Resolved: The United States federal government should enforce antitrust regulations on technology giants.

Updates

Tech giants losing political influence

Tech companies are becoming less popular with politicians and the public, and their enemies are striking

Kang 17 Cecilia Kang, 10-25-2017, "Big Tech's Rivals Pounce at Chances to Win in Washington," NYT, https://www.nytimes.com/2017/10/25/technology/big-tech-government-regulation.html?action=click&module=RelatedCoverage&pgtype=Article®ion=Footer //DF

WASHINGTON — For years, the country's biggest technology companies have been virtually untouchable in Washington. The public adored the companies' new devices, educators embraced their tools and politicians extolled their contributions to the economy. Even traditionally powerful voices, like media and telecom businesses, found little success in criticizing the technology industry. But now, as lawmakers look into how Russia used Google, Facebook and Twitter to influence the 2016 presidential election, many critics see a rare opening — and are lining up to take their shots. The reviews site Yelp, which has long complained about the size and power of Google, has filed a new federal antitrust complaint against the search giant. Media organizations are arguing, to a more receptive Capitol Hill, that internet businesses should have the same advertising disclosure rules that print and television companies do. And the support behind a sex-trafficking bill, which tech companies argue could make them the unfair target of lawsuits, reads like a Who's Who list of companies that have long complained about tech's sway in Washington, including the Walt Disney Company, Oracle and 21st Century Fox. "We've had low points, when we were out of energy and felt like we weren't heard," said Jeremy Stoppelman, chief executive of Yelp. "But we feel we have a clean slate now." The action is nascent, but gaining momentum fast. **Lawmakers are pushing for regulations for technology companies for the first time in years, encouraged along by big tech's broad assortment of rivals.** For several weeks, a group of companies including smaller tech companies and entertainment and retail businesses has informally begun regular meetings and conference calls to compare notes about Google, Facebook and Amazon and to find a way to join in a stronger opposition force.

Polling data reveals an increasing desire among Americans to take on the tech giants

Zhou 19 Li Zhou, 2-11-2019, "Amy Klobuchar enters 2020 race ready to take on Big Tech," Vox, https://www.vox.com/policy-and-politics/2019/2/10/18205386/amy-klobuchar-2020-tech-policy-antitrust-minnesota //DF

Dropping the hammer on Big Tech is popular Klobuchar's signature policy is relatively popular. A poll conducted by the market research firm HarrisX in 2018 found that **53 percent of Americans believe big tech companies should be regulated by the**

federal government similarly to big banks. Americans are becoming increasingly worried about data privacy, with Pew polling showing that most people believe they've lost control of how personal information is collected and used. And while many big tech brands are still popular, they are not as popular as they once were. A survey from the progressive research group Data for Progress shared exclusively with Vox found that nearly six in 10 voters would support a tax on tech companies that profit from user data and user-generated content. A string of news stories have contributed: Facebook's cascade of scandals surrounding data privacy, Russian interference in elections, and growing unease with the size of companies like Facebook, Google, and Amazon. But few Americans list these issues as their top political concern, or, really, even close to it. In particular, Democratic voters are prioritizing issues such as health care, income inequality, and climate change. These policy areas are likely to be the big themes in the 2020 Democratic primary and get media oxygen over issues like competition and tech.

Both sides of the aisle support increasing federal regulation of tech companies

O'Sullivan 19 Andrea O'Sullivan [feature writer for The Bridge at the Mercatus Center at George Mason University. Her work focuses on cybersecurity, surveillance, Internet freedom, cryptocurrency, and the economics of technology], 3-21-2019, "Does the FTC Need a New Big Tech Task Force?," Mercatus Center at George Mason University, https://www.mercatus.org/bridge/commentary/does-ftc-need-new-big-tech-task-force //DF

As Adam Thierer pointed out on Marketplace, there are good reasons to be wary of a specific-purpose antitrust task force. The FTC already has potent tools to counter anti-consumer behavior by any company, including those developing social media platforms or other consumer technologies. Creating a special body to scrutinize a nebulous, hard-to-define industry could invite prosecutory excess that ultimately harms consumers. Also, an enforcement crusade against Amazon, Google, and Facebook could capture a lot of other businesses in its wake. We will discuss a few of the ways that the new technology task force could miss the mark, along with an alternative approach that could better serve consumers. The Task Force Could Target "Technology" Because of Politics "**Technology companies**" **have developed bad reputations following privacy scandals and accusations of political bias. Support for the regulation of big tech is equal among Democrats and Republicans, with 46 percent of each agreeing that the federal government should regulate tech companies more**. However, vague calls for "regulation" are not a mandate for trust-busting. Competition policy is neither privacy policy nor communications policy. The FTC task force should uphold the agency's commitment to intervening in marketplaces only when consumer harms are clearly demonstrated. Ultimately what matters in competition policy is how consumers fare, and sometimes they are best served by big companies that wisely apply technologies.

Both the right and left are against Big Tech right now, albeit for their own reasons

Lowry 19 Rich Lowry, 3-13-2019, "Don't Break Up Big Tech," POLITICO Magazine, https://www.politico.com/magazine/story/2019/03/13/dont-break-up-big-tech-225808 //DF

Elizabeth Warren is out with a headline-grabbing proposal to break up Big Tech companies, the sort of overly ambitious government plan that once would have engendered knee-jerk Republican opposition. Not anymore. Who says we all can't get along? When the senator tweeted her (understandable) objection that Facebook had taken down her ads attacking Facebook and other tech companies, Ted Cruz — in a retweet heard around the world — agreed that the companies have too much power. Tech is caught in a right-left pincer, made all the more powerful by the populist spirit afoot in both parties. **Conservatives don't like these companies because they are owned and operated by sanctimonious Silicon Valley liberals subject to the worst sort of groupthink. Progressives don't like them because they are colossal profit-making enterprises**. That's why there is some chance Washington might get together, and along the lines Warren proposes, effectively outlaw the business models of some of the most successful and iconic American companies. It's the most compelling evidence yet that, yes, we are losing our minds.

Across the aisle, multi-level government criticism and investigation of tech giants; even Trump!

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

Over the next two years, Vestager's staff reviewed data from 1.7 billion Google queries. They scrutinized how people fared when they conducted searches on topics in which Google had a vested interest, versus those where the company had nothing to gain. Then, in June of last year, the commission issued its final verdict: "What Google has done is illegal under E.U. antitrust rules," Vestager said in a statement released at the time. "It denied other companies the chance to compete on the merits and to innovate. And most important, it denied European consumers a genuine choice of services and the full benefits of innovation." Google was ordered to stop giving its own comparison-shopping service an illegal advantage and was fined an eye-popping $2.7 billion, the largest such penalty in the European Commission's history and more than twice as large as any such fine ever levied by the United States. The verdict rocked Silicon Valley. Some think Europe's assertiveness makes it more likely American regulators will act as well. And there's evidence that's already starting. **Donald Trump appealed to voters, in part, by attacking the tech monopolies**. In a case of truly odd bedfellows, **that puts him in alignment with Elizabeth Warren and Bernie Sanders, who have long called for greater scrutiny of technology companies.** Last year, a group of Democratic lawmakers in Congress, led by Senator Amy Klobuchar of Minnesota, sponsored legislation to boost antitrust enforcement by forcing companies to assume the burden of showing that a merger won't hurt the public. Meanwhile, a bipartisan assortment of state attorneys general have urged the F.T.C. to reopen its investigation of Google. Most major antitrust battles, including the federal suits against Microsoft and Standard Oil, have begun as state actions. A Missouri investigation is particularly notable because the state's Republican attorney general, Josh Hawley, who is running for the United States Senate, has subpoenaed information to see if Google has manipulated searches to disadvantage potential competitors. "The Obama-era F.T.C. did not take any enforcement action against Google, did not press this forward and has essentially given them a free pass," Hawley told reporters after revealing his inquiry in November. "I will not let Missouri consumers and businesses be exploited by industry giants."

Court cases

Qualcomm was just ruled against for anticompetitive patent fees on its smartphone chips

Condliffe 19 Jamie Condliffe, 5-24-2019, "The Week in Tech: Geopolitics Are Shaping Your Next Smartphone," NYT, https://www.nytimes.com/2019/05/24/technology/china-tech-huawei.html //DF

Qualcomm's court loss Geopolitics isn't the only force of change in the smartphone industry: So is **the tech industry's new obsession, antitrust.** On Tuesday, Judge Lucy Koh of **United States District Court in San Jose**, Calif., **ruled that Qualcomm had suppressed competition in the smartphone chip market** and charged "onerous" fees for the use of its patents. "Qualcomm's licensing practices have strangled competition," she wrote. It must now strike new licensing agreements and be monitored for seven years to ensure compliance. Phone makers, particularly Apple, had bristled at Qualcomm's royalties, which could be as high as 5 percent of a handset's wholesale price. (Apple turned the other cheek and settled its royalty case with Qualcomm last month, sacrificing $27 billion in damages and making a payment of at least $4.5 billion to use Qualcomm's 5G chips.) So **the ruling could reduce costs for smartphone makers and consumers.** It also undercuts

Qualcomm's business model, which is largely based on profits from patent fees. It could also complicate efforts by the United States to assert itself in the creation of 5G networks. America's first A.I. rules
The Organization for Economic Cooperation and Development announced a set of principles on Wednesday to guide the development of artificial intelligence. Conspicuous by its presence on the list of nations backing the rules: the United States.

FTC

The FTC just created a task force to scrutinize big tech, with a focus on mergers, reflecting the increasing hostility to tech giants

O'Sullivan 19 Andrea O'Sullivan [feature writer for The Bridge at the Mercatus Center at George Mason University. Her work focuses on cybersecurity, surveillance, Internet freedom, cryptocurrency, and the economics of technology], 3-21-2019, "Does the FTC Need a New Big Tech Task Force?," Mercatus Center at George Mason University, https://www.mercatus.org/bridge/commentary/does-ftc-need-new-big-tech-task-force //DF
This month, Senator and presidential hopeful Elizabeth Warren (D-MA) made waves in the tech world with her proposal to break up companies like Amazon, Facebook, and Google. While her plan may be among the most extreme so far, the aversion to "bigness" is quite mainstream. New books like The Curse of Bigness: Antitrust in the New Gilded Age by Columbia law professor Tim Wu implore us to be afraid of vertical integration—Wu has blamed weak antitrust enforcement for the rise of Nazi Germany (a claim questioned by economist Tyler Cowen). It has also caught the attention of the Federal Trade Commission (FTC), which recently announced the formation of a new task force specifically dedicated to scrutinizing competition (or presumably, the lack thereof) in the technology industry. The announcement follows dozens of FTC hearings exploring avenues for reforming the agency's consumer protection and competition rules. Online networks, big data, and e-commerce platforms have all been prominent in those hearings. We don't know exactly what the task force will look like quite yet. The FTC announcement says the body will be comprised of over a dozen FTC attorneys with expertise in internet and technology matters. They will be empowered to review proposed and previous mergers between firms with a technology focus as well as "coordinate and consult with [FTC staff] on technology-related matters." This ambiguity of authority has generated a range of reactions among anti-"bigness" critics. Some, like the Free and Fair Markets Initiative and the Open Markets Institute, have welcomed the development, which could be a strong step towards a modified or even overturned consumer welfare standard of enforcement. Others, like the Electronic Privacy Information Center, think the task force does not go far enough, and "is no substitute for meaningful enforcement." As Adam Thierer pointed out on Marketplace, there are good reasons to be wary of a specific-purpose antitrust task force. The FTC already has potent tools to counter anti-consumer behavior by any company, including those developing social media platforms or other consumer technologies. Creating a special body to scrutinize a nebulous, hard-to-define industry could invite prosecutory excess that ultimately harms consumers. Also, an enforcement crusade against Amazon, Google, and Facebook could capture a lot of other businesses in its wake. We will discuss a few of the ways that the new technology task force could miss the mark, along with an alternative approach that could better serve consumers.

The FTC earlier this year discussed fining Facebook for antitrust violations, and has formed a task force to scrutinize tech giants and their mergers

Kelly 19 Makena Kelly, 3-7-2019, "Facebook plans to tie itself together as regulators debate tearing it apart," Verge, https://www.theverge.com/2019/3/7/18254717/facebook-instagram-whatsapp-regulation-antitrust-mark-zuckerberg-klobuchar-hawley-blumenthal //DF

On January 24th, only a few days before the Times' report, groups like the Open Market Institute, Color of Change, and the Electronic Privacy Information Center penned a letter to Federal Trade Commission chairman Joe Simons, asking him to consider making significant structural changes to Facebook. In the letter, they argue that a multimillion-dollar fine would not be enough to convince Facebook to make sweeping changes to its business model; only being forced to divest Instagram and WhatsApp would be enough for the company to make the serious structural changes necessary. It was reported last month that **[In February,] the FTC was discussing levying a record-setting, multibillion-dollar fine on Facebook for violating the consent decree. It's unclear whether that action could include a breakup**. Last week, **[In March,] the FTC announced that it would be building out a task force faced with understanding and enforcing competition regulation on big tech companies like Facebook and Google**. At the time of the task force's announcement, officials said that they would be actively looking into previous consummated mergers. At the same time, European regulators are increasingly unhappy with Facebook's status quo. Last month, the European Parliament released its final report on its investigation post-Cambridge Analytica. In it, lawmakers do not explicitly say that a break up is necessary, but that it may be worth thinking about. "The legislative tools already exist," the report said. "They must now be applied to digital activity, using tools such as privacy laws, data protection legislation, antitrust and competition law."

EU

Lawmakers in the EU see Facebook's dominance as a threat, have investigated its abuses, and are thinking about breaking it up

Kelly 19 Makena Kelly, 3-7-2019, "Facebook plans to tie itself together as regulators debate tearing it apart," Verge, https://www.theverge.com/2019/3/7/18254717/facebook-instagram-whatsapp-regulation-antitrust-mark-zuckerberg-klobuchar-hawley-blumenthal //DF

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The EU is cracking down on big tech; it already fined Google for anti competitive advertising practices, and it will likely do more in the future. However, it's not broken up the tech companies

Economist 19 3-23-2019, "Why big tech should fear Europe," Economist, https://www.economist.com/leaders/2019/03/23/why-big-tech-should-fear-europe //DF

Yet if you want to understand where the world's most powerful industry is heading, look not to Washington and California, but to Brussels and Berlin. In an inversion of the rule of thumb, while America dithers the European Union is acting. **This week Google was fined $1.7bn for strangling competition in the advertising market.** Europe could soon pass new digital copyright laws. Spotify has complained to the eu about Apple's alleged antitrust abuses. And, as our briefing explains, the eu is pioneering a distinct tech doctrine that aims to give individuals control over their own information and the profits from it, and to prise open tech firms to competition. If the doctrine works, it could benefit millions of users, boost the economy and constrain tech giants that have gathered immense power without a commensurate sense of responsibility. Western regulators have had showdowns over antitrust with tech firms before, including ibm in the 1960s and Microsoft in the 1990s. But today's giants are accused not just of capturing huge rents and stifling competition, but also of worse sins, such as destabilising democracy (through misinformation) and abusing individual rights (by invading privacy). As ai takes off, demand for information is exploding, making data a new and valuable resource. Yet vital questions remain: who controls the data? How should the profits be distributed? The only thing almost everyone can agree on is that the person deciding cannot be Mark Zuckerberg, Facebook's scandal-swamped boss. The idea of the eu taking the lead on these questions will seem bizarre to many executives who view it as an entrepreneurial wasteland and the spiritual home of bureaucracy. In fact, **Europe has clout and new ideas. The big five tech giants**, Alphabet, Amazon, Apple, Facebook and Microsoft, **make on average a quarter of their sales there. And as the world's biggest economic bloc, the eu's standards are often copied in the emerging world.** Europe's experience of dictatorship makes it vigilant about privacy. Its regulators are less captured by lobbying than America's and its courts have a more up-to-date view of the economy. Europe's lack of tech firms helps it take a more objective stance. A key part of Europe's approach is deciding what not to do. For now it has dismissed the option of capping tech firms' profits and regulating them like utilities, which would make them stodgy, permanent monopolies. **It has** also **rejected break-ups: thanks to network effects, one of the Facebabies or Googlettes might simply become dominant again.** Instead the eu's doctrine marries two approaches. One draws on its members' cultures, which, for all their differences, tend to protect individual privacy. The other uses the eu's legal powers to boost competition.The first leads to the assertion that you have sovereignty over data about you: you should have the right to access them, amend them and determine who can use them. This is the essence of the General Data Protection Regulation (gdpr), whose principles are already being copied by many countries across the world. The next step is to allow interoperability between services, so that users can easily switch between providers, shifting to firms that offer better financial terms or treat customers more ethically. (Imagine if you could move all your friends and posts to Acebook, a firm with higher privacy standards than Facebook and which gave you a cut of its advertising revenues.) One model is a scheme in Britain called Open Banking, which lets bank customers share their data on their spending habits, regular payments and so on with other providers. A new report for Britain's government says that tech firms must open up in the same way. **Europe's second principle is that firms cannot lock out competition.** That means equal treatment for rivals who use their platforms. The eu has blocked Google from competing unfairly with shopping sites that appear in its search results or with rival browsers that use its Android operating system. A German proposal says that a dominant firm must share bulk, anonymised data with competitors, so that the economy can function properly instead of being ruled by a few data-hoarding giants. (For example, all transport firms should have access to Uber's information about traffic patterns.) Germany has changed its laws to stop tech giants buying up scores of startups that might one day pose a threat. Europe's approach offers a new vision, in which consumers control their privacy and how their data are monetised. Their ability to switch creates competition that should boost choice and raise standards. The result should be an economy in which consumers are king and information and power are dispersed. It would be less cosy for the tech giants. They might have to offer a slice of their profits (the big five made $150bn last year) to their users, invest more or lose market share.

R/T Tech giants will be broken up now

Neither the FTC or the DOJ have opened formal investigations yet

D'Onfro 19 Jillian D'Onfro, 6-16-2019, "'It's A Terrible Idea.' Big Tech Leaders Play Defense As Antitrust Pressure Heats Up," Forbes, https://www.forbes.com/sites/jilliandonfro/2019/06/16/tech-leaders-on-antitrust-scrutiny-google-facebook-amazon/#185e5dc5744b //DF

Doing analyst calls or building new human resources systems would take energy away from that, he added. While arguments from that trio of executives seemed to hold some weight with the largely techie audience in Arizona, they may not go over so well in Washington. Right now, the tech giants have few friends in on either side of the aisle, and 2020 presidential candidates like Elizabeth Warren and Bernie Sanders have called for forcibly dismantling their market dominance. Despite the pressure from regulators, there's still a long road ahead. Lawmakers plan to hold hearings, collect testimonies and issue subpoenas over the next 18 months. Meanwhile, **neither the Justice Department nor the Federal Trade Commission have formerly opened investigations**, though the DOJ is reportedly looking into Google and Apple while the FTC handles Facebook and Amazon.

Political ties between Democrats and Silicon Valley, as well as current norms surrounding antitrust, make it unlikely that the Democrats will break up big tech

Yahoo Finance 19 Zacks Equity Research, 5-29-2019, "The Zacks Analyst Blog Highlights: Facebook, Microsoft, Alphabet, Amazon and Apple," Yahoo Finance, https://finance.yahoo.com/news/zacks-analyst-blog-highlights-facebook-135301698.html //DF

Is Warren's Proposal Mostly Symbolic? In March, Warren proposed that Amazon, Facebook and Alphabet should be broken up. Meanwhile, major restrictions should be imposed on how Apple and Microsoft go about doing business. According to her plan, a company with annual global revenues in excess of $25 billion which "offers to the public an online marketplace, an exchange, or a platform for connecting third parties" should be designated as "platform utility." This entity would be prevented from owning any participants on such a platform. The core business models of Apple and Microsoft would remain largely unaffected by such regulations. But it would have severe major implications for the three other members of this elite group. At the same time, the present day structure of Microsoft's Xbox Store and Apple's iOS App Store would be rendered invalid. But **Warren has cautiously omitted all references to the kind of impact these new regulations would have on Big Tech. This is believed to be proof of the fact that her proposal is mostly symbolic rather than practical.** Conclusion Warren's proposal to regulate Big Tech has found favor among other Democratic contenders. However, **the strong link between leading Democrats and Silicon Valley giants make such regulations unviable in the real world. Further, her proposals run counter to conventional antitrust laws which focus on pricing and consumer interest.** This is why **it is unreasonable to expect a future White House to go so far as to attempt to break up big tech.** However, a successful Democratic bid for the presidency would bring such companies under considerable regulatory scrutiny. This would have major implications for users, suppliers and competitors.

Monopoly behavior today

FB combining services

Facebook is trying to combine is messaging services, which is raising fears that it will further stifle competition and hurt privacy

Kelly 19 Makena Kelly, 3-7-2019, "Facebook plans to tie itself together as regulators debate tearing it apart," Verge, https://www.theverge.com/2019/3/7/18254717/facebook-instagram-whatsapp-regulation-antitrust-mark-zuckerberg-klobuchar-hawley-blumenthal //DF

In a lengthy blog post yesterday, Facebook CEO Mark **Zuckerberg** said that he **wants Facebook to focus on encryption and privacy by combining its messaging products, but lawmakers and economists are worried that Zuckerberg may be attempting to outflank regulatory action.** "Mark Zuckerberg is taunting antitrust authorities around the world, breaking past acquisition commitments and threatening to consolidate market control," Sen. Richard Blumenthal (D-CT) said in a statement to The Verge. "The FTC and Department of Justice should see through this façade. Big Tech will never change its invasive and anticompetitive ways until change is forced on them." "Yesterday, I suggested that our antitrust enforcers should consider unwinding anticompetitive mergers, including Facebook and Instagram," Blumenthal continued. "WE CANNOT ALLOW PLATFORM INTEGRATION TO BECOME PRIVACY DISINTEGRATION." Those regulatory concerns first surfaced in January after The New York Times reported that Zuckerberg was planning to integrate Facebook Messenger, Instagram, and WhatsApp. "When it comes to privacy, we can no longer give Facebook the benefit of the doubt," Sen. Ed Markey (D-MA) said at the time. "Now that Facebook plans to integrate its messaging services, we need more than mere assurances from the company that this move will not come at the expense of users' data privacy and security. We cannot allow platform integration to become privacy disintegration." On January 24th, only a few days before the Times' report, groups like the Open Market Institute, Color of Change, and the Electronic Privacy Information Center penned a letter to Federal Trade Commission chairman Joe Simons, asking him to consider making significant structural changes to Facebook. In the letter, they argue that a multimillion-dollar fine would not be enough to convince Facebook to make sweeping changes to its business model; only being forced to divest Instagram and WhatsApp would be enough for the company to make the serious structural changes necessary. It was reported last month that the FTC was discussing levying a record-setting, multibillion-dollar fine on Facebook for violating the consent decree. It's unclear whether that action could include a breakup. Last week, the FTC announced that it would be building out a task force faced with understanding and enforcing competition regulation on big tech companies like Facebook and Google. At the time of the task force's announcement, officials said that they would be actively looking into previous consummated mergers. At the same time, European regulators are increasingly unhappy with Facebook's status quo. Last month, the European Parliament released its final report on its investigation post-Cambridge Analytica. In it, lawmakers do not explicitly say that a break up is necessary, but that it may be worth thinking about. "The legislative tools already exist," the report said. "They must now be applied to digital activity, using tools such as privacy laws, data protection legislation, antitrust and competition law." In the EU, antitrust law looks dramatically different than it does in the US. European countries exhibit a competition model rather than a consumer harm model like in the US. The EU report also points to Facebook shutting down API access to apps like Twitter's former Vine product as a way to draw away competition from Instagram's new video product. The report even cites Facebook's plan to integrate messaging services as a threat to competition. "**The scale of this data sharing risks being massively increased, given the news that, by early 2020, Facebook is planning to integrate the technical infrastructure of Messenger, Instagram and WhatsApp, which, between them, have more than 2.6 billion users."** In the US Congress, the committees overseeing the Justice Department and antitrust generally have begun discussions about what a break-up might look like.

PRO

UQ – Increasing support for tech breakup

Democrats and Republicans are aligning towards breaking up big tech and it will likely be an issue in the 2020 election – tech will become the enemy that wall street was

Economist 19 3-14-2019, "Tech giants face new threats from the government and regulators," Economist, https://www.economist.com/united-states/2019/03/14/tech-giants-face-new-threats-from-the-government-and-regulators //DF

Anniversaries are often happy occasions, but not this one. March 17th will mark a year since the New York Times and the Observer published exposés about how Facebook enabled the personal data of tens of millions of Facebook-users to leak to an outside political firm, Cambridge Analytica. The resulting scandal has plagued the social-networking firm [Facebook] and provoked scepticism among politicians and consumers that big tech firms can be trusted to police themselves. **Many Republicans and Democrats, who share little in common ideologically, agree that the tech giants need to be reined in.** Software may be eating the world, as the technology investor Marc Andreessen famously said, "but the world is starting to bite back," says Bruce Mehlman, a lobbyist in Washington. Elizabeth Warren, a senator vying to become the Democratic nominee for president, recently suggested breaking up big tech companies, including Facebook, Google and Amazon, and unwinding some of their previously allowed mergers, such as Facebook's purchases of the apps Instagram and WhatsApp. She has declared that big tech firms have "too much power over our economy, our society and our democracy." As if to underscore her concern, Facebook temporarily blocked some of Ms Warren's anti-tech advertisements from appearing on the social network, reportedly because of trademark issues with Facebook's logo, before they were restored. Nor is this animus confined to Democrats. Ted Cruz, a Republican senator from Texas, says Ms Warren is right that big tech has too much power to silence free speech and is "a serious threat to our democracy." Mr Cruz added that this was the first time he had agreed with Ms Warren about anything. **Much as Wall Street animated the 2008 presidential election, antitrust will feature prominently in the 2020 campaign.** Amy Klobuchar, another senator and presidential hopeful, has sponsored bills that would toughen America's antitrust laws, for example by requiring merging firms to prove their deals would not harm competition. **Ms Warren's views on tech will oblige other Democratic candidates to clarify where they stand and may drag other candidates towards more extreme positions, as her stance on wealth taxes did.** It does not require a sophisticated algorithm to detect a growing unease with big tech firms. This month at South by Southwest, a conference in Austin that attracts many techies, Margrethe Vestager, the European commissioner for competition who has led the way on punishing tech firms for anti-competitive behaviour, asked whether there should be more government intervention against them. Most of the several hundred people in the room raised their hands. How best to take on tech is a conundrum facing many governments. A new report by a panel of experts led by the Harvard economist Jason Furman, which was published on March 13th, looks at how Britain can encourage digital competition. It recommends a series of things, including developing a code of conduct for tech firms, tweaking merger rules, making it easier for customers to move their data to rival firms and creating a new competition unit with technology expertise. But Britain's ability to tame tech firms is limited. Far more responsibility falls on America, the homeland of big tech. Democrats and Republicans may both poke at tech, but they often have different worries. Democrats are more interested in issues of market power and privacy. Republicans share their concerns about privacy, but focus less on antitrust and more on the supposed political bias of firms like Google and Facebook, which they believe suppress conservative views. However, in the year since the Cambridge Analytica scandal, neither party can claim much has been done yet to constrain big tech firms. Could that be changing? The Federal Trade Commission (ftc), a consumer watchdog, is believed to be nearing completion of its investigation into whether the Cambridge Analytica fiasco is evidence that Facebook violated a 2011 agreement not to share data without consumers' express consent. Some think a massive fine, perhaps as high as $5bn, could be forthcoming. The "effectiveness" of the ftc is "is going to be weighed to a large degree by their actions on Facebook," says Barry Lynn of the Open Markets Institute, a think-tank that argues for more

forceful use of antitrust laws. The ftc has also launched a task-force focused specifically on tech firms, which could play a role in unwinding past tech mergers. Separately, federal prosecutors are reported to be considering a criminal investigation into Facebook's sharing of data with other firms. Another place to watch for signs of tech firms falling under tighter control is federal privacy legislation, which is currently being drafted in Washington, dc. Senators are weighing how best to write a national bill, which would give consumers greater control over how their data are collected and used online. California forced the federal government's hand by drafting and passing its own privacy law, which goes into effect in January 2020. Most businesses "don't want a patchwork of state laws that are hard to implement and make no sense," says Jon Leibowitz, former chairman of the ftc, who is now a lawyer at Davis Polk. A new federal privacy bill seems unlikely in the short term, but never before has there been so much consensus about the need for privacy legislation, says Mr Leibowitz. The other principal worry is that big tech firms suppress competition. That can be addressed by enforcing antitrust law. America has not brought a big antitrust case against a tech giant for 20 years, since it went after Microsoft for anti-competitive behaviour. Those in favour of the "big case" tradition of antitrust, as Ms Warren is, believe that break-up attempts, even if they are not ultimately successful, put tech firms on guard and can allow innovative upstarts to thrive while the giant is distracted by court cases. Proponents of this school of thought point out that new firms arose after government actions against at&t, ibm and Microsoft. But not everyone agrees that it is a good idea to try to break up tech firms. It is better to prevent mergers happening in the first place than attempt to untangle them after the fact. A big move against a tech giant seems unlikely until after 2020. But even if the elected president does not have Ms Warren's enthusiasm for breaking up these companies, there could be pressure to do so. State attorneys-general are increasingly agitating to take action against big tech firms over privacy infringements and anti-competitive behaviour. There are rumours that some have singled out Facebook. If they band together, attorneys-general could hurt tech firms and provoke action by the federal government—just as they did, launching investigations and going on to pressure the government, in the cases against big tobacco and Microsoft that started in the 1990s. In the coming year antitrust policy and tech regulation will be debated fiercely. But 2020 will not be the first election in which antitrust policy will play a role. The issue famously featured in 1912, when the contenders talked about the powerful companies of their day, called "trusts", and whether they should be dismembered. Woodrow Wilson, who believed there needed to be new legislation to strengthen antitrust enforcement, beat the more cautious Theodore Roosevelt to the presidency. Today's contenders may want to take note.

Competitiveness Advantage

Framing

This card is amazing and needs to frame the entire pro narrative. This should either be in the pro case or it should be read as an overview

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

Some legal theorists think that Google might have a point. "To what extent are consumers, rather than competitors, being harmed by Google?" says Hovenkamp, the antitrust scholar. "If the answer is 'not much,' then I'm suspicious of an antitrust remedy." Others say the risks are too high. "There are very real costs associated with suing a company like Google," says Geoffrey Manne, executive director of the International Center for Law & Economics, a nonpartisan research center. "You're potentially impairing a firm that provides vital services to millions of people, and potentially benefiting competitors who don't deserve that support." Those are fair arguments. But they are also, in some ways, beside the point. Antitrust has never been just about costs and benefits or fairness. It's never been about whether we love the monopolist. People loved Standard Oil a century ago, and Microsoft in the 1990s,

just as they love Google today. Rather, **antitrust has always been about progress. Antitrust prosecutions are part of how technology grows.** Antitrust laws ultimately aren't about justice, as if success were something to be condemned; instead, **they are a tool that society uses to help start-ups build on a monopolist's breakthroughs without, in the process, being crushed by the monopolist.** And then, if those start-ups prosper and make discoveries of their own, they eventually become monopolies themselves, and the cycle starts anew. **If Microsoft had crushed Google two decades ago, no one would have noticed. Today we would happily be using Bing, unaware that a better alternative once existed**. Instead, we're lucky a quixotic antitrust lawsuit helped to stop that from happening. We're lucky that antitrust lawyers unintentionally guaranteed that Google would thrive. Put differently, **if you love technology — if you always buy the latest gadgets and think scientific advances are powerful forces for good — then perhaps you ought to cheer on the antitrust prosecutors. Because there is no better method for keeping the marketplace constructive and creative than a legal system that intervenes whenever a company, no matter how beloved, grows so large as to blot out the sun. If you love Google, you should hope the government sues it for antitrust offenses — and you should hope it happens soon, because who knows what wondrous new creations are waiting patiently in the wings.** For the Raffs, however, it's probably too late. By the time Vestager announced her verdict and record-setting fine last year, it had been 12 years since Adam and Shivaun started Foundem.com. During that time, their lives slowly but inexorably became devoted to battling Google. They had spent thousands of hours corresponding with regulatory agencies across the globe. They had filed a civil suit against Google in British court, a case that is ongoing. They basically shut down Foundem, creating more time for them to give advice to other companies and regulators fighting Google. This consulting work, some of which was funded by Google's competitors, has helped to keep the Raffs afloat. And if the Raffs win their lawsuit against Google, it could be worth millions. "But it's a different business model than we expected," Adam told me. "It's also deeply frustrating, because we became technologists in order to build new technologies. We never intended to be professional plaintiffs or antitrust crusaders."

UQ – Bigness

The tech giants are not only the largest companies in the world, but are also much larger than the trusts against whom the first antitrust laws were used

Moore 16 Martin Moore [director of the Centre for the Study of Media Communication and Power in the Policy Institute at King's College London. He has twenty years experience working across the UK media, in the commercial sector, the third sector and in academia. Prior to King's he was founding director of the Media Standards Trust], 4-2016, "Tech Giants and Civic Power," Centre for the Study of Media, Communication and Power, https://core.ac.uk/download/pdf/51344227.pdf //DF

Our growing reliance on these organisations has helped make them very highly valued. Apple became the first US company to achieve a valuation of over $700 billion in February 2015 (dropping later in the year). In addition to its high profit margins Apple had built up a cash surplus of $178 billion, 'the biggest of any public corporation in the world'.56 Alphabet's market capitalization reached almost $530 billion by the end of 2015, making it more valuable that the oil giant Exxon Mobile. In 2014 Google (as then was) made $14.4 billion in profit. Microsoft was not that far behind Alphabet at a valuation of over $440 billion at the close of 2015. Facebook was valued at nearly $300 billion by the end of that year.57 **These technology and media companies are not just large compared to their industry contemporaries, but also compared to the nineteenth century US Trusts** at whom the Sherman Act was aimed. **When Standard Oil was at its height** just after the

turn of the twentieth century **it was making profits of** approximately $65 million a year.58 This equates to **around $1.7 billion in 2015. In 2014 Apple made a profit of over $39 billion, or more than twenty times that of Standard Oil when it attracted the attention of US antitrust legislators.** The wealth of these organisations allows them to invest significant amounts in research and development, as well as acquiring companies that complement or compete with their services. Facebook paid $19 billion for the messaging service WhatsApp in 2014.59 Google made more than 170 acquisitions between 1998 and 2015, many of which it integrated with its own services – such as YouTube, Adsense, Blogger, Picasa, Analytics.60

UQ – Uncompetitive Now

We used to enforce antitrust laws that created a cycle of new tech companies that then needed to be broken up, but that cycle has been broken now

Blumenthal and Wu 18 Richard Blumenthal [Democratic senator from Connecticut] and Tim Wu [law professor at Columbia, the author of "The Curse of Bigness: Antitrust in the New Gilded Age" and a contributing opinion writer], 5-18-2018, "What the Microsoft Antitrust Case Taught Us," NYT, https://www.nytimes.com/2018/05/18/opinion/microsoft-antitrust-case.html?rref=collection%2Fbyline%2Ftim-wu&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=6&pgtype=collection //DF

Some limitations were placed on Microsoft's behavior, such as a requirement that it share certain programming information with third-party companies. The appropriateness of that remedy is still debated. But what we do know is that the remedy pushed Microsoft to act with more caution, creating an essential opening for a new generation of firms. It might seem like a cruel irony that the immediate beneficiaries of the Microsoft antitrust case — namely, Google, Facebook and Amazon — have now become behemoths themselves. But this is how the innovation cycle works: **It creates room for saplings to grow into giants, but then prevents the new giants from squashing the next generation of saplings.** (Microsoft was itself, in the early 1980s, the beneficiary of another antitrust case, against IBM, the computing colossus of its time.) Which takes us to the present day. Unfortunately, ever since the Microsoft case there has been remarkably little oversight of the technology sector**, despite the obvious signs of corporate consolidation and outsize market power. Enforcement of the antimonopoly laws has fallen: Between 1970 and 1999, the United States brought about 15 monopoly cases each year; between 2000 and 2014 that number went down to just three**. Antitrust efforts have become too fixated on the idea that the only real harm consists of raising of prices for consumers. Yet in the Microsoft case, Internet Explorer was "free," even though Microsoft was bent on destroying competition with it. Today, both Google and Facebook offer products that are free. Society has grown to rely on them, but because they have no dollar price, antitrust regulators have been hesitant to take action.

Tech was initially a competitive market, until a handful of companies figured out how to manipulate it and excluded all others through mergers and cloning

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 120-125 //DF

Everything was fast and chaotic; no position was lasting. One day, AOL was dominant and all-powerful; the next, it was the subject of business books laughing at its many failures. Netscape rose and fell like a rocket that failed to

achieve orbit (through Microsoft had something to do with that). MySpace, the social media pioneer, was everywhere and then nowhere. Search engines and social media sites seemed to come and go: Altavista, Bigfood, and Friendster were household names one moment and gone the next. The chaos made it easy to think that bigness–the economics of scale–no longer really mattered in an economy. If anything, it seemed like being big, like being old, was just a disadvantage. Being big meant being hierarchical, industrial, dinosaurs like in an age of fleet-footed mammals. Better maybe to stay small and stay young, to move fast and break things. All this suggested that in cyberspace, there could be no such thing as a lasting monopoly. The internet would never stand for it. Business was now moving at internet speed: A three-year-old firm was middle-aged; a five-year-old firm almost certainly near death. "Barriers to entry" was a twentieth century concept. Now, competition was always just "one click away." Even if a firm did manage to gain temporary dominance, there was nothing to be afraid of. We were not speaking of the evil monopolists of old. The new firms were instead devoted to spreading sweetness and light, goodwill toward all men–whether access to information (Google), good books for cheap (Amazon), or the building of a global community (Facebook). Not only did they not charge high prices, sometimes they didn't even charge at all. Google would give you free email, free map apps, free cloud storage. Hence businesses like Facebook or Google needed to be seen as more akin to a charity. Who would sue the Red Cross for its "monopoly" on disaster relief? In these heady times, only a malcontent would dare suggest that just maybe, business and economics haven't quite been reinvented forever. Or that **what was taken to be a new order might, in fact, just be a phase that was designed to come to an end as firms better understood the market and its new technologies**. The good times were on. After a decade of open chaos and easy market entry, something surprising did happen. A few firms– Google, Ebay Facebook, and Amazon– did not disappear. They hit that five-year mark of obsolescence with no signs of impending collapse or retirement. Instead, the major firms seemed to be sticking, and even growing in their dominance. Suddenly, there weren't a dozen search engines, each with different idea, but one search engine. There were no longer hundreds of stores that everyone went to, but one "everything store." And to avoid Facebook was to make yourself a digital hermit. **There stopped being a next new thing, or at least, a new thing that was a serious challenge to the old thing.** Unfortunately, antitrust law failed to notice that the 1990s were over. Instead, for a decade and counting, it gave the major tech players a pass–even when confronting fairly obvious dangers and anti competitive mergers. That is best exemplified by the Facebook story.

In total, Facebook managed to string together 67 unchallenged acquisitions, which seems impressive, unless you consider that Amazon undertook 91 and Google got away with 214 (a few of which were conditioned). **In this way, the tech industry became essentially composed of just a few giant trusts: Google** for search and related industries, **Facebook** for social media, **Amazon** for online commerce. While competitors remained in the wings, their positions became marginalized with every passing day. If many of these acquisitions were small, or mere "acqui-hires" (i.e. acquisitions to hire employees), others, like Facebook's takeover of Instagram and Whatsapp, eliminated serious competitive threats. In the 2000s, Google had launched "Google Video" and done pretty well, but not compared to its greatest competitor, YouTube. Google bought YouTube without a peep from the competition agencies. Waze, an upstart online mapping company, was poised to be an on-ramp for Google's vertical challengers, until Google, the owner of its own dominant online mapping program, bought the firm in a fairly blatant merger to monopoly. Google also acquired AdMob, its most serious competitor for online advertising, which the government let happen on the premise that Apple might also enter the market in a serious way (they didn't). Amazon acquired would-be competitors like Zappos, Diapers.com, and Soap.com.

Where buyouts were not practical, the tech firms tried a different approach: "cloning," the favorite tactic of Microsoft back in the day. Faced with potential competitive challenge from Yelp's popular reviews of local businesses in the early 2010s, Google created its own "local" sites attached to Google maps. The value in any such site would rest in the quality of its user reviews, and as a new cover, Google didn't have any of those. It solved the problem by simply purloining Yelp reviews and putting them on its site, making Yelp essentially redundant, and also harvesting the proceeds of its many years of work. Meanwhile, Facebook cloned so many of its rival Snapchat's features that it began to seem like a running joke. Amazon has a track record of cloning products that succeed so it can help itself to the margins. To be sure, there is nothing wrong with firms copying to learn from each other; that's how innovation can happen. But there is a line where copying and exclusion becomes

anti-competitive, where the goal becomes the maintenance of monopoly as opposed to real improvement. When Facebook's spies on competitors, or summons a firm to a meeting just to figure out how to copy it more accurately, or discourages funding of competitors, a line is crossed.

The tech giants have become so entrenched that startups cannot unseat them, and in fact make them more powerful

Manjoo 16 Farhad Manjoo, 1-20-2016, "Tech's 'Frightful 5' Will Dominate Digital Life for Foreseeable Future," NYT, https://www.nytimes.com/2016/01/21/technology/techs-frightful-5-will-dominate-digital-life-for-foreseeable-future.html?action=click&module=RelatedCoverage&pgtype=Article®ion=Footer //DF

But don't expect it to shift much. Asking "who's losing?" misses a larger truth about how thoroughly Amazon, Apple, Facebook, Google and Microsoft now lord over all that happens in tech. Who's really losing? In the larger picture, none of them — not in comparison with the rest of the tech industry, the rest of the economy and certainly not in the influence each of them holds over our lives. Tech people like to picture their industry as a roiling sea of disruption, in which every winner is vulnerable to surprise attack from some novel, as-yet-unimagined foe. "Someone, somewhere in a garage is gunning for us," Eric Schmidt, Alphabet's executive chairman, is fond of saying. But for much of the last half-decade, most of these five giants have enjoyed a remarkable reprieve from the bogeymen in the garage. And you can bet on them continuing to win. So I'm coining the name the Frightful Five. It's not just because I'm a Tarantino fan. **By** just about **every measure** worth collecting, **these five American consumer technology companies are getting larger, more entrenched in their own sectors, more powerful in new sectors and better insulated against surprising competition from upstarts**. "The Big Five came along at a perfect time to roll up the user base," said Geoffrey G. Parker, a business professor at Tulane University and the co-author of "Platform Revolution," a forthcoming book that explains some of the reasons these businesses may continue their dominance. "These five rode that perfect wave of technological change — an incredible decrease in the cost of I.T., much more network connectivity and the rise of mobile phones. Those three things came together, and there they were, perfectly poised to grow and take advantage of the change." Mr. Parker notes the Big Five's power does not necessarily prevent newer tech companies from becoming huge. Uber might upend the transportation industry, Airbnb could rule hospitality and, as I argued last week, Netflix is bent on consuming the entertainment business. But if such new giants do come along, they're likely to stand alongside today's Big Five, not replace them. Indeed, the Frightful Five are so well protected against start-ups that in most situations, the rise of new companies only solidifies their lead. Consider that Netflix hosts its movies on Amazon's cloud, and Google's venture capital arm has a huge investment in Uber. Or consider all the in-app payments that Apple and Google get from their app stores, and all the marketing dollars that Google and Facebook reap from start-ups looking to get you to download their stuff. This gets to the core of the Frightful Five's indomitability. They have each built several enormous technologies that are central to just about everything we do with computers. In tech jargon, **they own many of the world's most valuable "platforms" — the basic building blocks on which every other business, even would-be competitors, depend. These platforms are inescapable; you may opt out of one or two of them, but together, they form a gilded mesh blanketing the entire economy**. The Big Five's platforms span so-called old tech — Windows is still the king of desktops, Google rules web search — and new tech, with Google and Apple controlling mobile phone operating systems and the apps that run on them; Facebook and Google controlling the Internet advertising business; and Amazon, Microsoft and Google controlling the cloud infrastructure on which many start-ups run. Amazon has a shopping and shipping infrastructure that is becoming central to retailing, while Facebook keeps amassing greater power in that most fundamental of platforms: human social relationships. **Many of these platforms generate what economists call "network effects" — as more people use them, they keep getting more indispensable**. Why do you chat using Facebook Messenger or WhatsApp, also owned by Facebook? Because that's where everyone else is.

The tech titans have total dominance over their respective industries

Cable 18 Vince Cable [Vince Cable is leader of the Liberal Democrats and former secretary of state for business], 4-1-2018, "The tech titans must have their monopoly broken – and this is how we do it," Guardian, https://www.theguardian.com/commentisfree/2018/apr/20/tech-monopoly-apple-facebook-data-extreme-content?utm_source=esp&utm_medium=Email&utm_campaign=GU+Today+USA+-+Collections+2017&utm_term=272129&subid=4050296&CMP=GT_US_collection.[6.05.2018] //DF

Data is the new oil. Just as John D Rockefeller's Standard Oil swept up the spoils of the – initially competitive – oil rush, the future of the internet will be shaped by a handful of tech titans, including Google, Apple, Facebook, Amazon and their Chinese equivalents Tencent, Alibaba and Baidu. **Today, around 90% of internet searches are via Google, and 94% of young people who use social media have a Facebook profile. Just 1% of smartphones use an operating system that isn't iOS or Android – made by Apple and Google**. But the challenge we now face has one key difference to that posed by the oil barons. Rather than price-fixing, many of the tech titans provide a largely "free" service to the public. Facebook and Google don't make most of their money through selling services to users, but through advertising. Amazon and Apple, meanwhile, do make money the traditional way, but corner their markets through other means, by squeezing suppliers in the former case or locking in users through software and hardware exclusivity in the latter. So why do these new monopolies pose a problem?

