Sept. 13, 2018), https://www.ftc.gov/system/files/documents/public_events/1398386/georgetown-deck-913.pdf, at 39 (listing six reasons to believe that industry concentration cannot be explained by scale economics, including the fact that various forms of anticompetitive behavior are "insufficiently deterred" and that "market power is durable"); John E. Kwoka, *The Structural Presumption and the Safe Harbor in Merger Review: False Positives or Unwarranted Concerns?*, 81 ANTITRUST L.J. 837 (2017); John Kwoka, *The Changing Nature of Efficiencies in Mergers and in Merger Analysis*, 60(3) ANTITRUST BULL. 231 (2015); Leemore Dafny et al., *Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry* 102 AMER. ECON. REV. 1161, 1163 (2012) ("[T]he mean increase in local market [firm concentration] between 1998 and 2006 (inclusive) raised premiums by roughly 7 percent from their 1998 baseline"); Orley Ashenfelter & Daniel Hosken, *The Effect of Mergers on Consumer Prices: Evidence from Five Mergers on the Enforcement Margin*, 53 J.L. & ECON. 417 (2010). *But see* Michael Vita & F. David Osinski, *John Kwoka's Mergers, Merger Control, and Remedies: A Critical Review*, 82 ANTITRUST L.J. 361 (2018). *See also* Robert B. Kulick, *Ready-to-Mix: Horizontal Mergers, Prices, and Productivity* (U.S. Census Bureau, Ctr. for Econ. Studies, Working Paper No. 17-38, 2017), https://papers.ssrn.com/abstract=2637961; Bruce A. Blonigen & Justin R. Pierce, *Evidence for the Effects of Mergers on Market Power and Efficiency* (NBER, Working Paper No. 22750, 2016), https://www.nber.org/papers/w22750, at 24.

[129] *See* D. Bruce Hoffman, Acting Director, Bureau of Competition, Fed. Trade Comm'n, Vertical Merger Enforcement at the FTC, Address at the Credit Suisse 2018 Washington Perspectives Conference (Jan. 10, 2018), https://www.ftc.gov/system/files/documents/public_statements/1304213/hoffman_vertical_merger_speech_final.pdf (admitting that "vertical merger enforcement is . . . a small part of [the FTC's] merger workload").

[130] *See, e.g.*, Michael Kades, *In Conversation with Herbert Hovenkamp and Ioana Marinescu*, EQUITABLE GROWTH (Oct. 11, 2018), https://equitablegrowth.org/in-conversation-with-herbert-hovenkamp-and-ioana-marinescu.

[131] Elena Preger & Matt Schmitt, *Employer Consolidation and Wages: Evidence from Hospitals* (Washington Center for Equitable Growth Working Paper, 2019), https://equitablegrowth.org/working-papers/employer-consolidation-and-wages-evidence-from-hospitals.

now outdated learning of an earlier era of economic thought, and they appear in some respects inhospitable to new learning. Antitrust enforcement better suited to the challenges of the Digital Age may therefore require new legislation.

Box V
EU Competition Law

EU competition law, like US antitrust law and the competition laws of most nations, is intended in large part to promote economic welfare by prohibiting private conduct that injures or is likely to injure competition. Not surprisingly in light of this shared objective, US and EU law are very similar.

With respect to market power, similar to US antitrust law, a firm does not violate the EU Competition laws if it gains power by competing on the merits rather than as a result of anticompetitive conduct. EU Competition law only condemns the abuse of a dominant position. An abuse, under EU law, may however include a wider range of prohibited exclusionary and exploitative practices than under US antitrust law. As a result, some practices which may not trigger enforcement action under US antitrust law, may nonetheless be regarded as infringing EU competition law.

In this context, it is also worth noting the (wider) goals of EU competition law. According to the European Commission, competition on the market is protected 'as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources.'[1] This notwithstanding, EU competition law has also consistently been held to protect 'not only the interests of competitors or of consumers, but also the structure of the market and, in so doing, competition as such.'[2] Moreover, a genuinely indigenous objective is worthy of note, namely that of promoting European market integration.[3]

The multitude of competition goals, and their position within the wider normative EU values may sometimes contribute to possible inconsistencies between the EU and US analysis.[4]

EU Competition law is enforced both at public and private levels; public enforcement is carried out by the European Commission and by the Competition Authorities of the member states. Private enforcement takes place in the courts of the member states, where private parties may bring follow-on or stand-alone damage claims.

1 European Commission, 'Guidelines on the Application of Article 81(3) of the Treaty' [2004] OJ C101/97, para.13 (hereinafter 'the General Guidelines').

2 Case C-501/06 P *GlaxoSmithKline Services Unlimited v Commission and Others* [2009] ECR I-9291, para 63. *See* also Case C-8/08 *T-Mobile Netherlands and Others* [2009] ECR I-4529, paras 31, 36, 38-39; Council Regulation (EC) 1/2003 on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty [2003] OJ L1/1, Recital 9; European Commission, 'Green Paper on Vertical Restraints in EC Competition Policy' COM(96) 721 final, para 180.

3 Information Service High Authority of the European Community for Coal and Steel Luxembourg, 'The Brussels Report on the General Common Market' (June 1956) (Spaak Report); David J Gerber, 'The Transformation of European Community Competition Law?' [1994] Harvard Intl LJ 97, 102.

4 Ezrachi, Ariel, EU Competition Law Goals and the Digital Economy (June 6, 2018). Oxford Legal Studies Research Paper No. 17/2018. Available at SSRN: https://ssrn.com/abstract=3191766

c. Special Challenges Presented by Technology Platforms

Technology platforms present particular challenges for antitrust enforcement. Markets tip and resulting market power is durable, so even effective antitrust enforcement is unlikely to generate fragmented markets. Nonetheless, enforcement that protects competition on the merits in the first stage and prevents exclusionary conduct in the second stage will help ensure that market-participants make unfettered choices among competing platforms and that entry and innovation are not inhibited by private rent-seeking. Additionally, these markets move very quickly in areas such as new product introduction, foreclosure, and tipping. Antitrust litigation does not move quickly. Effective antitrust enforcement should move as rapidly as is practicable. However, enforcers will be most effective when they choose enforcement priorities and remedies to generate optimal deterrence of anticompetitive conduct.

As explained above, digital platforms are able to exploit behavioral biases to their advantage. Economists describe these strategies as falling into two conceptually distinct categories of conduct: exclusive (strategies that foreclose competition) and collusive (strategies that cause higher prices).[132] The former occurs when platforms exploit behavioral biases to keep consumers attached to their platforms and make switching to alternatives more difficult. These tactics generally make consumers less receptive to competitive alternatives—they lower contestability—and thus raise entry barriers. Platforms also exploit behavioral biases—such as hyperbolic discounting and limited self-control—to extract surplus from both consumers and content providers. Strategies such as offering addictive content at moments when consumers lack self-control increase time spent on the platform and profitable ad sales even as the platform lowers the quality of content. These tactics increase the welfare costs of market power.

Many technology platforms are distinctive because they provide valued services to consumers without charging a monetary price. Instead, consumers barter their attention and data to the platforms in exchange for these services. The platforms use that attention and data to generate monetary payments from advertisers. While a barter transaction is, in principle, subject to antitrust scrutiny just like any other transaction, antitrust enforcement has had vastly more experience with transactions based on monetary prices, and that experience has prompted the development of sophisticated tools to analyze money prices.[133] Where monetary prices are fixed at zero while quality changes over time—in response to changes to the nature of the services, privacy protections, content offerings and the like—the quality-adjusted prices change. Because economists, antitrust agencies, and courts have less experience with quality, they lack equally

[132] *See* Steven C. Salop, Practices that (Credibly) Facilitate Oligopoly Co-ordination, in NEW DEVELOPMENTS IN THE ANALYSIS OF MARKET STRUCTURE 265 (Joseph E. Stiglitz & G. Frank Mathewson eds., 1986

[133] For example, the US agencies' traditional definition of an antitrust market is one in which a monopolist could profitably raise price by a non-insignificant amount for a significant period of time. *See* U.S. DEP'T OF JUST. & FED. TRADE COMM'N, 2010 HORIZONTAL MERGER GUIDELINES (2010), https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf, at 9, § 4.1 (defining the hypothetical monopolist test).

sophisticated tools for analyzing changes in quality-based prices. This is partially because quality naturally presents itself in a less quantified form than price, but also because in regular markets price often adjusts to quality, not the other way around, so economists have been able to rely on price as one measure of quality. When enforcers are able to quantitatively link quality to price, they will be better equipped to fit digital cases into older, price-centered jurisprudence.

Technology platforms also pose unusual challenges for antitrust merger enforcement. To the extent that platforms are in winner-take-all or winner-take-most markets, mergers among significant, existing competitors, which are the mergers most subject to antitrust challenge, are likely to be rare. Instead, competition in such markets is largely for the future, often in evolving and very different markets. This competition is sometimes called "competition for the market" or "leapfrog" competition. In this context, acquisition by a dominant platform of a much smaller and possibly nascent firm could be very damaging to competition if, absent the acquisition, the smaller firm would develop into a major competitive threat or would lead to significant change in the nature of the market. In a concentrated market structure, this potential competition from very small entrants may be the most important source of competition faced by the incumbent firm.[134]

The problem is that it is very difficult to know at the time of an acquisition whether the acquired firm is likely to develop into a competitor or whether, to the contrary, acquisition by the platform offers the most promising path to the commercial development and use of the acquired firm's new technology or an essential exit strategy for investors in the acquired firm. Antitrust agencies and antitrust law need to develop a better understanding of the circumstances under which acquisitions of nascent competitors might be anticompetitive.[135] Enforcers may have to learn to think more as venture capitalists do and understand their analytics in order to better identify

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[134] The D.C. Circuit in *Microsoft* endorsed this principle. *See* United States v. Microsoft Corp., 253 F.3d 34, 79 (D.C. Cir. 2001) (en banc) (per curiam) ("[I]t would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will.").

[135] In addition, because small acquisitions are not subject to pre-merger review under the Hart-Scott-Rodino Act, agencies are often unaware of the acquisitions until after the are consummated. The threshold for pre-merger notification was raised in December 2000 from $10 million to $50 million. While transactions under the threshold are still subject to Clayton Act enforcement, agencies do not see them in advance, may not find them at all, and can only sue to unwind them after the fact. After the filing threshold increase, there was a sharp uptick of newly non-notified mergers (between $10 and $50 million) between direct competitors—the type of mergers that likely would have been blocked during HSR review, had it occurred. Small technology mergers fall in this category also and are rarely reviewed or challenged. *See* Thomas Wollman, *Stealth Consolidation: Evidence from an Amendment to the Hart-Scott-Rodino Act*, AMER. ECON. REV. INSIGHTS (forthcoming 2019), https://www.aeaweb.org/articles?id=10.1257/aeri.20180137. An example of a problematic merger of this type that was challenged by DOJ after consummation is Bazaarvoice-PowerReviews. United States v. Bazaarvoice, 3:13-cv-00133-WHO, 2014 WL 203966 (N.D. Cal., Jan. 8, 2014). While the government prevailed in that litigation, because the two software firms had gone some way down the integration path, the result was arguably not as favorable for consumers as if the transaction had been notified and blocked ex ante which would have preserved two robust competitors. In general, the evidence demonstrates that firms act quickly to obtain market power in the absence of government enforcement, and that the requirement to notify the government serves as an important deterrent to anticompetitive mergers.

harms. A pattern of repeated purchases of small potential competitors that could have developed into substitutes, or an acquisition price that reflects a sharing of monopoly rents, might be useful indicators of possible competitive risks.

