

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

Our sole contention is the kill zone.

The allowed growth of tech giants has stemmed future competition in two ways.

1. Disincentivizing entry. [Galloway of Esquire in 2018](#) reports that big tech scares competitors from entering the market and startups are forced to pitch themselves as harmless to tech giants in order to survive.
2. Disincentivizing growth. [Murray of the Competitive Enterprise Institute in 2019](#) explains that because big tech has the capability to destroy companies, startups have no incentive to pose a threat.
3. Buyouts. [Solon of the Guardian in 2017](#) reports that since companies know they can't compete with big tech, the goal of some companies is to simply be acquired. Unfortunately, [Smith of Bloomberg in 2018](#) adds that big tech often leaves acquired companies to simply wither on the vine post-acquisition.

Overall, [Smith of Bloomberg in 2018](#) writes that big tech has formed a kill zone where startups are prevented from growing. [Hathaway in 2018](#) quantifies this phenomenon, finding that in the areas big tech dominates, venture-capital financing has dropped by as much as 40% per year. Furthermore, TechCrunch in 2014 finds that seed-stage deals have fallen sharply since 2014 by nearly 50% as Doctrow in 2018 explains VC investors have had enough of lowball buyout offers. [Smith](#) further explains that the number of high-growth startups has fallen since the early 2000s, with big platform owners not picking up the slack. Thus, [Brookings quantifies in 2019](#) that the number of startups as a percentage of all US businesses, which factors in variables like population growth and economic recovery, has been falling since 2006.

The kill zone is nothing new. [Solman of PBS in 2019](#) explains that 20 years ago, the kill zone was around tech giant Microsoft. Luckily, [Duhig of the New York Times in 2018](#) writes that the 2000s government antitrust lawsuit leveraged on Microsoft forced Microsoft to watch its step, giving startup Google a chance to overtake Microsoft. Unfortunately, without antitrust enforcement, the kill zone is here to stay. [The Economist in 2017](#) reports that tech giants have better data than ever to predict rivals, superior employee recruitment, and no new platform that could potentially disrupt the incumbents.

Luckily, enforcing antitrust solves because [Feiner of CNBC reports in June](#) that the DOJ's antitrust chief has explained it will crack down on big tech giants, namely, with a focus on preventing mergers and acquisitions that are aimed at harming competition.

Preventing the consolidation of tech via acquisitions has two impacts.

1. Jobs. [TechCrunch in 2018](#) explains that because big tech companies operate on economies of scale, they've become ruthlessly good at killing jobs. [Pool of ScienceProgress in 2011](#) quantifies that nearly all net job creation in the economy comes from startups, while tech giants tend to lose net jobs. Overall, the [2007 Census](#) reveals that startups created 8 million jobs in 2007 alone. The [economic innovation group](#) notes that in 2014, missing new companies cost the U.S. nearly one million jobs. Missing new companies in Startups are the backbone of our economy.
2. Innovation. [Otto of UMass Dartmouth in 2013](#) explains startups have less bureaucratic inertia and more directly benefit from their work, incentivizing more innovation. Indeed, [Duhigg of the New York Times in 2018](#) concludes that without the Microsoft lawsuit, we would use Bing, unaware that a better alternative existed. [Otto](#) concludes empirically that products from startups exhibit more characteristics of innovation than those developed by incumbents. With the current buyout culture **the economist** writes that startups have shifted away from true innovation into just trying to make small morsels that can be bought up by large companies.

Overall, without competition to check back on big tech, [Mims of the Wall Street Journal in 2019](#) concludes that tech companies have caused disastrous outcomes. For instance, Google has Holocaust denialism and Facebook has bourne responsibility for the genocide in Myanmar and reordered global democracy through fake news. Without viable competition on these platforms, consumers don't get to pick a platform that delivers both efficiency and safety.

- 3.
4. [The Economist in 2018](#) further explains that big tech companies scare off potential venture capitalists from innovative companies.
5. However, [Yglesias of Vox in May](#) notes that while this type of enforcement would change merger approval rules, it would not necessarily impact the behavior of existing tech giants.
6. However, [Yglesias of Vox in May](#) notes that while this type of enforcement would change merger approval rules, it would not necessarily impact the behavior of existing tech giants.
7. Consumer welfare. [Thompson of Stratechery in 2016](#) reports that as competitors continue to die, the tech giants become monopolists, disincentivizing tech giants from providing superior user experiences. Indeed, [Mims of the Wall Street Journal in 2019](#) explains that monopolists will only innovate to the point they have brought in the monopoly number of customers, whereas with competition, they continually need to innovate to bring back the share they've lost.
8. Theft. [Khan of NPR in 2019](#) explains tech giants often steal ideas from startups, making startups less likely to innovate as big tech would appropriate the rewards. [WIRED Magazine in 2017](#) provides the example of Facebook copying Foursquare, which according to [Mashable](#), forced Foursquare to abandon their app.
9. Indeed, [media scholar Jonathan Taplin in 2018](#) writes that the very notion that a startup with a search engine could compete with Google today is laughable.

Technology definition -

We recognize that antitrust enforcement on firms in the US expands beyond the scope of just firms concentrated in “the big four” of Apple, Google, Amazon, and Facebook. This is why we define “technology” as, according to Encyclopedia Britannica, “Technology, [is] the application of scientific knowledge to the practical aims of human life or, as it is sometimes phrased, to the change and manipulation of the human environment.”

As a result, we find technology giants to be large growing companies who develop and utilize scientific knowledge to manipulate their respective markets, for example, the pharmaceutical industry with biotech firms.

Mergers Reduce R&D for innovation -

Haucap 2016 from DICE in 2016 explains that

Justus Haucap and Joel Stiebale, 2016, “How mergers affect innovation: Theory and evidence from the pharmaceutical industry,” Düsseldorf Institute for Competition Economics,

<https://www.econstor.eu/bitstream/10419/130193/1/856561223.pdf> //SD

It’s not unexpected that **merging companies reduce their R&D spending following a merger.**

That may be due to the cost savings of pooling efforts and combining their labs. Research has shown that **[as a result,] pharma mergers reduce innovation.** But what’s surprising and troubling is that our new evidence shows that the merging companies’ competitors also spend less on R&D after the merger. Hence, industry competition and innovation become less dynamic overall.

