ONLINE PLATFORMS AND MARKET POWER, PART 5: COMPETITORS IN THE DIGITAL ECONOMY

HEARING

BEFORE THE

SUBCOMMITTEE ON ANTITRUST, COMMERCIAL AND ADMINISTRATIVE LAW

OF THE

COMMITTEE ON THE JUDICIARY

HOUSE OF REPRESENTATIVES

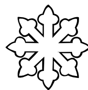
ONE HUNDRED SIXTEENTH CONGRESS

SECOND SESSION

JANUARY 17, 2020

Serial No. 116–70

Printed for the use of the Committee on the Judiciary



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40–788 WASHINGTON : 2020

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ONLINE PLATFORMS AND MARKET POWER, PART 5: COMPETITORS IN THE DIGITAL ECONOMY

FRIDAY, JANUARY 17, 2020

HOUSE OF REPRESENTATIVES

SUBCOMMITTEE ON ANTITRUST, COMMERCIAL, AND ADMINISTRATIVE LAW

COMMITTEE ON THE JUDICIARY

Washington, DC.

The subcommittee met, pursuant to call, at 10:05 a.m., in University of Colorado Law School, 2450 Kittredge Loop Road, Boulder, Colorado, Hon. David Cicilline [chairman of the subcommittee] presiding.

Present: Representatives Cicilline, Neguse, and Buck.

Also Present: Representative Perlmutter.

Staff present: Amanda Lewis, Counsel; Joseph Van Wye, Professional Staff Member; Lina Khan, Counsel; and Slade Bond, Chief Counsel.

Mr. CICILLINE. The subcommittee will come to order.

Without objection, the chair is authorized to declare recesses at any time. We welcome everyone to today's hearing, "Online Platforms and Market Power, Part 5: Competitors in a Digital Economy." I now recognize myself for an opening statement.

It is a pleasure to be here at the University of Colorado Law School for today's hearing, the fifth in the subcommittee's series on online platforms and market power and the subcommittee's first field hearing in more than a decade.

In July, the subcommittee received testimony from executives representing the four dominant online platforms—Google, Amazon, Facebook, and Apple—along with a panel of leading experts about the effective market power in the digital economy on innovation and entrepreneurship.

Through both that hearing and other parts of the subcommittee's investigation it has become clear these firms have tremendous power as gatekeepers to shape and control commerce online.

Stacy Mitchell, the director of the Institute for Local Self-Reliance, testified, and I quote, "A growing share of our commerce now flows through a handful of digital platforms. These powerful gatekeepers not only control market access but also directly compete with the businesses that depend on them," end quote.

It is apparent that the dominant platforms are increasingly using their gatekeeper power in abusive and coercive ways.

Because these platforms function as bottlenecks for online commerce, they are able to set the terms and conditions of competition, giving them immense power to pick winners and losers in the online economy.

It is far too common to hear horror stories from startups and other small businesses about how a dominant platform's abrupt changes have destroyed their business.

A single sudden change of algorithms, a software update, or new product design can be disastrous for the millions of companies that depend on these platforms to get to market.

And because these platforms actively compete with the very business they rely on—that rely on them, what may be portrayed as an innocent change could very well be a deliberate strategy to crush any existing potential competition.

Companies across the online ecosystem both large and small have found themselves dependent on the arbitrary whim of these platform giants, one algorithm tweak away from ruin.

In many cases, there is little notice or any real recourse for the companies that are disadvantaged by the platforms' conduct.

Because their decisions are largely unaccountable, opaque, and result in sweeping consequences, the dominant platforms effectively serve as private regulators.

The dominant platforms can also use their gatekeeper power to dictate anti-competitive take it or leave it contract terms.

Startups and small businesses have had to sign away certain basic rights or even hand over valuable data to a competitor as the price of accessing their customers through the platform.

Such coercive terms of doing business would undoubtedly be absent in a competitive marketplace. For locally-owned businesses that are the economic lifeblood of their communities as both job creators and engines of prosperity, this gatekeeper power and how the platforms are exercising it is of tremendous concern.

Many small businesses are forced to rely on dominant platforms to advertise or sell their products and services online. In many cases, they do not have an alternative.

Earlier this week, my staff spoke with an online seller whose entire economic livelihood and his family's health has been jeopardized by one of the dominant platform's sudden, arbitrary, and reckless decision to suspend his business and block access to his inventory.

Not only does this dynamic threaten ongoing competition but it also has lasting effects as a powerful disincentive for new entrants to try and compete with powerful incumbents.

As Patrick Spence, the CEO of Sonos, will testify today, "This shuttering of competition online dries up the venture capital new companies need to develop the next inventions and to bring them to market.

Venture capital firms are well aware of the kill zone that surrounds startups that pass within striking distance of the dominant platforms. They stay away from those investments," end quote.

Today, we will hear from the CEOs, founders, and senior executives of several dynamic and innovative companies that must confront this economic nightmare.

Each of the innovative companies represented here today—Sonos, PopSockets, Tile, and Basecamp—are American success stories. I applaud them for their courage to share their testimony in the face of potential retaliation by the dominant platforms.

We have been in touch with a number of companies with similar perspectives that understandably will not testify due to this very real concern.

With that, I want to thank the esteemed panel of witnesses for joining us today. I also want to thank Subcommittee Vice Chair Congressman Neguse. He represents Boulder, Colorado, and advocated strongly that the field hearing be in his district.

I also want to thank Dean Jim Anaya and all of the hard working professors and professional staff at Colorado Law who assisted us in having this hearing today.

I thank them for hosting, and I particularly want to welcome and thank Congressman Ken Buck from Colorado who is an esteemed member of the subcommittee who has been very active in this investigation and the representative of Colorado's 4th Congressional District.

And I would now like to recognize him for the purposes of making an opening statement.

Mr. BUCK. Thank you, Mr. Chairman, and I very much appreciate you holding this hearing in God's country and joining here in God's country for the hearing, and I am very appreciative that my friends, Congressman Neguse and Congressman Perlmutter, have left the swamp with me last night on a plane to get here, and we are here safely and working on this important issue.

Today, as we continue our oversight of the state of competition in the tech center, our focus is shifting from looking at how larger digital platforms operate to hearing what it is like to compete with these platforms.

Each of our panelists represent companies that are in the arena innovating and competing daily to deliver value to customers. They have real skin in the game and we look forward to learning from their unique perspectives.

To begin, I want to review the principles that I think Congress should focus on in our inquiry.

First, innovation and competition in the tech center have produced enormous value for consumers. We should not forget about those benefits as we consider the current state of competition in the tech center.

Second, any legislative proposals that emerge from our inquiry should be consistent with maintaining a free and competitive marketplace.

Proposals to construct broad new regulatory regimes must be viewed with caution. Experience has shown that burdensome regulations often miss the mark.

Regulations often come too late to resolve anything and this approach is often less efficient than the free market. Regulators are often not nimble enough to keep pace with a dynamic marketplace

so that the regulatory regime has the effect of entrenching incumbents rather than encouraging competition.

Third, big is not necessarily bad. Anti-trust laws do not exist to punish success but to promote competition. Congress should help foster an atmosphere where ideas flourish and startups can innovate fairly, fairly compete, grow, and succeed.

With these principles in mind, over the past few years we have seen the largest platforms continue to expand and increase their market power.

The increased concentration and market power of a small group of companies has raised concerns from a diverse array of constituencies about how that power is being used.

This includes domestic and international regulators and enforcement authorities, small, medium, and large companies, and consumers.

Our task during these hearings has been to evaluate whether true anti-trust harms are occurring in the tech center and, if so, whether the existing anti-trust laws are adequate to address these harms.

To understand these complex questions, we have invited a diverse panel of market participants, companies that compete directly with the large platforms, that relies on services of the large platforms and, in some cases, both compete with and rely on the large platforms.

Companies that both compete with and rely on the largest digital platforms have become more and more common, especially as Google, Facebook, Amazon, and Apple have continued to expand into broader and more diverse business lines.

We know that many tech companies rely on the infrastructure services provided by large platform companies in order to serve their customers while simultaneously having to directly compete with the platform companies.

To demonstrate, consider the hypothetical company A that competes with one of Google's products but also relies on a different Google product to run its business, or relatedly, company B relies on Amazon or Apple's platform for its success and then Amazon or Apple launches a new product that competes directly with company B.

In these circumstances, the question arises of where the line sits between fierce and healthy competition and anti-competitive conduct.

Do the large platforms use their market power in one business line to harm competitors in another business line? And if that does occur, how do we determine whether the allegedly harmful conduct was motivated solely by a desire to improve the product or whether there was anti-competitive motive?

I hope that our panel can discuss these and other related questions today. Each of our panelists has significant experience competing in the digital economy and they have a unique perspective to offer us today.

I look forward to learning from them so that we can better understand what competing with or relying on the largest platforms looks like in the real world.

I yield back.

Mr. CICILLINE. Thank you, Mr. Buck.

Before I introduce our panel of witnesses, we are also joined by the distinguished representative from the 7th Congressional District, Mr. Perlmutter, who serves both on the Financial Services, the Rules Committee, and Science and Technology, and has been involved in this area in a number of different ways, and I would ask unanimous consent of the committee to allow Mr. Perlmutter to participate in full in this hearing.

Without objection, so ordered.

It is now my pleasure to introduce today's witnesses. Our first witness is Patrick Spence, the chief executive officer at Sonos. Mr. Spence joined Sonos in 2012 as their chief commercial officer and has played a central role in the development and launch of some of the company's most successful products.

Before starting at Sonos, Mr. Spence spent more than 14 years at RIM BlackBerry in a variety of roles, ultimately become executive vice president of sales and marketing.

He was named one of Canada's Top 40 Under 40 in 2007. Mr. Spence received an honorary degree from the Richard Ivey School of Business at the University of Western Ontario.

Our second witness is David Barnett. He is founder and CEO of PopSockets, LLC. Before founding PopSockets, Mr. Barnett was a professor of philosophy at the University of Colorado, Boulder, specializing in philosophy and language.

He developed an interest in entrepreneurships and began designing products to prevent ear bud cords from dangling. In the process of developing a specialized iPhone case founded through a successful kickstarter campaign, Mr. Barnett stumbled upon the pop grip. It has gone on to become PopSockets' flagship product and one of the most popular mobile device attachments on the market.

In 2015, Mr. Barnett left the University of Colorado to focus full time on running PopSockets. Mr. Barnett received his B.A. in philosophy from Emory University, his B.A. in physics from the University of Colorado, Boulder, and his Ph.D. in philosophy from New York University.

Our third witness is David Heinemeier Hansson. Mr. Hansson is the chief technology officer and co-founder of Basecamp, LLC, a project management and communications software used by hundreds of organizations like Shopify, NASA, and the University of Miami.

He is also the creator of Ruby on Rails, an open-sourced web framework used by programmers at GitHub, Airbnb, Startup, and Goodreads.

Mr. Hansson is also the author of multiple books about successful business management including "It Doesn't Have To Be Crazy At Work" and the New York Times bestseller "Rework."

Mr. Hansson received his Bachelor's degree from the Copenhagen Business School.

The last witness on our first panel is Kirsten Daru, vice president and general counsel of Tile. Prior to joining Tile in 2019, Ms. Daru served as the chief privacy officer at Electronic Arts.

There, she led all elements of EA's internal data privacy compliance, employee data privacy training, and litigation involving consumer claims.

She was also the lead attorney for all international privacy matters. She started her legal career as an attorney at Reed Smith LLP.

Ms. Daru received her B.A. from the University of California at Davis and her J.D. from the University of San Francisco School of Law.

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

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

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

[A chorus of ayes.]

Let the record show the witnesses answered in the affirmative. Thank you. You may be seated.

Please know that each of your written statements will be entered into the record in its entirety. Accordingly, I ask that you summarize your testimony in five minutes.

To help you stay within that time, there is a timing light on your table. When the light switches from green to yellow you have one minute to conclude. It is actually here.

When the light turns red it signals your five minutes have expired and I would like you to conclude.

And we will begin with Mr. Spence. You are recognized for five minutes.

STATEMENTS OF PATRICK SPENCE, CEO, SONOS; DAVID BARNETT, FOUNDER AND CEO, POPSOCKETS LLC; DAVID HEINEMEIER HANSSON, CO–FOUNDER AND CTO, BASECAMP LLC; KIRSTEN DARU, VICE PRESIDENT AND GENERAL COUNSEL, TILE

STATEMENT OF PATRICK SPENCE

Mr. SPENCE. Thank you.

I would like to thank Chairman Cicilline, Ranking Member Sensenbrenner, and distinguished members of this committee for the opportunity to appear here today.

It is my privilege to lead a company that is a classic American success story. Sonos was founded in Santa Barbara, California, in 2002 by a handful of entrepreneurs that wanted to make it easier and better to be able to listen to great music throughout their home.

Today, we employ over 1,500 people and our products have been welcomed in more than 9 million homes. We are a classic innovation and growth story.

We have grown our customer base, our product portfolio, and our revenue every year since our founding almost 20 years ago.

In mid-2018 we enjoyed another rite of passage of many American success stories. We became a public company on the NASDAQ stock exchange.

The scope and scale of our innovation is reflected in our portfolio of over 750 patents, a number that continues to grow every year as we invest heavily in new innovation.

We believe that if we keep working hard to make great new products we will win new customers and they will come back and buy more products.

I welcomed this committee's invitation to testify because I am concerned that the market conditions that allowed us to innovate and thrive over the past two decades are being endangered by the rise of a small group of dominant companies with unprecedented power.

We believe that this committee needs to act urgently to rein in the power of these dominant companies in order to support the market conditions for the next big ideas to emerge and to create a fair playing field for new emerging innovative companies.

Today, I would like to focus in on three trends in particular. The first trend is how these dominant companies are using their power in one market to conquer or destroy adjacent markets, especially markets that may one day present a challenge to their current dominance.

Voice technology has transformed smart speakers into the latest gateway to the internet. They connect you to the music you love and to many of the most important services on the internet e-commerce to Search.

For Google and Amazon specifically, the development of the smart speaker market—the one in which we invented and operate—presents both a threat and an opportunity.

The threat that if other companies were to be successful in the smart speaker market they might stand between these dominant companies and customers.

The opportunity for these companies is to dominate yet another important consumer market and, more critical, to use smart speakers to collect vast amounts of consumer data, which can be monetized on their already dominant platforms.

These dominant firms have seized this opportunity. They have flooded the market with dramatically price-subsidized products, giving them away at steep discounts or even for free.

Indeed, there are records stating that the products themselves are money losers. Now they control, roughly, 85 percent of the U.S. smart speaker market. This is terrible for the innovative dynamic created by fair competition because it hamstrings those companies that have better products that cannot afford to be sold at a loss.

And in the long term, prices are sure to go up once these dominant companies have driven the other companies out of the market and reduced competition.

The second issue is that these dominant companies are exploiting their role as essential business partners and to tilt the playing field in favor of their own products and services.

These companies have such dominance and breadth across a variety of markets they become essential business partners for every company. Our relationships with them at times are productive and mutually beneficial, as these firms also value access to our large and growing customer base.

But these dominant companies have a huge amount of power. Gaining access to their platforms and integrating their services are becoming more and more of a take it or leave it proposition with demands such as early and technically-detailed access to our future

products, sharing proprietary business data including sales forecasts and waiving essential contractual rates.

These companies have gone so far as demanding that we suppress our inventions in order to work with them. The most recent example of this is Google's refusal to allow us to use multiple voice assistants on our product simultaneously.

And a third important issue is the practice of efficient infringement. These dominant companies disregard inventions and patents because they are so powerful and they are doing the cost benefit analysis for infringing now and paying later once they have achieved dominance and moved past the point where they have to worry about competition in that market.

They are exploiting today's system and enforcement to extend their dominance from one market to the next, and a recently filed patent infringement case against Google illustrates our point. We have provided more details in our written testimony.

We believe in competition and have competed and won through innovation and hard work against much larger companies to get to where we are today.

However, we are at a moment now, and I say this with 20 years in the consumer technology industry where today's dominant companies have so much power across such a broad array of markets and continue to leverage that power to expand into new markets that we need to rethink existing laws and policies to determine if they are still achieving the spirit in which they were set out.

We believe that independent companies and a system which fosters new startups have never been more important to the future of innovation because fair competition breeds creativity and progress and makes America better for everyone, not just dominant and powerful few.

Thank you.

[The statement of Mr. Spence follows:]

Written Testimony of Patrick Spence

Chief Executive Officer, Sonos, Inc.

House Judiciary Committee
Antitrust, Commercial and Administrative Law Subcommittee
January 17, 2020

I'd like to thank Chairman Cicilline, Ranking Member Sensenbrenner, and distinguished members of the Committee for the opportunity to appear before you to address critically important issues around competition and innovation.

My name is Patrick Spence, and I am the Chief Executive Officer at Sonos. It is my privilege to lead a company that reflects a classic American success story. Sonos was founded in 2002 by a handful of entrepreneurs in Santa Barbara, California who imagined a better way of enjoying music throughout your home. At the time, playing music at home meant coils of wires snaking between bulky components inside your house. The founders of Sonos envisioned a better way: using new, emerging technologies to make it simple to play high fidelity music in any room of your home, and to do it all wirelessly. The critics said we would never succeed. But we placed a bet that the wireless internet and streaming music would be game changers. And we were right.

Today, Sonos has nearly 1,500 employees and our products have been welcomed into more than 9 million homes around the world. We bring in approximately $1.3 billion in revenue annually. Our revenue and profitability has been growing by double digits per year for several years running. In mid-2018, we enjoyed a successful initial public offering — another rite of passage for many up and coming American companies. Our products include smart speakers, soundbars, subwoofers, and amplifiers that work together as a system, providing a seamless customer experience. We have some of the finest hardware and software engineers in the world working out of our offices in Boston, Seattle, Santa Barbara and San Francisco. We focus on consumer choice. You can listen to over 100 different audio streaming services on Sonos, including Spotify, Tidal, and Apple Music. Recently, we launched successful partnerships with Ikea, Best Buy, Costco, and many other household names.

The scope and scale of Sonos's innovation is reflected in our portfolio of more than 750 patents, a number that continues to grow every year as our innovation never stops. Our technology underpins many innovations in what is now known as "the smart home." Smart speakers are a combination of hardware (such as chips, transducers, electronics) and software (that exists on the device and in the cloud). Sonos employs a world-class design team and we

hire top-notch software developers, along with many other talented employees who help us bring our products to market.

Our business model is simple — we sell products which people pay for once, and we make them better over time with software updates. We've achieved success without trying to monetize the data of our customers. We live by the mantra that if we keep making great products, customers will recognize that, and come back and buy more over time. Nearly 40% of our typical customers buy a Sonos product and enjoy it so much they buy another one. We have been shipping products for 16 years, and an astounding 93% of our products are still in use. Keep in mind these are computers — how many of you are still able to use a computer or mobile phone you had 16 years ago? We're proud of this, as we've always tried to build products that last for a long time. This stands in stark contrast to "disposable" tech, where people are encouraged to buy a new product every few years. We are focused on doing one thing really well — providing great sound experiences for customers.

I welcomed this Committee's invitation to testify because I'm gravely concerned that the market conditions that allowed Sonos to innovate and thrive — and many smaller companies like us — are endangered by the rise of a small group of companies with unprecedented size, scale, and dominance. And although I appear with a bit of trepidation as it may impact the willingness of these companies to provide us access or to partner with us, Sonos is strong enough and successful enough to say what goes largely unspoken, but remains very much on the minds of countless tech entrepreneurs at smaller firms and people thinking about starting new businesses. One reason they do not speak up is that they're afraid of how dominant platforms could retaliate against their businesses. This is one of the many reasons we believe that this Committee needs to act urgently to support the next set of big ideas and to create a fair playing field for smaller technology companies. If we do nothing, America's leadership in innovation will suffer with inevitable negative long-term consequences for American consumers and the economy as a whole.

We need to preserve competition in technology

As your Committee has heard over the previous year, competition in many technology markets is being restricted by a few dominant players. But let me start by saluting those companies. They were born of exceptional innovation. They have built tremendous value for their shareholders and created jobs for thousands of employees. They offer some excellent products and services that have improved consumers' lives. At Sonos, we value our partnerships with them.

But we also know from hard experience that they have come to use the scope of their platforms and their overwhelming dominance in certain markets to unfairly disadvantage competitors and squelch potential competition.

I would like to focus on two phenomena in particular. First is the leveraging of dominance in one market to conquer or destroy adjacent markets, especially markets that may one day pose a threat to their dominance. Second is the exploitation of their role as essential business partners to tilt the playing field in favor of their own products and services.

Leveraging of dominance in one market to conquer or destroy adjacent markets, such as smart speakers

Take the smart speaker market in which Sonos participates. At one time, smart speakers were something of a niche product enjoyed mainly by audiophiles. But with the advent of voice technology, smart speakers have been transformed into the latest gateway to the internet. They connect you not merely to the music you love, but also to many of the most important services available on the internet, from search to e-commerce. And they also are used to connect and control a host of other smart home devices, such as lighting, thermostats, security, and even kitchen appliances.

For the dominant platforms, Google and Amazon specifically, technological development in smart speakers presents a potential threat and an enormous opportunity. The threat is that if someone else were to control the smart speaker market, they might stand between those companies and their customer base. The opportunity is to dominate yet another important consumer market and, even more critical, to use smart speakers to collect vast amounts of consumer data which can be monetized on their already dominant and enormously profitable existing platforms.

Google and Amazon have responded to the rise of the smart speaker market in similar fashion: they have flooded the market with dramatically price-subsidized products. Indeed, they make no pretense of the fact that the products themselves are money losers and they routinely give them away at steep discounts, even for free. It is difficult to predict the impact that voice assistants will have on search and e-commerce, but voice activated speakers have the potential to dramatically alter the way that consumers interact with the internet. We believe that Google and Amazon have been willing to forgo profits in smart speakers for this reason, in addition to their ability to monetize the valuable household data that these products vacuum up. And if voice purchasing and voice search <u>do</u> become the next big thing, they will own the market because their strategy is succeeding. Those two companies now control roughly 85% of the U.S. smart speaker market. Google just announced that it had sold 500,000,000 smart home products. Amazon is in the same league. It’s not because their hardware businesses are profitable in and of themselves.

That kind of market distortion — the leveraging of profits from one dominant platform to subsidize the conquest of another that poses a potential competitive threat in the future — may benefit consumers in the short-term through lower prices. But it’s terrible for the innovative dynamic created by robust and fair competition because it hamstrings those companies that

have better products that cannot be sold at a loss. And what happens when dominant platforms have so poisoned this market through price subsidization that no one else is left? Long-term this could mean price increases and prevent new entrants. It also dries up the venture capital new companies need to develop the next great inventions and bring them to market. Venture capital firms are well aware of the kill zone that surrounds start ups that pass within striking distance of the dominant platforms — they stay away from those investments.

Separate and apart from the issue of price subsidies is the issue of platform dominance — the fact that a handful of very large companies are essential partners for pretty much every technology business — and because they are so essential to reach consumers these companies can, and sometimes do, engage in practices that again unfairly harm competitors, restrain innovation, and ultimately harm consumers.

Here, again, I'll focus on Sonos's business, though I have no doubt our experience is in many significant ways illustrative of broader truths.

Google operates an irreplaceable platform for advertising, controls one of the two dominant voice assistants (Google Assistant), controls one of the two dominant mobile operating systems our products operate on (Google Android) offers office productivity tools, and provides a popular music service (YouTube Music). Amazon is far and away the most important e-commerce channel, it runs one of the fewer and fewer viable, large scale cloud services platforms (AWS), it owns the other dominant general voice assistant (Amazon Alexa), and it too has a popular music service that it ties to other services (Amazon Prime Music). Given these companies' dominance in certain essential services, you have to do business with them. They are like platforms or basic infrastructure. In many respects, the relationships are productive and mutually beneficial, as these firms also value access to Sonos's large and growing customer base.

But dominance comes with its prerogatives. To gain access to their platforms and integrate with their services, these companies issue all manner of take-it-or-leave-it demands, from early and technically detailed access to our product roadmaps, to proprietary business data, including sales forecasts, to waivers of essential contractual rights.

New ideas are being suppressed and we're losing innovation

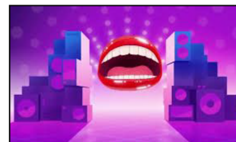
Google has gone so far as to dictate what features we can have in our products. To take a particularly egregious and anti-consumer example, Sonos has developed the technical ability to host multiple voice assistants on its smart speakers simultaneously, which we call voice concurrency. In a product using this technology, you can call upon whichever voice assistant you want (including more than just the two dominant assistants) and the system will channel you into your chosen service automatically. This is a feature that customers told us they wanted and which requires complex engineering, and we worked hard to invent it. But Google

demanded as a condition of having Google Assistant in our products that we never allow concurrency with another general voice assistant. As a result, today a Sonos customer must open an application and manually choose which single voice assistant will be configured on their device. This restriction is bad for consumers. (To its credit, Amazon embraced this choice-promoting "concurrency" concept and has even helped create a coalition to promote the idea.) And the fact that Google has the power to impose this restriction on others is bad for the structure of the economy.

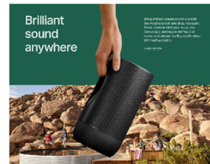
Using their role as essential services to tilt the playing field in favor of their own products

All this would be bad enough, but the issue is dramatically compounded when these companies then decide to use what they've learned about your business to produce remarkably similar products and to use those products to compete with you. Dominant platforms are able to develop copycat products by analyzing sales metrics on their platforms and combining them with rich data profiles of their customers. These copycat products are then sold at cost or lower, with no intent to reap a profit. They also can use remarkably similar trade dress and marketing campaigns.

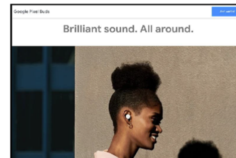
Sonos ad (2017)



Amazon ad (2018)



Sonos ad (2019)



Google ad (2019)

Our recently filed patent infringement case against Google makes the point. In 2013-14, we gave access to our technology to Google as part of a partnership to provide Google's music

service to our customers. Then, in 2015 Google started producing more and more products that copy our key functionalities and infringe on our foundational intellectual property.

Sonos Play 5 (2015)

Google Home Max (2017)

We debated long and hard about whether to file suit and we spent years trying to reach a fair accommodation with Google precisely because they are such an important partner. We enjoy working with their teams and using their products, and we've built relationships with their employees. At some point, though, we just couldn't keep turning a blind eye, even at some risk of retaliation that would hurt our business. A lot of companies can't take such risks and are left to suffer silently.

Solutions

As CEO at Sonos, I'm a big believer in self-reliance, and I think that companies can take proactive measures to insulate themselves from dominant platforms. I've outlined steps such as focusing on doing one thing better than everyone else; winning through innovation, maintaining tight financial discipline; accepting money only from investors with a long-term vision; protecting your intellectual property; and maintaining focus when dominant firms enter your market.

There are moments, however, when a re-evaluation of existing law and policy is necessary. In that spirit, we welcome this Committee's work. Independent companies have never been more vital to the future we want to live in. Because people deserve choices. And because fair competition breeds creativity and progress.

Right now, many markets have not yet reached a tipping point beyond which government action would be rendered ineffective. At the same time, action is required before the "network effects" intrinsic to the digital age fully insulate dominant firms from future competition. There is no doubt that technology quickly evolves — but that does not mean responsible scrutiny and enforcement is not possible.

I am not a lawyer of any kind, much less an expert in antitrust. But my experience as a tech executive suggests some important areas for your exploration.

Do the rules around predatory pricing make sense in today's economy?

How do we limit the power of dominant players to leverage their business insights to create copycat private label products?

How do we protect smaller firms from retaliation by dominant players for the assertion of legal rights?

Should there be stronger firewalls between different business segments of the dominant platform players?

How can we encourage interoperability and greater access to dominant platforms, so that consumers, and businesses, can choose what's best for them?

A lot is at stake in finding smart answers to these and similar questions. Indeed, the future of American innovation depends on it. Thank you for your attention and I look forward to answering your questions.

Mr. CICILLINE. Thank you, Mr. Spence.

Mr. Barnett, you are now recognized for five minutes.

STATEMENT OF DAVID BARNETT

Mr. BARNETT. First, thank you, Honorable Chairman and the other members of the committee, for having me.

So I will tell you first the story of PopSockets and then some challenges that we have had with Amazon.

PopSockets started about six years ago in my garage just west of where we are sitting right here when I was a philosophy professor at the University of Colorado.

I launched the business around our flagship product, which is a—well, I have it on my phone—but a grip and a stand for a phone. So that is how it started. We now have a full family of products around this product.

In these six years we have grown to about 270 employees. There are thousands of people around the world whose livelihoods depend on PopSockets indirectly through different businesses.

We have sold over 165 million units of this product and I feel lucky to have realized one version of the American dream, in part by participating in America's free market economy and being able to transact with millions of Americans and thousands of companies in order to create this success.

So today I want to talk about two challenges that we have had with Amazon, one involving counterfeits, the other involving bullying, or strong arming.

So we started our direct relationship with Amazon about a year and a half into business. So the middle of 2016 we started selling product to Amazon.

Amazon, in turn, would sell our product on the marketplace. It was immensely successful. Within five months Amazon became our largest customer and we became one of Amazon's most significant players in the mobile electronics accessory category.