Antitrust law might also have difficulty policing conduct by established technology firms that tends to exclude or marginalize smaller rivals. Recall that at launch a platform invites and encourages complementors to provide content and functionality on its platform. It does this when it is competing for consumers' attention against other platforms because it wants its platform to be attractive. A successful platform creates an ecosystem that is valuable to consumers. However, one or both of the following issues may arise. In the first, a complement to the platform seeks to become its horizontal competitor. In the second, the platform seeks to become a horizontal competitor of one of its complements. Let us take these one at a time.

First, a complement can develop the ability to form a relationship with the end user that is sufficiently free-standing and valuable to take the user off the platform and into a separate relationship with the complement. The platform has an incentive to foreclose the complement to prevent this loss of market power and profit. Because the complement is transitioning into direct horizontal rivalry with the platform, US law does not have any trouble recognizing antitrust violations of this form. For example, content providers like Yelp are Google's complements—people want to be able to find Yelp reviews via Google—but Yelp is also a search engine that could grow to rival Google search. Google has entered the restaurant review market with its map product, and Yelp now alleges that Google is engaging in foreclosure.[136]

Second, if the platform observes that a complement (say, complement *Z*) is earning strong profits, the platform may seek to enter that complementary market. Because the platform and rival complement *Z* providers are now horizontal competitors, the platform has the incentive—and, often, the ability—to foreclose those competitors. This could take the form of banning rival complements from the platform, reducing their ability to interoperate, raising their costs, steering customers elsewhere, and so forth. If the platform's new product *Z* is a wonderful innovation, there will be an efficiency (in the form of higher quality) to weigh against any harms from less competition.[137] At root, there is a fundamental question about whether all the rents of the platform are part of the competitive return to the creator of the platform, particularly if the complementors' added-value can be driven to zero once the network effects are operational. In a setting with single-homing users, those complements may have no bargaining power ex post and the platform may have the incentive and ability to give them a share of zero. This is a

[136] *See* Duhigg, *supra* note 23.
[137] Lina Khan, *Amazon's Antitrust Paradox*, 126 Yale L.J. 710, 780-83 (2017). *See also* Feng Zhu & Qihong Liu, *Competing with Complementors: An Empirical Look at Amazon.com*, 39 STRAT. MGMT. J. 2618, 2618 (2018) (finding that "[w]hile Amazon's entry discourages affected third-party sellers from subsequently pursuing growth on the platform, it increases product demand and reduces shipping costs for consumers").

particularly interesting problem when those complementors added value to the platform at a critical competitive moment before network effects and entry barriers protected it.

Addressing this issue, the U.K. Furman Report and the EC Vestager Report both devote significant discussion to platforms being "fair" to complementors. First, a sectoral regulator is likely to be better than the antitrust laws at enforcing fairness norms. Antitrust law is focused, not on fairness itself, but on anticompetitive conduct that creates market power and might therefore permit various types of conduct that some might regard as "unfair" because, for example, a platform extracts the rents of partners that offer a good product but have no bargaining power. Because the complementor is not threatening to replace the platform, the simple exclusion theory of harm explained above does not apply directly. The situation is informally akin to the familiar "open early, closed late" strategy.[138] In the "open early, closed late," strategy a firm at first encourages others to become dependent on connecting to it and relying on it, and later uses their dependence to shut out competitors or extract monopoly rents.[139] This type of behavior might be regarded as exploitation or excessive pricing and thus deemed to be an unlawful abuse of dominance under EU law. It would violate US law only if, among other things, it enabled the platform to gain or preserve market power it otherwise would not have in either the platform market or the market in which the excluded firm did business. In the latter case under US antitrust law, this conduct might be captured under the "duty to deal" framework.

Because large technology platforms have huge scale and benefit from network effects, they are often able to engage in aggressive conduct targeted at rivals without violating existing antitrust standards. The platforms might be able to copy rivals' innovations or otherwise increase the value of their services to consumers without pricing below cost, and they might be able to insist that rivals using their platforms enter into agreements, such as agreements regarding access to consumer data, that enhance the platform's ability to compete. A platform might be able to require exclusive contracts or loyalty-based contracts that cause single-homing by one side (e.g. drivers or consumers). Such single-homing might cause the market to tip in the platform's favor and exclude a competitor. This kind of conduct often has efficiency benefits that make it difficult to challenge the conduct under the antitrust laws. Certain aspects of antitrust law might be adjusted, for example antitrust rules intended to prohibit dominant firms from engaging in conduct that would exclude an equally efficient competitor could be revised to better protect

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[138] *See* Scott A. Sher & Bradley T. Tennis, *Exploiting Others' Investments in Open Standards*, COMPETITION POL. INT. (Sept. 15, 2016), https://www.competitionpolicyinternational.com/exploiting-others-investments-in-open-standards/; Carl Shapiro, Exclusionary Conduct: Testimony Before the Antitrust Modernization Commission (Sept. 29, 2005), http://faculty.haas.berkeley.edu/Shapiro/amcexclusion.pdf, at 15 ("[I]n a network industry, a firm might obtain a dominant position based in part on certain 'open' policies that induce reliance by complementary firms, and then later exploit that position by offering less favorable interconnection terms or by refusing to interconnect with them altogether.").

[139] For an example, see the discussion of Cisco-Arista at note 16, *supra*, and accompanying text.

smaller competitors. Nonetheless, it is unlikely that such adjustments would entirely eliminate the competitive advantages inherent in large firms with substantial scale and scope economies.

Pinpointing the locus of competition and therefore the relevant market in which technology platforms compete can also be challenging because the markets are multisided and are often ones with which economists and lawyers have little experience. This complexity can make market definition another hurdle to effective enforcement. For example, two platforms might compete in general search, while also each offering social media and mapping functionalities, among other services. Advertisers that buy ads on searches may be a common set of customers. While courts and agencies have substantial experience analyzing advertising markets, for example, they are less knowledgeable about markets for attention or barter transactions involving data made available to providers as an unintended byproduct of using a digital platform. The problems are compounded by the facts that technologies surrounding the products' functions in digital markets are continually changing and changes in quality-adjusted prices are difficult to observe.

Only one litigated US case has explicitly addressed these issues. That case culminated in a 2018 decision by the US Supreme Court.[140] Although the decision has been praised by some conservative commentators,[141] it has been widely criticized by others.[142] The case itself involved the credit card business and what the Court called a "transaction platform," in which the platform (American Express) facilitated simultaneous transactions between consumers and merchants.[143] It should not, therefore, be legal precedent applicable to other kinds of platforms like Google and Facebook. But the case does suggest that the five-Justice majority on the Court is hostile to antitrust enforcement (at least in vertical and exclusion cases), does not understand multi-sided markets very well, and might be more influenced by ideological preconceptions than by evidence in the case or fact-finding by district court judges.[144]

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[140] Ohio v. American Express Co., 138 S. Ct. 2274 (2018).
[141] *See, e.g.*, FED. TRADE COMM'N, *Transcript: FTC Hearing #3: Competition and Consumer Protection in the 21st Century* (Session 4) (Oct. 15, 2018), https://www.ftc.gov/system/files/documents/public_events/1413712/ftc_hearings_session_3_transcript_day_1_10-15-18.pdf, at 228-235 (Vinson & Elkins partner Darren Tucker praising the *American Express* decision).
[142] *See, e.g.*, Dennis W. Carlton, *The Anticompetitive Effects of Vertical Most-Favored-Nation Restraints and the Error of* Amex, COLUM. BUS. L. REV. (forthcoming 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3328628; Herbert Hovenkamp, *Platforms and the Rule of Reason: The* American Express *Case*, COLUM. BUS. L. REV. (forthcoming 2019), https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=3060&context=faculty_scholarship; A. Douglas Melamed & Nicolas Petit, *The Misguided Assault on the Consumer Welfare Standard in the Age of Platform Markets*, 54 REV. INDUSTRIAL ORG. 1 (2019); Michael Katz & Jonathan Sallet, *Multisided Platforms and Antitrust Enforcement*, 127 YALE L J. 1724 (2018). *See also* FED. TRADE COMM'N, *supra* note 141, at 226 (Goldstein & Russell partner Eric Citron describing the *American Express* decision as "economically illiterate").
[143] *American Express*, 138 S. Ct. at 2277.
[144] Anthony Kennedy, one of the members of the five-justice majority in American Express, has since retired, but his replacement, Brett Kavanaugh, is likely even more ideological on antitrust matters. *See* Stephen Calkins, *How Might a Justice Kavanaugh Impact Antitrust Jurisprudence?*, PROMARKET BLOG (July 20, 2018), https://promarket.org/might-justice-kavanaugh-impact-antitrust-jurisprudence.

The harm from lack of competition in digital markets will manifest itself in quality and innovation, as well as from higher prices to advertisers. As detailed by Giulio Federico and colleagues, the impact on consumer welfare of a decline in innovation due to lack of competition is likely to be large, especially in the case of fast-moving technologies that affect many consumers and related businesses.[145] Very often the uncertainty involved in evaluating harms to innovation will be high, especially in contrast to the analysis of price forecasts. It is possible to measure pipeline projects and current R&D to obtain a sense of competitive overlap or trajectory, but the tools do not yet exist to accurately forecast the speed and direction of innovation in the longer run. Likewise, obtaining quantitative evidence about the innovations or products that *would* have been offered to consumers in the absence of the conduct is often not possible.

Perhaps in part as a result of these challenges, US antitrust has not been active in policing allegedly anticompetitive conduct by technology platforms. The government's last monopolization case involving issues raised by platforms was the Microsoft case in 1998. Today, the European Commission and the European National Competition Authorities effectively act as the global enforcers for allegedly exclusionary conduct that operates at a global level in industries such as software, chips, and digital platforms.[146]

d. Could a Reformed Antitrust Law be Effective in Dealing with Digital Platforms?

There are many ways that US antitrust law could be revised to make it more aggressive in addressing competition problems while maintaining the objective of prohibiting private conduct that reduces economic welfare. Such changes could improve competition enforcement in digital markets as well as others.

i. Reform by What Means?