For example, Comanor from Harvard University explains in 2011 that

William S. Comanor, November 2011, “Mergers and Innovation in the Pharmaceutical Market,” Harvard Kennedy School //SD (PDF)

The consequences of the two recent large mergers have been distinctly negative. **Before their merger, [pharmaceutical companies] Pfizer and Wyeth together were investing approximately \$11.3 billion in R&D annually, while post-merger they spent \$9.4 billion in 2010 and announced plans to reduce spending still further to between \$6.5 and \$7 billion by 2012.⁶¹ This implies a decline of [by] 57 to 62 percent from prior levels.** At a minimum, one major Pfizer R&D laboratory will be closed and another substantially downsized.⁶² Similarly, Merck announced that it would close at least three R&D facilities, but with the total R&D spending reduction left unspecified.⁶³ The effects of these mergers on R&D spending and employment were clearly negative, implying a reduction in the degree of parallelism in drug development.

Specifically, Haucap states

Justus Haucap and Joel Stiebale, 2016, “How mergers affect innovation: Theory and evidence from the pharmaceutical industry,” Düsseldorf Institute for Competition Economics,

<https://www.econstor.eu/bitstream/10419/130193/1/856561223.pdf> //SD

To be more precise, we analyzed 65 pharma mergers that were all scrutinized, but eventually approved, by the European Commission and also other jurisdictions. We wanted to know measurements of innovation (such as R&D spending and resulting patents) change after a merger for both the merging parties and for their rivals.

What makes our study unique is that we compared firms’ innovation activities not only before and after acquisitions, but we also compared those merging companies to firms in similar pharmaceutical markets without merger activities. Our results very clearly show that R&D and patenting within the merged entity decline substantially after a merger, compared to the same activity in both companies beforehand. Then we applied a market analysis, the same one used by the European Union in its models, to analyze how the

rivals of the merging firms change their innovation activities afterward. On average, patenting and R&D expenditures of non-merging competitors also fell — by more than 20% — within four years after a merger.

Therefore, pharmaceutical mergers seem to **substantially reduc[ing] innovation activities in the relevant market as a whole.**

That's damning for the NEG because Parancias of HINJ 2014 reports that

Dean J. Parancias, American Life, 12-18-2014, "The Value of Medical Innovation: Saving Lives, Saving Money," No Publication,

<http://hinj.org/the-value-of-medical-innovation-saving-lives-saving-money/> //WAR à NM

Therefore, developing new treatments, cures and health technologies is one of the most important steps we can take — not only to save lives and improve the quality of life, but also to avoid the expenditure of enormous amounts of health care dollars. How much savings does medical innovation produce? There is not one, simple answer to that question. However, there are numerous academic and government statistics that point to the economic benefits of innovation in the health-care marketplace. In a paper published by the [Journal of Political Economy](#) in 2006, it was estimated that over the preceding 50 years, medical innovation had been the source of nearly half of all economic growth in the United States. **Impressively, for every dollar spent on innovative medicines, total healthcare spending is reduced by \$7.20, according to an NBER paper.** As for the price of medicine in America, only 9 cents of every health care dollar spent in America goes to medicines, [according](#) to the Centers for Medicare & Medicaid Services (CMS) in 2013. The other 91 cents goes to hospitals, physicians, clinics, long-term care facilities, and government administration and net cost of health insurance. Imagine if we could use that 9 cents to reduce the remaining 91 cents or even avoid significant portions of it in the first place. The result would be saved lives and even greater health-care savings.

M&As increase pharma bargaining power - Kacik 2017 of Modern Healthcare finds

Alex Kacik, 12-28-2017, "The amount spent on meds has nearly doubled in the past 30 years as pharma profits soar.," Modern Healthcare, <https://www.modernhealthcare.com/article/20171228/NEWS/171229930> //NM

The GAO found that much of the rise in drug spending, which is expected to increase by nearly 8% in 2018, was fueled by the use of expensive brand-name drugs, although some pharmaceutical companies have increased generic drug prices as well. Also, limited competition has inflated drug prices while consolidation among some of the largest pharmaceutical companies has stifled research and development spending and new patents issued, research shows. **Mergers and acquisitions in the pharmaceutical space have also been linked to rising drug prices. For both brand-name and generic manufacturers, expanding the size of their drug portfolio [and] may improve their bargaining position with pharmacy benefit managers, which negotiate rebates with pharmaceutical companies on behalf of payers, process claims and negotiate tiered networks where the beneficiaries can fill prescriptions.** But how that translates to cost to the consumer is hazy, given that there is no transparency into these negotiations. "The rebates never make their way to the provider or consumer," Knoer said.

Consequently, The Institute of Health and Socio-Economic Policy in 2016

IHSP. October 17, 2016. "Marching Toward Monopoly – Mergers and Acquisitions in the Pharmaceutical Industry." IHSP

<https://www.nationalnursesunited.org/sites/default/files/nnu/files/pdf/research/MarchingTowardMonopoly-PharmaMA10-17-16.pdf> //NM

For the past two decades, pharmaceutical corporations have been on a dizzying buying spree, spending \$1.7 trillion on nearly 2,500 deals acquiring competing firms and their drugs.¹ The frenzy of mergers and acquisitions has transformed the corporate makeup of the industry – of the 42 firms that were members of the Pharmaceutical Research and Manufactures of America in 1988, the industry's lobbying group, only 11 exist today.² Pfizer alone has spent nearly \$348 billion on buyouts and mergers since 1995, more than double its total earnings from that time period.³ The impulse behind investing such huge sums in buying out competitors is clear – it is profitable. As the number of merges exploded from 2002 to 2015, the profits of the top 50 pharmaceutical firms soared 58%⁴, and many of the firms most active in the M&A bonanza have been rewarded with swelling stock prices.⁵ This trend toward consolidation shows no signs of slowing down. Indeed, since the beginning of the year, US pharmaceutical firms have raised more than \$50 billion in new debt to gear up for the next round of acquisitions, an amount only exceeded once in the last two decades.⁶ While mergers have helped drug companies grow their profits and stock prices, the effects on the public are far from beneficial. **The consolidation of market power achieved through its \$1.7 trillion investment in mergers has allowed drug companies to push through unsustainable price increases without fear of being undercut by competition. The US Government Accountability Office came to this conclusion, stating in a 2009 report that industry consolidation was the likely cause for extraordinary increases in drug prices. ⁷ As a result, the costs for prescription drugs have exploded, rising 303% since the early 1990s.⁸** Pharmaceutical mergers have also been shown to reduce the amount and productivity of research at the merging firms.⁹ What's more, mergers significantly diminish the amount of research and development

(R&D) and innovation at rival firms as well, dragging down expenditures in patenting and R&D by more than 20%. 10 By raising prices and reducing innovation, M&A activity in the pharmaceutical industry is causing financial strains for patients and health systems, reducing access to lifesaving medications, and slowing output of the next generation drugs.