We were—pop socket was the number three search term at some point on Amazon. So we had immense success but despite the success we never felt like we had a genuine partnership with Amazon.

So the problem with counterfeits is the first problem we will talk about. We had enormous amounts of fake product that were taking our sales, creating bad customer experiences, and, of course, it was illegal, so illegal activity on behalf those selling them.

And when Amazon was the seller, Amazon was, clearly, engaged in this illegal activity and multiple times we discovered that Amazon itself had sourced counterfeit product and was selling it alongside our own product.

For a year and a half we requested that Amazon take some action—some serious action and just require evidence from sellers that they were selling authentic product.

After a year and a half, finally in exchange for about $1.8 million of retail marketing funds, which my team deemed ineffective, Amazon agreed to work with their brand registry department to require this evidence and things then changed dramatically.

So that problem, largely, went away. There was another problem of knock-off products not using the PopSockets name that took a lot longer to go away.

At one point, we were—we were reporting a thousand listings a day of fakes. Every day a thousand different listings of fakes that were eating away at our revenue and, really, harming our brand, too.

Next, I want to turn to bullying—the lack of a symmetrical partnership. The way Amazon works is, you know, we sign an agreement together, so there is what is in the written record of the agreement. Everything looks good.

We decide on a sale price to Amazon. Then what happens in practice is that Amazon decides what price they want to sell to the consumer for, after lowering the price they come back to us and demand funding for their lost margin when they lower their price.

There is nothing in our agreement that says that we are required to pay for this, and yet they say, we need this—we expect this. The bullying begins.

We decided to end our relationship with Amazon over this. This was one reason we cited what we gave to Amazon. Their response was, no, you are not leaving the relationship. I found that unbelievable that they would tell us that we were going to continue the relationship after we told them that bullying was the main reason we were leaving.

We left anyway. They proceeded to remove the listings of our authorized reseller, all of the listings on Amazon, preventing an authorized reseller from selling.

They refused to clarify the language around their policy that they cited in doing this, and caused great harm to our company. And, you know, while bullying is not technically illegal, when there is bullying by an extremely successful company with all these partners that continue to do business with it, one has to ask how is it that such a successful business maintains partnerships with so many companies while bullying them. It is because of the power asymmetry, of course, that companies tolerate this. They have to tolerate it.

[The statement of Mr. Barnett follows:]

David Barnett
CEO and Founder, PopSockets LLC
January 15, 2020

Online Platforms and Market Power, Part 5: Competitors in the Digital Economy

I'm David Barnett, the Founder and CEO of PopSockets, a business that I started in 2014 from my garage in Boulder, while I was a philosophy professor at the University of Colorado. Our flagship product, the PopGrip, is a collapsible phone grip and stand. We've sold roughly 165 million PopGrips since starting six years ago. In 2018, Inc Magazine named us the second fastest growing private company in America. We have around 270 employees, and thousands of people around the globe make a living indirectly from the PopSockets business. Six years ago, I could never have imagined this level of success. I feel fortunate to have realized one version of the American Dream, whereby as a philosophy professor with no business experience, I was able to build a successful business by transacting in America's free-market economy with millions of Americans and thousands of companies.

To be sure, our business has faced challenges, including difficulties with manufacturing in our first couple years, waves of counterfeits in the middle years, and—more recently—a significant downturn in part of our eCommerce business due to turbulence in our relationship with Amazon. I would surmise that we are in the fortunate minority of young companies that are capable of surviving such turbulence.

In our first two years of business, we sold an insignificant amount of product directly to consumers on Amazon's third-party platform, Seller Central. In mid 2016, we entered for the first time into a relationship with Amazon's Retail Team, via the Vendor Central platform, who purchases product from brands like ours and sells it to consumers on the Amazon marketplace. Our Amazon business exploded, catapulting Amazon to our top customer in our first five months of business with them, and catapulting us to one of Amazon's more significant brands in the mobile-accessories category. By spring of 2018, the term 'pop socket' had become the third most popular search term on Amazon.com. Our buyer from Amazon reported that he'd never seen such growth before. Our Amazon business was good for us, and it was good for Amazon.

Despite this remarkable success, our relationship with Amazon Retail never felt like a true partnership, and largely for that reason we decided to end it in the fall of 2018. Initially, our challenges centered on swarms of counterfeits (fakes under the "PopSockets" name) and knockoffs (fakes under another name) that infringed our intellectual property, took our sales, harmed our brand, and led to unhappy consumers. For our first year and a half, Amazon was unwilling to require sellers to provide evidence that their alleged PopSockets products were authentic, even though Amazon was aware that large quantities of fakes were being sold every day on their platform. Indeed, on multiple occasions we found that Amazon Retail was itself sourcing counterfeit PopGrips and selling them alongside our authentic products. During this period, Amazon's Brand Registry department seemed to be working with us in earnest, though with limited success, to address the problem of fakes. It was not until December of 2017, in exchange for our commitment to spend nearly two million dollars on retail marketing programs (which our team expected to be ineffective and would otherwise not have pledged), that

Amazon Retail agreed to work with Brand Registry to require sellers of alleged PopGrips to provide evidence, in the form of an invoice, of authenticity. As a result, in early 2018, our problem of counterfeits largely dissolved. (Soon thereafter Brand Registry agreed to enforce our utility patent, resulting in the disappearance of most knockoffs.)

While my team got along personally with their counterparts at Amazon Retail, there was a growing frustration with the lack of genuine partnership. On top of requiring us to pay almost two million in marketing dollars in order to remove illegal product from the Amazon marketplace, the Amazon Retail team frequently lowered their selling price of our product and then “expected” and “needed” us to help pay for the lost margin. There was nothing in our agreement requiring this funding. If any other retail partner of ours had had an interest in our funding something that was not required by our agreement, they would have asked us whether we might be interested in participating in an activity that would require further funding on our part. This is not Amazon’s approach. Rather, they regularly dress up requests as demands, using language that a parent uses with a child, or more generally, that someone in a position of power uses with someone of inferior power. Discussions around sensitive topics like this almost always occurred by phone, presumably to avoid a written record, and almost always felt scripted, as if our buyer was controlled by a robot, rather than a real human being interested in negotiating with a genuine partner.

In August of 2018, we ended our relationship with Amazon Retail, and we cited as one of our reasons that the relationship didn’t feel like a genuine partnership, and that requests were often framed as demands. This was a polite way of saying that we were frustrated by the strong-arming and bullying. Amazon Retail responded by telling us that, in fact, we would not be ending our relationship because they had chosen to buy their product from us and so we had no choice but to continue selling to them. I found this response ironic. Person A says, “I’m breaking up with you because I’m tired of the bullying,” and Person B responds, “No you’re not.” I suspect that Amazon is accustomed to behaving this way because most brands cannot afford to leave Amazon. They evidently have no choice but to endure tactics that would be rejected out of hand in any ordinary relationship whereby the two parties enter into the relationship by preference rather than necessity.

We proceeded down the path of ending our relationship. We told Amazon that our plan was to test a different model, whereby we would sell to distributors, including iServe, who would be authorized to sell our products on Amazon’s third-party marketplace. Amazon responded by citing a new clause in their brand standards policy, according to which if Amazon chooses to source products directly from a brand, then the brand, *as well as its agents, licensees, and other representatives*, are prohibited from selling the brand’s products on Amazon’s marketplace. Amazon Retail told us that iServe qualified under the policy, but they refused to tell us how iServe qualified as our “agent, licensee, or other representative” given that we paid no fees to iServe but merely sold product to them. We proceeded to end our relationship with Amazon Retail, and in response Amazon removed all of iServe’s PopSockets product listings, causing significant financial harm to us and iServe.

During the fall of 2018, Amazon Retail sold down most of their remaining inventory of PopSockets product. In the spring of 2019, we discovered that Amazon Retail had sourced counterfeit PopGrips and was selling them on the marketplace, presumably because their inventory of authentic product had run dry.

It's perhaps worth noting that plenty of authentic PopGrips were sold in 2019 by Amazon, just not through the Amazon Retail group. This is because we had an arrangement with a different group, Merch by Amazon, which sourced blank PopGrips from us and printed, on demand, designs uploaded by its members. We still maintain this relationship.

To no avail, I tried again and again, through a number of different avenues, to get Amazon to clarify their brand standards guidelines so that PopSockets could abide by the guidelines while authorizing resellers to sell on the third-party marketplace. Amazon has repeatedly refused to clarify what qualifies as an "agent" or "representative" of a brand, and they have refused to tell me how an authorized seller of our product could avoid violating the policy. My view as to why they refuse to clarify the policy is that their stated motivation for the policy—that it provides the best customer experience—is not their genuine motivation, which appears to be to prevent selected brands from authorizing resellers to sell on the third-party marketplace. One can only surmise that Amazon makes more money via Amazon Retail, and that when this team decides to work with a brand, they want to be able to pressure the brand into selling to them by closing off all other available avenues. My reason for doubting Amazon's stated motivation for this policy is that the policy has the consequence of limiting the marketplace to unauthorized sellers, whose sales don't come with our warranty, despite representations to the contrary. How could this possibly result in the best customer experience? If Amazon were being transparent about their motivations, they would clarify what does and does not qualify as an "agent" or "representative", and they would state how, consistent with the policy, an authorized seller of a "chosen brand" can sell on the third party marketplace. But they refuse to do either.

After ending our relationship with Amazon Retail, we had open issues with several of their departments around topics such as money that was owed to us due to incorrect chargebacks. At least four different departments refused to communicate with us other than to give the same scripted response: "researching your issue in partnership". My team perceived this behavior as retaliation for our decision to stop selling to Amazon Retail.

In 2019, we lost an estimated $10,000,000 of revenue as a result of (i) not selling to Amazon Retail and (ii) Amazon's actions against our distribution partner.

In the fall of 2019, a new member of the Amazon Retail team reached out to us to discuss a new relationship. After giving him and his team members frank feedback around the concerns that led us to end our relationship in 2018, and in light of assurances that our concerns would be addressed, we agreed to test selling a limited number of styles to Amazon Retail. While the Amazon Retail team members that we interact with seem to have sincere intentions, I have

reservations as to whether they can overcome what seem to me to be systematic problems with Amazon due the asymmetry in power between Amazon and its partners.

Mr. CICILLINE. Thank you. Thank you, Mr. Barnett.

Mr. Hansson, you are now recognized for five minutes for your opening.

STATEMENT OF DAVID HEINEMEIER HANSSON

Mr. HANSSON. Thank you, and thank you for the invitation to provide testimony here.

My name is David Heinemeier Hansson and I am the CTO and co-founder of Basecamp, a small internet company from Chicago that sells project management and team collaboration software.

When we launched our main service back in 2004, the internet provided a, largely, free, fair, and open marketplace. We could reach customers and provide them with our software without having to ask any technology company for permission or pay them for the privilege.

Today, this is practically no longer true. The internet has been colonized by a handful of big tech companies that wield their monopoly power without restraint.

This power allowed them to bully, extort, or, should they please, even destroy our business unless we accept their often onerous, exploiting, and ever-changing terms and conditions.

These big tech companies control if customers are able to find us online, whether customers can access our software using their mobile devices, and define the questionable ethics of what a competitive marketing campaign must look like.

A small company like ours simply has no real agency to resist or reject the rules set by Big Tech and neither do consumers. The promise that the internet was going to cut out the middleman has been broken.

We are all left to accept that these companies can and do alter the deal, any deal, however they please and whenever they do our only recourse is to pray that they do not alter it any further.

Let us start with Google. Their monopoly in internet search is near total and their multi-billion-dollar bribes to browser makers like Apple ensure no fair competition will ever have a chance to emerge.

Google uses this monopoly to extort businesses like ours to pay for the privilege that consumers who search for our trademarked brand name can find us because if we don't they will sell our brand name as misdirection to our competitors.

Google feigns interest in recognizing trademark law by banning the use of trademark terms in ad copy but puts the onus of enforcement on victims and does nothing to stop repeat offenders, unless, of course, the trademark terms are belonging to Google itself. Then enforcement is swift and automatic. You will find no competitor ads for any of Google's own important properties.

Google would never have been able to capture a monopoly in Search by acting like this from the start—misdirecting consumers, blanketing search results with ads, and shaking down small businesses.

In the absence of meaningful regulation, they will continue to extract absurd monopoly rents while bribing browser makers to ensure nothing changes.

Apple, too, enjoys the spoils of monopoly pricing power. With the App Store they own one of the only two mobile application stores that matter. The other belongs to Google.

This cozy duopoly has allowed Apple to keep fees on payment processing for application makers like ours exorbitantly high.

Whereas a competitive market like that for credit card processing is only able to sustain around a 2 percent fee for merchants, Apple, along with Google, has been able to charge and outrageous 30 percent for years on end.

Apple may claim that they do more than payment processing for this fee such as hosting applications or providing discovery. But the company undercuts this argument by giving these services away for free to application makers who do not charge for their applications.

But worse still is the draconian restrictions and merciless retribution that Apple brings to bear on application makers who dare to decline using Apple's payment services.

Even a mere link to an external webpage that explains how to sign up for a service that doesn't use Apple's payment system can get their application rejected or removed from the App Store.

Every application maker using Apple's App Store live in fear that their next update is denied or their application is entirely removed.

All it takes is being assigned the wrong review clerk who chooses to interpret the often vague and confusing rules different than the last. Then you will be stuck in an appeals process that would make Kafka blush.

Finally, Facebook's industrial-scale vacuuming of everyone's personal data has created an ad-targeting machine so devastatingly effective that the company, together with, guess who, Google is currently capturing virtually all growth in internet advertisement.

I quote a report in my written testimony that put that capture between Facebook and Google at 99 percent in 2016. Not even Putin dare brag of an approval rating that high.

Facebook is able to maintain this iron grip on the collection of personal data by continuing to buy any promising competitor. The acquisitions of Instagram and WhatsApp should never have been approved by regulators and need to be urgently undone.

This creates a marketplace where companies that wish not to partake in the wholesale violation of consumer privacy is at a grave disadvantage.

If you choose not to take advantage of this terrifying and devastatingly effective ad machine, your competitors surely will.

This has been but a brief taste of what it is like to live as a small tech company in a digital world owned and operated by Big Tech.

And I didn't even touch on the misery that it is to attempt direct head-on competition with any of these conglomerates. But at some point, all companies will be competing against Big Tech simply because Big Tech is bent on expanding until it does absolutely everything. The aforementioned companies already do payment processing, credit card issuing, music distribution, TV producing, advertising networks, map making, navigation services, alarm systems, cameras, computers, medical devices, and about a billion other things.

Help us, Congress. You are our only hope. [Laughter.]

[The statement of Mr. Hansson follows:]

Written Testimony of David Heinemeier Hansson CTO & Cofounder, Basecamp

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

Hearing on:
Online Platforms and Market Power,
Part 5: Competitors in the Digital Economy

January 17th, 2020

My name is David Heinemeier Hansson, and I'm the CTO and co-founder of Basecamp, a small internet software company founded twenty years ago, in Chicago, Illinois, that today employs 56 team members across the US, and in a few international locations. We sell a project-management and team-collaboration tool to mostly other small- and medium-sized businesses and teams.

I'm here to provide testimony on what it's like to run that business in the shadow of big tech today. I can tell you that it is not easy. And every year it becomes harder. I'm grateful to this committee for listening to this testimony, and for seriously considering how we might reverse the dominance that big tech is exerting over technology and all of our lives.

Beyond cofounding Basecamp, I'm the creator of an open-source software toolkit called Ruby on Rails. It has provided the technical foundation for companies like Shopify, Airbnb, Hulu, Twitter, and Square, and been used to make literally a million other applications, creating billions of dollars in value. I've provided this toolkit to the world for free, and none of the aforementioned companies have ever had to pay a dime to use it, because I believe in a strong, shared, and open commons.

It is this same belief that was so appealing about the internet when we launched Basecamp as a software service back in 2004. A truly free and open marketplace that was largely unencumbered by big tech companies, like those that reign supreme today. Back then, there was excitement about the likes of Google and Facebook, and the better tools and services they provided us. Today that excitement is primarily replaced by a mixture of fear and loathing. We live in their shadow, and constantly have to worry about whether our business, and other businesses, will get wiped out by frequently changing and often capricious whims.

The central problem for a small software business like ours is that the once open internet has been colonized by the big tech giants, and they're erecting tollbooths everywhere. Tollbooths that restrict our access to customers, induce us to compromise our ethics, erode our self-determination, and ultimately threaten to suffocate us entirely.

The power that these big tech companies wield over small tech companies is terrifying. If your presence ends up displeasing any of these conglomerates, they can make you essentially disappear from the marketplace with the press of a button -- by relegating your position in their search engine to page 42, or by banning your application from their app stores altogether. The threat is very real,

and all of us small tech operators instinctively internalize it, which often stifles dissent.

Furthermore, many small online businesses are so utterly dependent on being in the good graces of the internet giants that they develop a form of Stockholm's Syndrome, thanking their captors for the few crumbs they're allowed to keep. At Basecamp, we started our business before these giants consolidated their dominance and their monopolies, and we remember what the internet was like before they ruled. We also had a chance to build a customer base prior to the tollbooths appearing. So we speak to that experience, and that's what I hope to do here as well.

In this testimony, I will give three broad examples of how this has affected us directly at Basecamp. I am only including three in the service of time and space. There are many more.

#1 Google's monopoly in search

Google's search engine is not just a place consumers go to find stuff; it's become the front door of the internet. It's the start page for millions. It's a basic form of navigation around the internet. People these days rarely bother to remember the specific internet address of a company they want to do business with, they just google it.

When Google started, this was not a problem. In fact, Google was the solution. They created an amazing search engine that was not only simpler to use than the competition, it was simply better at finding what people were looking for. But that was then.

Today Google is less of a search engine and more of an ad engine. The monopoly that Google has captured and cemented in internet search is being exploited in the crudest and most abusive ways to shake down small businesses like ours, and to pit businesses against each other in ad bidding wars where the only winner is the company selling the rifles: Google.

I'm sure you've already heard testimony to the extent of Google's monopoly in search, so I won't bother repeating the general statistics, but rather just focus on the numbers that are unique to Basecamp.

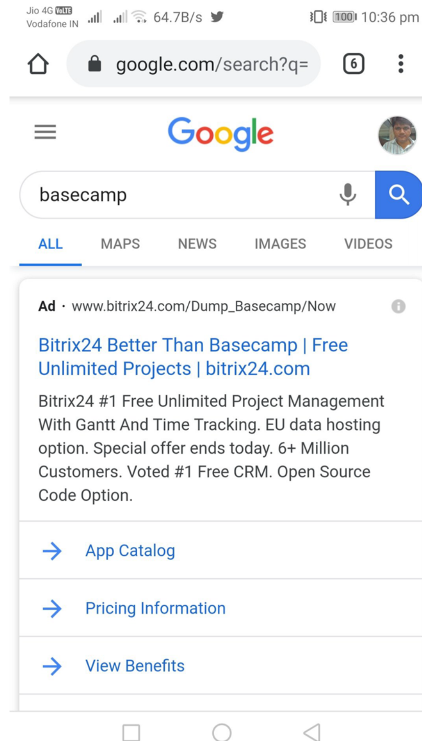
Upwards of 40% of all our marketing traffic comes from the result of a Google search. And that number is probably low for our industry, because we've spent

the past twenty years cultivating our own audience. For many businesses, Google is the overwhelming source of traffic for their site. They live or die by whether Google allows customers to find their business through search.

Compared to that 40%, every other search engine you can think of – Yahoo, Microsoft's Bing, or DuckDuckGo – rarely break even 1%! All those search engines could drop us from their listings tomorrow, and we'd barely notice. If Google dropped us, we'd be in dire straits.

This monopoly in search, which amounts to controlling the front door of the internet, allows Google to shake us down for protection money with ease.

For years, we've been dealing with the problem that Google allows competitors to purchase ads on our trademark, blocking and misdirecting consumers from reaching our site. This problem is particularly egregious on mobile, as shown in screenshot A:



A consumer searches for Basecamp, and all they see is an ad that blocks the entire screen, with some competitor telling consumers to "Dump Basecamp Now", using our trademark in the ad copy.

The problem is scarcely any better if you search with a desktop browser. Often times it's even worse. See screenshot B:

basecamp

All · News · Videos · Maps · Images · More · Settings · Tools

About 15,600,000 results (0.59 seconds)

Better Than Base Camp | Try monday.com™ (Recommended)
Ad www.monday.com/Basecamp/alternative
Collaborate And Track Projects & Time. Get Results. Start Now For Free. A Powerful Projects & Tasks Management Tool. Get Started In Less Than 2 Minutes. Reminders & notifications. Dashboards.

Before choosing BCamp | Compare vs Smartsheet | smartsheet.com
Ad www.smartsheet.com/basecamp
The results just might surprise you. Try It Free! Make Collaboration Work. Enterprise-Ready Security. HIPAA, SOC2, & GDPR.
Apps & Integrations · Get More Project Views · Built-In Work Automation · Take Our Product Tour

What Makes Asana Better? | Manage Any Project End-to-End
Ad www.asana.com/compare/basecamp
From kickoff to signoff and beyond, plan and manage team projects with Asana. Try free.
Why Teams Choose Asana · Take a Product Tour · Asana Integrations · Pricing & Plans
Asana Premium - from $9.99/mo - More power and features · More

Basecamp: Project Management & Team Communication Software
https://basecamp.com/
Trusted by millions, **Basecamp** puts everything you need to get work done in one place. It's the calm, organized way to manage projects, work with clients, and ...

Google's solution to this interference and obstruction is two-fold:

a) They have rules in place that bars advertisements from using trademarked terms, like our Basecamp trademark. But they leave all enforcement of these rules to the victims, and they impose no sanctions on the perpetrators. Why would they? Every ad sold is money in Google's coffers. They make no money when consumers simply find what they were looking for in the organic search results.

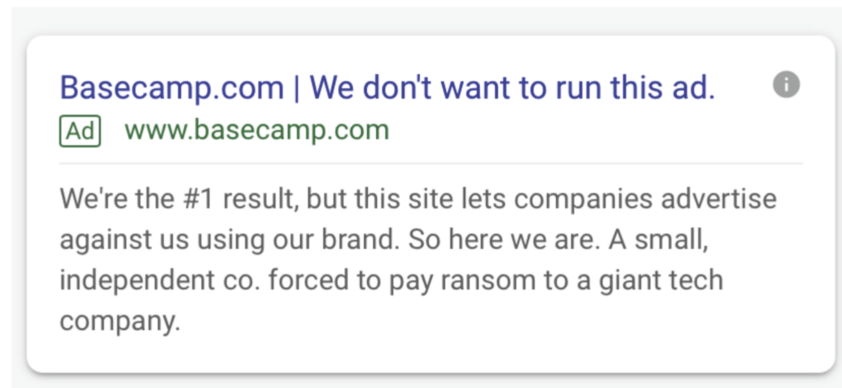
We have opened multiple trademark infringement investigations with Google. Their process is onerous and slow: we must notice the infringing advertisement, share a screenshot, and provide an exact link to the ad for Google to even begin an investigation. It takes weeks of persistent follow-up until Google's Legal Support Team gives a response. If an investigation results in any ad restrictions, those restrictions only apply to the specific reported ads. In our experience, this has meant that just two months after Google took down one trademark-

infringing ad, another one appeared, by the same perpetrator. It's like a game of Whac-A-Mole.

The proof that the process needn't be so onerous is revealed by the fact that Google tolerates absolutely zero infringement of their own trademarks. If you try to use any variation of "Google" in your advertisement, the platform automatically denies the ad. In other words: Google Ads treats Google differently than any other company.

b) If you get tired of playing the Whac-A-Mole game you're structurally designed to lose, you can instead opt to simply pay the protection money. Google will happily take your money for ads against your own trademarked term, even if you're already the top organic result. Doing so can force the ads that squat on your trademark off, because consumers of course are more likely to click the ad for the thing they were looking for in the first place, but it's expensive.

We currently run a campaign that can cost us upwards of $72,000/year ($200 per day) to defend our trademark, but it's like standing alone with a bucket trying to empty water out of a sinking ship -- incredibly frustrating, and ultimately not very effective. So, at least we try to note our disgust in the ad copy, see screenshot C:



We can't even compute how much it would cost to do a complete campaign that would prevent all squatting ads from appearing, and Google won't tell us. It's all part of their proprietary bidding algorithm.

Paying Google protection money such that consumers who are deliberately looking for our product can easily find us is infuriating. But what is a small business like ours going to do?

And that's just talking about the US market, where Google at least pays lip service to respecting trademarked business names. If you search for Basecamp in India, Google, an American corporation, will not respect our American trademarks. Because we do not have a trademark for Basecamp registered in India, Google considers it fair game to violate our American one there for Indian users.

Google's monopoly on internet search must be broken up for the sake of a fair marketplace. Google would never be able to get away with such a user-hostile design as showing a full-page ad for something other than what you were searching for, if it had real competition. They would never have been able to establish their monopoly if this had been the design from the get-go. These are the monopoly spoils of complete domination.

I submit the following policy ideas:

a) Take inspiration from the DOJ ruling that required Microsoft to offer consumers a choice of browser when installing Windows. Users of the Chrome browser, the Firefox browser, the Android operating system, and the iOS operating system should be given a clear, upfront choice of which search engine they want to use. Google should not be able to pay $10+ billion/year to Apple to cement their search monopoly.

b) Ban Google from selling advertisement on trademarked keywords to direct competitors. Google is able to extract enormous sums from the marketplace when competitors engage in ad wars, buying ads on each other's trademarked terms. The only winner is Google.

#2 Apple's half of the duopoly in mobile application distribution

When Basecamp got started in 2004, providing our application over the open web was the best way to reach consumers. Today, the walled gardens of mobile application app stores are at least as important as that open web, and for many businesses and people, even more so.

Whereas the web is a free and open marketplace – you don't have to ask any tech company for permission to sell your services! – the mobile app stores are not. Google and Apple have captured an almost perfect duopoly between the Android and iOS operating systems, and have in effect been able to collude to keep prices exorbitantly high for application makers (who then often pass on these fees to consumers).

These stores are not optional, if you want to offer a modern software package like ours. We could not continue to be competitive in our market, if we did not offer Android and iOS applications along with our web-based system.

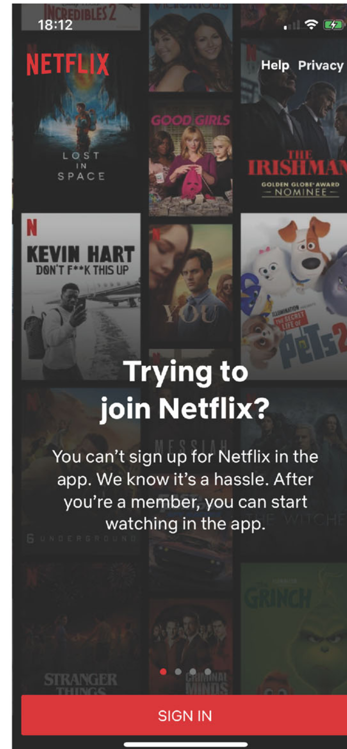
But in order to sell software through this duopoly, businesses are required to hand over 30% of their revenue for the privilege! 30%! Most mobsters would not be so brazen as to ask for such an exorbitant cut, but this has been the going rate that Google and Apple have settled on, and it has been stable for years.

Contrast this to the fees that Basecamp must pay to transact in the highly competitive market of credit card processing. There we basically pay around 2% to process a payment, and there are countless competitors constantly trying to win our business by offering lower rates. Credit card processing is a competitive market, and the rates show. Mobile application stores are not a competitive market, and the rates show.

In the case of Apple's App Store, the indignity does not end with the exorbitant cut they ask to process payments. If you choose to opt out of this regime (as we have done at Basecamp, despite it putting us at a competitive disadvantage and being less customer friendly), you are subject to a truly draconian set of rules as to how you can talk about your business.

Apple denies us the ability to sign up trial customers through our iOS app, since we've chosen to take our payment processing to the competitive market of credit card processors. The application essentially has to appear as a speakeasy bar, where you're only let in, if you're already a member.

And if we dare to mention that it's possible to sign up for our service using the open web, Apple's retaliation is swift and brutal. They will simply ban our app from the App Store, until we comply. We've had this happen to us, and it's happened to countless other software makers as well.



The trick is to walk the thinnest possible line, contorting the language to nudge and to wink at customers that it's possible to sign up on the web, without actually telling them outright. This is more art than science, and your ability to get away with such winks and nudges is largely determined by which App Store reviewer you're assigned, and whether you're a small or a large company. As an example, see the language that Netflix ended up using in screenshot D:

It's a complete tyranny, and the rules are often interpreted differently by different reviewers, because they're intentionally left vague. So we live in constant fear we may have violated these vague rules, and that the next update to our applications will be blocked by Apple. There are countless examples where developers large and small have been denied access to publish their applications without explanation for days or even weeks at a time. It's insufferable.

I submit the following policy ideas:

a) Deny Apple the ability to discriminate against app developers who choose to go to a competitive market for payment processing. Allow them to clearly tell their customers what they're doing and direct them accordingly.

b) Bring down the exorbitant fees for payment processing in the app stores to match what would have been the case in a competitive market. Reduce the rates from 30% to, say, 3%. We would be thrilled to give customers the most convenient way to buy our products if the rates were competitive.