With few exceptions, antitrust law has in the past evolved in a common-law-like process by which it has reflected new learning and judicial and market experience. This process is continuing, at least to some extent, as antitrust law and enforcement have recognized, for example, previously unnoticed competition problems in labor markets and doctrine has evolved to incorporate new learning about competitive problems that can be created by most favored

[145] Giulio Federico, Fiona Scott Morton, & Carl Shapiro, *Antitrust and Innovation: Welcoming and Protecting Disruption* (NBER Innovation Policy and the Economy, Working Paper, 2019) (on file with authors).
[146] *See, e.g.*, Press Release, Euro. Comm'n, Antitrust: Commission Fines Google €4.34 Billion for Illegal Practices Regarding Android Mobile Devices to Strengthen Dominance of Google's Search Engine (July 18, 2018), http://europa.eu/rapid/press-release_IP-18-4581_en.htm; Press Release, Euro. Comm'n, Antitrust: Commission Closes Formal Proceedings Against Qualcomm (Nov. 24, 2009), http://europa.eu/rapid/press-release_MEMO-09-516_en.htm; *Report on the Monitoring Exercise Carried Out in the Online Hotel Booking Sector by EU Competition Authorities in 2016*, EURO. COMM'N (2017), http://ec.europa.eu/competition/ecn/hotel_monitoring_report_en.pdf.

nation (MFN) and other vertical agreements. The challenges posed by the big technology platforms and the current populist political climate have, however, put the issue of antitrust reform before Congress in various legislative proposals. There are advantages and disadvantages to both common law evolution and new legislation.

Evolution by a common law-like process takes time. It took the Chicago School roughly 20 years to refocus antitrust law, from the early expressions of its perspective in 1950s and 1960s[147] until the Supreme Court's seminal decision in *GTE Sylvania* in 1977[148]—and the obstacles are probably greater now. While there had been ebbs and flows in antitrust enforcement in the mid-twentieth century, there was not a well-formed conceptual framework calling for aggressive enforcement that the Chicago School proponents had to overcome. The structure-conduct-performance paradigm was widely accepted as an economic proposition, but it was not embedded in a rigorous normative and conceptual antitrust framework. By contrast, oversimplified Chicago School thinking has provided a widely accepted framework for antitrust analysis for more than thirty years. Perhaps more importantly, many federal judges, appointed by an increasingly ideological vetting process, are trained in and adherents of that framework. Many seem unaware of new economic research that calls into question many of the tenets of that framework and continue to cite outdated Chicago School publications of the 1970s and 1980s. And, while there has been a great deal of economic research and literature on which a new antitrust paradigm could be constructed, there is not a widely accepted, alternative paradigm that is comprehensible to and administrable by lawyers and judges. Even if such a paradigm were written tomorrow and rapidly became widely accepted, it would likely take years for that paradigm to be manifest in doctrinal changes and market outcomes.

New legislation could in principle be adopted and take effect much more rapidly. New legislation would not need to depart from the dual requirements of bad conduct and harm to competition in the market as a whole. Such legislation might, instead, implement a recalibration of the relative tolerance of antitrust law for the risk of over-enforcement and under-enforcement by prescribing rebuttable presumptions that would ease the high proof requirements currently imposed on antitrust plaintiffs and place on defendants a more rigorous burden of proving efficiencies. Some possible new presumptions and similar reforms are outlined below.

The risk, of course, is that new legislation will not be enacted by experts committed to sound, economically-focused antitrust. It will be designed by Congress in a politically charged environment subject to pressure from the very companies who stand to lose their market power if subject to increased antitrust oversight, or who benefit if their trading partners are subjected to excessive oversight.

[147] *See, e.g.*, Ward S. Bowman Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. (1957); Robert H. Bork, *Legislative Intent and the Policy of the Sherman Act*, 9 J.L. & ECON. 7 (1966); Robert H. Bork & Ward S. Bowman, Jr., *The Crisis in Antitrust*, FORTUNE, Dec. 1963, at 138, *reprinted in* 65 COLUM. L. REV. 363 (1965).
[148] Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977).

There is more at stake than the risk of flawed legislation. Antitrust law has maintained legitimacy and widespread support for nearly 130 years in part because it applies to all forms of commercial activity and is not perceived as special interest legislation. In our view it is very important that antitrust law not have different rules aimed at different sectors—such as technology[149] or agriculture[150]—that would differentiate industries and undermine political support for antitrust law in general. For this reason, the report outlines a number of useful digital platform interventions that can be undertaken by a sectoral regulator rather than falling to the task of antitrust enforcement.

Equally important, antitrust law has benefited immensely from the brevity and vagueness of the key statutory provisions because they have enabled antitrust law to evolve in response to new learning. The challenge with new legislation is to embrace enduring normative principles without codifying current economic learning in a way that will prevent the law from evolving to take account of newer economic findings.

ii. Reform of Antitrust Law Through a General Tightening

As noted, most antitrust cases require uncertain decisions about unknowable future events like innovation or entry or about unobservable economic elements like demand curves, marginal cost, and product quality. Much US antitrust law reflects judgments about how to deal with such uncertainty. Those judgments are embodied in rules regarding burdens of proof, evidentiary presumptions, and decision-theoretic approaches to fact finding. They are also embodied in substantive legal doctrine, such as rules regarding predatory pricing and unilateral refusals to deal that are intended to reduce the likelihood of false positives (erroneously finding a business has violated the law) even at the risk of false negatives (erroneously deciding that a business has not violated the law). Digital markets typically have high levels of uncertainty and move quickly.

Given uncertainty, courts must determine how much weight to put on the risk of enforcement mistakes: both the likelihood of a mistake and its cost. Much US antitrust law is driven by a judgment, embraced by the Chicago School, that avoiding false positives (good conduct judged to be bad) is more beneficial to society than avoiding false negatives (anticompetitive conduct judged to be good).[151] This judgment rests on the beliefs that false positives are difficult to correct but that false negatives will be quickly corrected by market forces. These beliefs seemed

[149] As suggested, by, e.g., Elizabeth Warren, *Here's How We Can Break Up Big Tech*, MEDIUM (Mar. 8, 2019), https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c.
[150] As suggested by, e.g., Elizabeth Warren, *Leveling the Playing Field for America's Family Farers*, MEDIUM (Mar. 27, 2019), https://medium.com/@teamwarren/leveling-the-playing-field-for-americas-family-farmers-823d1994f067.
[151] For a classic statement of this proposition, see Frank H. Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 ANTITRUST L.J. 134, 135-36 (1984) ("There are limits on the ability of courts to sort the beneficial from the deleterious manifestations of [restrictive dealing] practices, and most of the time it is better not to try than to try and fail."). For a criticism of this view, see Jonathan B. Baker, *Taking the Error Out of 'Error Cost' Analysis: What's Wrong with Antitrust's Right*, 80 ANTITRUST L.J. 1 (2015).

plausible in 1975 in a Chicago School framework, but they have never been empirically demonstrated and have fallen into disrepute. Moreover, their logic is incomplete because the cost to society of a false negative, for example, depends not only on its likelihood, but also on both the magnitude and the duration of the resulting harm.

It is time for antitrust law to recalibrate the balance it strikes between the risks of false positives and false negatives. Underenforcement is likely to be costlier than previously thought because, among other things, market power of large technology platforms is more enduring. False negatives are almost certainly more common than previously thought because certain types of conduct that were previously thought to be benign are now understood to be anticompetitive. Especially in technology markets, the most important competitive threats to incumbent firms are likely to come from new entrants that might be vulnerable to exclusionary conduct or anticompetitive acquisitions when their competitive prospects are uncertain. In addition, false positives might be less common than previously thought because of the development in the past few decades of more sophisticated and reliable econometric and simulation tools for assessing conduct and market power effects. New work by economists studying multi-sided markets, network effects, the economics of nominally "free" goods and services, and restrictive vertical agreements suggests that antitrust agencies and courts will continue to improve in their ability to make sound enforcement decisions. And false positives might be less costly than previously thought because firms are finding new and different ways to realize efficiencies.

A recalibration of this type should influence antitrust law in two basic ways. First, it should provide a basis for revising certain aspects of antitrust doctrine that were adopted explicitly in order to minimize the risk of over-enforcement. Second, it could more broadly provide a basis for courts to impose less demanding proof requirements on antitrust plaintiffs, especially where facts are difficult to observe or prove directly and indirect or circumstantial proof is available. Again, we pursue our theme of harm to entry through the next section. Exclusion of existing or potential entrants is well established in both the economics literature and the antitrust jurisprudence as a harm to competition, but the law is not well calibrated to recognize this familiar tactic in its new setting.

Some of the specific ways in which the law might be revised are set forth below. They could be achieved by common law-like evolution of antitrust law or by new legislation.

iii. Specific Areas of Possible Antitrust Reform [designed for the specialist reader]

To address the issues raised by technology platforms, antitrust enforcement agencies and courts will need to understand the unusual factual context that those platforms often present and be receptive to recent and future economic learning about the implications of that context and how to apply antitrust principles to it. Economists and other experts will need to develop new understanding and new tools to aid agencies and courts in addressing these matters, among others:

- How to assess the quality-adjusted price paid for a good or service sold in a barter transaction with zero or close to zero monetary price, and how to define and analyze markets in which a substantial portion of the sale take the form of barter transactions.

- How learning from behavioral economics and related disciplines about addictive or exploitative content should be considered in addressing issues regarding economic welfare.

- How technology platforms are able to take advantage of consumer biases (such as salience, status quo bias, or impatience) to bind consumers to their platforms and make switching to alternatives more difficult than imagined by lay intuition ("competition is one click away").[152]

- How market circumstances affect the likelihood and nature of innovation and how to evaluate innovation, whether using qualitative or quantitative tools, in both its magnitude and direction.

- How to assess potential competition from new or small firms or not-yet-identified future innovators and entrants. This is especially important in markets that depend on technological change and in which competition in the market is less important than leap-frog competition for the market.

- How to assess consumer welfare in a two-sided market. Learnings from platform economics suggests that users on different sides of a platform generally have divergent interests and thus that defining a single two-sided market—rather than two, closely interrelated ones—obscures the analysis. Platform economics also demonstrates that neither the change in the two sided price nor the change in the transaction volume is a sufficient statistic for a how a firm's conduct affects consumer welfare.[153]

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[152] David Wismer, *Google's Larry Page: 'Competition is One Click Away,' (and Other Quotes of the Week)*, FORBES (Oct. 14, 2012), https://www.forbes.com/sites/davidwismer/2012/10/14/googles-larry-page-competition-is-one-click-away-and-other-quotes-of-the-week.

[153] One of the features of such platforms is that, because of the feedback effects between the two sides of a platform and the importance of the relative prices charged on the two sides, increased output by the platform does not necessarily imply increased economic welfare. Whether increased output by the platform will increase economic welfare depends on how the benefits and costs of that output are allocated across the two sides. *See* Michael L. Katz, *Platform Economics and Antitrust Enforcement: A Little Knowledge is a Dangerous Thing*, 28 J. ECON. & MGMT. STRAT. 138 (2019); Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. EURO. ECON. ASSOC. 990 (2003). There is another sense in which increased output of digital platforms does not necessarily increase economic welfare. Because of some of the unique attributes of digital platforms discussed above, consumer demand for digital services does not necessarily reflect consumer welfare from those services. *See* Section II.1,

Other antitrust reforms, including those below, would require changes to doctrine:

- Antitrust law prohibits unilateral refusals to deal only under very unusual circumstances. Current law reflects, among other things, concerns about the difficulty of determining the required terms of trade and incentive effects of required dealing on both the dominant firm and its rivals.[154] The law thus gives platforms substantial freedom both to refuse to deal with actual or potential rivals, including complements, and to deal with them only on onerous terms. Those terms might include access to customer data, interoperability, and other terms that raise the costs of rivals and enable the platforms to reinforce their dominant positions. This doctrine should be reconsidered in light of the substantial importance of large technology platforms and, in particular, their central role as distribution channels, both of which suggest that the benefits of antitrust intervention might be greater than previously appreciated.