The impact is devastating for consumers - Bresnick 2017 concludes that

Jennifer Bresnick, September 11, 2017 -, "Cost is a Primary Driver of Medication Non-Adherence Rates," Health IT Analytics,

<https://healthitanalytics.com/news/cost-is-a-primary-driver-of-medication-non-adherence-rates/> //SD à NM

The high cost of prescription drugs is what drives 67 percent of patients into medication non-adherence, according to the latest Truven Health Analytics-NPR Health Poll, contributing to a multi-billion-dollar issue that is of particular concern for population health management initiatives. Ninety-four percent of patients with incomes under \$25,000 per year stated that they did not fill or pick up their prescriptions due to the expenses involved, and more than 12 percent said that costs had led them to stop taking a medication before a provider recommended ending the treatment.

And Brody from the New York Times in 2017 reports

Jane Brody, 04-17-17. New York Times. "The Cost of Not Taking Your Medicine"

<https://www.nytimes.com/2017/04/17/well/the-cost-of-not-taking-your-medicine.html> //SD à NM

The numbers are staggering. Studies have consistently shown that 20 percent to 30 percent of medication prescriptions are never filled, and that approximately 50 percent of medications for chronic disease are not taken as prescribed." according to a review in Annals of Internal Medicine. People who do take prescription medications — whether it's for a simple infection or a life-threatening condition — typically take only about half the prescribed doses. This lack of adherence, the Annals authors wrote, is estimated to cause approximately 125,000 deaths and at least 10 percent of hospitalizations, and to cost the American health care system between \$100 billion and [up to] \$289 billion a year. Studies have shown that a third of kidney transplant patients don't take their anti-rejection medications, 41 percent of heart attack patients don't take their blood pressure medications, and half of children with asthma either don't use their inhalers at all or use them inconsistently. Cost is another major deterrent. "When the co-pay for a drug hits \$50 or more, adherence really drops." Dr. Bender said. Or when a drug is very expensive, like the biologics used to treat rheumatoid arthritis that cost \$4,000 a month, patients are less likely to take them or they take less than the prescribed dosage, which renders them less effective.

Thankfully, affirming is the best chance at reducing pharma mergers

Carrier 2016 of Rutgers Law School argues the Trump Administration

Michael A. Carrier (Contact Author), 12-5-2016, "Pharmaceutical Antitrust: What the Trump Administration Can Do by Michael A. Carrier :: SSRN," No Publication, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2880184 //NM

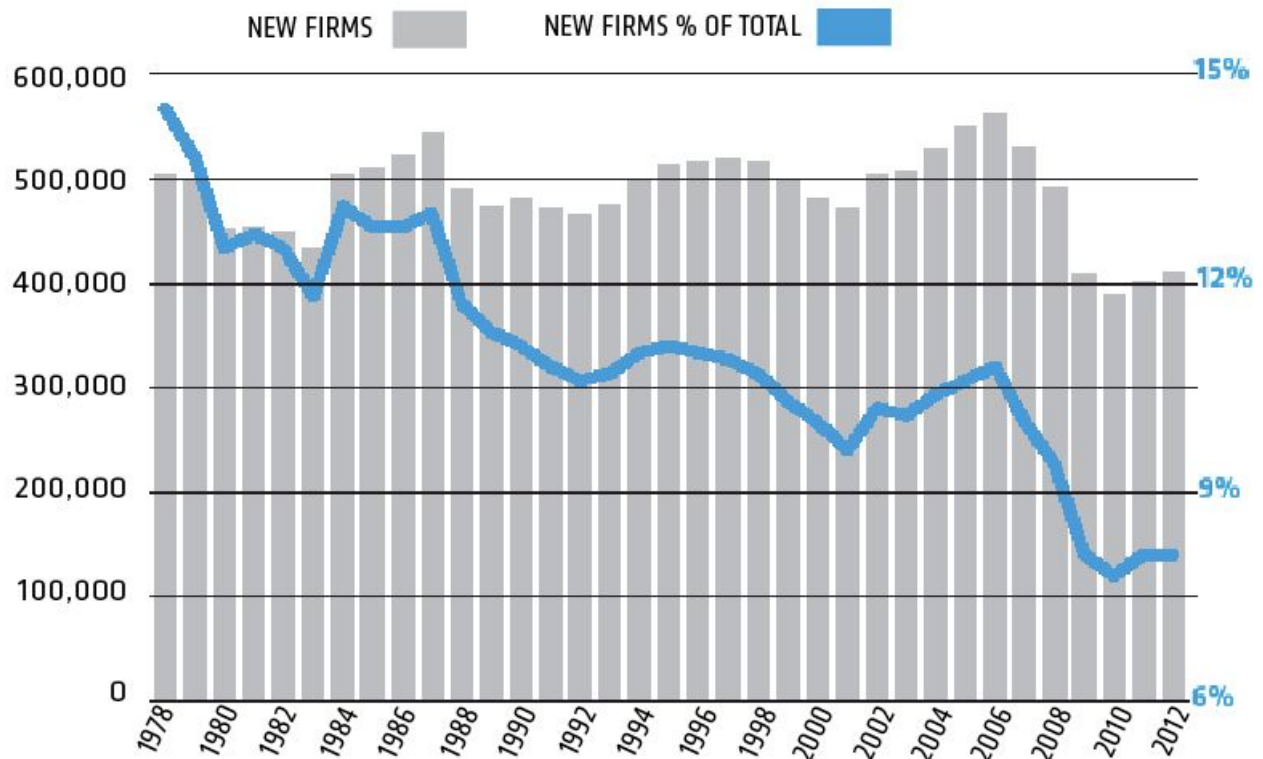
Drug prices are in the news. "Pharma Bro" Martin Shkreli increased the price of Daraprim, a treatment for fatal parasitic infections, by 5000%. Mylan found itself on the hot seat for raising the price of the anaphylaxis-treating EpiPen 15 times in 7 years, resulting in a 400% increase to more than \$600. Politicians rail about the harms of high drug prices. What can the next Administration do? A lot. This article shows how — even without directly regulating price — it can use antitrust law to reduce prices by challenging an array of anticompetitive behavior. It can target settlements by which brand drug firms pay generics to delay entering the market. It can go after "product hopping," by which a brand firm switches from one version of a drug to another to forestall generic competition. It can [and] target distribution restrictions that brands have instituted to block generics. And it can challenge other conduct in the industry. In short, antitrust law has a vital role to play. Antitrust is about competition, which lowers prices and increases choice. Consumers in the pharmaceutical industry suffer harms as directly in this setting as anywhere. High drug prices have resulted in patients not being able to take vital medicines or splitting pills in half. To add insult to injury, this anticompetitive behavior typically is not justified based on innovation or patents. The agencies in the next Administration have important tasks ahead of them in targeting conduct in the pharmaceutical industry.