#3 Facebook's half of the duopoly in targeted internet advertisement

Facebook and Google have captured a duopoly on all growth in internet advertisement spending over the last several years. In a report on the growth in internet advertisement from 2016[1], it was revealed that 99% of all growth that year was captured by just these two companies: Google took 54%, Facebook took 45%, and everyone else was left with the last 1%. This is as clear an example of market failure as they come.

It's not exactly hard to surmise why. These two companies hold the most detailed profiles of people online today, which gives them the greatest opportunity to target ads based on personal data, thus rendering their ads the most effective. They also control the most popular destinations online, and the most popular gateways to all other content on the internet (Google's search engine and Facebook's Newsfeed).

Basecamp saw this first-hand when we experimented with targeted advertising back in 2017. We ended up spending tens of thousands of dollars with Facebook, primarily on targeted ads using the audience look-alike matching feature. These ads performed better than any other type of internet advertisement we tried at the time. Facebook's targeting capability is crushingly effectively, and therefore truly terrifying.

At Basecamp, we ultimately ended up swearing off the use of targeted advertisement based on the exploitation of personal data[2]. Facebook's record of protecting people's privacy, and gathering their consent in the exploitation of their data for advertisement purposes, is atrocious, and we decided that we wanted no part of it.

But choosing to opt out of targeted advertisement on the internet is like competing with one arm behind your back. It is very clear why most companies feel compelled to do this kind of advertisement, even if it's a violation of their ethics. If their competitors are doing it, they're at a significant disadvantage if they don't. And the same is true for us. We have undoubtedly given up growth to competitors because we've refrained from pursuing targeted ads.

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[1] https://fortune.com/2017/01/04/google-facebook-ad-industry/

[2] https://m.signalvnoise.com/become-a-facebook-free-business/

It feels very much like operating an industrial company in a world without any environmental regulations. If it costs us $100 to produce our product, while handling toxic waste in a responsible manner, but our competitors can produce the same product for $50, by dumping their waste in the water supply, well, we're probably going to have a hard time competing! When businesses do not have to account for the negative externalities they cause, it's a race to the bottom.

The industrial-scale exploitation of privacy online is much the same. Facebook and Google have built comprehensive dossiers on almost everyone, and they can sell incredibly targeted advertisement on that basis. When Facebook knows you're pregnant, or worse, thinks it knows when you're pregnant[3], they can target ads for baby clothes or strollers with striking efficiency[4]. But doing so represents an inherent violation of the receiver's privacy.

Every ad targeted using personal information gathered without explicit, informed consent is at some level a violation of privacy. And Facebook and Google are profiting immensely by selling these violations to advertisers. Advertisers who may well feel that purchasing these violations go against their ethics, but see no choice to compete without participating.

What's more, the fact that Facebook in particular has managed to divorce the targeting of ads from the content next to which those ads appear is fueling the rise of the most extreme content. To Facebook, the most successful content is purely that which keeps people looking and clicking. It doesn't matter if that's conspiracy theories, extremist content, or misinformation. As long as people are clicking, the targeted ads can be served. They've finally found the alchemist's dream: how to turn arsenic into gold.

I submit the following policy ideas:

a) Ban the practice of targeting ads based on personal information, unless each piece of personal information used in the ads was specifically obtained with the voluntary, optional, and informed consent that it be used for marketing purposes. As in in the pregnancy example, "Yes, I give permission to Facebook to sell the fact that I'm pregnant to companies that want to advertise to pregnant women".

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[3] https://www.washingtonpost.com/lifestyle/2018/12/12/dear-tech-companies-i-dont-want-see-pregnancy-ads-after-my-child-was-stillborn/

[4] https://www.quora.com/How-do-I-target-pregnant-women-living-in-US-on-my-Facebook-ads

b) Require Facebook and Google to disclose to people the complete dossier that's being used to target ads against them, and give people the option to flush that dossier.

Conclusion

These are just the three biggest examples from our lived experience as a small tech company in a world of big tech giants that feels increasingly fraught and distraught. They are examples that point to the same fundamental problem: that the big tech companies all, in different ways, have used their market dominance to hamstring small businesses.

Are they all evil with malicious intent behind every design and business choice? No. It is undeniable that each of these companies have created industry-changing services. It is also undeniable that they each now have too much power and too many conflicts of interest to remain as unregulated as they have been.

We cannot rely on the benevolence of big tech corporate leaders to do the right thing. They have repeatedly failed to self regulate. It is well past due that legislative action is taken to ensure the means for fair competition, through meaningful regulation and enforcement.

Thank you.

#4 Amazon's monopoly of book sales in the US

I know I promised to give just three examples, but I'm including this fourth one as a bonus appendix, in respect to the curious fact that Jeff Bezos bought a minority stake in Basecamp back in 2006 – when Amazon was 1/50th the size it is now, and we were all just excited about free two-day shipping.

Jason Fried, my business partner at Basecamp, and I have written three major books published by major US publishers. Our first book, *REWORK*, was released in 2010, and became a New York Times bestseller. Back then, Amazon was certainly an important outlet for selling books, but it was just one amongst several.

In 2013, we released *REMOTE: Office Not Required*, and in just those three years, the share of book sales that happened via Amazon had increased dramatically. I remember thinking it was incredible how large the share was, and that it scarcely could go any higher.

But I was wrong. In 2018, we released *It Doesn't Have To Be Crazy At Work*, and Amazon was no longer just the biggest seller of our book, it was essentially the only one! Amazon accounted for a combined 90% of sales across all formats. In audio books and ebooks, the share was above 95%.

When it turned out that Amazon had ordered too few copies of our book to satisfy demand, and our publisher was slow to reprint (due to manufacturing backlogs), it was as if the book essentially did not exist. No other retailer mattered. It was shocking.

No single retailer should be responsible for 90% of the sales of a mainstream book in America.

Mr. CICILLINE. Thank you very much. Yes, I thank you very much.

Now I recognize Ms. Daru for five minutes for your opening statement.

STATEMENT OF KIRSTEN DARU

Ms. DARU. I would like to thank Chairman Cicilline and the members of the subcommittee for convening this hearing and to Vice Chair Neguse for hosting.

My name is Kirsten Daru and I am the chief privacy officer and general counsel of Tile. Tile helps people find lost items.

Our devices work with our Tile app, which is available on iOS and Android to help people find their wallet, purse, keys, you name it. We also embed our technology into third-party products like headphones and laptops.

Tile is a small company. We only have about a hundred employees. But we have over 180 patent assets and much of our success can be attributed to our ability to collaborate with a wide diverse group of tech partners.

That includes Hewlett-Packard, Google, Amazon, and, importantly, Apple, who we have partnered with since about 2013.

But last April, things began to change. Last April, reports came out that Apple was developing a competing Tile like device and shortly thereafter they told us that they weren't going to carry us in their retail stores anymore.

But don't get me wrong. Tile welcomes competition. But it has to be fair competition, and in the weeks and months that followed those initial reports, Apple exploited its market power to advance its own interests at our expense, and I will explain.

So, first, Apple's Find My app competes with Tile. Importantly, Find My is installed natively on Apple hardware to the exclusion of all competing apps and it cannot be deleted. Not so with Tile.

Also, with iOS 13, which released last September, Apple made it more difficult for our customers to enable their Tile devices by burying the required permissions deep within the consumer setting.

But not so for Find My. Find My's location settings are activated by a single selection during operating system installation.

And then once our customers figure out how to enable our devices, also with iOS 13, Apple started surfacing these reminders and prompts to our customers to encourage them to turn it off.

But Apple does not surface any reminders for its customers to turn off Find My's location permissions. Also, in its latest iPhones, Apple included a new nonproprietary technology.

It is kind of like wifi or Bluetooth. It is called UWB—Ultra Wide Band. Again, it is nonproprietary. It is one of those things that most—that would ordinarily be opened up to all third parties to use.

What it is it is similar to Bluetooth but whereas Bluetooth can tell you that an item is in a room, UWB can tell you exactly where it is in that room.

Reports surfaced that Apple's competing Tile hardware product would use UWB to enhance the experience of its customers. But,

again, by contrast, Apple is not enabling Tile to use that technology for the benefit of its customers.

All of these examples demonstrate that Apple is acting as a gatekeeper of third-party access to permissions and technology in ways that favor its own interests.

Keep in mind that Apple owns the entire commercial iOS ecosystem. They own the hardware. They own the software. They own the App Store and the retail stores.

That gives Apple access to competitively sensitive information including who our customers are, our retail margins, our subscription take rates, and Apple's control over the ecosystem enables it to make changes to the OS with no meaningful advance consultation or notice to competitors to enable us to evaluate or prepare for impact.

It is like playing a soccer game. You might be the best team in the league. But you are playing against a team that owns the field, the ball, the stadium, and the entire league, and they can change the rules of the game in their own favor at any time.

That is the field on which we are competing with Apple. That is the field on which America is competing with Apple, and it doesn't leave much incentive for entrepreneurs or investors to bring new innovations to bear in America.

The functioning of a robust healthy app ecosystem is dependent on open platforms that do not favor the owner. It is our hope and preference to work with Apple to resolve our concerns.

But in the meantime, we ask Congress to continue to explore how Apple's exploitation of its market power to advance its own interests is used to hinder competition and limit customer choice.

I would like to again thank you for your time and I look forward to answering your questions.

[The statement of Ms. Daru follows:]

Testimony of
Kirsten Daru
Chief Privacy Officer and General Counsel for
Tile, Inc.

On *Online Platforms and Market Power*
Part 5: Competitors in the Digital Economy

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

Boulder, CO
January 17, 2020

I would like to begin by thanking Chairman Cicilline, Ranking Member Sensenbrenner, and the members of the Subcommittee on Antitrust, Commercial and Administrative Law for convening this field hearing, and Vice Chair Neguse for hosting. Additionally, I would like to thank and commend the members of the subcommittee and your staff for the commitment that you have shown to promoting competition in the digital marketplace.

Introduction

My name is Kirsten Daru, and I am the Chief Privacy Officer and General Counsel of Tile, Inc. Tile is one of several similarly situated companies that have been impacted by anti-competitive practices on the Apple platform. Importantly, I am here today not to ask for protection, but in support of a level playing field on the Apple platform, where competitors can fairly develop great services and great products at fair prices for American consumers.

Tile is a software and hardware company that helps people find lost or misplaced items. In particular, Tile sells devices that attach to items like your keys, wallet or purse and also embeds its finding software into 3rd party products. All Tile-enabled devices are compatible with the Tile app, which provides a simple user interface enabling customers to find their items.

Tile has over one hundred employees in the United States and over one hundred and eighty patent assets. In all, we help our customers find over 5 million items every day.

Much of our success can be attributed to our ability to work collaboratively with a diverse group of partner companies. Tile has partnered with some of the biggest technology companies in the world to integrate our software into their own products—including Bose, Hewlett-Packard, Google, Amazon and, importantly, Apple. However, beginning early last year, our partnership with Apple took an ominous turn.

Tile's Relationship With Apple

For background, Tile enjoyed a productive and mutually beneficial partnership with Apple for years. Our app is available on the Apple App Store and Apple began selling Tile devices in its retail stores in 2015. In 2018, Tile sent an engineer and a designer to Apple's headquarters to help develop a feature where Siri could help consumers find their Tiles with their voices. That feature was showcased on stage at Apple's biggest annual event, its Worldwide Developers Conference (WWDC).

In April of 2019, however, reports started surfacing that Apple was launching a competitive "Tile-like" hardware product and was enhancing its "Find My iPhone" app into something more resembling our service.[1,2] In June of 2019, Apple informed us that they would no longer be carrying our products in their stores. Apple has since hired the Tile engineer we sent to help them develop the Tile/Siri integration featured at WWDC.

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[1] Warren, Tom. "iOS 13.2 reveals Apple's Tile-like device could be called AirTag." The Verge, 10/28/19, https://www.theverge.com/2019/10/28/20936650/apple-airtag-tile-device-reference-ios-13-2-rumors, accessed 1/10/20

[2] Gallagher, William. "Apple's Tile-like tracking device named 'AirTag in iOS 13.2." AppleInsider, 10/28/19, https://appleinsider.com/articles/19/10/28/apples-tile-like-tracking-device-named-airtag-in-ios-132, accessed 1/13/20

Changes Imposed by iOS 13

Another worrisome event was the introduction of iOS 13 last September, which introduced a host of concerning changes.

- It introduced a new FindMy app that competes even more directly with Tile;
- It made it difficult for consumers to enable their Tile devices. They did this by burying required permissions (called "Always Allow") deep within the iOS settings;[3]
- Once permissions are enabled, Apple also began sending frequent prompts encouraging our customers to turn them off, causing customer frustration and implying that Tile shouldn't be trusted;[4,5]

By contrast, permissions for Apple's native location services—including FindMy—are activated by default as part of "Express Settings" during iOS installation.[6] And Apple surfaces neither reminders of FindMy's data collection, nor prompts for its customers to disable it. These changes increased the "friction" a user faces when initializing and using third-party apps, while simultaneously decreasing the relative friction for (and transparency of) Apple's own location tracking services.

This is all even more troubling given that Apple owns and controls the hardware, the operating system, retail stores and the App Store marketplace, upon which third party app makers like Tile rely. For instance, FindMy is also installed natively on Apple hardware—to the exclusion of competing apps—and can't be deleted. This not only gives Apple significant control over the ecosystem but also gives Apple access to competitively sensitive information, including the identity of our iOS customers, subscription take rates, retail margins and more.

Apple has attempted to justify its own collection of sensitive information and disparate treatment of competitors because FindMy is "part of the OS," as well as due to a need for enhanced consumer privacy.[7] But the changes don't meaningfully improve or enhance privacy of third party app developers; they do, however, make it more difficult for customers to exercise choice and cause confusion and friction for customers of third party competing apps. The practical reality is that this is a prime example of Apple using consumer privacy as a shield to place third party apps at a competitive disadvantage.

Additional Concerns

Apple's new line of iPhones also include a technology called Ultra Wide Band (or UWB) which can enhance the Tile finding experience. While reports of Apple's competing hardware devices include leveraging UWB for Apple's own benefit, Apple has given us no indication that they will enable Tile to leverage the technology for its consumers.

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[3] Appendix I, Figures 1,2

[4] Haggin, Patience. "iPhone Update Reminds Users – Again and Again – of Being Tracked." Wall Street Journal, 12/31/19, https://www.wsj.com/articles/iphone-update-reminds-usersagain-and-againof-being-tracked-11577799336, accessed 1/10/20

[5] Appendix I, Figure 4

[6] Appendix I, Figure 3

[7] Tilley, Aaron. "Developers Call Apple Privacy Changes Anti-Competitive." The Information, 08/16/19, https://www.theinformation.com/articles/developers-call-apple-privacy-changes-anti-competitive, accessed 01/04/2020

In addition, around the time that iOS was introduced, Apple began aggressively bidding on our branded search terms, serving what look like *Tile* advertisements, and driving customers to the iOS app store. This drove up our cost of advertising significantly and hindered the effectiveness of our advertising during the top two sales periods of the year. It also allowed Apple to know more about the kinds of customers searching for device tracking services.[8]

Tile Brought It's Concerns To Apple's Attention

We've brought our concerns to Apple's attention in a number of ways. Over the course of several months, we filed what are called "Radars" with Apple, engaged with Apple's developer relations team and sent emails to Apple executives. Our CEO, along with the CEOs of seven other similarly situated tech companies, sent a letter to Tim Cook outlining our concerns.[9] It was only after the *Washington Post* ran an article on November 26 bringing some of these practices to light[10] that Apple contacted us to let us know that the company would eventually restore the "Always Allow" consumer option sometime in 2020. Many other concerns remain unaddressed, we don't know if we willhave access to UWB technology on iOS, Apple's aggressive search term bidding has resumed and we still don't know when in 2020 permissions will be restored for our customers. Moreover, we don't know what changes will be coming next.

Impacts on Tile

Apple's iOS 13 changes had the practical impact of making it more difficult for consumers to use our products than Apple's own. The iOS changes degraded the user experience for our customers, who must now navigate deep within their settings to enable their Tile products to function and gives users the impression that Tile's services should not be trusted. These changes caused and continue to cause confusion among our customers and resulting in a material decline in the efficacy of our products. Apple's advertising practices increased our cost of advertising and affected its efficacy. All of these changes occurred during the most critical time of the year for Tile – draining our engineering resources and forcing us to develop a new onboarding experience with no prior consultation or meaningful notice.

Conclusion

As Apple expands into additional services, some of which compete with developers like Tile, the need for a level playing field that fosters innovation and healthy technological partnerships becomes ever more critical for innovation and consumer choice. The functioning of a robust, healthy app ecosystem is dependent upon open platforms that do not favor the owner of the platform. It is our hope and preference to work collaboratively with Apple to resolve these concerns and restore competitive integrity to their platform. But in the meantime, it is our hope that Congress will continue to explore how any disparate treatment of competitive software apps, as well as other structural inequities—

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[8] Albergotti, Reed. "Apple says recent changes to operating system improve user privacy, but some lawmakers see them as an effort to edge out its rivals." The Washington Post, 11/26/2019, https://www.washingtonpost.com/technology/2019/11/26/apple-emphasizes-user-privacy-lawmakers-see-it-an-effort-edge-out-its-rivals/, accessed 01/13/2020

[9] Tilley.

[10] Albergotti.

including those inherent to the new iOS platform— could be utilized by Apple to hinder competition and limit consumer choice.

I would like to again thank you, Chairman Cicilline, Ranking Member Sensenbrenner, Vice Chairman Neguse, and the other members of the committee, for your time. And I want to repeat an important point. Tile is not looking for protection. We're here to simply advocate for consumers, and by that, I mean a level playing field for competitors in the Apple ecosystem.

I look forward to answering any questions that you may have.

Mr. CICILLINE. Thank you very much, Ms. Daru.

I will now begin questioning under the five-minute rule and recognize myself first for five minutes. And I am just letting my colleagues know I am going to devote five minutes to each of the panelists.

So we will have multiple rounds. You are free, obviously, to do it anyway you like. But I think these require kind of more in-depth discussions.

So I will begin with you, Mr. Spence, and thank you for your testimony. In your written testimony, you describe how Google and Amazon have become essential business partners.

As you note, their dominance across markets from voice assistants and operating systems to music services and cloud computing means that, and I am quoting you, "they are like basic infrastructure," end quote.

You note that this dominance enables the platforms to issue take-it-or-leave-it demands. Can you describe what some of those demands involve and what they have meant?

Mr. SPENCE. Thanks for the question, Mr. Chairman.

It is around things like our future products. So understanding what products we are going to be making in the future if we want access to their services. So they will look for that, which is really, at the end of the day, the most important thing inside a company like ours that is trying to keep confidential the products and any new innovations that we are working on.

So getting access to those, getting access to the kind of volumes that we think we will do as we go through that, trying to understand as well just the general direction of where the company is going, making sure that—you know, that we are willing to engage in marketing funding for the products as well on the platform would be another example as we go through that.

So, yeah, that is probably the—kind of a good feel for the——

Mr. CICILLINE. Thank you.

In a set of questions that I sent to Google as part of this investigation last year, I asked the company whether it ever requires that third parties seeking to access Google's services give Google access to their proprietary data.

Google responded that it has likely entered into those types of contracts but that any such contractual terms are, and I quote, "the product of good-faith negotiations by sophisticated parties," end quote.

Does that sound accurate to you it is the case, as Google suggests, that these contractual terms are just the product of regular business dealings?

Mr. SPENCE. Thank you for the question, Mr. Chairman.

I have been in consumer technology for 20 years. I think there are times where you are having negotiations with companies and it is on a—it is on a fair basis in terms of where you are.

I think, as I have indicated, there is a—there is such a dominant power that exists with these companies that when Google or companies like that are asking for these things you really, even for a company of our size, feel that you have no choice but to provide them to the companies.

Mr. CICILLINE. One remarkable thing about these companies is how integrated they are across many different business lines. Sonos may be negotiating with Amazon or Google over their voice assistants services while also be dependent on Amazon's retail platform or Google Search.

Is there a reason to think these platforms do, at the very least, or they could use their dominance in one market to apply pressure in a distinct market?

Mr. SPENCE. Absolutely. I think that is the—you know, the risk that is here and I think it is a very fair assumption to think that they would even with best efforts, right, and in terms of that is that information inside companies, the larger and larger they get it is easy in this day and age for that information to go many different directions.

And so as we provide information to these companies, it is certainly my concern that it can be shared across groups and that can be used to, in effect, compete with us down the line.

Mr. CICILLINE. So, just as an example, could Google demote you in search rankings if it didn't like how negotiations over voice assistant were going and how would something like that affect your business?

Mr. SPENCE. Oh, that would be something that would dramatically impact our business. As David had mentioned, we have had to buy our brand name on Google just to make sure that we are at the top of the rankings in Google Search.

But these companies have the power to be able to move you down the rankings, put tags on your products, do all sorts of things that would tilt the playing field.

Mr. CICILLINE. And, Mr. Spence, in your testimony you explain that Google has sought to blocking innovative service by Sonos that would have allowed consumers to utilize multiple voice assistants on a single Sonos speaker.

Can you tell us more about Google's role in blocking this service and the effect of this decision on your product and on consumers, and how was Google able to make that demand and who benefited from the outcome?

Mr. SPENCE. So probably the best way to think about what it is that we want to do is just like on your computer today you could choose to use one search engine. You could use Google or you could use DuckDuckGo.

We want to give customers the ability to access either Amazon's Alexa service or Google's Google Assistant voice service on a Sonos speaker and we have developed the technology which enables that, which is new, innovative, and the best thing for customers because it is choice, and we would be happy to put other voice assistants on there as customers so deem it.

We developed that. We had it ready. We have showed it to Google and Amazon. To Amazon's credit, they said, okay, this makes sense.

Amazon has led recently the voice interoperability initiative to try and, you know, drive customer choice. Google has said, if you are going to do that, Google Assistant will not be available on the Sonos platform.

So you will not have access to Google Assistant if that is what you—if that is the way you want to run this.

And so they haven't allowed us and we can't offer that today, which is, in my opinion, you know, really reducing freedom of choice for customers.

Mr. CICILLINE. Thank you very much.

I now recognize the gentleman from Colorado, Mr. Buck, for five minutes.

Mr. BUCK. Thank you, Mr. Chairman.

And I wanted to mention something that I did mention in my opening statement and that is I think there is great bipartisanship in examination of this, and hearing each of the individuals testifying today I think it is clear that there is abuse in the marketplace and there is a need for action.

The question I have for each of you really is I hear the problem. I don't hear the solution. And I am a small government person and I am concerned about the government interfering in the marketplace because it may ultimately interfere with your ability to produce the products in the free marketplace that you want to produce.

I first want to say, Mr. Hansson, thank you for dressing the way you did. That is the way I would like to dress. [Laughter.]

I don't want to wear a tie either and you sort of have the image of a tech person—a tech executive. [Laughter.]

So I—when I grow up I want to be just like you. [Laughter.]

Mr. HANSSON. I am happy to play the part. [Laughter.]

Mr. BUCK. Mr. Spence, I heard you talk about Google and how they created a competitive product. Would you advocate that the government or regulators in some way prevent a Google from creating a competitive product?

Mr. SPENCE. We have competed—we have competed, you know, in the market against many great companies—Bose, Sony, you know, many, many companies.

I think the difference in the case here is that these companies are leveraging their power in one market to, you know, go into new markets where there is predatory pricing and they are doing it to uphold their dominance in other markets.

And so I don't know what the answer is in that particular case but they are doing that and they are infringing the intellectual property—the invention of a smaller company like ours in those cases.

And so I think—I think we are in a unique position where—I am with you in terms of small government but I think the whole spirit of trying to encourage small companies, encourage new innovations and new startups is at risk, given how dominant these companies are.

I would argue that we have not seen anything like this before and the level of dominance, at least in my 20 years of experience. And so I think there may be——

Mr. BUCK. We have certainly seen—we have certainly seen the Rockefellers. We have certainly seen dominance in steel and dominance in other products.

So what I hear you saying, and I want to make sure that I hear it correctly, you aren't opposed to large companies—Bose, Google——

Mr. SPENCE. No. No.

Mr. BUCK [continuing]. Creating a competitive product.

Mr. SPENCE. No.

Mr. BUCK. What you are—what you are opposed to is that competitive product—the pricing structure of that competitive product is something you believe is predatory, is—they are selling it below cost or below at least market value because they want to knock the competitors out of the market and they are using their platform to do that.

Mr. SPENCE. That is correct.

Mr. BUCK. And do the anti-trust laws now cover that? Are we—are we looking at a situation where we need to adapt anti-trust laws to high tech or are we looking at a situation where we need to give the federal government more resources to enforce the laws that exist?

Mr. SPENCE. I do not have the depth of understanding of anti-trust laws necessarily. But I would say that——

Mr. BUCK. Neither do I and I am on the committee. [Laughter.]

Mr. SPENCE. What I would say is my understanding of the spirit it is such that it would address these kind of behaviors. So, to me, I am not sure if it is enforcement or the laws.

But I would think that this level of power with this few firms we should have rules in place which allow the Congress to act or for there to be remedies that are put in place. And I don't—I just don't see it happening today.

Mr. BUCK. So I guess I am still struggling. I want to figure out do you have—is there a way for us to receive information about the predatory price?

Obviously, we don't know how much it costs Google. They are such a large company they may have some benefits in terms of the size of the company in producing something that they can do more efficiently than a smaller company. I don't know.

But what evidence is there that they are—they are selling something at a price that is below the cost in order to be predatory?

Mr. SPENCE. There are some industry analysts that do this kind of work to understand the cost profile. We, obviously, understand the cost profile, given the industry we are in.

So in looking at that, we are quite confident there has been—you know, there has been executives that have made comments from these companies that say, you know, that they are doing it for other strategic purposes really to get their other services into people's homes and lock those in.

So that information is available, and I think from, I would say as well, unbiased third parties, right, because that is where I imagine you would probably want to get it from and that is available.

Mr. BUCK. Thank you very much for your time.

I yield back.

Mr. CICILLINE. Thank you.

I now recognize Mr. Neguse for five minutes.

Mr. NEGUSE. Thank you, Mr. Chairman.

First and foremost, thank you for hosting this hearing here in Colorado in the 2nd Congressional District in particular, which is a hub national for ingenuity and technology innovation, and so it is a pleasure to be able to welcome you here.

And, of course, very grateful to my colleagues, Mr. Perlmutter and Mr. Buck, for joining as well, and we want to give our regards to Mr. Sensenbrenner, the ranking member, who I understand had planned to attend but, of course, could not due to a storm in the Midwest.

This hearing couldn't be more important, couldn't be more timely, and so I appreciate the witnesses, each of you, for coming forward today and offering your testimony.

The presence of research institutions like CU Boulder and Colorado State University, access to a healthy venture capitalist community, home to startup incubators, and the ability of local government to read the tea leaves really has turned Colorado in particular into an entrepreneurial tech powerhouse like no other.

So it is no surprise that Boulder and Fort Collins rank in the top 10 of America's most innovative tech hubs and I am proud to represent both of those cities. Of course, I would be remiss if I didn't start off my remarks on that front.

I also want to say thank you to the University of Colorado for hosting this field hearing. It is the second that we have been able to hold in the last year here in the 2nd Congressional District and I am very grateful particularly here at the University of Colorado and the law school in particular for their generosity and graciousness in hosting this.

I want to focus my questions on two topics. The first is data and targeted internet advertising, and I reviewed the written testimony of each of the witnesses and, Mr. Hansson, in particular I found your written testimony very compelling.

There is a line—I don't believe you said it during your oral testimony but I will read it here—where you say, quote, "Facebook's targeting capability is crushingly effective and, therefore, truly terrifying." I found that to be a very compelling sentence.

Targeted ads really are one of society's most destructive trends. They have led to an explosion of fake news and misinformation and it requires us to question whether it is possible to have free and fair elections when social media platforms like Facebook not only allow but encourage the mass propagation of misleading information and then supply the tools to micro target that information to its users.

So I wonder if you can provide some more detail on your company's experience with Facebook and the use of targeted advertising tools.

I understand that you are a Facebook-free company I think is the way that it is—the moniker that is—that you don't use Facebook advertising anymore. That was a conscious choice that your company made.

So maybe you can expand a little bit about how you go there.

Mr. HANSSON. Absolutely. Thank you, Congressman.

In 2017, we ran a series of marketing campaign tests on different platforms. We ran some on Facebook. We ran some with Google. We ran other platforms.

It was very clear in all of those tests that Facebook was by far and away the most effective way to market because of the immense amount of personal data that they have.

So we could target our ads to just an astonishing degree and no other advertising platform was able to compete. And this is why Google, who also has the same sort of capabilities of targeting, and Facebook is able to capture 99 percent of all growth in internet advertisement, as was stated in that report from 2016, because they simply have a devastatingly effective machine.

But when you think about why that machine is so effective, what is it that underpins it, how is it that they are able to outcompete everyone else, it is all based on a fundamental violation of privacy for people—that they have been able to capture so many data points through so many sources that people are neither aware of is happening or would consent to if they knew all these data sources, things like purchasing records, the fact that both Facebook and Google can track you, everything you do on the internet pretty much because they have their little like buttons and they have their Google sign-ins on so many sites, that fact that Google controls things through Search and Facebook controls the main avenue that people get news through the news feed.

They just have so much data. No one can compete against that trove of data. And in fact, they shouldn't have been allowed to gather that data in the first place.

If they didn't have all that data, if there had been regulations in place to prevent them from gathering all this data, then they wouldn't have been able to capture 99 percent of the growth.