- Predatory pricing law has been shaped in large part to avoid over-enforcement and with explicit acknowledgement that the law permits some forms of anticompetitive pricing conduct.[155] Courts have adopted a narrow and rigid notion of recoupment[156] and have made it almost impossible to prove that prices are below cost, even where it seems likely.[157] Digital goods often have a marginal cost close to zero, which makes tests that require prices to be below incremental or variable cost almost impossible for a plaintiff to meet. The law has also been construed to protect only rivals that are equally efficient at the time of the conduct at issue and thus to disadvantage smaller rivals that have not yet reached efficient scale. Predatory pricing law should be modified so that it will be better able to combat anticompetitive pricing by digital platforms and other firms.

- The paradigm of predatory pricing law has also been relied upon to assess more complex pricing strategies, such as loyalty discounts. Loyalty discounts and similar contracts can be used to drive one side of a platform to single-home, which can cause a market to tip and enhance market power. The efficiency benefits of loyalty discounts are very different from those of low prices in general; for example, unlike low prices themselves, even above-cost loyalty discounts do not necessarily increase static welfare. Antitrust law

supra. This latter concern applies to other products as well, such as mortgages and prescription drugs; and it is very relevant to possible regulation of digital platforms, as discussed below. By contrast, while antitrust enforcers and courts need to understand those attributes of digital platforms in order to understand how the relevant markets work, antitrust law is for several reasons based on the assumption that consumer preferences reflect consumer welfare.

[154] *See, e.g.*, Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398 (2004); *see also* A. Douglas Melamed, *Exclusionary Conduct Under the Antitrust Laws: Balancing, Sacrifice and Refusals to Deal*, 20 BERKELEY TECH. J. 1247 (2006).

[155] *See* Barry Wright Corp. v. ITT Grinnell Corp., 724 F.2d 227, 231, 234 (1st Cir. 1983) (Breyer, J.).

[156] *See* C. Scott Hemphill & Philip J. Weiser, *Beyond* Brooke Group*: Bringing Reality to the Law of Predatory Pricing*, 127 YALE L.J. 2048 (2018).

[157] *See, e.g,*, United States v. AMR Corp., 335 F.3d 1109 (10th Cir. 2003).

should not rely exclusively upon predatory pricing standards to assess loyalty discounts.[158]

- The Supreme Court held in *American Express* that a plaintiff in a case involving a vertical restraint must define and prove a relevant market and may not rely on direct proof of harm to competition.[159] This holding was based on the notion that vertical restraints almost always enhance efficiency and almost never harm competition. Scholars over the past 30 years have demonstrated that that notion is false and therefore, that vertical restraints must be evaluated individually on the specific facts.[160] Where there is direct evidence of harm to competition, antitrust law should not require circumstantial evidence via a defined relevant market.

- Courts are generally very reluctant to second guess a defendant's product design decisions, even where the design harms competitors.[161] Yet product design decisions involving, among other things, app stores, mobile device screen layouts, data storage and analysis, and interface design are often key elements in digital market competition. Antitrust courts should be more willing to assess product design decisions where appropriate.

- There should be no safe harbor based on the short-term of exclusive dealing agreements and other restrictive vertical agreements when they are used by dominant platforms or firms. Such firms can use their market power to induce desired behavior in trading partners without relying on long-term contracts.[162]

Perhaps most importantly, antitrust law might be revised to relax the proof requirements imposed upon antitrust plaintiffs in appropriate cases or to reverse burdens of proof. Burdens of proof might be switched by adopting rules that will presume anticompetitive harm on the basis of preliminary showings by antitrust plaintiffs and shift a burden of exculpation to the defendant or by ensuring that plaintiffs are not required to prove matters to which the defendants have greater knowledge and better access to relevant information. These proof requirements include the following, which are likely to be important in the application of antitrust standards to technology platforms:

[158] *See* Hemphill & Weiser, *supra* note 156.
[159] Ohio v. American Express Co., 138 S. Ct. 2274 (2018).
[160] *See* Steven C. Salop, Revising the Vertical Merger Guidelines: Presentation at the FTC Hearings on Competition and Consumer Protection in the 21st Century (Nov. 1, 2018), https://www.ftc.gov/system/files/documents/public_events/1415284/ftc_hearings_5_georgetown_slides.pdf; Steven C. Salop, *Invigorating Vertical Merger Enforcement*, 127 YALE L.J. 1742 (2018).
[161] *See* United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001) (per curiam).
[162] *Compare* United States v. Dentsply Int'l, Inc., 399 F.3d 181 (3d Cir. 2005), *with* Omega Envtl., Inc. v. Gilbarco, Inc., 127 F.3d 1157 (9th Cir. 1997).

- Mergers between dominant firms and substantial competitors or uniquely likely future competitors should be presumed to be unlawful, subject to rebuttal by defendants. This presumption would be valuable, not because it would identify anticompetitive mergers with precision, but because it would shift the burden to the party with the best access to relevant information on issues of competitive effects and efficiencies from the merger.

- Courts should not presume efficiencies from vertical transactions. Crediting of efficiencies should require strong supporting evidence showing merger-specificity and verifiability.[163]

- Courts should be more willing to permit plaintiffs to prove harm to competition by circumstantial evidence, especially where the propositions in question are not observable and there thus cannot be direct evidence.[164]

iv. A Competition Court

Revisions to the law may have little effect to the extent that judges see antitrust cases only rarely and have difficulty understanding the economic underpinning of antitrust law. One way to ameliorate this problem would be to establish a specialized antitrust court on which a certain number of Article III judges would sit for a specified term of several years. These judges could be expected to hear multiple antitrust cases and to develop substantial antitrust expertise. And, because they would be chosen from the general federal bench, they would bring the broader perspective of generalist judges. This model could be used at the trial court level, the appellate level, or both. If judges are selected from the larger pool of Article III judges and rotated on and off the specialized court, judges on the specialized court will be less likely to develop an overly narrow intellectual interpretation of antitrust law.

v. A Regulatory Partner Could Enhance Effective Antitrust Enforcement

Digital markets move quickly. Using the internet as a distribution channel to reach an installed base of billions around the globe means that new products can be rolled out quickly—as can anticompetitive conduct. The pace of antitrust enforcement is far slower—judging by the evidence, too slow—to protect small entrants except by creating deterrence. A sectoral regulator, by contrast, could be endowed with the authority to move quickly. By taking steps to preserve competition before markets have tipped or entrants have been purchased, a regulator could prove a valuable complement to antitrust enforcement.

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[163] For an example of the Court presuming efficiencies from vertical transactions with minimal evidence, see *American Express*, 138 S. Ct. at 2289.

[164] *See, e.g.*, *id.* (injury to competition in a two-sided market); United States v. AMR Corp., 335 F.3d 1109 (10th Cir. 2003) (predatory pricing).

Antitrust enforcement proceeds on a case-by-case basis, and, apart from merger enforcement, it is largely backward looking—it looks at conduct already undertaken that is alleged to harm competition. A regulator, by contrast, can look forward and establish rules to constrain future conduct before there has been harm to competition, or before investments by the defendant and third parties have been shaped by the conduct. This is particularly useful in cases where ex post conduct remedies would be costly or ineffective.

Effective antitrust enforcement requires effective remedies. Treble damages and financial penalties can compensate for past harms and deter future bad conduct, but they do not restore competition to markets in which competition has been harmed. Even an injunction to forbear from the same or similar anticompetitive conduct going forward will not restore the lost competition if entry barriers are high. For example, if the market has tipped and network externalities are very strong, the firm that became a monopolist through violations of the antitrust laws could stop the conduct at issue and yet retain its monopoly position and the associated stream of profits. An antitrust authority that wants to restore lost competition must induce entry and/or impose structural remedies. Such remedies are likely to require detailed and often technical monitoring and years of effort. Antitrust enforcers are not suited to that type of oversight whereas a sectoral regulator is. One possible solution is to permit antitrust authorities and courts to design antitrust remedies and rely on an expert sectoral regulator to oversee their implementation. A similar approach was approved by the Supreme Court in the *Otter Tail* case.[165]

e. Regulation

For the reasons above, we believe the establishment of a sectoral regulator should be seriously considered. Given the tasks detailed by the other committees in this project as well as this one, there would be much for a regulator to do that would improve the impact of digital platforms on society. A digital regulator, should Congress choose to create one, could consider regulations and actions along the following lines. We call this potential regulator the Digital Authority (DA).

The general harm identified above is insufficient entry, and therefore insufficient competition, in digital platforms. Many of the regulations below are designed to lower barriers to entry directly. Others are responsive to the difficulty of effectively prosecuting antitrust cases today in digital markets. Regulations that mimic the antitrust laws but lower the burden of proof for the regulator and allow it to move faster are a way to gain effective enforcement in this sector, if not others.

Regulation offers a valuable addition to antitrust enforcement. It can help design the digital landscape and align the interests and incentives of platforms and key providers with those of consumers and society. When carefully designed, a regulatory regime can limit or even preempt the harmful effects detailed above, while minimizing its impact on the dynamic nature of digital

[165] Otter Tail Power Co. v. United States, 410 U.S. 366 (1973).

markets. It can offer clarity and legal certainty as to the boundaries of acceptable competition. Moreover, some of the problems discussed above may have only one structural solution: breakup of the platform. An enforcer might not want to choose that option because it is very disruptive. But less disruptive ex post remedies require ongoing monitoring, which antitrust enforcers are not well-positioned to do. Handing that job off to a regulator might better serve consumers.

Therefore, the committee suggests considering regulatory steps in conjunction with improved antitrust enforcement. It is important that regulation support, and indeed enhance, competition. The report focuses here on regulations targeted at improving competition, not other policy challenges related to digital platforms. And it is critical that any new regulatory framework avoid the well-documented pitfalls that regulation often invites (e.g., agency capture, revolving door syndrome, or incumbent protection). By having a pro-competition mandate, our hope is that the DA will be able to use the tools at its disposal in ways that resist the natural impediments to entry identified in Part I, rather than entrench powerful incumbents.

This combination of enforcement tools applied to one industry is nothing new in the US economy. Virtually every sector of our economy has required both antitrust and specific regulatory oversight, from banking to agriculture to communications, in order to promote competition and other public interest goals. The regulations we propose below are focused on, and limited to, those that will enhance competition.