Google and Facebook have as much control over the online advertising market today as Standard Oil had over the oil market 100 years ago

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

Adam and Shivaun didn't have to wait for the official F.T.C. announcement to know that their case was going nowhere. Meeting with officials in Washington, they could tell: These people were not going to prosecute. They had come to the United States at their own expense. They had written memo after memo arguing that Google was treating them unfairly and as a result hurting users. They had done everything they were asked. **Standard Oil controlled 64 percent of the market for refined petroleum when the Supreme Court broke it into dozens of pieces. Google and Facebook today control an estimated 60 to 70 percent of the U.S. digital advertising market**. And the F.T.C. seemed happy to let them keep doing it. To the Raffs, it felt as if history was repeating itself, as if the pointless, ineffectual Microsoft case was happening all over again. It felt as if nobody cared. If you are younger than 29 — which just happens to be the average age of a Google employee, according to a survey done by PayScale — then odds are good you don't remember much about the Microsoft antitrust battles of the 1990s. So, a quick primer: For almost a decade, starting in 1993, federal and state prosecutors besieged Microsoft in courtrooms across the nation, arguing that the company had acted in ways that were predatory and dishonest to preserve its software monopoly. One Microsoft executive was quoted in court as threatening to "cut off" the "air supply" of a competitor. "Is Bill Gates the '90s answer to Don Corleone?" Time magazine asked. "I expected to find a bloody computer monitor in my bed," a witness told investigators.

The high profits of the tech giants have enabled them to buy out potential competitors

Moore 16 Martin Moore [director of the Centre for the Study of Media Communication and Power in the Policy Institute at King's College London. He has twenty years experience working across the UK media, in the commercial sector, the third sector and in academia. Prior to King's he was founding director of the Media Standards Trust], 4-2016, "Tech Giants and Civic Power," Centre for the Study of Media, Communication and Power, https://core.ac.uk/download/pdf/51344227.pdf //DF

Our growing reliance on these organisations has helped make them very highly valued. Apple became the first US company to achieve a valuation of over $700 billion in February 2015 (dropping later in the year). In addition to its high profit margins Apple had built up a cash surplus of $178 billion, 'the biggest of any public corporation in the world'.56 Alphabet's market capitalization reached almost $530 billion by the end of 2015, making it more valuable that the oil giant Exxon Mobile. In 2014 Google (as then was) made $14.4 billion in profit. Microsoft was not that far behind Alphabet at a valuation of over $440 billion at the close of 2015. Facebook was valued at nearly $300 billion by the end of that year.57 These technology and media companies are not just large compared to their industry contemporaries, but also compared to the nineteenth century US Trusts at whom the Sherman Act was aimed. When Standard Oil was at its height just after the turn of the twentieth century it was making profits of approximately $65 million a year.58 This equates to around $1.7 billion in 2015. In 2014 Apple made a profit of over $39 billion, or more than twenty times that of Standard Oil when it attracted the attention of US antitrust legislators. **The wealth of these organisations allows them to** invest significant amounts in research and development, as well as acquiring **companies that complement or compete with their services. Facebook** paid $19 billion for the messaging service **WhatsApp in 2014**.59 **Google made more than 170 acquisitions between 1998 and 2015, many of which it integrated with its own services** – such as YouTube, Adsense, Blogger, Picasa, Analytics.60

Link – spooking tech companies

Taking action against big tech companies will force them to act more cautiously and allow for newer companies to come in, even if the regulations themselves don't work

Economist 19 3-14-2019, "Tech giants face new threats from the government and regulators," Economist, https://www.economist.com/united-states/2019/03/14/tech-giants-face-new-threats-from-the-government-and-regulators //DF

The other principal worry is that big tech firms suppress competition. That can be addressed by enforcing antitrust law. America has not brought a big antitrust case against a tech giant for 20 years, since it went after Microsoft for anti-competitive behaviour. Those in favour of the "big case" tradition of antitrust, as Ms Warren is, believe that break-up attempts, even if they are not ultimately successful, put tech firms on guard and can allow innovative upstarts to thrive while the giant is distracted by court cases. Proponents of this school of thought point out that new firms arose after government actions against at&t, ibm and Microsoft. But not everyone agrees that it is a good idea to try to break up tech firms. It is better to prevent mergers happening in the first place than attempt to untangle them after the fact. A big move against a tech giant seems unlikely until after 2020. But even if the elected president does not have Ms Warren's enthusiasm for breaking up these companies, there could be pressure to do so. State attorneys-general are increasingly agitating to take action against big tech firms over privacy infringements and anti-competitive behaviour. There are rumours that some have singled out Facebook. If they band together, attorneys-general could hurt tech firms and provoke action by the federal government—just as they did, launching investigations and going on to pressure the government, in the cases against big tobacco and Microsoft that started in the 1990s.

Antitrust enforced against IBM in the 1970s both enabled the rise of the software industry by forcing them to stop abusive bundling, and gave breathing room for competition by scaring them into line

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 111-113 //DF

That's no tript to the county courthouse, and no one can defend how the court managed the litigation, which became as bloated as a 1970s muscle car. But consider the stakes: The computer and software industries were already bringing in billions in revenue, are today collectively worth many trillions of dollars, and include many of the most valuable companies on Earth. Small effects on this industry would and did have major long term effects. It has become clear that **the IBM case decisively influenced the computing industry that is now a centerpiece of the American and world economy.** First and most importantly, **IBM dropped its practice of bundling (or tying) its software with hardware. That is broadly understood**, even by IBM's own people, **to have kickstarted the birth of an independent software industry**. Second, IBM litigation also affected the development of the personal computer industry in the late 19700s and early 1980s. The IBM PC, developed while the lawsuit was still pending, was antitrust proof: IBM went with an extremely open design and declined to buy or exert excessive control over the firms who made the components, including Intel, Seagate, and Microsoft, among others. IBM actually entered the personal computer market gingerly, and separately from its other products. Above all, **IBM spent the 1970s with a "policeman at the elbow," and subsequent research makes clear that the firm steered shy of anything close to anticompetitive conduct, for fear of adding to the case against it**. The period consequently saw the birth of independent software, the dawn of the personal computer, the rise of firms like Apple and Microsoft–all matters, by any count, of major economic importance and of great value to the American economy. How much the "policeman at the elbow" contributed to the extraordinary developments in the computing industry is hard to measure precisely, but if the answer is even a little bit, then the case mattered a lot. And that is why I think the whining about the number of pages in the IBM trial record is petty, or the hassle experiences by IBM's lawyers, or the millions in costs, when hundreds of billions if not trillions were at stake. If the effect of the litigation was to prevent IBM from killing its main emergent challengers, the IBM case was not expensive, but incredibly cheap.

The EU's fine against Google could also prove to have similar effects, albeit on a smaller scale

Dougherty 17 Conor Dougherty, 7-1-2017, "Inside Yelp's Six-Year Grudge Against Google," NYT, https://www.nytimes.com/2017/07/01/technology/yelp-google-european-union-antitrust.html //DF

Unlike Google, whose office is full of artwork and free food, Yelp's Washington presence is just a rented co-working space. So Mr. Lowe keeps the elephant at Yelp's San Francisco headquarters, where there is more room. "This is a shoestring operation," he said. But after years of trying and failing, that operation has finally landed a good punch. On Tuesday, **the European Union fined Google $2.7 billion — the largest antitrust fine in its history — for unfairly favoring its own services over those of its rivals**. The fine was related to Google's shopping service, so strictly speaking it had nothing to do with the Yelp-Google dispute, which is part of a separate investigation into local search. Still, Yelp and other American technology companies pushed hard to get regulators to issue a bold condemnation of Google's behavior toward competitors, signing a letter that accused Google of "destroying jobs and stifling innovation." And by affirming that Google is the dominant company in online search — something most people take for granted — Tuesday's decision is likely to help Yelp's case. Asked about future investigations, Margrethe Vestager, the antitrust chief, offered a diplomatic answer, saying that even

though other cases make similar allegations against Google, they must be considered one by one. "The one thing that has sort of changed from yesterday, before the decision was taken, was that now we will consider Google as a dominant company," she said. Yelp is one of a number of American companies — Microsoft and Oracle are others — that have agitated for the world's governments to take up the fight against Google. It is one tiny player, but through persistence and doggedness, and by being loud and public with its complaints, it has become an unusually prominent voice. Mr. Stoppelman feels he has no choice. Like a lot of small internet companies, Yelp lives in a world where one company, Google, accounts for an outsize share of its business, and could destroy it at any time. Its complaints to regulators are less about working toward some epic and definitive conclusion than they are about continuously brushing back the giant so Yelp can have more room to grow. "It's like, you get traffic from this company, and this company is a monopoly," he said. "If you're me, it seems like the obvious move." Yelp's campaign against Google provides an inside look at a constant battle in the technology industry: the conflict between large companies that control how people use technology and the internet, and the smaller, more vulnerable businesses that live inside those platforms. Be it Netscape, whose 1990s-era internet browser was the catalyst for antitrust charges against Microsoft and its Windows operating system, or Spotify, whose music service must now compete with Apple's own music app, any company trying to build a business on another company's system runs the risk of being snuffed out or swallowed up. For Yelp, the issue is where Google displays "organic" website rankings — the ones spit out by its algorithm — in relation to the "vertical" results that Google itself provides. For example, say you searched for "steakhouse New York." The first set of results, consuming the entire screen of a mobile phone, is a map and a set of restaurants from Google's local offering. The results have information like hours, stars and customer reviews. Below that are links to reviews, articles and other sites. Like Yelp. Yelp's contention is that by putting its own results at the top, Google is giving itself an unfair advantage, because those results don't have to jump through the same algorithmic hoops non-Google sites are subjected to. And since Yelp says few people go beyond the first or second result, companies like Yelp are made invisible. Google disagrees. The company declined to comment beyond its official statement on the European fine, but it has repeatedly said that as smartphones displace desktop computers as the internet gateway, people just want the answer to their question — not a link to a site where they might have to repeat the query — and that Google's results oblige. Local queries — such as looking for nearby restaurants — account for roughly a third of all search traffic. So Google has a big incentive to keep people within its search engine, where it can sell ads, instead of sending them to Yelp, which also sells ads. Separately, some businesses have claimed that Yelp stacks the deck by playing up bad reviews when businesses don't buy ads from it. Yelp has denied those claims. This dispute would be moot if people were in the habit of using a variety of search engines. Google has become so universally known and depended upon that it is sometimes hard to remember that it is a company, and it exists to make money. But as Microsoft learned in its 1990s antitrust battle, companies can face a heap of legal problems when their platform becomes so popular that people hardly use anything else. **With one strike against it now in Europe, Google may be increasingly careful about how it treats competitors throughout the search engine. "Even if nothing else takes place, a consequence of this kind of intervention, so visible and so significant, has been to give other firms more room to maneuver,"** said William E. Kovacic, a former chairman of the United States Federal Trade Commission and now a professor at the George Washington University Law School. Google is sitting on close to $100 billion in cash, so the $2.7 billion fine — a sum larger than Yelp's market capitalization — is hardly unmanageable. A larger concern is that the decision, and the potential for other antitrust actions, will limit Google's ability to position ads around its search box. And for all the talk about self-driving cars and delivery drones, Google is still the foundation of a big advertising company.

Link – Breakups

Break up the tech giants to ensure competition

Cable 18 Vince Cable [Vince Cable is leader of the Liberal Democrats and former secretary of state for business], 4-1-2018, "The tech titans must have their monopoly broken – and this is how we do it," Guardian, https://www.theguardian.com/commentisfree/2018/apr/20/tech-monopoly-apple-facebook-data-extreme-content?utm_source=esp&utm_medium=Email&utm_campaign=GU+Today+USA+-+Collections+2017&utm_term=272129&subid=4050296&CMP=GT_US_collection.[6.05.2018] //DF

How should we respond? As liberals we must show that to be radical in this field is not to be statist. We do not accept a Hobson's choice between the entrenched private monopolies which are becoming the status quo, or direct state control over the internet, as is being developed in China. First, **we must revive the trust-busting spirit of previous generations.** Competition authorities should be primarily concerned with takeovers which stifle innovation or involve the acquisition of large quantities of valuable data. More radically, companies should be broken up when their size becomes economically detrimental. **One could imagine Amazon being split into three separate businesses: one offering cloud computing, one acting as a general retailer and one offering a third-party marketplace. Facebook could be made to sell off Instagram and WhatsApp, Google could divest itself of YouTube – in the process creating new competitors for themselves.** Second, internet companies should be held accountable for extreme content posted on their platforms through the establishment of a new independent standards body governing the handling of such content. This would put an end to the current "wild west" approach of self-regulation and haphazard government responses to tech-company failures. This is preferable to the draconian system recently put in place by Germany, which has already led to excessive censorship by private companies and a backlog of court appeals and disputes.

No way for upstart companies to beat the titans because their size allows them to dominate

Wheeler 19 Tom Wheeler [Visiting Fellow - Governance Studies, Center for Technology Innovation; served as the 31st Chairman of the Federal Communications Commission from 2013-2017], 4-11-2019, "Should big technology companies break up or break open?," Brookings, https://www.brookings.edu/blog/techtank/2019/04/11/should-big-technology-companies-break-up-or-break-open/ //DF

The good old days of competition are gone from the digital marketplace. The big tech execs like to say that "competition is a click away," but that is myth. The young and spunky Facebook was able to beat the more established Myspace in the early days of social media through traditional "my product is better than yours" competition. But this couldn't happen today, **no matter how much better the new product is. Taking on Facebook today would mean taking on the data hoard of two and a quarter-billion users and the precision targeting it offers advertisers.** The digital reality is that if you do not have the targeting precision, you don't have the revenue, no matter how good your new product may be. Siphoning your personal information and hoarding it is not limited to platform companies like Facebook and Google. The networks that take you to and from the internet—companies such as AT&T and Comcast—watch everything you do on the network. They, too, hoard that information for their own exploitation. When network company AT&T acquired media content company Time Warner, for instance, executives made no bones about how they intended to use the information AT&T's network collects about you to target Time Warner programming and advertisements.

IL – Innovation

1. Tech monopolies hurt innovation by decreasing entrepreneurship

Cable 18 Vince Cable, 4-1-2018, "The tech titans must have their monopoly broken – and this is how we do it," Guardian, https://www.theguardian.com/commentisfree/2018/apr/20/tech-monopoly-apple-facebook-data-extreme-content?utm_source=esp&utm_medium=Email&utm_campaign=GU+Today+USA+-+Collec

tions+2017&utm_term=272129&subid=4050296&CMP=GT_US_collection.[6.05.2018] //DF

Data is the new oil. Just as John D Rockefeller's Standard Oil swept up the spoils of the – initially competitive – oil rush, the future of the internet will be shaped by a handful of tech titans, including Google, Apple, Facebook, Amazon and their Chinese equivalents Tencent, Alibaba and Baidu. Today, around 90% of internet searches are via Google, and 94% of young people who use social media have a Facebook profile. Just 1% of smartphones use an operating system that isn't iOS or Android – made by Apple and Google. But the challenge we now face has one key difference to that posed by the oil barons. Rather than price-fixing, many of the tech titans provide a largely "free" service to the public. Facebook and Google don't make most of their money through selling services to users, but through advertising. Amazon and Apple, meanwhile, do make money the traditional way, but corner their markets through other means, by squeezing suppliers in the former case or locking in users through software and hardware exclusivity in the latter. So why do **these new monopolies** pose a problem? Firstly, because they **hold back innovation. By acquiring potential challengers before they become a threat, spending millions lobbying governments to ensure their economic interests are protected, and tying in users** through the sheer scale of features and social interaction they offer, **the tech giants' dominant position often leaves entrepreneurs feeling they have no choice but to sell up, or close up**. This is bad for innovation and bad for consumer choice – two things the tech giants once stood for. In addition, the tech titans have lost the ability to monitor what content gets put on their own platforms. A small minority of users are posting terrorist propaganda, depictions of child sex abuse, and hate speech. State and non-state actors use these platforms to spread false information and influence elections, including the Brexit referendum and the recent US presidential election. Facebook, YouTube and Twitter are either unable or unwilling to curb the misuse of the data they collect, and are increasingly seen as part of the problem.

2. Companies like Amazon also undermine innovations by stealing them from smaller companies on platforms that it controls and then selling them back

Smith 19 Noah Smith, 2-19-2019, "Amazon's Winner-Take-All Approach to Small Business," Bloomberg, https://www.bloomberg.com/opinion/articles/2019-02-19/amazon-uses-search-to-undercut-small-businesses-on-its-site //DF

That wouldn't necessarily be a problem for small retailers if Amazon simply provided a venue that allowed small businesses to connect with customers. But increasingly, **Amazon sells its own products, including private-label goods, that compete with the offerings of independent merchants on its platform.** A recent paper by economists Feng Zhu and Qihong Liu observed Amazon's behavior over time, and found that **it tends to introduce products in niches that smaller merchants did the work of discovering by finding out what consumers like. Amazon then piggybacks on their efforts**. 1 This kind of tactic could be increasingly important as Amazon makes its own private-label products. This is similar to a classic move used by supermarkets -- observe which products sell well, then introduce private-label brands to try to grab some of those markets. But technology has given online platforms superior tools to outcompete their suppliers. One of these tools is search. Customers look for products using Amazon's internal search function. Independent sellers can try to take sales from rivals by buying placements in the search results for a rival's brand-name product -- for example, when a customer searches for Purina dog food, she might see a promoted result for Kibbles 'n Bits. But Amazon doesn't allow other sellers to compete with its products this way -- if you search for an Amazon product, you're invariably going to see an Amazon product first. But if you search for another company's product, you might see an Amazon product promoted at the top of the list. Amazon now is experimenting with a feature that could, if adopted, automatically include Amazon products in searches. And search isn't the only advantage a platform has in the digital age; Amazon also collects potentially crucial sales and marketing data that it can choose not to share with third-party merchants. Of course, any online retailer could do the same. But the world of e-commerce is subject to stronger network effects. When you buy something from a brick-and-mortar retailer, you tend to go to one that's conveniently located, whether it's a Wal-Mart, a Target, a Best Buy or a local convenience store. But online, unless you're searching for a specialized product, there's often no reason to go anywhere but Amazon. This naturally tends to push the platform market toward winner-take-all. And it's exacerbated by Amazon's practice of requiring merchants not to offer their products more cheaply on any other platform -- a type of agreement known as a most-favored nation provision or MFN. This means that merchants who want to

sell their products online have no choice but to be on Amazon, the biggest platform, and play by its rules. Some, such as business professor Andre Hagiu, argue that Amazon would be foolish to out-compete its merchants, because this would deter them from offering their products on Amazon in the future. But researchers have long known that this logic doesn't necessarily apply in the presence of dominant market power; back in 2000, economists Joseph Farrell and Michael Katz showed that **a monopoly can have incentives to confiscate the profits from the innovation of companies who produce complementary products, thus stifling innovation**. Tech publisher Tim O'Reilly argues that even if eating the third-party ecosystem isn't a good long-term decision, a platform may be tempted to do it anyway just for the short-term profits. So if Amazon is chewing up the small-business world -- and the e-commerce world in general -- what's to be done? One approach is to identify and ban Amazon's specific anticompetitive practices, as European authorities are trying to do in the case of data sharing. Another approach is to try to introduce competition into the e-commerce platform space by banning MFNs and other anticompetitive practices. But these efforts may be inadequate, since the former involves a continuous cat-and-mouse game between regulators and Amazon, and the latter probably won't be enough to overcome the strong network effect driving the concentration of online retail. Another alternative, of course, is simply to break up Amazon. But before such a drastic step is taken, economist Hal Singer argues, antitrust authorities should consider a gentler alternative -- a nondiscrimination regime. This would basically allow any third-party merchant to lodge a complaint with the Federal Trade Commission or another independent tribunal. Although only larger merchants would have the resources to lodge such complaints, any victories they won would benefit smaller businesses as well, by curbing Amazon's anticompetitive stratagems.

3. Their dominance scares investors out of funding these companies, resulting in an all-time low in startup formation

Asher Schechter [Writer and editor, ProMarket. As a journalist, he has mostly covered issues related to the intersection between politics and the economy, such as antitrust, corruption, lobbying and social movements], 5-25-2018, "Google and Facebook's "Kill Zone": "We've Taken the Focus Off of Rewarding Genius and Innovation to Rewarding Capital and Scale" -," Pro Market: the blog of the Stigler Center at the University of Chicago Booth School of Business, https://promarket.org/google-facebooks-kill-zone-weve-taken-focus-off-rewarding-genius-innovation-rewarding-capital-scale/ //DF

"If you provide great content in one of these categories that is lucrative to Google, and seen as potentially threatening, they will snuff you out," added Stoppelman. "They will make you disappear. They will bury you." The sentiment that startups effectively have no chance of competing against the "Big Five" tech giants—Alphabet, Amazon, Apple, Facebook, and Microsoft—is one that has become increasingly common among tech entrepreneurs and venture capitalists in recent years. "People are not getting funded because Amazon might one day compete with them," one founder told The Guardian. "If it was startup versus startup, it would have been a fair fight, but startup versus Amazon and it's game over." As the author and media scholar Jonathan Taplin pointed out in an interview with ProMarket, **the very notion that someone could start a new search engine that competes with Google "is just laughed at by the venture capital community." Investors and entrepreneurs**, said the venture capitalist Albert Wenger during a panel discussion at the Stigler Center's annual antitrust conference last month, **are now wary of entering into direct competition with giants like Google and Facebook**. Both companies, along with Amazon and Apple, effectively have a "Kill Zone" around them—areas not worth operating or investing in, since defeat is guaranteed. Tech platforms, after all, have endless resources at their disposal to either purchase or crush new upstarts they perceive as threats. Increasingly, startups that operate in areas coveted by tech giants face a similar choice: sell—or get crushed. The Big Five have made over 436 acquisitions in the last decade, with little to no challenge from antitrust authorities. When startups refuse to sell, they find themselves facing an unlevel playing field. Snapchat, which turned down a $3 billion acquisition offer from Facebook in 2013 (and a $30 billion bid from Google in 2016), is a case in point: after it failed to acquire Snapchat, Facebook simply cloned many of Snapchat's key features, using its vast reach to completely undercut its growth. This is not an uncommon occurrence. "The Kill Zone is a real thing," said Wenger, a managing partner at Union Square Ventures and an early investor in Twitter. "The

scale of these companies and their impact on what can be funded, and what can succeed, is massive." He went on to quote one angel investor who told him that he only invests "in things that are not in Facebook's, Apple's, Amazon's or Google's kill zone." The kill zone, noted Wenger, is not a new phenomenon. Microsoft had a similar kill zone around it when it dominated the tech industry in the late 1990s. "It was a similar playbook, where Microsoft would see, 'What kind of things are doing well on my platform?'" he said. "Then they would just absorb those into the platform itself. That is a playbook that's being exercised by Amazon, by Google, by Facebook, by all the big digital platforms." All this has profound implications for the startup ecosystem and for the future of innovation. Is the dominance of digital platforms, routinely hailed as the most innovative companies in the world, actually hindering innovation? Much of the Stigler Center panel, moderated by Fortune magazine's executive editor Adam Lashinsky, revolved around this very question. In addition to Wenger, it featured patent expert Elvir Causevic, managing director and co-head of Houlihan Lokey's Tech+IP Advisory practice; Glen Weyl, a principal researcher at Microsoft Research New England and a senior research scholar at Yale's economics department and law school; and Matt Perault, director of public policy at Facebook. While opinions as to how to address the power of digital platforms and spur innovation varied wildly, most of the panelists seemed to agree on one basic premise: the size and scope of digital platforms has become an impediment to innovation. "Small Companies No Longer Have Access to Patent Protection" Innovation used to be associated with small companies and entrepreneurs. There's a reason why the garage has taken such an important place in the mythology of the tech industry: Silicon Valley, as we know it, is the product of entrepreneurs starting companies in their garages, from Bill Hewlett and Dave Packard in the late 1930s, through Steve Jobs and Steve Wozniak in the 1970s, to Larry Page and Sergey Brin in the 1990s. But the vaunted garage is little more than a myth in today's Silicon Valley. **The rise of digital platforms has been correlated with a historic decline in startups: new business formation in the US has declined by more than 40 percent since the late 1970s and is near a 40-year low**. At the same time, as the New York Times' Farhad Manjoo pointed out last year, the technology industry has gradually become "a playground for giants." Many economists are naturally concerned about this decline in entrepreneurship: startups are an important driver of both jobs and innovation. A lack of startups is often associated with rigidity and a lack of economic dynamism. Another result, however, is that big firms have seemingly taken the mantle as the most innovative in the world.

The tech company's dominance prevents investments in startups, which is hurting innovation and job growth

Solon 17 Olivia Solon, 10-20-2017, "As tech companies get richer, is it 'game over' for startups?," Guardian, https://www.theguardian.com/technology/2017/oct/20/tech-startups-facebook-amazon-google-apple //DF

Pushing hard might not be enough when you're going up against some of the world's most powerful companies keen to cling to their empires. **Startups drive job creation and innovation, but the number of new business launches is at a 30-year low** and some economists, investors and entrepreneurs are pointing their fingers at big tech. For one thing, the deep pockets and resources of companies like Facebook, Google, Amazon and Apple – with a combined value of almost $2.5tn – make it increasingly difficult for startups to compete or attract investment. "People are not getting funded because Amazon might one day compete with them," said one founder, who wished to remain anonymous. "If it was startup versus startup, it would have been a fair fight, but startup versus Amazon and it's game over." Even multibillion-dollar startups like Snap, Snapchat's parent company, struggle to compete against these tech titans. Like Houseparty, Snap was nipping at the heels of Facebook. At first, Facebook played nicely, making an offer to buy Snapchat – a strategy that worked with Instagram and WhatsApp. When that failed, Facebook cloned all of Snapchat's features, awkwardly at first but relentlessly and with the resources of a $510bn company, until Snap's potential slice of the advertising market shriveled to a sliver. While there's a clear correlation, it's hard to say for sure whether concentration of money is the cause or effect of the startup decline. On one hand, the existence of fewer new startups makes it easier for incumbent firms to accumulate more power. However, as industries become more concentrated, it also raises the barriers to new entrepreneurship, choking off innovation elsewhere in the marketplace. "They are financing the next generation research at a scale that no one else can afford," said Tomasz Tunguz, a venture capitalist, citing Google's experimental projects Loon

(balloon-powered internet), Fiber (high-speed internet) and Waymo (self-driving cars). “They are playing in big markets, making big bets. Historically, that’s been the domain of startups.” **As those companies get more powerful and staff salaries get higher, there’s even less of an incentive for workers to leave and set up on their own, which used to be a common pathway for entrepreneurs.** If they do leave, the endgame is often to be acquired by their previous employer rather than grow large enough to compete with it. “If your strategy from the outset is to be acquired by Google, that’s just fueling consolidation,” said Ian Hathaway, an economist at the Brookings Institution. Jonathan Frankel was thrilled when Amazon’s investment arm funneled $5.6m into his startup Nucleus after a year of discussions. He was less thrilled when, a year later, Amazon launched its latest voice-controlled device, the Echo Show: an almost perfect clone of the Nucleus product. Nucleus was an Alexa-powered tablet computer that focused on video conferencing and communication, with a plan – that Amazon’s investment arm would have seen – to move into other areas. When the Echo Show launched, it too focused on communication, the core of Nucleus’s vision, instead of other key features like e-commerce or connected home elements. Frankel, who declined to comment for this piece, was furious, telling Recode earlier this year: “Their thesis is what our thesis was: communication is that Trojan horse to get those devices throughout the home and throughout the extended family’s home. “The difference is, they want to sell more detergent; we actually want to help families communicate easier.” These kinds of tactics have rattled investors, some founders said, making it harder for startups to raise money even if they’re in an adjacent market – particularly those skirting Amazon and Facebook. A venture capitalist confirms this, describing Amazon’s launch of an almost identical product as a “very, very strange coincidence”. “At the end of the day, Amazon could be theoretically in nearly any consumer business in the world,” he said, adding that he was frequently in meetings where investment decisions are informed by the question: “Can Amazon do that?” “Amazon can do anything,” he noted. 'From heroes to villains': tech industry faces bipartisan backlash in Washington Read more It’s not just a problem within the tech industry. Since 1980, the share of companies less than a year old has almost halved – from 15% of companies to just 8.1%, according to Census Bureau data. The total number of startups formed in 2015 (the last year surveyed) was 414,000 – a huge drop from the pre-recession figure of 558,000 in 2006. “It’s been a persistent and fairly precipitous decline,” said John Dearie, the founder of the Center for American Entrepreneurship, an organization set up to address the decline. “The reason why this is so troubling is that **new businesses account for virtually all new job creation and account disproportionately for disruptive innovations.” “It’s not a coincidence that at a time when the startup rate is in a long-term decline, the economy has not grown at 3% or better**,” said Dearie. “We are in a growth emergency.”

4. Big companies produce only incremental innovations because they fear change that could upset their market control; small companies do this better

Economist 11 12-17-2011, "Big and clever," Economist, https://www.economist.com/business/2011/12/17/big-and-clever //DF

Big companies have a big advantage in recruiting today's most valuable resource: talent. (Graduates have debts, and many prefer the certainty of a salary to the lottery of stock in a start-up.) Large firms are getting better at avoiding bureaucratic stagnation: they are flattening their hierarchies and opening themselves up to ideas from elsewhere. Procter & Gamble, a consumer-goods giant, gets most of its ideas from outside its walls. Sir George Buckley, the boss of 3M, a big firm with a 109-year history of innovation, argues that companies like his can combine the virtues of creativity and scale. 3M likes to conduct lots of small experiments, just like a start-up. But it can also mix technologies from a wide range of areas and, if an idea catches fire, summon up vast resources to feed the flames. However, there are two objections to Mr Mandel's argument. The first is that, **although big companies often excel at incremental innovation** (ie, **adding more bells and whistles to existing products**), **they are less comfortable with disruptive innovation—the kind that changes the rules of the game. The big companies** that the original Schumpeter celebrated **often buried new ideas that threatened established business lines**, as AT&T did with automatic dialling. Mr Mandel says it will take big companies to solve America's most pressing problems in health care and education. But sometimes the best ideas start small, spread widely and then transform entire systems. Facebook began as a way for students at a single university to keep in touch. Now it has 800m users. The second is that what matters is not so much whether companies are big or small, but whether they grow. Progress tends to come from high-growth companies. The best ones can take a good idea and use it to transform themselves from embryos into giants in a few years, as Amazon and Google have. Such high-growth firms create a lot of jobs: in America just 1% of companies generate roughly 40% of new jobs.

https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c
America's big tech companies have achieved their level of dominance in part based on two strategies: Using Mergers to Limit Competition. Facebook has purchased potential competitors Instagram and WhatsApp. Amazon has used its immense market power to force smaller competitors like Diapers.com to sell at a discounted rate. Google has snapped up the mapping company Waze and the ad company DoubleClick. Rather than blocking these transactions for their negative long-term effects on competition and innovation, government regulators have waved them through. Using Proprietary Marketplaces to Limit Competition. Many big tech companies own a marketplace — where buyers and sellers transact — while also participating on the marketplace. This can create a conflict of interest that undermines competition. Amazon crushes small companies by copying the goods they sell on the Amazon Marketplace and then selling its own branded version. Google allegedly snuffed out a competing small search engine by demoting its content on its search algorithm, and it has favored its own restaurant ratings over those of Yelp. Weak antitrust enforcement has led to a dramatic reduction in competition and innovation in the tech sector. Venture capitalists are now hesitant to fund new startups to compete with these big tech companies because it's so easy for the big companies to either snap up growing competitors or drive them out of business. The number of tech startups has slumped, there are fewer high-growth young firms typical of the tech industry, and first financing rounds for tech startups have declined 22% since 2012. With fewer competitors entering the market, the big tech companies do not have to compete as aggressively in key areas like protecting our privacy. And some of these companies have grown so powerful that they can bully cities and states into showering them with massive taxpayer handouts in exchange for doing business, and can act — in the words of Mark Zuckerberg — "more like a government than a traditional company."

Breaking up bloated monopolies unleashes new competitors who innovate and create better products

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 73-74 //DF

To be sure, there are some private checks on bigness, or of the building of empire for empire's sake. The firm's owners or board of directors may order management to stop expanding for no good reason but their own welfare. Smaller, more efficient competitors do sometimes manage to kill a bloated dinosaur, or the firm may be taken over by a corporate raider who sees value in breaking the firm into small pieces. But unfortunately, these market-based checks on bigness can and do fail, and their mythology can outmatch their real effectiveness. For they are, at all times, counterbalanced by the advantages and attractions of power, and the allure of monopoly profit. For that reason, oversized, inefficient firms can persist for decades, effectively immunized from the need to improve products or lower prices. Instead, like American domestic airlines, the industry can happily offer a product that continues to get worse and cost more. **That monopoly can be an inefficient form was a lesson from the Standard Oil case, for in the end, the breakup of the oil industry was boon to its further expansion**. That isn't unusual: the break-up of the original film-trust sparked the rise of the American film industry; and in more recent times the campaigns against AT&T and IBM sparked a momentous boom in the telecommunications and computing industries. **The cries of doom, gloom and economic catastrophe**

are often overblown, for some industries can benefit from a breakup. Indeed, as the example of the Standard suggests, while the patient may protest, the government is sometimes doing it a favor. Antitrusts Constitutional Moment Roosevelt's cases against Standard Oil and J.P. Morgan were his most dramatic; but in total, he filed forty-five cases and achieved numerous breakups. The trust busting campaign continued under his successor, President William Howard Taft, who pursued a total of seventy-five cases, including cases targeting U.S. Steel, AT&T, two of J.P. Morgan's other creations. By the end of the 1910s, just about every one of the major trusts had been broken into pieces or had some encounter with the antitrust law, making it, for a while at least, a primary level of federal economic policy making. In this sense President Roosevelt achieved his goal–demonstrating the primacy of the elected government over the structure of the economy.

AT&T's breakup exemplifies the massive benefits that antitrust brings to innovation and American global competitiveness

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 96-98 //DF

The AT&T litigation lasted a decade, but created no great court decision, and in fact the Supreme Court never weighed in. Instead, in the early 1980s, during the Reagan administration, AT&T agreed to a dramatic breakup that echoed those of the classic trusts. The firm held on to its long distance services, Bell Labs, and Western Electric, its equiptment manufacturer. But seven seperate regional operating companies would be carved from the corporate carcass, the local monpolists now released as independent companies. Since each of the so-called Baby Bells would continue to have an effective monopoly over local services, each was placed in a newly designed regulatory cage of reinforced and toughened FCC rules. Each would be obliged to accept connections from any long distance company (not just their former parent), and all were explicity shut out of new markets such as online services and cable. As the las major breakup, it is worth examining what consequences it had. It unquestionably created chaos over the short term. Some economists point to lower prices in the wake of the dissolution, but the real impact was different and far more important. It became apparent, in retrospect, just how much innovation the Bell system monopoly had been holding back. For **out of the carcass of AT&T emerged new types of industries unimagined or unimaginable during the reign of AT&T**. For example, the liberty to sell things to consumers that plugged into a (new) phone jack not only yielded the answering machine, but the home modulator/demodulator, or modem, allowing a home computer to speak with a network. That, in turn, made feasible an industry of "online service providers" like AOL or Compuverse, which themselves **spawned internet service providers that were accessible from home, producing the Internet revolution**. Politically, the slicing and dicing of the Bell System weakened the political power wielded by the entity, and made it harder to control or destroy the entrants into mobile phone service like T-Mobile and Sprint. For a while, over the 1990s, the spit between AT&T (in long distance) and the underlying Bell companies created some equality of arms in the world of telecommunications lobbying, lasting at least until the Bush administration foolishly allowed the Bell system to consolidate into two large empires. Obviously not everything that happened over the 1980s and 1990s can be attributed to the AT&T breakup, but so many of the basics were impossible under the Bell system that real credit must be given. We might also consider nations that did not break up their telephone numbers. The Europeans, always more corporatists, left their telecom monopolists intact, and found their computing industries perpetually relegated to the sidelines. But perhaps the strongest counterexample is Japan, which, by the 1980s, was considered a serious rival to the United States in technology industries such as computing and online services. But **because Japan never broke the power of its telephone monopoly, independent telecommunications and internet firms never really grew, and by the early 2000s the United States had leaped far ahead. There is, after all, only so much you can do when your innovations need to be engineered not to disturb the mother ship**. [End of section]

Microsoft breakup helped innovation long-term

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 99-100 //DF

Gates also had an acute sensitivity to where the points of control in his industry were to be found: He quickly seized on the browser as the key to the future. At the time, the leading browser was a darling little company named Netscape, whose Navigator was the first browser of truly mass popularity. To control the browser, Gates realized, was to gain control over the future of the web, and, as it later became clear, pretty much the future of the world. It was an acute insight, but not an unfamiliar one, because it was actually a replica of the maneuver that Gates had built his entire fortune on. From the beginning, Microsoft had proven the mantra that good artists copy but great artists steal. Its first operating system (MS-DOS) was actually a clone of CP/M, another operating system. Microsoft Windows was a rip-off of the Apple Macintosh operating system; Microsoft Word and Excel were copies of Wordperfect and Lotus 1-2-3-, respectively. In no instance were Microsoft's products actually better in a clear war–instead, they were always bundled with something else you really need. Microsoft's products never won by choice, but rather, by the sense that there was no real choice. By the late 1990s Microsoft had unleashed its signature strategy against Netscape. Explorer was Microsoft's copy of Navigator, and suddenly Explorer was everywhere and Navigator nowhere. That was no accident, but rather the byproduct of coercive deals pushed by Microsoft on the entire industry. In a few short years, Netscape was bankrupt, and Microsoft had added a new monopoly to its collection. **In our times, with minimal antitrust enforcement, Microsoft would have been in a perfect position to control the future of the internet**, just as Gates had planned. **Small firms like Google, Facebook, Amazon, and others were all dependent on the web browser, over which Microsoft now had a monopoly.** To take just one example, **it is highly doubtful that Google would have achieved dominance in a world where Microsoft could dictate what search engine was being used on every computer in the world. We would all be using BING.** Microsoft was a monopolist with over 90 percent of the market share, engaged in the destruction of a small company with the goal of acquiring a new monopoly in a new market. Nonetheless, the critics of antitrust attacked Klein for bringing suit. Tech markets were too complicated or "fast-moving" for the law to catch up and understand. The government would kill the goose that lays the golden egg. But the facts, as they came out, strongly favored the Justice Department. Microsoft's movies were made clear by its internal memoranda; and Microsoft had great difficulty coming up with anything but the most pretextual reasons for the tactics it employed against Netscape. Bill Gates endured a brutal and lengthy deposition, which, if it did not score any fatal blows, revealed a far darker side to the man than his various hagiographies had described.

More evidence on Microsoft breakup being good for innovation

Blumenthal and Wu 18 Richard Blumenthal [Democratic senator from Connecticut] and Tim Wu [law professor at Columbia, the author of "The Curse of Bigness: Antitrust in the New Gilded Age" and a contributing opinion writer], 5-18-2018, "What the Microsoft Antitrust Case Taught Us," NYT, https://www.nytimes.com/2018/05/18/opinion/microsoft-antitrust-case.html?rref=collection%2Fbyline%2Ftim-wu&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=6&pgtype=collection //DF

Twenty years ago today, Microsoft was sued by the Department of Justice and a coalition of 20 state attorneys general (including one of us, Mr. Blumenthal, of Connecticut) for violating federal antitrust law. Microsoft, the world's dominant software firm, and Bill Gates,

the world's richest man, faced a challenge from the upstart company Netscape and its internet browser, Netscape Navigator. The suit accused Microsoft of illegally protect[ed]ing its operating-system monopoly and seeking a new monopoly for its own browser, Internet Explorer. The fear was that Microsoft would kill Netscape, monopolize the browser market and use that point of control to dominate the coming age of the web. After a tough fight, the government won the case. There is now no browser monopoly, and the world has come to rely on the many apps, firms and ideas that were born after Microsoft's control was broken. Microsoft has become a gentler giant, and Mr. Gates has become a philanthropist. Yet it is worth remembering that at the time, challenging Microsoft was not a popular decision. Microsoft was a well-liked company and Mr. Gates was widely heralded as a visionary genius. **Many**, Microsoft most of all, **argued that enforcing the antitrust laws against Microsoft would damage innovation and impede the economic growth fueled by the technology sector**. This view turned out to be wrong. **Innovation surged in the newly opened markets and the United States continued to spearhead growth in the technological world**. The enduring lesson of the Microsoft case was that keeping markets open can require a trustbuster's courage to take decisive action against even a very popular monopolist. Imagine a world in which Microsoft had been allowed to monopolize the browser business. Holding a triple monopoly (operating system, major applications and the browser), Microsoft would have controlled the future of the web. Google, the tiny start-up, would have faced an unfair fight against Bing. Microsoft-Myspace might have become the default social network instead of Facebook. And who knows whether Netflix or any other online video service would have been started? It took the power of law enforcement to rebut Microsoft's claims that everything it was doing was pro-competitive, innovative and innocent. The discovery of candid internal company memos, a famously revealing deposition of Bill Gates and a full trial made it clear that Microsoft saw the internet as a major threat to its monopoly rule and was seeking to tame it. The presiding judge, Thomas Penfield Jackson of the United States District Court for the District of Columbia, was right to propose that Microsoft be broken into two companies — one for the Windows operating system, one for other products. In the end, unfortunately, Microsoft was kept whole. Some limitations were placed on Microsoft's behavior, such as a requirement that it share certain programming information with third-party companies. The appropriateness of that remedy is still debated. But what we do know is that the remedy **[the antitrust case] pushed Microsoft to act with more caution, creating an essential opening for a new generation of firms**. It might seem like a cruel irony that the immediate beneficiaries of the Microsoft antitrust case — namely, Google, Facebook and Amazon — have now become behemoths themselves. But this is how the innovation cycle works: It creates room for saplings to grow into giants, but then prevents the new giants from squashing the next generation of saplings. (Microsoft was itself, in the early 1980s, the beneficiary of another antitrust case, against IBM, the computing colossus of its time.)

BEST card that fully explains how the antitrust litigation against Microsoft scared the company into allowing competition, and definitely prevented them from crushing Google

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

Reback had told Adam and Shivaun that it was important for them to keep up their fight, no matter the setbacks, and as evidence he pointed to the Microsoft trial. Anyone who said that the 1990s prosecution of Microsoft didn't accomplish anything — that it was companies like Google, rather than government lawyers, that humbled Microsoft — didn't know what they were talking about, Reback said. In fact, he argued, the opposite was true: The antitrust attacks on Microsoft made all the difference. **Condemning Microsoft as a monopoly is why Google exists today**, he said. Surprisingly, some **people who worked at Microsoft in the 1990s and early 2000s agree** with him. In the days when federal prosecutors were attacking Microsoft day and night, the company might have publicly brushed off the salvos, insiders say. But within the workplace, the attitude was totally different. **As the government sued, Microsoft executives became so anxious and gun-shy**

that they essentially undermined their own monopoly out of terror they might be pilloried again. It wasn't the consent decrees or court decisions that made the difference, according to multiple current and former Microsoft employees. It was "the constant scrutiny and being in the newspaper all the time," said Gene Burrus, a former Microsoft lawyer. "People started second-guessing themselves. No one wanted to test the regulators anymore." In public, Bill Gates was declaring victory, but inside Microsoft, executives were demanding that lawyers and other compliance officials — the kinds of people who, previously, were routinely ignored — be invited to every meeting. Software engineers began casually dropping by attorneys' desks and describing new software features, and then asking, in desperate whispers, if anything they'd mentioned might trigger a subpoena. One Microsoft senior executive moved an extra chair into his office so a compliance official could sit alongside him during product reviews. Every time a programmer detailed a new idea, the executive turned to the official, who would point his thumb up or down like a capricious Roman emperor**. In the early 2000s, Microsoft's top executives told some divisions that their plans would be proactively shared with competitors — literally describing what the company intended to create before software was even built — to make sure it wouldn't offend anyone who was likely to sue**. Microsoft's engineers were outraged. But they went along with it. And most important, as Microsoft lived under government scrutiny, employees abandoned what had been nascent internal discussions about crushing a young, emerging competitor — Google**. There had been informal conjectures about reprogramming Microsoft's web browser, the popular Internet Explorer, so that anytime people typed in "Google," they would be redirected to MSN Search, according to company insiders**. Or, perhaps a warning message might pop up: "Did you know Google uses your data in ways you can't control?" **Microsoft was so powerful, and Google so new, that the young search engine could have been killed off, some insiders at both companies believe. "But there was a new culture of compliance, and we didn't want to get in trouble again, so nothing happened**," Burrus said. The myth that Google humbled Microsoft on its own is wrong. The government's antitrust lawsuit is one reason that Google was eventually able to break Microsoft's monopoly. "If Microsoft hadn't been sued, all of technology would be different today," Reback told me. We've known since Standard Oil that advances in technology make it easier for monopolies to emerge. But what's less recognized is the importance of antitrust in making sure those new technologies spread to everyone else. In 1969 the Justice Department started a lawsuit against IBM for antitrust violations that lasted 13 years. The government eventually surrendered, but in an earlier attempt to mollify prosecutors, IBM eliminated its practice of bundling hardware and software, a shift that essentially created the software industry. Suddenly, new start-ups could get a foothold simply by writing programs rather than building machines. Microsoft was founded a few years later and soon outpaced IBM.

Even if Microsoft did not develop competing services to Google at the time of its trial, the fear created by the trial made them fearful of bullying Google for long after

Dayen 19 David Dayen, 3-8-2019, "How to Think About Breaking Up Big Tech," Intercept, https://theintercept.com/2019/04/01/elizabeth-warren-tech-regulation-2020/ //DF

Ben Thompson, a former Apple and Microsoft analyst who writes about the business of technology, had one of the sharpest critiques of the Warren proposal, and it starts with denying Warren's claim on the history of technology. Warren has credited the Microsoft trial for creating space for the modern tech giants to emerge, something Thompson mocks. "Bing was not even launched until 2009, eight years after the Microsoft case was settled. MSN Search, its predecessor, did launch in 1998, but with licensed search results from Inktomi and AltaVista; Microsoft didn't launch its own web crawler until 2005." This view neglects the politics of the U.S. trial against Microsoft, which put a dominant company under pressure and wary of extending that dominance into the then-emerging web services arena. As Gary Reback, who represented Netscape against Microsoft in the 1990s, has often said, including to me in a 2017 interview, "The trial is the remedy." **By exposing Microsoft's**

machinations to the nation, it made the company gun-shy to choke off competition, Reback argues. "**The only way to get to Google was the Microsoft browser,**" he said. "**Microsoft could have put up a big red sign saying this site is unsafe. It could have killed Google in the cradle, but didn't.** The reason why, and this is from Microsoft people, is they had this public trial. It wasn't worth it as a company." Feld concurred that **Microsoft's behavior changed after the public spotlight of the trial, and the kind of aggressive actions to shut down competitors largely stopped**. You can apply this to IBM's antitrust issues in the 1970s and '80s opening space for Apple, and AOL's forced interoperability of Instant Messenger in 2001 giving room to social media. "Big companies are sensitive to this stuff; after they've been burned, they do generally play it safe," Feld said, noting that big cable hasn't had such a spotlight and they managed to crush TiVo swiftly and completely. So while Thompson focuses on specific Microsoft business decisions, he ignores the political context.