So I think that this is where we need to start with the original sin, that they are able and allowed to capture this data without consent, without informing consumers, and therefore they are as effective as they are.

Mr. NEGUSE. How has it impacted your business becoming Facebook-free?

Mr. HANSSON. Yes, so this is the other part of it. If you look at that system and say, I want no part of it—I do not want to be part of a violation of privacy on this mass scale, and you opt out, as we have chosen to do, you have essentially cut yourself off from the main effective way of reaching people online that other companies will use.

So our competitors who have no qualms about using this machine they will outcompete us when it comes to ads. They can buy cheaper ads that reach more people and is more effective in its conversation and we are, thus, at a great disadvantage in the competitive marketplace when we choose not to do so.

So this is why the pressure is so high. It is like a prisoner's dilemma. If the other company chooses to do it, you are pretty much forced to do it, too, even if you don't want to.

Mr. CICILLINE. The chair now recognizes the other gentleman from Colorado, Mr. Perlmutter, for five minutes.

Mr. PERLMUTTER. Thank you, Mr. Chair, and thanks to the university and panelists. Thank you for your testimony and, quite frankly, your courage to be here today because when you take on, you know, dominant players as—whether it is Amazon, Google,

Apple, or Facebook, you know, you got to have a little trepidation. I think somebody used that term in their testimony.

But I can tell you our family is a customer of pretty much everything that you all are selling, although my daughter is the one that uses Shopify that has the backstop in your software.

So I just want to thank you for the products that you sell and that you design and innovate. The thing that I really am bothered with, and I will start with you, Professor, is the bullying piece, and I think, Mr. Hansson, you used extort and Ms. Daru, you didn't use it but the word squeeze came to mind in what is happening to Tile.

So how in the world can Google or—I think it was Google who was problematic for you, Mr. Barnett——

Mr. BARNETT. It was Amazon.

Mr. NEGUSE. Pardon me. Amazon. Ignore the contract that you entered into and just say sorry, you know, that was our contract but you got to lower your price?

Mr. BARNETT. With coercive tactics, basically, and these are tactics that are mainly executed by phone. It is one of the strangest relationships I have ever had with a retailer is with Amazon.

Most of our discussions are by phone. They feel very scripted. They don't feel authentic. And by the way, I hear the same—what I describe I hear from lots of other manufacturers' brands who deal with Amazon.

So what is on record is an agreement that appears to be negotiated in good faith in terms of the agreement. It is all there.

And then what happens in practice is that there are frequent phone calls, and on the phone calls we get what I call bullying with a smile. Very friendly people that we deal with who say hey, by the way, we dropped the price of X product last week. We need you to pay for it.

And I think to myself, well, that is odd. It is not in our agreement that we are going to pay for it so why do you need us to. And we expect you to pay for it. So there is some pushback, and I say, well, it is not in our agreement—why would you expect that.

That is strange. It is not in the agreement. The response is, well, if we don't get it—and then the threats come—if we don't get it we are going to source product from the grey market. So one of your resellers——

Mr. NEGUSE. Do they say that to you?

Mr. BARNETT. Yeah. Sure. The response is, if you don't—on the phone. Sure. The response is if you don't fund this what we are going to need to do is we are going to need to get a more competitive pricing.

We are going to go to one of your resellers who is not authorized to sell to us and we are going to start sourcing it, and we will find it. So——

Mr. NEGUSE. And then your only recourse was to terminate the contract?

Mr. BARNETT. That is one of the things they say. Another threat might be, you know, we have got too much inventory on hand so we are going to ship it all back to you. You are going to pay for all the fees.

There is an expense to shipping this back to you so we are going to—we are going to end up charging you all of those dollars. So, really, we need the money. Let us have it.

And also, you know, maybe we need to end the partnership is another threat, and if we had the partnership that puts us in a pretty tough position, given Amazon's dominance in the online marketplace.

So this is tiring. I mean, it is tiring week after week saying, no, no, no, being subjected to this sort of bullying. And we eventually decided to end our partnership.

Mr. NEGUSE. Let me turn to Mr. Hansson and Ms. Daru.

So in connection with your companies, you provide all sorts of information to Apple, to Google, to whatever, and then what do they—how do they use that information against you?

Mr. HANSSON. Yeah, go ahead.

Ms. DARU. Sure. Thank you.

Mr. NEGUSE. I mean, don't they have a conflict of interest of some kind or——

Ms. DARU. Thank you for your question.

I would—I would think so, and I want to be clear that it is not that we are giving access necessarily to Apple.

But by virtue of Apple's ownership of the entire iOS ecosystem they get access to a lot of competitively sensitive information like who our customers are, what other kinds of apps they use, the demographics of people who might be looking for Tile like apps in ways that we can't.

They have access to our retail margins they shared and our profits. They know who is picking up our subscriptions and, unfortunately, it is really difficult for us to know exactly how they are using it but they certainly have access to it.

Mr. NEGUSE. I think my time is about to expire so I will give you back to the chair.

Mr. CICILLINE. I thank the gentleman.

I would like now to turn to Mr. Barnett.

During this subcommittee's hearing, again, in the course of this investigation in July, Amazon's associate general counsel, Nate Sutton, denied that Amazon wields market power in online retail, testifying that the retail industry is full of competitors to Amazon including companies like Wal-Mart, eBay, Target, Safeway, Wayfair, and Kroeger, as well as Ali Baba and Rakuten.

Mr. Sutton also claimed that sellers have numerous options when considering where to sell their products. And so my question for you is for businesses like PopSockets, do the companies Amazon listed serve as reasonable alternatives to selling on Amazon?

Mr. BARNETT. Sure. I can give you some actual numbers.

We sell on the Wal-Mart platform. Our sales on the Wal-Mart platform are about 1/38th of the sales that we had on Amazon back when we had this relationship with Amazon. One-thirty-eighth, and Target it is even less.

So I don't know what it is but——

Mr. CICILLINE. So those aren't reasonable alternatives?

Mr. BARNETT. These are small fractions.

Mr. CICILLINE. Yeah.

Mr. BARNETT. If you back up—what they are saying—you know, what he is saying is in a way true. It is just irrelevant.

If you back up and look at this, I think it is easiest to look at it as if it is a different country that we are looking at and ask those questions.

Suppose you discover of some country—say, it is Costa Rica—and you discover that they have this marketplace—no, sorry, lots of marketplaces, but most of them are really tiny.

They have one big marketplace where almost everybody goes to trade. They trade goods and people want to exchange goods.

And then you learn it is privately run and then you learn that the company or person running this marketplace dictates the terms of the transactions, dictates ultimately, directly or indirectly, the prices that are—in these transactions, which indirectly dictates how much money companies have or individuals for innovation, for research. There is a private company running this marketplace.

That would be pretty alarming and that might be an instance where you say government should probably get involved here.

Mr. CICILLINE. In his 2019 annual letter to shareholders, Amazon CEO Jeff Bezos wrote that third-party sales on Amazon are soaring, thanks to services that Amazon provides to merchants, and he wrote, and I quote, "We helped independent sellers compete against our first party business by investing in and offering them the very best selling tools we could imagine and build."

Mr. Sutton, at the hearing, said, and I quote, "We know sellers have other ways to reach customers so we invest in them, support them, make continuous efforts to improve their experience, including spending significant resources to root out bad actors and prevent fraud and abuse that harms both sellers and customers," end quote.

Given your experience, do you agree with Amazon's statement suggesting that it seeks to act in the best interest of independent sellers?

Mr. BARNETT. I disagree with that.

Jeff Bezos—I think when he makes this statement I am not sure that he can—he can genuinely, you know, believe his statement.

So in our own case, we are not allowed to sell in that marketplace. PopSockets have been banned from selling in that marketplace because Amazon retail has chosen to have this transaction with us, and many other companies.

That is the language they use, that we are one of the chosen ones to be coerced, basically, into a certain relationship.

And then as far as helping these small sellers, you can do your own survey and see what they say. I doubt many of them will be willing to come and testify because their livelihood depends on it, and they will tell you about retaliatory practices.

So they are used to it.

Mr. CICILLINE. And thank you again for your courage in being here.

In your written testimony you describe your relationship with Amazon as one where they, and I quote, "regularly dress up requests as demands, using language that a parent uses with a child—more generally, that someone in a position of power uses with someone of inferior power."

Is it your experience that Amazon acts as though it basically is able to dictate the terms of your dealings? What does this look like and why do you think Amazon is able to get away with taking this approach in its dealing with sellers?

Mr. BARNETT. The answer is yes.

So throughout the relationship, strangely, it is by phone this all happens. But that is the language. It is a language of one party being in power over another party that is powerless—we need this, we expect this, even though it is not in our written agreement.

I think, in my experience, the greatest event that highlighted this attitude at Amazon was when we said—we said it very nicely, too—we said we are unhappy with a few things.

We are going to experiment with another model. There is an asymmetry in the relationship. You know, we didn't call them bullies or anything. It was very friendly.

Their response was, no, you are not going to do that. You are not going to leave us. That is the actual response.

Mr. CICILLINE. I want to just get in one more question. You stated that you feel Amazon has retaliated against PopSockets for speaking out on Amazon's policies.

Can you tell us more about this situation, what kind of retaliation you experienced after terminating the relationship with Amazon retail?

Did PopSockets experience any challenges with Amazon representatives and do you think your experience has been unique? I mean, I think this is really important for us to understand.

Mr. BARNETT. Sure.

So we needed to interact with various departments at Amazon after we ended our relationship with them—our direct relationship of selling to the retail team, and my team reported to me that they were just getting stonewalled.

With each department—the example I gave in my testimony was trying to get hundreds of thousands of dollars that Amazon owed us for incorrect charge backs.

They just refused to communicate with us anymore. So communication just stopped department after department and, oddly, we were given the same reason.

So we got one and only one sentence back by all of them. It said researching issues in partnership, and then nothing. They wouldn't respond.

So we had—we had that experience and—I am losing my thought on the second——

Mr. CICILLINE. Well——

Mr. BARNETT [continuing]. Experience we had. It is not coming to me.

Mr. CICILLINE. Okay. Well, we will have some time.

I now recognize Mr. Buck for five minutes.

Mr. BARNETT. Sure.

Mr. BUCK. Thank you, Mr. Chairman.

Mr. Barnett, you—did you get a Ph.D. in philosophy?

Mr. BARNETT. Yes.

Mr. BUCK. I took a philosophy class once. [Laughter.]

Mr. BARNETT. Let us talk philosophy.

Mr. BUCK. I didn't do so well so I went into political science. But I think you are really smart and I always wanted to be smart, and you invented something and I really—it is what I love about innovation and—I mean, I always wanted to invent the pet rock. Do you remember that?

Mr. BARNETT. That would be great.

Mr. BUCK. A lot of the folks up here are too young to remember pet rocks. But they served absolutely no purpose but people bought them like crazy, and it had all—everything to do with marketing and nothing to do with function, and I always thought that was amazing.

But where do you go if you don't go to Amazon? So you go to newspapers. Less and less people read newspapers. You go to billboards. You go to—where do you go?

It seems like Amazon is so dominant that there is no alternative to Amazon.

Mr. BARNETT. Sure. I think—I think Amazon will rightly respond to you by saying, no, no, there are plenty of alternatives.

In the Costa Rica hypothetical example I gave, there are plenty of alternatives. They are just tiny, right, and some companies can afford to live outside the large marketplace—the hypothetical one in Costa Rica that I described—and still survive on these tiny, you know, much smaller opportunities, a string of them, and that is what Amazon will respond.

We are one of those companies who has survived its termination with Amazon. So we pulled out. We are still alive. We have lost quite a bit of money. So just last year, you know——

Mr. BUCK. So I want to get into a little philosophy with you here.

Mr. BARNETT. Sure.

Mr. BUCK. What made America great? And I am not getting into Make America Great. I am just—what made America great?

In my mind, it is the ability for you to compete fairly with somebody else who has another product, and then you create the next innovation and they—and that is how you compete.

Mr. BARNETT. Sure.

Mr. BUCK. You don't compete with somebody or you can't—you can't innovate in a business world—and I know there are people in this world that don't like the word profit, but you can't compete unless you are making a profit.

Mr. BARNETT. That is exactly right.

Mr. BUCK. And if there is a company—if there was a country that stifles your ability to make a profit, we will see less and less innovation in this country.

And as we see less and less—and this is getting really philosophical—as we less and less innovation in this country, we will not be a dominant player in the world because we don't manufacture at a lower cost. We innovate at a higher rate.

Do you agree?

Mr. BARNETT. I fully agree, and that is why I—if you ask me whether I like small government or big government, I will tell you I like exactly the right size government.

So I want to know what can government do in each instance and if government can take action that will help protect innovation without doing a greater harm, government should do that.

Mr. BUCK. Okay. So let me ask a question.

Mr. BARNETT. And there is a harm here. Our research—we have $10 million less to innovate this year. Ten million dollars we could double our innovation team.

We have 30 people innovating all sorts of products. We could have 60 people. We could double the source of innovative products.

Mr. BUCK. Let me ask you a question. We have time limits so I just want to get to this one point.

Mr. BARNETT. Sure.

Mr. BUCK. What is the size of your lobbying budget? [Laughter.]

Mr. BARNETT. Zero.

Mr. BUCK. Mr. Spence?

Mr. SPENCE. Zero.

Mr. BUCK. Mr. Hansson?

Mr. HANSSON. Zero.

Mr. BUCK. Ms. Daru?

Ms. DARU. Nothing budgeted.

Mr. BUCK. So what is the size of Google, Facebook, Amazon, and Apple? You may not know, and you don't have to answer it because you are under oath.

So let me just tell you something. Part of what we are dealing with here is the reality that they walk into our offices and they tell us their side of the story and we very rarely hear the other side of the story, and somehow part of this solution has to be that public policymakers elected, appointed, have to have access to that kind of information.

So I thank you for being here and I also would encourage you to make sure that, you know, we are accessible. We are trying our best to make sure that we continue to create the environment for your kinds of companies.

So thank you, and I yield back.

Mr. BARNETT. Thank you.

Mr. CICILLINE. I thank the gentleman.

And I would say the gentleman's comments are really important as in that is the reason or at least one of the reasons this investigation was launched because we really wanted to understand the marketplace and that is why the testimony from these four witnesses, which I am afraid represent just a small number of examples of what we know is a very pervasive and large problem.

So we are, again, grateful for your being here. And with that, I recognize Mr. Neguse for five minutes.

Mr. NEGUSE. Thank you, Mr. Chairman. I couldn't agree more and I think my good friend, Mr. Buck, makes a very salient point and it is the impetus for why we are here today, to be able to hear directly from you all.

I have been trying—the second point—the second sort of piece of this that I wanted to discuss was some of the issues, Mr. Hansson and Ms. Daru, that you all alluded to with respect to Apple and trying to come up with the right analogy for the fundamental issue that is bedeviling us here, which is the distinction of being both a marketplace operator and a seller of one's products. Neither of your prospective companies are marketplace operators but you do sell products and do a good job at that.

If one thinks of the traditional way in which we purchase a product in a marketplace. Walk into a Target today or a Walgreen's or a Wal-Mart and look for a flashlight you may find a number of different companies that have created different versions of a flashlight, right, and they all—there is a profit motive there and they are able to sustain their businesses by innovating and improving upon the products that they have created.

There is no fear that the store, the place in which they are purchasing this product, is going to take the information that comes with this product, create their own version of it, and essentially operate to the point that it blocks out any other product in that—in that category, right.

And, of course, that is not the case with Apple and some of these digital behemoths because the App Store—and the flashlight is actually a great example, right, because prior to Apple creating the flashlight function on the phone, there were, my understanding, a number of apps that were quite successful, right, in creating and providing that service.

And, of course, once Apple has decided to essentially do the same, it renders all of those apps superfluous and unnecessary.

And I think, Ms. Daru, part of what made your testimony so compelling and your written testimony in particular is the information that you are providing as a company to Apple that, in turn, can be leveraged eventually to extinguish your invention and I guess I am curious.

If you can kind of expound in greater detail about the type of information that you have to provide to Apple in order to ensure that your app is accepted into the App Store, because I don't know that the average consumer understands that level of detail.

I think most folks assume that when you go into the App Store that it is a fairly basic transaction between Apple and a company like yours where you are essentially placed into their—into their marketplace and that doesn't strike me that that is the case.

Ms. DARU. Thank you for your question.

Yeah, and, you know, Tile doesn't provide data, you know, per se to Apple. But, again, by virtue of their ownership of the entirety of the iOS commercial ecosystem they necessarily have access to that type of information so, like, where customers are, what our retail margins are, our subscription take rates.

They are able to—they have wholesale access to that information, and on top of that, you know, we are seeing other actions by Apple, again, to further its own interest and put companies like Tile at a disadvantage.

They put their competing apps front and center in front of their consumers. Tile is in the App Store with the all the other third parties. Theirs is installed natively on the iPhones.

They can—they basically make rules about how the platform should operate, who and under what circumstances, who should have access to permissions, and then they exempt themselves from all of those rules.

You know, they give themselves access to technology like UWB but they deny access to companies who legitimately could use it to innovate for their own customers.

You know, they make changes to the operating system in ways that drain our engineering resources and make it difficult for us to innovate.

And so for all of those reasons, the—you know, it is clear that Apple is exploiting its market power and dominance to gain an advantage in the marketplace.

Mr. NEGUSE. Mr. Hansson?

Mr. HANSSON. I think actually the even more important point is the economic point. To sell software on the App Store you have to agree that Apple takes 30 percent. What businesses just have an extra 30 percent margins to compete against someone who will charge themselves 0 percent margin?

If Apple has a service—a competing service in the App Store, they have a 30 percent margin advantage right from the get-go. That is on top of all the other advantages they have in terms of information, setting the rules, and so forth.

Just on prices alone, it is completely outrageous that they can charge 30 percent, that that rate has stayed constant in the 10 years the App Store has existed. Meanwhile, we get——

Mr. NEGUSE. That rate is standard, that 30 percent, across the board?

Mr. HANSSON. That rate is standard. You don't get to negotiate. You don't get to—sort of they made some tiny concessions around long-term subscriptions recently. But they are inconsequential.

On the same hand, we have a credit card processing system that we use on the open internet where we every week get conversations with the processors who want our business and they are all competing, and they are—we can do it 10 basis points cheaper than the other guy and the rights are 1.8 percent or 2 percent.

That is what a competitive market looks like. A incompetitive market is what it looks like on the App Store—30 percent 10 years going, no matter how much revenue that Apple is processing through the App Stores. They face no competition and they have such an unfair advantage.

Mr. CICILLINE. Thank you.

I now recognize Mr. Perlmutter for five minutes.

Mr. PERLMUTTER. Thank you, and I think all of us up here on this panel—Mr. Buck, Mr. Cicilline and Mr. Neguse—we are all on the same page.

And so I want to start with you, Mr. Spence. In your testimony you say dominant platforms are able to develop copycat products by analyzing sales metrics on their platforms and combining them with rich data profiles of their customers.

These copycat products are then sold at cost or lower with no intent to reap a profit. They also can use remarkably similar trade, dress, and marketing campaigns. Can you expand on that a little bit?

Mr. SPENCE. Sure. So we, in our written testimony as well, provided some examples of advertisements from some of the these dominant platforms that look remarkably similar to ones that we had, you know, a year or two before, that even with the same dress with using some of the same iconography, all of it, and they understand who has bought, you know, our products, other competitors' products, and they can address these people in a way that we can't

and at an advantage that we can't. And so the advantages are like nothing we have ever seen before.

Mr. PERLMUTTER. So talk to me about the rich data profiles. And everybody has touched on that a little bit. Talk to me about that.

Mr. SPENCE. Well, think about how dominant these companies are across how many dimensions at this point—the mobile operating system, the cloud services, the search, the marketplace of e-commerce.

The list goes on and on in terms of the breadth of information that they have that they can share back and forth to really understand and draw a picture of almost anything, right.

They see something that may be exploding on the cloud services, right, and they see applications or things or areas of interest there. They see something that might be of interest and really exploding, like PopSockets, on their e-commerce front end.

These are areas just by nature, I think, of companies now that we see that then there appears to be a trend where those become markets that then they move into, right.

If there is any market that is getting traction and is of interest, you see these companies moving into those markets.

It is almost, like, the fear of missing out, right, and I think it is a fear that, at the end of the day, this is a market that may threaten their dominance of the other markets.

And so we are in this incredible cycle where every new market that you see pop up you see these dominant firms begin to participate.

Mr. PERLMUTTER. All right. Last, and this sort of goes to my comment about, you know, everybody sitting there as—you guys, I just appreciate your testimony and willingness to come and share this.

So you say in your testimony Sonos is strong enough and successful enough to say what goes, largely, unsaid but remains very much on the minds of countless tech entrepreneurs.

Can you elaborate a little bit about why—you know, you have 1,500 employees. Ms. Daru's company has a hundred. I mean, why do you feel like you have a little bit of an advantage in that respect to share it today?

Mr. SPENCE. We are in a—we started early enough. You know, so almost 20 years ago. And we—when it was unfashionable focused on profitable growth, not just growth at all costs, and we are in the fortunate position where I think we are strong enough financially.

I am taking a risk here, no doubt. We work closely with all of these dominant companies, right. So I think I am taking a risk.

But I feel that this is a big enough issue that people need to speak out, and I feel like it is important that these issues come to the forefront because we have a responsibility to speak for those that can't.

Mr. PERLMUTTER. The last thing, and I know we have somebody from the Attorney General's office here in the audience today from the Office of Consumer Protection.

But I had suggested to him that that consumer protection also be businesses such as yours when it comes to these dominant platforms—that it isn't just Mrs. McGillicuddy living down the street but it is, you know, Basecamp or Tile or Sonos or PopSockets.

And with that, I yield back.

Mr. CICILLINE. I thank the gentleman.

I now recognize myself for five minutes.

Mr. Hansson, your written testimony stated that Google has a monopoly in Search. In its response to question I sent the company last year, Google wrote that it faces, and I quote, "robust competition from other sites on the internet with intense competitive pressure on us to ensure users find what they are searching for," end quote.

What is your response to Google's statement that it faces intense competition in Search?

Mr. HANSSON. I think that statement relies on the fact of expanding the market so broad and so wide that everything is competition.

It is like when Facebook said that they face intense competition from things like sleep, right. [Laughter.]

Like, we have a limited amount of attention in the day. If we could make people sleep two hours less, that is two hours more they could spend looking at ads on Facebook.

Google is doing the same thing by essentially saying that things like people searching for a product on Etsy, that is a kind of search and that is also in our domain.

No, it is not. If you search the internet, Google is it. We have the statistics. We see where our leads come from when they come to our marketing site. They all come from Google.

No other search engine that matters has any market share that matters at all. About 40 percent, which is a low number for our industry—40 percent of all our marketing needs come from Google.

No other search engine provides as much as 1 percent. They have complete dominance. We could lose our listing in DuckDuckGo and we wouldn't even be able to tell. We lose our listing in Google and we may go out of business.

Mr. CICILLINE. Well, and in fact in a subcommittee hearing Google said, and, again, I am quote, "When consumers search for information they can choose among Amazon, Yelp, Microsoft, Travelocity, and many other companies like these that consistently report strong user growth. If you don't want to use Google, there are many other information providers available," end quote.

And as you just mentioned, the search with respect to places like Yahoo, Microsoft, Bing, or DuckDuckGo rarely pass even 1 percent.

Mr. HANSSON. And also, just to—an example, if consumers hear about Basecamp they want to find Basecamp on the internet. Can they go to Travelocity to search for Basecamp? Are they going to find Basecamp in the travel listings there?

No, they are not. There is only one place where you are going to find businesses that are online today and that is Google and that is why they have this tremendous power and none of these other platforms matter in that regard.

Mr. CICILLINE. And you noted in your testimony that Google is erecting tollbooths everywhere. What are some examples of these tollbooths and you state that it was not always like this and that Google has introduced these tollbooths over time.

Why do you believe Google is imposing these tollbooths and what are the implications?

Mr. HANSSON. Yes. It used to be that Google cared very much about the user experience. They would endlessly give interviews about every little pixel mattering and how it was just so important to provide fast service to people could find what they were looking for.

Today, if a consumer goes to Google on their mobile device and search for Basecamp, the first thing that they will find is whoever bought that trademark term, which is usually one of our competitors. Ergo, consumers are not finding what they are looking for.

They are not being presented with what they are actually looking for. They are being presented with an ad and that is the tollbooth that they are erecting.

It didn't used to be like this. You used to be able to search on Google for what you were looking for and you would find it because Google has a great search engine.

The problem is they have replaced that search engine with an ad engine instead. So now they serve up ads first and they dominate.

You ask anyone who is in Google's listings does it matter whether you are on page 3? No, it doesn't. No one goes to page 3. Everyone goes to page 1 and they look at the first results.

So we try very hard and have spent 20 years building a good reputation such that we would be the number-one organic search term for Basecamp.

It is just that that doesn't matter anymore. The organic search term does not matter anymore. The only thing that matters is whether you buy the advertisement.

We can pay off that, essentially, by buying ads on our own name. Why would we do that? Customers already know they are looking for Basecamp.

They go to Google to find us—to find Basecamp, and now we have to pay Google to buy ads for our own name such that competitors aren't misdirecting them.

It is a complete shakedown and it should not be allowed.

Mr. CICILLINE. And two more questions.

One is you testified that your company has undoubtedly given up growth to competitors because you have refrained from pursuing targeted ads.

Do you think a new startup to establish itself has the option to not work with Facebook and Google and survive?

And then, finally, you also mentioned that Apple has retaliated against Basecamp for informing consumers that they can sign up online rather than through the app.

Can you tell us more about this situation, how it has affected Basecamp and how this policy affects users?

Mr. HANSSON. Sure. For the first question, I think the main thing here, just like with Sonos, is we were founded early enough that we were able to build up a brand name prior to these conglomerates having complete domination as they do today.

So we have some brand equity that we continue to rely on. But it is being diminished. And if you were to start today you would not have this opportunity. You would absolutely have to pay these platforms in able to allow consumers to find you and build your reputation.

So I think the game is very different now and that is the tragedy that we have seen. We started a business, were able to grow it, make it successful because it was a free, fair, and open marketplace. It no longer is today and now we are facing a brand new threat.

In terms of the retaliation, we had one example where our application does not use Apple's payment services. We refuse to pay the 30 percent fee. We find it completely outrageous.

So we have to go through all these contortions to essentially tell users when they find our app in the App Store that we are not using Apple's payment services, that we are using something else.

Except Apple forbids you in the terms of the agreement to say anything of the sort. You cannot mention that you are using an external third-party payment processor and if Apple finds any evidence of that anywhere they will deny your application.

For a long time, for over a year, we had a small link in the help section deeply buried within the app that would lead you to an external help site that would talk about the fact that you could purchase a subscription to Basecamp.

For the longest time no one at Apple cared. One time we submitted an update to our application. A particularly enterprising reviewer finds that, five pages buried deep, denies our update.

Now we are no longer able to provide bug fixes, security patches, or anything else through our update until we remove that.

So we get completely bullied out of having any way of telling customers how they can actually buy our product. You see this—I submitted in my written testimony a screenshot for Netflix—Netflix, one of the other big giants. They can't even tell their customers how to pay for the product when they are on the App Store. It is outrageous.

Mr. CICILLINE. Thank you very much.

Mr. Buck.

Mr. BUCK. Thank you, Mr. Chairman.

Mr. SPENCE, I want to clarify something with you. I am sorry, Mr. Barnett.

You said that you can't buy PopSockets on Amazon anymore.

Mr. BARNETT. I did not say that.

Mr. BUCK. Oh, okay. You can't sell.

Mr. BARNETT. So what—just to clarify the relationship, we quit selling to Amazon. Amazon was then reselling so it would say sold by Amazon. There was plenty of other—there were plenty of other sellers.

Mr. BUCK. So we could still buy it on Amazon?

Mr. BARNETT. In addition, we are now testing a relationship with that same team at Amazon. So as of—in the last 30 days you will see products sold by this Amazon team that we broke up with, you know, over a year ago. So you may even see products sold by that team.

Mr. BUCK. Okay. Mr. Hansson, I want to visit with you about something because I think there are two issues here that most of us agree on.

There are a lot of things that we don't agree on. There are two things that we are talking about today. One is competitiveness and

the other is privacy, and we haven't touched on privacy and I want to ask you to shorten your answers a little bit for me if you can.

But one of the things that bothers me is when I buy something online somebody now knows a little piece of information about me, and when I buy enough things online they know a whole lot of information about me and they use that information to target me.

If there were 30 online vendors they would each know a little bit about me. When there is one online vendor like—or one search engine like a Google, that company now has a privacy—they have my private information as well as an interest in marketing.

And I want to, if you could—and I know you don't have the philosophy degree, but I just want to—if you could, tell me a little bit about what your concerns are in terms of Americans and, really, people all across the globe giving up that private information and how it is impacting the marketplace.

Mr. HANSSON. I think that is a great question. I think actually as a—personally, as a consumer, it is the question that stresses me out the most—the fact that we are forced to give up our privacy to interact with the modern world.

You cannot opt out of this data collection. If you want to use the internet, this is being done to you. You simple have no power.

There are some good initiatives going on—CPA in California and the GDPR in Europe—that is starting to address this, that companies and platforms are not supposed to be able to just collect everything about you without your knowledge and, essentially, collecting these dossiers that they can use to target you, because we are all susceptible to advertisement.