The communications sector may offer the best guidance for how to approach public accountability for digital platforms. Telephone, cable, and wireless communications networks have many of the same attributes as digital platforms. Large capital expenditures to build networks, declining costs as consumers use the networks and buy more services on the networks, and the difficulties for new players to enter these markets and compete have led to a world of one or few players in each market. And just like social networking, online search, and web-delivered content, communications networks have been the lifeblood of how we communicate and practice our democracy by delivering TV, radio, text, and conversation, making competitive outcomes in the sector critical. The FCC has served as the sector-specific regulator for telecommunications. In complex industries, a sector-specific regulator can have a wider remit than an antitrust authority as is detailed in the box below.

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Box VI
The FCC Model

In the Telecommunications Act of 1996, Congress sought to affirmatively promote, not just protect, competition.[1] Congress' vision included service availability that was universal and affordable to all and a commitment to local and diverse ownership of news sources to support a robust marketplace of ideas.[2] It wanted to prevent undue discrimination, limit ownership to prevent excess market power (both horizontally and vertically in some instances), and police against abusive contract provisions that distort fair market practices.[3] Some of these goals were achieved with more success than others. And in general, the regulatory process inherently restricts behavior and therefore efficiencies. The net benefits of regulation should factor in these lost efficiencies.

The phone number portability rule was a clearly pro-competitive regulation. The FCC published the Wireless Local Number Portability rule in 2003.[4] The rule allows cell phone users to keep their phone number when they switch between wireless carriers. Prior to the rule, a consumer who wanted to take advantage of a low price or better quality with a competing provider would have had to change her phone number. This significant switching cost dampened competition between carriers. The number portability rule made switching easier and thereby strengthened competition between carriers.[5] Similarly, when portability of 1-800 numbers (e.g., 1-800-flowers) was introduced, prices of those services fell.[6]

After Congress found the cable companies to be local monopolies in 1992, Congress identified a dearth in cable competition partially caused by vertically-integrated cable operators' refusal to sell their programming to potential competitors. It therefore temporarily prohibited exclusive programming contracts, banned a variety of abusive contracting practices, and required that vertically-integrated firms sell their content to competitors under reasonable prices, terms, and conditions.[7]

1 H.R. Rep. No. 104-458 (1996) (Conf. Rep.). Even before the 1996 Act, the FCC had already begun the work of promoting competition through the broad authority it had been granted in earlier statutes.

2 47 U.S.C. § 151 (2018).

3 *Id.*; 47 U.S.C. § 160 (2018).

4 *See generally Wireless Local Number Portability (WLNP)*, FED. TRADE COMM'N, https://www.fcc.gov/general/wireless-local-number-portability-wlnp.

5 Press Release, Federal Communications Commission, FCC Observes First Anniversary of Wireless Local Number Portability (Nov. 24, 2004), https://www.fcc.gov/document/fcc-observes-first-anniversary-wireless-local-number-portability ("Wireless local number portability (LNP) eliminated a barrier to full competition in mobile telephone services and between landline and wireless services").

6 V. Brian Viard, *Do Switching Costs Make Markets More or Less Competitive? The Case of 800-Number Portability* (Cheung Kong Graduate School of Business Research Paper No. 1773R2, 2004), https://ssrn.com/abstract=371921.

7 47 U.S.C. § 251 (2018).

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The FCC Model (Cont.)

The resulting increased competition in the cable industry enabled the Direct Broadcasting Satellite industry to grow,[1] opened the door for telephone companies and smaller cable providers to compete in the provision of distribution,[2] and ultimately drove the digital video market to develop today's cable-modem-powered broadband internet services.

The 1996 Telecommunications Act included interconnection requirements between competing carriers to expand competition. The Act outlined a regulatory regime of duties to connect, of parity in quality between connections offered to the incumbent's own affiliates and competitors, and of rates and contract terms that were just, reasonable, and nondiscriminatory.[3] The regulation was designed to protect all of the businesses that needed to connect to the long-distance wire for their business but competed with a vertically-integrated local wire. Not only was raising rivals' costs prohibited, but complete foreclosure was also prohibited. This duty to deal in a non-discriminatory way is an example of a policy that arguably promoted entry of cable, local telephone, and long-distance competitors.

Similarly, the FCC developed Customer Proprietary Network Information (CPNI) rules, designed to protect sensitive business data transmitted through public telecommunications networks. The FCC recognized that a dominant platform, such as the telephone company, on which businesses rely in order to reach their customers, could easily gather and take advantage of sensitive business user data to promote the phone company's business and harm competition.[4] Phone service competitors, as well as data-driven businesses (such as home-security monitoring firms, hotels, and airlines), rely upon these rules to grow their businesses without interference from telecom network owners. The rule was so effective at promoting competition that Congress codified it in the 1996 Telecommunications Act. The harvesting of data flowing through a platform—generated by and belonging to others—is a standard business practice among today's digital platforms.

Of course, these past regulatory efforts have also helped us learn what not to do. Regulations could be and have been used to entrench incumbent firms' market power, erecting regulatory barriers to entry for new or innovative competitors.

1 47 U.S.C. § 548(a) (2018).

2 47 U.S.C. § 521(6) (2018); 47 U.S.C. § 548 (2018).

3 47 U.S.C. § 251 (2018).

4 47 U.S.C. § 222 (2018).

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The FCC Model (Cont.)

Regulatory capture is a common problem.[1] For example, AT&T has historically had a symbiotic relationship with the US government.[2] Perhaps the height of this relationship was the explicit Kingsbury Commitment in 1913, which allowed AT&T, rather than the government, to set the "solution" for managing competition.[3] The current Chairman of the FCC, Ajit Pai, has called this "a cautionary tale about the dangers of regulatory capture."[4] It was likely this close relationship that allowed the AT&T monopoly to persist for so long, eventually requiring an antitrust case to address the problem.

1 *See* George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. REG. 3 (1971) (arguing that, "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit."); *see also* Sheldon Whitehouse, *Legal Responses to Regulatory Capture*, ACS BLOG (Nov. 9, 2018), https://www.acslaw.org/acsblog/blog-post-for-the-american-constitution-society-legal-responses-to-regulatory-capture ("We unfortunately live in a time of widespread regulatory capture. We should not pretend otherwise."); Elizabeth Warren, *Corporate Capture of the Rulemaking Process*, REG. REV. (June 14, 2016), https://www.theregreview.org/2016/06/14/warren-corporate-capture-of-the-rulemaking-process ("Under the law, it is easy for business groups to challenge a rule for being too strong or too restrictive. But it is much harder for public interest groups or ordinary citizens to challenge a rule for being too weak or riddled with loopholes."); Daniel Carpenter, *Challenges in Measuring Regulatory Capture*, REG. REV. (June 22, 2016), https://www.theregreview.org/2016/06/22/carpenter-challenges-measuring-regulatory-capture ("[T]here are limitations when it comes to preventing capture. Perhaps the most important is that capture is difficult to measure").

2 Chris Matthews, *AT&T and the Government Have Been 'Friends' for a Really Long Time*, FORTUNE (Aug. 18, 2015), http://fortune.com/2015/08/18/att-nsa.

3 Ajit Pai, Chairman, Fed. Commc'n Comm'n, Remarks on the 100th Anniversary of the Kingsburgy Commitment (Dec. 19, 2013), https://www.fcc.gov/document/pai-remarks-100th-anniversary-kingsbury-commitment.

4 *Id.*

i. The Digital Authority

To be effective, a proposed regulatory regime requires an enforcement body capable of carefully designing and enforcing the relevant regulations. We start therefore with a proposal for Congress to pass legislation creating a Digital Authority with the mandate to develop targeted regulation to achieve the goals described above and subsequently engage in monitoring and enforcement.

We anticipate that this regulator will also be tasked with non-competition digital goals, such as those in the areas of privacy, media, data-use restrictions, and consumer protection. While the antitrust agencies will employ structural interventions to protect competitive markets wherever possible, the focus of this regulator will be on both carrying out remedies for the antitrust authority that require ongoing oversight, and on developing regulations going forward that are a combination of structural safeguards, such as unbundling or separation, with limited behavioral interventions in areas where traditional antitrust tools are insufficient. Other jurisdictions that are assessing competition in digital platforms all propose some form of regulation.[166] Having forward-looking regulations in place will increase business certainty about what conduct is permitted and how enforcement actions are likely to proceed. Ideally, this predictability and clarity will encourage companies to comply with the law, thus requiring fewer government resources for enforcement.

The DA legislation will require Congress to define the scope of regulatory power. The definition must include digital businesses that facilitate transactions of any kind (including the sale of advertising). It should have clear and broad authority over digital business models in order to prevent firms subject to regulation from evading its oversight.

We offer a menu of potential regulation, starting with the least intrusive form and building to the more severe interventions. Each type of regulation comes with costs and benefits which we briefly detail. The size of the costs and benefits will be different across settings, meaning that the choice of the best tool for any particular case may vary. The committee also suggests separating out some types of regulation that will apply to virtually all market participants while others are only appropriate tools to apply to companies with bottleneck power.

1) Bottleneck power

"Bottleneck power" describes a situation where consumers primarily single-home and rely upon a single service provider (a "bottleneck"), which makes obtaining access to those consumers for the relevant activity by other service providers prohibitively costly. As the U.K. Furman Report put it,

> [O]ne, or in some cases two firms in certain digital markets have a high degree of control and influence over the relationship between buyers and sellers, or over access by advertisers to potential buyers. As these markets are frequently important routes to market, or gateways for other firms, such bottlenecks are then able to act as a gatekeeper between businesses and their prospective customers.[167]

The finding of bottleneck power will employ consideration of the forces that, as discussed above in this Report, tend to impede entry and lead to foreclosure. The Furman Report similarly explains that this single-homing foreclosure tends to happen when users experience high switching costs, such as loss of valued personal data or reputational indicators at the point of switching; contract terms that deter switching; technical barriers to switching, such as complex switching processes or a lack of interoperability between the old service and the new or second service; tying services, which can be by contract or technical; and the inertia of defaults.[168]

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[166] *See, e.g.*, AUSTRALIAN COMPETITION REPORT, *supra* note 1, at 13-14; EC COMPETITION REPORT, *supra* note 1, at 8-10; U.K. COMPETITION REPORT, *supra* note 1, at 60-61.
[167] U.K. COMPETITION REPORT, *supra* note 1, at 41.
[168] *Id.* at 36.

Digital businesses that have this incentive and ability to develop and preserve a single-homing environment should be considered entities with bottleneck power. The DA, pursuant to congressional guidance, should have the sole authority to define bottleneck power and should update the definition either regularly or on an "as needed" basis. This is not a determination that should be left for definition by generalist judges. If Congress establishes a specialized panel of judges who review antitrust matters (as described above), it would be wise to grant the same panel sole judicial review authority over DA regulatory actions.

2) Data

Should Congress pass any laws concerning consumer data, the authority could set forth pro-competitive rules concerning the consequences of consumers' control over their data and about user choice in the sharing of data. Where users are simply and clearly informed and given the opportunity to make viable choices about which companies get their data, this valuable competitive information can be shared as the consumer prefers. The DA could design data sharing rules with the general goal of reducing single-homing and promoting entry.