Antitrust enforced against IBM in the 1970s both enabled the rise of the software industry by forcing them to stop abusive bundling, and gave breathing room for competition by scaring them into line

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 111-113 //DF

That's no tript to the county courthouse, and no one can defend how the court managed the litigation, which became as bloated as a 1970s muscle car. But consider the stakes: The computer and software industries were already bringing in billions in revenue, are today collectively worth many trillions of dollars, and include many of the most valuable companies on Earth. Small effects on this industry would and did have major long term effects. It has become clear that **the IBM case decisively influenced the computing industry that is now a centerpiece of the American and world economy.** First and most importantly, **IBM dropped its practice of bundling (or tying) its software with hardware. That is broadly understood**, even by IBM's own people, **to have kickstarted the birth of an independent software industry**. Second, IBM litigation also affected the development of the personal computer industry in the late 19700s and early 1980s. The IBM PC, developed while the lawsuit was still pending, was antitrust proof: IBM went with an extremely open design and declined to buy or exert excessive control over the firms who made the components, including Intel, Seagate, and Microsoft, among others. IBM actually entered the personal computer market gingerly, and separately from its other products. Above all, **IBM spent the 1970s with a "policeman at the elbow," and subsequent research makes clear that the firm steered shy of anything close to anticompetitive conduct, for fear of adding to the case against it**. The period consequently saw the birth of independent software, the dawn of the personal computer, the rise of firms like Apple and Microsoft–all matters, by any count, of major economic importance and of great value to the American economy. How much the "policeman at the elbow" contributed to the extraordinary developments in the computing industry is hard to measure precisely, but if the answer is even a little bit, then the case mattered a lot. And that is why I think the whining about the number of pages in the IBM trial record is petty, or the hassle experiences by IBM's lawyers, or the millions in costs, when hundreds of billions if not trillions were at stake. If the effect of the litigation was to prevent IBM from killing its main emergent challengers, the IBM case was not expensive, but incredibly cheap.

The IBM case made the company far more cautious even far after the case ended

CNET 02 1-2-2002, "IBM and Microsoft: Antitrust then and now," CNET, https://www.cnet.com/news/ibm-and-microsoft-antitrust-then-and-now/ //DF

Experts argue that IBM was mired in antitrust troubles for more than a decade after the dismissal and did not recover from the legal morass until the early to mid-'90s. Special coverage: Breakup "First, **it cost the company a lot of money**," said Stephen Margolis, professor of economics and business at North Carolina State University in Raleigh. "**Far more important, it cost the company a lot of its attention, and entrepreneurial energy went toward fighting the case. It changed IBM for years, if not forever**." Historians and legal experts say **it's impossible to overstate the burden that the antitrust case laid on IBM**, which unveiled its first computer in 1952 and enjoyed a 70 percent market share in the '60s and '70s. In January 1969, the government began a sweeping antitrust investigation into IBM's dominance and attempted to break it into smaller companies that would compete against one another. During the six most critical years of the trial, from 1975 to 1980, the parties called 974 witnesses and read 104,400 pages of transcripts, according to Emerson Pugh's 1995 book "Building IBM: Shaping an Industry and Its Technology." see full text of Judge's final ruling The 13-year investigation, which required IBM to retain 200 attorneys at one point, fizzled in the early '80s as the computing landscape shifted from mainframes to personal computers. The government abandoned the tainted effort entirely in 1982, as clones of the IBM PC eroded Big Blue's dominance. But **the company, still fearful of the watchful eye of the Justice Department, took pains to avoid the appearance of a monopoly long after it relinquished its hold on the market.** People who worked for IBM in the '80s and early '90s said the company routinely fell victim to "pricing death strategy"--a reluctance to lower prices below cost, even on products that weren't selling--to avoid what the government would call predatory pricing. By the mid-'80s, the company was in bad shape. The antitrust troubles, combined with ill-timed product failures such as the Future System, pinched revenues. The company began a nearly decade-long financial slide. In retrospect, the antitrust case against IBM seemed laughable. See MS-DOJ timeline Although the outcome of the Microsoft case is difficult to predict, many experts say the case could ensnare the software giant in appeals for a half-decade or more--at which point the shifting computing landscape may again render the government's worries obsolete. The judge overseeing the case has sought to fast-track it, but there's no guarantee the appeals court or Supreme Court will act swiftly.

The most profound consequences of these cases are to scare companies like IBM and AT&T and give smaller companies breathing room to innovate

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

"If Microsoft hadn't been sued, all of technology would be different today," Reback told me. We've known since Standard Oil that advances in technology make it easier for monopolies to emerge. But what's less recognized is the importance of antitrust in making sure those new technologies spread to everyone else. In 1969 the Justice Department started a lawsuit against IBM for antitrust violations that lasted 13 years. The government eventually surrendered, but **in an earlier attempt to mollify prosecutors, IBM eliminated its practice of bundling hardware and software, a shift that essentially created the software industry. Suddenly, new start-ups could get a foothold simply by writing programs rather than building machines**. Microsoft was founded a few years later and soon outpaced IBM. Or consider AT&T, which was sued by the government in 1974, fought in court for eight years and then slyly agreed to divest itself of some businesses if it could keep its most valuable assets. Critics complained AT&T was getting the deal of a lifetime. But then start-ups like Sprint and MCI made millions building on technologies AT&T championed, and AT&T found itself struggling to compete. It's completely wrong to say that antitrust doesn't matter, Reback argues. "**The internet only exists because we broke up AT&T. The software**

industry exists because Johnson sued IBM." It was critical that the Raffs continue fighting, Reback told them. Social embarrassment and sustained attacks have the power to succeed when courtrooms or political agencies fail. After their F.T.C. disappointment, the Raffs flew back to England to consider their options. And then one night they were at home watching television when the phone rang. Someone they had met in Brussels was calling to share some remarkable news. The European Commission had issued a decision on the complaint they filed six years before.

IL – Wages

Monopoly power enables firms to pay their employees nothing

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 72-73 //DF

The effects of size and concentration are not limited to mere self-preservation. The larger and more powerful firm has a clearer bargaining advantage over its workers; the monopolist most of all. Back in the nineteenth century, the power of large firms enabled them to drive workers harder and longer, for less money, and also provided the resources to break unions with violent attacks, sometimes by even hiring their own armed militias. **Today, concentrated economic power is used to avoid raising wages, to insist on intense conditions of employment, to abuse of "non-compete" agreements, and to hire part-timers instead of full-time employees. The more power a firm or industry enjoys, the easier it is to prevent employees from getting too much of the returns.** To be sure, there are some private checks on bigness, or of the building of empire for empire's sake. The firm's owners or board of directors may order management to stop expanding for no good reason but their own welfare. Smaller, more efficient competitors do sometimes manage to kill a bloated dinosaur, or the firm may be taken over by a corporate raider who sees value in breaking the firm into small pieces. But unfortunately, these market-based checks on bigness can and do fail, and their mythology can outmatch their real effectiveness. For they are, at all times, counterbalanced by the advantages and attractions of power, and the allure of monopoly profit. For that reason, oversized, inefficient firms can persist for decades, effectively immunized from the need to improve products or lower prices. Instead, like American domestic airlines, the industry can happily offer a product that continues to get worse and cost more.

R/T Markets work perfectly

Assuming that tech companies gain no advantage from monopolies is a ridiculous argument

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 106-107 //DF

When it came to the monopolist's conduct, both antitrust enforcers and Congress were guilty of a similar misunderstanding. What Congress had condemned as abusive conduct–predatory pricing, price discrimination, coercive tying of unwanted products–was really no such thing, but being practiced for the best and happiest of reasons. A cascade of Chicago School papers based purely on pricing theory and ignoring any strategic considerations (let alone evidence), suggested that the monopolist had little to gain from these practices, and so must presumably be doing them to make their operations more efficient. After all, as McGee had said, one must always presume that "the existing structure is the efficient structure." Jumping from theory to reality in a novel way, the Chicago School then asserted that that which did not exist in theory probably did not exist in practice. Robbing banks is

economically irrational, given security guards and meager returns; *ergo* bank robbing does not happen; *ergo* there is no need for the criminal law. Exaggerated only slightly, this premise has been at the core of Bork-Chicago antitrust for more than thirty years. The absurdity of its logical and its rejection of Congressional intent is what ultimately made the movement political, even while it always strenuously avoided the claim. It didn't matter that Congress wanted many mergers blocked (the 1950 law), or wanted small businesses protected (the Robinson-Patman Act of 1936). Those laws "didn't make economic sense" and therefore could be ignored, or should only be enforced in a "sensible" way, meaning the Chicago way, Congress be damned. In this sense, economics help a trump over the plain text of the law in a manner than can only be described as Constitutional. Bork, who styled himself an opponent of "judicial activism," was perfectly happy to allow his own political and economic preferences to trump the clearly expressed will of Congress. The Chicago movement, unsurprisingly, began to encounter major resistance during the 1980s through the 2000s. A group of economist and other academics, styled the "post-Chicago" school, emerged to challenge many of its basic premises. What the post-Chicago academics demonstrated was this: Even if you took a strictly economic view of the antitrust laws, you didn't actually reach Bork's conclusions. **On further inspection, it *did* make sense for a dominant firm to create barriers to competitors and generally "raise rivals' costs,"** as prominent antitrust economist Thomas Krattenmaker and Steven Salop put it. **Thickets of patents were sometimes deployed to slow down those seeking to bring new products to market**, said economist Carl Shapiro. Merger enforcement should take seriously dynamic effects on innovation, said Michael Katz and Howard Shelanski. Exclusion should be a core concern of the antitrust laws, wrote economist Jon Baker. Newer econometric techniques used by scholars like Daniel Rubinfeld might measure the harms that Chicago tended to assume away.

Anticompetitive practices make a lot of sense for monopolists because it allows them to stay in control without having to change at all

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How much the "policeman at the elbow" contributed to the extraordinary developments in the computing industry is hard to measure precisely, but if the answer is even a little bit, then the case mattered a lot. And that is why I think the whining about the number of pages in the IBM trial record is petty, or the hassle experiences by IBM's lawyers, or the millions in costs, when hundreds of billions if not trillions were at stake. If the effect of the litigation was to prevent IBM from killing its main emergent challengers, the IBM case was not expensive, but incredibly cheap. We have said that some have criticized the big cases because they last too long and waste many resources. But a different critique suggests the big cases were unnecessary because the market would have reintroduced competition anyhow. This line of argument–a version of the "best of all possible worlds"–strikes me as baffling. Consider that **AT&T**, for example, **ruled its industry for decades, destroying myriad would-be challengers, with the tacit or sometimes active assistance of government. Having waited for several decades, are society and the economy supposed to wait for several more?** This line of argument ignores the idea that **deliberate investments in building barriers to entry can be effective, and it is often utterly rationale for the monopolists to make such investments.** Of the great mysteries of the Chicago School was the fact that it posited ultra-rational, profit-seeking monopolists, yet somehow imagined that they would generally leave themselves completely vulnerable to competitive attack. The truth is that **investments in barriers to entry are a magnificent investment**. It would be crazy, however, to defend every case that was brought as part of the big case tradition. For example, in the 1970s, the Federal Trade Commission went after the cereal industry based on the observation that it was profitable and somewhat concentrated. This was, challengingly, not a case about an abusive or even persistent monopoly, but rather an oligopoly of about four firms. The agency believed that product differentiation (that is, products aimed at children, older people, the health-conscious, and so on) was the anti-competitive tool of choice. To even describe the theory is to reveal its absurdity. But there is a different critique of the big case tradition that I take seriously: that it is simply much less effective than it could be, being subject to the inherent randomness of litigation. As William Kovacic, former FTC chair, once wrote, "trust busting is the Sherman Act's most alluring and enduring mirage." As he explained, "federal enforcement officials have mounted memorable campaigns to disassemble leviathans of American business, yet the tantalizing goal of improving the economic and political order by restructuring dominant firms frequently has eluded its pursuers."

R/T Technological Disruption

The example of Standard Oil taking control of the newly invented oil pipeline shows how monopolies skirt innovations and squash competition

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 64-65 //DF

The exclusionary railroad cartel had more than one purpose, for it also served as a club. Rockefeller embarked on an industry shakeout, using the threat of higher railroad rates to begin forcing smaller refineries to sell out to him at a loss. Once he'd bought out his smaller rivals, he turned on high larger partners as well, bringing them all into a single trust under his control. In just over a decade, Rockefeller drove the market share of Standard Oil from 10 percent to over 90 percent. Building a monopoly is one thing, but **Standard Oil then managed to defend the monopoly and its profits for the next thirty years, even in the face of disruptive new technologies**, **like the oil pipeline, which**, as many important technologies do, **threatened to bring new competition and lower prices to the industry. Rockefeller** identified and met the challenge of pipelines directly, by building **[built] his own and ensuring the ruin of his new pipeline challengers. He prevented many pipelines from being built in the first place, or bankrupted and acquired those that managed to be built, a process that tended to scare off would-be competitors.** Among the tactics used to keep competitors at bay were regionalized pricing strategies (strategically overpaying for crude in some markets, lowering prices in others), and the assertion of political influence, such as ensuring that government would prevent rival pipelines from getting the rights-of-way they might need or even banning competing pipelines altogether. Contrary to revisionist history, "predatory pricing" was no the only or the main method used by Standard Oil; it mastered the many ways of fighting dirty to keep its grip on the industry. Armed with copious evidence of these various abuses and exclusions, the Justice Department filed a 170-page complaint in 1906. Among various behaviors indicted were the exclusive cartel deals with the railroads, abuse of its pipeline monopoly, and predatory pricing–conduct that, to the ears of a contemporary antitrust lawyer, violates the ban on monopolization (Section 2 of the Sherman Act), and restraints on trade (Section 1 of the Sherman Act).

R/T Big Tech is more efficient

Larger firms get diminishing returns from their size, and their size actually starts to harm them eventually

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Let us examine this question carefully. It is true that a large factory, operating at volume, will usually produce goods at lower cost than a mom-and-pop operation. That's why cars are produced on large assembly lines, not at the neighborhood craft automobile manufacturer. It is something also witnessed in the tech world. In the age of Amazon and Google it often seems that the company which has the most servers or collects the most data necessarily has the better product. But the

economics of the last century have made it clear that the basic proposition – that bigger is better – is subject to both limitations and caveats that make the full picture complex. **First, at some point, economies of scale "run out"** – that is, **increasing in size no longer creates further efficiencies. A car plant needs to be a certain size to be efficient.** That point varies by product and industry. Making pizza efficiently requires little more than an industrial over, giving a massive operation no efficiency advantage over a neighborhood store. The advantages, if any, are those related to size, power, reputation, and so on–compare the Domino's chain to the local pizzeria–but are not actually related to the ability to make a better product. The size problem is made more complex by two more factors. One is that **as the size of the operation increases, "dis-economies" of scale begin to creep in**, as economists since Alfred Marshall in the 1920s have suggested. For example, as a firm adds more and more employees, it needs to add more managers, and ever-more complex systems of internal control, which tend, at some point, to begin making the firm less efficient. Managers in larger firms may start to yield to the temptations of seeking their own personal enrichment and power as opposed to the interests of the firm. Sometimes great size yields a short-term advantage, but creates "dynamic" disadvantages: A larger firm may also become cumbersome, unable to adapt to changing market conditions. Consider that General Motors was thought a paragon of efficiency in the 1950s, but by the 1980s had become an unwieldy monster that eventually went bankrupt. Hence the premise that productive efficiency usually has a U-shaped relationship with scale, as pictured here. This is the curse of bigness illustrated. The point is intuitive to anyone who has actually worked in an enormous organization of some age and wondered where the phrase "efficiencies of scale" could have come from. As business tycoon T. Boone Pickens once put it, "It's unusual to find a large corporation that's efficient. I know about economies of scale and all the other advantages that are supposed to come with size. But when you get an inside look, it's easy to see how inefficient big business really is."

R/T Fines Solve

These fines are chump change for companies that are worth half a billion to a trillion dollars

Swisher 19 Kara Swisher [covers technology and is a contributing opinion writer], 5-21-2019, "Taming the Apex Predators of Tech," NYT, https://www.nytimes.com/2019/05/21/opinion/facebook-google-monopolies.html //DF

One option is privacy legislation. Europe passed such a law in 2016. While there is no national privacy law in the United States, California will soon have a state-level law, and other states are considering similar reforms. The idea of restricting tech companies' use of personal data becomes more popular with every hack and every instance of abuse. Still, the likelihood of the United States passing a national privacy law with teeth is small. Then there are the fines, such as a multibillion-dollar one that the Federal Trade Commission is considering to punish Facebook for privacy violations. While the fine would be the largest the agency has ever levied, it would also be **far too small to make a difference. When Facebook announced it might have to hand over $5 billion as its get-out-of-jail-free card, Wall Street cheered and Facebook stock rose.** Meanwhile, there's a lot of talk about the ways that countries can work together to improve the online ecosystem. Prime Minister Jacinda Ardern of New Zealand met with President Emmanuel Macron of France last week, for example, about creating an intergovernmental effort to end online extremism. While laudable in theory, very little of this hand-wringing is likely to result in any rules with heft. In addition, the prospect of governments making rules around the restriction of speech is rife with ethical dilemmas.

R/T Patent Protection Solves

Patents have been hobbled and no longer protect small companies; it makes economic sense for tech giants to violate the patents and pay a tiny fine

Asher Schechter [Writer and editor, ProMarket. As a journalist, he has mostly covered issues related to the intersection between politics and the economy, such as antitrust, corruption, lobbying and social movements], 5-25-2018, "Google and Facebook's "Kill Zone": "We've Taken the Focus Off of Rewarding Genius and Innovation to Rewarding Capital and Scale" -," Pro Market: the blog of the Stigler Center at the University of Chicago Booth School of Business, https://promarket.org/google-facebooks-kill-zone-weve-taken-focus-off-rewarding-genius-innovation-rewarding-capital-scale/ //DF

"The label of innovation has been grabbed by Big Tech," said Causevic, who argued that big tech firms use the US patent system to stifle innovation. "We've taken the focus off of rewarding genius and innovation to rewarding capital and scale." Historically, he noted, large companies used to abuse the patent system to entrench their position. But the patent system also served an important function: it provided small innovators with an effective tool to fight big firms that tried to infringe on their patents. Recent changes in US patent laws, however—in particular the America Invents Act (AIA) that was signed into law by President Obama in 2011—have created a situation where "small companies no longer have access to patent protection." In order to deal with patent trolls, he said, the AIA has "eviscerated" the ability of small companies to enjoy patent protection, making it lucrative for big tech firms to be on the side of anti-patent enforcement. "You have nothing to lose. You're better off just infringing. As a matter of fact, it might be less expensive to infringe than it might be to pay royalties, given how the current case law is set up," said Causevic. "Throughout my career, it was always the patents that made the big difference when the little guys [fought] against the big guys. Now you don't have that." It's not only small companies that are affected by this, contended Causevic—even middle-market firms are at risk. To illustrate this point, Causevic used the recent example of Apple and Immersion. Immersion, which developed the feedback technologies that are used in many wearable devices, sued Apple in 2016, alleging that Apple's iPhones and iWatch devices were infringing on its haptic feedback patents. The companies reached a settlement earlier this year. "That technology was largely invented by Immersion, a middle-market company that has been been around for 20 years, has 1,000 patents. Apple worked with them, paid them a license for years, but decided to stop paying and said, 'No, we'll just do it ourselves,'" said Causevic. "[Immersion's] market cap dropped 60 percent and Apple did a piddly settlement with this company for peanuts. The company's really in a lot of pain. It used to be a $500 million company." "Do we want to reward innovation or do we want to reward capital, and network, and market power?" The larger question, said Causevic, is not really the patent system per se, which he acknowledged might be outdated, but the question of how to reward innovation and what type of innovation gets rewarded. "Do we want to reward innovation or do we want to reward capital, and network, and market power?" he asked.

R/T Competition w/ Apple

Apple punishes third-party apps that compete with it on the App Store, abusing its power as a platform company

Welch 19 Chris Welch, 5-29-2019, "Apple's latest defense of the App Store just shows how hard it is to compete with Apple," Verge,

https://www.theverge.com/2019/5/29/18644045/apple-defends-app-store-policies-antitrust-eu-spotify //DF

Apple says it has paid out $120 billion to App Store developers worldwide since the platform launched, and the company again touts the quick approval process and efficient work of its app review team, which now "represents 81 languages across three time zones." Sixty percent of the approximately 100,000 apps and app updates reviewed each week are approved, with rejections mostly stemming from "minor bugs, followed by privacy concerns." Apple notes that anyone who feels that they were unjustly rejected can have their situation looked at by the App Store Review Board. But the most interesting parts of this new site relate to competition. In one section, Apple goes over the core, built-in apps on iOS and lists the many popular third-party options that are available from the App Store in each category as alternatives. Image: Apple The company fails to mention that **none of these apps can be chosen as the default messaging app, maps service, email client, web browser, or music player.** That limitation isn't always a deal-breaker — just ask WhatsApp, which is more popular than iMessage in many countries — but **it still gives Apple's services an advantage.** Apple also claims that "developers have lots of choices for distributing their apps — from other app stores to smart TVs to gaming consoles. Not to mention the open internet, which Apple supports with Safari, and our customers regularly use with web apps like Instagram and Netflix." The message here seems to be that if companies don't like Apple's policies, they've got other options. Go find your riches on Android or make a Roku app. But developers have a huge financial incentive to be in the App Store. It's often been reported that iOS users spend more money on apps than people with Android phones, and Apple leans on that advantage. "Even though other stores have more users and more app downloads, the App Store earns more money for developers," the company notes. So ignoring the App Store isn't exactly practical for businesses that want to make a lot of money. As for the open web, how often are you using Instagram or Netflix in the Safari browser on your iPhone or iPad instead of the app itself? On desktop, maybe, but Apple is about to let developers bring their iPad apps to the Mac, and how do you think you'll be watching Netflix once that happens? Apple also lists the various types of apps in the store, from completely free to paid to the many with in-app purchases or monthly subscriptions. You might not know that **some of the essential apps you use every day are classified as "reader" apps because those companies have decided against giving Apple a cut of their in-app purchases and subscriptions.** (Apple takes a 30 percent cut of subscriptions for the first year a customer is signed up and 15 percent for each year thereafter.) This category includes Amazon Kindle, Netflix, and Spotify. Apple says customers of these services "enjoy access to that content inside the app on their Apple devices" and that "developers receive all of the revenue they generate from bringing the customer to the app." Image: Apple But here, again, Apple ignores a major gripe that developers have been raising for years: **if an app doesn't use Apple's in-app purchase system, its developers are forbidden from telling their customers where and how they can pay outside of the App Store or providing a convenient link.** "Not only is Netflix not allowed to link to their website, they can't even tell the user they need to go to netflix.com to sign up," John Gruber wrote back in January when Netflix stopped letting new customers subscribe through its iOS app. "Apple can make the rules — it's their platform. But it's just wrong that one of the rules is that apps aren't allowed to explain the rules to users." **Apple's new site puts a big spotlight on** the App Store's unrivaled success and reach, but in some ways, it also brings more attention to **how difficult it can be to compete against Apple.**

The Supreme Court has ruled that customers can sue Apple for charging fees on paid apps in the App Store

Graham 19 Victoria Graham, 5-29-2019, "Apple Defends 'Competitive' App Store After Supreme Court Loss," Big Law Business at Bloomberg Law, https://biglawbusiness.com/apple-defends-competitive-app-store-after-supreme-court-loss //DF

Apple Inc. touted that its app store is "fair and competitive," defending the business model after a recent Supreme Court loss that raised questions about its market power. "We believe competition makes everything better and results in the best apps for our customers," Apple wrote on its website. Unlike other app stores, Apple vets submitted apps for content and coding before approving them for listing. **The company collects commissions—up to 30%—from app developers** when "a digital good or service is delivered through an app," it said. The post comes less than two weeks after **the Supreme Court ruled** in a 5-4 decision **that iPhone consumers who buy apps through Apple's app store can sue the phonemaker for alleged antitrust**

violations because they are direct purchasers of the software. IPhone owners say **the 30% commission Apple charges developers—deducted when customers make purchases—drives up app prices.** In the post, Apple sought to clarify pricing. The company receives no commission from free apps or free apps with advertising, such as Twitter. Apple said it collects 30% commission from the price of paid apps, such as Heads Up!, or when consumers make "in-app" purchases in apps, such as Clash of Clans or Skype, that allow them. Apple also collects commission on auto-renewed subscriptions, such as Bumble or Hulu. "Like any fair marketplace, developers decide what they want to charge from a set of price tiers," the company said. "84% of apps are free, and developers pay nothing to Apple." The proposed class action will move back down to the U.S. District Court for the Northern District of California where the four iPhone users who originally brought the case in 2011 will attempt to have their class certified. The Supreme Court gave iPhone users standing to sue, but didn't rule on whether Apple's app store model is a monopoly. The app store is a crucial revenue driver for Apple, and any changes to the company's model could cut into its revenue. App store commissions generated $13.4 billion in revenue in 2018, according to estimates from research firm Sensor Tower.

A former Apple exec himself admitted that Apple squashes competition on the App Store between its on services and third-party apps like Netflix and Spotify

Vincent 19 James Vincent, 5-29-2019, "Apple's former app approval chief says he's 'really worried' about company's anticompetitive behavior," Verge, https://www.theverge.com/2019/5/29/18643868/apple-app-store-approval-process-antitrust-phillip-shoemaker-interview //DF

The rules that govern what gets approved and what doesn't in Apple's App Store have always been a little mysterious. But a new Bloomberg interview with Phillip Shoemaker, a former Apple exec who oversaw the App Store's approval process between 2009 and 2016, offers some interesting insight. It's particularly relevant at a time when Apple faces antitrust challenges in both the US and the EU over its management of the App Store. In the interview, Shoemaker says that **Apple has long feared that rival apps from companies like Google and Facebook would replace core iOS features** like calling and messaging. He notes that **this fear is "absolutely the reason" that the company still doesn't let users set third-party apps as the default service for these primary functions.** "That was a real thing. I mean the fear that somebody would come along, a Facebook, a Google, whomever and wipe off and remove all of our items," says Shoemaker. Talking through the early days of the App Store, Shoemaker notes that the approval process used to be pretty hit-and-miss. He recounts an incident in which a notorious "baby shaking app" was approved, driving down the company's stock price. Shoemaker says that this mistake earned him a phone call from Apple founder Steve Jobs himself. "STEVE JUST HAD SIMPLE WORDS FOR ME: 'YOU'RE STUPID AND YOU HIRE STUPID PEOPLE.'" "Steve just had simple words for me: 'You're stupid and you hire stupid people,'" he says. "This was one of the best conversations I had with Steve. It was so succinct and to the point. He hung up the phone." Looking to more modern times, Shoemaker notes that there is inherent conflict as Apple enters markets "ripe with competition." This certainly fits with Spotify's complaint against the company, which says the iPhone-maker has abused its control over the App Store to penalize rival music streaming services. "I'm really worried about the competition piece," says Shoemaker, about 20 minutes into the interview. "You see Spotify going to the EU regulators [and] you have Elizabeth Warren talking about breaking Facebook, and Apple, etc ... I believe that there is now a conflict as Apple goes into these spaces that are ripe with competition." Shoemaker goes into more detail about the specific rules he thinks Apple needs to change in a blog post on Medium, noting that companies like Netflix and Spotify are "rightfully worried about fair treatment." It makes for interesting reading, along with further quotes and the full interview with Bloomberg's Mark Gurman, available right here.

R/T Competition w/ Google

Google's position as the only search engine that people use gives it incredible amounts of power to abuse companies that make profit through its services

Dougherty 17 Conor Dougherty, 7-1-2017, "Inside Yelp's Six-Year Grudge Against Google," NYT, https://www.nytimes.com/2017/07/01/technology/yelp-google-european-union-antitrust.html //DF

"It's like, you get traffic from this company, and this company is a monopoly," he said. "If you're me, it seems like the obvious move." Yelp's campaign against Google provides an inside look at a constant battle in the technology industry: the conflict between large companies that control how people use technology and the internet, and the smaller, more vulnerable businesses that live inside those platforms. Be it Netscape, whose 1990s-era internet browser was the catalyst for antitrust charges against Microsoft and its Windows operating system, or Spotify, whose music service must now compete with Apple's own music app, **any company trying to build a business on another company's system runs the risk of being snuffed out or swallowed up**. For Yelp, the issue is where Google displays "organic" website rankings — the ones spit out by its algorithm — in relation to the "vertical" results that Google itself provides. For example, say you searched for "steakhouse New York." The first set of results, consuming the entire screen of a mobile phone, is a map and a set of restaurants from Google's local offering. The results have information like hours, stars and customer reviews. Below that are links to reviews, articles and other sites. Like Yelp. Yelp's contention is that by putting its own results at the top, Google is giving itself an unfair advantage, because those results don't have to jump through the same algorithmic hoops non-Google sites are subjected to. And since Yelp says few people go beyond the first or second result, companies like Yelp are made invisible. Google disagrees. The company declined to comment beyond its official statement on the European fine, but it has repeatedly said that as smartphones displace desktop computers as the internet gateway, people just want the answer to their question — not a link to a site where they might have to repeat the query — and that Google's results oblige. Local queries — such as looking for nearby restaurants — account for roughly a third of all search traffic. So Google has a big incentive to keep people within its search engine, where it can sell ads, instead of sending them to Yelp, which also sells ads. Separately, some businesses have claimed that Yelp stacks the deck by playing up bad reviews when businesses don't buy ads from it. Yelp has denied those claims. **This dispute would be moot if people were in the habit of using a variety of search engines**. Google has become so universally known and depended upon that it is sometimes hard to remember that it is a company, and it exists to make money. But as Microsoft learned in its 1990s antitrust battle, companies can face a heap of legal problems when their platform becomes so popular that people hardly use anything else. With one strike against it now in Europe, Google may be increasingly careful about how it treats competitors throughout the search engine. "Even if nothing else takes place, a consequence of this kind of intervention, so visible and so significant, has been to give other firms more room to maneuver," said William E. Kovacic, a former chairman of the United States Federal Trade Commission and now a professor at the George Washington University Law School.

Google has used its dominance over the tech world to decimate competition, which both the FTC and EU have called illegal and monopolistic

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

As the years passed, Shivaun and Adam got into the habit of visiting message boards where people obsessively discussed Google's many peculiarities. They began to notice an interesting pattern among companies complaining about the search giant: Often, the aggrieved parties had, in some way, posed some kind of threat to Google's business. And they seemed to have suffered dire consequences. There was, for

instance, Skyhook Wireless, which had invented a new navigation system that competed with Google's location software and had signed major deals with the cellphone manufacturers Samsung and Motorola. Skyhook's accuracy "is better than ours," one Google manager speculated in an internal email later revealed in a lawsuit filed by Skyhook against Google. Not long after that note was written, according to the lawsuit, a high-ranking Google official pressured Samsung and Motorola to end their relationships with Skyhook — and implied that if they didn't, Google could make it impossible for them to ship their phones on time. (Google has denied doing anything inappropriate.) Soon, Samsung and Motorola canceled their Skyhook contracts. Skyhook sued Google, and though one suit was dismissed, Google ended up paying $90 million to settle a patent-infringement claim. But by then it was too late. Skyhook's founders, bereft of other partnership options, had been forced to sell their company at a large discount. Then there was Yelp, a website with millions of user-generated reviews of local brewpubs, auto-body shops and other businesses. Yelp grew quickly as local queries — like "best nearby steakhouse" — became a third of all online searches. For years, Yelp appeared near or at the top of millions of Google searches. Google, hoping to capitalize on that traffic, tried to buy Yelp in 2009, but Yelp's founders rejected those advances. Then Google started pulling Yelp's content into its own results, which meant many users didn't have to visit Yelp's website. Yelp complained — to Google and later to the F.T.C. — but Google said the only alternative was for Yelp to remove its content from Google altogether, according to documents filed with federal regulators. The same thing happened at other fast-growing review sites like TripAdvisor and Citysearch, which also complained to the F.T.C. "We still exist," says Luther Lowe, a vice president at Yelp, "but Google did everything it could to ensure that we'd never present a threat to them. It's bullying, but they're the 800-pound gorilla." The more Adam and Shivaun looked, the more examples they found. Getty Images had created a popular search engine to help users comb through the firm's 170 million photographs and other visual art. Then, in 2013, Google adjusted how it displayed images so that rather than directing people to Getty's website, users could easily see and download Getty's high-definition images from Google itself. "Our traffic immediately fell 85 percent," says Yoko Miyashita, Getty's general counsel. "We wrote to Google, and said, Hey, this isn't cool. And their response was, 'Well, if you don't agree to these terms, we'll just exclude you' " — by letting Getty remove itself from the search engine entirely, Miyashita said. "That's not really a choice, because if you aren't on Google, you basically don't exist." TradeComet.com, which operated a vertical-search engine for finding business products, initially prospered by buying ads on Google, but as the site grew, Google "raised my prices by 10,000 percent, which strangled our business virtually overnight," the company's C.E.O. at the time, Dan Savage, said when he filed an antitrust lawsuit in 2009. KinderStart.com, a vertical-search engine for parents, sued Google after it received a "PageRank" of zero, making it essentially unfindable. (TradeComet.com's suit was dismissed on a technicality; KinderStart.com's was dismissed for insufficient evidence.) Shivaun and Adam filled notepads with the names of companies that had complained about Google's tactics — eJustice, a vertical-search engine for legal information; NexTag, the fellow price-comparison site; BDZV, a group of German newspapers. They printed out lawsuits and regulatory complaints until their living room was a maze of paper. Eventually the Raffs reached out to the F.T.C., which, they knew, was the American equivalent of the European Commission's antitrust office, and the U.S. regulators invited them to visit. The F.T.C.'s staff, it turned out, had been quietly collecting complaints about Google for years. In 2012, those officials wrote a confidential 160-page report that said Google had "adopted a strategy of demoting, or refusing to display, links to certain vertical websites in highly commercial categories." That memo, about half of which was accidentally sent to reporters at The Wall Street Journal after they submitted a Freedom of Information Act request, **[The Federal Trade Commission] said that "Google's conduct has resulted — and will result — in real harm to consumers and to innovation." "Google has strengthened its monopolies over search and search advertising through anticompetitive means," which "will have lasting negative effects on consumer welfare,"** F.T.C. officials wrote. They cited instances in which Google seemed purposely to be privileging less useful information, substandard search results and suboptimal links. "Although it displays its flight search above any natural search results for flight-booking sites, Google does not provide the most flight options for travelers," the regulators wrote. Whereas a decade earlier someone searching for steakhouses would have seen a long list of websites, now the most noticeable results pointed to Google's own listings, including Google maps, Google local search or advertisers paying Google. Some F.T.C. staff recommended "that the Commission issue a complaint against Google" for copying material and certain advertising and contract practices, though not search-engine bias.

Over the next two years, Vestager's staff reviewed data from 1.7 billion Google queries. They scrutinized how people fared when they conducted searches on topics in which Google had a vested interest, versus those where the company had nothing to gain. Then, in June of last year, the commission issued its final verdict: "What Google has done is illegal under E.U. antitrust rules," Vestager said in a statement released at the time. "**It denied other companies the chance to compete on the merits and to**

innovate. And most important, it denied European **consumers a genuine choice of services and the full benefits of innovation**." Google was ordered to stop giving its own comparison-shopping service an illegal advantage and was fined an eye-popping $2.7 billion, the largest such penalty in the European Commission's history and more than twice as large as any such fine ever levied by the United States. The verdict rocked Silicon Valley. Some think Europe's assertiveness makes it more likely American regulators will act as well. And there's evidence that's already starting. Donald Trump appealed to voters, in part, by attacking the tech monopolies. In a case of truly odd bedfellows, that puts him in alignment with Elizabeth Warren and Bernie Sanders, who have long called for greater scrutiny of technology companies. Last year, a group of Democratic lawmakers in Congress, led by Senator Amy Klobuchar of Minnesota, sponsored legislation to boost antitrust enforcement by forcing companies to assume the burden of showing that a merger won't hurt the public.

The implication is clear enough: Google and the other tech titans understand that the landscape is shifting. They realize that their halos have become tarnished, that the arguments they once invoked as a digital exception to American economic history — that the internet economy is uniquely self-correcting, because competition is only a click away — no longer hold as much weight. "**When you get as big as Google, you become so powerful that the market bends around you**," Vestager told me. The notion that antitrust law isn't needed anymore, that we must choose between helping consumers or spurring competition, no longer seems sufficient reason to exempt the tech giants from century-old legal codes. If anything, Vestager's verdict and state investigations indicate that companies like Google may have more in common with the monopolists of old than most people thought. Silicon Valley's bigwigs ought to be scared.

Google's control of web browsers like Chrome also enable it to push out competitors

Bloomberg 19 Bloomberg, 5-30-2019, "Google's Chrome Becomes Web `Gatekeeper' and Rivals Complain," theepochtimes, https://www.theepochtimes.com/googles-chrome-becomes-web-gatekeeper-and-rivals-complain_2941158.html //DF

He wasn't doing anything illegal. In fact, using Google's secure-streaming tool would have ensured his project was above-board. But the internet giant withheld access, without saying why. Maddock gave up on making a browser soon after. "You have these gatekeepers like Google that decide which projects can work and if you're not granted that permission you're screwed," Maddock said. This is one small developer working on a small project. But his story demonstrates how **Google's dominance of the browser market**—and the underlying technology tools—**gives the company far-reaching control over how the web works, and who gets to create new ways of accessing it.** It's another example of how the Alphabet Inc. unit's power has grown to the point where regulators from India to the European Union are looking for ways to keep it in check. The EU has already fined Google for breaking antitrust laws in the markets for online search, display advertising, and mobile operating systems. Chrome is an important cog in Google's digital ad system, distributing its search engine and providing a direct view for the company into what users do on the web. Few home-grown Google products have been as successful as Chrome. Launched in 2008, it has more than 63% of the market and about 70% on desktop computers, according to StatCounter data. Mozilla's Firefox is far behind, while Apple's Safari is the default browser for iPhones. Microsoft Corp.'s Internet Explorer and Edge browsers are punchlines. Google won by offering consumers a fast, customizable browser for free, while embracing open web standards. Now that Chrome is the clear leader, it controls how the standards are set. That's sparking concern **Google is using the browser** and its Chromium open-source underpinnings **to elbow out online competitors and tilt entire industries in its favor**. Most major browsers are now built on the Chromium software code base that Google maintains. Opera, an indie browser that's been used by techies for years, swapped its code base for Chromium in 2013. Even Microsoft is making the switch this year. That creates a snowball effect, where fewer web developers build for niche browsers, leading those browsers to switch over to Chromium to avoid getting left behind. This leaves Chrome's competitors relying on Google employees who do most of the work to keep Chromium software code up to date. Chromium is open source, so anyone can suggest changes to it, but the majority of programmers who approve contributions are Google employees, and any major disagreements get settled by a small circle of senior Google employees. Chrome is so ascendant these days

that web developers often don't bother to test their sites on competing browsers. **Google services including YouTube, Docs, and Gmail sometimes don't work as well on rival browsers, sending frustrated users to Chrome. Instead of just another ship slicing through the sea of the web, Chrome is becoming the ocean**. "Whatever Chrome does is what the standard is, everyone else has to follow," said Andreas Gal, the former chief technology officer of Mozilla. Google didn't target Mozilla in overt ways during Gal's seven years at the company. Instead, he described it as death by a thousand cuts: Google would update Docs, or Gmail, and suddenly those services wouldn't work on Mozilla. "There were dozens and dozens of 'oopsies,' where Google ships something and, 'oops,' it doesn't work in Firefox,'' Gal said. "They say oh we're going to fix it right away, in two months, and in the meantime every time the user goes to these sites, they think, 'oh, Firefox is broken.'" Google has tried to mitigate this problem. It has a separate project focused on making different browsers behave in more uniform ways so website developers have less tweaking to do. And the company has advocated for more public standards that can be followed by all browsers. "We take it seriously, the responsibility of being good stewards of the web,'' said Darin Fisher, a vice president of engineering on the Chrome team. Google's business relies on the web working for as many people as possible, so the company doesn't have an interest in squashing competition, he said. Even if it isn't trying to sabotage competing browsers, Google has a financial motivation to dominate the market, Gal said. He now works at Apple Inc. after selling his startup Silk Labs to the iPhone maker in 2018. "**In the past there were these three, four major players with somewhat equivalent share between Microsoft and Google and Mozilla and Apple and nobody had this very clear advantage**,'' he said. "**Today**, especially in the desktop space, **Google is definitely a monopolist**." That dominance means Google sets the standard for what the internet is supposed to be. And in that vision, advertising and user data collection are the defaults. Earlier this month, Google announced a long-awaited decision on how Chrome handles online tracking software known as cookies. Other browsers have blocked third-party cookies by default, but Google chose to let users decide—and due to its dominance that will likely be the standard going forward. Shares of Criteo SA, a digital ad company that relies on cookies, jumped almost 10% on the news, the biggest gain in over a year. "Chrome has become spyware,'' said Brendan Eich, co-founder of Mozilla and the current CEO of Brave Software Inc. Brave offers a browser that blocks ads and web tracking software, and it is developing a system that pays users small amounts when they visit certain sites. This could upend the internet advertising business. The only catch is that the Brave browser is built on Chromium. Eich said it's a trade-off he's willing to make. Building a browser from scratch is a gargantuan task. But it hasn't always been smooth sailing for Brave on Google's ocean. In August 2017, Netflix suddenly stopped working on Brave's browser. After a flurry of emails, Brave Chief Technology Officer Brian Bondy discovered that a Google update had changed the way Netflix used Widevine—the same tool Maddock was trying to get permission from Google to use. Brave hadn't been told about the changes, so its browser broke when users visited Netflix online. It took over two weeks to fix the problem. "Small-share browsers are at the mercy of Google, and Google is stalling us for no communicated-to-us reason,'' Bondy wrote in a post on the developer collaboration site Github at the time. Even when people choose to download a competitor to Chrome, Google has ways to encourage them to come back**. Vivaldi, a popular browser for the privacy-conscious crowd, has had trouble when it comes to running Google services like Docs and Gmail**, said CEO Jon von Tetzchner. Some **users logging into Google products on Vivaldi get prompts saying their browser isn't optimized for them, or suggesting they download Chrome instead**. "It was very clearly targeting us,'' von Tetzchner said. He even spoke to Google co-founder Sergey Brin about the issue, but hasn't gotten a strong commitment the behavior would stop, he said.

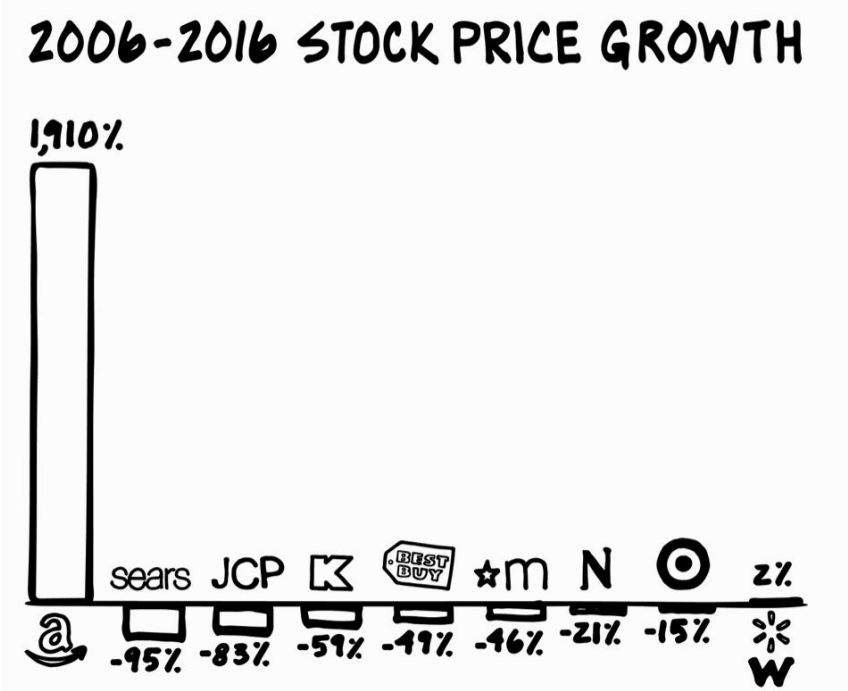
R/T Competition w/ Amazon

Amazon is crushing all other retailers, destroying any notion of competition

Galloway 17 Scott Galloway [professor at New York University's Stern School of Business, where he teaches brand strategy and digital marketing to second-year MBA students. A serial entrepreneur, he

has founded nine firms, including L2, Red Envelope, and Prophet. In 2012, he was named one of the "World's 50 Best Business School Professors" by Poets & Quants. His weekly Youtube series, *Winners and Losers*, has generated tens of millions of views], 2017 "The Four: The Hidden DNA of Amazon, Apple, Facebook, and Google," Portfolio/Penguin Press, pages 27-29 //DF

Zero Sum With retail growth essentially flat across the American economy, Amazon's growth must be coming from somewhere. Who's losing? Everyone. The graph below, describing ten-year stock appreciation of major U.S. retailers (2006–2016), says it all: Too many stores, flat wages, changing tastes, and Amazon have created the perfect storm for retail. Today, most retailers are getting shelled. Most, but not all. **Amazon has become the Prince of Darkness for retail, occupying a unique position—inversely correlated to the rest of the sector.** Traditionally, stocks in the same sector trade sympathetically—in lockstep with one another. No more. The equity markets now believe that what's good for Amazon is bad for retail, and vice versa. **It's a situation almost unique in business history. And it has become a self-fulfilling prophecy, as Amazon's cost of capital declines while every other retailer's increases. It doesn't matter what the reality is—Amazon will win, as it's playing poker with ten times the chips. Amazon can muscle everyone else out of the game.** The real hand-wringing is going to begin when people start asking if what's good for Amazon is bad for society. It's interesting to note that even while some scientists and tech tycoons (Stephen Hawking, Elon Musk) publicly worry about the dangers of artificial intelligence, and others (Pierre Omidyar, Reid Hoffman) have funded research on the subject, Jeff Bezos is implementing robotics as fast as he can at Amazon. The company increased the number of robots in its warehouses 50 percent in 2016.37



Choudhury, Mawdud. "Brick & Mortar U.S. Retailer Market Value—2006 Vs Present Day." ExecTech.