<https://www.inc.com/magazine/201505/leigh%5C-buchanan/the%5C-vanishing%5C-startups%5C-in%5C-decline.html>



CHARTING THE STARTUP DECLINE

According to Census Bureau data reported by the Kauffman Foundation and the Brookings Institution, the number of new companies as a share of all U.S. businesses has dropped 44 percent since 1978.



Sean Pool, 9-8-2011, "Creating Jobs by Investing in Innovation," No Publication, <https://scienceprogress.org/2011/09/creating-jobs-by-investing-in-innovation/>

In the 21st century, innovation is what produces wealth and creates jobs. The Kauffman Foundation finds that nearly all net job creation in the economy comes from innovative startup firms that are less than five years old. Meanwhile older, larger firms tend to shed net jobs on average. They went so far as to call such innovative businesses “almost solely the drivers of growth” in the economy. Meanwhile, the Department of Commerce found that innovation leads to higher wages; average compensation per employee in innovation-intensive sectors of the economy increased nearly two and a half times faster than the national average between 1990 and 2007.

Dane Stangler, 5-1-2011, "Where Will the Jobs Come From?," No Publication,

<https://www.kauffman.org/what-we-do/research/firm-formation-and-growth-series/where-will-the-jobs-come-from>

This analysis of the 2007 Census data shows that young firms account for roughly two-thirds of job creation, averaging nearly four new jobs per firm per year. Of the overall 12 million new jobs added in 2007, young firms were responsible for the creation of nearly 8 million of those jobs.

Otto of UMass Dartmouth

file:///Users/19kselig/Downloads/DS75-3_029.pdf

Innovation is critical to the long term success. Research suggests that new ventures create more innovations than larger established companies. Yet, engineering methods and technical focus areas for new product development are deemed no different from new ventures than established firms. Design to cost, increased functionality and optimized performance for example are all deemed important irrespectively. We empirically compare a sample of 92 award-winning innovative products from either new ventures or incumbent firms with respect to these five categories of product-level characteristics – cost, functionality, user interactions, external interactions and architecture. We show that, on average, award-winning products from the new ventures exhibited more characteristics of innovation than the ones developed by incumbents. This indicates that new ventures need to be more innovative than incumbents.

Also interestingly, the distribution of innovation characteristics exhibited by innovative products remained unchanged between new ventures and incumbent firms; most innovations occur in the user interaction, external interaction and architecture categories, irrespectively of firm type.

From the management perspective, incumbents and new ventures differ on several dimensions, which may affect their innovation processes and outcome. First, incumbents often have a large number of employees and large assets that require formalized procedures and rules, as well as mechanistic organization structures, to exercise managerial control and ensure efficiency,

consistency, quality and reliability (Cohen and Elvin, 1989; Rotemberg and Saloner, 1994; Dougherty, 2001), making them less nimble and innovative. Unfortunately, bureaucratic inertia may develop as the firm grows and matures (Gilder, 1988). A large base of existing customers or suppliers can be an additional source of inertia (Christensen, 1997). Such rigidity and inertia limit creativity. Engineers may also find it difficult to appropriate returns from their innovative efforts, so their risk-taking spirits and efforts may diminish. Some of them aspiring innovation will leave incumbents to join new ventures or start up their own. **In contrast, being new and small, new ventures are not unencumbered by rigid rules and procedures, administrative hierarchy, bureaucratic inertia, or the large number of employees, customers and suppliers. It is also simpler for new ventures to reward innovation.** All these factors seem to support the assertion that new ventures are more likely to introduce radical innovations than incumbents. However, new ventures normally face stronger resource and capacity constraints than incumbents. Incumbents have larger sales volume to generate returns or abundant capitals from public/stock markets, which allow them to pursue substantial and radically-innovative technolog

Allied For Startups, 11-6-2018, "Europe♥Startups: Why startups are our biggest job engine," Medium,
<https://medium.com/@Allied4Startups/europe-%EF%B8%8Fstartups-why-startups-are-our-biggest-job-engine-5bc73711004b>

Startups create almost 5 jobs on average in their seed stage. Later on that number multiplies. Startups are the driving force of the European economy, creating “many more new jobs compared to other firms.” Already 4.52 Million jobs can be accounted to startups in the European market. “No one creates more opportunities for employment than startups and other young companies; they provide around 50% of all new jobs”, said Andrus Ansip, Commission Vice-President for the Digital Single Market.

Startups are boosting economic growth in Europe from early on. Startups as young as 2 ½ years already employ 12 people on average throughout Europe. And that’s just the beginning. Growth in startups accelerates even faster over time. While startups create almost 5 jobs on average in their seed stage, that number skyrockets when they scale, increasing by 500x. The right legislative environment is key for startups to scale. Testing some of Europe’s famous directives on their startup-friendliness could accelerate their success.

Contributor, 11-18-2011, "Here In Silicon Valley, Are We Killing Jobs And Making The Rich Richer? – TechCrunch," TechCrunch,
<https://techcrunch.com/2011/11/18/silicon-valley-killing-jobs/>

Think about it. The success of most tech companies' products is predicated on delivering scale and efficiency, also known as the ability to do more with less. That "more" typically means more wealth generated. And that "less" typically means with less and/or less expensive labor. In other words, the primary export for many Silicon Valley companies can be simplified down to labor substitution. In the near term, there are a variety of unfortunate ways in which this is manifesting itself as a social fabric-eroding, wealth-concentrating job killer. For the future? I believe there is a different story.

In one of his most insightful blog posts, Josh Kopelman outlined a philosophy that powers many of today's most successful technology-enabled retail and services companies. Put simply: If you can enter a big market where the incumbents charge a lot for their product, yet you can sell an equivalent or better product for less, then you've changed the game and shrunk the market. This scenario has been replayed a hundred times over in movie rentals, bookstores, record stores, and so on. With the disappearance of each of these bricks and mortar stalwarts, tens of thousands of positions have been made obsolete in a matter of years. All the wealth in these markets has been shrunk to a fraction of what it was before. And what wealth remains has been redistributed to a smaller number of people. Sound familiar? Job losses. Growing income gap. Check and check.