Anyone who says otherwise is simply uneducated. If you know enough about a person, you know all their weaknesses and their fears and their aspirations, you can sell them so far more effectively all sorts of things that they may not have bought otherwise and perhaps they shouldn't have pursued in the first place.

The example I give in my written testimony is the fact that a woman who is pregnant Apple—sorry, not Apple—Google or Facebook may well know before her family does because they can purchase things like a sales record from CVS that maybe there was a pregnancy test bought or the fact that she searched on Google about becoming a new mother, and they can use that data to then sell that to advertisers who want to reach pregnant mothers.

That is not a piece of information that they volunteered. They didn't sign up to say, oh, I would like to receive advertisement on this private fact about my life and have at it.

This is just something that is being done to them and we need to provide consumers real protections so things aren't done to them so their data aren't being used against their better judgment.

Mr. BUCK. And that was the short version. [Laughter.]

So I want to go sort of one step beyond that with you and what is the answer to that? Is there—is there a limit to how much—how big we should let a company aggregate that kind of information?

Mr. HANSSON. I think——

Mr. BUCK. And I know—I got to tell you, my concern isn't—I don't really care if they tell 15 t-shirt companies that I am now looking for a t-shirt or 15 cowboy boot companies I am now looking for cowboy boots.

I am concerned more about the ability of governments, the ability of police forces, the ability of people that would use that information for nefarious purposes to get that information.

It is one thing to entice me into buying ice cream when I am on a diet. It is another thing when you are trying to use that information in ways that I explicitly don't want that information used.

And so what is the answer there? How do we—how do we have great search engines but not just one?

Mr. HANSSON. I think the number-one issue here is simply to ban companies from collecting this information in the first place and then the reason they are collecting this information is such that they can sell you targeted advertisement.

If it was no longer allowed to target advertisement based on personal data, they would have no interest in collecting all this data. This data is solely being collected for the purpose of creating these ad engines.

So if you essentially say to Google, for example, you can simply place advertisement based on my search term—when I search for a new car in Chicago, resellers of cars in Chicago they can advertise.

But they can't advertise on the fact that I owned a Toyota six years ago or that I was in an accident and I might be more susceptible to a advertisement for Volvo or something else like that.

Ban the right of companies to use personal information for data targeting—for advertisement targeting.

Mr. CICILLINE. Thank you. The gentleman's time expired.

I recognize Mr. Neguse for five minutes.

Mr. NEGUSE. Thank you, Mr. Chairman.

I also want to say a thank you to our attorney general and Congressman Perlmutter. Earlier, we had a chance to visit with him this morning and he has been a national leader on these issues on the anti-trust fund, working in tandem with the attorney generals from any number of other states and we appreciate his leadership on that front.

I guess, you know, as we get closer to the end of this hearing, Mr. Buck asked this question I think at the very beginning and I think it is fitting that we sort of end on it as well, which is to say the goal of this committee at the conclusion of its investigation, the hope, is that we would have a number of different statutory recommendations that we can make to the Congress to change the law, strengthen the law, in the anti-trust and also potentially some regulatory recommendations, ways in which the agencies that are charged with addressing these issues can act in a more muscular way—the FTC and others.

I am curious as to whether, and this is a question to all four of you—as you sit here today, what recommendations would you make?

What steps do you think Congress should take, whether that is specific legislation you think we ought to pursue, or, as I mentioned, perhaps on the regulatory front steps that we should encourage and incentivize there.

And, you know, Mr. Hansson, you referenced this perspective of privacy just now in terms of one step perhaps that we could take.

But I want to give each of you a chance to answer that question, starting with you.

Mr. SPENCE. Thank you for the question.

I do need to correct the record on one thing. We have just—we are now spending $10,000 a month on lobbying, which I would much rather be putting into research and development, but is a direct impact of the situation we are in today.

You know, as I think about where I hope this committee is looking, I am not—you know, I am not educated enough to understand necessarily all the anti-trust laws, as I mentioned before.

But I would say looking at leveraging market dominance in one category to be able to dominate another category is something that has to be, you know, thought through.

Like, how—is that—is that the spirit of the kind of world that we want to live in, at the end of the day, and I think the other big issue is this notion of—is of efficient infringement, as it is called, where these dominant companies can infringe the intellectual property and invention of other companies and they do it calculating the fact that if they have to pay down the road—if that is enforced later on they will pay the fee.

By that point, the competition will be out of it and it will be so dominant that it is a rounding error, at the end of the day.

So swift action on that front and material action is something that I think would help.

Mr. BARNETT. So I raised two issues, one around the counterfeits and fakes on the Amazon marketplace, the other around bullying.

As for counterfeits and fakes, we don't have the resources to fight Amazon. We didn't sue Amazon. We never will sue Amazon.

We spent $7 million last year in legal battles against tiny players. I mean, really tiny players. Imagine what it would cost to fight Amazon.

We could use some help. It would be great if the government, at some level, stepped in and said massive companies that are systematically violating intellectual property rights of small players are targets for the government and the government needs to step in. That is one thing with fakes.

And then, second, with the bullying, there are two pieces to it. There is Amazon as a bully as a retailer and Amazon as a bully running a marketplace and dictating the terms of the marketplace, and they are connected.

But it might be a good idea to separate these two out and say, Amazon, let us break it into two companies. One, if you want to sell on this marketplace, great. That is one company.

If you want to run the marketplace, great. But you are going to run it according to certain rules where—especially if this is going to take 45 percent of the online revenue.

Then there are going to be certain rules to ensure a certain fairness and to ensure that players can play fairly on this and dictate the terms that they—that they want, and if you want to take a fair profit, great. We will reward you for developing this great marketplace, right.

Mr. HANSSON. I think, actually, there is a lot of history here. The last time a single company was so dominant in technology in particular was Microsoft in the '90s and there was very direct enforce-

ment of the fact that they were using their monopoly in Windows operating systems to extend that monopoly to browsers and cutting off the air supply to Netscape.

The government—the DOJ had a anti-trust investigation. Concluded that Microsoft was in violation of anti-trust laws and tried to do things about it.

And even if that intervention was not ultimately completely successful, it was still successful. Microsoft did not go from having a monopoly in the Windows operating system to having a monopoly of the internet, which was the stakes at the time. And we can absolutely do something of the same kind.

The fact that Google has a monopoly in Search is a problem in and of itself that should be tackled. This is simply too important of a resource for consumers, for businesses, that they can run it like they just so please.

Mr. CICILLINE. The time of the gentleman has expired, but if the last witness wants to get in a quick answer.

Ms. DARU. Sure. Thank you.

So we have talked about a few things that—the impacts on Tile specifically as a result of Apple's anti-competitive conduct, and things like, you know, throwing new requirements at us out of left field like this new Apple ID requirement that we have to now engineer into our products rather than innovate.

They are, you know, raising the prices of their—or the costs of their rivals by engaging in aggressive advertising practices.

You know, all in all, that amounts to damage to Tile, damage to competition and, ultimately, damage to consumers and, ultimately, we are just one company.

And so what we encourage is to continue to explore, you know, all of the different ways that Apple has engaged in this anti-competitive conduct so that we can shed light on what the best ways of addressing it is.

Mr. CICILLINE. Thank you.

Mr. Perlmutter.

Mr. PERLMUTTER. Just a couple questions. And, Mr. Chairman, thank you, and to my colleagues from Colorado for letting me sit in on this today, because it is very—I mean, this is very interesting and, obviously, it affects everybody every day, and even if you get a couple more hours sleep, you know, most of the waking hours that we all have.

So, you know, part of what we are doing is—I would say the last really successful measure was breaking up Ma Bell, okay, which ultimately resulted in a lot of innovation but then consolidation again, which is where we are.

And these companies are having their cake and eating it, too. They provide a service but then they provide a competing product. But they have got so much more information now you are at a terrible disadvantage.

So there is a new product out there. Mr. Hansson, you were sitting here this morning when I brought it up. So I serve on the Financial Services Committee, so the banking committee, real estate, all that sort of stuff.

We had Mr. Zuckerberg come testify to us about an effort underway at Facebook to create a new digital currency and to create, in

effect, a banking system that is not going to be regulated as a bank in Switzerland, kind of with some partners called Calibra and the currency being Libra.

You know, you had it—you talked about making Kafka blush and then you have sort of a fear and loathing comment in your testimony.

It says, "Back then there was excitement about the likes of Google and Facebook and the better tools and services they provided us. Today, the excitement is primarily replaced by a mixture of fear and loathing."

So in the context I brought to you of Facebook, with all of its information and its ability to unbelievably target information, what is your—what is your reaction to them potentially becoming the biggest bank on the planet?

Mr. HANSSON. That would be a catastrophe, and I think the fact that they already have so much data about everyone, if we add in all our purchasing data on top—I mean, how you spent your money and how much money you have—no single company should have access to this much data.

Second of all, why do we need another thing that is unregulated that they can control? Like, we already have problems just dealing with all the issues that they have created in society as it is today.

We need to deal with these issues first before they sort of venture off and try to undermine sort of currencies of sovereign countries.

Mr. PERLMUTTER. And with that, I just appreciate everybody and their testimony today, and thank you for—and thanks to my colleagues for letting me participate in this.

Mr. CICILLINE. I thank you, Mr. Perlmutter, for being part of this.

I am going to now recognize myself for the last five minutes and then I know Mr. Buck is going to make some closing comments as well.

I want to turn now to you, Ms. Daru. Your written testimony notes that Apple is a major distribution channel for Tile's products but that Apple has introduced services such as Find My that you spoke about that now directly competes with Tile's business.

Apple argues that Find My is not a real competitor to Tile's products because it does not use background data. How would you respond to that claim?

Ms. DARU. Thanks for the question.

Find My, as its name suggests, is a location-based finding service. So is Tile.

And Find My helps people find their Apple devices. Tile can do that, too. And ultimately, you know, Apple renders Find My as a native installation on all their phones and it is a feature in every one of their phones and they sell those phones. So they certainly are in the business of location-based finding services.

Mr. CICILLINE. Thank you.

You have described how Apple has made several changes that make it more difficult for customers to use Tile. For example, Apple now sends Tile users frequent prompts receiving that they—requiring that they repeatedly confirm they have granted Tile access to their location data.

Apple has publicly said that it makes these types of changes to promote user privacy. Is there a reason to think that these changes which might hurt Tile are actually good for customers and can you describe what else is different in the new iOS as it relates to the Tile app?

Ms. DARU. Thanks for your question.

No, the changes that they have made are not good for privacy or for consumers. If you think about it, these changes that they have made they actually don't make any information more private.

The vulnerabilities that existed before still exist. Any bad actors that are out there are still probably acting badly. But what these changes did is they added friction. They added confusion.

They added annoyance to the customers of Tile, who got confused, wondering why they were getting all of these constant reminders, wondering if it should imply that Tile should not be trusted and, at the same time, didn't apply the same mode of transparency to its own services.

And I think that this is a really prime example of Apple using privacy as a shield to advance its best interests.

Mr. CICILLINE. Privacy and data protection have been recurring themes in our investigation. Our committee is also concerned with the use of privacy as a shield for anti-competitive conduct.

You mention in your written testimony that Apple has justified the recent iOS changes in part to enhance consumer privacy.

Can you discuss how Tile uses, stores, or monetizes sensitive user data?

Ms. DARU. Absolutely. Thank you for your question.

Privacy is of the utmost importance to Tile, especially given the nature of our business.

Importantly, Tile only exists to help people find what matters most, to relieve a really large pain point in people's lives. They say that people spend at least 365 days of their life looking for lost items and that is what we are trying to solve.

Trust is of paramount importance. Importantly, also is that Tile doesn't have any ancillary businesses that could use this data that is collected in a way that doesn't comport with reasonable expectations.

We don't have an ancillary advertising business. We don't even have revenue-generating advertising in our products and services. Our only revenues come from selling our devices and our subscription revenues.

Mr. CICILLINE. So you don't use, store, or monetize the sensitive user data at all?

Ms. DARU. We store—we do not monetize or sell sensitive user data. We store some data for a very limited amount of time only to provide the service, operate our business, and enhance user experience.

Mr. CICILLINE. Okay. And my final question is your written testimony notes that Apple's control of the iPhone ecosystem gives it access to competitively sensitive information.

Do you believe Apple's access to this information raises competition concerns?

Ms. DARU. I absolutely—I absolutely do.

So in addition to the—to the examples I gave earlier, for instance, when they were carrying us in their retail stores we would even give them prototypes of our to-be-released products and absolutely they have the power and they have shown the proclivity to use that power to their competitive advantage. So absolutely.

Mr. CICILLINE. Thank you.

And I would just——

Ms. DARU. Yeah.

Mr. CICILLINE. Before that I would like to—my time is up.

I am just going to ask all of you quickly to answer yes or no.

Do you think that you would have been able to successfully launch your companies and the products you have described to this committee in today's internet environment?

Mr. Spence?

Mr. SPENCE. No.

Mr. BARNETT. Yes.

Mr. CICILLINE. Mr. Barnett, yes?

Mr. HANSSON. Maybe.

Mr. CICILLINE. Maybe?

Ms. DARU. Impossible for me to speculate.

Mr. BARNETT. Can I qualify what I mean? We can stay in business. But we wouldn't enjoy anywhere the degree of success we have today with——

Mr. CICILLINE. All right.

I am going to now yield to Mr. Buck.

Mr. BUCK. Thank you, Mr. Chairman.

Ms. Daru, I want to end with you the way I started with Mr. Spence. I am wondering about the answer—the solution—and I hear Apple creating a product and pushing you out of the marketplace with the creation of that product.

You can really find my wallet, by the way?

Ms. DARU. Absolutely we can. Yeah.

Mr. BUCK. I am the one that 365 days——

[Laughter.]

So what is the answer to—should Apple not be allowed to create competitive products? Should Apple be restricted in its pricing or the way it regulates products in the App Store?

What is—what would you like to see? And I would trust the chairman absolutely with this. You know, he could just pound that gavel and say tomorrow this is the way it is going to be.

How—what would you like to see?

Ms. DARU. So when it comes to Apple, I would start with we need equal transparency and visibility on their platform. We need equal access to permissions. We need equal access to critical technology.

We need advance notice of changes to the OS that have a meaningful impact on our business and we need rules that are applied consistently across the board to everyone in the ecosystem including Apple.

So like I said, we are one company and have had a significant impact by the anti-competitive practices of Apple. I wish I had all the answers.

But I am here in support of Congress's continual exploration of these anti-competitive practices to better shed light and highlight how we have to—how we can address these inequities because, ul-

timately, the future of competition in the United States depends on it.

Mr. BUCK. So you are all right with Apple creating a competitive product; it is the way that they distinguish or discriminate between the two products that is the problem?

Ms. DARU. So it is two things.

So, absolutely, we welcome fair competition. But it has to be fair. You know, we are seeing time and again Apple using its dominant market power and engaging in practices that put us at a competitive disadvantage, for instance, engaging in these aggressive advertising practices, putting ads online that look like Tile ads for people who are searching for Tile, diverting them to the App Store, raising our costs at the most critical times of the year.

You know, they are engaging in these practices that ultimately put us at a very—at a competitive disadvantage, and it is those types of unfair practices that we need to curb.

Mr. BUCK. I yield my time.

Mr. CICILLINE. Well, I want to, first, say thank you again to the University of Colorado Boulder for hosting us. Thank you to the four extraordinary witnesses that we have just heard from.

You have demonstrated tremendous courage in being here today and describing economic retaliation that some of you have already experienced.

And so I want you to be certain to share with us—we do not expect that you will suffer any economic retaliation for coming forward and testifying before Congress but if you do in any way it would be of tremendous interest to this committee.

I think, you know, Mr. Buck raised the question of what is being spent by some of the big large digital platforms in lobbying their interests and there is not a corresponding lobby for innovators and entrepreneurs and small businesses.

That responsibility falls to all of us. It is our responsibility to make sure that they marketplace is working, that it is promoting competition, that it is protecting innovation.

It is protecting small businesses and entrepreneurs and that is the focus of this investigation to figure out how we get this marketplace working and what are the consequences that are being experienced by entrepreneurs and innovators and small businesses and consumers as a result of this tremendous market concentration.

So you have contributed significantly to our work. I thank my colleagues who are traveling back home and traveling to the hearing, because it has added to what, as Mr. Buck said, has been a very bipartisan effort to really understand Congress's role in both modernizing the anti-trust statutes and making sure anti-trust enforcement is working properly and that the resources are available to be successful.

And so, again, with deep thanks from the entire committee, this concludes today's hearing and without objection all members will have five legislative days to submit additional written questions for the witnesses or additional materials for the record.

Without objection, the hearing is adjourned.

[Whereupon, at 11:57 a.m., the subcommittee was adjourned.]

APPENDIX

Responses for the Record from the Honorable David N. Cicilline, Chairman, Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary

Responses from Sonos, Inc.

March 27, 2020

1. **Sonos both depends on Google and Amazon but also finds itself in competition with their smart home products. Could you describe how this dynamic plays out and what it means for fair competition?**

Sonos depends on our partnerships with Amazon and Google because those companies are virtually indispensable to conducting our business. They control the two leading general voice assistants (Google Assistant and Amazon Alexa) on smart speakers, which are commercially significant features for our smart speakers. Certain functions and capabilities, including the ability to ask a question or search for product information, are important to have on smart speakers. As a result, Sonos believes that having Google Assistant and Amazon Alexa incorporated into our smart speakers is essential. In addition, Google and Amazon provide us with vital operating platforms (such as AWS), and are extremely important to the sales and marketing or our products as a result of their domination in search and e-commerce, respectively. In turn, Amazon and Google benefit from the access they receive to Sonos's growing customer base of over 10 million highly desirable households.

As discussed in our testimony before this Committee on January 17, 2020, Sonos is concerned that these companies are leveraging their dominance to conquer or destroy adjacent markets, especially markets that may one day pose a threat to their dominance. In addition, Sonos is concerned that these giants are exploiting their role as essential business partners to tilt the playing field in favor of their own products and services. When dominant companies use the scope of their platforms and their dominance in certain markets to distort competition, it unfairly disadvantages competitors and ultimately harms consumers. As a practical matter, the dominance of these companies manifests itself in their ability to extract unreasonable contract terms, including, for example, obtaining unwarranted termination rights and unreasonably early and detailed access to Sonos's product roadmap (information that can be particularly damaging if misused given the competitive dynamic between these companies and Sonos).

Lastly, Sonos is concerned about exclusionary behavior that can harm innovation. For example, Sonos invented the ability to use two voice assistants on the same smart speaker, which we call "concurrency". This innovation was considered an important value proposition by our customers. Initially, both companies felt threatened by the technology and sought to suppress it, although currently only one (Google) still opposes concurrency. By refusing to allow for concurrency, a user of a smart speaker is forced to pick a default voice assistant and changing default assistants is a time-consuming, multistep, manual process, making the default assistant "sticky."

The refusal to allow for concurrency deprives consumers of a valuable innovation, among other harms.

Our reliance upon Amazon and Google on their services also places us in a disadvantaged position. We partner on advertising, e-commerce, cloud services, and productivity suites, among other tools. Negotiating with these companies over the terms governing these services makes us vulnerable to retaliation with respect to our smart speakers.

2. **What types of data do Amazon or Google collect through their partnership with Sonos? What are some ways that the platforms have used, or could use, this data to advantage their own business or disadvantage yours?**

Amazon and Google have gained access to detailed, non-public data from our partnership, including upcoming product release information. Google and Amazon can use this proprietary information obtained from the partnership to make copycat products. For example, Google has released products incorporating proprietary technology Sonos shared pursuant to our business partnership. These companies would not have access to our non-public information if they were not essential to carry on our smart speakers. In addition, this is not a two-way arrangement, but one in which Amazon and Google receive data about voice assistant usage from our customers while providing little data to Sonos in return. This unequal data sharing is particularly important with respect to voice assistant usage, because our engineers need certain voice data to understand whether our smart speakers are functioning properly.

We also remain concerned about the quantity of information gathered by Amazon and Google through other commercial partnerships. Both companies glean data from Sonos with respect to our use of their cloud infrastructures (AWS and Apigee, respectively), our use of Amazon's e-commerce services, and our advertising on Google. These services all provide these companies with voluminous information about our products and business strategy.

3. **You've noted that the dominant platforms will require Sonos to hand over detailed product roadmaps months and months in advance. Google and Amazon would probably say this early access is necessary for them to make sure they get the technical integration right and avoid hiccups down the road.**
   a. What is your response to that?
   b. How necessary is this long lead time, and is there reason to think these companies could be using the guise of technical necessity to further their own business at the expense of Sonos?

Google and Amazon both demand an early look at our product roadmaps when integrating their voice assistants. This is part of their product certification processes, in which they approve -- or do not approve -- whether a product can include their voice assistant technology.

Sonos believes that Google has demanded seeing products unreasonably far in advance (over 1 year), beyond the few months necessary for certification. The information Google asks for is

extremely sensitive to Sonos and can allow Google to create copycat products. For example, the information may reveal Sonos's go-to-market strategy or allow Google to map our supply chain and sourcing. Finally, even after providing the detailed requirements, the certification "tests" can be vague or change at any time, allowing for any number of reasons to reject or delay a product. This creates uncertainty for Sonos as an innovator and allows for Google to control which products enter the market.

Amazon's ability to receive detailed information about our products from our partnership and sales on its marketplace also means that it is capable of developing copycat products despite a shorter certification lead time than Google.

4. **In your written testimony, you discuss how Google and Amazon have subsidized their smart speakers by selling them at a loss. What effects does Google and Amazon selling their smart home products at a loss have on the market?**

If Amazon and Google are persistently selling their entry-level products – in particular the various versions of the Google Home Mini (now Nest Mini) and Echo Dot – at artificially low prices, it can undermine the ability of companies like Sonos to compete, ultimately reducing consumer choice and innovation. Importantly, Sonos believes that Amazon and Google's costs do not account for marginal costs or royalties for valid intellectual property owned by Sonos and are therefore likely understated for purposes of assessing predatory pricing. In addition, only a handful of companies are similarly positioned to act as "loss leaders" in the medium to long term. Sonos's success is highly dependent upon the ability to deliver operating profit margins that reflect a healthy and sustainable organization that is able to deliver for consumers and investors alike and therefore it is not sustainable for us to act as a "loss leader."

5. **You assert that while this pricing strategy may benefit consumers through lower prices in the short term, it poses competitive threats for the future.**
   a. Can you elaborate on the competitive threats you foresee and how consumers will be harmed in the long run?
   b. What kind of effect do you anticipate these practices might have on the likelihood that new competitors will enter the market?

Several characteristics exhibited in digital markets create conditions that may lead to the long-term foreclosure of competitive threats resulting from predatory pricing. As described above, only a handful of companies are positioned to act as "loss leaders" in the smart speaker space. In addition, Amazon and Google have the ability to absorb their smart speaker losses by shifting them to other parts of their business and disguising the immediate impact of their losses from the market. Moreover, digital markets can exhibit strong network effects, which may lead investors to make long-term bets on products on companies. Amazon and Google each enjoy strong network effects which enable them to entrench or accelerate their dominant positions. Long-term, all of these factors will lead to reduced incentives to enter markets where big tech companies can engage in predatory pricing or other anticompetitive behavior, reducing innovation and customer choice.

6. **You note in your testimony that "[v]oice activated speakers have the potential to dramatically alter the way that consumers interact with the internet." Can you elaborate on this view?**

Throughout history, inflection points in technology have brought about new market players and innovation. Personal computers displaced IBM's monopoly in mainframe computing, just as smartphones displaced Microsoft's monopoly in personal computer operating systems. Dominant market players most at risk are those in adjacent markets to the inflection point. They respond by using their dominance to squelch rising competitors. Sonos believes that, just as access to the internet has evolved from desktops to laptops to mobile, the next frontier for internet and e-commerce access is the voice assistant-powered smart speaker. Across a number of independent studies, the top uses of smart speakers are listening to music, setting an alarm, and finding out the weather. This means smart speakers act as a "Trojan Horse" into the smart home, and enable Amazon and Google to amass vast amounts of data from users in addition to promoting their suite of services to users. As a result, voice assistants on smart speakers are uniquely positioned to become the primary interface for promoting the associated suite of services offered by Amazon and Google, including search and voice commerce.

Without intervention, there is a risk that the smart speaker market will result in a single firm monopoly or stagnant duopoly. Worse, it will severely limit voice-activated smart speakers as a technology inflection point subject to disruption from non-Amazon and non-Google players.

7. **These platforms, as you note in your testimony, are dominant across a broad portfolio of markets—from social networking to hardware to cloud services. They also are aggressively investing in emerging platform technologies. Can you elaborate on this business strategy? Why are these platforms so concerned with entering into adjacent sectors?**

Adjacent sectors to search and e-commerce, such as smart speakers, pose both a unique threat and opportunity to Amazon and Google. First, voice-enabled smart speakers can influence customer behavior and introduce competing services to users; services that can potentially disrupt Amazon and Google's business models. As a result, voice-enabled smart speakers have the potential to threaten Google's dominance in search and Amazon's dominance in e-commerce. Second, as voice assistants on smart speakers are used in more homes, Amazon and Google can simultaneously take advantage of the accompanying network effects to reinforce lock-in across their product and service offerings as well as gather more data.

Sonos Statement for the Record
Online Platforms and Market Power Part 5: Competitors in the Digital Economy

How Sonos would change current predatory pricing rules

Sonos believes that the current standard for evaluating predatory pricing claims does not adequately capture the competitive realities of digital markets. The governing standard established in *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993), requires a showing of below-cost pricing and "a dangerous probability" of recoupment. *Id.* at 222-24. Because *Brooke Group* involved a physical good in an oligopolistic market, this standard unnecessarily places too high of a burden for a showing of harm when applied to digital markets.

Unlike physical goods, digital markets can exhibit network effects and investors like VCs are often willing to make long term bets on products or companies that lose money until their dominance is established. *See* Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710, 786-790 (2017). The network effects of digital markets make recoupment hard (if not impossible) to observe, much less demonstrate.

For example, Google gets more consumer data as a result of underpricing its speakers, which allows it to strengthen its targeting algorithms and thereby maintain its margins in search advertising against what might otherwise be price erosion. The result is that predation and resulting harm to competition is both more likely and more unlikely to be captured by the *Brooke Group* framework.

Three considerations, when applied to conduct by dominant firms in digital markets, warrant an update to how recoupment should be evaluated:

First, the time frame for evaluating recoupment should be extended beyond the two-year horizon usually relied upon to predict competitive harm. A targeted underpricing strategy for many years can be especially effective in digital markets, where network effects may accelerate (or increase the probability of) a platform's dominant position. The time horizon for showing recoupment under current law does not reflect the harm that stems from a targeted long-term underpricing strategy.

Second, the assessment of recoupment should not be limited to the market in which the below-cost pricing occurred. Dominant companies increasingly are recouping below-cost pricing in other product markets. Recoupment has and will continue to occur in markets for substitutes, complements, and replacement goods. *See* Christopher R. Leslie, *Predatory Pricing and Recoupment*, 113 COLUM. L. REV. 1695, 1721 (2013). Importantly, companies like Google and Amazon have numerous ways in which they can recoup, some of which may be difficult for plaintiffs or enforcers to capture fully because of Google and Amazon's many business lines and use of data.

Alternatively, the recoupment requirement could be eliminated for digital markets that exhibit strong network effects. This would be consistent with the common-sense notion that a monopolist only would engage in below-cost pricing if it intends to recoup the resulting short-term losses. Further, the remaining requirements to demonstrate below-cost pricing -- market power and strong network effects -- would substantially reduce the risk of condemning genuinely pro-competitive behavior.

How to think about IP misappropriation in the context of antitrust

IP misappropriation, on its own, is not normally an antitrust violation. Sonos recognizes that it is important to distinguish pure IP or contract issues from antitrust issues. But when a dominant firm uses its market power to obtain access to, refuse to pay for, or otherwise prevent the enforcement of patented technology that the monopolist incorporates into its products, that infringing activity can harm competition just like other competitive disputes involving contracts (e.g., exclusive dealing provisions) or hiring practices (e.g., agreements not to poach employees).

Sonos believes that the antitrust or patent law should be refreshed to make clear that the antitrust laws should be used to remedy the following IP-related conduct that also can result in harm to competition:

When a company leverages its dominance to immunize itself from paying for infringing IP, such as through overbroad defensive termination provisions in business partnerships. This practice, which is becoming increasing common by dominant firms, has the effect of artificially decreasing the dominant firm's product input costs relative to competitors. It is well-recognized under antitrust law that IP rights are evaluated the same as other types of property. Since the antitrust laws condemn unlawful efforts by monopolists to artificially depress product input costs (e.g., monopsony power), the same should hold true with respect to monopolist efforts to artificially suppress the cost of necessary IP inputs.

When a company uses its dominant (or otherwise essential trading partner) status to gain valuable, competitively-sensitive data that it: (a) otherwise would not have access to, and (b) uses to compete against its partners/suppliers. This scenario is different than simply creating a product that infringes (either innocently or willfully) a competitor's patents because, in that scenario, the infringement is not the result of the improper use of market power. (Although it still is a legal misappropriation redressable by patent law.) But when the act of infringement would not occur "but for" the exercise of market power (i.e., getting access to non-public, competitively-sensitive data through "must have" business partnerships), it is a legal wrong that distorts lawful competition in addition to violating patent law.