3) Partnership with the Antitrust Agencies

Antitrust enforcement agencies or courts could designate the DA as the administrator and/or architect of remedies in antitrust cases. In cases where structural remedies are not appropriate to restore the lost competition, the DA could be directed to either carry out a remedy designed by the competition authority, or provide an effective behavioral monitoring remedy consistent with the DA's mandate. Since the difficulty of designing an appropriate and administrable antitrust remedy that can be enforced by a court often limits antitrust enforcement, having the option of an expert regulator to craft the remedy, or to simply be responsible for ongoing monitoring or other execution of the remedy, could better ensure cost-effective enforcement of pro-competition policies.

The DA can partner with the antitrust agency when it observes anticompetitive conduct. Due to their frequent interaction with firms in the industry and their real-time data feed, regulators may observe exclusionary conduct before the antitrust authority, and be able to give it relevant information and data.

ii. Menu of Regulations

We lay out below a menu of regulations that could be used to solve the problems identified above from least interventionist to most interventionist. For each, we describe the likely benefits and the costs.

1) Broadly Applicable Regulations

Some of these regulatory tools should be applied broadly to all firms in the industry, not only to bottleneck firms. It would be appropriate, however, to include a small business exception and perhaps even a new business exception, to allow very small entrants, who may benefit competition, time to ramp up against larger established companies.

a. Data collection

The Digital Authority could regularly collect data on market transactions, with an emphasis on data from businesses with bottleneck power. The information would allow policy makers and researchers to assess the performance of the sector and improve rule enforcement. For example, the data may include, inter alia, a sample of searches at a set of websites, a sample of queries followed by purchases at other sites, a sample of downloads of applications at an app store, or a sample of activity and ads shown on a social media site. The DA may further regularly collect information, including what types of data the business collects, how it uses that data, and who else is bartered or sold access to which elements of the data. It may include experiments to evaluate the true portability of data, the ads generated by certain user information, and other information relevant to assessing how and if competition is taking hold in the market. This program will require ongoing costs to run, but these should be reasonable compared to the benefits.

Box VII

Real Time Regulation in Financial Services

Technological innovation and the data revolution are also disrupting the financial services market, spurring regulators into action. Banks and other companies are undergoing an innovation and digitization spree, partially in response to competition by non-financial institutions and startups. This rapid change increases the challenges for regulators to follow and analyze what regulated companies are doing.

The response by some financial regulators has been to embrace new technologies focused on machine readable regulation (with the help of machine learning and AI) and digital reporting (with the help of data sharing frameworks, APIs, cloud computing, and advanced analytics). This is leading to an important shift from manual and template driven compliance and regulatory reporting to a near real time or real time regulatory reporting and supervision. Examples of authorities adopting this system range from the European Central Bank, various national central banks in continental Europe, the Monetary Authority of Singapore, or more notably, the Bank of England and the Financial Conduct Authority (FCA) in the UK.

Real Time Regulation in Financial Services (Cont.)

The Bank of England and the FCA are arguably the most advanced when it comes to digital regulatory reporting. Both were the first financial regulators to set up innovation labs and programs to interact with startups and new technologies. Their aim is to assess which regulation is suitable for machine reading, what data could be included in a standardized fashion within a digital regulatory reporting framework and how these changes will impact data models currently used for regulatory stress testing, leading to upgrades. This standardization then allows for near real time data sharing, lowering compliance costs to small and big firms alike.

Closer to home, in the United States, the SEC is implementing rules requiring trading firms to report intra-day trading data in real time. The SEC, the CFTC and the FDIC have also each set up fintech/regtech innovation labs to assess fintech solutions in general and regulatory tech solutions in particular. A Digital Authority could learn from, and expand on, these experiences of near real time regulation when overseeing an industry that has data at its core.

These data may be requested by an antitrust agency to aid in an investigation or prosecution. This ability to transfer existing data will speed up the enforcement of antitrust laws. After an investigation is opened, rather than subpoenaing the relevant data from the targeted firms and spending months arguing over definitions and formats, the antitrust authority could immediately begin analysis with the DA dataset.

In addition, the DA should make as much of these data public as possible, subject to keeping personally identifiable information and business secrets confidential. This will allow academics and nonprofits to study particular markets and consumer behavior as they do in industries such as airlines (where "Data Bank 1A" is publicly available)[169] to great public benefit. Leveraging the nonprofit and educational sector to help the DA and elected officials understand these markets is likely to be helpful and cost-effective.

b. Restrictions on Practices That Enhance Behavioral "Mistakes"

As described above, it is well known that behavioral "nudges" can lead consumers to make better choices. Better choices promote competition because they generate increased market share for firms that make better offers to consumers. The DA should have a mandate to create such "light touch" rules when they will make markets more competitive. For example, automatic renewals can discourage consumers from comparison shopping when a contract ends. A restriction on automatic renewals in that setting could lower prices market-wide. Regulations that require firms to make salient the most important terms of an offer can improve competition (e.g., a credit card offer must show the APR in large font). The U.K. likely has the most advanced regulatory

[169] *See* Bureau Transportation Stat., *Sources of Aviation Data*, U.S. DEP'T TRANSPORTATION (2017), https://www.bts.gov/explore-topics-and-geography/topics/sources-aviation-data.

regime in this regard, and the DA may be able to learn from it and other jurisdictions that have already taken these steps.[170]

c. Data Portability and Mobility

Congress may, at some point, pass a data law of some type that gives consumers control of their data. For this control to translate into more competitive markets, it must be used to lower switching costs and facilitate entry. The DA has a role to ensure that users can easily transfer their data from one service to another in industries where there is a common business model (e.g., social media, banking, or online grocery shopping). The DA will identify industries where porting is likely to aid the competitive process. Being able to port one's data directly lowers the cost of moving from one service to another, which in turn causes businesses to compete harder to keep those customers.[171] Consumers who control their data and have the right to receive it in a standardized format from the business will be able to take advantage of a new entrant by porting themselves to it, along with their own data. With information about a user's past purchases, likes, friends, and so forth, the entrant can provide a higher-quality service and grow more quickly.

The DA could propose a standard for exchanging the data, but remain open to options that industry favors, provided the format is not itself an entry barrier. The data porting standard should be updated frequently to accommodate new innovations in the industry. New innovators can think broadly about what services users might like that rely on this data, or are compensated through access to the data.[172] The Vestager Report divides data into personal and not personal; and content into volunteered, observed, and inferred.[173] The DA could determine which of these types of data must be included in the portability standard.

While a porting regulation lowers consumer switching costs greatly, they may still be high enough that demand is not sufficiently contestable to induce entry.[174] The DA could also set up a process by which a customer can choose to send her data to an entrant by authorizing it to be transferred directly from her former service provider. The DA would need to authorize the entrant to offer this facility to its consumers and establish regulations to require the incumbent to transfer the consumer's data upon the authorized request from the entrant. This may be particularly useful as the Internet of Things becomes more important; a consumer may wish to

[170] *See* Fletcher, *supra* note 47.
[171] This is why incumbents may create or maintain systems that make data portability difficult. *See* Section I.1.B.1, *supra*.
[172] *See, e.g.*, the RadicalxChange group. *Mission and Values*, RADICALXCHANGE (2019), https://radicalxchange.org/about/. The group's chair, Glen Weyl, has argued in a paper written with colleagues that it's a mistake to view internet services priced at $0 as simply free; instead, data can be viewed as a form of labor or barter. *See* Imanol Arrieta-Ibarra et al., *Should We Treat Data as Labor? Moving Beyond "Free"*, 108 AMER. ECON. ASSOC. PAPERS & PROCEEDINGS 38 (2018), https://pubs.aeaweb.org/doi/pdfplus/10.1257/pandp.20181003 (exploring "whether and how treating the market for data like a labor market could serve as a radical market that is practical in the near term").
[173] *See* EC COMPETITION REPORT, *supra* note 1, at 8; *id.* at 24.
[174] *See* U.K. COMPETITION REPORT, *supra* note 1, at 129, § 5.11.

port the food supply service that was bundled with her new refrigerator from Amazon to an entrant. Being able to authorize the entrant to obtain all her data from Amazon will lower the cost of switching. Conceptually, automatic porting is no different from manual porting, but it is mechanized in a way that is likely to raise contestability and therefore can make entry more profitable. The Vestager Report notes that the GDPR Article 20 provides these data portability rights to Europeans. If consumers have the right to quickly and easily patronize an entrant without data lock-in, there will be more incentive to enter into these markets. However, other entry barriers remain, which we discuss below.

d. Open Standards to Promote Competition

The DA should move preemptively to prevent the consolidation of control over users' identities, as this would create a large new source of market power. The DA could create an open standard so that new entrants can easily offer their own digital identity product that allows users to access goods and services online. One example of this type of product is Solid, by Tim Berners-Lee, often named as the creator of the World Wide Web. Solid offers users a "POD" that safeguards their digital identity that they can use to connect with different services.[175] Several government-backed efforts at identity portability are underway across the world. These include Estonia's e-Estonia initiative to give citizens a unique digital identifier; India's Aadhaar, a verifiable 12-digit identity number issued for each citizen which serves as an identifier and authenticator for a variety of offline and online services; Sweden's and Norway's BankId, which allows companies, banks, and governmental agencies to identify and conclude agreements with individuals over the internet; and even self-sovereign identity solutions studied by start-ups that would use blockchain to allow individuals to own their identity credentials and control who can access their data in online services. If an individual could then port their identity to the platforms and providers they wish to use, this would again promote entry of new services and erode the switching costs of established platforms.

The DA could consider creating an open standard that would facilitate micro-payments among consumers and digital entities. The coordination needed among stakeholders to create a successful micro-payment system is substantial, and it likely will require assistance and oversight from a regulator.

e. Merger Review

The behavior that may be of greatest concern to the many policymakers studying powerful digital businesses is their acquisition of potential competitors. These acquisitions often fall below the value threshold under which the buyer would need to notify competition authorities in advance of the deal. As a consequence, authorities have limited or no ability to assess whether a

[175] *See How It Works*, SOLID (2019), https://solid.inrupt.com/how-it-works.

given deal is procompetitive or harmful to competition before it closes.[176] Markets move quickly and a competitor's window of opportunity to gain traction against the incumbent is short. For these reasons, Congress could give the DA merger review authority. Similar to the FCC's merger review role, this would be conducted concurrently with the antitrust review done by the FTC or DOJ, but with different standards and tools. It would not be prudent to alter the nation's antitrust laws to accommodate one difficult and fast-moving sector where false negatives are particularly costly. Therefore, giving additional power over merger review to the sectoral regulator is a good solution.

These specific merger regulations should require merging firms to demonstrate that the combination will affirmatively promote competition. This shifting of the burden of proof from the government (to prove harm) to the parties (to prove benefit) will assist the DA by placing the job of demonstrating efficiencies on the parties, who have a greater ability to know what they are. In some cases, the DA's review may be the only merger review conducted, as it should not be subject to the minimum size limitations on HSR filings. In particular, notification and pre-clearance could be required for any acquisition by a business designated as having bottleneck power.[177]

In its merger review process, the DA could be explicitly tasked with evaluating a given merger's likely harm to existing as well as potential competition. Another example discussed above is the case of content or complements that could expand from that position to compete with the digital bottleneck business itself. As already noted, entry from elsewhere in the vertical (or conglomerate) chain may be the most effective and promising entry point to challenge an established bottleneck business. Mergers with either of these types of entrants have the effect of neutralizing companies that might one day have posed a competitive challenge to the bottleneck business. This view of potential competition should drive DA merger review.