Lauren Feiner, xx-xx-xxxx, "The DOJ's antitrust chief just telegraphed exactly how it could go after Google, Apple and other big tech companies," CNBC, <https://www.cnbc.com/2019/06/11/makan-delrahim-speech-lays-groundwork-for-antitrust-versus-big-tech.html>

The DOJ's antitrust chief just telegraphed exactly how it could go after Google, Apple and other big tech companies

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KEY POINTS

- Assistant Attorney General Makan Delrahim laid out some possible antitrust arguments against big tech in a new speech in Tel Aviv on Tuesday.
- The speech clarifies some potential arguments the Department of Justice may be pursuing as it reportedly eyes probes into Apple and Google parent company Alphabet.
- Among those arguments: if a company makes an acquisition or other move for “no economic sense” but simply to harm competitors, that could be a violation.

Christopher Mims, 6-8-2019, "Why Free Is Too High a Price for Facebook and Google," WSJ, <https://www.wsj.com/articles/why-free-is-too-high-a-price-for-facebook-and-google-11559966411>

When an online service must be paid for solely through advertising, the company's overriding incentive is to increase engagement with it: Users see and click on more ads. This drives all sorts of unexpected outcomes. Owing to its engagement-maximizing algorithms, Facebook appears to bear, by its own admission, some responsibility for a genocide in Myanmar.

Other well-documented ills that may have been exacerbated by Facebook include the erosion of global democracy, the resurgence of preventable childhood diseases and what the company itself acknowledges may be wide-ranging deleterious effects on the mental health of millions.

On YouTube, Google's engagement-maximizing algorithm has been recommending material that denies the Holocaust, Sandy Hook and other tragedies, as well as white-supremacist content and other forms of hate speech, a policy the company on Wednesday pledged to redress. Over the years, YouTube has been criticized for other practices, from driving viewers to the internet's

darkest corners to pushing questionable content on children. Meanwhile, the globally dominant Google search engine has had a hard time avoiding accusations of bias in its results.

Christopher Mims, 6-8-2019, "Why Free Is Too High a Price for Facebook and Google," WSJ, <https://www.wsj.com/articles/why-free-is-too-high-a-price-for-facebook-and-google-115599664>
[11](#)

The problem is that they lose motivation to innovate once they become a monopoly and lack competition, Prof. Knott says.

“Monopolists will only innovate to the point at which they have brought in the monopoly number of customers, whereas if you have competition,” she adds, “you’re also continually trying to bring back share you’ve lost.”

What’s unclear at present—and what regulators and Congress will have to assess—is where exactly in this transition from usefully big to actually a monopolist Google and Facebook are in their many lines of business.

Peter Cohan, xx-xx-xxxx, "Why Start-ups Matter," Forbes,

<https://www.forbes.com/sites/petercohan/2011/06/27/why-start-ups-matter/#24d4c6b33620>

The final reason start-ups matter is somewhat theoretical -- but quite interesting. According to Stangler, for a company or a society there are diminishing returns to complexity. Initially, investment in more complexity generates an attractive return. But eventually more complexity produces negative returns.

In Stangler's view, start-ups reset the complexity curve. Through breakthrough technological innovation, they extend the productivity frontier of companies and society. And they create new opportunities to make high-return investments in increased complexity before those diminishing returns again set in.

Asher Schechter, 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” -," No Publication, <https://promarket.org/google-facebooks-kill-zone-weve-taken-focus-off-rewarding-genius-innovation-rewarding-capital-scale/>

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.”

Author By Ben Thompson, 4-26-2016, "Antitrust and Aggregation," Stratechery by Ben Thompson, <https://stratechery.com/2016/antitrust-and-aggregation/>

That last line seems like an invitation to slam “Europe’s anti-tech thinking”, but actually I have a lot of sympathy for the Commission’s approach. One more implication of aggregation-based monopolies is that once competitors die the aggregators become monopsonies — i.e. the only buyer for modularized suppliers. And this, by extension, turns the virtuous cycle on its head: instead of more consumers leading to more suppliers, a dominant hold over suppliers means that consumers can never leave, rendering a superior user experience less important than a monopoly that looks an awful lot like the ones our antitrust laws were designed to eliminate.

<https://outline.com/yrBFBf>

There are three reasons to think that the kill-zone is likely to stay. First, the giants have tons of data to identify emerging rivals faster than ever before. Google collects signals about how internet users are spending time and money through its Chrome browser, e-mail service, Android operating system, app store, cloud service and more. Facebook can see which apps people use and where they travel online. It acquired the app Onavo, which helped it recognise that Instagram was gaining steam. It bought the young firm for \$1bn before it could mature into a real threat, and last year it purchased a nascent social-polling firm, tbh, in a similar manner. Amazon can glean reams of data from its e-commerce platform and cloud business. Recruiting is a second tool the giants will use to enforce their kill zones. Big tech firms are able to shell out huge sums to keep top performers and even average employees in their fold and make it uneconomical for their workers to consider joining startups. In 2017 Alphabet, Amazon, Apple, Facebook and Microsoft allocated a combined a whopping \$23.7bn to stock-based compensation. Big companies’ hoarding of talent stops startups scaling quickly. According to Mike Volpi of Index Ventures, a venture-capital firm, startups in the firm’s portfolio are currently 10-20% behind in their hiring goals for the year. A third reason that startups may struggle to break through is that there is no sign of a new platform emerging which could disrupt the incumbents, even more than a decade after the rise of mobile. For example, the rise of mobile wounded Microsoft, which was dominant on personal computers, and gave power to both Facebook and Google, enabling them to capture more online ad dollars and attention. But there is no big new platform today. And the giants make it extremely expensive to get attention: Facebook, Google and Amazon all charge a hefty toll for new apps and services to get in front of consumers

Charles Duhigg, 2-20-2018, "The Case Against Google," No Publication,

<https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html>

Oil a century ago. "All of the money spent online is going to just a few companies now," says Reback (who disdains the New Brandeis label). "They don't need dynamite or Pinkertons to club their competitors anymore. They just need algorithms and data." 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." 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.

Solman, 1-17-2019, "Why tech industry monopolies could be a 'curse' for society," PBS NewsHour,

<https://www.pbs.org/newshour/show/why-tech-industry-monopolies-could-be-a-curse-for-society>

PAUL SOLMAN: Twenty years ago, as we reported back then, the kill zone was around Microsoft.

Silicon Valley antitrust lawyer Gary Reback had represented nearly all of Microsoft's major rivals.

GARY REBACK, Attorney: They can take any product they want, bundle it into the operating system,

and put competition out of business.

PAUL SOLMAN: That's what Microsoft had done with its Internet browser.

CHRISTINE VARNEY, Attorney: When you click on that Internet icon, you're going to get what Microsoft considers the best way for you to get to the Internet, which is the Internet explorer that's produced by Microsoft.