Even when Amazon competes with large retailers, they are forced to adopt ruthless strategies like Amazon's where they push out small retailers

Broadman 19 Harry G. Broadman [Managing Director and Chair of the Emerging Markets Practice at Berkeley Research Group llc and a faculty member of Johns Hopkins University], Special To Gulf News, 5-29-2019, "A questionable global antitrust war on US hi-tech," Gulf News, https://gulfnews.com/business/analysis/a-questionable-global-antitrust-war-on-us-hi-tech-1.64259295 //DF

Amazon's e-commerce business — which initially only sold books — is the most visible example of increased dominance in the digital retail sales space, an industry that for all intents and purposes didn't exist before 1990. It has genuinely revolutionised shopping in that short time frame. From a computer anywhere in the world one can buy virtually any retail item without having to go to a store; view instantly data on other customers' reviews of the item; and after charging the purchase on a credit card, the item will be delivered within days (with nominal or sometimes free shipping); and returning items is just as easy. The time and cost efficiencies of shopping on Amazon is nothing short of astounding. Nevertheless, many Americans bemoan the rapid growth of Amazon's business model has meant the disappearance of local, small shops from which to buy consumer goods. Yet **other large players in the retail sales sector** — far more established than Amazon, **such as Walmart and Target — have also increased their market footprints substantially. But they have done so largely on a brick-and-mortar basis. In so doing, they, perhaps like Amazon, have edged out small retail proprietors.** Moreover, Walmart and Target have begun to adopt an aggressive e-commerce strategy to try to compete head to head with Amazon. In short, they've adopted the ingenuity of Jeff Bezos' business model. Similarly, Amazon has expanded and matured, it's realised that its Seattle-based brick-and-mortar centralised system of control is no longer optimal. The company is now in the throes of building a second hub on the US East Coast. More ironically, in certain cities, Amazon has begun to put up its own brick-and-mortar bookstores!

Amazon will kill lots of different industries, resulting in mass job loss

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Some Big-Ass Losers Here Retail is a much, much bigger business than media or telco, and **Amazon's triumph will mean a lot of losers—not just individual companies, but entire industry sectors**.98,99,100 Obviously, grocery is one of those doomed sectors. It had it coming. This, the largest consumer sector in America ($800 billion101), has been where innovation goes to die.102 Same bad lighting, same depressed workforce, same impossibly frustrating experience in finding my Chobani yogurt as I search from aisle to aisle. Amazon instead offers an online grocery solution with Amazon Fresh and cashier-less grocery shopping with Amazon Go, which debuted in December 2016.103 In June 2017, Amazon acquired 460 stores in wealthy neighborhoods by way of Whole Foods. While Amazon and Whole Foods account for only 3.5 percent of U.S. grocery spending, the cocktail of high-end grocery and high-tech delivery solutions bodes a significant disruption in the sector. On the day the acquisition was announced, Kroger stock was down 9.24 percent; United Natural Foods, an organic distributor, was down 11 percent; and Target 8 percent.104 Amazon will eat a lot of lunches. Restaurants will suffer too, as meal prep at home will be made easier by lightning-fast delivery. And yes, delivery services will take a hit, like Instacart, whose spokesperson said that with the Whole Foods acquisition, Amazon had "declared war on every supermarket and corner store in America."105 Walmart The biggest loser? Easy: Walmart. Walmart's

e-commerce growth hurdle reaches beyond Seattle: a workforce that's both underpaid and lacking the skills to close the multichannel circle. Many of their customers are that group you've wondered about, who don't have broadband or a smartphone. The wealthiest man in the twentieth century mastered the art of minimum-wage employees selling you stuff. The wealthiest man of the twenty-first century is mastering the science of zero-wage robots selling you stuff. The same day that Amazon bought Whole Foods, Walmart bought Bonobos,106 an online menswear retailer that had acquired brick-and-mortar stores. Bonobos has a strong multichannel model—customers are fitted on site, and clothes are later mailed. Similar to the Jet acquisition, Walmart hopes to derive e-commerce ethos from the smaller retailer, so as to compete against Amazon. Unlikely that Bonobos will make much of a difference, given the scale of the juggernaut. Walmart is the largest grocery retailer in the United States, and the Whole Foods acquisition is a major escalation in its grocery wars with Amazon.107 Walmart has ten times the number of grocery stores than Whole Foods, but Amazon's logistics are likely to outsmart it. Even Google Is Getting Amazoned Google is, relatively speaking, losing to Amazon. Amazon is Google's largest customer and is better at optimizing search than Google is at optimizing Amazon. Not to say that Google isn't an amazing company, but the good money is on Amazon to beat Google in the race to a trillion. Searches for product are lucrative—they get healthy bids, as there may be a purchase at the end of it, vs. stalking your high-school crush. Amazon's search franchise may rival Google's in value someday, as the people looking to spend start their search at Amazon. But the real victim is traditional retail, whose only growth channel, online, is sunsetting at the hands of Amazon. Each year, Google and brand.coms lose product search volume to Amazon (6 to 12 percent for retailers for 2015 to 2016). Conventional thinking is that consumers are researching on brand sites, then going to Amazon to buy. In reality, 55 percent of product searches start on Amazon (vs. 28 percent on search engines such as Google).108 This shifts the power, and margin, from Google and retailers to Amazon. Other Losers: The Unremarkable I was a remarkably unremarkable kid. I had mediocre grades, but didn't test well either. In high school, I worked as a box boy at The Westward Ho in Westwood, California, and made about $4/hr. During my freshman year at UCLA I got a job, again as a box boy, this time at Vicente Foods in Brentwood. However, this time, as a member of the United Food & Commercial Workers International Union Local 770, my $13/hr salary paid for my $1,350/year in-state tuition, and then some. Vicente Foods is still there, so it doesn't appear that the 200 percent wage premium that put me through school put Vicente Foods out of business. In 1984 it was possible to be a remarkably unremarkable kid with a part-time job and pay your way through a tier-1 university. Things have changed a lot, and for kids like my younger self, not for the better. Amazon, good or bad, and the other innovators we worship are making it the best of times for the remarkable, and the worst for the unremarkable. There will be grocery stores, and box boys, just fewer of them. Like the rest of retail, grocery will bifurcate into "scale" stores with robots giving you 90 percent of a great store for 60 percent of the price, using robotics, cheap capital, software, and voice. These will be stores where the employees are experts and serve the wealthy.

Amazon dwarfs all other companies in e-commerce, controlling 50% of the market; the second place company has just 6.6%

Thomas and Reagan 18 Lauren Thomas and Courtney Reagan, 7-13-2018, "Watch out, retailers. This is just how big Amazon is becoming," CNBC, https://www.cnbc.com/2018/07/12/amazon-to-take-almost-50-percent-of-us-e-commerce-market-by-years-end.html //DF

You knew Amazon was big. But did you know it was this big? Amazon's e-commerce sales in the U.S. are expected to reach a staggering $258.2 billion this year, up nearly 30 percent from a year ago, according to a new survey from eMarketer that looks at the company's sales by product category. That means **Amazon is expected to capture nearly half of the U.S. e-commerce market by the end of 2018**, eMarketer said. The company ended 2017 with about 44 percent of the market. In second place isn't Walmart, like some might expect, but eBay, according to eMarketer's research. **EBay is expected to end the year with about 6.6 percent** of the U.S. e-commerce market, Apple with 3.9 percent and Walmart with 3.7 percent. Next in line are Home Depot, Best Buy, QVC Group, Macy's, Costco and Wayfair [With around 1% each]. Also striking is the fact that Amazon's marketplace is exploding — the marketplace refers to transactions that take place via third-party sellers, instead of a shopper buying one of Amazon's in-house brands. Sales generated from the marketplace will be more than double Amazon's direct sales in the U.S. by the end of the year, eMarketer said. By 2019, marketplace sales are forecast by the firm to be more than 70 percent of Amazon's overall e-commerce business.

1. Amazon's strategy is to make big leaps in efficiency that their competitors can't match

Galloway 17 Scott Galloway [professor at New York University's Stern School of Business, where he teaches brand strategy and digital marketing to second-year MBA students. A serial entrepreneur, he has founded nine firms, including L2, Red Envelope, and Prophet. In 2012, he was named one of the "World's 50 Best Business School Professors" by Poets & Quants. His weekly Youtube series, *Winners and Losers*, has generated tens of millions of views], 2017 "The Four: The Hidden DNA of Amazon, Apple, Facebook, and Google," Portfolio/Penguin Press, pages 36-37 //DF

History favors the bold. Compensation favors the meek. As a Fortune 500 company CEO, you're better off taking the path often traveled and staying the course. Big companies may have more assets to innovate with, but they rarely take big risks or innovate at the cost of cannibalizing a current business. Neither would they chance alienating suppliers or investors. They play not to lose, and shareholders reward them for it—until those shareholders walk and buy Amazon stock. Most boards ask management: "How can we build the greatest advantage for the least amount of capital/investment?" Amazon reverses the question: "What can we do that gives us an advantage that's hugely expensive, and that no one else can afford?" Why? Because Amazon has access to capital with lower return expectations than peers. Reducing shipping times from two days to one day? That will require billions. Amazon will have to build smart warehouses near cities, where real estate and labor are expensive. By any conventional measure, it would be a huge investment for a marginal return. But for Amazon, it's all kinds of perfect. Why? Because Macy's, Sears, and Walmart can't afford to spend billions getting the delivery times of their relatively small online businesses down from two days to one. Consumers love it, and competitors stand flaccid on the sidelines. In 2015, Amazon spent $7 billion on shipping fees, a net shipping loss of $5 billion, and overall profits of $2.4 billion.52 Crazy, no? No. Amazon is going underwater with the world's largest oxygen tank, forcing other retailers to follow it, match its prices, and deal with changed customer delivery expectations. The difference is other retailers have just the air in their lungs and are drowning. Amazon will surface and have the ocean of retail largely to itself.

2. Amazon also dominates through vertical monopolization, where it has many different profitable arms

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Just as it's better to own the land under a mine, it's also good business to sell picks to the miners. The California Gold Rush proved that was true 170 years ago. Amazon proves it's still true today. Amazon owns a lucrative mine: the firm divides its revenue between retail sales of consumer products (Amazon itself and Amazon Marketplace) and "Other," the group that holds ad sales from Amazon Media Group and its cloud services (AWS).56 Most e-commerce firms can never get to profitability and, at some point, investors tire of a vision that's "reheated Bezos." The firm gets sold (Gilt, Hautelook, Red Envelope) or shutters (Boo.com, Fab, Style.com). A combination of a winner-take-all ecosystem, accelerating customer acquisition, last-mile costs, and a generally inferior (online) experience, makes pure-play e-commerce untenable. Amazon doesn't escape this fact. But even if Amazon's core business (pure-play e-commerce) is a difficult one for turning a profit, the immense value Amazon has delivered to consumers has created the most trusted, and reputable, consumer brand on the planet.57,58 Amazon has dominated e-commerce sales volume, but its business model isn't easily replicated or sustained. These days, it's easy to forget that Amazon did not turn its first profit until Q4 2001, seven years after its founding,59 and has dipped in and out of profitability ever since. In the past few years, Amazon has traded on this brand equity, leveraging it to extend into other businesses, and has expanded into other,

simply better (more profitable) businesses. Looking back, Amazon's retail platform just may have been the Trojan Horse that established the relationships and brand later monetized with other businesses. While year-to-year growth for Amazon's retail business ranged from 13 percent to 20 percent from Q1 to Q3 2015, Amazon Web Services—the retailer's network of servers and data storage technology—has grown 49 percent to 81 percent during that same interval. AWS also grew into a significant portion of Amazon's total operating income, from 38 percent in Q1 2015 to 52 percent in Q3 2015.60 Analysts predict that AWS could reach $16.2 billion in sales by the end of 2017, making it worth $160 billion—more than the company's retail unit.61 In other words, while the world still thinks of Amazon as a retailer, it has quietly become a cloud company—the world's biggest. And Amazon isn't stopping at web hosting. Amazon Media Group alone will likely soon surpass Twitter's 2016 revenue of $2.5 billion,62 making it one of the largest online media properties.63 Amazon Prime, the most nonexclusive club in America (44 percent of U.S. households64), is offering, for $99/year, free two-day shipping, two-hour shipping on select products (Amazon Now), and music and video streaming, including original content.65 Ideas for content are given the budget for a pilot, and then viewers are asked to vote online for which series get greenlighted. Amazon, like any sovereign superpower, pursues a triad strategy: air, land, and sea. Can you, Mr. Retailer, get your stuff to your consumer in an hour? No problem. Amazon can do it for you (for a fee), because it's making the investment you can't afford to make—warehouses run by robots near city centers, thousands of trucks, and dedicated cargo planes. Each day, four Boeing 767 cargo planes carry goods from Tracy, California, via an airport in nearby Stockton that was half the size three years ago, to a 1-million-square-foot warehouse that didn't even exist until last year.66 In early 2016, Amazon was given a license by the Federal Maritime Commission to implement ocean freight services as an Ocean Transportation Intermediary. So, Amazon can now ship others' goods. This new service, dubbed Fulfillment by Amazon (FBA), won't do much directly for individual consumers. But it will allow Amazon's Chinese partners to more easily and cost-effectively get their products across the Pacific in containers. Want to bet how long it will take Amazon to dominate the oceanic transport business?67 The market to ship stuff (mostly) across the Pacific is a $350 billion business, but a low-margin one. Shippers charge $1,300 to ship a forty-foot container holding up to 10,000 units of product (13 cents per unit, or just under $10 to deliver a flatscreen TV). It's a down-and-dirty business, unless you're Amazon. The biggest component of that cost comes from labor: unloading and loading the ships and the paperwork. Amazon can deploy hardware (robotics) and software to reduce these costs. Combined with the company's fledgling aircraft fleet, this could prove another huge business for Amazon.68 Between drones, 757/767s, tractor trailers, trans-Pacific shipping, and retired military generals (no joke) who oversaw the world's most complex logistics operations (try supplying submarines and aircraft carriers that don't surface or dock more than once every six months), Amazon is building the most robust logistics infrastructure in history. If you're like me, this can only leave you in awe: I can't even make sure I have Gatorade in the fridge when I need it. Stores The final brick in Amazon's strategy for world domination is its use of shitloads of assets piled up online to conquer the retail landscape offline. That's right—I mean stores, those things that were supposed to perish thanks to e-commerce. The truth is that the death of physical stores has been vastly overstated. In fact, it's not stores that are dying, but the middle class—and, in turn, the businesses that serve that once-great cohort and its neighborhoods. The largest mall owner in the United States is Simon Property Group. Its shares have been hit hard in 2017 after hitting an all-time high in 2016.69 However, Simon will likely be fine, as it sold properties in middle- and lower-income neighborhoods to focus on wealthy neighborhoods. Forty-four percent of total U.S. mall value, based on sales, size, and quality among other measures, now resides with the top hundred properties, out of about a thousand malls. Taubman Properties, another owner of high-end malls, reports tenants averaged sales per square foot of $800 in 2015, up 57 percent since 2005. Compare that to CBL & Associates Properties Inc., which operates "B" and "C" malls. Its sales per square foot rose just 13 percent, to $374, during that same period.70 So, stores are here to stay—if we are careful what stores we're talking about. But so is e-commerce. Ultimately, the real winners will be those retailers who understand how to integrate both. Amazon aims to be that company. **The next retail age will be coined the "multichannel era"—a time when integration across web, social, and brick and mortar is crucial to success. Everything points to Amazon dominating that era** as well. I've said for a while that Amazon will open stores—lots of them. It makes sense for them to acquire either a struggling retailer, like Macy's, or a company with a large footprint and vascular system, like a convenience store franchise. Amazon's greatest expense is shipping, and their highest objective is to reach more and more households in less and less time. This is why it made sense for Amazon to acquire Whole Foods, a 460-store franchise71 that will give Amazon a physical presence in urban centers, where affluent, fast-to-reach consumers live. Amazon has had a decade of selling groceries online without much success,72 as customers prefer to buy produce and meat in person. Key to success in the multichannel era is knowing which channel to optimize and how to cater to our hunter-gatherer instincts. As of this writing, in addition to the Whole Foods acquisition, Amazon is testing its own grocery stores in Seattle and the San Francisco Bay Area. It now has bookstores in Seattle, Chicago, and New York City (with others planned for San Diego, Portland, and New Jersey). Why does Amazon—bookstore killer—need brick-and-mortar bookstores? To sell the Echo, Kindle, and its other goods. Customers want to see, touch, and feel products, Amazon's chief financial officer Brian Olsavsky admitted.73 The firm is

also testing a dozen pop-up retail stores (with a total of perhaps one hundred planned by the end of 2017) targeted at U.S. malls.74 This is happening even as venerable retailers Macy's and Sears, including its Kmart chain, and mall giants JCPenney and Kohl's have announced plans to shutter hundreds of stores in 2017.75,76

3. Amazon has also bought out its competitors, like Quidsi

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Jet.com shows that the difference between a dot-bomb and a unicorn is a huckster vs. a visionary, respectively.77 How can you tell the difference? One has had an exit/liquidity event. Marc Lore, Jet's founder, is that visionary/huckster. Mr. Lore is Jeff Bezos's brother by another mother. Or, if you're a retail worker, they are the spawn of Ayn Rand and Darwin, raised by Darth Maul. Lore is also a banker who turned to e-commerce and chose a low-consideration category that, even better than books, had replenishment built in: diapers. In 2005, Lore started diapers.com and launched several other categories for parents under the corporate umbrella Quidsi.78 When Bezos toured the firm, he must have felt at home, recognizing the warehouses close to urban centers staffed by Kiva Robots standing behind a site run by algorithms. Bezos fell hard and in 2011 paid $545 million for Quidsi.79 **For half a billion dollars Amazon bought momentum in key categories, got some great human capital, and took a competitor off the market**. But Lore didn't want to work for Jeff Bezos. He wanted to be Jeff Bezos. Twenty-four months later he bolted and, with his new wealth, started Jet.com. This must have felt like a half-a-billion-dollar divorce settlement to your husband, who then moves into the house next door and starts fucking your friends. The ex is still pissed off. In April 2017 Bezos closed Quidsi and laid off many of its employees. Hey, if you leave me, your brother needs to move out of the basement. Maybe Quidsi should have been shut down. But my bet is this was Jeff saying to Marc, "and fuck you too." We forget most of the world's major organizations are run by humans, middle-aged humans, who have enormous egos that ensure they, on a regular basis, make an emotional/irrational decision.

Amazon bled Quidsi by undercutting them on prices and forced them to sell

Oremus 13 Will Oremus, 10-10-2013, "How Amazon Went Thermonuclear on Diapers.com," Slate Magazine, https://slate.com/technology/2013/10/amazon-book-how-jeff-bezos-went-thermonuclear-on-diapers-com.html //DF

Amazon tracks its competitors extremely closely. So when an upstart called Diapers.com began catching on with parents by allowing them to easily schedule recurring orders of diapers and other essentials, Jeff Bezos took notice, reports Businessweek's Brad Stone in an excerpt of his forthcoming book about Amazon. A website called Diapers.com may not sound like a major threat to a global online-retail giant, but Bezos did not take it lightly. Bezos, by Stone's account, does not take anything lightly. First, in 2009, Amazon sent a senior vice president to have lunch with the founders of the startup behind Diapers.com, called Quidsi. He warned them that Amazon was thinking about getting into the diaper business and suggested they think about selling. As Stone tells it, this was not a friendly suggestion. It was more like the kind of offer you can't refuse. From Businessweek: Soon after, Quidsi noticed Amazon dropping prices up to 30 percent on diapers and other baby products. As an experiment, Quidsi executives manipulated their prices and then watched as Amazon's website changed its prices accordingly. Amazon's pricing bots—software that carefully monitors other companies' prices and adjusts Amazon's to match—were tracking Diapers.com. Over time, Amazon's price drops began eating into Diapers.com's growth. Investors grew wary of pouring more money into the startup, given the competition. Quidsi's founders were forced to consider

selling, and they began talks with Wal-Mart. Then, in September 2010, they traveled to Seattle to meet again with Amazon. On the very morning of the meeting, Stone writes, Amazon rolled out a new service called Amazon Mom, offering huge discounts and free shipping on diapers and other baby supplies. Back in New Jersey, Quidsi employees desperately tried to call their founders to discuss a public response to Amazon Mom. The pair couldn't be reached: They were still in the meeting at Amazon's headquarters. Quidsi could now taste its own blood. At one point, Quidsi executives took what they knew about shipping rates, factored in Procter & Gamble's (PG) wholesale prices, and calculated that Amazon was on track to lose $100 million over three months in the diaper category alone. Amazon made an offer, and Wal-Mart responded with a counter-offer. But Bezos was playing hardball. When Bezos's lieutenants learned of Wal-Mart's counterbid, they ratcheted up the pressure, telling the Quidsi founders that [Bezos] was such a furious competitor that he would drive diaper prices to zero if they sold to Bentonville. The Quidsi board convened to discuss the possibility of letting the Amazon deal expire and then resuming negotiations with Wal-Mart. But by then, Bezos's Khrushchev-like willingness to use the thermonuclear option had had its intended effect. The Quidsi executives stuck with Amazon, largely out of fear. The deal was announced Nov. 8, 2010. For more on how Bezos ruthlessly built Amazon into the titan it is today, along with some fascinating details of his personal life, read the full Businessweek story or check out Stone's book, The Everything Store: Jeff Bezos and the Age of Amazon.

4. Amazon can also outcompete the companies who sell on its website by selling its own version of their product

Smith 19 Noah Smith, 2-19-2019, "Amazon's Winner-Take-All Approach to Small Business," Bloomberg, https://www.bloomberg.com/opinion/articles/2019-02-19/amazon-uses-search-to-undercut-small-businesses-on-its-site //DF

That wouldn't necessarily be a problem for small retailers if Amazon simply provided a venue that allowed small businesses to connect with customers. But increasingly, Amazon sells its own products, including private-label goods, that compete with the offerings of independent merchants on its platform. A recent paper by economists Feng Zhu and Qihong Liu observed Amazon's behavior over time, and found that it tends to introduce products in niches that smaller merchants did the work of discovering by finding out what consumers like. Amazon then piggybacks on their efforts. 1 This kind of tactic could be increasingly important as Amazon makes its own private-label products. This is similar to a classic move used by supermarkets -- observe which products sell well, then introduce private-label brands to try to grab some of those markets. But technology has given online platforms superior tools to outcompete their suppliers. One of these tools is search. Customers look for products using Amazon's internal search function. Independent sellers can try to take sales from rivals by buying placements in the search results for a rival's brand-name product -- for example, when a customer searches for Purina dog food, she might see a promoted result for Kibbles 'n Bits. But Amazon doesn't allow other sellers to compete with its products this way -- if you search for an Amazon product, you're invariably going to see an Amazon product first. But if you search for another company's product, you might see an Amazon product promoted at the top of the list. Amazon now is experimenting with a feature that could, if adopted, automatically include Amazon products in searches. And search isn't the only advantage a platform has in the digital age; Amazon also collects potentially crucial sales and marketing data that it can choose not to share with third-party merchants. Of course, any online retailer could do the same. But the world of e-commerce is subject to stronger network effects. When you buy something from a brick-and-mortar retailer, you tend to go to one that's conveniently located, whether it's a Wal-Mart, a Target, a Best Buy or a local convenience store. But online, unless you're searching for a specialized product, there's often no reason to go anywhere but Amazon. This naturally tends to push the platform market toward winner-take-all. And it's exacerbated by Amazon's practice of requiring merchants not to offer their products more cheaply on any other platform -- a type of agreement known as a most-favored nation provision or MFN. This means that merchants who want to sell their products online have no choice but to be on Amazon, the biggest platform, and play by its rules. Some, such as business professor Andre Hagiu, argue that Amazon would be foolish to out-compete its merchants, because this would deter them from offering their products on Amazon in the future. But researchers have long known that this logic doesn't necessarily apply in the presence of dominant market power; back in 2000, economists Joseph Farrell and Michael Katz showed that a monopoly can have incentives to confiscate the profits from the innovation of companies who produce complementary products, thus stifling innovation. Tech publisher

Tim O'Reilly argues that even if eating the third-party ecosystem isn't a good long-term decision, a platform may be tempted to do it anyway just for the short-term profits. So if Amazon is chewing up the small-business world -- and the e-commerce world in general -- what's to be done? One approach is to identify and ban Amazon's specific anticompetitive practices, as European authorities are trying to do in the case of data sharing. Another approach is to try to introduce competition into the e-commerce platform space by banning MFNs and other anticompetitive practices. But these efforts may be inadequate, since the former involves a continuous cat-and-mouse game between regulators and Amazon, and the latter probably won't be enough to overcome the strong network effect driving the concentration of online retail. Another alternative, of course, is simply to break up Amazon. But before such a drastic step is taken, economist Hal Singer argues, antitrust authorities should consider a gentler alternative -- a nondiscrimination regime. This would basically allow any third-party merchant to lodge a complaint with the Federal Trade Commission or another independent tribunal. Although only larger merchants would have the resources to lodge such complaints, any victories they won would benefit smaller businesses as well, by curbing Amazon's anticompetitive stratagems.

R/T Competition w/ Facebook

Facebook owns a company that tracks the other apps people use, and FB uses that data to either buy or copy the features of that company

Seetharaman and Morris 19 Deepa Seetharaman and Betsy Morris, 5-30-2019, "Facebook's Onavo Gives Social-Media Firm Inside Peek at Rivals' Users," WSJ, https://www.wsj.com/articles/facebooks-onavo-gives-social-media-firm-inside-peek-at-rivals-users-1502622003 //DF

In February, just before going public, Snap confirmed that its user base grew more slowly in the last three months of 2016 than the prior year. Snap's latest financial figures Thursday showed that its growth challenges persist. Facebook's early insight came thanks to its 2013 acquisition of Israeli mobile-analytics company Onavo, which distributes a data-security app that has been downloaded by millions of users. **Data from Onavo's app has been crucial to helping Facebook track rivals and scope out new product categories**, The Wall Street Journal reported last week. Interviews with more than a dozen people familiar with Facebook's use of Onavo data show in detail how **the social-media giant employs it to measure what people do on their phones beyond Facebook's own suite of apps. That information shapes Facebook's product and acquisition strategy—furthering its already formidable competitive edge**, the people said. A Facebook spokesman said it is clear when people download Onavo what information it collects and how it is used. "Websites and apps have used market-research services for years," the spokesman said, noting that the company also uses outside services to help it understand the market and improve services. Alphabet Inc., through its Google Android operating system for smartphones, and Apple Inc. also have the ability to monitor how rivals' apps perform on their mobile platforms, but it isn't clear whether they use that information to shape their product road maps. Apple declined to comment. Alphabet unit Google didn't immediately respond. Onavo's data comes from Onavo Protect, a free mobile app that bills itself as a way to "keep you and your data safe" by creating a virtual private network, a service used to encrypt internet traffic. When an Onavo Protect user opens a mobile app or website, Onavo redirects the traffic to Facebook's servers and the action is logged in a database, according to Onavo's website and the people familiar with the system. Facebook's product teams can analyze the aggregated data to get detailed information on things such as which apps people generally are using, how frequently, for how long, and whether more women than men use an app in a specific country. If data inside an app isn't encrypted, the information can be as specific as the number of photos the average user likes or posts in a week. Onavo Protect has been downloaded an estimated 24 million times, mostly on Android devices, according to app-research firm Sensor Tower. It isn't clear how many people use it regularly. The app's privacy policy says it may share information with "affiliates" that include its owner, Facebook. "As part of this process, Onavo receives and analyzes information about your mobile data and app use," according to the app's description on Apple's App

Store. "Instead of converting data for the purpose of advertising, they're converting it to competitive intelligence," said Ashkan Soltani, an independent researcher and former chief technologist for the Federal Trade Commission. "Essentially this approach takes data generated by consumers and uses it in ways that directly hurts their interests—for example, to impede competitive innovation." Facebook's use of Onavo on iPhones could violate its agreement with Apple, said Adam Shevell, an attorney with Wilson Sonsini Goodrich & Rosati who advises startups and large tech companies that publish apps. That is because Facebook is using Onavo to gather information to improve Facebook, he said, whereas Apple's developer agreement allows apps to use data "only to provide a service or function that is directly relevant to the use of the Application, or to serve advertising." Apple and Facebook declined to comment on this matter. Within a few months of Facebook's acquisition of the Tel Aviv-based company in 2013, Onavo's data paved the way for the social-media firm's biggest deal, the February 2014 purchase of WhatsApp for what eventually was $22 billion, the people familiar said. Onavo showed the messaging app was installed on 99% of all Android phones in Spain—showing WhatsApp was changing how an entire country communicated, the people said. That metric in particular put Facebook on notice, the people said. Instead of converting data for the purpose of advertising, they're converting it to competitive intelligence. —Independent researcher Ashkan Soltani Onavo also helped shape Facebook's live-video strategy, other people familiar said. Employees could see usage patterns for live-video apps such as Meerkat and Twitter Inc.'s Periscope, one person said. That helped guide Facebook's decision to add a live-video feature to its main app in early 2016. With Snapchat, one of Facebook's biggest rivals, Onavo, at one point, revealed information as detailed as how many Snaps were sent every day. A year ago, Facebook began rolling out disappearing photo and video strings on Instagram called "Stories", similar to the identically named feature on Snapchat, which spurned Facebook's acquisition attempt in 2013. After seeing Snapchat's growth slow, Facebook rolled out the Stories format across all its major apps: Messenger, WhatsApp and Facebook.

Zuckerberg himself couldn't name a competitor to Facebook because they've destroyed all of the other ones

Blumenthal and Wu 18 Richard Blumenthal [Democratic senator from Connecticut] and Tim Wu [law professor at Columbia, the author of "The Curse of Bigness: Antitrust in the New Gilded Age" and a contributing opinion writer], 5-18-2018, "What the Microsoft Antitrust Case Taught Us," NYT, https://www.nytimes.com/2018/05/18/opinion/microsoft-antitrust-case.html?rref=collection%2Fbyline%2Ftim-wu&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=6&pgtype=collection //DF

Antitrust efforts have become too fixated on the idea that the only real harm consists of raising of prices for consumers. Yet in the Microsoft case, Internet Explorer was "free," even though Microsoft was bent on destroying competition with it. Today, both Google and Facebook offer products that are free. Society has grown to rely on them, but because they have no dollar price, antitrust regulators have been hesitant to take action. Any American can tell you that there is no free lunch. Everything has a price. We pay for these products and services with our time and our data. And like Microsoft, these firms have come to exert too much control over our shared technological future. **At a hearing before the Senate, Mark Zuckerberg**, the chief executive of Facebook, **was asked to name Facebook's biggest competitor** – a company providing a similar service that consumers can go to if they are unhappy with Facebook. Mr. **Zuckerberg could not name one**. Part of the reason for this is that **Facebook bought its most obvious competitors, Instagram and WhatsApp, and continues to acquire upstart companies before they can reach that point.** The pattern is familiar. And if the Microsoft case showed us anything, it is that we should not trust any one company to decide our future.

R/T Consumer Welfare Standard

The government should judge tech companies by if they interfere with competition, not just how they affect the consumer, because the legal system is more equipped to do the former

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 135-138 //DF

But would abandoning "consumer welfare" as the lodestone of antitrust law make the antitrust law too indeterminate? Consider the views of Jude Doug Ginsburg, who doubts that Congress really intended maximization of "consumer welfare" to be the Sherman Act's goal, but argues that the alternatives used for most of the twentieth century created too much leeway and unpredictability. As he explains, "[c]ourts were freely choosing among multiple, incommensurable, and often conflicting values." These fears are exaggerated, for there will be a post-consumer welfare antitrust that is practicable and arguably as predictable as the current consumer welfare standard. I say that in part because, in practice, the consumer welfare standard has not set a high bar. Decades of practice have shown that the promised scientific certainty of the Chicago method has not materialized, for economics does not yield answers but arguments. In practice, the consumer welfare standard asks judges and lawyers to do something nearly impossible: to measure the welfare effects of highly complex transactions or conduct. Instead, we should be asking judges to do something far more suited to a legal entity. Courts should assess whether the targeted conduct is that which "promotes competition or whether it is such as may suppress or even destroy competition"–the standard prescribed by Brandeis in his *Chicago Board of Trade* opinion issued in 1918. **The "protection of competition" test is focused on protection of a *process*, as opposed to the maximization of a *value*. It is based on the premise that the legal system often does better trying to protect a process than the far more ambitious goal of maximizing an abstract value like welfare or wealth.** The former asks the legal system to eliminate subversion abuses; the latter, in contrast, inevitably demands some exercise in social planning, and ascretaining values that can be exceedingly difficult, if not impossible, to measure. **Because "welfare" is so hard to ascertain, courts and enforcers rely too heavily on price effects, since they are the easiest to measure yielding underefencorcement of the law.** As a legal matter, "the protection of competition" standard has the advantage of much greater support from congressional intent and earlier precedent. It is a challenging, even absurd, exercise, to pick a modern economic standard out of the language of the Sherman, Clayton, or Anti-Merger Acts or their legislative histories. The idea that Congress was concerned with "allocative efficiency" in 1980 or even 1914 or 1950 is an economic version of anthropomorphism. In contrast, it is no great stretch to say that Congress was interested in the preservation of competition. The Congressional record does not contain the words "allocative efficiency," "consumer welfare," or "wealth transfer," but it does repeatedly discuss the choice between competition and monopoly. Here, as just one typical example, is Representative Dick Thompson Morgan in 1913: "the one thing we wish to maintain, and retain and sustain, is competition. We want to destroy monopoly and restore and maintain competition." These considerations suggest a return to "protection of competition" as the recognized goal of American antitrust law. As scholar Barak Orbach makes clear, protection of competition was the accepted and restated goal of the antitrust laws from the 1890s through the 1970s. The point was repeated over the decades: in 1904 the Supreme Court said that the Sherman Act "has prescribed the rule of free competition among those engaged in... commerce." Or as it said in the 1950s, "The heart of our national economic policy long has been faith in the value of competition.... 'Congress was dealing with competition, which it sought to protect, and monopoly, which it sought to prevent.'" And in 1978, the Court observed that "Congress... sought to establish a regime of competition as the fundamental principle governing commerce in this country." In short, to use the "protection of competition" standard is not to break new ground but to return

to what the democratic majority asked for. Its better legal pedigree may be why some members of the judiciary have begun to use a protection of competition standard again. Without much fanfare, Justice Stephen Breyer, in condemning so-called "pay for delay" settlements in the pharmaceutical industry, did so based on the "potential for genuine adverse effects on competition." Richard Posner writes that "the purpose of antitrust law, at least as articulated in the modern cases, is to protect the competitive process as a means of promoting economic efficiency."

The government didn't break up Standard Oil because it sold overpriced oil, but because it crushed its competition

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

At the core of this debate is a question that is more than a century old: When does a megacompany's behavior become so brazen that it violates the law? In the early 1900s, just after the Industrial Revolution, the federal government provided an answer by suing [sued] one of America's largest companies, Standard Oil, on the novel theory that **big becomes bad when a giant uses its dominance not only to defeat its competitors but also to extinguish the possibility that competition might occur**. In its technological innovation, Standard Oil was the Google of its day. The company's founder, John D. Rockefeller, had become the richest man in America by spending millions of dollars hiring scientists to transform how oil was refined and transported. And those innovations earned the public's admiration. In 1858, before Standard Oil was founded, lighting a home required whale oil, which cost up to $3 a gallon, putting illumination out of reach for all but the wealthiest of households. By 1885, after Standard Oil figured out how to refine kerosene, it cost just 8 cents a gallon to brighten the night. "Let the good work go on," **Rockefeller wrote** to a partner. "**We must ever remember we are refining oil for the poor man and he must have it cheap and good**." **Standard Oil's technological discoveries gave the company huge advantages over its rivals, and Rockefeller exploited those advantages ruthlessly.** He cut secret deals with railroads so that other firms had to pay more for transportation. He forced smaller refineries to choose between selling out to him or facing bankruptcy. "Rockefeller and his associates did not build the Standard Oil Co. in the boardrooms of Wall Street," wrote Ida Tarbell, a muckraking journalist of the day. "They fought their way to control by rebate and drawback, bribe and blackmail, espionage and price cutting, and perhaps more important, by ruthless, never slothful efficiency of organization." In 1906, President Theodore Roosevelt ordered his Justice Department to sue Standard Oil for antitrust violations. But government lawyers faced a quandary: It wasn't illegal for Standard Oil to be a monopoly. It wasn't even illegal to compete mercilessly. So government prosecutors found a new argument: If a firm is more powerful than everyone else, they said, it can't simply act like everyone else. Instead, it has to live by a special set of rules, so that other companies get a fair shot. "The theory was that competition is good, and if a monopoly extinguishes competition, that's bad," says Herbert Hovenkamp, co-author of a seminal treatise on antitrust law. "Once you become a monopoly, you have to start acting differently, and if you don't, then what you've been doing all along starts breaking the law."

The EU uses a competition model instead of a consumer welfare model

Kelly 19 Makena Kelly, 3-7-2019, "Facebook plans to tie itself together as regulators debate tearing it apart," Verge, https://www.theverge.com/2019/3/7/18254717/facebook-instagram-whatsapp-regulation-antitrust-mark-zuckerberg-klobuchar-hawley-blumenthal //DF

Last week, the FTC announced that it would be building out a task force faced with understanding and enforcing competition regulation on big tech companies like Facebook and Google. At the time of the task force's announcement, officials said that they would be actively looking into previous consummated mergers. At the same time, European regulators are increasingly unhappy with Facebook's status quo. Last month, the European Parliament released its final report on its investigation post-Cambridge Analytica. In it, lawmakers do not explicitly say that a break up is necessary, but that it may be worth thinking about. "The legislative tools already exist," the report said. "They must now be applied to digital activity, using tools such as privacy laws, data protection legislation, antitrust and competition law." **In the EU, antitrust law looks dramatically different than it does in the US. European countries exhibit a competition model rather than a consumer harm model like in the US**. The EU report also points to Facebook shutting down API access to apps like Twitter's former Vine product as a way to draw away competition from Instagram's new video product. The report even cites Facebook's plan to integrate messaging services as a threat to competition. "The scale of this data sharing risks being massively increased, given the news that, by early 2020, Facebook is planning to integrate the technical infrastructure of Messenger, Instagram and WhatsApp, which, between them, have more than 2.6 billion users."

R/T Breakups are un-preccedented

Separating platforms for products of big companies to protect competition has a long history in America

Dayen 19 David Dayen, 3-8-2019, "How to Think About Breaking Up Big Tech," Intercept, https://theintercept.com/2019/04/01/elizabeth-warren-tech-regulation-2020/ //DF

The idea is that these entities get preferential treatment from the platform they own, giving Basics, Google ad tech, and Google Search an unfair advantage and extending the platform's dominance. Only the biggest companies would have to structurally separate; smaller platforms would still have to meet a standard of fair, reasonable, and nondiscriminatory treatment for participants on the platform and its users. This forced divestiture of tech platforms' other business lines has been described as radical. Manne and Stapp claim it will turn the internet into your sewer service — mainly because Warren uses the word "utility" to describe regulated platforms. Jeff Bezos didn't come up with the idea of owning a marketplace and using it to sell your own stuff at an unfair advantage against rivals. Reading Railroad, for example, became the largest company in the world by owning the rails that carried anthracite coal, as well as the coal mines along the route. Rival coal producers that wanted to use the lines got less favorable rates, fell behind, and got swallowed up by Reading Railroad. Congress put a stop to it in 1906 by adopting the Hepburn Act, which prevented the railroads from carrying products that they owned. This forced the Reading Railroad to divest the P&R Coal and Iron Company, the subsidiary that owned the coal mines. Warren is merely following a long history of structural separation that began when Teddy Roosevelt was president. Theater owners were not allowed to also produce and distribute films after the Supreme Court's Paramount decision in 1948. Television networks were prevented from owning the programming they ran in prime time, under the Financial Interest and Syndication, or "fin-syn," rules imposed by the Federal Communications Commission in 1970. In telecom, AT&T was heavily circumscribed and restricted to common-carrier telephone service, banning the company from capitalizing on innovations from Bell Labs and forcing compulsory licensing of those patents in 1956, which created the modern electronics industry. Banks were structurally separated between investment and deposit-taking commercial lines after the Glass-Steagall reforms. Rep. David Cicilline, D-R.I., the chair of the House Judiciary's antitrust subcommittee, has analogized a structural separation in tech as a Glass-Steagall type of rule. These structural separations have widespread goals: diversity, financial stability, decentralization of power, and innovation. "We owe the internet to structural separation," said Harold Feld, a senior vice president with Public Knowledge, referring to the Carterfone decisions, where the FCC allowed people to connect their own devices, like a modem, to the telephone network. "Clearly this has a long and successful history in telecom."

Polarization Advantage

UQ – Bots

Bots on social media and fake news hurt democracy

Newman and O'Gorman 17 Hadley Newman [Doctoral Researcher, Heriot-Watt University] and Kevin O'Gorman [Professor of Management and Business History, Heriot-Watt University], 6-21-2017, "Political bots are poisoning democracy – so, off with their heads," Conversation, https://theconversation.com/political-bots-are-poisoning-democracy-so-off-with-their-heads-79779 //DF

Bots with large numbers of followers are the ideal conduits for disinformation, sharing fake news within the echo chambers that have grown out of the content display logic of social media algorithms. Some of this news will be crafted specifically for political gain, but even this doesn't always necessarily follow. The US media reported, for example, that an army of Macedonian teenagers had been operating US political sites peddling made-up conservative news to make a quick buck on Facebook. With 44% of Americans getting their news from Facebook, and Donald Trump elected president, we may be paying a hefty price for such enterprises. As one detailed report put it, media manipulators trade their stories by "using the power of networked collaboration and the reach of influencers". Even "when the misinformation is debunked, it continues to shape people's attitudes". Such overt mind manipulation can "ruin democracy", warned the report. Speaking of ruining democracy, algorithms are also opening the door to another kind of Facebook manipulation. During the UK election, there were reports of "paid-for attack advertising" targeting specific voters in specific constituencies. The Conservatives have been particularly identified with this so-called "dark advertising". It threatens to break fundamental rules about campaign transparency and voter targeting. It also undermines the UK's longstanding ban on political parties buying TV and radio space. Not OK, computer From radio to TV to the internet, every new medium has disrupted the political space. Each has served as a new tool to expand the audience and sharpen the dialogue. With social media, however, we find ourselves in unique territory. The public has to wake up to the very real reality that fake news, junk news and automated tweets are almost certainly muddling political discourse and making different factions more and more polarised. Rhetoric and sloganeering are giving way to digital subterfuge and guerilla assaults on the public psyche.

Link – Competition

Increasing competition with Facebook would open the door to other companies that have better privacy practices

Wu 18 Tim Wu [law professor at Columbia, the author of "The Attention Merchants: The Epic Struggle to Get Inside Our Heads" and a contributing opinion writer], 4-3-2018, "Don't Fix Facebook. Replace It,"

NYT,
https://www.nytimes.com/2018/04/03/opinion/facebook-fix-replace.html?rref=collection%2Fbyline%2Ftim-wu&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=8&pgtype=collection //DF

The right question: What comes after Facebook? Yes, **we have come to depend on social networks, but instead of accepting an inherently flawed Facebook monopoly, what we most need now is a new generation of social media platforms that are fundamentally different in their incentives and dedication to protecting user data**. Barring a total overhaul of leadership and business model, Facebook will never be that platform. Every business has its founding DNA. Real corporate change is rare, especially when the same leaders remain in charge. In Facebook's case, we are not speaking of a few missteps here and there, the misbehavior of a few aberrant employees. The problems are central and structural, the predicted consequences of its business model. From the day it first sought revenue, Facebook prioritized growth over any other possible goal, maximizing the harvest of data and human attention. Its promises to investors have demanded an ever-improving ability to spy on and manipulate large populations of people. Facebook, at its core, is a surveillance machine, and to expect that to change is misplaced optimism. What the journalist Walter Lippmann said in 1959 of "free" TV is also true of "free" social media: It is ultimately "the creature, the servant and indeed the prostitute of merchandizing." But social media itself isn't going away. It has worked its way into our lives and has come to help satistify the basic human need to connect and catch up. Facebook, in fact, claims lofty goals, saying it seeks to "bring us closer together" and "build a global community." Those are indeed noble purposes that social media can serve. But if they were Facebook's true goals, we would not be here. The ideal competitor and successor to Facebook would be a platform that actually puts such goals first. To do so, however, it cannot be just another data-hoarder, like Google Plus. If we have learned anything over the last decade, it is that advertising and data-collection models are incompatible with a trustworthy social media network. The conflicts are too formidable, the pressure to amass data and promise everything to advertisers is too strong for even the well-intentioned to resist. So what stands in the way of building a genuine alternative? It isn't the technology. A good Facebook competitor needs merely to build a platform that links you with friends and allows posting of thoughts, pictures and comments. No, the real challenge is gaining a critical mass of users. Facebook, with its 2.2 billion users, will not disappear, and it has a track record of buying or diminishing its rivals (see Instagram and Foursquare). But as Lyft is proving by stealing market share from Uber, and as Snapchat proved by taking taking younger audiences from Facebook, "network effects" are not destiny. Now is the time for a new generation of Facebook competitors that challenge the mother ship. One set of Facebook alternatives might be provided by firms that are credibly privacy-protective, for which users would pay a small fee (perhaps 99 cents a month). In an age of "free" social media, paying might sound implausible — but keep in mind that payment better aligns the incentives of the platform with those of its users. The payment and social network might be bundled with other products such as the iPhone or the Mozilla or Brave browser. Another "alt-Facebook" could be a nonprofit that uses that status to signal its dedication to better practices, much as nonprofit hospitals and universities do. Wikipedia is a nonprofit, and it manages nearly as much traffic as Facebook, on a much smaller budget. An "alt-Facebook" could be started by Wikimedia, or by former Facebook employees, many of whom have congregated at the Center for Humane Technology, a nonprofit for those looking to change Silicon Valley's culture. It could even be funded by the Corporation for Public Broadcasting, which was created in reaction to the failures of commercial television and whose mission includes ensuring access to "telecommunications services that are commercial free and free of charge." When a company fails, as Facebook has, it is natural for the government to demand that it fix itself or face regulation. But **competition can also create pressure to do better. If today's privacy scandals lead us merely to install Facebook as a regulated monopolist, insulated from competition, we will have failed completely.** The world does not need an established church of social media.