The decision in *Credit Suisse* and the dicta, or language, in *Trinko* greatly expanded the industries and conduct that have become, for practical purposes, exempt from antitrust scrutiny.[178] The agencies have understandably been skittish to expend limited resources bringing cases that risk being thrown out on *Trinko* grounds.[179] It is important that *Trinko* not be used to

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[176] *See* Section III.2.B, *supra*, for a further discussion of these difficulties.
[177] When network effects are strong, a digital business with bottleneck power will likely only have very small competitors. Therefore, even small transactions can neutralize an important potential competitor that is poised to grow. *See* Section III.3.B, *supra*.
[178] *See* Credit Suisse Securities (USA) LLC v. Billing, 551 U.S. 264 (2007); Verizon Communications v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004).
[179] Howard Shelanski, at the time the FTC's top antitrust economist, testified in Congress on behalf of the Commission a few years after the *Credit Suisse* decision. He argued that a narrow interpretation of *Trinko* was possible. *See Is There Life After* Trinko *and* Credit Suisse*? The Role of Antitrust in Regulated Industries: Hearing Before the Subcomm. on Courts and Competition Policy of the H. Comm. of the Judiciary,* 111th Cong. (2010) (statement of Howard Shelanski, Deputy Director for Antitrust in the Bureau of Economics at the FTC), https://www.ftc.gov/sites/default/files/documents/public_statements/prepared-statement-federal-trade-commission-courts-and-competition-policy-committee-judiciary-united/100615antitrusttestimony.pdf [hereinafter Shelanksi

create a no-man's land where neither regulation nor antitrust are applied to harmful behavior. A traditional antitrust savings clause can no longer be relied upon, as the clause in the 1996 Telecom Act was found insufficient to protect antitrust enforcement in *Trinko*. Legislation creating regulation and antitrust enforcement for digital businesses should address this concern head on. The statute must be extremely specific, explaining for each tool and goal whether it is intended to supersede antitrust or not. Antitrust enforcers and other agencies can share dual authority with different review standards and goals. They can account for each other's determinations in a manner that will minimize inconsistencies without having one always take priority over the other. Antitrust must remain in full force except where Congress explicitly says otherwise.

The merger review process must move rapidly. The agency will need a simple and efficient merger review process so that businesses can move forward without undue delay, and the agency does not expend more resources than necessary. These concerns indicate that the burden of proof must primarily be placed on the merging parties who have the incentive, data, and resources to quickly deliver the right information to the authority. Decisions should be subject to judicial review, like a rulemaking process under the Administrative Procedure Act, with reliance on the specialist Competition Court discussed above. However, in light of the difficulty of winning antitrust cases in current US courts, judicial review will be effective at supporting the mission of the DA when combined with a more explicit and tougher enforcement statute or a Competition Court, or both.

In order for the agency to be most efficient, it should use a combination of adjudication and rulemaking for these merger transaction reviews. Rules help businesses know what behavior is proscribed, and help the agency clarify its intentions without having to wait for a good test case—or multiple test cases—to fully explain the issue. Clear rules will help companies avoid proposing anticompetitive transactions to begin with.

The cost of such regulation is duplicative merger reviews. However, given the importance of markets that tip and the uncertainty about whether an acquisition is a substitute or complement, having two reviews is perhaps helpful in getting to the right answer. If the regulator can block an incumbent platform's acquisition of potential competitors, and those competitors have the ability to quickly get their customers' data, entrants will plan to enter and compete with the platform, rather than enter and be bought. If the competitive environment is improved by data portability

Testimony]. The key facts in *Trinko* were that the legislation at issue, the 1996 Telecom Act, went farther than antitrust law; an agency, the FCC, had issued rules directly regulating the conduct at issue; and the FCC actively administered those rules. *See Trinko*, 540 U.S. 398. Shelanski argued that "[w]here a competent agency actively administers a rule whose standard for the competitive conduct at issue in litigation is more demanding on the defendant than antitrust law, the Court was right to find it relevant whether the marginal gains outweigh the potential costs of antitrust enforcement against the same conduct." Shelanski Testimony at 9. Yet he expressed concern that courts may use much broader interpretations of the line of cases. The Court in *Trinko* expressed concern about misuse of antitrust law by impudent plaintiffs, so some preemption could be limited to private plaintiffs, with expert agencies being given greater leeway.

and the elimination of exclusionary conduct, the chance of success will rise and consumers will benefit from increased competition.

f. Interoperability

There may be settings where the DA is charged by Congress to prevent the creation of market power in the first place due to the importance of the market and the potential harms from the market power. Such a market would be a candidate for open interoperability standards that could be used by all competitors and would promote entry. The DA could oversee the creation of an open standard and its adoption in the market of interest. For example, devices in the home might be required to adhere to an open standard so that any platform could connect with any device. Without such a standard, an Apple thermostat would not function in conjunction with a Google home assistant. Under an open standard, if a consumer had purchased a number of Amazon appliances and then switched her home assistant from Amazon to Apple, she would not need to purchase a new refrigerator, thermostat, and security system because all of those devices could connect to the new platform and stay functional. It is possible that such open standards can slow down innovation that depends on the interface, but open standards will drastically reduce lock-in and market power, leading to greater incentive to innovate on the service itself.

2) Regulations that apply to firms with bottleneck power

Some regulations should apply only to firms that meet the DA's definition for bottleneck power. In these cases, the bottleneck firm has the incentive and ability to harm competition and is an important source of consumer welfare. These firms require extra monitoring to be sure they are not violating antitrust, or other laws, because of the uncertainties in technology and demand, the speed at which platforms tip, the irreversibility of tipping, and the need for expert evaluation of the design of algorithms. For all of these reasons, the cost of false negatives is high and therefore, under conditions of uncertainty, the public interest requires the DA to take a more interventionist approach.[180]

a. Mergers

The DA could be given merger review authority over all transactions involving digital businesses with bottleneck power because new competition against these entities is the most valuable for consumers. Businesses with bottleneck power would notify the DA and obtain pre-clearance for an acquisition of any size. While this would potentially result in many reviews for the DA, their number will be limited by the number of platforms with bottleneck power.

The DA may want to use its merger review authority over bottleneck firms to assess consummated mergers, just as the antitrust authority can under section 7 of the Clayton Act. Past

[180] If these regulations fail to create or maintain competitive digital markets, the DA should alert Congress that neither antitrust nor existing regulatory tools are effective so that Congress may consider stronger steps.

mergers of potential competitors that created monopoly positions could be assessed in this way. Similarly, past vertical mergers (e.g. a business that develops tools for brands to place ads and a business that runs mechanisms to set ad prices) may be found to cause higher prices or otherwise lessen competition. Any such anticompetitive mergers could be unwound by the DA.

b. Non-discrimination and foreclosure

Discrimination against current or future rivals is an important tool in a foreclosure strategy by a digital business with bottleneck market power.[181] As explained above, there are broadly two types of foreclosure of a complement: one that operates against a complement that is a potential competitor of the platform itself, and one that operates only on the platform between rival providers of content. Because large digital platforms today are conglomerates with large eco-systems of complements, this is an important area in which to enforce competition. Non-discrimination can be a helpful tool in creating a competitive environment in which entrants are protected and can thrive, while allowing a platform to vertically integrate to some degree. Non-discrimination requirements should be used only after careful study because they can also prevent efficient forms of service that enhance competition.

Anticompetitive foreclosure of a firm that is a current or potential competitor can be addressed by the antitrust authority if the antitrust law is strong enough. If not, there will be a role for the DA to develop a stronger rule in order to successfully enforce against such foreclosure by firms with bottleneck power. Furthermore, the DA could use similar rules in a forward-looking regulatory context. Effective non-discrimination rules can foster entry and diversity, create potential sources of disruptive innovation and protect start-ups and other entrants. The goal of the forward-looking regulation is to prevent a digital business with bottleneck power from exercising it in order to protect *entrants on* the platform so that they have the chance to become *competitors of* the platform.

Platform strategies to prevent multi-homing are an important category for the DA to include in its analysis of foreclosure. A platform contract to induce single-homing on one side of a multi-sided market can be used to reduce competition (e.g., a loyalty payment to drivers of a ride-sharing service). Likewise, a platform can make it costlier for users to multi-home among applications on the platform by, for example, limiting data sharing. Such strategies can foreclose entrants and harm competition; appropriate regulation could limit their use by firms with bottleneck power.

The second reason for forward-looking regulation is to prevent digital businesses with bottleneck power from inefficiently expropriating rents created by complements on their platform. As described above, this harm is less well-protected by antitrust laws so the need for enhanced

[181] For a deeper discussion of the power of discrimination in preventing entry by disintermediation, see Section II.2.B.3, *supra*.

regulation will be greater when considering foreclosure *on* the platform. The DA may be able to build on the concept of "business to platform" regulation that is developing in Europe to create effective non-discrimination rules.[182] The motivation of this EC regulatory effort is to create a "fair, predictable, sustainable, and trusted legal environment" in which complementors and content providers can invest safely and contribute to social welfare.[183] The Vestager Report states that platforms "[i]f dominant . . . have a responsibility to ensure that they regulate in a pro-competitive way. Dominant platforms should be subject to a duty to ensure interoperability with suppliers of complementary services."[184] Likewise, the Furman Report recommends developing a platform code of conduct to ensure fairness.[185]

The DA could promulgate regulations prohibiting the foreclosure of a competing content provider on a platform that is vertically integrated. The authority would need to develop rules to identify foreclosure that might depend on finding certain anticompetitive conduct, market share, or market power to make such determinations. The DA must also account for potential pro-competitive innovations that a company with bottleneck power seeks to provide. The data collected by the DA will allow it to examine such outcomes and weigh all factors to make pro-competitive determinations. This balancing will be costly and, despite its best efforts, the regulator may err. However, as the report emphasizes, non-intervention is also costly. Non-discrimination rules in the past suffered from slow and expensive adjudication, which limited their usefulness.[186] Strategies for speedy adjudication are addressed in detail below.

c. Bundling

A digital platform with bottleneck power may have a contract with complementors (e.g., retailers on an ecommerce platform) that bundles together access to their transaction data along with logistics services. This could have harmful anticompetitive effects.[187] As described above, the business may also compete against those retailers on its ecommerce site. The business could use

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[182] For regulatory developments, see *Fairness in Platform-to-Business Relations*, EURO. COMM'N, https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5222469_en.

[183] *Proposal for a Regulation of the European Parliament and of the Council on Promoting Fairness and Transparency for Business Users of Online Intermediation Services*, at 3, COM (2018) 238 final (Apr. 26, 2018), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0238 ("The present proposal aims at ensuring a fair, predictable, sustainable and trusted legal environment for business users, corporate website users, providers of online intermediation services and online search engines alike, which will limit the occurrence and the impact of harmful platform-to-business trading practices occurring in certain online activities, thereby safeguarding trust in the online platform economy and preventing further legal fragmentation of the Digital Single Market.").