The above provisions are necessary not only to prevent the distortion of competition, but to preserve the purpose of the constitutionally-mandated patent laws. Patents grant their owners the right to exclude the practice of covered inventions for a limited period, to encourage incentives to innovate. But the practices described above turn that system upside down. Instead of enabling patent owners to exclusively practice their inventions, the use of market power to artificially deflate IP input costs creates something akin to a compulsory licensing regime.

Questions for the Record from the Honorable David N. Cicilline, Chairman, Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary
Questions for David Barnett, Founder and CEO, PopSockets

1. In your written testimony, you state that "I would surmise that we are in the fortunate minority of young companies that are capable of surviving such turbulence." Why do you think most young companies would have trouble surviving such difficulties with Amazon?

   Most young companies would likely have a concentration of sales on Amazon.com, as most young companies do not have an extensive distribution and sales network outside of Amazon.com. There are only so many pegs at Target, Walmart, and other retailers, and few companies get an opportunity to have their products sold on these pegs. All companies have an opportunity to sell products online, yet online sales are increasingly concentrated on Amazon.com, which means that most young companies likely depend on Amazon.com sales to survive.

2. In its response to questions I sent Amazon last year, the company stated that it "goes to great lengths to assure the authenticity of products, preventing bad actors from opening selling accounts or selling counterfeit products in its stores." You write in your testimony that Amazon itself has sourced counterfeit versions of your product to sell on its platform. Why do you think Amazon would not just sell but itself source counterfeit versions of your product? Amazon claims it is in the company's interest to aggressively police counterfeits.
   The simple answer is that Amazon makes money anytime there is a sale on its platform, regardless of whether that product is authentic or counterfeit. Evidently, Amazon's motivation to make more money was greater than the motivation to operate within the laws of our country. Hopefully that changes.

3. In your written testimony, you described your initial challenges with Amazon relating to swarms of counterfeits and knockoffs that infringed your intellectual property, took your sales, harmed your brand, and led to unhappy consumers. And you further testified that Amazon was aware that large quantities of fakes were being sold every day on their platform. When you brought your counterfeit concerns to Amazon's attention, what was their response?

   Amazon referred us to their Brand Registry group, which deals with counterfeits and knockoffs. This group worked with us to remove a listing after we would place a test order and wait days or weeks to verify that the product was fake. By the time the target listing was removed, thousands of new listings would appear, often by the same people that had listed fakes in the past. It was a hopeless exercise. At the disposal of Amazon all along was the ability to "gate" our brand by requiring sellers to show proof of authenticity, but Amazon refused to use this tool (until we agreed to pay roughly $1.8 million in retail marketing dollars for programs that my team deemed ineffective).

4. In your written testimony, you describe a situation where, "On top of requiring us to pay almost two million in marketing dollars in order to remove illegal product from the Amazon marketplace, the Amazon Retail team frequently lowered their selling price of our product and then 'expected' and 'needed' us to help pay for the lost margin."
   1. Is this type of behavior typical of other retail partners that PopSockets deals with?

   No.

   2. If it was not required by contract and it is not typical practice why did Amazon feel entitled to the additional funding and why did PopSockets agree to pay it?

   PopSockets did not always agree to pay it, but when it did, it did so based on a simple cost/benefit analysis, on which the consequences of not paying for it, which included possibly losing the Amazon business, were worse than the consequences of paying for it. Amazon felt entitled to it because the relationship was asymmetric, and Amazon knew that its market dominance could be used to force us to pay it more money, essentially changing the terms of our contract—that is, it knew that the cost/benefit analysis would favor a decision to give into its demands.

5. In your written testimony you state that when PopSockets proceeded to end its relationship with Amazon Retail, in response, Amazon removed all of iServe's PopSockets product listings, causing significant financial harm to PopSockets and iServe. Did PopSockets or iServe have any recourse to address the harm that Amazon's conduct caused to your companies?

   No.

6. Vox also reported that the "advantages to selling on the Marketplace include the ability to control the sale price of the goods, run price promotions and get more data about how products are performing and who's buying them."

   a. Why is it important for a seller to have control over pricing and promotional decisions?

   Central to the idea of a free market economy is that buyers and sellers are free to set their terms for a transaction, including price. If buyers and sellers cannot agree on terms, they can move onto the next candidate participant in the economy to try to reach a deal. If sellers cannot control their pricing, they cannot control their business. Control over pricing affords a seller control over its margins and brand. A seller might for instance intend to reinvest profits into research and development, in which case the seller would want to factor that into its pricing. A seller might wish to establish a luxury

brand, in which case the seller would want to factor that into its pricing, as low-cost products do not typically comport with a luxury brand image. A seller might want to offer a range of products at different price points for different consumers, in which case the seller would want to factor this strategy into its pricing. These are just a few examples illustrating the value of control over pricing. Similar considerations favor control over promotional decisions.

To be sure, on paper, it would appear that sellers who sell to Amazon (and not merely on Amazon's 3rd-party platform) have control over pricing to Amazon (just not pricing on Amazon.com), but in practice that is not the case. First, due to Amazon's dominance, such sellers essentially have no choice but to sell to Amazon. Second, due to Amazon's dominance and practices of demanding funding whenever it elects to lower prices to the consumer, such sellers in practice sell to Amazon for whatever price Amazon dictates.

2. Why is it important for a seller to have access to the additional customer and product performance data that is available to Marketplace sellers, but not to wholesalers who sell to Amazon's Retail Group?

   Data helps sellers to optimize their advertising, pricing, and offering.

3. Are there any other advantages to being able to sell on the Marketplace rather than as a wholesaler through Amazon's Retail Group?

   Possibly. I do not know.

7. Despite resuming your relationship with Amazon Retail and noting that the Amazon team members you interact with seem to have sincere intentions, you note in your written testimony that you "have reservations as to whether they can overcome what seem to me to be systematic problems with Amazon due to the asymmetry in power between Amazon and its partners." In your view, what are these systematic problems and how does the asymmetry in power between Amazon and its selling partners contribute to these problems?

   The Amazon machine appears ultimately to be driven by one goal: dominance. When a company with no real competition is driven primarily by the goal of becoming more dominant, it will inevitably use all resources available to it in attaining this goal, including the extant asymmetry in power between itself and its partners, which means that this goal will manifest in strong-arming tactics with its partners, as these tactics tend to work when one partner's arm is stronger than the other's. These tactics simply don't work in a free market economy, as participants will choose partners that do not attempt to strong-arm them over partners that do.

8. Experts have observed that large amounts of data can entrench dominant players in digital markets and cut out emerging competitors. Do you believe that Amazon's access

to and control of large amounts of data on sellers and consumers raise competition concerns?

Yes. Amazon strictly controls massive amounts of data to which only it is privy. It can use this data to further its dominance in all sorts of ways. After all, if one participant in the economy knows more about the behavior of the consumers in the economy than any other participant, this constitutes a significant competitive advantage.

Response to questions for the record
by the House Committee on the Judiciary
Subcommittee on Antitrust, Commercial and Administrative Law
following the Field Hearing on *Online Platforms and Market Power*
Part 5: Competitors in the Digital Economy

Washington, DC
March 30, 2020

Executive Summary

Tile was honored to participate in this Subcommittee's January 17, 2020 field hearing in Boulder, Colorado. Unfortunately, since that hearing, Apple's anti-competitive behaviors have gotten worse, not better.

Despite Apple's multiple promises to reinstate "Always Allow" background permissions option for third party apps' geolocation services, Apple has not yet done so. Instead, and as detailed herein, from Tile's perspective, Apple has introduced new requirements for iOS 13.3.1[1] that will make the user experience for Tile customers even worse. Moreover, despite multiple requests, Apple has also made no indication that it will address any of Tile's other repeated concerns to help level the playing field while respecting users' privacy, including:

- Ceasing background permissions reminders that denigrate Tile's user experience, cause consumer frustration, and undermine the integrity and trustworthiness of our product (but that don't apply to FindMy); even though Apple intends to use it to enhance FindMy and its Tile-like competitor;
- Providing access to critical diagnostic data;
- Applying rules equally to FindMy and non-native apps such as Tile;
- Equal prominence and placement on devices;
- Ceasing search engine advertising/bidding utilizing Tile's search terms that is aimed at identifying Tile's customer base and rerouting customers while driving up online advertising costs
- Enabling Tile to access Ultra-Wide Band (UWB) technology for the benefit of its users,

And more.

Simultaneously, reports continue to surface that Apple's competing hardware product launch is imminent.[2]

Also, as described in more detail herein, each of Apple's purported justifications for its anti-competitive behavior is spurious. Notably:

- Apple defends its preferential behaviors and disparate treatment of competitors because FindMy is part of the OS. If privacy was truly Apple's primary concern, it would subject FindMy to ***at least*** the same permissions consent and reminder standards to which it holds third parties. Instead, it enables access and *sharing* of location data with users' friends by default, and even if they indicate that they do not want FindMy to access their

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[1] See Response to Question 11

[2] Constine, Josh. "All the startups threatened by iOS 14's new features." Tech Crunch, 03/10/20, https://techcrunch.com/2020/03/10/all-the-startups-threatened-by-ios-14s-new-features/, accessed 03/25/20.
Epstein, Zach. "Massive iOS 14 beta leak reveals 5 exciting new features." MSN, 03/10/20, https://www.msn.com/en-us/news/technology/massive-ios-14-beta-leak-reveals-5-exciting-new-features/ar-BB10Z6Za?srcref=rss, accessed 03/25/20.
Hein, Buster. "Apple's AirTags will use removable coin battery." Cult of Mac, 03/10/20, https://www.cultofmac.com/690905/airtags-battery/, accessed 03/25/20.
Rossignol, Joe. "Apple's Rumored Tile Competitor 'AirTag' May Have Removable Coin-Shaped Batter Like the Tile Pro." MacRumors, 03/09/20, https://www.macrumors.com/2020/03/09/airtags-cr2032-battery-rumor/, accessed 03/25/20.

data at all upon first launch of FindMy. They also bury FindMy location permissions and make them difficult to turn off.

- Apple maintains that the seamless location access that FindMy enjoys is "essential" to help customers immediately locate misplaced or stolen items. Apple doesn't mention that the exact same justification is true for Tile;
- Apple stated recently that "[g]iving developers a fair and level playing field has been our key to success--and we will stay on that course."[3] If that were the case, Apple would be taking steps to address its deliberate anticompetitive behavior and disparate treatment of competitors.
- Apple has stated repeatedly that it stores data locally, which enhances user privacy. But Apple does not mention myriad other privacy practices relevant to assessing the privacy hygiene of a mobile app. Moreover, local storage may not be feasible for all companies, is otherwise not necessarily a one-size-fits-all solution, and moreover is not an iron-clad guarantee of user privacy.

In light of Apple's impending competing hardware launch, coupled with the devastating effects of the global coronavirus pandemic on small businesses and supply chains, it is more important than ever to ensure the competitive integrity of the Apple ecosystem. However, as described in more detail herein, Apple continues to exploit its unfettered market dominance by continuing to change the rules of the game in its own favor without justification and without consequence.

Importantly and unfortunately, Apple has given no indication that its behavior will change without governmental intervention.

Subcommittee Questions:

1. **In response to a Subcommittee question about Apple's treatment of location requests by third party and native iOS apps at this past summer's hearing, Apple wrote, "Apple does require notifications to users allowing them to control how apps can use their location data." In your written testimony, however, you state that "Apple surfaces neither reminders of FindMy's data collection, nor prompts for its customers to disable" such data collection.**

    a. **Does Apple treat its own product the same as it treats Tile? Do the same rules apply to each product?**

Tile Response: No. Apple does not treat FindMy the same as it treats Tile. Nor do the same rules apply to FindMy as they do to Tile. As we have stressed throughout this inquiry, Apple's disparate treatment of Tile dramatically underscores how, Apple has used the concept of privacy as a shield by making changes in the name of privacy that at the same time give it a competitive advantage.

As mentioned during the January 17 field hearing, Apple has unfettered power to, and does, change the rules that apply to competitors at any time in its own favor without meaningful notice.

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[3] Smith, Matt. "There's a Fight Raging Over Apple's App Store. Why Some Regulators and Developers Are Calling It a Monopoly." Barron's, 03/20/20, https://www.barrons.com/articles/apple-app-store-developers-are-pushing-back-on-apples-power-51584700200, accessed 03/25/20.

The changes described below occurred at the same time Apple enhanced FindMy in ways to more directly compete with Tile and at the same time that it was planning to release a competing Tile-like hardware product. This exploitation of dominance in the marketplace gives them a clear competitive advantage.

b. If differences exist, could you describe what some of these differences look like?

Tile Response: As the Subcommittee is aware, Tile requires background location permissions in order to work and help customers find their most important belongings when they've left them behind. Without Always Allow location permissions, for instance, if someone leaves their wallet at a coffee shop, Tile wouldn't be able to detect the location of loss unless the user was using the Tile app at the precise time of separation.

Apple enables those background permissions for FindMy by default when the user sets up their phone or operating system (and outside the context of the FindMy app experience) so that it works seamlessly out of the box. This location data is shared with FindMy users' friends even if they indicate they don't want Apple to enable location service upon first launch of FindMy. To make matters worse, FindMy location permissions are difficult to find and require a password to disable.

Tile customers, by contrast, have to go deep within their settings to enable the requisite permissions at all. If they are able to do so, Apple then serves up repeated reminders to Tile customers to turn the permissions off, which cast doubt upon the trustworthiness of our app and sometimes leads customers to believe our app is broken. They serve no such reminders to its own FindMy customers.

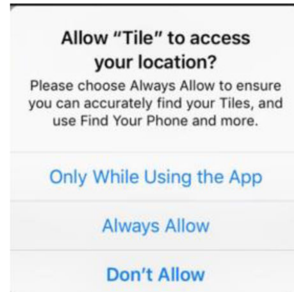
Apple maintains that it made these changes to better ensure consumer privacy. If privacy is truly their overriding concern, then FindMy customers should experience the same location permissions/deactivation/reminder process as Tile customers. This disparity results solely from Apple's deliberate design.

The best way to demonstrate Apple's preferential behavior in this regard is to walk through each respective flow.

(i) Tile's Location Permissions Flow

1. Tile's Location Permissions Flow Before iOS13

Before iOS 13 was released last September, Tile customers were given the ability to choose the location permissions they wanted to grant Tile upon first launch of the app. As noted above, Tile's services need "Always Allow" in order to function. And before iOS13, that option was presented to Tile users clearly, just-in-time and in the context of the Tile app upon its first launch:



Once a user made that choice, they could disable or change that setting any time within their Tile app location settings.

2. Apple Renders Location Settings Difficult to Set with iOS 13

At precisely the same time that Apple was planning to launch a competing hardware product and made updates to FindMy to compete more directly with Tile,[4] Apple simultaneously made it very difficult for Tile customers to enable location permissions needed for Tile to work.

In particular, Apple removed the "Always Allow" option from the pre-iOS location permissions prompt above and instead buried that permission deep within user settings. The new options at first launch of Tile's mobile app are "Allow Once," "Allow While Using" and "Don't Allow." For apps like Tile that rely on "Always Allow" to enable critical functionality, no matter what a consumer uses, the app won't work. For that reason, any option chosen by Tile customers would render Tile's service inoperable and result in only confusion and customer frustration.

Accordingly, Tile was forced to devote its limited resources to develop, design and engineer a brand-new onboarding flow. In stark contrast to the pre-iOS13 flow above, Tile had to enable a 4-step process directing customers outside the app and deep within their settings to enable core functionality:

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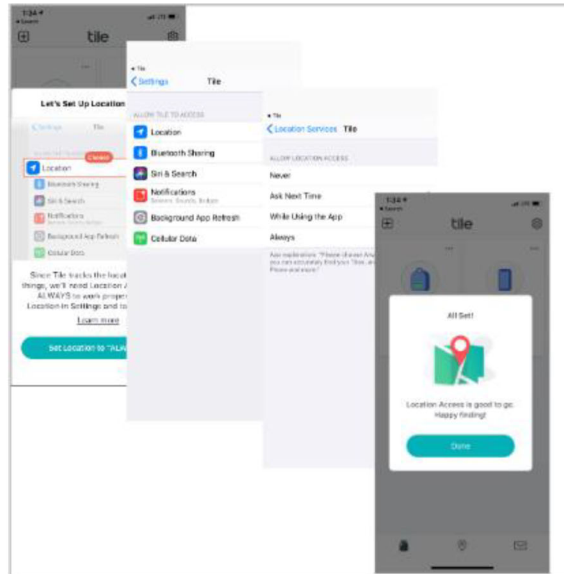
[4] Albergotti, Reed. "Apple Says Recent Changes to Operating System Improve User Privacy, But Some Lawmakers See Them As An Effort To Edge Out Its Rivals." Washington Post, 11/26/20, https://www.washingtonpost.com/technology/2019/11/26/apple-emphasizes-user-privacy-lawmakers-see-it-an-effort-edge-out-its-rivals/, accessed 03/25/20.

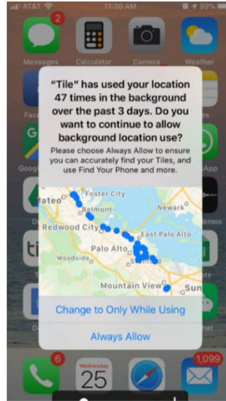
Mr. Albergotti writes, "In iOS13, Apple introduced 'offline finding,' a service that helps Apple users find lost devices, even if they're not connected to the Internet in a type of networked Bluetooth crowdsourcing." Tile has utilized this networked Bluetooth crowdsourcing in its products since their inception.



This onerous flow, which Apple does not subject its FindMy customers to, has led to a material decline in proper settings enablement for Tile customers. Tile estimates a decline of as much as **40%+** if the effect of other changes to iOS 13 including permissions and reminders (described below) are taken into account.

3. Once A Tile Customer Sets Proper Tile Settings, Apple Sends Users Repeated Reminders to Prompt them to Turn them Off

If a Tile user is able to set proper location settings, Apple then surfaces reminders periodically outside the context of the Tile application recommending that our customers to turn them off. Tile has no control over these reminders, which lack context about the consequences of disabling "Always Allow," or why Tile needs the settings to help customers keep track of their belongings. Apple leads Tile customers to disable this critical setting by surfacing the "Change" setting first and otherwise renders the permission easy to turn off by accident:



Simultaneous with the introduction of reminder prompts, Tile experienced a sharp increase in users who had previously granted "Always Allow" permissions, but who had changed them without understanding that by doing so, they were essentially stopping Tile from working. However, Apple does not provide enough information to enable us to figure out which customers are affected. Nor does Apple share critical diagnostic data that would enable us to understand other potential causes of the decline, including Bluetooth Permissions or background resource consumption (thresholds for which are not shared with Tile). That renders us unable to properly diagnose issues, address them or otherwise connect with users to let them know that they need to re-enable the settings to re-enable Tile's services.

The reminders in particular have been the subject of much consumer angst and confusion as demonstrated by posts in Apple's own forums. Some consumers mistakenly conclude that Tile, rather than Apple, is the party responsible for surfacing these reminders. The following are a few examples of consumer sentiment:[5]

> "*I keep getting annoying popups saying "xyz app is tracking your location… I can't find a way to shut off the 'feature.' Is there a way to shut it off?"*
>
> *"I am NOT OKAY with iOS 13 constantly re-asking me over and over again if I want to share my location with Google Maps or anything else…. Constantly berating me with spamming pop-ups is NOT a feature, it's a tactic to give less data to Apple's competition."*
>
> "*Apple, for the love of [G]od stop, asking for location permissions after we select Always!"*
>
> *"Same thing with my elderly dad's home alarm system. He inadvertently changes it all the time because of this incessant nag feature. Always means always!"*

[5] See Appendix A

Consequently, these reminders undermine both the core functionality of our products and consumer confidence in the integrity and trustworthiness of our service.

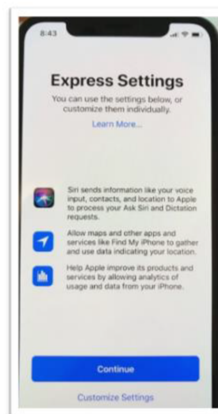
Apple does not surface these reminders to users of FindMy.

(ii). Apple FindMy Permissions Flow

1. Apple's One-Step Process For Enabling Background Location Permissions

Apple's background permissions process is markedly different from that of Tile's.

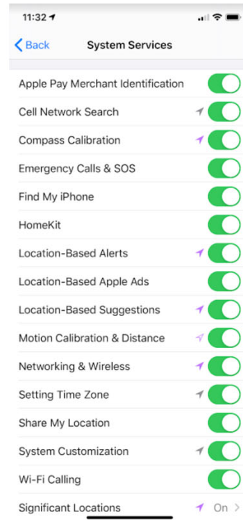
Apple has a **one-step process** for enabling background location permissions for FindMy. In particular, when the user sets up his or her device or operating system, a screen entitled "Express Settings" recommending default settings, appearing amidst an overwhelming number other operating system set up tasks:



"Continue" is highlighted as the recommended option for all Apple customers.

Importantly:

- Pressing "Continue" opts Apple customers into over 15 separate location permissions called "System Services" **by default** with no explanation. These permissions include "FindMy iPhone," "Share my Location" and "Location-Based Apple Ads:"



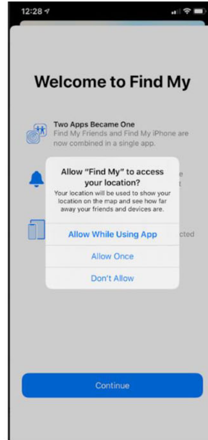
- Indeed, pressing "Continue" enables Apple to access a user's location at all times by default and for all purposes ***including advertising and sharing location information with third parties.***
- Despite the vagueness of Apple's flow, in response to a press inquiry asking why FindMy gets to bypass the location permissions rules that apply to competing apps, Apple commented that "Find My and other apps are built into iOS" and that it "doesn't see a need to make location-tracking requests from users for the apps after they install the operating system."[6]

(ii). Apple's FindMy Location Permissions Are Confusing, Misleading and Difficult to Disable

As noted, Apple customers are prompted to opt into all location permissions by default upon device or operating system set up via "Express Settings."

Apple may say in response that when users launch FindMy for the first time, they surface the same prompt as all other apps that seek location permissions:

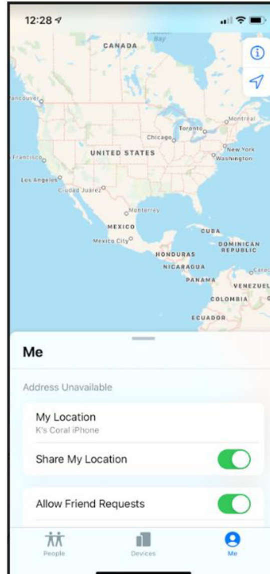
[6] Tilley, Aaron. "Developers Call Apple Privacy Changes Anti-Competitive." The Information, 08/16/20, https://www.theinformation.com/articles/developers-call-apple-privacy-changes-anti-competitive, accessed 03/25/20.



However, the above prompt only dictates whether the user can see their own location in a map within FindMy. No matter what the consumer chooses, location permissions will be ***collected and shared*** per “Express Settings.” In other words, even when a customer chooses “Don’t Allow” at first launch of FindMy:

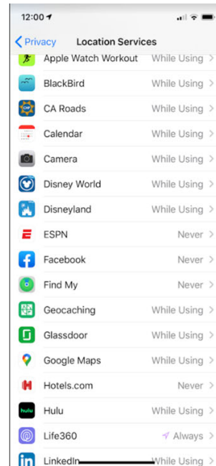
- The user’s location data **can still be collected in the background at all times**;
- The user’s location data **can still be shared with friends within the FindMy app**.

For example, the below screen appears within the “Me” tab of FindMy when a user has enabled the Express Settings default, but thereafter selects “Don’t Allow” at first launch of the FindMy app. The “Don’t Allow” selection only results in the user not being able to see their own location in the empty map, but collection continues as does sharing with third parties which is defaulted on:

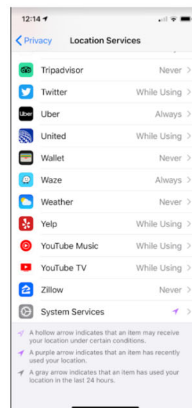


(iii) Apple Makes Turning Location Permissions Off Difficult and Confusing For FindMy

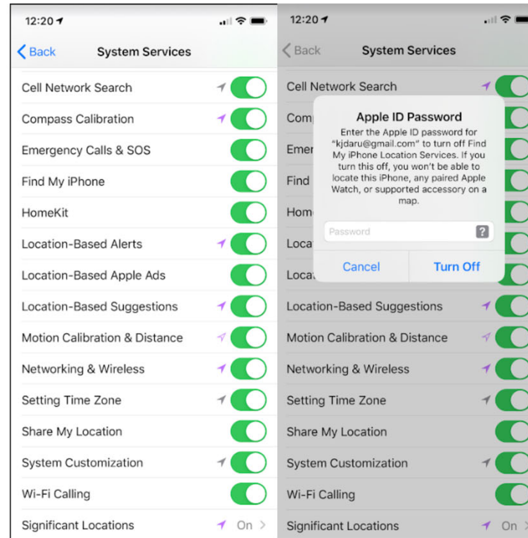
Assuming a user understood that selecting “Don’t Allow” at first launch of FindMy did not turn off background location or sharing with friends, the next place a user would go to turn off location permissions for FindMy is the App location permissions settings screen. This is where location permissions settings exist for all apps. And indeed, FindMy is included in the “Location Services” list of apps. For instance, this user’s FindMy location services permission is set to “Never:”



However, the above FindMy location permission--again--only dictates whether the user can see their own location in the FindMy map. For all other third-party apps, these location permission settings dictate whether the app can access location permissions ***at all***. Unbeknownst to the user, in order to toggle FindMy's actual location permissions settings off, they need to visit a separate setting called "System Services" shown at the very bottom of the Location Services screen below:



Even after users have selected "Never" for FindMy in location services above, they can simultaneously see location services for FindMy turned ***on*** in "System Services." And if they try to turn it off, Apple requires a password in order to do so:



Never is this explained to users in the settings flow. In fact, Apple's own location privacy whitepaper[7] seems to indicate that choosing "Don't Allow" upon first launch of FindMy would toggle off all location permissions for FindMy:

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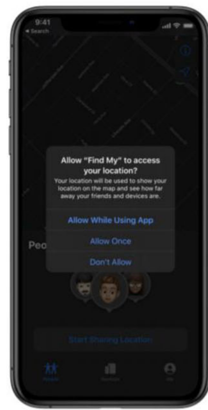
[7] Apple. "Location Services Privacy Overview." PDF file, 11/19, https://www.apple.com/privacy/docs/Location_Services_White_Paper_Nov_2019.pdf.



The location permission prompt in iOS 13 and iPadOS.

Location Services settings

In Location Services settings, users can see and control which Apple and third-party apps have permission to use data on the location of their iPhone, iPad, Apple Watch, or Mac. In iOS 13 and iPadOS, when an app makes its first location request, users are shown a prompt that informs them which app is making the request along with the developer's explanation of how the app uses location data. Choosing Allow Once enables the app to access location data during that first session so a user can temporarily sample the app's location-based services. Choosing Allow While Using App gives the app permission to access a user's location data whenever the app is in use. Choosing Don't Allow prevents the app from accessing location data.

The Location Services settings are built for user transparency and control. Their primary purpose is to inform users about when and how their location data is being used and to enable them to control access for each app. All apps that have made location requests appear on a list within the Location Services settings. To make a change to an app's access to location data, users can simply find the app on this list, tap the app, and then select their preferred level of access to location data. The choices include the following: no access (choose Never), access while using the app (choose Allow While Using App), or decide later (choose Ask Next Time).

Apple does not surface any reminders of the user's settings or provide meaningful information about what the permissions even mean within the settings flow. As noted, this is because Apple sees no need to provide additional information after a user selects "Continue" on the Express Settings page.[8] As such, and in stark contrast to Tile's location permissions flow, Apple's location permissions for FindMy are on by default, confusing, and difficult to disable.

c. Are there legitimate business reasons to impose these differences in treatment?

Tile Response: No. Time and again, Apple has tried to justify its own confusing FindMy location permissions flow and disparate treatment of competitors by invoking consumer privacy.[9] This disparity in treatment is a troubling example of Apple using privacy as a shield to further its own competitive interests and exploit its dominant market power. In particular:

- FindMy's own location permission flows and settings related to FindMy are confusing and vague. Its strict privacy controls apply only to competitors and other third parties. Having a double standard for how location data is used and collected undermines

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[8] Tilley.
[9] Albergotti. Tilley.
Andeer, Kyle. "Letter to the House Committee on the Judiciary Regarding the Committee's January 17, 2020 Field Hearing on Online Platforms and Market Power." PDF File, 02/17/20, https://docs.house.gov/meetings/JU/JU05/20200117/110386/HHRG-116-JU05-20200117-SD004.pdf.