Facebook's domination of social media enables it to deprive us of privacy; they COULD NOT do that when the market was competitive

Srinivasan 19 Dina Srinivasan [Antitrust scholar and professor at Yale Law School], 5-28-2019, "Why Privacy is an Antitrust Issue," NYT, https://www.nytimes.com/2019/05/28/opinion/privacy-antitrust-facebook.html //DF

It is this last point, which I made in a law journal article cited by Mr. Cicilline, that promises to change how antitrust law will protect the American public in the era of Big Tech: namely, that **consumers can suffer at the hands of monopolies because companies like Facebook lock in users with promises to protect their data and privacy — only to break those promises once competitors in the marketplace have been eliminated.** To see what I mean, let's go back to the mid-2000s, when Facebook was an upstart social media platform. To differentiate itself from the market leader, Myspace, Facebook publicly pledged itself to privacy. Privacy provided its competitive advantage, with the company going so far as to promise users, "We do not and will not use cookies to collect private information from any user." When Facebook later attempted to change this bargain with users, the threat of losing its customers to its competitors forced the company to reverse course. In 2007, for example, Facebook introduced a program that recorded users' activity on third-party sites and inserted it into the News Feed. Following public outrage and a class-action lawsuit, Facebook ended the program. "We've made a lot of mistakes building this feature, but we've made even more with how we've handled them," Facebook's chief executive, Mark Zuckerberg, wrote in a public apology. This sort of thing happened regularly for years. Facebook would try something sneaky, users would object and Facebook would back off. But then Facebook's competition began to disappear. Facebook acquired Instagram in 2012 and WhatsApp in 2014. Later in 2014, Google announced that it would fold its social network Orkut. Emboldened by the decline of market threats, Facebook revoked its users' ability to vote on changes to its privacy policies and then (almost simultaneously with Google's exit from the social media market) changed its privacy pact with users. This is how Facebook usurped our privacy: with the help of its market dominance. The price of using Facebook has stayed the same over the years (it's free to join and use), but the cost of using it, calculated in terms of the amount of data that users now must provide, is an order of magnitude above what it was when Facebook faced real competition. It is hard to believe that the Facebook of 2019, which is so consuming of and reckless with our data, was once the privacy-protecting Facebook of 2004. **When users today sign up for Facebook, they agree to allow the company to track their activity across more than eight million websites and mobile applications that are connected to the internet. They cannot opt out of this**. The ubiquitous tracking of consumers online allows Facebook to collect exponentially more data about them than it originally could, which it can use to its financial advantage. And while users can control some of the ways in which Facebook uses their data by adjusting their privacy settings, if you choose to leave Facebook, the company still subjects you to surveillance — but you no longer have access to the settings. Staying on the platform is the only effective way to manage its harms. Lowering the quality of a company's services in this manner has always been one way a monopoly can squeeze consumers after it corners a market. If you go all the way back to the landmark "case of monopolies" in 17th-century England, for example, you find a court sanctioning a monopoly for fear that it might control either price or the quality of services. But we must now aggressively enforce this antitrust principle to handle the problems of our modern economy. Our government should undertake the important task of restoring to the American people something they bargained for in the first place — their privacy.

These companies have financial incentives to keep on the fake news tap

Biddle 19 Sam Biddle, 3-8-2019, "STOP EXPECTING FACEBOOK AND GOOGLE TO CURB MISINFORMATION — IT'S GREAT FOR BUSINESS," Intercept, https://theintercept.com/2019/03/08/elizabeth-warrens-facebook-google-amazon/ //DF

WE'VE ARRIVED AT the sad, dumb point in history at which the only thing less surprising than acts of mass violence are the ways in which our planet's mega information distributors muck everything up with ensuing frauds, hoaxes, and confusion. The problem is thoroughly identified: Facebook, Google, and, to a lesser extent, Twitter have the quality control of a yard sale and the scale of 100,000 Walmarts. But despite all our railing and shaming, these companies have a major disincentive to reform: money. In the wake of yet another American massacre, this time in Las Vegas, media scrutiny is aimed once more at **Facebook, Google, and Twitter**, for the same old reasons. The sites, time after time, and this time once more, s**erved up algorithmic links to websites peddling deliberate lies and bottom-feeder misinformation. These companies provided an untold mass of online users with falsehoods posing as news resources,** as is completely normal now and only noteworthy because it was pegged to a heinous national tragedy. The discussion will now swing from "This is bad" to "What can be done?", and we can expect all the typically empty pro forma reassurance from Silicon Valley public relations offices. Don't expect much more. This email from Google I just got is insane. They talk about 4Chan as if it is a news source. Third bullet point: pic.twitter.com/qgpXlg7JQB — William Turton (@WilliamTurton) October 2, 2017 It's extremely important to keep Fox News in mind these days. The network is essentially a less sophisticated delivery vehicle for the same sort of news that floats to the top of Facebook and other sites' traffic: Insincere men barking half-truths and innuendos in order to piss people off. Facebook's brilliant tweak to this formula was the realization that 1. You don't need to pay your own team of Bad-Faith Freakout Men; there are plenty in the wild who will do it for free, and 2. Millions of people will take the opportunity to make their peers equally pissed off if given a button to press. The business is the same, though: Piqued emotion is a powerful commodity. It would seem ridiculous to ask Fox News why it doesn't reform its portrayal of black children as animals and criminals, of Muslims as savages and bombers, and so forth. It's obvious why they wouldn't, because these portrayals are their stock-in-trade, and what company would put itself out of business? We find ourselves at a similar impasse with Facebook and friends. There are a few numbers these companies live and die by. One of these numbers is the quantification of "engagement," a term kept deliberately vague so it can be expanded more easily; it essentially translates to "things happening on the website." For Twitter, this means tweets, retweets, favorites, and various other clicking activities. "More" is directly equivalent to "better for business," no matter what exactly there is more of. For Facebook, this translates to writing posts, sharing posts, liking posts, and so forth. The more people are staring at Facebook or clicking its click-ables, the higher this engagement number goes, and the better the company looks to investors and advertisers, the two parties that determine whether an internet firm will be massively lucrative or dead. Google's position here is slightly different in that individual user accounts matter less, but the gist is similar: The more people looking and clicking, the better. You only need to spend several minutes on the internet to realize that a lot of this looking and clicking includes things like racist witch hunts, white supremacist evangelizing, deliberate hoaxes, and maybe even electoral interference of some sort (it seems entirely plausible that foreign governments might take to Facebook to throw wrenches in our civic life because they know we love wrenches). For years now, the major internet information brokers have been promising and promising to improve, but delivering only the most marginal signs of improvement. This isn't a sign of failure but of lack of effort. We have yet to see what it would look like for a major technology company to make a serious, concerted attempt to filter out deliberate acts of harm and deceit. The notion that Twitter couldn't curb spam bots and Nazis or that Google couldn't blacklist 4chan from its news overview is absurd. The issue is that, for revenue purposes, engagement with the informational equivalent of a leaking septic tank is indistinguishable from engagement with news sources that aren't explicitly trying to deceive and defraud readers. The political Facebook ads that were allegedly purchased by the Russian government went into the same money vault as ads from Nike and Pepsi, and rape-threat tweets count just as much on Twitter's quarterly earnings calls as announcements from NASA and Denny's. The increasingly toxic internet is working as designed by the companies that control most of it — corporate monoliths that hold the primary channels of digital information distribution and obligations to shareholders, not civil society.

These companies have acted irresponsibly and enabled bad shit

Galloway 18 Scott Galloway [professor at New York University's Stern School of Business, where he teaches brand strategy and digital marketing to second-year MBA students. A serial entrepreneur, he has founded nine firms, including L2, Red Envelope, and Prophet. In 2012, he was named one of the "World's 50 Best Business School Professors" by Poets & Quants. His weekly Youtube series, Winners and Losers, has generated tens of millions of views], 2-8-2018, "Why Amazon, Apple, Facebook, and Google Need to Be Disrupted," Esquire, https://www.esquire.com/news-politics/a15895746/bust-big-tech-silicon-valley/ //DF

Getting warmer. Having your firm weaponized by foreign adversaries to undermine our democratic election process is bad . . . really bad. During the 2016 election, Russian troll pages on Facebook paid to promote approximately three thousand political ads. Fabricated content reached 126 million users. It doesn't stop there—the GRU, the Russian military-intelligence agency, has lately taken a more bipartisan approach to sowing chaos. Even after the election, the GRU has used Facebook, Google, and Twitter to foment racially motivated violence. The platforms invested little or no money or effort to prevent it. The GRU purchased Facebook ads in rubles: literally and figuratively a red flag. image . If you're a country club with a beach or a pool, it's more profitable, in the short run, not to have lifeguards. There are risks to that business model, as there are to Facebook's dependence on mainly algorithmic moderation, but it saves a lot of money. **The notion that we can expect big tech to allocate the requisite resources, of the companies' own will, for the social good is similar to the idea that Exxon will take a leadership position on global warming.** It's not going to happen. However, **the alarm for trust busting**, not just regulation, **rang** for me in November, **when Senate Intelligence Committee chairman Richard Burr pleaded with the general counsels of Facebook, Google, and Twitter, "Don't let nation-states disrupt our future. You're the front line of defense for it."** This represented a seminal moment in our history, when **our elected officials handed over our national defense to firms whose business model is to nag you about the shoes you almost bought, and remind you of your friends' birthdays.** They should be our front line against our enemies? Let's be clear, **our front line of defense has been, and must continue to be, the Army, Navy, Air Force, and Marines. Not the Zuck.**

IL – The Russians!

Google and Facebook have allowed the Russians to use advertising and spread incendiary messages to interfere with the 2016 election

Wakabayashi 17 Daisuke Wakabayashi, 10-9-2017, "Google Finds Accounts Connected to Russia Bought Election Ads," NYT, https://www.nytimes.com/2017/10/09/technology/google-russian-ads.html?module=inline //DF

Google has found evidence that Russian agents bought ads on its wide-ranging networks in an effort to interfere with the 2016 presidential campaign. The findings from an internal inquiry draw Google further into the growing investigation of how social networks and technology services were manipulated by the Russian government to spread misinformation and sow division during the 2016 election. Using accounts believed to be connected to the Russian government, the agents purchased $4,700 worth of search ads and more traditional display ads, according to a person familiar with the company's inquiry who was not allowed to speak about it publicly. Google found the accounts through its own research and information provided by other technology companies. Google found a separate $53,000 worth of ads with political material that were purchased from Russian internet addresses, building addresses or with Russian currency. It is not clear whether any of those were connected to the Russian government, and they may have been purchased by Russian citizens, the person said. The messages of those ads spanned the political spectrum. One account spent $7,000 on ads to promote a documentary called "You've Been Trumped," a film about Donald J. Trump's efforts to build a golf course in Scotland along an environmentally sensitive coastline. Another spent $36,000 on ads questioning whether President Barack Obama needed to resign. Yet another bought ads to promote political merchandise for Mr. Obama. The ads appeared mainly alongside Google's search results or on websites that use Google ads outside the search company's own sites. It was not clear whether such ads appeared on YouTube or the Gmail email service, the person said. There is a chance that Google may find other ads from Russian-linked accounts, the person familiar with the investigation said. Microsoft, a distant rival to Google in the internet search and advertising market, said Monday evening that it too was examining whether suspected Russian agents used its services to show political ads during the 2016 election. Microsoft's Bing search engine accounts for about 23 percent of searches in the United States, compared with more than 63 percent for Google, according comScore, an internet measurement firm. Google has been called to testify at a Senate Intelligence Committee hearing on Nov. 1. But it has so far escaped the intense scrutiny confronting Facebook after the social network admitted that it discovered 470 profiles and pages to the internet Research Agency, a Russian company with ties to the Kremlin. The top Democrat on the House Intelligence Committee,

Representative Adam B. Schiff of California, said on Monday that it should not be surprising that Russians were using Google as well as Facebook and Twitter. The only thing that is surprising, he said, is that it took so long for Google to find the activity. "It will take more time and length and breadth to know what Russia did on social media," Mr. Schiff said. "But the themes are consistent across platforms: the desire to help Donald Trump, to hurt Hillary Clinton and the desire to set Americans against each other." In addition to the Senate committee hearing, Google and Facebook are expected to testify at another Nov. 1 hearing before the House Intelligence Committee. Twitter was also invited to the House committee hearing, but it was not clear on Monday whether officials from the company planned to attend. Facebook has said the Russian company had placed 3,000 ads on its network at a cost of about $100,000. Last month, Twitter said it had found about 200 accounts that appeared to be linked to a Russian campaign to influence the election. Google is the only company that sells more digital advertising than Facebook, and its role in the coordinated Russian campaign has been a source of intense speculation in Washington and Silicon Valley. The Washington Post reported that **Google had found that Russian agents hoping to spread misinformation had spent tens of thousands of dollars on the company's advertising platforms.** But Google's investigation has not found the same type of pinpoint advertising that Russian agents conducted on Facebook. The social network allows advertisers to target its audience with more specificity than Google, including users with a wide range of political leanings. The 2016 presidential election was the first time that Google allowed targeting by political leanings and it allowed just two categories — left-leaning and right-leaning. However, Google has not found any evidence that the ads from the accounts suspected of having ties to the Russian government used these political categories or geographic parameters to focus on specific groups, the person familiar with the company's investigation said. The ads were much more broad, aimed at English-language queries or any users in the United States, for example. A Google spokeswoman, Andrea Faville, said the company had a policy that limited political ad targeting and prohibited targeting based on race and religion. "We are taking a deeper look to investigate attempts to abuse our systems, working with researchers and other companies, and will provide assistance to ongoing inquiries," Ms. Faville said. **On Facebook, fake Russia-linked accounts** — in which fictional people posed as American activists — **promoted inflammatory messages on divisive issues. Those accounts bought advertising to promote those messages and reach a bigger audience within the Facebook universe, while promoting the incendiary posts to different locations or people with established political leanings for maximum impact**. The Russian-linked accounts did not target ads based on political affiliation, but it raises the question of why Google allowed such targeting for the 2016 election when it had not done so in the past. The only location where Google allows ad targeting by political affiliation is the United States.

IL

What Myspace had become is like what Facebook is today, a hub of bad things, but a lack of antitrust prevents a new competitor from overtaking Facebook

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 121-123 //DF

Unfortunately, antitrust law failed to notice that the 1990s were over. Instead, for a decade and counting, it gave the major tech players a pass–even when confronting fairly obvious dangers and anti competitive mergers. That is best exemplified by the Facebook story. Launched in 2004, **Facebook quickly dispatched its rival, Myspace, which had been a rare Los Angeles tech story, but had become a mess of intrusive advertising, fake users, and trolls.** In just a few years Facebook achieved an early dominance over general purpose social networking. But by the 2010s, Facebook faced one of its most serious challengers, a startup named Instagram. Instagram combined a camera app with a social network on which it was easy and fast to share photos on mobile. It was popular with younger people, and it was not long before some of its advantages over Facebook were noticed. As business writer Nicholas Carlson said at the time, Instagram "allows people to do what they like to do on Facebook easier and faster." Having already gained 30 million users in just eighteen months of existence,

Instagram was poised to become a leding challenger to Facebook based on its strength on mobile platforms, where Facebook was weak. By the doctrine of internet time, Facebook, then eight years old, was supposed to be heading into retirement. But the disruption narrative was rudely interrupted. Instead of surrendering to the inevitable, Facebook realized it could just buy out the new. For just $1 billion, Facebook eliminated its existential problem and reassured its investors. As TIME would put it, "buying Instagram conveyed to investors that the company was serious about dominating the mobile ecosystems while also neutralizing scent competitor." When a dominant firm buys its a nascent challenger, alarm bells are supposed to ring. Yet both American and European regulators found themselves unable to find anything wrong with the takeover. The American analysis remains secret, but we have the United Kingdom's report. Its analysis, such as it was, went as follows. Facebook did not have an important photo-taking app, meaning that Facebook was not competing with Instagram for consumers. Instagram did not have advertising revenue, so it did not compete with Facebook either. Hence, the report was able to reach the extraordinary conclusion that Facebook and Instagram were not competitors.

Frontline – R/T AI solves fake news

AI will not solve fake news because fake news both evolves and can't be spotted by the subjective algorithms that humans create to counteract it; it's like whack-a-mole

Metz and Isaac 19 Cade Metz and Mike Isaac, 5-17-2019, "Facebook's A.I. Whiz Now Faces the Task of Cleaning It Up. Sometimes That Brings Him to Tears.," No Publication, https://www.nytimes.com/2019/05/17/technology/facebook-ai-schroepfer.html?dlbk=&module=inline //DF

The question is whether that is really true or if Facebook is kidding itself. For the past three years, the social network has been under scrutiny for the proliferation of false, misleading and inappropriate content that people publish on its site. In response, Mark Zuckerberg, Facebook's chief executive, has invoked a technology that he says will help eliminate the problematic posts: artificial intelligence. Before Congress last year, Mr. Zuckerberg testified that Facebook was developing machine-based systems to "identify certain classes of bad activity" and declared that "over a five- to 10-year period, we will have A.I. tools" that can detect and remove hate speech. He has since blithely repeated these claims with the media, on conference calls with Wall Street and at Facebook's own events. Mr. Schroepfer — or Schrep, as he is known internally — is the person at Facebook leading the efforts to build the automated tools to sort through and erase the millions of such posts. But **the task is Sisyphean**, he acknowledged over the course of three interviews recently. That's because **every time** Mr. Schroepfer and his more than 150 **engineering specialists create A.I. solutions that flag and squelch noxious material, new and dubious posts that the A.I. systems have never seen before pop up — and are thus not caught**. The task is made more difficult because **"bad activity" is often in the eye of the beholder and humans, let alone machines, cannot agree on what that is**. In one interview, Mr. Schroepfer **[Facebook's enginnering specialists] acknowledged** after some prodding **that A.I. alone could not cure Facebook's ills**. "I do think there's an endgame here," he said. But "I don't think it's 'everything's solved,' and we all pack up and go home." The pressure is on, however. This past week, after widespread criticism over the Christchurch video, Facebook changed its policies to restrict the use of its live streaming service. At a summit in Paris with President Emmanuel Macron of France and Prime Minister Jacinda Ardern of New Zealand on Wednesday, the company also signed a pledge to re-examine the tools it uses to identify violent content.

The problem was that the marijuana-versus-broccoli exercise was not just a sign of progress, but also of the limits that Facebook was hitting. Mr. Schroepfer's team has built A.I systems that the company now uses to identify and remove pot images, nudity and terrorist-related content. But the systems are not catching all of those pictures, as there is always unexpected content, which means millions of nude, marijuana-related and terrorist-related posts continue reaching the eyes of Facebook users. Identifying rogue images is also one of the easier tasks for A.I. It is harder to build systems to identify false news stories or hate speech. False news stories can easily be fashioned to appear real. And hate speech is problematic because it is so difficult for

machines to recognize linguistic nuances. Many nuances differ from language to language, while context around conversations rapidly evolves as they occur, making it difficult for the machines to keep up. Delip Rao, head of research at A.I. Foundation, a nonprofit that explores how artificial intelligence can fight disinformation, described the challenge as "an arms race." **A.I. is built from what has come before. But so often, there is nothing to learn from. Behavior changes. Attackers create new techniques. By definition, it becomes a game of cat and mouse**. "Sometimes you are ahead of the people causing harm," Mr. Rao said. "Sometimes they are ahead of you." On that afternoon, Mr. Schroepfer tried to answer our questions about the cat-and-mouse game with data and numbers. He said Facebook now automatically removed 96 percent of all nudity from the social network. Hate speech was tougher, he said — the company catches 51 percent of that on the site. (Facebook later said this had risen to 65 percent.)

Blocks

R/T Chinese Tech Dominance

Monopolists have always tried to drum up nationalistic sentiments to deflect from their problems; those monopolists actually make the US perform worse, too

Tiku 19 Nitasha Tiku, 5-23-2019, "Big Tech: Breaking Us Up Will Only Help China," WIRED, https://www.wired.com/story/big-tech-breaking-will-only-help-china/ //DF

OVER THE PAST week, both Facebook chief operating officer Sheryl Sandberg and former Google CEO Eric Schmidt made the same appeal to American nationalism, with differing degrees of subtlety: Breaking up Big Tech will only help China. **It's a politically expedient plea as calls for regulating tech intensify amid growing concern about China's tech prowess and an escalating US-China trade war**. But the argument rests on the idea that what's good for Facebook and Google is good for America. It also ignores how Silicon Valley is simultaneously seeking growth through partnerships with some of those same Chinese competitors, such as Google's investment in JD.com and reported talks with Tencent to bring Google Cloud to China. Sandberg made her case against breaking up Facebook explicit. In an interview Friday, CNBC asked if Facebook was prepping for a big antitrust battle. In response, Sandberg recounted recent private meetings with Democrats and Republicans in Washington. There, she said, she heard that "while people are concerned with the size and power of tech companies, there's also a concern in the United States with the size and power of Chinese companies, and the realization that these companies are not going to be broken up." Schmidt was less direct but conjured the same fears of falling behind China. On Sunday he told the The Telegraph there is no legal basis to break up tech companies, arguing that "regulatory bias" in the West against Google and other American firms hurts consumers and hands China a competitive advantage on everything from privacy to data collection. "Chinese companies are growing faster, they have higher valuations, and they have more users than their non-Chinese counterparts," said Schmidt, who will step down from Alphabet's board in June. "It's very important to understand that there is a global competition around technology innovation, and China is a significant player and likely to remain so." Google and Facebook declined to respond to questions from WIRED. Mark Zuckerberg, who reportedly offered to let President Xi name his first-born child, laid the groundwork for this strategy during a congressional hearing last year. Asked if Facebook was too powerful, Zuckerberg rerouted the conversation toward Chinese internet companies. He said American tech policymakers "should be thinking about" those companies because they pose "a real strategic and competitive threat." (Zuckerberg even spelled out the China defense in his notes for the hearing, photographed by the Associated Press, which included the line "Break up FB? US tech companies key asset for America; break up strengthens Chinese companies.") It's not a new line. **Dominant companies and their defenders have made the same argument for decades. In the late 20th century, some argued that Japan's rising power was a bigger economic threat than anticompetitive practices by Microsoft or IBM.** In March, both Qualcomm and Apple used Washington's fear of falling behind China in 5G to plead their case in a bitter fight with each other over patent royalties. But this appeal to American nationalism has been getting more play recently as the on-again, off-again trade war with China appears to be back on. Nicol Turner-Lee, a

fellow at the Brookings Institution's Center for Technology Innovation, says concern about falling behind China is valid, especially in regards to artificial intelligence and advanced 5G wireless networks. But, she adds, the China defense is among the few plausible arguments Big Tech can bring before Congress right now. "They can't say, 'We know we're allowing people to mess with our elections, but don't break us up. We're good for democracy, don't break us up,'" she says. Turner-Lee says American legislators don't necessarily want to intervene in tech company operations, but they want tech companies to behave responsibly and clarify their relationship with Chinese companies around data security, surveillance, and other vulnerabilities. Regulators probably looked kindly on Google, for instance, for adhering to the US government's new sanctions against the Chinese smartphone manufacturer Huawei; on Monday, the ban was delayed 90 days, allowing Google to send security patches and updates to existing Android-based Huawei devices. Some US antitrust officials sound unmoved by the China card. "**America doesn't become competitive by propping up politically connected tech companies, we compete by making sure the best ideas can come from anywhere and anybody**," Rohit Chopra, a commissioner of the Federal Trade Commission, told WIRED. Makan Delrahim, head of the Justice Department's Antitrust Division, recently spoke out against the idea of "national champions." In March he congratulated the EU for blocking a rail-manufacturing merger. "Obviously there's national security and other considerations that factor in, but with respect to that [merger], creating a national champion even if you would harm consumers is not the way to do it," Delrahim said. When WIRED asked Facebook whether Sandberg initiated concerns about China during her meetings in Washington, a spokesperson for Facebook pointed WIRED to recent comments from members of Congress, to show that legislators are also concerned. Representative Ro Khanna (D-California), who represents Silicon Valley, has called for greater regulation and antitrust scrutiny of the sector. But he recently told The Hill that regulators should be cautious. "Look, what we don't want is the only big tech companies to be Chinese—Alibaba, Baidu and Tencent." In early April, Senator Mark Warner (D-Virginia) told CNBC that if regulators were to "chop off the legs of Facebook and Google," then those companies "might be replaced by Alibaba, Baidu, Tencent—companies that are totally enmeshed with the Chinese government in their global economic plan." A spokesperson for Warner declined to comment, beyond standing by his statements. "I don't think competition with China means, in any way, that we give tech a pass from antitrust enforcement," Khanna told WIRED by email. "What it does mean is that we need to be nuanced and strategic in how we strongly enforce antitrust law and not reflexively call for breakups of a company just because it's big." Khanna said US tech companies should work with US officials to protect American interests as they try to compete in China. "US tech companies have an obligation to help the United States and not to help the Chinese advance their surveillance state," he wrote. **Economic policies that seek to prop up homegrown companies as "national champions" have a bad track record**, says Columbia Law School professor Tim Wu, author of The Curse of Bigness: Antitrust in the New Gilded Age. **The fact that regulators did not hold back on IBM, AT&T, and Microsoft "helped us ensure a generation of American supremacy in tech.** Frankly, **the fact that Japan never took on their monopolists ended up hurting them**," Wu told American Conservative last year. "I do accept and understand that there are advantages to scale, but there is a point where the advantages of scale run out. There are disadvantages to scale, and I think there's a difference between scale and monopoly."

Excellent card. Great rhetoric

Wu 18 Tim Wu [a law professor who specializes in antitrust], 12-10-2018, "Don't Fall for Facebook's 'China Argument'," NYT, https://www.nytimes.com/2018/12/10/opinion/facebook-china-tech-competition.html //DF

Over the last year or so, Mark Zuckerberg of Facebook and other American tech leaders have issued a stark warning to those who want to see more competition in the industry. It goes something like this: "We understand that we've made mistakes. But don't you realize that if you damage us, you'll just be handing over the future to China? Unlike America, China is standing behind its tech firms, because it knows that the competition is global, and it wants to win." This — Big Tech's version of the "too big to fail" argument — has a superficial nationalistic appeal. It's certainly true that the Chinese technology sector is growing and aggressively competitive, and that many of its companies are embraced and promoted by the Chinese state. By one count, eight of the world's 20 largest tech firms are Chinese. That would seem to suggest a contest for global dominance, one in which the United States ought not be considering breakups or regulation, but instead should be doing everything it can to protect and subsidize the home team. But to accept this argument would be a mistake, for it betrays and ignores hard-won lessons about the folly of an industrial policy centered on "national champions," especially in the tech sector. What Facebook is really asking for is to be embraced and protected as America's very own social media monopolist, bravely doing battle overseas. But both history and basic economics suggest **we do much better trusting that fierce**

competition at home yields stronger industries overall. That's the lesson from the history of Japanese-American tech competition. During the 1970s and into the '80s, it was widely believed that Japan was threatening the United States for supremacy in technology markets. The Japanese giant NEC was a serious challenger to IBM in the mainframe market; Sony was running over consumer electronics, joined by powerful firms like Panasonic and Toshiba. These companies enjoyed the support of the Japanese state, through the Ministry of International Trade and Industry, which pursued a nationalistic industrial policy thought to be infallible. Had the United States followed the Zuckerberg logic, we would have protected and promoted IBM, AT&T and other American tech giants — the national champions of the 1970s. Instead, the federal government accused the main American tech firms of throttling competition. IBM was subjected to a devastating, 13-year-long antitrust investigation and trial, and the Justice Department broke AT&T into eight pieces in 1984. And indeed, **the effect was to weaken some of America's most powerful tech firms at a key moment of competition with a foreign power. But** something else happened as well. **With IBM and AT&T under constant scrutiny, a whole series of industries and companies were born without fear of being squashed by a monopoly. The American software industry, freed from IBM, came to life**, yielding companies like Microsoft, Sun and Lotus. Personal computers from Apple and other companies became popular, and after the breakup of AT&T, companies like CompuServe and America Online rushed into online networking, eventually yielding what we now call the "internet economy." **Back in Japan, the government was still in love with its champions**, promoting NEC's mainframes, while it doubled down on supercomputers, which it saw as the obvious future of computing. Japan never broke up NTT, its telephone monopolist. **Over the course of the 1990s, Japan, late to both software and personal computing, began to lag behind the United States**. Its brief lead in mobile phone technology was limited by NTT, which left little room for start-ups. Consequently, Japan's tech sector largely missed out on the software, personal computer and internet revolutions. It has never really recovered. That's the risk of a governmental embrace of companies like Facebook, Apple and Google. While they may now seem as extraordinary as IBM did in the 1970s, they might not seem that way a decade from now. And if no one can imagine doing social networking better than Facebook, remember that no one dreamed that the personal computer, once little more than a toy for hobbyists, would displace the mighty mainframe. **If we give these companies a pass when it comes to antitrust enforcement, allowing them to dominate their markets and buy up their competitors, America may lose what has been its signature advantage: its willingness to allow the new to replace the old, to accept rebellion and change — the industrial version of Thomas Jefferson's cycle of rebellion and the "blood of patriots." And then, as Zuckerberg has prophesied, the future of tech may very well belong to China after all.**

Competition makes our domestic companies stronger, not weaker

Wu 18 Interview with Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 12-11-2018, "Tech Monopolies Are Stifling Innovation. Antitrust Enforcement May Help.," Brink News, https://www.brinknews.com/is-antitrust-enforcement-the-wests-best-weapon-against-chinese-tech/ //DF

BRINK News: What do you think are the repercussions of pursuing an antitrust agenda that might hobble domestic companies and embolden foreign competitors? Professor Wu: I think there is an allure to a policy that says we should be supporting and even subsidizing and protecting our national champions, but I think it goes against what we've learned, over the last 50 years or so, about the wisdom of national championship policies. I think the wiser version of American industrial policy has usually

suggested that **you want as much domestic competition as possible in order to make the companies as strong as possible.** A strong example comes from the last time America and the tech industry faced a foreign challenge, and that is in the '70s and '80s when Japan was thought to be challenging the United States for supremacy in tech markets. Following Mark Zuckerberg's logic, for example, the right thing to do would've been to protect and support IBM, AT&T and Xerox, which were the leading American tech firms then. Instead, the United States federal government sued both IBM and AT&T. They put IBM through 13 years of antitrust scrutiny. They broke AT&T into eight pieces. If you look at the results, the scrutiny of IBM led to, among other things, the personal computer industry and the birth of an independent software industry, both of which became much more important than IBM. And in the case of the breakup of AT&T, you had the birth of an online networking industry, CompuServe AOL, the modem industry, and over the long term, the Internet economy, which is now the mainstream of U.S. tech. Do you **protect[ing] today's champions by giving them a pass on antitrust law**? That, I think, **has the best chance of making China the tech power of the future. Trying to encourage competitors has proven to be a much better policy.** BRINK News: What do you fear most about the current weakened state of antitrust enforcement? Professor Wu: I think that my greatest fear of all is that it will take the United States further down the path of greater wealth and income inequality, create greater divides between winners and losers, and make it almost impossible to challenge in many of these industries. That may lead the country into such a fragmented and dangerous state that people become increasingly angry and turn to more extreme solutions. History suggests this has happened in other places.

AT&T's breakup exemplifies the massive benefits that antitrust brings to innovation and American global competitiveness

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 96-98 //DF

The AT&T litigation lasted a decade, but created no great court decision, and in fact the Supreme Court never weighed in. Instead, in the early 1980s, during the Reagan administration, AT&T agreed to a dramatic breakup that echoed those of the classic trusts. The firm held on to its long distance services, Bell Labs, and Western Electric, its equiptment manufacturer. But seven seperate regional operating companies would be carved from the corporate carcass, the local monpolists now released as independent companies. Since each of the so-called Baby Bells would continue to have an effective monopoly over local services, each was placed in a newly designed regulatory cage of reinforced and toughened FCC rules. Each would be obliged to accept connections from any long distance company (not just their former parent), and all were explicity shut out of new markets such as online services and cable. As the las major breakup, it is worth examining what consequences it had. It unquestionably created chaos over the short term. Some economists point to lower prices in the wake of the dissolution, but the real impact was different and far more important. It became apparent, in retrospect, just how much innovation the Bell system monopoly had been holding back. For **out of the carcass of AT&T emerged new types of industries unimagined or unimaginable during the reign of AT&T**. For example, the libery to sell things to consumers that plugged into a (new) phone jack not only yielded the answering machine, but the home modulator/demodulator, or modem, allowing a home computer to speak with a network. That, in turn, made feasible an industry of "online service providers" like AOL or Compuverse, which themselves **spawned internet service providers that were accessible from home, producing the Internet revolution.** Politically, the slicing and dicing of the Bell System weakened the political power wielded by the entity, and made it harder to control or destroy the entrants into mobile phone service like T-Mobile and Sprint. For a while, over the 1990s, the spit between AT&T (in long distance) and the underlying Bell copmpanies created some equality of arms in the world of telocommunications lobbying, lasting at least until the Bush administration foolishly allowed the Bell system to reconsolidate into two large empires. Obviously not everything that happened over the 1980s and 1990s can be attributed to the AT&T breakup, but so many of the basics were impossible under the Bell system that

real credit must be given. We might also consider nations that did not break up their telephone numbers. The Europeans, always more corporatists, left their telecom monopolists intact, and found their computing industries perpetually relegated to the sidelines. But perhaps the strongest counterexample is Japan, which, by the 1980s, was considered a serious rival to the United States in technology industries such as computing and online services. But **because Japan never broke the power of its telephone monopoly, independent telecommunications and internet firms never really grew, and by the early 2000s the United States had leaped far ahead. There is, after all, only so much you can do when your innovations need to be engineered not to disturb the mother ship.** [End of section]

Microsoft's breakup also enabled the US to stay at the global forefront of technology

Blumenthal and Wu 18 Richard Blumenthal [Democratic senator from Connecticut] and Tim Wu [law professor at Columbia, the author of "The Curse of Bigness: Antitrust in the New Gilded Age" and a contributing opinion writer], 5-18-2018, "What the Microsoft Antitrust Case Taught Us," NYT, https://www.nytimes.com/2018/05/18/opinion/microsoft-antitrust-case.html?rref=collection%2Fbyline%2Ftim-wu&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=6&pgtype=collection //DF

Twenty years ago today, Microsoft was sued by the Department of Justice and a coalition of 20 state attorneys general (including one of us, Mr. Blumenthal, of Connecticut) for violating federal antitrust law. Microsoft, the world's dominant software firm, and Bill Gates, the world's richest man, faced a challenge from the upstart company Netscape and its internet browser, Netscape Navigator. The suit accused Microsoft of illegally protect[ed]ing its operating-system monopoly and seeking a new monopoly for its own browser, Internet Explorer. The fear was that Microsoft would kill Netscape, monopolize the browser market and use that point of control to dominate the coming age of the web. After a tough fight, the government won the case. There is now no browser monopoly, and the world has come to rely on the many apps, firms and ideas that were born after Microsoft's control was broken. Microsoft has become a gentler giant, and Mr. Gates has become a philanthropist. Yet it is worth remembering that at the time, challenging Microsoft was not a popular decision. Microsoft was a well-liked company and Mr. Gates was widely heralded as a visionary genius. **Many**, Microsoft most of all, **argued that enforcing the antitrust laws against Microsoft would damage innovation and impede the economic growth fueled by the technology sector**. This view turned out to be wrong. **Innovation surged in the newly opened markets and the United States continued to spearhead growth in the technological world**. The enduring lesson of the Microsoft case was that keeping markets open can require a trustbuster's courage to take decisive action against even a very popular monopolist. Imagine a world in which Microsoft had been allowed to monopolize the browser business. Holding a triple monopoly (operating system, major applications and the browser), Microsoft would have controlled the future of the web. Google, the tiny start-up, would have faced an unfair fight against Bing. Microsoft-Myspace might have become the default social network instead of Facebook. And who knows whether Netflix or any other online video service would have been started?

Indict City

The tech giants have sponsored a ton of organizations, who then pump out articles to argue against regulating them

Dayen 19 David Dayen, 3-8-2019, "How to Think About Breaking Up Big Tech," Intercept, https://theintercept.com/2019/04/01/elizabeth-warren-tech-regulation-2020/ //DF

The Manufacturing of Dissent "The issue is not the size and current market dominance of these [tech] companies," wrote the American Enterprise Institute's Michael Strain for Bloomberg, in response to the Warren plan. "If anything, politicians should be celebrating these companies as crown jewels of the U.S. economy." Strain's employer, **AEI, is funded in part by Google**, according to the company's transparency page. This is not noted in Strain's Bloomberg op-ed. But AEI and its writers have done several critical pieces about Warren's proposal, as well a California privacy regulation that also imposes stricter rules on Big Tech. All of these opinion articles indirectly benefit one of AEI's donors. The episode points to a significant trend of writers and scholars opining on the Warren plan while conflicted by the overwhelming amounts of Big Tech cash that have infested Washington. Google's list of organizations to whom it has donated is massive, and combined with Facebook and Amazon's dominance of Washington, it's hard to find anyone with a critical eye toward Big Tech regulation who doesn't have something to disclose. Rich Lowry of National Review unleashed a pack of industry talking points to explain how Big Tech "helps create a strong American society." **National Review takes Google money**. Here's a similar sentiment dragging the Warren plan on the pages of National Review, from a senior fellow at **the Competitive Enterprise Institute**, which **also takes Google money**. **The American Action Forum** seems to dislike the Warren plan; the group, well, **takes Google money**. Geoffrey Manne and Alec Stapp condemn Warren for "wanting to turn the Internet into a sewer." Manne's organization, **the International Center for Law and Economics, has taken a boatload of Google money**; as of 2015, he had contributed to at least eight white papers commissioned or funded by Google that endorsed Google's policy positions, in addition to being a frequent pro-Google commentator in news articles and congressional testimony. Stapp, before hooking up with Manne at ICLE, worked at **the Mercatus Center at George Mason University, another recipient of Google funds**. A former Manne co-author, Joshua Wright, worked at George Mason University and has been periodically on and off the Google payroll in between government work. Manne and Stapp's piece got the pile-on treatment on Twitter from representatives of **the Google-funded Cato Institute and Niskanen Center**; Stapp previously worked at Niskanen. Several venture capitalists who currently rely on Big Tech for exit strategies for their companies also gave the thumbs-up to the piece. The Computer and Communications Industry Association, a trade group that includes Amazon, Facebook, and Google among its members, uses a subsidiary named Springboard to hurl critiques at regulatory tech policies. In addition to the aforementioned articles from AEI and National Review, Springboard points to the opinions of a partner at Andreessen Horowitz, an early investor in Facebook, and the CCIA's own vice president for Law an Policy — which amounts to CCIA linking to itself as outside confirmation of its beliefs. **These linkages are virtually endless and show an incestuous network of academics, think-tankers, advocacy organizations, and trade groups, all of which happen to agree on every issue important to Big Tech**. **The money** supports extending the prominence and megaphone of these organizations, and with nearly unlimited pocketbooks, it **creates the impression of a tsunami of support for the industry.**

R/T Apple ≠ App Store

Apple could still have 1st party apps and an app store, it just couldn't sell those in competition

Dayen 19 David Dayen, 3-8-2019, "How to Think About Breaking Up Big Tech," Intercept, https://theintercept.com/2019/04/01/elizabeth-warren-tech-regulation-2020/ //DF

Thompson also warns that applying the structural separation standard to Apple, as Warren confirmed in an interview at South by Southwest, would lead to smartphones shipped without any applications. "Was Apple breaking the law when they shipped the first iPhone with only first-party apps?" Thompson asks. "At what point did delivering an acceptable consumer experience out-of-the-box cross the line into abusing a dominant position? This argument may make sense in theory but it makes zero sense in reality." This argument also has zero bearing on what Warren's talking about. Whether Apple is unfairly tying or bundling its own apps onto its phones at purchase is a question for existing antitrust laws — it was the question in the Microsoft case, in fact. "The ordinary rules apply in that case," said the senior Warren adviser. "The key thing

we're talking about is the marketplace." Contrary to what critics have claimed, Apple would not have to divest from the App Store completely under Warren's plan, nor would the security benefits of Apple managing what goes onto its phone wither away. Apple would merely be disallowed from selling its own apps next to competing ones. This would hardly destroy Apple, largely a phone and hardware manufacturer and not primarily an app-maker. It would allow competition on the platform. Apple does have a legitimate antitrust problem with the App Store, as Thompson acknowledges. Spotify has complained to the European Union that Apple takes a 30 percent cut from all revenues from its iPhone app, while preventing it from emailing users directly or allowing upgrades. This indirectly benefits Apple Music, Spotify says. Apple has accused Spotify of using "misleading rhetoric" in its complaint.

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Chinese Tech Dominance DA

UQ – Trade War and tech

Even if the US and China settle the trade war, the tech war will not end

Lee 19 Yen Nee Lee, 5-28-2019, "Expert predicts a US-China trade deal in six months — but the tech war will go on," CNBC, https://www.cnbc.com/2019/05/29/expert-predicts-us-china-trade-deal-in-six-months-tech-war-goes-on.html //DF

The U.S. and China will likely reach a trade deal within the next six months — but that won't end tensions between the world's two largest economies, according to a political risk consultant. Tensions between Washington and Beijing have increasingly turned toward technology in recent weeks. The U.S. placed Huawei on a blacklist that restricts American firms from doing business with the Chinese tech giant earlier this month, while China is said to be considering limiting rare earth exports to America — which are materials critical in the production of things like iPhones and electric vehicles. "The technology war is not going to end," Alastair Newton, director of Alavan Business Advisory and a former British diplomat, told CNBC's "Squawk Box" on Wednesday. "**Technology is where this battle is going to be fought out, even if we do get a trade deal on bilateral goods**." Newton said he wouldn't be surprised if U.S. President Donald Trump and Chinese President Xi Jinping, who will be meeting at the G-20 summit in Japan at the end of June, "shake hands on an outlined deal" that could be finalized by October. Another analyst also predicted that trade talks might resume at the G-20 meeting in June, but she was less optimistic about a deal. "I would be looking at the G-20 as a natural venue for the presidents to agree to resume negotiations, and maybe walk back tensions a little bit, but not as a place for an actual agreement," J.P. Morgan's Global Market Strategist, Hannah Anderson, told CNBC on Wednesday. **Whether there will be a deal or not, tensions on the trade front might not go away**. Newton predicted that Trump could turn his attention to Europe and take the tariff fight there.

US semiconductor companies are suffering from the trade war

Grocer 19 Stephen Grocer, 5-23-2019, "Chip Makers Are Punished as the Trade War Drags On," NYT, https://www.nytimes.com/2019/05/23/business/dealbook/semiconductor-stocks-trade-war.html //DF

American chip makers have found themselves at the center of the trade war between the United States and China. It hasn't been pleasant. The Philadelphia semiconductor index, the closely watched index of 30 semiconductor companies, has fallen about 16 percent in May, its worst monthly showing since the financial crisis, as the growing dispute takes a toll on companies reliant on China for business. Shares of Qualcomm, Micron, Nvidia and Broadcom are all down by even more. By comparison, the S&P 500 is down about 4 percent. President Trump, emboldened by the strength of the United States economy, has escalated his fight with Beijing in recent weeks. He raised tariffs on Chinese goods and restricted American firms from selling components and technology to Huawei. China, in turn, raised tariffs of its own and has shown no signs of backing down. China accounted for 35 percent of global semiconductor sales, according to Evercore ISI. Huawei, alone, spent $11 billion buying components and other supplies from American companies last year, said Joe Kelly, a Huawei spokesman. But by Monday, after the Trump administration's blacklisting of Huawei, major American semiconductor makers such as Qualcomm, Intel and Broadcom had started to step back from their dealings with the Chinese company. Even before the latest escalation, the semiconductor makers were feeling the impact of the trade war as well as a slowing global economy. Profits for chip makers in the S&P 500 fell 21 percent during the first quarter, among the worst showings by any industry group within the index, according to FactSet. Over the past year, the performance of semiconductor shares, perhaps more than any other group of stocks, has been tied to the fate of the trade war between the world's two largest economies.

The Huawei ban shows that the US and China are severing their technological ties, which will force other countries to pick sides; China looks to be ahead now

Condliffe 19 Jamie Condliffe, 5-24-2019, "The Week in Tech: Geopolitics Are Shaping Your Next Smartphone," NYT, https://www.nytimes.com/2019/05/24/technology/china-tech-huawei.html //DF

Hi, I'm Jamie Condliffe. Greetings from London. Here's a look at the week's tech news: President Trump's latest swipe at Huawei could be the start of a deep transformation of the tech sector. **Citing national security concerns, the Commerce Department said** this month **that American companies would need special permission to sell** some products **to Huawei and other Chinese companies**. This past week, things escalated. Companies including Google, Qualcomm and Broadcom froze some of the supply of products to the Chinese technology giant. (Google, for instance, will no longer offer Huawei the full version of its Android operating system.) The crackdown may expand, with a ban on sales to Chinese surveillance companies possible. Third-country suppliers also need a license to sell products to Huawei if content from the United States contributes more than 25 percent to their value, and the British semiconductor designer ARM said it would stop licensing technology to Huawei's chip unit. (Mobile carriers in Britain also stopped offering Huawei phones to some customers, over Android support concerns.) What now? The United States government offered a 90-day grace period for some transactions between American companies and Huawei. That "doesn't mean much," Ren Zhengfei, Huawei's founder, said, but it could signal that the overarching ban is little more than short-lived trade posturing. Still, the Trump administration has spoken repeatedly about its desire to blunt China's technological development, and China threatened to retaliate. So **this could be the start of a long fight — the raising of "a digital Iron Curtain,"** as my colleague Li Yuan put it. "This is a turning point," said Xiaolan Fu, the director of the Technology and Management Center for Development at Oxford University. "It is changing the direction to a more closed, protectionist approach." If the freeze-out persists, the near term looks rough for Huawei's smartphone division. It has stockpiled Western chips, maintained supply from Taiwan Semiconductor Manufacturing Company (the world's largest contract chip maker) and developed its own phone software. But it could be crippled by an inability to source components and may struggle to find markets outside China for its devices. In the long term, the ban could push the world toward divided technologies. "The lesson the Chinese have taken from the Trump administration's trade strategy is that the U.S. is pursuing a technology containment approach," said Adam Segal, the director of the digital and cyberspace policy program at the Council on Foreign Relations. The solution is independence — something China has pushed for by encouraging domestic tech prowess, including in chip production. "I think we are moving toward a bifurcated technology system," Mr. Segal said. China uses Chinese products, and America uses American products. A big question then: Which side do other countries take? The United

States probably assumes the West will follow its lead. But nations like Britain and Germany aren't yielding to American pressure to block Huawei from building next-generation 5G wireless networks over national security risks. Poorer countries are likely to be won over by price: Huawei is one of the leading, and cheapest, developers of 5G technology. For some countries wanting to jump-start economies with fast wireless networks, siding with China may be the only option. Such fragmentation may affect consumers. Ms. Fu points out that in a globalized economy, manufacturing takes place in the most efficient location. A move to protectionism would prompt China and the United States to relocate production domestically, or at least to ally nations, which could drive up prices of devices. And the development and deployment of 5G in a fragmented environment could lack economies of scale afforded by globalism, Mr. Segal said. That could potentially delay its rollout and increase cost. Welcome to tech's Cold War.