PAUL SOLMAN: By bundling Explorer into the Windows operating system for free, Microsoft, according to Netscape, was competing unfairly with Netscape's browser, called Navigator.

TIM WU: Microsoft was the power of convenience, 1990s version.

Noah Smith, 11-7-2018, "Big Tech Sets Up a 'Kill Zone' for Industry Upstarts," Bloomberg,

<https://www.bloomberg.com/opinion/articles/2018-11-07/big-tech-sets-up-a-kill-zone-for-industry-upstarts>

People in the industry are starting to worry about this phenomenon. O'Reilly Media founder Tim O'Reilly talks of big tech companies "eating the ecosystem." Others are talking about a "kill zone," where new and innovative upstarts are throttled. For some startup founders, acquisition by a big company is the dream — they're happy to walk away with a small fortune and move on to the next stage of their careers. But there's a danger that big companies, being less emotionally invested in the companies they acquire, will leave them to wither on the vine.

But economist Ian Hathaway noted that looking at the overall technology industry was too broad. Examining three specific industry categories — internet retail, internet software and social/platform software, corresponding to the industries dominated by Amazon, Google and Facebook, respectively — Hathaway found that initial venture-capital financings have declined by much more in the past few years than in comparable industries. That suggests the kill zone is real.

If innovation is being deterred, it's a bad thing. The U.S. has experienced a decline in the number of high-growth companies since 2000, contributing to a reduction in business dynamism. Nor are the big platform owners necessarily picking up the slack — if the mere threat of their competition is enough to generate a kill zone, they may never end up entering many of the new markets or offering new products. The innovation simply won't happen.

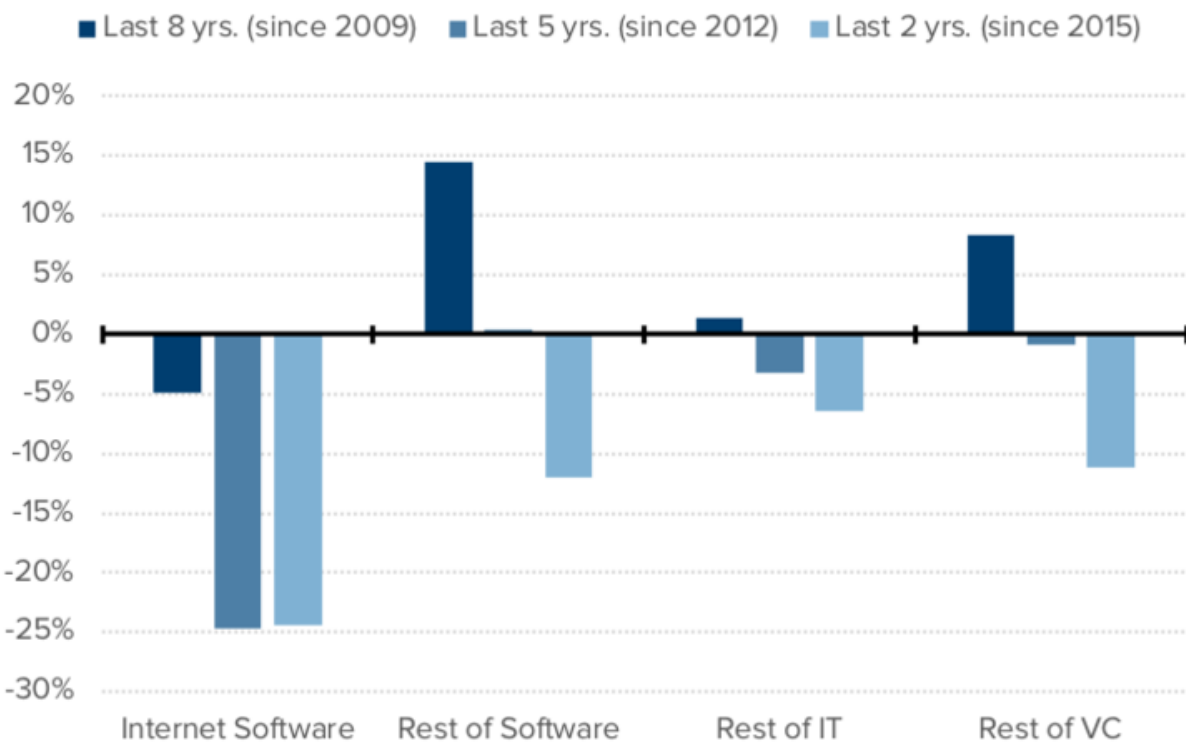
Ian Hathaway, 10-12-2018, "Platform Giants and Venture-Backed Startups," <http://www.ianhathaway.org/blog/2018/10/12/platform-giants-and-venture-backed-startups>

To start, it's clear—especially in the most recent years—that the detailed industries with a primary FGA presence are witnessing a remarkable contraction in companies entering the venture-backed pipeline. So, what does this all mean?

At minimum, it's a rebuke of Oliver Wyman's claim that there is "no evidence" of a negative impact on venture investment in "technology" due to the presence (or conduct) of FGA platforms. I would say there is at least "some evidence" to that effect and that's probably an overly conservative stance. The Oliver Wyman study is flawed because it grouped all "technology" activities together, and so doing, obscured the underlying deterioration of new company activities in core FGA sectors. Instead, the numbers were being driven by growth in other areas of information technology.

Change in Annual First Financings through 2017— Internet Software Industry versus Comparables

Annualized % changes (to allow comparison across periods)