Apple's leadership in privacy, stifles investment in iOS ecosystem, and is anti-competitive;

- Apple has defended its preferential treatment of FindMy over competing apps because FindMy is built into the operating system.[10] If privacy was Apple's primary concern, it would subject FindMy to ***at least*** the same standards related to permissions access and reminders to which it holds third parties.
- Apple's response to the January 17 field hearing indicates that turning on "Always Allow" for FindMy upon operating system and phone activation is "essential" so that consumers can immediately locate their items should they be lost or stolen.[11] The exact same thing is true for Tile. Consumers purchase Tile devices to locate them if they are lost or stolen. Yet because of Apple's dominant market power, they have the ability to enable seamless onboarding for its own users and withhold the exact same "essential" functionality from competitors. If creating a fair playing field for competing were a priority for Apple, it would apply consistent rules that apply to all apps, including its own.
- In Apple's response to the Subcommittee's Field Hearing,[12] Apple also posits that Apple's preferential behavior with respect to location permissions is justified by a need for stronger privacy protections for consumers. However, the changes it's made to iOS 13 do not meaningfully improve or enhance consumer privacy. The changes don't cure third party vulnerabilities or improve bad actors' practices or prevent them from selling location data. They do, however, make it more difficult for customers to exercise choice, denigrate the functionality and efficacy of competing apps and cause confusion and friction for their users. The truth is that Apple's market dominance has enabled them to appoint themselves as de facto privacy regulators and then exempt themselves from all of the rules.
- Apple also attempts to justify its behavior by alleging that Apple stores location data locally on a user's device, unlike Tile which stores some user information externally. This is a red herring. Changing from a server-based to a wholly local approach can be a very expensive and onerous process and it can limit the ability of the developer to provide certain features and improve its products and services. In addition, storing data locally on a user's device can introduce access vectors that server-side data collection does not.[13] Accordingly, local storage models aren't fit for all purposes or for all apps.

  That said, there are many other privacy factors to consider when determining the trustworthiness of mobile applications. For instance, unlike Apple, Tile doesn't share real-time location data with users' friends even if a customer asks them not to access the information at all. Unlike Apple, Tile does not use location data for advertising purposes. Tile also employs strict minimization and data retention practices. And of course, Tile does not sell location data. Bottom line is that Apple's policies appear to apply to competitors and third parties across the board without regard to where or for how long data is stored or whether they otherwise practice excellent privacy hygiene.

As such, there is no valid business justification for Apple's unilateral rules that denigrate the experience of competing apps while exempting FindMy from the same rules.

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[10] Tilley.
[11] Andeer.
[12] Id.
[13] Selyukh, Alina. "The FBI Has Successfully Unlocked The iPhone Without Apple's Help." National Public Radio, 03/28/16, https://www.npr.org/sections/thetwo-way/2016/03/28/472192080/the-fbi-has-successfully-unlocked-the-iphone-without-apples-help, accessed 03/25/20.

2. **You testified that Apple's recent changes to iOS 13 "increased the 'friction' a user faces when initializing and using third-party apps, while simultaneously decreasing the relative friction for (and transparency of) Apple's own location tracking services."**

    a. **In what specific ways does Apple increase friction for competitors?**

Tile Response: See response to Question 1, above.

    b. **Does Apple ease the installation and utilization of its own location tracking services? If so, how?**

Tile Response: Yes. See response to Question 1, above.

    c. **How easy or difficult does Apple make it for customers to disable Apple's geolocation and tracking functionality, as compared with similar functionality by third party providers?**

Tile Response: See response to Question 1, above.

3. **You testified at the hearing that by virtue of owning and controlling "the hardware, the operating system, retail stores and the App Store marketplace, upon which third party app makers like Tile rely," Apple exercises "significant control over the ecosystem but also gives Apple access to competitively sensitive information, including the identity of our iOS customers, subscription take rates, retail margins and more."**

    a. **What types of competitively sensitive information can Apple access through each of these channels? Please specify the type of information by specific channel (i.e. what type of information can Apple access through its ownership of iOS hardware, what type of information can Apple access through its ownership of the App Store)?**

Tile Response: While Tile lacks visibility into all competitively sensitive information Apple has access to, Apple certainly has details regarding our app and business that we would not willingly reveal to a competitor. Below are a few examples.

(i) Information Apple Has Access to By Virtue of Being a Partner of Tile's

- Tile worked with Apple on a Siri integration and sent one of its iOS engineers to work on it in 2018. Apple has since hired that engineer;
- In connection with our partnership, Tile management had a meeting with Apple and sent them a deck in August of 2018 with ideas of how we could continue to partner together.[14] One idea was integrating Tile into their FindMy service to help customers locate and find their items. Apple has instead decided to develop their own Tile-like hardware product.[15]

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[14] See deck excerpts in Appendix B

[15] Constine. Epstein. Hein. Rossignol.

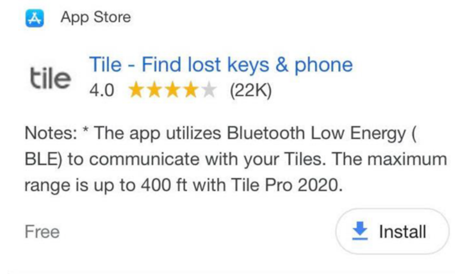
- In connection with that same deck/meeting, Tile discussed other aspects of its business and future roadmap, including detection of the location of lost items using a network of Bluetooth connected devices called access points. Apple introduced such functionality in FindMy with iOS13.[16]

(ii) Information Apple Has Access to By Virtue of Owning The Operating System

- Apple knows how many people visit our page on the App Store, how many of those customers install our app, how many of the users that installed our app delete it, where these users are from and much more.[17]
- Tile also believes that Apple may be able to access which features Tile customers access and use;
- Apple has access to information about why apps are force quit or otherwise appear to no longer be working. For instance, Apple has resource consumption thresholds that dictate when an app can be force quit. But those thresholds change and are never communicated to app developers. Accordingly, when a particular customer's Tile app stops working, Tile is left to wonder: Is it a resource consumption issue? Lack of Bluetooth permissions? Location permissions? Without this information, Tile cannot troubleshoot issues the same way Apple can troubleshoot for FindMy.

(iii) Information Apple Has Access to By Virtue of Owning the App Store

- Again, Apple knows precisely which customers install the Tile app;
- Apple can detect consumers who are actively looking for services similar to Tile's. For instance, it has been serving ads that *look like* Tile ads, using Tile trademarks, driving traffic to the App Store:



For those who click through and land on the App Store page, Apple can effectively track individuals who are looking for Tile, and then subsequently advertise their competing app to those same customers later;

- Apple knows the apps that Tile customers have also installed on their devices. This can help them segment and more effectively advertise their own competing product than Tile can.

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[16] Albergotti. Constine. Epstein. Hein. Rossignol.
[17] Apple. "Gain Insights with Analytics." https://developer.apple.com/app-store-connect/analytics/, accessed 03/27/20

- Tile also offers its customers a subscription offering to complement its basic services via the App Store. Apple therefore knows the subscription take rate and success of Tile's subscription model.

(iv) Information Apple Has Access To By Virtue of Owning Retail Stores

- Until recently, Tile was featured in Apple retail stores. By virtue of that, Apple knows our retail margins and profitability per-Tile;
- They also understand sensitive information about consumer demand and take rate at retail;
- Apple also received samples of our yet-to-be released Tile products when they featured our products in their stores. For instance, in June of 2019, Tile sent Apple a sample of its Sticker product before its release in October 2019. The Tile Sticker is Tile's smallest and first round model of its Tile products. Reports of Apple's competing hardware product show it having a similar round form factor as Tile's Sticker product.[18]
- Apple also received our partner roadmap of devices intending to embed Tile within their hardware and Tile's deployment of these partner products at retail.

4. **You testified that Apple serves "annoying" reminder alerts to customers of third-party apps.**

Tile Response: Yes. Apple's own customers are referring to the reminder alerts for Always Allow location permissions as "annoying."[19]

a. **Does the occurrence of these reminders vary from consumer to consumer?**

Tile Response: Tile does not have insight into why or on what cadence these reminders are presented to consumers. Apple controls the reminders entirely and has not shared additional relevant information.

b. **What type of information could Apple provide, if any, to shed further light on why and how frequently Apple issues such reminders?**

Tile Response: At a minimum, Tile would like to understand:

- How often and on what cadence the reminders are triggered;
- Why the reminders are triggered. Are there certain events that prompt more frequent or less frequent reminders? If so, what are they?
- Does Apple serve these reminders for its own apps?
- What is the percentage of Tile users that opt out of Always Allow location permissions via the reminders?
- What users are opting out of "Always Allow" location permissions for Tile via the reminders? This is important so that we can message those users and let them know the impact and to inform them to re-enable the permissions so that the product/service works properly going forward.

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[18]Constine, Josh. "All the startups threatened by iOS 14's new features." Tech Crunch, 03/10/20, https://techcrunch.com/2020/03/10/all-the-startups-threatened-by-ios-14s-new-features/, accessed 03/25/20. Tile. "Tile Sticker Page." https://www.thetileapp.com/en-us/store/tiles/sticker, accessed 03/27/20.

[19] See Appendix A

5. **If a privacy-minded iOS user opts to use your company's services, can that user opt out of sharing data through Apple's native FindMy app?**

Tile Response: As noted above in response to Question 1, a user can opt not to share their location information with friends via the FindMy app, but cannot opt out of background location permissions directly through Apple's FindMy app. As described in response to Question 1, the process to opt out of FindMy location permissions is onerous, confusing and requires a password.

There is no way, however, for a customer to delete FindMy from their device or prevent it from being installed by default on his or her device to begin with. There is also no way for a customer to choose to install Tile by default on Apple devices instead of FindMy.

a. **What leads you to believe that Apple's product design choices are anti-competitive, rather than representing what users want?**

Tile Response: Tile is unaware of evidence of consumer demand for Apple's precise preferential behaviors. And Apple's own forums have numerous posts from consumers who find Apple's location permissions reminders annoying and at times, dangerous.[20]

However, there is substantial evidence that Apple's product design choices are indeed anti-competitive. As noted above, time and again, Apple has tried to justify its own misleading location permissions flow for FindMy and disparate treatment of competitors in the name of privacy.[21] See Tile's response to question 1(c), copied here for reference:

- FindMy's own location permission flows and settings related to FindMy are confusing and vague. Its strict privacy controls apply only to competitors and other third parties. Having a double standard for how location data is used and collected undermines Apple's leadership in privacy, stifles investment in iOS ecosystem and is anti-competitive;
- Apple has defended its preferential treatment of FindMy over competing apps because FindMy is built into the operating system.[22] If privacy was Apple's primary concern, it would subject FindMy to ***at least*** the same standards related to permissions access and reminders to which it holds third parties.
- Apple's response to the January 17 field hearing indicates that turning on "Always Allow" for FindMy upon operating system and phone activation is "essential" so that consumers can immediately locate their items should they be lost or stolen.[23] The exact same thing is true for Tile. Consumers purchase Tile devices to locate them if they are lost or stolen. Yet because of Apple's dominant market power, they have the ability to enable seamless onboarding for its own users and withhold the exact same "essential" functionality from competitors. If creating a fair playing field for competing were a priority for Apple, it would apply consistent rules that apply to all apps, including its own.
- In Apple's response to the Subcommittee's Field Hearing,[24] Apple also posits that Apple's preferential behavior with respect to location permissions is justified by a need

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[20] See Appendix A
[21] Albergotti. Andeer, Tilley.
[22] Tilley.
[23] Andeer.
[24] Id.

for stronger privacy protections for consumers. However, the changes it's made to iOS 13 do not meaningfully improve or enhance consumer privacy. The changes don't cure third party vulnerabilities or improve bad actors' practices or prevent them from selling location data. They do, however, make it more difficult for customers to exercise choice, denigrate the functionality and efficacy of competing apps and cause confusion and friction for their users. The truth is that Apple's market dominance has enabled them to appoint themselves as de facto privacy regulators and then exempt themselves from all of the rules.

- Apple also attempts to justify its behavior by alleging that Apple stores location data locally on a user's device, unlike Tile which stores some user information externally. This is a red herring. Changing from a server-based to a wholly local approach can be a very expensive and onerous process and it can limit the ability of the developer to provide certain features and improve its products and services. In addition, storing data locally on a user's device can introduce access vectors that server-side data collection does not.[25] Accordingly, local storage models aren't fit for all purposes or for all apps.

  That said, there are many other privacy factors to consider when determining the trustworthiness of mobile applications. For instance, unlike Apple, Tile doesn't share real-time location data with users' friends even if a customer asks them not to access the information at all. Unlike Apple, Tile does not use location data for advertising purposes. Tile also employs strict minimization and data retention practices. And of course, Tile does not sell location data. Bottom line is that Apple's policies appear to apply to competitors and third parties across the board without regard to where or for how long data is stored or whether they otherwise practice excellent privacy hygiene.

As such, there is no valid business justification for Apple's unilateral rules that denigrate the experience of competing apps while exempting FindMy from the same rules.

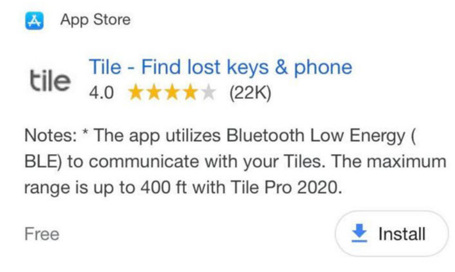
6. **Your mobile app integrates with the operating system or voice assistants produced by several different online platforms. Do all of the online platforms have similar policies regarding third party app location use, or does Apple--which has a competing product--treat your company differently?**

Tile Response: Yes, Apple--which has a competing product--treats our company differently than our other partners like Google, Amazon and many more. We will let the Subcommittee know if that changes.

7. **You testified that Apple's advertising was increasing your costs. Could you elaborate on that advertising practice and whether it's continuing?**

Tile Response: Apple has been bidding on our branded terms on Google Search on iOS and then serving what *look* like Tile ads, even incorporating the Tile trademark, and driving customers to the Tile App Store page:

[25] Selyukh, Alina. "The FBI Has Successfully Unlocked The iPhone Without Apple's Help." National Public Radio, 03/28/16, https://www.npr.org/sections/thetwo-way/2016/03/28/472192080/the-fbi-has-successfully-unlocked-the-iphone-without-apples-help, accessed 03/25/20.



When prospective customers click on the ad, they are taken to Apple's App Store. As confirmed by the *Washington Post*, "[e]xperts in online advertising say the search ads could give Apple valuable data about Tile's potential customers."[26]

Tile's current marketing strategy is to drive customers to its online ecommerce store to help potential customers find more information about and hopefully purchase Tile hardware. The Apple App Store does not sell Tile hardware, so driving traffic to Apple's App Store conveys no current benefit to Tile given that it's inconsistent with Tile's present marketing strategy. Yet, with both companies bidding to seek the attention of the same customers, the price to place ads and get the coveted "top spot" gets more and more expensive.

This behavior is continuing and since last September, it has increased Tile's advertising costs as much as 50% week over week.

8. **You testified that Tile has nothing budgeted for lobbying efforts. Could you elaborate on why and whether this has changed in light of the conduct by Apple you describe?**

Tile Response: Tile is a small, private company and has no budget dedicated to lobbying efforts. When existential threats arise requiring lobbying, Tile has to take funds from elsewhere and apply them to lobbying. The two existential threats that Tile has faced needing lobbying assistance to date are Apple's conduct and international tariff issues. Tile has paid $10,000 per month on an as-needed basis for representation on both issues.

9. **One factor that seems relevant to assessing the relative privacy of an app is whether it stores user data locally on the user's hardware or externally. Apple notes that "Find My" stores user location data locally on the user's iPhone and that Apple only transmits this data upon the user's request whereas Tile, by contract, collects and stores information externally. What additional factors, if any, are relevant for assessing the relative privacy of any app? Are all apps that store user data externally an equal threat to user privacy, or are there ways to discern which apps may pose a higher or lower risk to user privacy?**

[26] Albergotti.

Tile Response: There are indeed many other factors other than local vs. external storage relevant to assessing the relative privacy of an app. For instance:

- Whether the app gets express just-in-time consent to access the information at issue. Tile does this when users choose the "Always Allow" background location permission
- Whether the app shares location with independent third parties with express consent. Tile, for instance, only shares location information with users' friends with express consent. Apple, however, shares location data with friends in some instances even if a customer chooses "Don't Allow" in the location permission screen upon first launch of FindMy;
- Whether the app uses location data for advertising purposes. Unlike Apple, Tile under no circumstances uses background location data for advertising purposes.
- How long the data is retained. Tile employs both rigid data minimization and retention practices.
- Whether the app sells data. Tile does not sell data. Nor does Tile even have revenue-generating advertising on its sites and services.

Tile does not doubt that there are apps that act nefariously, sell user data and/or use it inconsistently with customer expectations. But there are certainly ways to address those bad actors in meaningful ways whilst not putting good actors like Tile at a competitive disadvantage. For instance, Google has recently introduced a third-party app vetting program. And it has pledged that it intends to apply the same privacy rules to its own apps as it does to all others. Assessing objective factors to help eliminate bad actors would help level the playing field while respecting user privacy, as opposed to Apple's approach which is to put all third party apps like Tile at a competitive disadvantage by assuming all competitors are acting nefariously.

If Apple chooses to directly compete with apps on its own platform, it should not be the arbiter of who can and cannot access the information needed to run competing services. As it has clearly exploited its market power in the past, there is no evidence to assume it won't continue doing so in the future.

10. **Is there a way for non-Apple apps to store user location data locally on the user's iPhone and transmit this data only upon the user's request? If not, are there steps Apple could take to enable non-Apple apps to do this?**

Tile Response: Apple could help third party apps by implementing a standard for the exchange of location information without revealing the identity of the finding device or the owner. Tile would be pleased to assist in that effort as we have already developed a system for doing so. Otherwise, apps could theoretically all use end-to-end encryption to enable access only to those who have access to the phone itself. Changing from a server-based to a wholly local approach can be a very expensive and onerous process, however, and it can limit the ability of the developer to provide certain features and improve its products and services. Storing data locally on a user's device can also introduce access vectors that server-side data collection does not.[27] Accordingly, local storage models aren't fit for all purposes or for all apps.

[27] Selyukh.

11. **Are there any changes that Apple could make that would both respect users' privacy preferences but still allow the Tile app to function without continuous confirmation of Tile's access to location data? If so, has there been any indication that Apple will make such a change?**

Tile Response: Yes, Apple could make myriad changes that would respect users' privacy while still enabling the Tile app to function optimally. In fact, **Tile has made repeated asks for those changes over the past 6 to 8 months**. **But Apple has failed to take any action** to level the playing field, even though reports indicate that launch of their competing hardware product is imminent. In November of 2019, Apple had promised to bring "Always Allow" back to the permissions prompt at first launch of Tile's app, and Apple has recently asserted that they are committed to providing a level playing field to competitors on its platform.[28] But both are empty promises. If anything, since Tile first raised its concerns to Apple, Apple has made matters even worse for competing apps, not better. In particular:

- **Apple Should Bring "Always Allow" Back to its iOS12 State:** Before iOS 13's release last September, the Always Allow option shown to users at first launch of their apps gave them a clear, just-in-time opportunity to choose what location permissions they wanted their app to have. Shortly after a Washington Post article ran last November[29] demonstrating the anticompetitive nature and consumer detriment of the change, Apple told Tile that they would bring "Always Allow" back to the location permissions prompt. Again, in response to Tile's testimony during the January 17, 2020 field hearing, Apple reiterated that promise in press statements.[30]

  But Apple has not made the change. Since last November, we have asked Apple several times when that change would happen. Now, over four months later, we still don't have a date.

  We were then very surprised to learn that iOS 13.3.1 includes features that will make it even more cumbersome for our customers to set appropriate permissions than before. In particular, with iOS 13.3.1, Apple will be **requiring** apps like Tile to surface a confusing permissions prompt at first launch of Tile's app that breaks Tile's functionality no matter what a customer chooses. Tile has had to--again--re-design and re-engineer its onboarding flow once again, making it even more confusing and onerous than before, requiring 2 additional steps than it does now:

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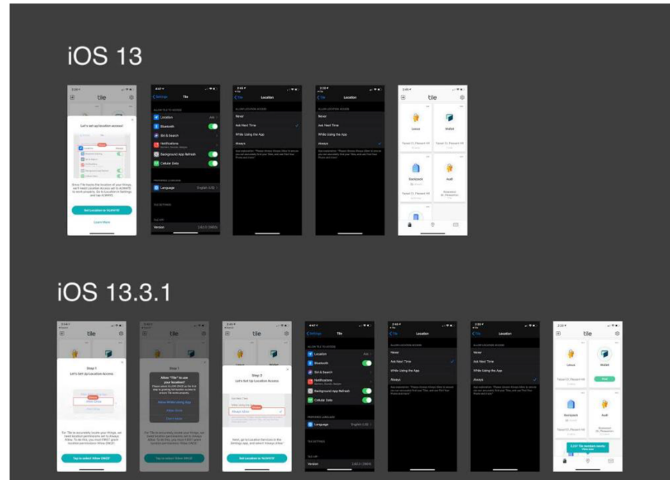
[28] Andeer. Smith.
[29] Albergotti.
[30] Neely, Amber. "Tile to testify against Apple in House Judiciary Committee antitrust hearing [updated with Apple response]." Apple Insider, 01/17/20, https://appleinsider.com/articles/20/01/17/tile-to-testify-against-apple-in-house-judiciary-committee-antitrust-hearing, accessed 03/27/20.



It is critical that Apple reinstate the Always Allow option at first launch of Tile as it has promised to do.

- **Eliminate Background Location Reminders:** Apple needs to remove the background location reminders as they have materially affected the efficacy of our app and are confusing even to Apple's own customers.[31] We have asked Apple that they either cease OR that Apple apply the same reminder strategy for Tile as it does its own applications, including native ones. Last we heard from Apple last December, they were looking into this and would let us know if there was an update. We have not heard back.
- **Provide Tile with Access to Ultra-Wide Band (UWB):** Reports continue to confirm that Apple intends to use UWB to enhance the experience for users of its competing Tile-like product.[32] In order to help level the playing field, equal access to this technology is critical. We've asked Apple several times to get access to UWB functionality, at least to the same extent as Apple intends to use it in their competing product. Apple had asked that we provide them with details regarding specific functionality we'd like to power, but that would be quite sensitive in light of the competitive dynamics at play. At a minimum, equal access is needed and like other requests, Apple has been unresponsive.
- **Access to Critical Diagnostic Information:** iOS 13 also caused a serious decline in our daily active clients. Our app appears to get "force quit" from time to time, rendering our app inoperable for our customers, but we have no insight into why. For instance, Apple retains the right to force quit apps based on thresholds for background resource consumption. But they refuse to tell us what those thresholds are, and they appear to change with no notice to Tile. Accordingly, the disappearing clients could be due to resource consumption, or they could also be due to lost Bluetooth permissions or lost background "Always Allow" location permissions. But

[31] See Appendix A

[32] Constine Epstein. Hein. Rossignol.

without transparency, we have no way to diagnose or address those issues. Apple has access to this data for its own apps, and equal access for competitors is an important step toward a level playing field.

- **Remove Apple Sign In Requirements:** Apple has recently mandated that Tile use Apple Sign In if we use any form of third party authentication method. This in essence requires Tile to enable Apple, our primary competitor, to maintain the primary relationship and connection with our users. This is a quintessential example of preferential behavior that provides Apple an advantage over all competing apps on its platform. As a result, we've had to use our limited development resources to remove Facebook login from our app rather than improve our service for our users, all at a time that Apple has chosen to compete with us. To help achieve competitive integrity in the Apple ecosystem, at a minimum, it goes without saying that competing apps need the ability to freely decide not to enable authentication or user registration mechanisms of its direct competitors.
- **Reverse Other Preferential Behavior:** We've raised with Apple on multiple occasions that Apple services are not limited by the same restrictions as apps like ours. "Find My" is installed natively on iPhones, can't be deleted, bypasses the location permissions flow and seamlessly works out of the box. And Apple's changes to IOS beyond permissions continue to cause performance issues without proper investigation on how they will affect competing apps. Apple needs to enable customers to choose what finding platform they want to use by default on their phones and enable users to delete FindMy. And they need to provide prior meaningful consultation of upcoming iOS changes and provide data to enable us to understand their potential effects to the same extent that they do with their own apps.

We've received no indication to date that Apple intends to address any of the foregoing concerns.

12. **More generally, are there steps Apple could take to ensure a level playing field between Apple's apps and third-party apps without compromising user privacy?**

Tile Response: Yes. See response to Question 11.

13. **Do you think the current structure of the smartphone market encourages app developers to invest and innovate?**

Tile Response: No. As the owner of the AppStore platform, the Apple iPhone hardware, the retail stores, and the iOS operating system, Apple has unfettered power to change the rules of the game at any time and in Apple's own favor. This behavior has conditioned investors to not invest in companies like Tile simply because of the threat of future competition (or anticompetitive behavior) by Apple. Accordingly, in the context of the current structure of the smartphone market, Apple's behavior substantially increases the obstacles to investment in, and innovation by, third party app developers.

Appendix A

Communities Contact Support

Sign in Browse Search

Support Communities / iPhone / Using iPhone

CatWoman80

Level 1 (13 points) iPhone

Q: iPhone keeps asking me if I want to allow location services for apps

Ever since upgrading to the new iOS, I get popups a few times a week saying "X app has used your location 10 times in the last day. Do you want to keep allowing this app to use your location?" I check yes, always allow, and then a couple days later I get the same question. Is there any way to turn this annoying reminder off? I suppose Apple is trying to optimize my battery use by turning off unnecessary location tracking, but if I've already said yes 5 times, why must they keep asking?

iPhone 8

Posted on Oct 10, 2019 6:49 PM

Reply I have this question too (255)

All replies

Page 1 of 4 > last

rexolio | Level 1 (4 points)

Oct 31, 2019 4:49 AM in response to CatWoman80

Asked 21 days ago and still no response! 🤔

Reply Helpful (1)

Inaspeeka | Level 1 (4 points)

Nov 1, 2019 1:31 PM in response to rexolio

Please god can we have a response on this?? I've got various devices and services which use geolocation and over 200 apps. I don't want to be reconfirming location services for apps every day.

Appendix A

Reply Helpful (2)

Mult1guy | Level 1 (9 points) ★ Helpful

Nov 10, 2019 1:33 PM in response to CatWoman80

Seriously! Please fix this. I mean, you give us the option to "Always Allow". Always means freakin ALWAYS!

Reply Helpful (5)

CatWoman80 | Level 1 (13 points) iPhone

Nov 10, 2019 1:39 PM in response to Mult1guy

I agree with you! As usual, Apple doesn't address the issues that are actual issues. What don't they understand about the word "Always"? Do they think they know better than me about what my settings should be? Apple, please respond to this question---it's been a month since I posted!!

Reply Helpful (3)

LACAllen | Level 7 (28,653 points) iCloud

Nov 10, 2019 1:45 PM in response to Mult1guy

> Seriously! Please fix this. I mean, you give us the option to "Always Allow". Always means freakin ALWAYS!

You are not speaking with Apple Support here. This is a volunteer run community where we answer technical support questions when we can. It would seem nobody here has an answer for this issue.

https://support.apple.com/contact
Feedback for Apple goes here >>> http://www.apple.com/feedback/

Reply Helpful

knottronix | Level 1 (4 points)

Nov 14, 2019 11:47 PM in response to CatWoman80

This is more arguably more sinister, Apple are trying to stop app developers - eg facebook from having your location, so only Apple and their associates can reliably offer certain location based services. Apple have changed the location permissions so not only does it repeatedly ask the user as, but also the app can no longer directly request location permission after you have said 'no' once (which would eventually happen by accident when they keep asking!). Once you

Appendix A

have said no, you have to manually go and find the app in the settings and find location permissions and change them (previously an app could prompt when you try and use the app).

With regards to battery life, there are 6 levels of background location, with the lowest 2 not using any additional battery at all - this is because they only get the location when another service or move to a another cell tower prompts it. These low levels of back ground location are very useful for apps to update their content or service offerings to make them more relevant.

Reply | Helpful

bacbagoge | Level 1 (9 points) ★ Helpful

Nov 30, 2019 6:37 PM in response to knottronix

This really makes me mad that this change was made. I use location services for my elderly mom that has dementia. I have several apps I use to track her whereabouts. One is Life360; it lets me know when she's left and arrives her home. I just discovered that she had turned off her location settings. She has no idea how to change any settings On her phone and she wouldn't even try to change her settings. This question popped up and she turned off because she didn't understand the question. It's so hard to explain to her how to change her settings in her phone when she's messed them up as I am 3 hours away from her.

Reply | Helpful (6)

MonumentMan | Level 1 (6 points) iPhone

Dec 1, 2019 11:15 PM in response to CatWoman80

I have the exact same problem with the incessant location permission pop ups. I grant access to a couple key apps including google maps and my weather app. Yes I definitely ALWAYS want those apps to know my location. So why does Apple constantly ask me? It's way worse than an ad. Yesterday it popped up on my screen as I was navigating insane traffic through NYC on roads I was unfamiliar with and had to pay super close attention. Very dangerous.

Reply | Helpful (2)

frapilu | Level 1 (4 points)

Dec 3, 2019 7:02 PM in response to MonumentMan

I agree! This is super annoying! Apple, please fix this!

Reply | Helpful

FilteredRiddle | Level 1 (4 points)

Dec 29, 2019 10:29 PM in response to frapilu

Appendix A

This is driving me crazy.