[184] EC COMPETITION REPORT, *supra* note 1, at 71.

[185] *See* U.K. COMPETITION REPORT, *supra* note 1, at 5.

[186] *See Leased Commercial Access Modernization of Media Regulation Initiative*, Further Notice of Proposed Rulemaking, 33 FCC Rcd 5901 (2018), https://docs.fcc.gov/public/attachments/FCC-18-80A1.pdf, at 1, n.2 and accompanying text (noting that "the [Federal Communication] Commission's 2008 Leased Access Order . . . has [been] stayed for a decade in conjunction with several judicial appeals").

[187] Retailers may accept what otherwise seems like a bad bargain due to the importance of being available to customers through the bottleneck. *See* Section II.2.B.4., *supra* for a discussion of bottleneck firms' ability to dictate business terms.

the retailers' data to learn which products are selling well and expropriate the ideas and strategies of the retailer. That data advantage over rivals can enable a company to achieve and/or maintain critical economies of scale, better predict consumer behavior, and form a powerful barrier to entry for potential competitors.[188] Bundling may also discourage multi-homing.

Another example of possibly harmful bundling could occur when a platform owner requires installation of a bundle of applications. Those apps might be chosen to block the growth of rival apps that were extracting rents from the platform or threatening to be a future competitor of the platform. The Internet of Things will create more settings in which bundling policy will be critical. Will a consumer's new fridge arrive with a supply contract from Amazon's WholeFoods? Will the consumer be able to change that contract in some period of time, or is the consumer permitted to purchase the fridge without any contract?

An antitrust case in these settings may be ineffective in protecting entrants and competition in digital bottleneck businesses due to the complexity of the problem and the slow pace of litigation. However, the DA could establish regulations that prohibit anticompetitive bundling by firms with bottleneck power. Such a firm would be required to demonstrate that its bundle was on balance procompetitive if foreclosure was alleged. The DA could require unbundling and an offer to business customers of a choice of contracts in the case of anticompetitive bundling. The DA would need to enforce such contracts.

iii. DA-Enforced Remedies for Antitrust Violations

When a company has been found liable for violating the antitrust laws, the antitrust authority is tasked with devising a remedy to restore the lost competition. A fine does not restore lost competition. No longer engaging in the illegal conduct may help the next entrant or complement that wishes to interoperate, but it will typically not restore the competition that has already been lost, particularly in the face of durable barriers to entry that protect incumbent digital platforms.

Antitrust authorities are good at enforcing structural remedies that require no ongoing monitoring, such as requiring a divestiture between a platform and its content, or the sharing of a dataset or intellectual property with the entrant, royalty-free. However, reducing entry barriers often requires a remedy that involves ongoing monitoring, as do behavioral remedies, such as firewalls between platforms and content. As mentioned above, the DA could also enforce remedies for antitrust violations identified and addressed by existing antitrust agencies.[189] Below are some types of remedies for which the DA would be a more appropriate body to enforce.[190]

[188] *See* Section I.1.B.1, and Section I.2.A.3, *supra*.
[189] *See* Section III.3.A., *supra*.
[190] For example, ongoing monitoring. *See* Section III.3.A, *supra*.

1) Data Sharing

Anticompetitive conduct may result in a market that has tipped in favor of a single provider which then benefits from unparalleled access to data. In those cases, a new entrant may find it impossible to service users with new products as it lacks the scale needed for effective operation. Data sharing could restore the lost competition. The relevant data to share may not be just historical data, but present and future data also. Because data are non-rivalrous, an incumbent can both share its data with a competitor and also keep it. Thus, access to data forms a very important remedy in the toolkit of both the antitrust authority and the DA. The Furman Report recommends that agencies mandate "data openness" (which leads to data sharing) to enhance competition.[191] The Vestager Report likewise recognized that data sharing can help level the playing field.[192]

2) Full Protocol Interoperability

Another useful tool that could restore lost competition is an open protocol and interoperability standard that would be available for entrants to use on a continuing basis and allow them to overcome network effects. A bottleneck business whose anticompetitive conduct created a monopoly position could be required to interoperate with its competitors. Entrants, previously rendered uncompetitive by network effects, could use the APIs to bring information from the incumbent bottleneck firm to its own users. In a social media context this would allow the users of the new service to see not only all the content on their own service, but also content from friends on an incumbent site that was subject to an interoperability requirement. The network barrier to entry would no longer protect the incumbent firm, which would then encourage entry into the industry. Interoperability would facilitate ongoing competition on the merits of the user experience, rather than on the size of the installed base, and potentially stimulate robust competition.

Interoperability managed by the DA would be necessary due to the ongoing monitoring needed, the likelihood of technical change, and the incentive for non-cooperation by the incumbent firm. The DA could mandate the standard protocols or APIs to be applied and tightly control the process to avoid having competition undermined by actions of the dominant firm. The DA would need a process to update protocols at the time of the launch of new functionality or innovation. It would need rules to protect the privacy and choice of users on one service as some form of access to them is granted to users of another service. With easy interoperability, users will be free to make a real choice about which service they prefer. This will encourage new market entry and vigorous competition between providers.

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[191] *See* U.K. COMPETITION REPORT, *supra* note 1, at 10, 74, § 2.79.
[192] *See* EC COMPETITION REPORT, *supra* note 1, at 98-107.

3) Non-discrimination

The clear and simple remedy for a case when a bottleneck digital business favors its own content or complement is divestiture of one of the businesses, either the bottleneck business or the content/applications. This removes both the incentive and the ability for the conduct. However, this structural remedy could be costly to consumers in various ways, leading to the conclusion that a behavioral non-discrimination remedy might be more appropriate. Requiring a dominant bottleneck to abide by a non-discrimination rule could induce competitive entry by allowing complementary businesses to thrive and eventually become horizontal competitors to the bottleneck.[193] The ongoing monitoring necessary to enforce this type of remedy in a specific antitrust case is not an ideal role for an antitrust agency. However, if the antitrust agency determines that such a remedy run by the DA would restore and protect competition, the law would allow it the option of requesting the DA to carry out the remedy. A speedy mechanism to adjudicate complaints would be of key.

4) Un-Bundling

As described above, the requirement to unbundle contracts could be an antitrust remedy that is less onerous than divestiture. Such a remedy would require ongoing monitoring that would best be performed by the DA.

iv. Aligning other policies with competition

In addition to the structural competition tools, the authority should be empowered to align privacy protection, as well as AI and algorithmic oversight, with competition goals. Privacy protections that shield consumers from misuse or over-collection of their data can be set up in a way that raises or lowers entry barriers. This point is often forgotten inside a specialist agency and therefore we strongly suggest that the DA's mandate include evaluating and then directing regulatory solutions in a pro-competitive direction.[194] Mandating that the DA have vigorous competition as one of its goals will help to make sure that potentially complex analysis takes place and that the needs of entrants are taken seriously when making policy decisions. The authority may also need to examine the development and use of algorithms to capture consumer attention, maximize advertising revenue, and drive consumer purchases or information selection, and examine how structural or other tools can promote competition in that space as well.

v. Adjudication Process

Adjudication of disputes by this new authority must be quick. Due to the fast pace of change in these industries, the short amount of time it takes to destabilize or eliminate an entrant, the

[193] *See* Section III.2.B.3.E.
[194] It is worth considering whether the competition function and staff of the DA will be more effective when incorporated into other agency tasks or separated into a distinct division.

substantial discrepancy in bargaining power between digital bottlenecks and their business customers, and the necessity to use government resources efficiently, a speedy process is crucial. This could be achieved through mandatory deadlines for dispute resolution or other procedural rules requiring the authority to produce a decision in a fixed number of days, as well as by crafting clear standards that are simple to enforce where possible.

The regulatory framework outlined above would coexist with and complement antitrust enforcement, only blocking transactions and preventing behavior that harm the public interest in ways clearly defined by Congress and that strengthen the reach of antitrust. The authority could help elucidate the common line-drawing problem of what behaviors are in or out of the reach of antitrust through communication with the antitrust enforcement agencies and with the public. An effective regulator will devise rules that promote competition and new avenues for innovation.

V. Conclusion

This report has discussed the unique combination of attributes of large digital platforms and their tendency toward entrenched market power. The entry barriers that result are in part due to certain characteristics of digital technology, but in part also due to behaviors of market participants. Consumers create entry barriers with their behavioral biases, and incumbents create entry barriers through strategic use of contracts and technologies, as well as by engaging in various other activities. The resulting monopoly or concentrated market structures do not serve consumers as well as would a market in which entry is a credible, or actual, reality.

Public policy has been slow to respond to economic harms resulting from these conditions. Such harms include advertising prices that are higher than would be expected in a more competitive environment. The markups distort decision-making and are subsequently passed through to consumers in the goods and services they buy. There are also quality harms. Platforms have incentives to provide low quality in order to keep users "engaged" and sell more ads. More generally, a lack of competition lessens the pressure on any platform to deliver high quality to its customers for fear that they will move to a rival platform. Perhaps most importantly, insufficient competition among and for digital platform position distorts and reduces innovation in a sector that has been—and, under the right conditions, will continue to be—the source of huge benefits for consumers and society.

It is unlikely that these problems will self-correct, meaning new and revised rules and incentives will be needed to prevent market power from entrenching a few dominant tech firms as economic and social gatekeepers. The United States is very far behind the frontier in antitrust enforcement, both because courts have taken a conservative view of what constitutes anticompetitive conduct and because agencies have not yet developed expertise in digital competition cases. Considerable work can be done by academics to help provide new relevant knowledge and tools to both agencies and courts. It also may be necessary for Congress to pass new legislation that revises the antitrust laws, establishes a specialist Competition Court, or both. The committee believes that vigorously enforcing the antitrust laws under these conditions would be likely to increase entry in digital platform industries, competition, and consumer welfare. Moreover, such enforcement would result in remedies to restore competition that has already been lost as well as serve as a deterrent to future anticompetitive conduct. Finally, because the problems we identify may require action beyond antitrust, we also propose the establishment of a new digital regulatory agency, or Digital Authority.

Such an agency could increase social welfare by establishing baseline market rules and conditions that both promote competition and limit the dimensions of competition to those that benefit consumers, rather than exploit them. In addition, the agency could assist in carrying out modern competition enforcement, using burdens of proof that reflect new understandings of market behaviors.

Whether the platforms that are dominant today have achieved that position entirely on the merits bears further examination. If illegalities are determined, appropriate remedies will be needed to restore the lost competition. However strong antitrust remedies likely will require coupling with market-opening regulations to overcome market power that prevented competitive market entry. Going forward, two important goals for public policy are ensuring entry and competition *for* platforms, as well as creating competition *on* platforms. Forward-looking laws and regulations should be geared to lowering entry barriers as much as possible and vigorously guarding against exclusion, lock-in, and foreclosure in the platform context. Without a swift policy pivot to apply these combined tools, digital markets may tip toward levels of entrenched power that undermine the benefits of innovative digital businesses for American consumers.