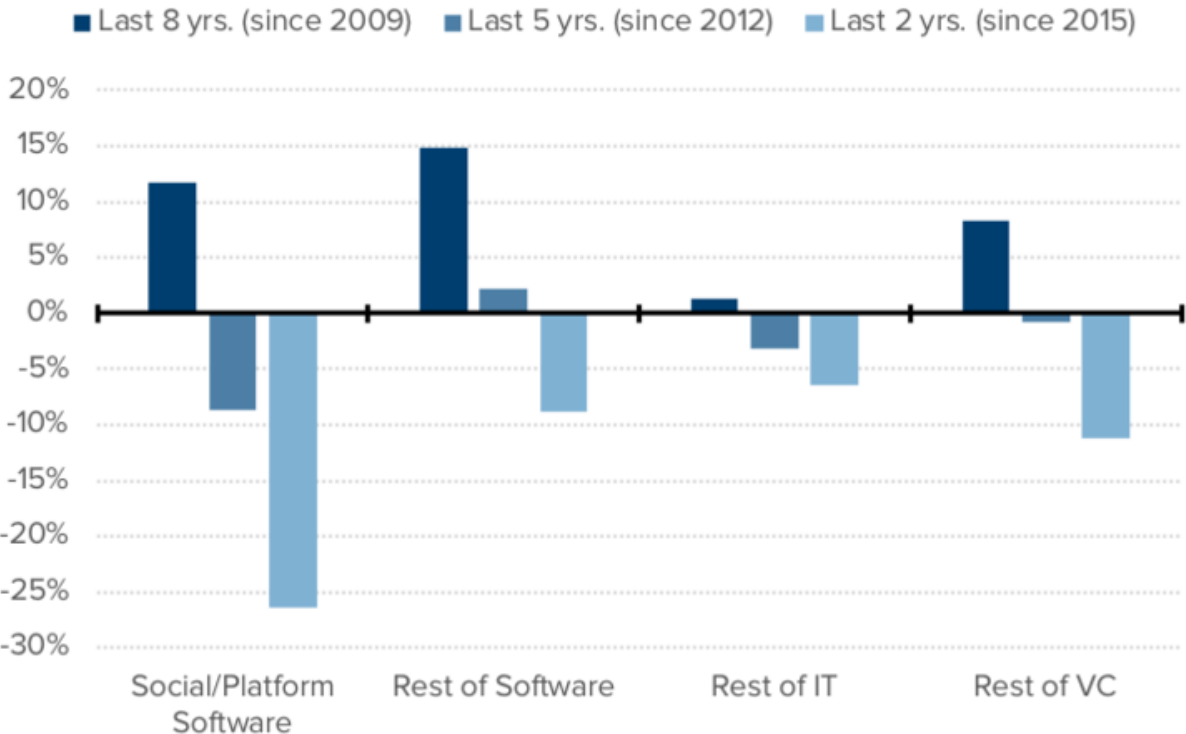


Source: Ian Hathaway analysis of PitchBook data

Note: Data are global

Change in Annual First Financings through 2017— Social/Platform Software Industry versus Comparables

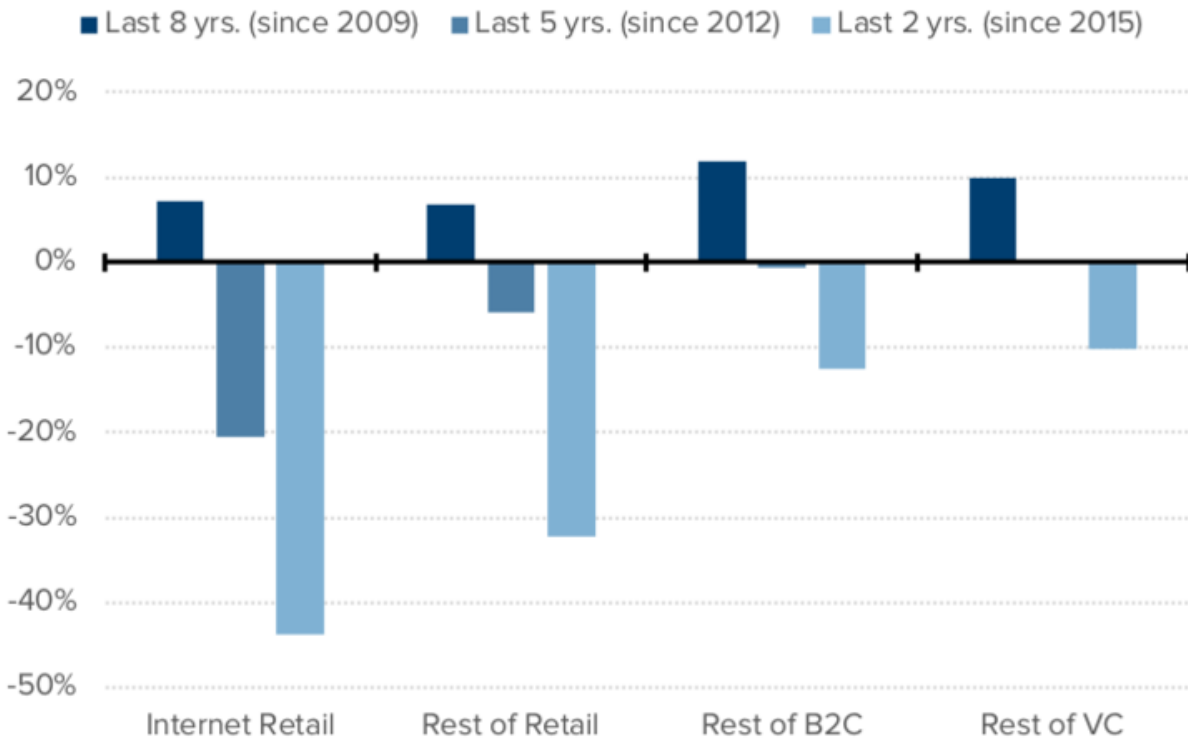
Annualized % changes (to allow comparison across periods)



Source: Ian Hathaway analysis of PitchBook data
Note: Data are global

Change in Annual First Financings through 2017— Internet Retail Industry versus Comparables

Annualized % changes (to allow comparison across periods)



Source: Ian Hathaway analysis of PitchBook data

Note: Data are global

Noah Smith, 11-7-2018, "Big Tech Sets Up a 'Kill Zone' for Industry Upstarts,"
Bloomberg,

<https://www.bloomberg.com/opinion/articles/2018-11-07/big-tech-sets-up-a-kill-zone-for-industry-upstarts>

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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>

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.

The Economist in 2018

Print Edition, xx-xx-xxxx, "American tech giants are making life tough for startups," Economist, <https://www.economist.com/business/2018/06/02/american-tech-giants-are-making-life-tough-for-startups>

IT IS a classic startup story, but with a twist. Three 20-somethings launched a firm out of a dorm room at the Massachusetts Institute of Technology in 2016, with the goal of using algorithms to predict the reply to an e-mail. In May they were fundraising for their startup, EasyEmail, when Google held its annual conference for software developers and announced a tool similar to EasyEmail's. Filip Twarowski, its boss, sees Google's incursion as "incredible confirmation" they are working on something worthwhile. **But he also admits that it came as "a little bit of a shock". The giant has scared off at least one prospective backer of EasyEmail, because venture capitalists try to dodge spaces where the tech giants might step.** The behemoths' annual conferences, held to announce new tools, features, and acquisitions, always "send shock waves of fear through entrepreneurs", says Mike Driscoll, a partner at Data Collective, an investment firm. "Venture capitalists attend to see which of their companies are going to get killed next." But anxiety about the tech giants on the part of startups and their investors goes much deeper than such events. Venture capitalists, such as Albert Wenger of Union Square Ventures, who was an early investor in Twitter, now talk of a "kill-zone" around the giants. Once a young firm enters, it can be extremely difficult to survive. Tech giants try to squash startups by copying them, or they pay to scoop them up early to eliminate a threat.