The trade war is driving a wedge between American and Chinese tech

Yuan 19 Li Yuan, 5-20-2019, "As Huawei Loses Google, the U.S.-China Tech Cold War Gets Its Iron Curtain," NYT, https://www.nytimes.com/2019/05/20/business/huawei-trump-china-trade.html //DF

China has spent nearly two decades building a digital wall between itself and the rest of the world, **a one-way barrier designed to keep out foreign companies** like Facebook and Google **while allowing Chinese rivals to leave home and expand across the world. Now President Trump is sealing up that wall from the other side**. Google said on Monday that it would limit the software services it provides to Huawei, the telecommunications giant, after a White House order last week restricted the Chinese company's access to American technology. Google's software powers Huawei's smartphones, and its apps come preloaded on the devices Huawei sells around the world. Depending on how the White House's order is carried out, that could come to a stop. For Huawei, the big impact will be abroad, since Chinese customers already have limited access to Google's services. Google's move will have its biggest effect in places like Europe, where it has emerged as a big smartphone seller. Other companies will inevitably follow. In effect, the move puts pressure on Huawei's international expansion dreams. **If China and the United States have begun a technological Cold War, then the Huawei order can best be seen as the beginnings of a digital Iron Curtain**. In this potential vision of the future of technology, China will continue to keep out much of the world. The United States and many other countries, goes this thinking, will in turn block Chinese technology. The tougher American stance is closing off many of the ways that the United States and China exchanged ideas and did business despite the strict Chinese censorship regime. Those closed doors could have profound effects not only on the business of technology, but also on how the world will use and understand the devices and services of the future. Already, China's censorship and tight control of its citizens' digital lives have effectively isolated one-fifth of the world's internet-using population, giving rise to a generation that doesn't know what it means to Google something or to subscribe to a YouTube channel. The aggressive new stance by the United States will only speed up that process, opening a potential window to a day when Chinese people can use only Chinese phones and gadgets powered by homegrown chips and software. All this is happening with a speed that has shocked many in China. "The move by the Trump administration is much more comprehensive than many Chinese expected," said Nicole Peng, an analyst at technology research firm Canalys. "It also came much earlier. Many people only realize now that it's for real." **It is far from clear whether the Trump administration's moves will truly isolate Huawei from the rest of the world. The White House has struggled to persuade other countries to stop buying Huawei's telecommunications equipment**, citing potential espionage concerns. (Huawei denies that it spies for the Chinese government.) Huawei has already developed its own chips and other capabilities, and has said that it has stockpiled equipment for a day when it would lose access to American know-how and equipment. Editors' Picks The attack on Huawei is also taking place against the backdrop of a worsening trade war, making it one piece on a larger game board. Just as it did last year, when the White House relented on a similar order that crippled Huawei's rival ZTE, the United States could lift its pressure on Huawei to ease tensions between Washington and Beijing. China has ways it could retaliate. On Monday, China's state media reported that Xi Jinping, China's top leader, visited a site that mines and processes rare earths, which are essential minerals for a number of manufacturers in low-carbon technologies. His visit was a none-too-subtle reminder that China has a commanding presence in rare earths and could shut off global supplies — something it has done once before.

The US-China trade war puts tech companies on the brink of serious harm by cutting into their bottom line; they can take the hits now, but a serious change to their business model would change that dynamic

Karabell 19 Zachary Karabell, 5-9-2019, "Trump's Trade War With China Hasn't Wrecked Tech—Yet," WIRED, https://www.wired.com/story/trumps-trade-war-china-hasnt-wrecked-tech-yet/ //DF

The new tough talk raised fears for tech companies in particular. Many US semiconductor companies, for instance, are heavily exposed to China, both in terms of what they sell in China and how much they manufacture in China and then ship to the US. Qualcomm and Broadcom, for instance, generate more than 60 percent of their revenue from China, and are at risk from China's retaliatory tariffs. And while companies such as Apple have not been affected by tariffs to date, Trump's threatened 25 percent tariffs on additional Chinese imports would mean that all those iPhones assembled in Shenzhen would suddenly become even more expensive. And yet, the same fears were raised, quite legitimately, when the first round of tariffs went into effect in the spring of 2018 and when the 10 percent tax was applied to $200 billion of additional Chinese goods at the end of the summer. Those tariffs demonstrably harmed specific industries and companies, ranging from soybean farmers in the Midwest to electric bike makers. But what's perhaps most startling about the tariffs so far is how little impact they've had on the overall US-China economic relationship. Tariffs are designed to protect domestic industries from lower-priced foreign competition and to penalize countries for perceived trade abuses. Yet, after nearly a year of tariffs, the China-US trade balance has remained largely the same; the only notable shift is reduced American exports to China because of China's retaliatory tariffs, especially on American agricultural commodities. It may be, of course, that companies haven't significantly altered their supply chains because, for now, most tariffs are at 10 percent. That's a nuisance, but many companies in tech land are operating at hefty double-digit profit margins, and purchases from China are only a portion of their overall expenses. Those higher profit margins mean a 10 percent increase in input costs from, say, silicon chips from China can be absorbed with slightly lower profit margins or by generating efficiencies elsewhere. And that first round of tariffs also left many vital tech components off the list, such as Bluetooth devices and components. If tariffs rise to 25 percent and include a wider of range of tech products and components, of course, it will be that much more difficult to absorb. Yet even here, companies have more room than you might think before they start to pass on higher costs to American consumers. Let's say that in a few months, the iPhone gets slapped with a tariff. Analysts estimate that the materials inside an iPhone account for about one-third of its retail price; for a $750 iPhone XR, that would be $250, so a 25 percent tariff would mean that Apple has to pay the US government $62.50. Apple can then either raise the price of the phone so that American consumers bear the cost, or it can eat that cost and see lower profit margins on the phones, which are then blended with high-margin service businesses to modestly dent Apple's overall margins. Not all companies have that flexibility, but for many companies, tariffs are not that different than volatile energy and commodity prices; companies and consumers always have to deal with oil and gas prices that can go up or down 50 percent in months. Such price swings create economic waves, but people and enterprises adjust to fluctuations more adeptly than one might think. Another explanation for the relatively muted effect of the first round of tariffs is that companies have been assuming that they would soon be lifted, and have avoided structural decisions about whether to move production from China or to give up investing in China. Unfortunately, the only way to test this is to see what happens after a year or more of 25 percent tariffs on everything, which many in the Trump administration clearly would like, regardless of the impact on American businesses and the US middle class. But it's striking that the rhetoric and nearly a year of actual tariffs have not led to higher inflation, have not significantly impacted the bottom line of most companies, and have not changed the trade

relationship between the US and China in any statistically discernible fashion. Yes, some companies and many American farmers have suffered, but the overall effect of tariffs has been that of a mouse that roared. Here, as elsewhere, Trump has been bark and tweet with little actual bite. That could be on the verge of changing. There's a material difference between a 10 percent tariff and a 25 percent tariff, and that may cause an upending. Just because a sponge can absorb 10 ounces of water doesn't mean it can absorb 25 ounces. We may indeed be at a tipping point, and a bad one, but the widespread assumption a year ago was that tariffs would upend the US-China relationship and the global economy. It didn't happen then, and we would do well to consider the real possibility that it won't now.

America and China's trade war could seriously damage American tech companies and undercut America's technological hegemony

Zhong and Mozur 18 Raymond Zhong and Paul Mozur, 3-23-2018, "For the U.S. and China, a Technology Cold War That's Freezing Over," NYT, https://www.nytimes.com/2018/03/23/technology/trump-china-tariffs-tech-cold-war.html //DF

A cold war is being waged across the world's most advanced industries. And it just got a lot chillier. Recent **tit-for-tat trade actions could deepen what has become a global contest for technological dominance between the United States and China**, home to the planet's largest population of internet users and a flourishing community of start-ups and innovative companies. The Trump administration this week accused Beijing of stealing valuable technological know-how from American companies as it proposed tariffs on $60 billion in Chinese goods and curbs on Chinese investments. China responded with its own set of penalties aimed at American products. The fight between the two countries is cleaving the high-tech realm. The world's two biggest economies have each become increasingly protective of their own leading-edge industries, and mistrustful of the other's. Reconciliation looks difficult. And **the rising tensions could further undercut American influence in a huge and fast-changing market.** Both sides have been putting up defensive walls for years. To stay in business in China, Apple has had to set up a data center there to store Chinese customers' personal information. Amazon recently had to sell equipment to its Chinese cloud services partner to comply with new Chinese rules. Facebook and Twitter are blocked in the country; newer American players, such as Snap, are not even trying to enter anymore. In the United States, regulators have repeatedly thwarted attempts by Chinese tech groups to acquire American firms. And espionage concerns have for years kept Huawei — one of the world's biggest suppliers of telecom gear, and a powerhouse of China's tech scene — largely out of the American market. The Trump administration says it wants to level the playing field, dishing out to Chinese companies the kind of treatment that American ones have been receiving in China for some time. "China's abilities and ambitions have shifted much further up the value-added chain, to tech that represents our crown jewels economically and that is relevant for national security," said Scott Kennedy, a fellow at the Center for Strategic and International Studies in Washington. "So there's no way to kick this can down the road anymore." Still, as much as American companies complain about how they are treated in China, it could get even worse if Beijing amplifies its retaliation beyond the tariffs, announced Friday, on $3 billion worth of goods. China could require that foreign tech companies undergo costly additional tests for new products, or simply make it more difficult to operate in the country. Apple, whose iPhones remain coveted among well-off Chinese, made nearly $18 billion in the country in the last quarter of 2017. Qualcomm, the San Diego microchip maker, has earned half its revenue in China in recent years. It could also devise new regulatory hoops for foreign companies to jump through. China's Ministry of Commerce has not yet approved Qualcomm's proposed, $44 billion purchase of NXP Semiconductors, a Dutch chip maker. The deal, more than a year in the making, needs a signoff from Chinese antitrust authorities because the two companies count a large number of electronics makers in China as customers.

UQ – Made In China 2025

Made in China 2025 aims to have China dominate the production of advanced technology and cease reliance on other countries for tech, a goal they are pursuing through dirty tactics

CFR 18 Guest Blogger for Net Politics, 3-28-2018, "Why Does Everyone Hate Made in China 2025?," Council on Foreign Relations, https://www.cfr.org/blog/why-does-everyone-hate-made-china-2025 //DF

What is Made in China 2025? **Made in China 2025 is a blueprint for Beijing's plan to transform the country into a hi-tech powerhouse that dominates advanced industries** like robotics, advanced information technology, aviation, and new energy vehicles. The ambition makes sense within the context of China's development trajectory: countries typically [they] aim to transition away from labor-intensive industries and climb the value-added chain as wages rise, lest they fall into the so-called "middle-income trap." Chinese policymakers have diligently studied the German concept "Industry 4.0," which shows how advanced technology like wireless sensors and robotics, when combined with the internet, can yield significant gains in productivity, efficiency, and precision. However, China's intention through Made in China 2025 is not so much to join the ranks of hi-tech economies like Germany, the United States, South Korea, and Japan, as much as replace them altogether. Made in China 2025 calls for achieving "self-sufficiency" through technology substitution while becoming a "manufacturing superpower" that dominates the global market in critical high-tech industries. That could be a problem for countries that rely on exporting high-tech products or the global supply chain for high-tech components. What's wrong with China setting quotas for self-sufficiency? For one, such quotas violate WTO rules against technology substitution. Made in China 2025 lays out targets for achieving 70% "self-sufficiency" in core components and basic materials in industries like aerospace equipment and telecommunication equipment by 2025. That could devastate countries like South Korea and Germany, where hi-tech sectors constitute a large share of industrial output and exports. The supply chains for hi-tech products usually span across many borders, with highly specialized components often produced in one country and modified or assembled somewhere else. **Rather than abiding by the free market and rule-based trade, China is intent on subsuming the entire global hi-tech supply chain through subsidizing domestic industry and mercantilist industrial policies.** Semi-official documents lay out even more specific quotas for Chinese manufacturers. Officials at China's Ministry of Industry and Information Technology (MIIT) insist these targets are not official policy, though a report from the Mercator Institute for Chinese Studies argues that officials are using internal or semi-official documents to communicate targets to Chinese enterprises in order not to openly violate WTO rules. How is Beijing acquiring advance technology for Made in China 2025? Equally problematic to Beijing's goal of "self-sufficiency" and becoming a "manufacturing superpower" is how it plans to achieve it. Chinese officials know that China lags behind in critical hi-tech sectors and hence are pushing a strategy of promoting foreign acquisitions, forced technology transfer agreements, and, in many cases, commercial cyber espionage to gain cutting-edge technologies and know-how. While the Obama administration spent years pressuring Beijing to rein in commercial cyber espionage, Washington and other capitals are only beginning to grapple with the repercussions of Chinese investment and technology transfer agreements. Unlike cyber theft, neither is illegal per se. Surging Chinese investment in the United States and Europe have been a recurring story over the past few years. However, lawmakers are increasingly concerned that such investments, especially in high-tech sectors, are not just a product of market forces, but guided by Beijing as well. Circumstantial evidence confirms this suspicion. Chinese investment in the United States and elsewhere, especially in hi-tech sectors, has skyrocketed since 2015. Often these investments evince a broader coordinated strategy. Take the example of Fujian Grand Chips, a purportedly private Chinese company that attempted to acquire German machine maker Aixtron in 2016. Shortly before it staged a public takeover of Aixtron, another Fujian-based company San'an Optoelectronics canceled a critical order from Aixtron on dubious grounds, sending its stock tumbling and presenting Fujian Grand Chips with an opportunity to swoop in. Both Fujian Grand Chip and San'an Optoelectronics shared a common investor: an important national semiconductor fund controlled by Beijing. The acquisition was stymied by an 11th-hour intervention by government officials but demonstrated

how Beijing can drive investing abroad, often in a highly coordinated manner. Technology transfer agreements and restrictive market practices in China present a similar problem. Foreign companies often enter agreements to transfer valuable intellectual property to Chinese partner in exchange for market access. These agreements can be exploitative and highlight the asymmetries in market access between China and the rest of the world. Speaking about Chinese takeovers of German firms, Germany's Economic Minister Sigmar Gabriel said Germany should not sacrifice "its companies on the altar of free markets" while China denies German firms equal access to invest in the Chinese market.

The US can keep an edge over China by investing into its resources at home

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What can realistically be done? The keyword in Trump's recent tariffs against China is "reciprocity." That's the right approach. An Asia Society task force concluded last year the United States should urgently insist on reciprocity in the U.S.-China trade and investment relations, even if it adds tension to the relationship. However, a trade war, as Scott Kennedy points out, is no cakewalk, and it's unclear whether the administration has a clear idea of its desired end-game. Moreover, Trump is using a wrecking-ball when a more precise tool would have provided a better outcome. In addition to trade action against China, Trump has also announced a blanket tariff on foreign steel, which affects U.S. allies as well as China. While many allies have secured temporary exemptions to the tariff, Trump's pugilistic behavior is burning valuable goodwill. As Matthew P. Goodman and Ely Ratner argued in Foreign Affairs, many countries share Trump's desire to combat Chinese hi-tech mercantilism, but Trump is dividing allies rather than unifying them to confront China. Instead, the administration should focus on the long-game of building a political consensus at home and abroad. That should include updating the Committee on Foreign Investment in the United States (CFIUS) to better vet Chinese investment into hi-tech sectors; using existing venues like the WTO to present a case against Chinese industrial policies; and rejoining the Trans-Pacific Partnership, which set high bars for intellectual property protection, labor standards, and safeguards against unfair competition from state-owned enterprises. Common sense investments at home should also be a priority. Investing in education, infrastructure, and basic science does not generate the same headlines as a trade war, but will do more to ensure the United States maintains its edge.

UQ – AI

The US government is making AI development a priority, as shown by their endorsement of an OECD set of principles on AI

Condliffe 19 Jamie Condliffe, 5-24-2019, "The Week in Tech: Geopolitics Are Shaping Your Next Smartphone," NYT, https://www.nytimes.com/2019/05/24/technology/china-tech-huawei.html //DF

It also undercuts Qualcomm's business model, which is largely based on profits from patent fees. It could also complicate efforts by the United States to assert itself in the creation of 5G networks. America's first A.I. rules The Organization for Economic Cooperation and Development announced a set of principles on Wednesday to guide the development of artificial intelligence. Conspicuous by its presence on the list of nations backing the rules: the United States. The Trump administration long shied away from such policies. But as my colleague Steve Lohr reported in April, it was spurred into action by a wave of tech regulation — particularly Europe's new General Data Protection Regulation. The realization: Regulations that would affect the nation's tech industry were coming, and federal officials needed to participate if they were to shape them. So the administration decided to collaborate with the Organization for Economic Cooperation and Development, and this is the first time that it has formally endorsed a set of international A.I. guidelines. The guidelines — which suggest that A.I. should benefit people and the planet, and be designed to respect the rule of law and human rights, among other things

— aren't legally binding. But Jack Clark, the head of policy at OpenAI, an artificial intelligence lab in San Francisco, said it **was "quite significant" that the United States had signed on to them. It is, he said, a sign that the administration is "putting its weight behind" the development of A.I.**

AI technology is rapidly advancing

Stratfor 19 Stratfor Worldview [a geopolitical intelligence and advisory firm], 3-24-2019, "America and China's Great AI Competition: What Is Driving It," National Interest, https://nationalinterest.org/print/blog/buzz/america-and-chinas-great-ai-competition-what-driving-it-48677 //DF

For better or worse, the advancement and diffusion of artificial intelligence technology will come to define this century. Whether that statement should fill your soul with terror or delight remains a matter of intense debate. Techno-idealists and doomsdayers will paint their respective utopian and dystopian visions of machine-kind, making the leap from what we know now as "narrow AI" to "general AI" to surpass human cognition within our lifetime. On the opposite end of the spectrum, yawning skeptics will point to Siri's slow intellect and the human instinct of Capt. Chesley "Sully" Sullenberger – the pilot of the US Airways flight that successfully landed on the Hudson River in 2009 – to wave off AI chatter as a heap of hype not worth losing sleep over. The fact is that the development of AI – a catch-all term that encompasses neural networks and machine learning and deep learning technologies – has the potential to fundamentally transform civilian and military life in the coming decades. Regardless of whether you're a businessperson pondering your next investment, an entrepreneur eyeing an emerging opportunity, a policymaker grappling with regulation or simply a citizen operating in an increasingly tech-driven society, AI is a global force that demands your attention. An Unstoppable Force Willingly or not, even the deepest skeptics are feeding the AI force nearly every minute of every day. Every Google (or Baidu) search, Twitter (or Weibo) post, Facebook (or Tencent) ad and Amazon (or Alibaba) purchase is another click creating mountains of data – some 2.2. billion gigabytes globally every day – that companies are using to train their algorithms to anticipate and mimic human behavior. This creates a virtuous (or vicious, depending on your perspective) **cycle: the more users engage with everyday technology platforms, the more data is collected; the more data that's collected, the more the product improves; the more competitive the product, the more users and billions of dollars in investment it will attract; a growing number of users means more data can be collected, and the loop continues.** And unlike previous AI busts, the development of this technology is occurring amid rapidly advancing computing power, where the use of graphical processing units (GPUs) and development of custom computer chips is giving AI developers increasingly potent hardware to drive up efficiency and drive down cost in training their algorithms. To help fuel advancements in AI hardware and software, AI investment is also growing at a rapid pace.

The battle over AI dominance will shape the battle for global influence between the US and China

Stratfor 19 Stratfor Worldview [a geopolitical intelligence and advisory firm], 3-24-2019, "America and China's Great AI Competition: What Is Driving It," National Interest, https://nationalinterest.org/print/blog/buzz/america-and-chinas-great-ai-competition-what-driving-it-48677 //DF

AI is both a driver and a consequence of structural forces reshaping the global order. Aging demographics – an unprecedented and largely irreversible global phenomenon – is a catalyst for AI development. As populations age and shrink, financial burdens on the state mount and labor productivity slows, sapping economic growth over time. Advanced industrial economies already struggling to cope with the ill effects of aging demographics with governments that are politically squeamish toward immigration will relentlessly look to machine learning technologies to increase productivity and economic growth in the face of growing labor constraints. **The global race for AI supremacy will feature prominently in a budding great power competition between the United States and China.** China was shocked in 2016 when Google DeepMind's AlphaGo beat the world champion of Go, an ancient Chinese strategy game (Chinese AI state

planners dubbed the event their "Sputnik moment"), and has been deeply shaken by U.S. President Donald Trump's trade wars and the West's growing imperative to keep sensitive technology out of Chinese competitors' hands. Just in the past couple of years alone, China's state focus on AI development has skyrocketed to ensure its technological drive won't suffer a short circuit due to its competition with the United States. Do or Die for Beijing The United States, for now, has the lead in AI development when it comes to hardware, research and development, and a dynamic commercial AI sector. China, by the sheer size of its population, has a much larger data pool, but is critically lagging behind the United States in semiconductor development. Beijing, however, is not lacking in motivation in its bid to overtake the United States as the premier global AI leader by 2030. And while that timeline may appear aggressive, **China's ambitious development in AI in the coming years will be unfettered by the growing ethical, privacy and antitrust concerns occupying the West**. China is also throwing hundreds of billions of dollars into fulfilling its AI mission, both **in collaboration with its standing tech champions and by encouraging the rise of unicorns**, or privately held startups valued at $1 billion or more. By incubating and rewarding more and more startups, Beijing is finding a balance between focusing its national champions on the technologies most critical to the state (sometimes by taking an equity stake in the company) without stifling innovation. In the United States, on the other hand, it would be disingenuous to label U.S.-based multinational firms, which park most of their corporate profits overseas, as true "national" champions. Instead of the state taking the lead in funding high-risk and big-impact research in emerging technologies as it has in the past, the roles in the West have been flipped; private tech companies are in the driver's seat while the state is lunging at the steering wheel, trying desperately to keep China in its rear view. The Ideological Battleground The United States may have thought its days of fighting globe-spanning ideological battles ended with the Cold War. Not so. AI development is spawning a new ideological battlefield between the United States and China, pitting the West's notion of liberal democracy against China's emerging brand of digital authoritarianism. As neuroscientist Nicholas Wright highlights in his article, "How Artificial Intelligence Will Reshape the Global Order," China's 2017 AI development plan "describes how the ability to predict and grasp group cognition means 'AI brings new opportunities for social construction.'" Central to this strategic initiative is China's diffusion of a "social credit system" (which is set to be fully operational by 2020) that would assign a score based on a citizen's daily activities to determine everything from airfare class and loan eligibility to what schools your kids are allowed to attend. It's a tech-powered, state-driven approach to parse model citizens from the deplorables, so to speak. The ability to harness AI-powered facial recognition and surveillance data to shape social behavior is an appealing tool, not just for Beijing, but for other politically paranoid states that are hungry for an alternative path to stability and are underwhelmed by the West's messy track record in promoting democracy. Wright describes how Beijing has exported its Great Firewall model to Thailand and Vietnam to barricade the internet while also supplying surveillance technology to the likes of Iran, Russia, Ethiopia, Zimbabwe, Zambia and Malaysia. Not only does this aid China's goal of providing an alternative to a U.S.-led global order, but it widens China's access to even wider data pools around the globe to hone its own technological prowess.

The tech giants are all investing AI, which they see as key to their business growth

Metz and Isaac 19 Cade Metz and Mike Isaac, 5-17-2019, "Facebook's A.I. Whiz Now Faces the Task of Cleaning It Up. Sometimes That Brings Him to Tears.," No Publication, https://www.nytimes.com/2019/05/17/technology/facebook-ai-schroepfer.html?dlbk=&module=inline //DF

Those were heady days for Facebook, before its trajectory turned and the mission of its A.I. work changed. At the time, **Silicon Valley's biggest tech companies — from Google to Twitter — were racing to become forces in A.I.** The technology had been dismissed by the internet firms for years. But at universities, researchers like Dr. LeCun had quietly nurtured A.I. systems called "neural networks," complex mathematical systems that can learn tasks on their own by analyzing vast amounts of data. To the surprise of many in Silicon Valley, these arcane and somewhat mysterious systems had finally started to work. Mr. Schroepfer and Mr. **Zuckerberg wanted to push Facebook into that contest, seeing the rapidly**

improving technology as something the company needed to jump on. A.I. could help the social network recognize faces in photos and videos posted to its site, Mr. Schroepfer said, and could aid it in better targeting ads, organizing its News Feed and translating between languages. A.I. could also be applied to deliver digital widgets like "chatbots," which are conversational systems that let businesses interact with customers. "We were going to hire some of the best people in the world," Mr. Schroepfer said. "We were going to build a new kind of research lab." Starting in 2013, Mr. Schroepfer began hiring researchers who specialized in neural networks, at a time when the stars of the field were paid millions or tens of millions of dollars over four or five years. On that Sunday in 2013 in Lake Tahoe, they did not succeed in hiring Dr. Farabet, who went on to create an A.I. start-up that Twitter later acquired. But Mr. Schroepfer brought in dozens of top researchers from places like Google, N.Y.U. and the University of Montreal. Mr. Schroepfer also built a second organization, the Applied Machine Learning team, which was asked to apply the Facebook A.I. lab's technologies to real-world applications, like facial recognition, language translation and augmented reality tools. In late 2015, some of the A.I. work started to shift. The catalyst was the Paris terrorist attack, in which Islamic militants killed 130 people and wounded nearly 500 during coordinated attacks in and around the French capital. Afterward, Mr. Zuckerberg asked the Applied Machine Learning team what it might do to combat terrorism on Facebook, according to a person with knowledge of the company who was not authorized to speak publicly.

Google is pushing AI to improve its services

Metz 18 Cade Metz, 2-19-2018, "Why A.I. Researchers at Google Got Desks Next to the Boss," No Publication, https://www.nytimes.com/2018/02/19/technology/ai-researchers-desks-boss.html?module=inline //DF

Even Overstock.com, the online retailer based in the Salt Lake City area, now runs a mini-research operation called OLabs. It sits directly outside the office of the company's chief executive, Patrick Byrne. A growing number of tech companies are pushing research labs and other far-reaching engineering efforts closer to the boss. The point is unmistakable: What they are doing matters to the chief executive. It may even be the future of the company. "The world is moving faster and faster. It is being driven by technology and innovation," said John Kotter, an emeritus professor at Harvard Business School who has written several books on business leadership. "And a lot of these businesses are concluding that the speed of technological innovation should be the heart of everything." A year ago, the Google Brain team of mathematicians, coders and hardware engineers sat in a small office building on the other side of the company's campus. But over the past few months, it switched buildings and now works right beside the loungelike area where Mr. Pichai and other top executives work. Jeffrey Dean, the celebrated Google engineer who oversees the Brain lab, is a short walk from Mr. Pichai. So are Ian Goodfellow, the researcher behind a new A.I. technique that generates lifelike images on its own, and Norm Jouppi, who explores ways of accelerating A.I. research through a new breed of computer chip. "Any C.E.O. thinks a lot about where people are sitting — who they can walk around and have casual conversations with," said Diane Greene, who oversees Google's cloud computing team and sits on the board of Alphabet, Google's parent company. "It is a very significant statement that he has moved that group right next him." **Google is placing big bets on** the **A.I.** being explored by researchers like Mr. Goodfellow. Many questions still hang over the progress of this research. But Mr. Pichai and the rest of the **Google leadership hope it will accelerate the evolution of everything from smartphones and home appliances to internet services and robotics**. To Mr. Byrne, shaking up the seating chart at Overstock was a bit like a common management tactic in the military, when an officer will work closely with a small "command initiatives group" that is considerably more nimble than the rest of the organization. "We were getting bureaucratic," Mr. Byrne said. "And this was a way of creating added competition outside the bureaucracy." These big companies are trying to duplicate the vibe of a Silicon Valley start-up, where the boss is next to everyone. As start-ups grow, they often put key technology teams next to the chief executive. Ms. Greene, who was the chief executive of the software company VMware, said she had always made a point of sitting beside the top engineers because they saw the company's future.

Link – Higher Prices

Regulating the tech giants will cripple their business models and hurt the American economy

Messer 19 Heidi Messer [technology entrepreneur and investor, is a co-founder of Collective], 5-23-2019, "Why We Should Stop Fetishizing Privacy," NYT, https://www.nytimes.com/2019/05/23/opinion/privacy-tech-companies.html //DF

But this narrative ignores the realities of modern life and may lead to devastating trade-offs. It fetishizes privacy, demonizes technology and assumes that government is the right institution to protect us. We live in a networked world. The internet is built for sharing things at little to no cost. We forward our emails, capture photos on cellphones and tweet opinions, all activities that leave a trail of data that can be collected without our knowledge. Privacy — the right to be free from unwanted intrusion — no longer exists in an absolute sense. **Regulating tech companies could create problems worse than the ones we seek to solve. The biggest companies** — led by Facebook, Amazon, Netflix and Google in the United States, and Baidu, Alibaba and Tencent in China — **are data networks, aggregating information to provide valuable services underwritten by advertising, e-commerce or user subscriptions. They have all become both hugely profitable and vital to the global economy**. The Department of Labor estimates that **employment in the computer and information technology sectors in the United States will grow 12 percent from 2016 to 2026, much faster than the average for all occupations. The companies also provide income to millions of non-employees**, including Airbnb hosts, Instagram influencers, eBay sellers, and Uber and Lyft drivers. **If we constrict their fuel — data — we may hurt not only the quality, cost and speed of their services, but also the drivers of growth for the world's economy.** Innovation will also suffer. Our culture celebrates entrepreneurship and accepts failure as part of the process. As a result, the United States has been the architect of the new economy. But privacy evangelists have made villains of the very companies the world emulates. Rather than debate how to expand this economic opportunity, they call for fettering it. The evangelists assert that regulating access to data or breaking up big companies will put that data back in our control. But this is naïve. We share our photos, emails and other personal data daily. Almost any individual or company, big or small, can collect and misuse it. Size doesn't make a difference.

Enforcing antitrust regulations would prompt companies to charge consumers higher prices and offer worse services

O'Sullivan 19 Andrea O'Sullivan [feature writer for The Bridge at the Mercatus Center at George Mason University. Her work focuses on cybersecurity, surveillance, Internet freedom, cryptocurrency, and the economics of technology], 3-21-2019, "Does the FTC Need a New Big Tech Task Force?," Mercatus Center at George Mason University, https://www.mercatus.org/bridge/commentary/does-ftc-need-new-big-tech-task-force //DF

Not only are these goals much more subjective than measuring consumer price effects, they can contradict each other. What if a mandate to protect competition for small business is at odds with a charge to promote innovation? Should the smaller but less innovative firms be protected, or the larger but more creative firm? The FTC would be forced to make a value judgment, which generates uncertainty and the potential for politically motivated enforcement. Sometimes, as advocates of these views admit, **consumers may actually be harmed by these antitrust interventions, particularly in the short term. Bigger businesses generally increase in scale because they create value for their customers. If the FTC were empowered to strike down these firms** in favor of amorphous notions of what a perfectly competitive market should look like, **consumers could be forced to pay higher prices for fewer or lower-quality products and services.** Advocates might argue that their

preferred conception of a competitive market sets the stage for better consumer outcomes in the future. What if these future benefits fail to materialize? We would have imposed great costs on ourselves for naught.

Companies like Google make their products free because their businesses have other, profit-making, arms; cutting those off will just force them to raise prices

Lowry 19 Rich Lowry [editor of National Review and a contributing editor with Politico Magazine], 3-13-2019, "Don't Break Up Big Tech," POLITICO Magazine, https://www.politico.com/magazine/story/2019/03/13/dont-break-up-big-tech-225808 //DF

She calls out Google for allegedly killing off its competitors by burying them in its searches. It's not obvious that Google actually does this, although its search business inherently involves constantly making choices to try to best serve what people want to see. No government regulator is going to make Google's searches better, or is qualified to even try. Warren's proposal is obviously formulated without taking any account of the interests of users and consumers, who are the ones who made the tech companies so large in the first place. **Why does Google provide a tool without which it's impossible to imagine contemporary life** — and has opened up vast vistas of readily available information — **for free? Because it can monetize it with advertising. Without the advertising revenue**, which Warren insists should be a separate business, **Google has no incentive to devote engineers to constantly improving its search engine**. By the same token, it's not going to help anyone to have iPhones that no longer come with or sell Apple apps. And would people really appreciate having to go to two different Amazons, one just a platform, one selling Amazon products? This is all silly, as are the mergers that Warren pledges to break up, including Amazon's acquisition of Whole Foods. Under what theory is something untoward? Amazon doesn't have anything close to a monopoly in food retail. Rather than taking over the sector, it's spurring investment and innovation. The nation's largest supermarket chain, Kroger was founded in 1883. It was slated to increase its spending on investment 200 percent in 2018, developing a self-checkout app and robot delivery, precisely because the space is so competitive.

Breaking up Apple from its App Store, like what Warren wants to do, would drive a stake into revenues

Graham 19 Victoria Graham, 5-29-2019, "Apple Defends 'Competitive' App Store After Supreme Court Loss," Big Law Business at Bloomberg Law, https://biglawbusiness.com/apple-defends-competitive-app-store-after-supreme-court-loss //DF

The proposed class action will move back down to the U.S. District Court for the Northern District of California where the four iPhone users who originally brought the case in 2011 will attempt to have their class certified. The Supreme Court gave iPhone users standing to sue, but didn't rule on whether Apple's app store model is a monopoly. **The app store is a crucial revenue driver for Apple, and any changes to the company's model could cut into its revenue. App store commissions generated $13.4 billion in revenue in 2018**, according to estimates from research firm Sensor Tower. "We also care about quality over quantity, and trust over transactions," the company said. "That's why, even though other stores have more users and more app downloads, the App Store earns more money for developers."

Link – Innovation

Large firms innovate better than small firms for a number of reasons

Economist 11 12-17-2011, "Big and clever," Economist, https://www.economist.com/business/2011/12/17/big-and-clever //DF

Joseph Schumpeter, after whom this column is named, argued both sides of the case. In 1909 he said that small companies were more inventive. In 1942 he reversed himself. **[1] Big firms have more incentive to invest in new products**, he decided, **because they can sell them to more people and reap greater rewards more quickly**. In a competitive market, inventions are quickly imitated, so a small inventor's investment often fails to pay off. These days the second Schumpeter is out of fashion: people assume that little start-ups are creative and big firms are slow and bureaucratic. But that is a gross oversimplification, says Michael Mandel of the Progressive Policy Institute, a think-tank. In a new report on "scale and innovation", he concludes that today's economy favours big companies over small ones. Big is back, as this newspaper has argued. And big is clever, for three reasons. First, says Mr Mandel, **[2] economic growth is increasingly driven by big ecosystems** such as the ones that cluster around Apple's iPhone or Google's Android operating system**. These ecosystems need to be managed by a core company that has the scale and skills to provide technological leadership**. Second, **[3] globalisation puts more of a premium on size than ever before.** To capture the fruits of innovation it is no longer enough to be a big company by American standards. You need to be able to stand up to emerging-world giants, many of which are backed by something even bigger: the state. Third, many **[4] of the most important challenges for innovators involve vast systems**, such as education and health care, or giant problems, such as global warming. **To make a serious change to a complex system, you usually have to be big.** If true, this argument has profound implications for policymakers (though Mr Mandel does not spell them out). Western governments are obsessed with promoting small businesses and fostering creative ecosystems. But if large companies are the key to innovation, why not concentrate instead on creating national champions? Anti-trust regulators have strained every muscle to thwart the creation of monopolies (for example, by preventing AT&T, a telecoms firm, from taking over the American arm of T-Mobile). But if one behemoth is likely to be more innovative than two smaller companies, why not allow the merger to take place? What should we make of Mr Mandel's argument? He is right that the old "small is innovative" argument is looking dated. Several of the champions of the new economy are firms that were once hailed as plucky little start-ups but have long since grown huge, such as Apple, Google and Facebook. (In August Apple was the world's largest listed company by market capitalisation.) **American firms with 5,000 or more people spend more than twice as much per worker on research and development as those with 100-500.** The likes of Google and Facebook reap colossal rewards from being market-makers rather than market-takers. **[5] Big companies have a big advantage in recruiting today's most valuable resource: talent.** (Graduates have debts, and many prefer the certainty of a salary to the lottery of stock in a start-up.) Large firms are getting better at avoiding bureaucratic stagnation: they are flattening their hierarchies and opening themselves up to ideas from elsewhere. Procter & Gamble, a consumer-goods giant, gets most of its ideas from outside its walls. Sir George Buckley, the boss of 3M, a big firm with a 109-year history of innovation, argues that companies like his can combine the virtues of creativity and scale. 3M likes to conduct lots of small experiments, just like a start-up. But it can also mix technologies from a wide range of areas and, if an idea catches fire, summon up vast resources to feed the flames.

Big tech companies produce huge innovations, and the motivate smaller companies to innovate and get bought up by them

Cowen 19 Tyler Cowen [Ph.D., holds the Holbert L. Harris Chair in Economics at George Mason University. He is the author of a number of textbooks and other thought-provoking works, including *The Complacent Class*, as well as writing the most-read economics blog worldwide, marginalrevolution.com],

2019 “Big Business: A Love Letter to an American Anti-Hero,” St. Martin’s Press, pages 102-103, 107-109, 116-117 //DF

A new set of charges, however, comes from another direction: that the major tech companies dominate their platforms and therefore may be stifling innovation. For instance, if Google controls search and Facebook dominates one segment of social networking, maybe those companies won’t work so hard to introduce new services. Furthermore, those large and successful companies may be evolving into stultifying bureaucracies, afraid that new ideas might transform the market and threaten their dominance. To cite a possible example, if social networking becomes the primary means for accessing artificial intelligence (AI), maybe Facebook would lose its dominant market position to some other company better at AI, and in turn Facebook might steer the market away from AI to protect its current position. A related fear is that large, monopolizing tech companies will buy up potential upstart competitors, with the foreclosing of potential competition. Indeed, we’ve seen Google buy over 190 companies, including DejaNews, YouTube, Android, Motorola Mobile, and Waze, while Facebook has bought up Instagram, Spool, Threadsy, and WhatsApp, among numerous others, and purchased intellectual property from former rival Friendster. In theory, you can imagine how those arguments might carry some weight. Yet **[1] in practice the major tech companies have proven to be vigorous innovators.** Furthermore, **[2] the prospect of being bought up by Google or one of the other tech giants has boosted the incentive for others to innovate**, and it has given struggling companies access to capital and expertise when they otherwise might have folded or never started in the first place.

Other than giving me the best free search in the world, what does Google do for me? Well, I use Gmail, one of the best and biggest email services in the world, and it is completely free. Anyone can set up a Gmail account and begin using it immediately. That possibility would have astonished us as recently as the 1980s. Google also has taken a lead role in developing self-driving vehicles. While I don’t expect Google to become a major manufacturer of such cars, they put in key work on the underlying artificial intelligence, scanners, road mapping, programs, and other features of the service. They also helped make the idea publicly acceptable, in part by having driverless Google cars take people to work for years. While it is debated exactly when driverless cars, trucks, and buses will be ready for regular use, by now it is a debate over when rather than whether. Twenty years ago, or maybe even ten years ago, very few people expected that, and Google has helped pave the way for this progress. Self-driving vehicles arguably will be the biggest and most important technological breakthrough since the internet. They hold out the promise of seriously limiting the number of car deaths, easing commutes, and making many of the elderly, the disabled, and the young far more mobile across space. Another innovation, still a work in progress and from Alphabet rather than Google more narrowly, is the use of hot-air balloons to give an area internet access, also known as Project Loon. This was used after Hurricane Maria in 2017 to restore internet access in Puerto Rico and may end up being important in remote areas of Africa as well. Perhaps the value proposition here remains uncertain, but it is a bold attempt to create a better and more connected living situation for some of the world’s more vulnerable people. It does seem that the technology works, though at what cost or sustainability we do not yet know. The work of Google and Alphabet on robotics also has not yet shown a real payoff, as far as outsiders can tell. Even some of Google’s failures will likely prove to be of use. Google Glass, the wearable device intended to integrate a goggles experience with internet access and viewing, failed. Still, this was a learning step in the broader development of wearable devices and a stepping-stone for others, or maybe Google/Alphabet itself, to build on. Google significantly upgraded YouTube after buying the company. At the time, it was considered a very risky purchase, and many commentators suggested that Google was crazy to pay $1.65 billion for a company that, at the time, had very little revenue. Furthermore, YouTube appeared to be a cesspool for comments and a bottomless pit for copyright violation suits. What did Google do? They cleaned up the legal issues, using their advanced software capabilities to spot potential copyright violations, and they enforced takedown requests. They also improved search on YouTube. Perhaps most important, Google invested heavily in the technology that made video so widely used on the internet today. When Google bought YouTube, video on the internet often was slow, interruptions were frequent, and you had to engage in a process of buffering, which meant you either had to preload the video or put up with starts and stops in your watching experience. By figuring out and investing in ways of shortening the path of video transmission, Google made video watching on the internet far more efficient. Many different parts of the internet benefited from these advances. Today YouTube is also a leader for academic video and online education, far beyond what it was before the Google purchase. When Alex Tabarrok and I started our online economics education site, Marginal Revolution University

(MRUniversity.com), do you know where we decided to place the content? You probably can guess: YouTube. How much did Google charge us for this service? Absolutely nothing, nor does it charge the users anything, nor is our product connected with advertisements, either for Google, for us, or for any third party. This means that users around the world, in any non-censoring country, can access all kinds of video-based educational resources for free. Google and cell phones for a long time did not seem to be an obvious combination. Yet in 2005 Google purchased Android and elevated the company's open-source system to the most commonly used cell phone software in the entire world. Other companies have since modified and arguably improved this software, so Google probably has not been the major beneficiary of its own actions. Because of the Google-Android combination, hundreds of millions of people have enjoyed better and cheaper smartphones. More generally, Google has made most of their software open-source, enabling others to build upon it with additional advances; there are entire companies devoted to helping other companies build upon Google's open-source software.

To consider a third major tech company: Apple too continues to be a major innovator, in spite of its reputation to the contrary. Not only does Apple [has] have three truly major developments under its belt—personal computers, smartphones, and smart tablets—but the company continues to try to drive further advances. The future of the Apple Watch remains uncertain, but at the very least it is a major achievement along the path of developing higher-quality and more practical internet-connected wearables; its millions of users already find it a convenient way to receive messages and track and measure certain aspects of their behavior. Apple Pay is a major player in fintech, and millions of people use it to pay for goods and services with a simple swipe at a terminal. Even if that doesn't prove to be the winning technology, it is a stepping-stone for the later improvements of others. Or look at Amazon. The company started off selling books but moved to many different sectors of retail. It innovated by showing that it made sense to allow[ing] used books to compete alongside new product, thereby lowering prices for the millions of customers wishing to buy the used copies. Amazon has constructed what is arguably the world's best logistics network ever and these days is working on the use of drones to deliver packages. Whether or not that succeeds, or is allowed by the regulators, it is a bold attempt at innovation. Amazon's work in cloud computing has driven that market and made it much easier for other innovators to rapidly scale their businesses. Amazon also pioneered home artificial intelligence with Alexa: just speak to it and it will do your bidding as well as the software allows. Expect upgrades. And Kindle—well, that was an Amazon innovation too. Amazon's cell phone didn't work out, but as with the other tech companies, Amazon's overall record shows how hard it is trying to improve our lives with better products. It's now trying to innovate, if that is the correct word, by showing that brick-and-mortar bookstores can still make good economic sense. The principles Amazon uses for choosing and displaying titles are very different from those of traditional bookstores, as they rely more on data generated through Amazon. We'll see if they succeed.

These company's popularity and access to data enable them to push new innovations

Manjoo 16 Farhad Manjoo, 1-20-2016, "Tech's 'Frightful 5' Will Dominate Digital Life for Foreseeable Future," NYT, https://www.nytimes.com/2016/01/21/technology/techs-frightful-5-will-dominate-digital-life-for-foreseeable-future.html?action=click&module=RelatedCoverage&pgtype=Article®ion=Footer //DF

Many of these platforms generate what economists call "network effects" — as more people use them, they keep getting more indispensable. Why do you chat using Facebook Messenger or WhatsApp, also owned by Facebook? Because that's where everyone else is. Their platforms also give each of the five an enormous advantage when pursuing new markets. Look how Apple's late-to-market subscription streaming music service managed to attract 10 million subscribers in its first six months of operation, or how Facebook leveraged the popularity of its main app to push users to download its stand-alone Messenger app. Then there's the data buried in the platforms, also a rich source for new business. This can happen directly — for instance, Google can tap everything it learns about how we use our phones to create an artificial intelligence engine that improves our phones — and in more circuitous ways. By watching what's popular in its app store, Apple can get insight into what features to add to the iPhone. "In a way, a lot of **the research and development costs are being borne by companies out of their four walls, which allows them to do better product development**," Mr. Parker said. This explains why these companies' visions are so

expansive. In various small and large ways, the Frightful Five are pushing into the news and entertainment industries; they're making waves in health care and finance; they're building cars, drones, robots and immersive virtual-reality worlds. Why do all this? Because their platforms — the users, the data and all the money they generate — make these far-flung realms seem within their grasp. Which isn't to say these companies can't die. Not long ago people thought IBM, Cisco Systems, Intel and Oracle were unbeatable in tech; they're all still large companies, but they're far less influential than they once were.

Europe's stringent laws against tech companies create an unfriendly environment for business and explain why Europe lacks the same kind of innovations of the US and China

Messer 19 Heidi Messer [technology entrepreneur and investor, is a co-founder of Collective], 5-23-2019, "Why We Should Stop Fetishizing Privacy," NYT, https://www.nytimes.com/2019/05/23/opinion/privacy-tech-companies.html //DF

After a scary internet meme known as Momo spread, millions of parents unplugged their children from YouTube. Consumer uproar over a bug in FaceTime that allowed eavesdropping led to an emergency ad campaign by Apple. Privacy advocates often point to European privacy rules as a model for the United States. Under those rules, the General Data Protection Regulation , companies that operate in Europe or handle European data are required to obtain consent before collecting data. They also must provide users with the "right to be forgotten " — the ability to delete their information upon request. In theory this might sound beneficial. But some services we highly value, such as spam filters, require analyzing emails quickly — and without consent. Allowing everyone "the right to be forgotten" will enable people to erase information about bad actions that society might benefit from seeing. And do we really want to emulate European rules if they undermine competitiveness? With the uncertainty over how to comply with those rules, entrepreneurs have looked to markets on other continents, strengthening big companies that can afford to pay big penalties for their privacy violations. **The rules make it more costly to build a data network, which could explain why there are no European rivals to America and China's big companies. The lack of data networks will make it much more difficult for Europe to compete in building artificial intelligence applications** that could allow us to live longer, more fulfilling lives, precisely because they collect and store huge amounts of data, which in turn makes algorithms more accurate. Engineers today are focusing on using artificial intelligence not just to improve shopping and social networks, but also to cure diseases, provide clean energy and better manage food supply and transportation systems. My own company, Collective[i], is a data network that uses machine learning to help companies manage revenue with the goals increasing economic prosperity and reducing layoffs created by uncertainty.

IL – US tech hegemony

A recent ruling forcing Qualcomm to charge lower prices for its smartphone chips exemplifies how antitrust will undermine American companies

Condliffe 19 Jamie Condliffe, 5-24-2019, "The Week in Tech: Geopolitics Are Shaping Your Next Smartphone," NYT, https://www.nytimes.com/2019/05/24/technology/china-tech-huawei.html //DF

Qualcomm's court loss Geopolitics isn't the only force of change in the smartphone industry: So is **the tech industry's new obsession, antitrust.** On Tuesday, Judge Lucy Koh of **United States District Court in San Jose**, Calif., **ruled that Qualcomm had suppressed competition in the smartphone chip market** and charged "onerous" fees for the use of its patents. "Qualcomm's licensing practices have strangled competition," she wrote. It must now strike new licensing

agreements and be monitored for seven years to ensure compliance. Phone makers, particularly Apple, had bristled at Qualcomm's royalties, which could be as high as 5 percent of a handset's wholesale price. (Apple turned the other cheek and settled its royalty case with Qualcomm last month, sacrificing $27 billion in damages and making a payment of at least $4.5 billion to use Qualcomm's 5G chips.) So the ruling could reduce costs for smartphone makers and consumers. **It also undercuts Qualcomm's business model, which is largely based on profits from patent fees. It could also complicate efforts by the United States to assert itself in the creation of 5G networks**. America's first A.I. rules The Organization for Economic Cooperation and Development announced a set of principles on Wednesday to guide the development of artificial intelligence. Conspicuous by its presence on the list of nations backing the rules: the United States.

US technological dominance is the key to remaining the world power in the long-term, with the ability to set global norms

Urda 18 Jakob Urda, 9-20-2018, "Hold Them Back, Run Faster – Beating the Made in China 2025 Strategy," Chicago Journal of Foreign Policy, https://thecjfp.com/2018/09/20/hold-them-back-run-faster-beating-the-made-in-china-2025-strategy/ //DF

How should we think about "Made in China 2025" and how should we respond? The Cold War sheds light on the modern great power contest with China. The story of America's struggle to remain competitive against Soviet technology suggests two things: 1) That "Made in China 2025" is a significant threat to the future of American leadership, and 2) that tariffs will not stop it. In order to fully understand the current situation, we must consider why **technology has historically been so important for US strategy. American dominance over cutting-edge science bolstered our deterrence against the USSR, provided the economic growth needed to make our allies feel secure, and exposed the flaws of central planning**. Beyond the 1950s, the technology-first approach to American grand-strategy has been supported by established doctrine. In 1983, the Defense Intelligence Agency published a report under the program 'Project Socrates' to understand how to ensure the endurance of American power. They wrote: "The exploitation of technology is the most effective foundation for decision making for the complete set of functions within the private and public sectors that determine U.S. competitiveness." The United States is not the world's most populous nation, nor the richest in every natural resource—the fundamental source of strength of American economic strength is our qualitative edge in research**. With the erosion of our productivity by technologically superior rival powers, America cannot realistically maintain its global influence and leadership.** China's push to dominate emerging technology is every bit as important as the scientific revolutions of the 20th century. The Council on Foreign Relations called the "Made in China 2025" program an "existential threat to US technological leadership." If China were the first to roll out 5G infrastructure, for instance, it could force tech creators to go to China to develop and pilot new inventions. 5G is a necessary component in artificial intelligence, mass data gathering, and internet-of-things technologies. Just as American advantages in 4G infrastructure allowed Facebook and Google to become the world's leaders for social media and the internet, next-generation technologies may be dominated by Huawei and ZTE. These emerging technologies have the potential to be just as transformative as the atom bomb—AI could revolutionize commerce and surveillance, while gene-editing could have profound social and military implications. Not only could **a scientifically dominant China** be in a position to coerce us by restricting trade, it **would set the norms and standards for new technology**. There is reason to believe that the norms set by the CCP would be **significantly more illiberal than those set by Washington**. The United States—while hardly perfect—encourages political reform within autocracies, understands that sovereignty does not offer unlimited protection against human rights abuses, and actively cultivates a system of international trade based on economic openness and individual freedom. When leading the rollout of the internet, America established widely held standards for user-freedom. China's attitude towards global norms is noticeably more autocratic: supporting Sudan's military in the Darfur genocide to access Sudan's natural resources, selling mass surveillance technology to Ecuador, and threatening to cut off access to the Chinese market for businesses who do not censor their content or provide them with data. Beijing's leadership encourages the naked exploitation of smaller states by larger ones, such as in the Hambantota port scandal, where China used coercive loans to seize strategic naval infrastructure from Sri Lanka. At the same time, China holds the liberties of the individual in far lower esteem than America, operating the world's largest

surveillance state against its Uyghur Muslim minority and actively empowering its allies in Pakistan and North Korea to do the same. **Whatever the flaws of American leadership, Chinese domination of next-generation AI, pharmaceuticals, and natural resources would be far worse. The implications of Beijing reshaping global norms in its own image would be a dramatic curtailing of the international respect for freedom.** While the Cold War taught us the invaluable advantage conferred from research and science, it also suggested that an economic approach is insufficient to deter China's ambition. The space race was never just about exploration – it was the crux of America's grand strategy to pursue scientific superiority. Today, China sees the "Made in China 2025" program the same way— modern technology defines competitiveness. The question is not merely economic but strategic, with implications for the next hundred years of Chinese leadership and geopolitics. President Trump's latest round of tariffs will sting, no doubt, but it is hard to envision anything more than a facial compromise from CCP leadership. Much like the space race was far more important than reaching the moon, "Made in China 2025" is far more important than short-term economic growth. American trade comprises roughly 18 percent of Chinese exports. While this is hardly insignificant, China cannot view economic issues with the same gravity as its grand-strategy. Economic problems call for economic responses, but strategic challenges demand strategic solutions. In a recent congressional hearing concerning Chinese technology theft, William Alan Reinsch from the Center for Strategic and International Studies said, "We have two strategies: we can hold China back, and we can run faster." That is to say, America needs to crack down on technology stealing while redoubling our own investments in research. In terms of restricting China's acquisition of new technology, an aggressive retrenchment of liberal trading rules and strengthening intellectual property protections is needed. Free trade among allies in Asia and Europe (through programs such as the Trans Pacific Partnership, or a free trade deal with the EU) would create a uniform set of standards consistent with liberal norms which China would be forced to comply with when trading. While Huawei can threaten American companies into surrendering technology when we stand alone, it would think twice if doing so shut it out of the world's markets. Organizing in blocs would give liberal nations far more bargaining power to demand an end to technology stealing and strengthen the competitiveness of Western business. Defeating China's bid to dominate emerging technology also requires increasing our own research faculties. We can start by expanding tax credits for research and development and subsidizing multilateral scientific projects with our allies to keep America ahead of Chinese development. Beijing pours billions of dollars into emerging technology, and we have the resources to match that. **Like during the Cold War, one of the greatest strengths of liberal democracy is that our free and independent institutions have made us exceptional innovators.** No matter how much the Trump administration admonishes China, beating the CCP in the race to dominate cutting-edge research will require aggressive investments in Western institutions—from university labs to international research groups like CERN.

Tech is a major driver of the economy, and even small harms to tech can hit the market hard

Cavallo 16 Marco Antonio Cavallo [technology/digital transformation evangelist and expert when it comes to the strategic role of CIOs, technology strategy and trends, FinTech, InsureTech and technology applied to business in many different countries and cultures, providing cross-border strategic orientation for different industries and executives. Given his corporate experience of almost 20 years, he brings a variety of insights, trends and market perceptions about different technologies and their usages in the Digital Economy], 12-21-2016, "The growing importance of the technology economy," CIO, https://www.cio.com/article/3152568/the-growing-importance-of-the-technology-economy.html //DF As a matter of fact, what companies are really doing is cutting back on an important investment that could create the next growth wave and, in many instances, that investment could generate huge leverage, helping to lower costs and expenses much faster than technology spending rises, but companies can only achieve that by managing their technology spending properly. To do that, senior executives require new metrics and new ways of thinking. In order to successfully navigate the technology economics scenario and leverage optimum business performance, executives must create, measure, and track virtual economic measures just as carefully as they follow metrics about the physical world. The impact of technology economy **The impact of technology economy in the market is very significant**, infusing even the measurement of the market economy. Some of the largest indexes known in the market, such as the Dow Jones Industrial Average (DJIA) and the S&P 500, have changed. **Tech powerhouses like Apple, Google, and Amazon,** whose stocks are valued much higher than those of many long-time industrial members**, are replacing large industrial super**

companies. Apple, with its high market capitalization, **accounts for such a large share of the DJIA, for example, that any hiccup in its quarterly earnings can move the entire index**, situation that was once done by other large corporations such as GM and Caterpillar. Technology has an amazing power of permeate companies. An important measurement of the technology economy is the observing the Worldwide IT Spending volume, which is regarding the corporate spending for hardware, software, data centers, networks, and staff, both internal and outsourced IT services. Currently, this volume is close to USD6 trillion per year. To put this number on a more illustrative perspective, if we were to consider the global technology economy a country and its yearly spending its GDP, it would be ranked as the world's third largest economy, between the economies of China and Japan and more than twice the size of the UK economy, as shown on the chart below: Technology spending, gross margins and economic growth have a strong relationship when measured by productivity and GDP. A good example is that executives can predict with some accuracy the impact on the overall economy of a decline in technology spending. **Whenever companies cut back on** discretionary spending in order to improve profits during a downturn, they slash their **investments in technology. Soon afterward, GDP falls dramatically, and, within a few years, labor productivity across the economy falls, as technological innovation is an important component of productivity.** The drop in technology intensity that results from a decline in technology spending causes the labor force to decrease, which shows up in productivity up to three years later because productivity is a "stickier" measure. The relationship between technology intensity and GDP is better illustrated on the chart below:As a matter of fact, whenever considering a company's productivity, it possible to observe not only a connection between technology intensity and gross margins but also a strong correlation, which means that technology intensity and gross margins tend to rise and decline together, one as a consequence of the other. It's possible to set as a recent example of this effect before and after the recent world economic crash that started in 2007, when companies were investing more and more heavily in technology relative to revenues and operating expenses, and gross margins were rising. That trend accelerated through 2008 and until 2009, when companies belatedly realized the magnitude of what had happened and began to cut technology investment dramatically. After that, technology intensity dropped precipitously along with gross margins. The chart below illustrates this effect: Within most companies around the globe, in every single industry, technology investment is growing faster than revenues and, in many cases, faster than the GDP of any country. It is clear to all companies that technology is vital to to the successful operations of companies and, mainly, to the global economy, but being able to manage technology spending properly within a few years ahead will require an increasingly sophisticated way of looking at the world and at a company's performance. With that in mind, it is essential for companies to control, adapt, and optimize investments in real-time according to market conditions and on the basis of new forms of market data. Companies need to consider all inputs and outcomes and look at technology economically to gain competitive advantage before competitors do. Finally, if executives understand it and look at technology investments this way, it will not only matter, it will make all the difference for the their companies and for the global economy.

AI Impact – Econ

AI will massively increase productivity by shifting the labor base from one composed of an aging workforce to tireless robots; this will boost economic growth but come with serious growing pains

Stratfor 19 Stratfor Worldview [a geopolitical intelligence and advisory firm], 3-24-2019, "America and China's Great AI Competition: What Is Driving It," National Interest, https://nationalinterest.org/print/blog/buzz/america-and-chinas-great-ai-competition-what-driving-it-48677 //DF

The Geopolitical Backdrop to the Global AI Race AI is both a driver and a consequence of structural forces reshaping the global order. **Aging demographics** – an unprecedented and largely irreversible global phenomenon – **is a catalyst for AI development. As populations age and shrink, financial burdens on the state mount and labor productivity slows, sapping economic growth over time**. Advanced industrial economies already struggling to cope with the ill effects of aging demographics with **governments** that are politically squeamish toward immigration **will relentlessly look to machine learning technologies to increase productivity and economic growth in the face of growing labor constraints.** The global race for AI supremacy will feature prominently in a budding great power competition between the United States and China. China was shocked in 2016 when Google DeepMind's AlphaGo beat the world champion of Go, an ancient Chinese strategy game (Chinese AI state planners dubbed the event their "Sputnik moment"), and has been deeply shaken by U.S. President Donald Trump's trade wars and the West's growing imperative to keep sensitive technology out of Chinese competitors' hands. Just in the past couple of years alone, China's state focus on AI development has skyrocketed to ensure its technological drive won't suffer a short circuit due to its competition with the United States. Do or Die for Beijing The United States, for now, has the lead in AI development when it comes to hardware, research and development, and a dynamic commercial AI sector. China, by the sheer size of its population, has a much larger data pool, but is critically lagging behind the United States in semiconductor development. Beijing, however, is not lacking in motivation in its bid to overtake the United States as the premier global AI leader by 2030. And while that timeline may appear aggressive, China's ambitious development in AI in the coming years will be unfettered by the growing ethical, privacy and antitrust concerns occupying the West. China is also throwing hundreds of billions of dollars into fulfilling its AI mission, both in collaboration with its standing tech champions and by encouraging the rise of unicorns, or privately held startups valued at $1 billion or more. By incubating and rewarding more and more startups, Beijing is finding a balance between focusing its national champions on the technologies most critical to the state (sometimes by taking an equity stake in the company) without stifling innovation. In the United States, on the other hand, it would be disingenuous to label U.S.-based multinational firms, which park most of their corporate profits overseas, as true "national" champions. Instead of the state taking the lead in funding high-risk and big-impact research in emerging technologies as it has in the past, the roles in the West have been flipped; private tech companies are in the driver's seat while the state is lunging at the steering wheel, trying desperately to keep China in its rear view. The Ideological Battleground The United States may have thought its days of fighting globe-spanning ideological battles ended with the Cold War. Not so. AI development is spawning a new ideological battlefield between the United States and China, pitting the West's notion of liberal democracy against China's emerging brand of digital authoritarianism. As neuroscientist Nicholas Wright highlights in his article, "How Artificial Intelligence Will Reshape the Global Order," China's 2017 AI development plan "describes how the ability to predict and grasp group cognition means 'AI brings new opportunities for social construction.'" Central to this strategic initiative is China's diffusion of a "social credit system" (which is set to be fully operational by 2020) that would assign a score based on a citizen's daily activities to determine everything from airfare class and loan eligibility to what schools your kids are allowed to attend. It's a tech-powered, state-driven approach to parse model citizens from the deplorables, so to speak. The ability to harness AI-powered facial recognition and surveillance data to shape social behavior is an appealing tool, not just for Beijing, but for other politically paranoid states that are hungry for an alternative path to stability and are underwhelmed by the West's messy track record in promoting democracy. Wright describes how Beijing has exported its Great Firewall model to Thailand and Vietnam to barricade the internet while also supplying surveillance technology to the likes of Iran, Russia, Ethiopia, Zimbabwe, Zambia and Malaysia. Not only does this aid China's goal of providing an alternative to a U.S.-led global order, but it widens China's access to even wider data pools around the globe to hone its own technological prowess. The European Hustle Not wanting to be left behind in this AI great power race, Europe and Russia are hustling to catch up, but they will struggle in the end to keep pace with the United States and China. Russian President Vladimir Putin made headlines last year when he told an audience of Russian youths that whoever rules AI will rule the world. But the reality of Russia's capital constraints means Russia will have to choose carefully where it puts its rubles. Moscow will apply a heavy focus on AI military applications and will rely on cyber espionage and theft to try and find shortcuts to AI development, all while trying to maintain its strategic alignment with China to challenge the United States. While France harbors ambitious plans to develop an AI ecosystem for Europe and Germany frets over losing its industrial edge to U.S. and Chinese tech competitors, unavoidable and growing fractures within the European Union will hamper Europe's ability to play a leading AI role on the world stage. The European Union's cumbersome regulatory environment and fragmented digital market has been prohibitive for tech startups, a fact reflected in the European Union's low global share and value of unicorn companies. Meanwhile, the United Kingdom, home to Europe's largest pool of tech talent, will be keen on unshackling itself from the European Union's investment-inhibitive regulations as it stumbles out of the bloc. A Battle over Talent and Standards But wherever pockets of tech innovation already exist on the Continent, those relatively few companies and individuals are already prime targets for U.S. and Chinese tech juggernauts prowling the globe for AI talent. AI experts are a precious global commodity. According to a 2018 study by Element AI, there are roughly 22,000 doctorate-level researchers in the world, but only around 3,000 are actually looking for work and around 5,400 are presenting their research at AI conferences. U.S. and Chinese tech giants are using a variety of means – mergers and acquisitions, aggressive poaching, launchings labs in cities like Paris, Montreal and Taiwan – to gobble up this tiny talent pool. Even as Europe struggles to build up its own tech champions, the European Union can use its market size and conscientious approach to ethics, privacy and competition to push back on encroaching tech giants through hefty fines, data localization and privacy rules, taxation and investment restrictions. The bloc's rollout of its General Data Protection Regulation (GDPR) is designed to give Europeans more control over their personal data by limiting data storage times, deleting data on request and monitoring for data breaches. While big-tech firms have the means to adapt and pay fines, the move threatens to cripple smaller firms struggling to comply

with the high cost of compliance. It also fundamentally restricts the continental data flows needed to fuel Europe's AI startup culture. The United States in many ways shares Europe's concerns over issues like data privacy and competition, but it has a fundamentally different approach in how to manage those concerns. The European Union is effectively prioritizing individual privacy rights over free speech, while the United States does the reverse. Brussels will fixate on fairness, even at the cost of the bloc's own economic competitiveness, while Washington will generally avoid getting in the way of its tech champions. For example, while the European Union will argue that Google's dominance in multiple technological applications is by itself an abuse of its power that stifles competition, the United States will refrain from raising the antitrust flag unless tech giants are using their dominant position to raise prices for consumers. U.S. and European government policy overlap instead in their growing scrutiny over foreign investment in sensitive technology sectors. Of particular concern is China's aggressive, tech-focused overseas investment drive and the already deep integration of Chinese hardware and software in key technologies used globally. A highly diversified company like Huawei, a pioneer in cutting-edge technologies like 5G and a mass producer of smartphones and telecommunications equipment, can leverage its global market share to play an influential role in setting international standards. Washington, meanwhile, is lagging behind Brussels and Beijing in the race to establish international norms for cyber policy. While China and Russia have been persistent in their attempts to use international venues like the United Nations to codify their version of state-heavy cyber policy, the European Union has worked to block those efforts while pushing their own standards like GDPR. This emerging dynamic of tightening restrictions in the West overall against Chinese tech encroachment, Europe's aggressive regulatory push against U.S. tech giants and China's defense and export of digital authoritarianism may altogether lead to a much more balkanized market for global tech companies in the future. The AI Political Test of the Century There is no shortage of AI reports by big-name consulting firms telegraphing to corporate audiences the massive productivity gains to come from AI in a range of industries, from financial, auto, insurance and retail to construction, cleaning and security. A 2017 PwC report estimated that **AI could add $15.7 trillion to the global economy in 2030, of which $6.6 trillion would come from increased productivity and $9.1 trillion would come from increased consumption.** The potential for double-digit impacts on GDP after years of stalled growth in much of the world is appealing, no doubt. But lurking behind those massive figures is the question of just how well, how quickly and how much of a country's workforce will be able to adapt to these fast-moving changes. As Austrian Joseph Schumpeter described in his 1942 book, Capitalism, Socialism and Democracy, the "creative destruction" that results from so-called industrial mutations "incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one." In the age of AI, the market will incessantly seek out scientists and creative thinkers. Machines will endlessly render millions of workers irrelevant. And new jobs, from AI empathy trainers to life coaches, will be created. Even as technology translates into productivity and economic gains overall, this will be a wrenching transition if workers are slow to learn new skills and if wage growth remains stagnant for much of the population. Time will tell which model will be better able to cope with an expected rise in political angst as the world undergoes this AI revolution: China's untested model of digital authoritarianism or the West's time-tested, yet embattled, tradition in liberal democracy.

Impact – Chinese Dominance

China’s rise poses a significant threat to the liberal world order in a number of ways

Chhabra 19 Tarun Chhabra [fellow and director of the Project on International Order and Strategy at the Brookings Institution. Chhabra served on the White House National Security Council staff during the Obama administration as director for strategic planning and director for human rights and national security issues, and at the Pentagon as a speechwriter to two secretaries of defense], 2-2019, "The China challenge, democracy, and US grand strategy," Brookings, https://www.brookings.edu/research/the-china-challenge-democracy-and-u-s-grand-strategy/ //DF

The idea that the United States and China are hurtling toward a new Cold War has become a shibboleth for those who believe that U.S. policy toward China has become too confrontational. Cold War analogies, so the argument goes, are dangerous and risk becoming self-fulfilling prophecies. The implicit assumptions are that China poses a lesser overall threat to the United States than the former Soviet Union did, and that ideology is not, and need not be, prominent in U.S.-China competition. These assumptions merit scrutiny. While the Soviet Union posed a greater military threat to the United States and its allies than China does today, and the risks of nuclear war were greater, the equation could soon change. 15 Chinese forces are moving closer to parity with U.S. forces in key contingency scenarios, such as a conflict over Taiwan or in the South China Sea,16 and the risks of U.S.-China nuclear escalation are increasing.17 The question about China’s long-term strategy is whether it

seeks to, and could, replace the United States as the global hegemon;18 that Beijing is seeking to build a Chinese sphere of influence in East Asia is already clear.19 Less appreciated is that **China's challenge to democracy and liberal values may be more formidable than the Soviet challenge during the Cold War**. U.S. planners must prepare for this scenario in light of the following: • **First, China's supple authoritarianism abroad** may be less demanding and more flexible than Soviet communism, **precisely at a moment when open societies are more vulnerable than they have been for decades**. • **Second, mass digital surveillance may enable the Chinese** Communist Party (CCP) **to realize previously unattainable totalitarian visions, and to export such capabilities not only to like-minded autocrats, but also to vulnerable democracies**. • **Third, China's authoritarian capitalism is more dynamic and sustainable than Sovietstyle economic policy**. • **Fourth, China is poised to weaponize interdependence** at the expense of liberal values, **particularly at a moment when open societies are deeply divided and vulnerable to political interference and capture**. In combination, **these trends pose significant threats to the political integrity of long-standing and emerging U.S. allies and partners across Eurasia**. And Sino-Russian alignment, which U.S. intelligence recently assessed as "stronger than at any point since the mid-1950s,"20 will compound the growing challenge to a foundational assumption of U.S. foreign policy since World War II: that a hostile power, or hostile entente, exercising primacy over Eurasia would pose unacceptable risks to the United States' political identity, prosperity, and territorial security.

Weighing – R/T Competition/innovation

The more important tech competition isn't domestic but international. Large US tech companies are needed to compete against other multinationals like Huawei or Samsung.

Frontline – R/T Trade war will end

The economist and NYT have lots of articles about this.

Frontline – R/T European AI

European countries significantly lag behind the US and China on AI development

Stratfor 19 Stratfor Worldview [a geopolitical intelligence and advisory firm], 3-24-2019, "America and China's Great AI Competition: What Is Driving It," National Interest, https://nationalinterest.org/print/blog/buzz/america-and-chinas-great-ai-competition-what-driving-it-48677 //DF

The European Hustle Not wanting to be left behind in this AI great power race, **Europe** and Russia **are hustling to catch up, but they will struggle in the end to keep pace with the United States and China.** Russian President Vladimir Putin made headlines last year when he told an audience of Russian youths that whoever rules AI will rule the world. But the reality of Russia's capital constraints means Russia will have to choose carefully where it puts its rubles. Moscow will apply a heavy focus on AI military applications and will rely on cyber espionage and theft to try and find shortcuts to AI development, all while trying to maintain its strategic alignment with China to challenge the United States. While France harbors ambitious plans to develop an AI ecosystem for Europe and Germany frets over losing its industrial edge to U.S. and Chinese tech competitors, unavoidable and growing fractures within the European Union will hamper Europe's ability to play a leading AI role on the world stage. The European Union's cumbersome regulatory environment and fragmented digital market has been prohibitive for tech startups, a fact reflected in the European Union's low global share and value of unicorn companies. Meanwhile, the United Kingdom, home to Europe's largest pool of tech talent, will be keen on unshackling itself from the European Union's investment-inhibitive regulations as it stumbles out of the bloc. A Battle over Talent and Standards But wherever pockets of tech innovation already exist on the Continent, those relatively few companies and individuals are already prime targets

for U.S. and Chinese tech juggernauts prowling the globe for AI talent. AI experts are a precious global commodity. According to a 2018 study by Element AI, there are roughly 22,000 doctorate-level researchers in the world, but only around 3,000 are actually looking for work and around 5,400 are presenting their research at AI conferences. U.S. and Chinese tech giants are using a variety of means – mergers and acquisitions, aggressive poaching, launchings labs in cities like Paris, Montreal and Taiwan – to gobble up this tiny talent pool. Even as Europe struggles to build up its own tech champions, the European Union can use its market size and conscientious approach to ethics, privacy and competition to push back on encroaching tech giants through hefty fines, data localization and privacy rules, taxation and investment restrictions. **The bloc's rollout of its General Data Protection Regulation (GDPR) is designed to give Europeans more control over their personal data** by limiting data storage times, deleting data on request and monitoring for data breaches. While big-tech firms have the means to adapt and pay fines, the move threatens to cripple smaller firms struggling to comply with the high cost of compliance. It also **fundamentally restricts the continental data flows needed to fuel Europe's AI startup culture.** The United States in many ways shares Europe's concerns over issues like data privacy and competition, but it has a fundamentally different approach in how to manage those concerns. The European Union is effectively prioritizing individual privacy rights over free speech, while the United States does the reverse**. Brussels will fixate on fairness, even at the cost of the bloc's own economic competitiveness**, while Washington will generally avoid getting in the way of its tech champions. For example, while the European Union will argue that Google's dominance in multiple technological applications is by itself an abuse of its power that stifles competition, the United States will refrain from raising the antitrust flag unless tech giants are using their dominant position to raise prices for consumers.

Small Companies DA

Link

Antitrust regulations enforced against “big tech” companies would also affect non-tech companies

O’Sullivan 19 Andrea O'Sullivan [feature writer for The Bridge at the Mercatus Center at George Mason University. Her work focuses on cybersecurity, surveillance, Internet freedom, cryptocurrency, and the economics of technology], 3-21-2019, "Does the FTC Need a New Big Tech Task Force?," Mercatus Center at George Mason University, https://www.mercatus.org/bridge/commentary/does-ftc-need-new-big-tech-task-force //DF

The name and mission of the task force could indicate problems. Technology analyst Ben Thompson points out that “‘tech’ is not simply another category, like railroads or telecom.” By definition, technologies are means, not ends. Think about the so-called FAANGs: Facebook is a social media company, Apple sells a hardware ecosystem, Amazon is an online retailer, Netflix is an entertainment firm, and Google operates search. These companies have acquired core competencies in related areas, like advertising and cloud computing, and provide those services to consumers and other businesses. But the fact that they have utilized “technology” to achieve these ends is incidental to whether their activities are ultimately good or bad for consumers. The FTC task force targeting the FAANGs or Big Tech would present serious challenges. For one, it’s unclear how the FTC would pin down a clear definition of the “US technology market.” This ambiguity is welcomed by advocates of the “public interest” standard, but making an economic case that consumers are being harmed is difficult. Second, any enforcement actions against big American tech companies would risk restricting business practices that, when done by other firms, are considered benign. Consider Amazon, a constant candidate for trust-busting. Sen. Warren and other critics argue that Amazon should not be allowed to offer its own branded products on its platform. Under Warren’s proposal to break up big tech, Amazon and other firms that offer “online marketplaces” can be either an e-commerce platform or a consumer product company—never both. But Warren’s proposed $25-billion annual revenue cutoff for “platform utility” classification would not only restrict the

business practices of Amazon and Google but also brick-and-mortar retailers like Walmart, Kroger, Costco, and the Home Depot, not exactly popular targets for antitrust intervention in this decade. No one insists an FTC task force investigate competitive or consumer harms from Big Brick-and-Mortar selling in-house brands. Shoppers benefit from a lower price alternative, and other branded items still do well. But Amazon's combination of bigness and technology sets it apart from other retailers, so it seems like something should be done to stop it. Further, anti-vertical integration rules that would require Google to separate search from its digital advertising business, endorsed by Sen. Warren, would, if applied consistently, require Microsoft to separate ownership of its search engine Bing and its advertising network. Breaking up Bing, the sympathetic underdog, likely defeats the purpose of breaking up the Google search "monopoly." In general, many of the activities for which "big tech" are criticized are not necessarily anti-consumer behaviors that must be stopped. Rather, they can be very good for consumers, but people get taken in by the fact that a disruptive technology firm is undertaking them.

This happened in the 1950s with minor mergers

Wu 18 Tim Wu [policy advocate, professor at Columbia Law School, and a contributing opinion writer for *The New York Times*. He worked on competition policy in the Obama White House and the Federal Trade Commission, served as senior enforcement counsel at the New York Office of the Attorney General, and worked at the Supreme Court for Justice Stephen Breyer], 2018, "The Curse of Bigness: Antitrust in the New Gilded Age," Columbia Global Reports, Pages 103-104 //DF

It is, however, unfair to give Chicago all the credit, because its theories began to gain intellectual and academic influence in what could be described as a case of good intentions gone awry. By the 1970s, if Chicago represented a fringe of intellectual thought, the center was occupied by the Harvard School, and, in particular, by two professors, Donald Turner and Phillip Areeda, the authors of what remains the most influential guide to the antitrust laws. Turner had been head of the Justice Department's Antitrust division in the late 1960s, the first lawyer who was also a PhD economist to hold that role. He was determined to bring greater intellectual and economic rigor to what the department was doing. Both Turner and Areeda were sensitive to the critique that antitrust had become the province of "coonskin cap" law enforcement–the blind firing of muskets at companies that just seemed bad. Nor were these criticisms baseless. **While vigorously enforcing the new 1950 anti-merger law, lawyers in the Kennedy and Johnson administrations had grown aggressive, and blocked some relatively minor mergers, as in the famous *Von's Grocery* case, where the Justice Department undid a merger between two Los Angeles grocery chains with a combined market share of merely 7.5 percent.** In its defense, the Justice Department maintained that Congress was concerned about "creeping" concentration, achieved "not in a single acquisition but as the result of a series of acquisitions." But it can still be asked whether merger actually inhibited competition in any meaningful way. It gave grounds to Bork's charge that law enforcement in the 1960s was out of control–the Justice Department was like the "sheriff of a frontier town: he did not sift evidence, distinguish between suspects, and solve crimes, but merely walked the main street and every so often pistol-whipped a few people."

The EU's privacy regulations will hurt small tech companies who can't pay the high compliance costs

Stratfor 19 Stratfor Worldview [a geopolitical intelligence and advisory firm], 3-24-2019, "America and China's Great AI Competition: What Is Driving It," National Interest, https://nationalinterest.org/print/blog/buzz/america-and-chinas-great-ai-competition-what-driving-it-48677 //DF

A Battle over Talent and Standards But wherever pockets of tech innovation already exist on the Continent, those relatively few companies and individuals are already prime targets for U.S. and Chinese tech juggernauts prowling the globe for AI talent. AI experts are a precious global commodity. According to a 2018 study by Element AI, there are roughly 22,000 doctorate-level researchers in the world, but only around 3,000 are actually looking for work and around 5,400 are presenting their research at AI conferences. U.S. and Chinese tech giants are using a variety of means – mergers and acquisitions, aggressive poaching, launchings labs in cities like Paris, Montreal and Taiwan – to gobble up this tiny talent pool. Even as Europe struggles to build up its own tech champions, the European Union can use its market size and conscientious

approach to ethics, privacy and competition to push back on encroaching tech giants through hefty fines, data localization and privacy rules, taxation and investment restrictions. The bloc's rollout of its General Data Protection Regulation (GDPR) is designed to give Europeans more control over their personal data by limiting data storage times, deleting data on request and monitoring for data breache**s. While big-tech firms have the means to adapt and pay fines, the move threatens to cripple smaller firms struggling to comply with the high cost of compliance**. It also fundamentally restricts the continental data flows needed to fuel Europe's AI startup culture. The United States in many ways shares Europe's concerns over issues like data privacy and competition, but it has a fundamentally different approach in how to manage those concerns. The European Union is effectively prioritizing individual privacy rights over free speech, while the United States does the reverse. Brussels will fixate on fairness, even at the cost of the bloc's own economic competitiveness, while Washington will generally avoid getting in the way of its tech champions. For example, while the European Union will argue that Google's dominance in multiple technological applications is by itself an abuse of its power that stifles competition, the United States will refrain from raising the antitrust flag unless tech giants are using their dominant position to raise prices for consumers.

Politicized Antitrust DA

Enforcing antitrust would have to be based on a different standard than "consumer welfare" because tech giants have been good for consumers, which would result in politicization

O'Sullivan 19 Andrea O'Sullivan [feature writer for The Bridge at the Mercatus Center at George Mason University. Her work focuses on cybersecurity, surveillance, Internet freedom, cryptocurrency, and the economics of technology], 3-21-2019, "Does the FTC Need a New Big Tech Task Force?," Mercatus Center at George Mason University, https://www.mercatus.org/bridge/commentary/does-ftc-need-new-big-tech-task-force //DF

"Technology companies" have developed bad reputations following privacy scandals and accusations of political bias. Support for the regulation of big tech is equal among Democrats and Republicans, with 46 percent of each agreeing that the federal government should regulate tech companies more. However, vague calls for "regulation" are not a mandate for trust-busting. Competition policy is neither privacy policy nor communications policy. The FTC task force should uphold the agency's commitment to intervening in marketplaces only when consumer harms are clearly demonstrated. Ultimately what matters in competition policy is how consumers fare, and sometimes they are best served by big companies that wisely apply technologies. For decades, antitrust policy has been guided by what is called the "consumer welfare standard." This is an economics-driven approach that studies prices to determine market health. If a company buys up its competition and raises prices on consumers, for example, that is destructive to the economy and should be stopped. But if a company buys another one to enhance its products or services and ultimately lower or maintain prices, that is a good thing for consumers. This metric brought rationality and objectivity to an antitrust process that had previously been marked by capricious political maneuvering. We have written before about a not-so-new idea creeping up in antitrust circles: that the consumer welfare standard in antitrust should be replaced by a vaguer "public interest" standard. Because this old Gilded Age idea has been made new again, it is sometimes called the "hipster antitrust" approach. The goals of this new-yet-old approach can vary, but they generally reject price effects on consumers as a primary guide in favor of their own pet concerns. Maybe the FTC and the courts should consider the broader competitive environment, as the European Union does. Some believe that other businesses should be stakeholders in the antitrust process as well, and that they should be shielded from "excess competition" by the government. Others go so far as to argue that social concerns—like environmental effects and socio-economic demographics—should also play a role in antitrust analysis. Not only are these goals much more subjective than measuring consumer price effects, they can contradict each other. What if a mandate to protect competition for small business is at odds with a charge to promote innovation? Should the smaller but less innovative firms be protected, or the larger but more creative firm? The FTC would be forced to make a value judgment, which generates uncertainty and the potential for politically motivated enforcement. Sometimes, as advocates of these views admit,

consumers may actually be harmed by these antitrust interventions, particularly in the short term. Bigger businesses generally increase in scale because they create value for their customers. If the FTC were empowered to strike down these firms in favor of amorphous notions of what a perfectly competitive market should look like, consumers could be forced to pay higher prices for fewer or lower-quality products and services.

Cyber warfare DA

The scale afforded to us by large tech companies provides our best defense against cyber attacks

Messer 19 Heidi Messer [technology entrepreneur and investor, is a co-founder of Collective], 5-23-2019, "Why We Should Stop Fetishizing Privacy," NYT, https://www.nytimes.com/2019/05/23/opinion/privacy-tech-companies.html //DF

The evangelists assert that regulating access to data or breaking up big companies will put that data back in our control. But this is naïve. We share our photos, emails and other personal data daily. Almost any individual or company, big or small, can collect and misuse it. Size doesn't make a difference. If safety is the actual goal of protecting privacy, consider this: **Large tech companies may be our best line of defense against hackers, state surveillance and terrorists. These companies have the talent and resources to match well-funded and sophisticated adversaries. As the threat of cyberwarfare grows, shouldn't we consider whether it would be prudent to break up companies that are our best allies against foreign and criminal intrusion?** Regulation also assumes that lawmakers understand how the internet operates. But many of the questions asked of the Facebook co-founder Mark Zuckerberg at his most recent congressional hearing reflected a staggering display of ignorance about the businesses that have fueled America's economic growth for over a decade.

Blocks

Generic

Tech giants often don't stay around long anyway as consumer preferences change – consumers know what they want and will always purchase the best products for them

O'Sullivan 19 Andrea O'Sullivan [feature writer for The Bridge at the Mercatus Center at George Mason University. Her work focuses on cybersecurity, surveillance, Internet freedom, cryptocurrency, and the economics of technology], 3-21-2019, "Does the FTC Need a New Big Tech Task Force?," Mercatus Center at George Mason University, https://www.mercatus.org/bridge/commentary/does-ftc-need-new-big-tech-task-force //DF

Advocates might argue that their preferred conception of a competitive market sets the stage for better consumer outcomes in the future. What if these future benefits fail to materialize? We would have imposed great costs on ourselves for naught. The fact is that **consumers** are quite choosy and **know what's better for themselves than antitrust regulators. Oftentimes, the seemingly untouchable titans of today are taken down by the market forces of changing consumer taste well before antitrust commentators have formulated a defined solution. Recall that regulators**

wrung their hands over the AOL-Time Warner behemoth in 2001, only to see the merged entity fall apart by the end of the decade. All antitrust enforcers, including the FTC's new technology task force, should keep consumer welfare as the key consideration for interventions. It is imperative that evidence-based policymaking, and not broad platitudes guide antitrust decisions. Sometimes bigness is good for the consumer, sometimes it is harmful. But regulators should primarily focus on consumer outcomes and not the inputs that produce them.

R/T Polarization

1. Facebook is the public face of social media and has some incentive to crack down. If they didn't own the market, they wouldn't have any incentive
2. More social media sites means more echo chambers

R/T Stops copying

No because the laws can't tell what copying and cloning looks like

R/T High Prices

The services big tech companies provide are either cheap or free, and their innovations have greatly reduced the cost of the products they sell compared to before them

Cowen 19 Tyler Cowen [Ph.D., holds the Holbert L. Harris Chair in Economics at George Mason University. He is the author of a number of textbooks and other thought-provoking works, including *The Complacent Class*, as well as writing the most-read economics blog worldwide, marginalrevolution.com], 2019 "Big Business: A Love Letter to an American Anti-Hero," St. Martin's Press, pages 101-102 //DF

In any case, first I'd like to turn to the charges of monopoly and the disappearance of competition. It is easy enough to see that the contemporary tech industry has plenty of firms that seem to dominate a particular area—just consider Google, Facebook, eBay, Netflix, Apple, Snapchat, Twitter, and Microsoft, among others. But what are we to make of this? Are these new tech monopolies as bad as the price-gouging monopolies of yore? At least so far, it hardly seems so. **Many of these [tech giants]** "monopolists," if that is even the right word, **charge either nothing or much lower fees than their pre-internet counterparts.** eBay takes a commission and never has been connected to a zero-charge model, but typically it is much cheaper to put a lot of items on eBay than to cart them around to resale or antique stores and arrange for their disposition by consignment or outright sale. Microsoft charges for its software, but once you take multiple copies, educational discounts, and piracy into account, the company hardly seems like an extortionist. For each copy of Microsoft Word that is sold, other copies are pirated or otherwise reproduced in a way that does not result in a traditional fee for sale at the price set by Microsoft. Apple is the company on this list that charges luxury prices, at least for its hardware. But before the iPhone, you couldn't buy something like that at any price. And within a few years after the debut of the iPhone, there were plenty of cheaper smartphone models on the market, and since that time those models have gained most of the market share. As of this writing, smartphones are becoming cheaper yet, due to imports from China, and the quality of those products is likely to improve rapidly. Apple helped enable these cheaper products, whether it wanted to or not, and all along the company knew it would end up creating competitors. So it is inaccurate and unjust to attack the big tech companies on the grounds of price, most of all compared to the counterfactual in which those tech companies did not exist.

R/T Anticompetitive

China Rise forces US innovation (Roberts - Australia University)

Anthea Roberts, 5-28-2019, "The U.S.-China Trade War Is a Competition for Technological Leadership," Lawfare, https://www.lawfareblog.com/us-china-trade-war-competition-technological-leadership (NK)

Until recently, the United States was fairly dismissive when it came to Chinese innovation capacity, viewing China as a "copycat nation" that could only steal or "rip off" technological innovations. Yet China has made significant investments in research and development in recent years, and Chinese companies have made impressive stridesforward across a range of areas, including ICT and artificial intelligence (AI). **As China seeks to move itself forward, the United States now faces an imperative to maintain its "technological supremacy." It accordingly has an interest in defending its existing technological dominance, hobbling the technological ambitions of its upcoming rival China and doubling down on its own technological advancement to ensure it retains its edge going forward**. It is difficult to develop a coherent strategy about how to protect America's technological supremacy. One of the chief problems is that views differ over whether openness in trading, investment, and research and development with an economic and strategic competitor represents a security risk (because of the possibility of knowledge and material transfers) or a security gain (because it bolsters thriving technology industries that are then best placed to retain their innovative edge). For example, Hugo Meijer's work on U.S. export controls contrasts the views of "Control Hawks," who believe that exporting sensitive technologies to competitors is a security risk, with those of "Run Faster" advocates, who argue that strict export controls may actually damage U.S. security by undermining the competitiveness of the commercial industrial base upon which the Pentagon relies for advanced defense technology.

Tech Giants compete against one another; conglomerates have overlapping products so they are forced to compete against one another.

Petit, 2016, Stanford, "TECHNOLOGY GIANTS, THE "MOLIGOPOLY" HYPOTHESIS AND HOLISTIC COMPETITION: A PRIMER" file:///Users/noahkaye2/Downloads/Petit-16.pdf (NK)

Unlike the textbook model of the single product ingot monopolist, **the moligopolists are conglomerates.** Surely, all have a core business: Google is predominantly a "search" company; Apple a communication and media devices firm; Facebook a social network; Amazon an online retailer; and Microsoft an operating systems developer. **But all are active in a variety of other areas**. Often, the moligopolists have entered – or been dragged – into adjacent businesses. Since 2004, Google has developed an e-mail service, an Internet browser, an Operating System ("OS") for mobile and a social network. And Microsoft, who was initially thought to be a software company, made significant forays into hardware with gaming devices and tablets (not to talk of the infamous Zune music player).64 Apple, a computer-engineering firm, has morphed into a manufacturer of wearables of all sorts including, headphones, speakers and wristwatches. To the untrained eye, Facebook and Amazon may, look like more core-centric, focused companies. However, Facebook has slowly diversified its portfolio of activities, through a series of acquisitions (notably, of Instagram, WhatsApp and Oculus Rift).65 And Amazon can no longer be reduced to an online bookstore or an online mall: Amazon Web Services is reported to be the market leader in cloud computing services.66 Besides those casual observations, market research data points to the same direction. The company profiles published by the MarketLine interface has a section entitled "Major Products and Services" which pictures each of the tech giants as a multi-product firm active on a large number of market segments.67 The chart bellow provides a summary of the data found through MarketLine.

To be sure, the moligopolists are not identical conglomerates. Significant discrepancies exist in the breadth of their product and/or service diversification. Apple and Facebook are, for example, narrower conglomerates than Google, Microsoft and Amazon.71 Moreover, the moligopolists have embraced distinct business models. Apple maintains a closed ecosystem, whilst Google has embraced a more opened architecture. Facebook is the epitome of freemiums, whilst Amazon prices ancillary services and Microsoft practices product versioning. **By and large, however, the tech giants seem to be conglomerates that compete against each other.**72 This finding, which is not spectacular in itself, is perhaps more arresting from a financial theory perspective. Financial experts distaste conglomerates. Firms organized as conglomerates are typically undervalued by financial investors compared to comparable single-product firms. The traditional explanation is that a conglomerate is subject to greater agency problems than single-product firms.73 Accordingly, one shall not expect to see conglomerates as the dominant organizational structure of large publicly listed companies like the tech giants.