Kerry Flynn, 2017, "Foursquare is throwing in the towel on being a social app, but has another trick up its sleeve," Mashable, <span

class="skimlinks-unlinked"><https://mashable.com/2017/08/08/foursquare-swarm-update-life-logging-data>/

Foursquare was once believed to be the next big social app. On storefronts, business owners featured a Foursquare logo, next to Facebook and Twitter. People flocked to it to learn what their friends were up to.

SEE ALSO: Foursquare is now working behind-the-scenes with Asia's biggest social networks

But no longer. That's not Foursquare's main game anymore. Facebook, now valued at nearly \$500 billion with 2 billion monthly active users, isn't easy to compete with, and so, Foursquare is going with something different.

The 8-year-old app released Swarm 5.0 Tuesday, a version of the app that favors lifelogging over social networking. Now, Swarm sees its strength in personal data collection, more like Fitbit but tracking the places you visit over your steps.

Author, 10-25-2017, "Will Facebook Kill All Future Facebooks?," WIRED,

<https://www.wired.com/story/facebook-aggressive-moves-on-startups-threaten-innovation/>

But Facebook had other plans. That year the company introduced a feature that allowed users to “check in” at any location, a copy of the main feature of Foursquare’s app. In response, Selvadurai conceived an “anti-Facebook alliance” of up-and-coming social-media Davids taking on their industry’s Goliath. At a minimum, they could share survival tactics. Selvadurai had informal discussions with friends at Path, Instagram and Twitter, all of which had faced threats of Facebook copying key features. “It was common knowledge, even back then, that Facebook would just approach a company and say something to the effect of, ‘Join us or we will copy you,’” he says. More broadly, they believed that Facebook’s closed-off “walled garden,” was hurting the thing they loved most about the open Internet—the fact that anyone could build something that could reach millions of people.

Scott Galloway, 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/>

Indeed, the DOJ’s case against Microsoft may have been one of the most market-oxygenating acts in business history, one that unleashed trillions of dollars in shareholder value. The concentration of power achieved by the Four has created a market desperate for oxygen. I’ve sat in dozens of VC pitches by small firms. The narrative has become universal and static: “We don’t compete directly with the Four but would be great acquisition candidates.” Companies thread this needle or are denied the requisite oxygen (capital) to survive infancy. IPOs and the number of VC-funded firms have been in steady decline over the past few years.

Iain Murray, 3-13-2019, "CEI Releases New Video: How Antitrust Harms Consumers by Stifling Innovation and Competition," Competitive Enterprise Institute, <https://cei.org/content/cei-releases-new-video-how-antitrust-harms-consumers-stifling-innovation-and-competition>

(Iain) "If what you're saying to a startup is, if you become big, we will dismember you, then those startups have no real incentive to become big."

NARRATOR: The problem is, there are no limits to the internet. There is nothing concrete to control—it can forever be added to, changed, innovated, and built. Tech giants can rise and fall virtually overnight, if there are no barriers to entry created by government.

If antitrust teaches us anything, it's that history repeats itself. In a market free of government protections and controls, it is next to impossible to achieve "monopoly," and old solutions to new so-called problems rarely change outcomes.

Lina Khan, 2-22-2019, "Antitrust 3: Big Tech," NPR.org, <https://www.npr.org/templates/transcript/transcript.php?storyId=697060225>

MALONE: And then, if the dog hats sit on the shelves and don't sell, that's not really our problem, at least not in the short run. The retail store paid us money for our hats. We have the money. The store took the risk that the hats might not sell.

GOLDSTEIN: Amazon does not work that way. Amazon is not going to buy the dog hats from us. We can post our dog hats for sale on Amazon, and if they don't sell, we go out of business, and it did not cost Amazon anything.

If the dog hats do sell, then we pay Amazon a chunk of our revenue. And if our dog hats sell like crazy, if the world suddenly goes bananas for dog hats, then Amazon is free to start selling their own line of dog hats, AmazonBasics dog hats.

KHAN: There are merchants that bring all sorts of niche products - right...

GOLDSTEIN: Sure.

KHAN: ...That are not guaranteed to sell. They're - it's these third parties that are undertaking the original risk to invest in a product and see, hey, is this going to succeed?

What's troubling is that in some instances, when a product does start doing well, Amazon observes it and then takes that idea, produces it itself, knocks out the third party from the top

search listings. And so suddenly, you know, it's Amazon that's reaping the reward of the risk that somebody else took. I think the long-term consequence will be that third parties will be more reluctant to invest in products to take risks to bring them to market, the idea being that even if this product succeeds, there's a good chance that Amazon will appropriate the value of that reward, and they'll just be left hanging.

Scott Galloway, 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/>
The Four's unchecked power manifests most often as a restraint of competition. Consider: Amazon has become such a dominant force that it's now able to perform Jedi mind tricks and inflict pain on potential competitors before it enters the market. Consumer stocks used to trade on two key signals: the underlying performance of the firm (Pottery Barn's sales per square foot are up 10 percent) and the economic macro-climate (more housing starts). Now, however, private and public investors have added a third key signal: what Amazon may or may not do in the respective sector. Some recent examples: The day Amazon announced it would enter the dental-supply business, dental-supply companies' stock fell 4 to 5 percent. When Amazon reported it would sell prescription drugs, pharmacy stocks fell 3 to 5 percent.

Author By Ben Thompson, 5-8-2019, "Google Fights Back," Stratechery by Ben Thompson, <https://stratechery.com/2019/google-fights-back/>

There should be, to be sure, concerns about Google believing their own hype: many of the problems with YouTube, for example, stem from The Pollyannish Assumption that treats technology as an inherent good instead of an amoral force that makes everything — both positive outcomes and negative ones — easier and more efficient to achieve.

At the same time, from a purely strategic perspective, the positive message makes sense. Presuming that everything about technology is bad is just as mistaken as the opposite perspective, and the fact of the matter is that lots of people like Google products, and reminding them of that fact is to Google's long-term benefit.

Moreover, a world of assistants and machine-learning based products is very much to Google's advantage: the argument to not simply tolerate Google's collection of data, but to actually give them more, is less about some lame case about better-targeted ads but about making actually useful products better. The better-targeted ads are a Strategy Credit!

[Thompson of Stratechery in 2019](#) explains that many tech problems stem from the assumption that technology is an inherent good instead of an amoral force that makes everything, both positive and negative outcomes, easier and more efficient to achieve.