Large firms innovate better than small firms for a number of reasons

Economist 11 12-17-2011, "Big and clever," Economist, https://www.economist.com/business/2011/12/17/big-and-clever //DF

Joseph Schumpeter, after whom this column is named, argued both sides of the case. In 1909 he said that small companies were more inventive. In 1942 he reversed himself. **[1] Big firms have more incentive to invest in new products**, he decided, **because they can sell them to more people and reap greater rewards more quickly**. In a competitive market, inventions are quickly imitated, so a small inventor's investment often fails to pay off. These days the second Schumpeter is out of fashion: people assume that little start-ups are creative and big firms are slow and bureaucratic. But that is a gross oversimplification, says Michael Mandel of the Progressive Policy Institute, a think-tank. In a new report on “scale and innovation”, he concludes that today's economy favours big companies over small ones. Big is back, as this newspaper has argued. And big is clever, for three reasons. First, says Mr Mandel, **[2] economic growth is increasingly driven by big ecosystems** such as the ones that cluster around Apple's iPhone or Google's Android operating system**. These ecosystems need to be managed by a core company that has the scale and skills to provide technological leadership**. Second, **[3] globalisation puts more of a premium on size than ever before.** To capture the fruits of innovation it is no longer enough to be a big company by American standards. You need to be able to stand up to emerging-world giants, many of which are backed by something even bigger: the state. Third, many **[4] of the most important challenges for innovators involve vast systems**, such as education and health care, or giant problems, such as global warming. **To make a serious change to a complex system, you usually have to be big.** If true, this argument has profound implications for policymakers (though Mr Mandel does not spell them out). Western governments are obsessed with promoting small businesses and fostering creative ecosystems. But if large companies are the key to innovation, why not concentrate instead on creating national champions? Anti-trust regulators have strained every muscle to thwart the creation of monopolies (for example, by preventing AT&T, a telecoms firm, from taking over the American arm of T-Mobile). But if one behemoth is likely to be more innovative than two smaller companies, why not allow the merger to take place? What should we make of Mr Mandel's argument? He is right that the old “small is innovative” argument is looking dated. Several of the champions of the new economy are firms that were once hailed as plucky little start-ups but have long since grown huge, such as Apple, Google and Facebook. (In August Apple was the world's largest listed company by market capitalisation.) **American firms with 5,000 or more people spend more than twice as much per worker on research and development as those with 100-500.** The likes of Google and Facebook reap colossal rewards from being market-makers rather than market-takers. **[5] Big companies have a big advantage in recruiting today's most valuable resource: talent.** (Graduates have debts, and many prefer the certainty of a salary to the lottery of stock in a start-up.) Large firms are getting better at avoiding bureaucratic stagnation: they are flattening their hierarchies and opening themselves up to ideas from elsewhere. Procter & Gamble, a consumer-goods giant, gets most of its ideas from outside its walls. Sir George Buckley, the boss of 3M, a big firm with a 109-year history of innovation, argues that companies like his can combine the virtues of creativity and scale. 3M likes to conduct lots of small experiments, just like a start-up. But it can also mix technologies from a wide range of areas and, if an idea catches fire, summon up vast resources to feed the flames.

Tech giants like Apple and Amazon still compete against other companies

Manjoo 17 Farhad Manjoo, 10-25-2017, "Can Washington Stop Big Tech Companies? Don't Bet on It," NYT, https://www.nytimes.com/2017/10/25/technology/regulating-tech-companies.html //DF

They're creating machines that could one day approximate and surpass human intelligence — a technological achievement that may come with as many complications as the advent of nuclear weapons. And all of them figure into economic inequality in the United States, since their digital wares provide vast riches to a relative few employees and investors in liberal West Coast enclaves, while passing over much of the rest of the world. But in other ways, the Five [tech giants] do not cleanly fit traditional notions of what constitutes dangerous corporate power. Only a couple of them enjoy monopolies or duopolies in their markets — Google and Facebook in digital ads, for example. Apple's iPhone is the world's most profitable product, its App Store the most important digital marketplace, and yet two out of three smartphones sold in the United States are not iPhones. Amazon is considered ground zero in the vast transformation of American retail, and is implicated in the unfolding story of how our jobs and our lunches will be gobbled up by machines. But only in the last year did Amazon's annual revenue surpass that of Costco. It does not yet enjoy a majority share of online commerce in America, has a single-digit share of American retail and is still a minor satellite compared with Walmart's sun. Then there is our own complicated relationship with the tech giants. We do not think of them in the same way we think of, say, the faceless megacorps of Wall Street. The Five's power comes cloaked in friendliness, utility and irresistible convenience at unbelievable prices. We hooked our lives into them willingly, and then we became addicted to them. For many Americans, life without all but one or two of them might feel just about unlivable.

These companies don't have as much control now over their markets as Standard Oil did

Mclaughlin 19 David Mclaughlin, 3-16-2019, "Why Were Facebook, Amazon, Apple, and Google Allowed to Get So Big?," Fortune, http://fortune.com/2019/03/16/google-amazon-antitrust-laws/ //DF

The rise of global technology superstars like Amazon, Apple, Facebook and Google created new challenges for the competition watchdogs who enforce the nation's antitrust laws. Those companies dominate markets in e-books and smartphones, search advertising and social-media traffic, spurring a global debate over whether it's time to rein in such winner-take-all companies. The U.S. has largely been hands off, but that may be changing. 1. Are the tech giants monopolies? They're powerful, for sure. Google and Facebook Inc. together control almost 60 percent of digital ad revenue in the U.S. and 64 percent of mobile ad revenue, according to eMarketer. Apple Inc. has about 45 percent of the U.S. smartphone market. About 47 percent of all U.S. e-commerce sales go through Amazon.com Inc. But **under modern antitrust enforcement, those percentages alone aren't enough to alarm regulators in the U.S.,** which long ago stopped equating big with bad. (For comparison's sake, Standard Oil's market share got as high as 88 percent late in the 19th century.) What's illegal is for a monopoly to abuse its market power to prevent rivals from threatening its dominance. Federal courts ruled Microsoft Corp. did so in the 1990s. 2. How often does the U.S. go after monopolies? The Microsoft lawsuit was the last major monopolization case brought by the U.S. The ensuing 20-year dry spell is often cited by those who argue enforcement has been too timid. President Barack Obama's administration vowed to get tough on dominant companies in 2009, but it didn't follow through. The number of monopoly cases brought by the U.S. dropped sharply from an average of 15.7 cases per year from 1970 to 1999 to less than three between 2000 and 2014.

That Netscape and Internet Explorer fell, and that Facebook has lost 15M users, shows that these companies are vulnerable to competition

Strain 19 Michael R. Strain, 3-11-2019, "The Worst Idea (So Far) in Democrats' War on Big Tech," Bloomberg, https://www.bloomberg.com/opinion/articles/2019-03-11/glass-steagall-is-wrong-cure-for-facebook-and-google //DF

The tech sector is concentrated; its underlying economics may mean it naturally tends toward that structure. But concern that tech giants are entrenched is at odds with the historical record. It was not long ago that Netscape and Internet Explorer were dominant web browsers. A browser other than Google is just one click away — and the company knows it. And Facebook has been showing signs of trouble. According to a study by Edison Research released last week, **the company has reportedly lost 15 million users since 2017, with the biggest drop among people ages 12 to 34.** Politicians who profess to worry about Facebook's perpetual dominance should take notice. Glass-Steagall for Big Tech? Breaking up Google and Facebook? There is no compelling case for regulation this dramatic. If anything, politicians should be celebrating these companies as crown jewels of the American economy. And it's worth noting that just a few years ago, before populism swept over U.S. public life, they were doing exactly that.

The tech giants compete for our attention, which buys them ad revenue, so they are constantly motivated to keep innovating and keep costs low

Kennedy 17 Joe Kennedy [senior fellow at ITIF. For almost 30 years he has worked as an attorney and economist on a wide variety of public policy issues. His previous positions include chief economist with the U.S. Department of Commerce and general counsel for the U.S. Senate Permanent Subcommittee on Investigations.], 3-2017, "The Myth of Data Monopoly: Why Antitrust Concerns About Data Are Overblown," The Information Technology and Innovation Foundation, http://www2.itif.org/2017-data-competition.pdf //DF

To some extent, entry barriers are self-correcting. Firms do not pursue market share for nothing. Instead they pursue higher profits, wherever they can find them. But market share that leads to higher profits will also attract additional competitors seeking to break down entry barriers. More important, many companies face fierce competition and low entry barriers in their most lucrative markets. For example, **while some Internet platforms may appear to operate in different markets and therefore possess market power** (Facebook does not run Internet searches nor sell phone software and Amazon does not make phone hardware), **they compete fiercely for advertising dollars, which represent a large portion of their revenues.** In doing so, they face sophisticated and powerful consumers. Advertising firms and the companies they represent want to make sure that the billions they spend on advertising helps their bottom line. They look across media, including print, mail, television, radio, billboards, the Internet, and even skywriting to find the best value for their dollar. Many possess enough market power to negotiate for low rates and use sophisticated software to measure how effective they are at reaching and converting users. **The most relevant market, therefore, for most Internet platforms is not search, social networks, or other applications, but advertising, and in this market, these firms face low entry barriers and strong competition.** In the United States, Internet and mobile ad revenues only accounted for 35 percent of all advertising spending in 2015, and Google and Facebook accounted for 63 percent of that share.25 Despite the rapid growth in Internet advertising, a recent article in The Economist reports that the advertising industry is starting to push back against both Internet platforms and advertising brokers. Revelations of overbilling and misreporting the number of viewers have caused some companies to push for more transparency about how many viewers actually see their ads and in what context those views occur.26 As a result, **platforms are in a continual battle for**

user attention. Although Google is not a strong competitor to Facebook's personal pages, it does compete aggressively for the limited number of hours that users are able to spend on the Internet. The time you spend grooming your Facebook page is time you cannot spend watching YouTube videos. This means that it is also time that Google can't show you advertising. **Whereas a normal monopolist faces incentives to limit supply and raise prices, platforms need to continually attract new users by offering better services for free.** Moreover, the relevant market in this case is not the search or social network markets—the prices there are zero. The relevant market is the ad market, and there is plenty of competition

R/T Network Effects

1. Network effects both lower cost of goods because it gets easier to provide the service once you've done it for a while and increases the quality of goods

Kennedy 17 Joe Kennedy [senior fellow at ITIF. For almost 30 years he has worked as an attorney and economist on a wide variety of public policy issues. His previous positions include chief economist with the U.S. Department of Commerce and general counsel for the U.S. Senate Permanent Subcommittee on Investigations.], 3-2017, "The Myth of Data Monopoly: Why Antitrust Concerns About Data Are Overblown," The Information Technology and Innovation Foundation, http://www2.itif.org/2017-data-competition.pdf //DF

Virtually no one seriously argues that data-driven companies cannot benefit from network and/or scale effects. But proponents of maintaining the current approach to competition policy point out that these effects also deliver tremendous value to consumers and society, so regulators should be careful in regulating them. 18 With respect to data-intensive companies, many things argue for bigness, but this bigness benefits society. In many industries, marginal costs increase with higher production. Here, the supply curve slopes up. In contrast, **for most information-based industries, production costs fall dramatically to a point where the marginal cost is almost zero. As a result, these companies are able to lower the price they charge users**, at least until they attain a certain level of volume. For similar reasons, some people worry that as companies gain more access to information, they will be able to establish a dominant position because they will have achieved significant scale economies. 19 On the demand side, **network effects ensure that the value to each user rises as more users use the same service. The first Harvard students to use Facebook benefitted from it. But this benefit increased dramatically as the first billion users joined.** Again, these effects probably trail off after a certain point, but the value of Facebook would be diminished if half of your friends were still on MySpace and not Facebook. Economies of scale and network effects both increase consumer welfare by lowering costs and increasing value. And they do not necessarily ensure lasting market power

2. Network effects don't reduce competition for three reasons

a. Platform companies need to attract both sides of an exchange to succeed

Evans and Schmalensee 17 DAVID S. EVANS [chairman of the Global Economics Group and executive director of the Jevons Institute for Competition Law and Economics. He is currently a visiting professor at University College London] and RICHARD SCHMALENSEE [the Howard W. Johnson Professor of Economics and Management, Emeritus at MIT], "DEBUNKING THE 'NETWORK EFFECTS' BOGEYMAN," Regulation Journal, https://object.cato.org/sites/cato.org/files/serials/files/regulation/2017/12/regulation-v40n4-1.pdf //DF

Network effects are usually indirect, between different kinds of customers, rather than direct, for the same kind of customers. As Jean-Charles Rochet and Jean Tirole realized in their pioneering paper, "Many, if not most markets with network externalities are characterized by the presence of two distinct sides whose ultimate benefit stems from interacting through a common platform." That's obvious in the case of two distinct groups of customers, like smartphone users and app developers, but may still be true even when the customers all look the same. When YouTube started, for instance, ordinary people used it both to upload videos and to watch videos. A mom might upload a video of her child's first birthday party and then watch a cute cat video that someone else had put up. People played different roles at different times. Since some people are more likely to upload videos and others are more likely to watch videos, YouTube had to court both types of people to make the network successful and couldn't count on the fact that many people did both. Recognizing that network effects are often indirect is important for understanding platform businesses, including those that prop up the new economy. Multisided platforms can't come galloping out of the gates as envisioned by simple winner-take-all stories. They have to figure out how to get all sides on board in order to create any value at all. Starting a new platform is more like trying to solve a hard math problem than running a 5k. **YouTube didn't win the race to become the leading video sharing platform because it was first or because it got a nose ahead and vaulted to victory. It won because it figured out**, over a very difficult start-up period when it could well have failed, **the right formula for getting people to upload videos and getting people to view them.**

b. Companies need to attract the right customers, not just more customers

Evans and Schmalensee 17 DAVID S. EVANS [chairman of the Global Economics Group and executive director of the Jevons Institute for Competition Law and Economics. He is currently a visiting professor at University College London] and RICHARD SCHMALENSEE [the Howard W. Johnson Professor of Economics and Management, Emeritus at MIT], "DEBUNKING THE 'NETWORK EFFECTS' BOGEYMAN," Regulation Journal, https://object.cato.org/sites/cato.org/files/serials/files/regulation/2017/12/regulation-v40n4-1.pdf //DF

Network effects result from getting the right customers, and not just more customers. Platforms create value when customers find good matches and enter into exchanges. Density trumps scale for most platforms. That's because most customers on most platforms are not very good matches for each other. Scale helps, of course, because if there are more customers, the chance that any particular customer will find a good match increases. But for any particular customer, a smaller platform with many good matches is more attractive than a bigger platform with fewer good matches. **Simply building share is a naive and generally unsuccessful strategy for most online platforms.** Take OpenTable, which is now the leading platform for making reservations at fine dining establishments in the United States and a few other countries. When it launched in the late 1990s, its investors focused on signing on as many consumers and restaurants in the United States as quickly as possible. That was a losing strategy. What diners care about is finding the right restaurant nearby, and nearby diners are the people that restaurants care about. A Thai restaurant in Chicago isn't valuable to us if we want to go out to dinner at an Italian restaurant in Boston. OpenTable, which almost failed, pivoted and focused on creating dense demand for people and restaurants in individual cities. OpenTable also illustrates how platforms can succeed by specializing. It didn't strive to get all restaurants or all diners on its platform. It has concentrated on relatively high-end restaurants.

b. Network effects don't secure companies forever since it works in reverse

Evans and Schmalensee 17 DAVID S. EVANS [chairman of the Global Economics Group and executive director of the Jevons Institute for Competition Law and Economics. He is currently a visiting professor at University College London] and RICHARD SCHMALENSEE [the Howard W. Johnson Professor of Economics and Management, Emeritus at MIT], "DEBUNKING THE 'NETWORK EFFECTS' BOGEYMAN,"

Regulation Journal, https://object.cato.org/sites/cato.org/files/serials/files/regulation/2017/12/regulation-v40n4-1.pdf //DF

Network effects can work in reverse. Networks can have exponential growth when every additional customer attracts more customers. Unfortunately, the same principle can lead to exponential decline. Each lost customer induces other customers to leave, which induces more to leave. We see the physical manifestations of reverse network effects all across America in the form of dead or dying malls. Fewer people come to a mall, stores pull out of the mall, leading to even fewer people coming. The early literature on network effects didn't pay much attention to the potential for this reversal of fortune. Economists initially focused on physical networks, such as telephones, where physical connections and equipment made it harder for people to switch networks. It is much easier for people to switch online platforms. They can typically try a new platform without dropping the old one, probably for free, and gradually shift over if they like it. Adding or dropping a platform often just involves a few clicks. The history of communications platforms—messaging apps and social networks—over the last two decades illustrates the importance of reverse indirect network effects as well as the data that comes along with users. People value communications platforms that have more of the people with whom they want to interact. **A naive view of indirect network effects implies that a successful communications platform would be secure from competition because people wouldn't join or use a platform that didn't include most of their personal network. The flaw in that reasoning is that people can use multiple online communications platforms**, what economists call "multihoming." A few people in a social network try a new platform. If enough do so and like it, then eventually all network members could use it and even drop their initial platform. This process has happened repeatedly. AOL, MSN Messenger, Friendster, MySpace, and Orkut all rose to great heights and then rapidly declined, while Facebook, Snap, WhatsApp, Line, and others quickly rose. Competition is far more complex and interesting when we account for these three economic aspects of network effects. Doing so is essential for conducting antitrust analysis that is grounded in business realities.

4. If network effects truly can't be overcome now, then they will just re-emerge after these companies are broken up

Taylor 18 TImothy Taylor [Managing editor of the Journal of Economic Perspectives, based at Macalester College in St. Paul, Minnesota; Author of The Instant Economist: Everything You Need to Know About How the Economy Works; Author of Principles of Economics: Economics and the Economy, a introductory college textbook], 2-13-2018, "Network Effects, Big Data, and Antitrust Issues For Big Tech," Conservable Economist, http://conversableeconomist.blogspot.com/2018/02/network-effects-big-data-and-antitrust.html //DF

"The winner-take-all slogan also ignores the fact that many online platforms make their money from advertising. As many of the firms that died in the dot-com crash learned, winning the opportunity to provide services for free doesn't pay the bills. When it comes to micro-blogging, Twitter has apparently won it all. But it is still losing money because it hasn't been very successful at attracting advertisers, which are its main source of income. Ignoring the advertising side of these platforms is a mistake. Google is still the leading platform for conducting searches for free, but when it comes to product searches—which is where Google makes all its money—it faces serious competition from Amazon. Consumers are roughly as likely to start product searches on Amazon.com, the leading e-commerce firm, as on Google, the leading search-engine firm." It should also be noted that **if network effects are large and block new competition, they pose a problem for antitrust enforcement, too. Imagine that Amazon or Facebook was required by law to split into multiple pieces, with the idea that the pieces would compete with each other. But if network effects really are large, then one or another of the pieces will grow to critical mass and crowd out the others--until the status quo re-emerges.** A related argument is that big tech firms have access to Big Data from many players in a given market, which gives them an advantage. Evans and Schmalensee are skeptical of this point, too. They write: "Like the simple theory of network effects, the "big data is bad" theory, which is often asserted in competition policy circles as well as the media, is falsified by not one, but many counterexamples. AOL, Friendster, MySpace, Orkut, Yahoo, and many other attention platforms had data on their many users. So did Blackberry and Microsoft in mobile. As did numerous search engines, including AltaVista, Infoseek, and Lycos. Microsoft did in browsers. Yet in

these and other categories, data didn't give the incumbents the power to prevent competition. Nor is there any evidence that their data increased the network effects for these firms in any way that gave them a substantial advantage over challengers.

R/T Big Data

1. Just having lots of data immunize companies from competition and other companies creating better products

Evans and Schmalensee 17 DAVID S. EVANS [chairman of the Global Economics Group and executive director of the Jevons Institute for Competition Law and Economics. He is currently a visiting professor at University College London] and RICHARD SCHMALENSEE [the Howard W. Johnson Professor of Economics and Management, Emeritus at MIT], "DEBUNKING THE 'NETWORK EFFECTS' BOGEYMAN," Regulation Journal, https://object.cato.org/sites/cato.org/files/serials/files/regulation/2017/12/regulation-v40n4-1.pdf //DF

The winner-take-all slogan can claim to be based on the simple theory of network effects. One can't claim any theoretical foundation for the new slogans around "big data." The Economist proclaims that "the world's most valuable resource is no longer oil, but data." It then links data to network effects: "With data there are extra network effects. By collecting more data, a firm has more scope to improve its products, which attracts more users, generating even more data, and so on." As far as we know, there is no rigorous theoretical or empirical support for these statements. Like the simple theory of network effects, the "big data is bad" theory, which is often asserted in competition policy circles as well as the media, is falsified by not one, but many counterexamples. AOL, Friendster, MySpace, Orkut, Yahoo, and many other attention platforms had data on their many users. So did Blackberry and Microsoft in mobile. As did numerous search engines, including AltaVista, Infoseek, and Lycos. Microsoft did in browsers. Yet in these and other categories, data didn't give the incumbents the power to prevent competition. Nor is there any evidence that their data increased the network effects for these firms in any way that gave them a substantial advantage over challengers. In fact, firms that at their inception had no data whatsoever sometimes displaced the leaders. When Facebook launched its social network in India in 2006 in competition with Orkut, it had no data on Indian users since it didn't have any Indian users. That same year Orkut was the most popular social network in India, with millions of users and detailed data on them. Four years later, Facebook was the leading social network in India. Spotify provides a similar counterexample. When Spotify entered the United States in 2011, Apple had more than 50 million iTunes users and was selling downloaded music at a rate of one billion songs every four months. It had data on all those people and what they downloaded. Spotify had no users and no data when it started. Yet it has been able to grow to become the leading source of digital music in the world. In all these and many other cases **the entrants provided a compelling product, got users, obtained data on those users, and grew. The point isn't that big data couldn't provide a barrier to entry or even grease network effects**. As far as we know, there is no way to rule that out entirely. But at this point there is no empirical support that this is anything more than a possibility, which one might explore in particular cases.

2. Data is only as powerful as the people who use it, and good business decisions still determine who comes out on top

Kennedy 17 Joe Kennedy [senior fellow at ITIF. For almost 30 years he has worked as an attorney and economist on a wide variety of public policy issues. His previous positions include chief economist with the U.S. Department of Commerce and general counsel for the U.S. Senate Permanent Subcommittee on Investigations.], 3-2017, "The Myth of Data Monopoly: Why Antitrust Concerns About Data Are

Overblown," The Information Technology and Innovation Foundation, http://www2.itif.org/2017-data-competition.pdf //DF

The Limited Power of Data-Rich Firms The worry that enough data will make a firm all-knowing, able to see market opportunities, and preempt challengers, assumes a lot regarding the quality and quantity of the data as well as management's ability to interpret and act on the information. For one thing, **companies frequently make bad strategic decisions even when they have lots of information and strong incentives.** Although companies with significant market share have engaged in a large number of acquisitions, academic evidence shows that the vast majority of mergers have historically failed to earn a competitive rate of return.35 Data intensive companies have not been immune to miscalculation. Time Warner's purchase of AOL serves as just one example. More recently, Microsoft ended up writing off $13 billion after mergers with aQuantive and the mobile unit of Nokia both failed.36 Rather than contributing to market dominance, these mergers weakened the acquiring firm. For some companies their competitive advantage is the algorithm; for others, including some who are making their algorithms open source, it is the data. For the former case, IBM is training its cognitive computing system, Watson, to help analyze medical information, including the discovery of new drugs for immuno-oncology.37 To do this, it needs lots of data. But the data would be much less valuable without Watson's sophisticated artificial intelligence capabilities. Sometimes these algorithms are protected as intellectual property, but that does not prohibit competitors from trying to write better ones. And sometimes these algorithms are made public.38 For example, Google published the source code for its artificial intelligence engine, TensorFlow, to encourage others to find uses for it, and ways of improving it, which Google might not have considered. 39 But even the best algorithms can be defeated by poor business strategy. As an example, one ex-executive attributes the fall of MySpace largely to poor business decisions. 40

R/T Privacy Violations

1. Companies are very sensitive to ensuring a good user experience because people will stop using their services otherwise

Messer 19 Heidi Messer [technology entrepreneur and investor, is a co-founder of Collective], 5-23-2019, "Why We Should Stop Fetishizing Privacy," NYT, https://www.nytimes.com/2019/05/23/opinion/privacy-tech-companies.html //DF

Regulation also assumes that lawmakers understand how the internet operates. But many of the questions asked of the Facebook co-founder Mark Zuckerberg at his most recent congressional hearing reflected a staggering display of ignorance about the businesses that have fueled America's economic growth for over a decade. **Consumers**, on the other hand, potentially can **have more influence over these companies. When those companies violate the public's trust, the news travels fast** — often on the platforms themselves — **and people stop visiting the sites, causing them to lose revenue**. After a scary internet meme known as Momo spread, millions of parents unplugged their children from YouTube. Consumer uproar over a bug in FaceTime that allowed eavesdropping led to an emergency ad campaign by Apple. Privacy advocates often point to European privacy rules as a model for the United States. Under those rules, the General Data Protection Regulation , companies that operate in Europe or handle European data are required to obtain consent before collecting data. They also must provide users with the "right to be forgotten " — the ability to delete their information upon request.

2. Privacy won't be better served by smaller companies that also use our data

Messer 19 Heidi Messer [technology entrepreneur and investor, is a co-founder of Collective], 5-23-2019, "Why We Should Stop Fetishizing Privacy," NYT, https://www.nytimes.com/2019/05/23/opinion/privacy-tech-companies.html //DF

Innovation will also suffer. Our culture celebrates entrepreneurship and accepts failure as part of the process. As a result, the United States has been the architect of the new economy. But privacy evangelists have made villains of the very companies the world emulates. Rather than

debate how to expand this economic opportunity, they call for fettering it. The evangelists assert that regulating access to data or breaking up big companies will put that data back in our control. But this is naïve. **We share our photos, emails and other personal data daily. Almost any individual or company, big or small, can collect and misuse it. Size doesn't make a difference.** If safety is the actual goal of protecting privacy, consider this: Large tech companies may be our best line of defense against hackers, state surveillance and terrorists. These companies have the talent and resources to match well-funded and sophisticated adversaries. As the threat of cyberwarfare grows, shouldn't we consider whether it would be prudent to break up companies that are our best allies against foreign and criminal intrusion?

R/T Microsoft antitrust

Microsoft ultimately won their antitrust case and was only unseated in the tech market by competition from Google, which is still possible given the fast pace of technology

Duhigg 18 Charles Duhigg [Pulitzer-prize winning American journalist and non-fiction author. He was a reporter for The New York Times and is the author of two books on habits and productivity, titled The Power of Habit: Why We Do What We Do in Life and Business and Smarter Faster Better], 2-20-2018, "The Case Against Google," NYT, https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html //DF

For decades, there seemed to be a consensus among policymakers and business leaders (though not always among targeted companies) about how the antitrust laws should be enforced. But around the turn of this century, a number of tech companies emerged that caused some people to question whether the antitrust formula made sense anymore. Firms like Google and Facebook have become increasingly useful as they have grown bigger and bigger — a characteristic known as network effects. What's more, some have argued that the online world is so fast-moving that no antitrust lawsuit can keep pace. Nowadays even the biggest titan can be defeated by a tiny start-up, as long as the newcomer has better ideas or faster tech. Antitrust laws, digital executives said, aren't needed anymore. Consider Microsoft. The government spent most of the 1990s suing Microsoft for antitrust violations, a prosecution that many now view as a complete waste of time and money. When Microsoft's chief executive, Bill Gates, signed a consent decree to resolve one of its monopoly investigations in 1994, he told a reporter that it was essentially pointless for the company's various divisions: "None of the people who run those divisions are going to change what they do or think." Even after a federal judge ordered Microsoft broken into separate companies in 2000, the punishment didn't take. Microsoft fought the ruling and won on appeal. The government then offered a settlement so feeble that nine states begged the court to reject the proposal. It was approved. **What eventually humbled Bill Gates and ended Microsoft's monopoly wasn't antitrust prosecutions**, observers say, **but a more nimble start-up named Google**, a search engine designed by two Stanford Ph.D. dropouts **that outperformed Microsoft's own forays into search** (first MSN Search and now Bing). **Then those two dropouts introduced a series of applications, like Google Docs and Google Sheets, that eventually began to compete with almost every aspect of Microsoft's businesses. And Google did all that not by relying on government prosecutors but by being smarter**. You don't need antitrust in the digital marketplace, critics argue. "When our products don't work or we make mistakes, it's easy for users to go elsewhere because our competition is only a click away," Google's co-founder, Larry Page, said in 2012. Translation: The government ought to stop worrying, because no online giant will ever survive any longer than it deserves to. Once Foundem.com was available to everyone, the company's honeymoon lasted precisely two days. During its first 48 hours, the Raffs saw a rush of traffic from users typing product queries into Google and other search engines. But then, suddenly, the traffic stopped. Alarmed, Adam and Shivaun began running diagnostics. They quickly discovered that their site, which until then had been appearing near the top of search results, was now languishing on

Google, mired 12 or 15 or 64 or 170 pages down. On other search engines, like MSN Search and Yahoo, Foundem still ranked high. But on Google, Foundem had effectively disappeared. And Google, of course, was where a vast majority of people searched online.

Ben Thompson [, 3-12-2019, "Where Warren's Wrong," Stratechery by Ben Thompson, https://stratechery.com/2019/where-warrens-wrong/ //DF

Senator Warren opens the article by crediting the Microsoft antitrust case for the emergence of Google and Facebook: Twenty-five years ago, Facebook, Google, and Amazon didn't exist. Now they are among the most valuable and well-known companies in the world. It's a great story — but also one that highlights why the government must break up monopolies and promote competitive markets. In the 1990s, Microsoft — the tech giant of its time — was trying to parlay its dominance in computer operating systems into dominance in the new area of web browsing. The federal government sued Microsoft for violating anti-monopoly laws and eventually reached a settlement. The government's antitrust case against Microsoft helped clear a path for Internet companies like Google and Facebook to emerge. The story demonstrates why promoting competition is so important: it allows new, groundbreaking companies to grow and thrive — which pushes everyone in the marketplace to offer better products and services. Aren't we all glad that now we have the option of using Google instead of being stuck with Bing? Start with the most obvious error: **Bing was not even launched until 2009, eight years after the Microsoft case was settled.** MSN Search, its predecessor, did launch in 1998, but with licensed search results from Inktomi and AltaVista; Microsoft didn't launch its own web crawler until 2005 (these details will matter in a moment). What is more striking is that, in retrospect, the core piece of the government's case doesn't make any sense: of course a browser should be bundled with an operating system; a new computer without a browser would be practically useless (for one, how do you install a browser?). Moreover, Apple, not without merit, argues that restricting rendering engines to the one that ships with the OS (all browsers on iOS have no choice but to use the built-in rendering engine) has significant security benefits; this is debatable, but ultimately, most don't care, simply because browsers are means to information, not ends. This, crucially, is something Microsoft did not understand in the 1990s; Microsoft's operating system monopoly was predicated on owning the APIs with which applications were built, creating both lock-in and an ever expanding network effect. Unsurprisingly, Microsoft viewed the web through this exact same lens; that meant that Netscape was a threat because it was "middleware", a potential means to run applications that were not locked into Windows. This is true, by the way — web apps work across operating systems and browsers — but this fact has absolutely nothing to do with the rise of Google. After all, when Google IPO'd in 2004, Internet Explorer had 95% market share; a browser was a means, not an end. The reality is that Google is an operating system of sorts, but the system is not a PC but rather the entire web; what ties things together are not APIs, but links. And, crucially, the business model that makes sense is not licensing, but advertising. This is a value chain that never even occurred to Microsoft, and why would it? The entire company was predicated on controlling operating systems for physical computers, controlling the APIs on top, and earning revenue through licensing; it was fabulously profitable, and as history shows again and again, being fabulously profitable with an existing value chain is the best way to not only fail to recognize a new market opportunity (Microsoft didn't even have a web crawler until after Google's IPO!), but to in fact be at a massive disadvantage when you finally do so. Look no further than mobile: Microsoft was not encumbered by antitrust when it came to their mobile ambitions, and yet they failed even more spectacularly there than they did online. In this case the company didn't "miss" the opportunity — Windows Mobile came out back in 2000 — it was just stuck in a PC mindset when it came to product development, attached to its Windows licensing model when it came to monetization, and institutionally incapable of producing superior end user experiences thanks to the company's traditional focus on platforms and compatibility. In short, to cite Microsoft as a reason for antitrust action against Google in particular is to get history completely wrong: Google would have emerged with or without antitrust action against Microsoft; if anything the real question is whether or not Google's emergence shows that the Microsoft lawsuit was a waste of time and money.

Breakup up Microsoft didn't spur innovation on the internet because Microsoft wasn't trying to corner the internet

Lowry 19 Rich Lowry [editor of National Review and a contributing editor with Politico Magazine], 3-13-2019, "Don't Break Up Big Tech," POLITICO Magazine, https://www.politico.com/magazine/story/2019/03/13/dont-break-up-big-tech-225808 //DF

Warren's idea to cleave off the platforms of the tech companies and have them run as "platform utilities" separate from the rest of their business is unworkable and is justified by a series of errors and misjudgments. It's not true, as Warren asserts, that the antitrust suit against Microsoft in the 1990s opened up the space for Google and Facebook to thrive. **Microsoft**

never got the internet, and left the space open for Google and Facebook all by itself, as often happens with a large incumbent wedded to its successful business model (**in Microsoft's case, based on physical computers**). She charges that the tech companies use mergers to limit competition and cites as an example Facebook's acquisition of WhatsApp. It's hard to discern the harm here. When the social network bought it, WhatsApp was available for a fee. Now it's free and more people use it than ever before. What's the problem?

R/T Facebook-WhatsApp merger

Not only was Facebook's acquisition of WhatsApp harmless, it actually benefited the consumer by enabling WhatsApp to provide service for free

Lowry 19 Rich Lowry [editor of National Review and a contributing editor with Politico Magazine], 3-13-2019, "Don't Break Up Big Tech," POLITICO Magazine, https://www.politico.com/magazine/story/2019/03/13/dont-break-up-big-tech-225808 //DF

It's not true, as Warren asserts, that the antitrust suit against Microsoft in the 1990s opened up the space for Google and Facebook to thrive. Microsoft never got the internet, and left the space open for Google and Facebook all by itself, as often happens with a large incumbent wedded to its successful business model (in Microsoft's case, based on physical computers). She charges that the tech companies use mergers to limit competition and cites as an example Facebook's acquisition of WhatsApp. It's hard to discern the harm here**. When the social network bought it, WhatsApp was available for a fee. Now it's free and more people use it than ever before.** What's the problem? She calls out Google for allegedly killing off its competitors by burying them in its searches. It's not obvious that Google actually does this, although its search business inherently involves constantly making choices to try to best serve what people want to see. No government regulator is going to make Google's searches better, or is qualified to even try.

R/T Amazon-Whole Foods merger

Buying Whole Foods doesn't give Amazon a monopoly over food retail, it actually does the opposite by forcing their competitors to innovate more

Lowry 19 Rich Lowry [editor of National Review and a contributing editor with Politico Magazine], 3-13-2019, "Don't Break Up Big Tech," POLITICO Magazine, https://www.politico.com/magazine/story/2019/03/13/dont-break-up-big-tech-225808 //DF

By the same token, it's not going to help anyone to have iPhones that no longer come with or sell Apple apps. And would people really appreciate having to go to two different Amazons, one just a platform, one selling Amazon products? This is all silly, as are the mergers that Warren pledges to break up, including Amazon's acquisition of Whole Foods. Under what theory is something untoward? **Amazon doesn't have anything close to a monopoly in food retail. Rather than taking over the sector, it's spurring investment and innovation. The nation's largest supermarket chain, Kroger** was founded in 1883. It **was slated to increase its spending on investment 200 percent in 2018**, developing a self-checkout app and robot delivery, **precisely because the space is so competitive**. We've seen the same effect in retail. Falling behind Amazon, Target invested massively on improving across the board, and in one quarter in 2018, had its best sales

growth in more than a decade. This past holiday season it sought to one-up Amazon by offering free two-day shipping. This is the market working, not getting short-circuited.

R/T No Innovation

Big tech companies produce huge innovations, and the motivate smaller companies to innovate and get bought up by them

Cowen 19 Tyler Cowen [Ph.D., holds the Holbert L. Harris Chair in Economics at George Mason University. He is the author of a number of textbooks and other thought-provoking works, including *The Complacent Class*, as well as writing the most-read economics blog worldwide, marginalrevolution.com], 2019 "Big Business: A Love Letter to an American Anti-Hero," St. Martin's Press, pages 102-103, 107-109, 116-117 //DF

A new set of charges, however, comes from another direction: that the major tech companies dominate their platforms and therefore may be stifling innovation. For instance, if Google controls search and Facebook dominates one segment of social networking, maybe those companies won't work so hard to introduce new services. Furthermore, those large and successful companies may be evolving into stultifying bureaucracies, afraid that new ideas might transform the market and threaten their dominance. To cite a possible example, if social networking becomes the primary means for accessing artificial intelligence (AI), maybe Facebook would lose its dominant market position to some other company better at AI, and in turn Facebook might steer the market away from AI to protect its current position. A related fear is that large, monopolizing tech companies will buy up potential upstart competitors, with the foreclosing of potential competition. Indeed, we've seen Google buy over 190 companies, including DejaNews, YouTube, Android, Motorola Mobile, and Waze, while Facebook has bought up Instagram, Spool, Threadsy, and WhatsApp, among numerous others, and purchased intellectual property from former rival Friendster. In theory, you can imagine how those arguments might carry some weight. Yet **[1] in practice the major tech companies have proven to be vigorous innovators.** Furthermore, **[2] the prospect of being bought up by Google or one of the other tech giants has boosted the incentive for others to innovate**, and it has given struggling companies access to capital and expertise when they otherwise might have folded or never started in the first place.

Other than giving me the best free search in the world, what does Google do for me? Well, I use Gmail, one of the best and biggest email services in the world, and it is completely free. Anyone can set up a Gmail account and begin using it immediately. That possibility would have astonished us as recently as the 1980s. Google also has taken a lead role in developing self-driving vehicles. While I don't expect Google to become a major manufacturer of such cars, they put in key work on the underlying artificial intelligence, scanners, road mapping, programs, and other features of the service. They also helped make the idea publicly acceptable, in part by having driverless Google cars take people to work for years. While it is debated exactly when driverless cars, trucks, and buses will be ready for regular use, by now it is a debate over when rather than whether. Twenty years ago, or maybe even ten years ago, very few people expected that, and Google has helped pave the way for this progress. Self-driving vehicles arguably will be the biggest and most important technological breakthrough since the internet. They hold out the promise of seriously limiting the number of car deaths, easing commutes, and making many of the elderly, the disabled, and the young far more mobile across space. Another innovation, still a work in progress and from Alphabet rather than Google more narrowly, is the use of hot-air balloons to give an area internet access, also known as Project Loon. This was used after Hurricane Maria in 2017 to restore internet access in Puerto Rico and may end up being important in remote areas of Africa as well. Perhaps the value proposition here remains uncertain, but it is a bold attempt to create a better and more connected living situation for some of the world's more vulnerable people. It does seem that the technology works, though at what cost or sustainability we do not yet know. The work of Google and Alphabet on robotics also has not yet shown a real payoff, as far as outsiders can tell. Even some of Google's failures will

likely prove to be of use. Google Glass, the wearable device intended to integrate a goggles experience with internet access and viewing, failed. Still, this was a learning step in the broader development of wearable devices and a stepping-stone for others, or maybe Google/Alphabet itself, to build on. Google significantly upgraded YouTube after buying the company. At the time, it was considered a very risky purchase, and many commentators suggested that Google was crazy to pay $1.65 billion for a company that, at the time, had very little revenue. Furthermore, YouTube appeared to be a cesspool for comments and a bottomless pit for copyright violation suits. What did Google do? They cleaned up the legal issues, using their advanced software capabilities to spot potential copyright violations, and they enforced takedown requests. They also improved search on YouTube. Perhaps most important, Google invested heavily in the technology that made video so widely used on the internet today. When Google bought YouTube, video on the internet often was slow, interruptions were frequent, and you had to engage in a process of buffering, which meant you either had to preload the video or put up with starts and stops in your watching experience. By figuring out and investing in ways of shortening the path of video transmission, Google made video watching on the internet far more efficient. Many different parts of the internet benefited from these advances. Today YouTube is also a leader for academic video and online education, far beyond what it was before the Google purchase. When Alex Tabarrok and I started our online economics education site, Marginal Revolution University (MRUniversity.com), do you know where we decided to place the content? You probably can guess: YouTube. How much did Google charge us for this service? Absolutely nothing, nor does it charge the users anything, nor is our product connected with advertisements, either for Google, for us, or for any third party. This means that users around the world, in any non-censoring country, can access all kinds of video-based educational resources for free. Google and cell phones for a long time did not seem to be an obvious combination. Yet in 2005 Google purchased Android and elevated the company's open-source system to the most commonly used cell phone software in the entire world. Other companies have since modified and arguably improved this software, so Google probably has not been the major beneficiary of its own actions. Because of the Google-Android combination, hundreds of millions of people have enjoyed better and cheaper smartphones. More generally, Google has made most of their software open-source, enabling others to build upon it with additional advances; there are entire companies devoted to helping other companies build upon Google's open-source software.

To consider a third major tech company: Apple too continues to be a major innovator, in spite of its reputation to the contrary. Not only does Apple [has] have three truly major developments under its belt—personal computers, smartphones, and smart tablets—but the company continues to try to drive further advances. The future of the Apple Watch remains uncertain, but at the very least it is a major achievement along the path of developing higher-quality and more practical internet-connected wearables; its millions of users already find it a convenient way to receive messages and track and measure certain aspects of their behavior. Apple Pay is a major player in fintech, and millions of people use it to pay for goods and services with a simple swipe at a terminal. Even if that doesn't prove to be the winning technology, it is a stepping-stone for the later improvements of others. Or look at Amazon. The company started off selling books but moved to many different sectors of retail. It innovated by showing that it made sense to allow[ing] used books to compete alongside new product, thereby lowering prices for the millions of customers wishing to buy the used copies. Amazon has constructed what is arguably the world's best logistics network ever and these days is working on the use of drones to deliver packages. Whether or not that succeeds, or is allowed by the regulators, it is a bold attempt at innovation. Amazon's work in cloud computing has driven that market and made it much easier for other innovators to rapidly scale their businesses. Amazon also pioneered home artificial intelligence with Alexa: just speak to it and it will do your bidding as well as the software allows. Expect upgrades. And Kindle—well, that was an Amazon innovation too. Amazon's cell phone didn't work out, but as with the other tech companies, Amazon's overall record shows how hard it is trying to improve our lives with better products. It's now trying to innovate, if that is the correct word, by showing that brick-and-mortar bookstores can still make good economic sense. The principles Amazon uses for choosing and displaying titles are very different from those of traditional bookstores, as they rely more on data generated through Amazon. We'll see if they succeed.

Large firms innovate better than small firms for a number of reasons

Economist 11 12-17-2011, "Big and clever," Economist, https://www.economist.com/business/2011/12/17/big-and-clever //DF

Joseph Schumpeter, after whom this column is named, argued both sides of the case. In 1909 he said that small companies were more inventive. In 1942 he reversed himself. **[1] Big firms have more incentive to invest in new products**, he decided,

because they can sell them to more people and reap greater rewards more quickly. In a competitive market, inventions are quickly imitated, so a small inventor's investment often fails to pay off. These days the second Schumpeter is out of fashion: people assume that little start-ups are creative and big firms are slow and bureaucratic. But that is a gross oversimplification, says Michael Mandel of the Progressive Policy Institute, a think-tank. In a new report on "scale and innovation", he concludes that today's economy favours big companies over small ones. Big is back, as this newspaper has argued. And big is clever, for three reasons. First, says Mr Mandel, **[2] economic growth is increasingly driven by big ecosystems** such as the ones that cluster around Apple's iPhone or Google's Android operating system**. These ecosystems need to be managed by a core company that has the scale and skills to provide technological leadership**. Second, **[3] globalisation puts more of a premium on size than ever before.** To capture the fruits of innovation it is no longer enough to be a big company by American standards. You need to be able to stand up to emerging-world giants, many of which are backed by something even bigger: the state. Third, many **[4] of the most important challenges for innovators involve vast systems**, such as education and health care, or giant problems, such as global warming. **To make a serious change to a complex system, you usually have to be big.** If true, this argument has profound implications for policymakers (though Mr Mandel does not spell them out). Western governments are obsessed with promoting small businesses and fostering creative ecosystems. But if large companies are the key to innovation, why not concentrate instead on creating national champions? Anti-trust regulators have strained every muscle to thwart the creation of monopolies (for example, by preventing AT&T, a telecoms firm, from taking over the American arm of T-Mobile). But if one behemoth is likely to be more innovative than two smaller companies, why not allow the merger to take place? What should we make of Mr Mandel's argument? He is right that the old "small is innovative" argument is looking dated. Several of the champions of the new economy are firms that were once hailed as plucky little start-ups but have long since grown huge, such as Apple, Google and Facebook. (In August Apple was the world's largest listed company by market capitalisation.) **American firms with 5,000 or more people spend more than twice as much per worker on research and development as those with 100-500.** The likes of Google and Facebook reap colossal rewards from being market-makers rather than market-takers. **[5] Big companies have a big advantage in recruiting today's most valuable resource: talent.** (Graduates have debts, and many prefer the certainty of a salary to the lottery of stock in a start-up.) Large firms are getting better at avoiding bureaucratic stagnation: they are flattening their hierarchies and opening themselves up to ideas from elsewhere. Procter & Gamble, a consumer-goods giant, gets most of its ideas from outside its walls. Sir George Buckley, the boss of 3M, a big firm with a 109-year history of innovation, argues that companies like his can combine the virtues of creativity and scale. 3M likes to conduct lots of small experiments, just like a start-up. But it can also mix technologies from a wide range of areas and, if an idea catches fire, summon up vast resources to feed the flames.

Not only do these compaines spend billions innovating themselves, but their competitors are also innovating in order to get ahead of them

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By the same token, it's not going to help anyone to have iPhones that no longer come with or sell Apple apps. And would people really appreciate having to go to two different Amazons, one just a platform, one selling Amazon products? This is all silly, as are the mergers that Warren pledges to break up, including Amazon's acquisition of Whole Foods. Under what theory is something untoward? Amazon doesn't have anything close to a monopoly in food retail. Rather than taking over the sector, it's spurring investment and innovation. The nation's largest supermarket chain, Kroger was founded in 1883. It was slated to increase its spending on investment 200 percent in 2018, developing a self-checkout app and robot delivery, precisely because the space is so competitive. We've seen the same effect in retail. Falling behind Amazon, Target invested massively on improving across the board, and in one quarter in 2018, had its best sales growth in more than a decade. This past holiday season it sought to one-up Amazon by offering free two-day shipping. This is the market working, not getting short-circuited. The tech giants aren't stand-pat companies. The top five spenders in research and

development in 2017 were all tech companies. Amazon alone spent more than $22 billion. **The development of autonomous vehicles, artificial intelligence and voice recognition wouldn't be nearly as advanced as they are now if it weren't for the work of Google and Amazon**. The behemoth of yesteryear, General Electric, isn't making these investments. None of this is to deny that there are genuine concerns about tech companies. They need rules for content that honor viewpoint-neutrality and the spirit of the First Amendment, and perhaps there should be tighter regulations around privacy. Their business practices aren't above scrutiny. But any real offenses should be addressed with fixes addressing specific conduct, rather than with a massive politically imposed reorganization across the industry.