If I select, "Always Allow" then that means ALWAYS allow. That does not mean allow for X days. That does not mean allow until I am in a different city. That does not mean allow until I am on a different WiFi connection. It means ALWAYS allow, as in allow until I delete the app or go in and manually remove the permissions. I cannot fathom why that isn't a universally understood concept. I cannot fathom why Apple is bombarding me with pop ups every day for apps that I have given permanent permissions to a dozen times over.

If anyone has a way to stop this nonsense, then please please please share it. In the mean time I will submit feedback to Apple directly.

Reply Helpful

knottronix | Level 1 (4 points)

Dec 29, 2019 11:38 PM in response to FilteredRiddle

Infuriating. Thanks FilteredRiddle. Please direct apple to this thread and let us know what they say.

Apple, for the love of god stop, asking for location permissions after we select Always!

Reply Helpful

gllen2 | Level 1 (4 points) iPhone

Dec 30, 2019 11:21 AM in response to FilteredRiddle

Thanks for asking EVERY DAY if I want GOOGLE MAPS to access my location Apple!!!!!!!!!!

So nice of you to put this giant popup message every day so I can contemplate finally switching to Android where this hostile garbage can at least be disabled.

Reply Helpful (1)

xstatic9 | Level 1 (7 points) iPhone

Jan 9, 2020 6:55 AM in response to bacbagoge

Same thing with my elderly dad's home alarm system. He inadvertently changes it all the time because of this incessant nag feature. Always means always!

Reply Helpful

gllen2 | Level 1 (4 points) iPhone

Appendix A

Jan 9, 2020 8:38 AM in response to xstatic9

horrible apple horrible

Reply Helpful

Jimhann824 | Level 1 (4 points)

Jan 16, 2020 7:44 PM in response to CatWoman80

This is my first ever post in this forum. So frustrated with this location services pop up and feel the need to let Apple know. Please fix this. Always means always.

Reply Helpful

Page 1 of 4 › last

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Appendix A

Communities Contact Support

Sign in Browse Search

Support Communities / iPhone / Using iPhone

Looks like no one's replied in a while. To start the conversation again, simply ask a new question.

Vonstrauss

Level 1 (19 points) iPhone

Q: Allow location sharing popup - annoying confirmations

I keep getting annoying popups saying "xyz app is tracking your location, Don't allow, Allow when using, Always allow" So, since the particular app is dependent on location (weather for example), I say "Always Allow". Why do I get the question every day? I can't find a way to shut off the "feature". Is there a way to shut it off? I have checked my privacy settings and they are all set to the way I WANT them.

Is anybody else noticing this problem? Apple support says it is a new feature. I think it is really annoying.

Posted on Oct 9, 2019 6:24 PM

Reply | I have this question too (74)

All replies

Page 1 of 1

PsyDye | Community Specialist

Oct 13, 2019 12:59 PM in response to Vonstrauss

Good afternoon Vonstrauss,

Welcome to the Apple Support Communities!

I understand you are seeing prompts letting you know that an app is tracking your location. This is a new privacy feature in iOS 13. The resource below explains how to adjust the privacy settings for Location Services on your device. What app are you seeing the popups in? If the issue is happening with one specific app, try changing the setting to "Allow when using" and restart your iPhone to refresh it.

iPhone User Guide - iOS 13 - Set which apps can access your location on iPhone

Appendix A

Take care.

Reply Helpful

Vonstrauss | Level 1 (19 points) iPhone

Oct 13, 2019 6:35 PM in response to PsyDye

The problem is that I want the app to be set allow at all times. The app is The Weather Channel. In order to get alerts for the location I am in, it needs to be set as always allow. The pop ups seem to have stopped. I did try changing it and then changing back to my preference.

Reply Helpful

PsyDye | Community Specialist

Oct 14, 2019 5:29 PM in response to Vonstrauss

Hi Vonstrauss,

Thanks for letting us know that the pop-ups for the Weather app have stopped. Please let us know if you have any issues with the Notifications settings for any other apps on your iPhone.

Enjoy your day!

Reply Helpful

Arch_Handler | Level 1 (13 points) macOS ★ Helpful

Nov 24, 2019 9:43 AM in response to PsyDye

Apple didn't actually answer Vonstrauss' question.

You just redirected it to another problem. I am having the same question. I am fine with the way the location settings are now.

I am NOT OKAY with iOS 13 constantly re-asking me over and over again if I want to share my location with Google Maps or anything else.

If I wanted it off I would turn it off myself. Constantly berating me with spamming pop-ups is NOT a feature, it's a tactic to give less data to Apple's competition.

I don't care about Apple's competition with Google. I don't care if Google or Apple wants my location in the background. I DO care that the phone I'm using keeps spamming me with pop up messages.

I care enough that even if I can shut it down from asking me this... I'm considering moving from iOS to Android after 12 years. I'm losing faith in Apple by the month.

Appendix A

3/27/2020 Allow location sharing popup - annoying c… - Apple Community

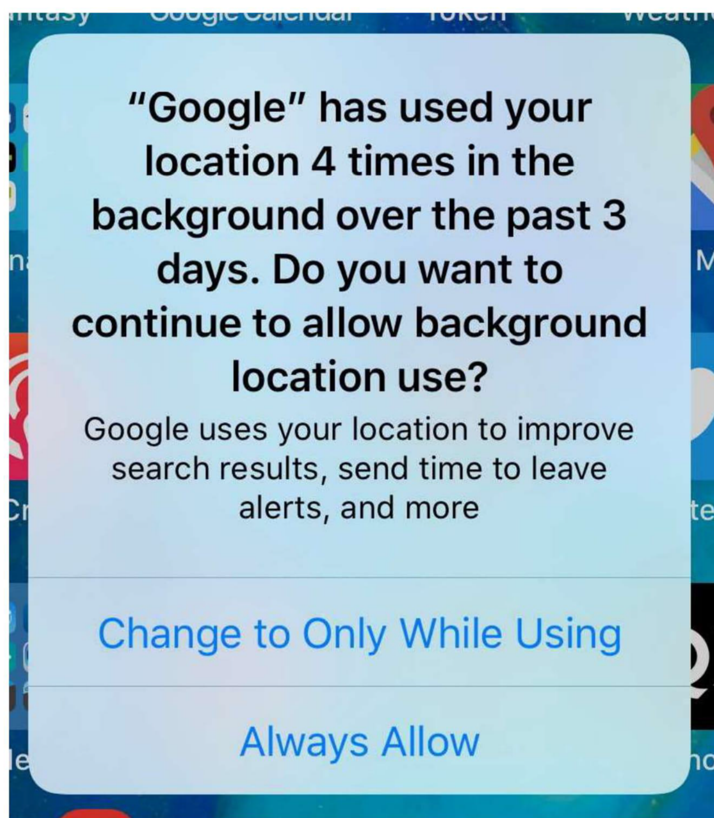
I used to work for Apple as an AHA and I liked that job...so I know I'm just posting this for no reason but... people like who have been Apple customers for ages like me are probably not happy in general about this kind of thing.

Reply | Helpful (5)

Gigetet | Level 1 (4 points) | iPhone

Dec 3, 2019 1:34 PM in response to Vonstrauss

I feel your pain. Even if I specifically tell my iphone to ALWAYS ALWAYS ALWAYS allow apps to track my location without further instructions, Apple continues to badger me like this:



https://discussions.apple.com/thread/250722641 3/5

Appendix A

This is absolutely infuriating. Particularly since I can't shake the suspicion that Apple wants to seem *extremely* pro-privacy by ignoring the specific directions of the individual who paid for the device.

We can all have different views about online privacy. I want a better tailored online experience and am absolutely thrilled to give google basic non-sensitive data in exchange for all the awesome services it gives me for free. Apple is inconveniencing me despite knowing my strong preferences.

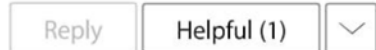
veeve01 | Level 1 (8 points) | iPad

Dec 20, 2019 4:41 AM in response to Vonstrauss

I agree, these obnoxious pop ups are absolutely infuriating. They like to come up while I'm driving, and come across as that nagging ex that doesn't know how to eff-off.

I have also tried to disable these notifications, but they still seem to persist, as I just had one about ten minutes ago, again while driving down the road. I refuse to answer them, I will force my phone to restart before I am willing to cater to this nagging nonsense.

Apple needs to allow its users to not be continually bothered and pestered by pointless notifications that we don't want.



KellyGWiz | Level 1 (4 points) | iPhone

Dec 20, 2019 3:36 PM in response to Vonstrauss

AGREE!!!! Just finally did my phone update and truly wish I hadn't solely because of this irritating AF notification. IT WILL NOT STOP!!!!! HOW DO YOU GET THEM TO STOP!?!?!?!?

CaptainWoodrow | Level 1 (8 points) | Apple Watch

Dec 27, 2019 8:22 PM in response to Arch_Handler

Apple's getting worse and worse with every new phone and update. I will also be switching from iPhone and Apple watch to Android and their watches; the ones that also look like an actual f-ing watch.

twylalapointe | Level 1 (4 points) | iPhone

Jan 6, 2020 1:49 PM in response to PsyDye

Appendix A

I want Google Maps to use my location at all times. FOREVER. Why can I not choose this? Why won't it accept after a couple of times when I click always on the SAME APP that I want it FOREVER? This MUST be made an option.

xstatic9 | Level 1 (7 points) iPhone

Jan 9, 2020 7:03 AM in response to Vonstrauss

My elderly dad's home alarm system relies on his app being set to "always". It constantly nags him, since Always is the last option he never selects that and then the alarm system goes off and is disabled until I fix it. Trying to explain to him how to change the setting over the phone is so difficult. Apple if I choose Always, it means I want it set to Always all the time.

Page 1 of 1

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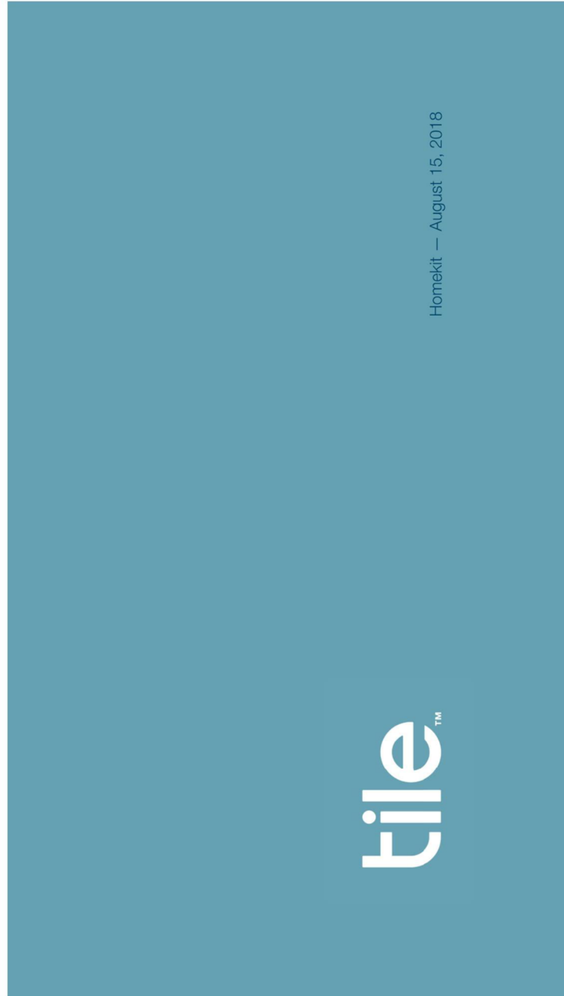
Appendix B



Appendix B

Homekit and Tile Find

A large percentage of items are found in the home

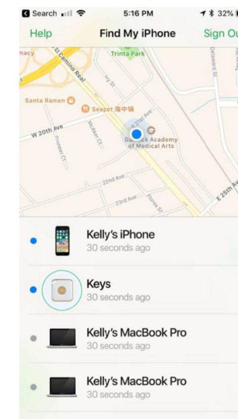
- Homekit integration to direct ring from any access point
- Find all items in the home, shared or not, phone present or not

Find My iPhone and Tile

Find everything (including Tile items) with Apple

- On the go use Siri Shortcuts to find and ring
- At Home connect and ring from Homekit hub devices via Siri
- Find My iPhone app as single location to view the location of all my things

Additional category for Tiled objects



February 17, 2020

The Honorable Jerrold Nadler, Chairman
The Honorable Doug Collins, Ranking Member
Committee on the Judiciary
The Honorable David N. Cicilline, Chairman
The Honorable F. James Sensenbrenner, Jr., Ranking Member
Subcommittee of Antitrust, Commercial, and Administrative Law
Committee on the Judiciary
United States House of Representatives
Washington, D.C. 20515-6216

Re: The Committee's January 17, 2020 Field Hearing on Online Platforms and Market Power

Dear Chairman Nadler, Ranking Member Collins, Chairman Cicilline, and Ranking Member Sensenbrenner:

Thank you for your continued work to promote American innovation, entrepreneurship and the robust competition that propels our economy forward. In the spirit of continuing that dialogue, I write regarding the Committee's January 17, 2020 field hearing concerning *Competitors in the Digital Economy*. The hearing touched in part on the App Store, which has become a thriving and competitive digital ecosystem that helps customers discover new apps and creates new business opportunities for developers.

Since Apple invented the iPhone and launched the App Store, we have worked tirelessly to help American developers reach customers around the world. The App Store has democratized software development, reduced barriers to entry, and revolutionized distribution – all while protecting customer privacy and data security. Our teams support developers every day by providing new app development tools, helping to market their innovations and protecting the security of customer financial transactions. We're very proud to provide a curated experience for our customers, in which every new app and every update are reviewed to ensure they conform to our strict guidelines.

Today, the app economy is responsible for more than 1.9 million jobs across all fifty states and has earned developers of all sizes more than $155 billion from selling digital goods and services on apps distributed in the App Store. We continue to invest in our developers' success with training programs like the Apple Developer Academy, Apple Entrepreneur Camp, and the Everyone Can Code curriculum, which has helped millions of students bring their ideas to life.

Every week, hundreds of millions of customers visit the App Store and engage with the innovations of hundreds of thousands of developers. The vast majority of these engagements have helped customers globally communicate, learn, express their creativity and exercise their ingenuity. Indeed, only a handful of developers have raised concerns about aspects of our terms and conditions. Sometimes those concerns are based on a misunderstanding of our rules and policies, and other times, those complaints may be driven by a developer's specific commercial interests. Regardless, our true north has always been to provide customers with the very best experience when using our products. In service of that core principle, we would like to respond to some of the assertions made at the January 17 hearing.

BaseCamp Co-Founder Mr. David Hansson testified that Apple charges third-party developers 30% for "payment processing" on sales generated within their apps "for years on end."[1] That assertion is not accurate. Apple's commission is not a payment processing fee: it reflects the value of the App Store as a channel for the distribution of developers' apps and the cost of many services – including app review, app development tools and marketing services – that make the App Store a safe and trusted marketplace for customers and a great business opportunity for developers. Second, there are several ways a developer can launch a product on the App Store that do not require any commission be paid to Apple at all. Over 80% of the apps on the App Store do not share *any* of their revenue with Apple. Apple does not receive a commission when developers offer apps for free, or when developers offer apps that generate revenue from in-app advertising or selling physical goods or services. Apple also does not charge third-party developers for reader apps – like Spotify or Netflix – if users purchased or subscribed to the developer's content outside of the app. Third, even for subscriptions purchased through an app, developers are only charged a 30% commission for the *first year* of a subscription. In the second and subsequent years, Apple only receives a 15% commission on subscriptions purchased through the App Store. We did not want to leave the committee with the mistaken impression that Apple collects a 30% commission from developers "for years on end."

[1] *Online Platforms and Market Power, Part 5: Competitors in the Digital Economy, Before the H. Subcomm. on Antitrust, Commercial, and Admin. Law,* 116th Cong. at 15 (2020) (testimony of David Heinemeier Hansson, Co-Founder, BaseCamp, LLC) (citing an unofficial Congressional Quarterly transcript).

Tile's General Counsel Kirsten Daru also testified that Apple's most recent iOS 13 update restricts users' ability to continuously share their location data with third-party apps, like Tile.[2] Some clarification is important here – iOS 13 did not restrict applications' ability to access location data. We believe our users have a right to know when an app uses their location data before they decide to share it indefinitely. iOS 13 makes clear to users when their location data is being accessed by an app and gives them more control over whether or not they wish to share that data. Previous versions of iOS already prompted users to approve the use of their location data, including when the app was running in the background. Now, they are prompted to authorize the use of location data when the application first attempts to use continuous location tracking in the background after a user is no longer actively using the app. In addition, when a user authorizes an app to continually access their location data, iOS 13 periodically reminds the user when an app uses that permission or changes its amount of use.

Stronger privacy protections may not be in everyone's business interest, but they are in the interest of every person with a smartphone. These changes in iOS ensure that users concerned about their data privacy can more easily understand and control when apps access their location data. We urge lawmakers to evaluate the iOS 13 updates on their merits: improving users' understanding of how their data is used and allowing users to limit the amount of data companies can collect or sell.

We also recognize that our customers rely on their Apple devices in their daily lives, and they should be able to protect, secure and locate them when they are lost or stolen. Customers can find their devices using Apple's "Find My" feature – which was first introduced in 2010, well before Tile's founding – to help users locate their Apple device or remotely secure or wipe its data. Unlike Tile and many other apps that access sensitive user location data, "Find My" stores user location data *locally* on the user's iPhone, and Apple only transmits the location upon the user's request. In contrast, some third-party apps, like Tile, collect and store user information externally. In a world where selling people's personal data is a multi-billion-dollar industry, storing users' location data locally provides enormous benefit to our users' security and privacy. Ensuring users turn on "Find My" upon activation is essential: customers assume they will have the ability to immediately locate their newly purchased devices should they be misplaced or stolen. Removing this functionality would make our users less secure and their location information more vulnerable to hackers trying to steal their data and companies trying to sell it.

Finally, some witnesses appeared to suggest that Apple operates its business, including through the App Store or Apple's iOS updates, in order to hurt third-party developers.[3] This couldn't be further from the truth. In fact, we have always believed that the availability of a wide variety of high-quality third-party apps in the App Store only

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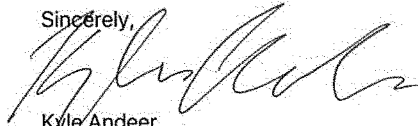
[2] *Id.* at 17 (testimony of Kirsten Daru, General Counsel, Tile).

[3] *Id.* at 17, 43 (testimony of Kirsten Daru, General Counsel, Tile, and David Heinemeier Hansson, Co-Founder, BaseCamp, LLC).

adds value to, and increases the desirability of, Apple devices. Ever since we created the App Store, we've embraced competition as the best way to help our users access the best apps – even when those apps compete directly with our own. Our apps compete with third-party developers' apps across every category, and in many cases, the developers' apps are more successful. Nonetheless, we work closely with developers to ensure their apps are safe, functional and easily accessible for our customers.

Apple respectfully requests that this letter be included in the official record of the Committee's January 17, 2020 hearing. Thank you for your work to promote competition and innovation in the digital marketplace, and we look forward to continuing to engage with the Committee on these important issues.

Sincerely,



Kyle Andeer
Vice President, Corporate Law &
Chief Compliance Officer
Apple Inc.

US CONGRESS

Investigation of Unfair Commercial Practices by Amazon	**DECLARATION OF JEFF HALEY**

Under penalty of perjury under the laws of the State of Washington, Jeff Haley, declares that the following facts are true.

1. I was the President of OraHealth Corporation, a/k/a OraHealth USA, Inc., which was a Washington State company, of which I was the product inventor and founder. OraHealth went out of business in January 2019 when it was merged into another company.

2. OraHealth was a supplier to Amazon of oral care products for resale since OraHealth started business in 2004. Virtually all of the sales were of a single product, XyliMelts for Dry Mouth, rated by dentists as the most effective remedy for dry mouth, the only non-prescription remedy for dry mouth while sleeping which is when dry mouth is worst.

3. In late 2011, between Christmas and New Year's eve, Amazon prevailed upon OraHealth to allow Amazon to take a 10% rebate on goods to be purchased during calendar year 2012 for purposes of "marketing co-op", often referred to by Amazon as "Base Accrual / MDF". The contract expressly applied only to calendar year 2012 but had a provision stating that it would be extended year by year if not expressly cancelled by a party. In a May 9, 2012 e-mail to Amazon and a prior message sent to Amazon via its web site, OraHealth retracted, repudiated, and cancelled the contract at least for years after 2012.

4. For purchases by Amazon for the year 2012, Amazon took deductions from its payments to OraHealth for goods sold by OraHealth to Amazon equal to 10% of the sales. Each deduction was taken within one month after the end of the period to which it applied. Each claim for 10% of the price of each purchase of goods was made by Amazon no later than one month after the end of the calendar quarter in which the purchase took place.

5. During the years 2013, 2014, and 2015, Amazon did not claim or take any 10% "coop" or "base accrual" or "MDF" deductions, which was consistent with OraHealth's understanding that the "marketing co-op" agreement of late 2011 was indeed cancelled, and the matter appeared to be resolved.

6. Amazon maintains a web site called "Vendor Central" where, Amazon claims, each vendor to Amazon can, at any time, look up a list of all contracts between the parties and, by clicking on a listed contract, read all the terms of that contract. Here is a true copy of the claim by Amazon in May, 2018:

In Help › Vendor Orientation ›

About Vendor Central

Welcome to Vendor Central. The Vendor Central website helps you conduct business with us smoothly and efficiently. The Vendor Central features and reports help you create a great experience for our customers.

See the Getting Started Guide for a tour of the main features you will use to manage your business on Vendor Central.

In Vendor Central, you can:

- Create and manage your products.
- Collaborate on inventory management.
- View item level reporting on sales and inventory.
- View the status of invoices and payments.
- Review vendor manuals and agreements.
- Learn how to integrate with EDI and monitor EDI messages.

Our goal is to establish a successful business relationship with minimal supply chain costs so that together we can create the best possible experience for our customers. To understand the processes and find the resources you need to successfully and efficiently conduct business with us, see: Use Vendor Central to Do Business with Us.

7. At all times from January 1, 2013 through March 31, 2017, the Vendor Central website listed no coop or "Base Accrual" or "MDF" contract as applying between OraHealth and Amazon. Here is a true copy of the listing of agreements for OraHealth as shown on May 3, 2018 on Vendor Central which listing shows both current agreements and prior agreements at least as far back as 2014 because the first listed agreement is one that applied to calendar year 2014. The list does not show a "Coop" or "Base Accrual" or "MDF" agreement for any time before April 1, 2017.

Coop Agreements - ORAM7

Agreement Title: ORAHEALTH USA, INC. (ORAM7) - 1.5% - Accrual (Freight Allowance) - 2014-01-01 - 2014-12-31

Agreement Title: 06U0Q Health Personal Care Single Sampling Trial Fee 2017-09-15 to 2017-12-31

Agreement Title: US Base Accrual ORAM7 2017-04-01 to 2018-03-31 USD

Agreement Title: US Freight Allowance ORAM7 2017-04-01 to 2018-03-31 USD

Agreement Title: US Damage Allowance ORAM7 2017-04-01 to 2018-03-31 USD

Agreement Title: US Base Accrual ORAM7 2018-04-01 to 2019-03-31 USD

Agreement Title: Orahealth USA, Inc. - 0.89% - Accrual (Freight Allowance)

Agreement Title: Orahealth USA, Inc. - 0.65% - Accrual (Damage Allowance)

8. At all times from January 1, 2013 through March 31, 2017, through its Vendor Central web site, Amazon expressly stated to OraHealth in writing that there was no agreement between the parties calling for a rebate other than small amounts for a freight allowance and for a damage allowance. For example, during that time, on March 11, 2017, when Amazon requested that OraHealth agree to a 13.65% rebate for "Base Accrual / MDF" going forward, Amazon expressly stated in writing to OraHealth that the then current terms were "0.00%" as shown by the following true copy a web page presented by Vendor Central to OraHealth on that date.

Current Base Accrual/Marketing Development Funds (MDF) : 0.00% Base Accrual

New Base Accrual/Marketing Development Funds (MDF) : 13.65% Base Accrual

MDF reflects funds that Amazon invests to continually improve the customer experience, increase discoverability of your products, and ultimately drive sales. These funds enable us to drive impressions and sales to your products through activities like automated marketing emails, site personalization widgets, traffic drivers related to search engine optimization and improving browse capabilities, paid external marketing directly for your products, faster shipping options for your products that enhance the customer convenience, catalog improvements, brand stores, and vendor self-service tools to manage and promote your products. MDF is calculated to require each vendor to cover a minimum base marketing development investment based on the nature of the products sold.

9. During the years 2013 through 2015, OraHealth relied on the facts that Amazon was not claiming or taking coop deductions and that no coop contract was listed on Vendor Central as

applying between the parties and that, when Amazon summarized all contractual terms to OraHealth, the summary showed no "Base Accrual" or "Coop" amounts to be rebated.

10. With no prior hint that it would do so, on January 22, 2016, the Amazon audit group surprisingly asserted a claim against OraHealth for $47,679.44 representing 10% of 2014 sales. Amazon asserted that this claim was based on the alleged 2011 agreement to rebate to Amazon 10% of invoiced amounts.

11. OraHealth promptly disputed this claim in a January 25 e-mail stating: "OraHealth relied on there being no coop-contract and for that reason did not raise prices. If the contract had been in effect, OraHealth would have raised prices as much as the co-op charge. If Amazon wants to take co-op deductions, we will raise our prices by an equal amount."

12. When Amazon responded implacably, on March 1, 2016 OraHealth sent a letter with proof of delivery stating the following defenses, among others:

a. The alleged contract was for calendar year 2012. The May 9, 2012 repudiation and cancellation of the contract prevented it from extending into 2013 or 2014 or 2015.

b. If the contract was ever validly made and was not effectively terminated in 2012, the contract was abandoned by Amazon long ago. Amazon did not timely claim 10% of invoiced sales for 2013 or 2014 or 2015. By failing to exercise its alleged rights under the alleged contract in 2013, 2014, and 2015, Amazon implicitly accepted OraHealth's cancellation of the alleged contract. Amazon is now estopped by laches from enforcing the alleged contract.

c. From the end of 2012 until January 22, 2016, OraHealth relied on there being no contract requiring a rebate to Amazon of 10% percent of invoiced sales. If Amazon had asserted a substantial claim under the contract during this period of time, OraHealth would have responded with an immediate repudiation and explicit cancellation and/or raising of prices as much as the "coop" charge. For sales from January 1, 2013 until January 22 of 2016, Amazon did not timely claim coop deductions. This detrimental reliance by OraHealth worked an amendment and cancellation of the contract if it was not previously cancelled.

12. In response to OraHealth disputing the claim by Amazon, in March 2017, Amazon urged OraHealth to agree to a co-op rebate amount going forward. Amazon asked for 13.65%. I offered to agree to a 6% coop amount, provided we would raise the price at that time. Amazon acquiesced to the price increase. Amazon and I agreed to a 6% rebate starting April 1, 2017 and I raised the price to reflect a change from 0% to 6% co-op rebate.

13. The fact that I raised the price at the same time that the 6% co-op rebate took effect is evidence that, from 2013 until March 2017, I had relied on there being no co-op rebate due to Amazon and during that period did not raise the price. Amazon is now saying that the change on April 1, 2017 was not a change from a 0% rebate to a 6% rebate but rather a change from a 10% rebate to a 6% rebate. This cannot be right because, if it were right, OraHealth would not have needed a price increase -- the rebate rate would have been going down rather than up. The facts that I demanded a price increase to go with the new co-op rebate rate and that Amazon agreed to that price increase shows that both parties understood that the rebate rate was going up, not down.

14. Despite OraHealth's prompt assertion of the above defenses to the alleged contract, in late February 2016, without consent and over OraHealth's explicit protest, Amazon seized OraHealth's money by deducting $47, 679.44 from a payment lawfully due to OraHealth for goods sold to Amazon during the prior 60 days. The amount deducted was represented to be 10% of invoiced sales for the year 2014.

15. On August 25, 2016, more than three years after OraHealth began relying on there being no co-op contract between the parties, Amazon asserted another claim for "coop advertising" for 10% percent of invoiced sales for the year 2015. This claim was for $81,857.16. OraHealth promptly disputed the claim with the same defenses listed above. Amazon also withheld this amount of money due to OraHealth for sales to Amazon during the prior 60 days, bringing the total withheld in 2016 to $129,536.60.

16. On March 26, 2018, five years after OraHealth began relying on there being no coop contract between the parties, Amazon asserted another claim for "coop advertising" for the first quarter of 2016. This claim was for $34,328.71, represented to be 10% percent of invoiced sales. OraHealth promptly disputed the claim with the same defenses listed above. Amazon withheld this amount of money due to OraHealth for sales to Amazon, bringing the total amount wrongfully withheld by claiming a 2011 coop contract to $163,865.31.

17. On or about October 15, 2016, without authorization from OraHealth, Amazon deducted from payments owed to OraHealth $7,726.14, claiming that it was for "provision for receivables". OraHealth promptly objected and requested a refund but, to date, Amazon has not responded.

18. On or about May 1, 2018, without authorization from OraHealth, Amazon deducted from payments owed to OraHealth $23,570.77, again claiming that it was for "provision for receivables". OraHealth promptly objected and requested a refund but, to date, Amazon has not responded.

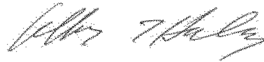
19. On a range of dates starting November 26, 2016, without authorization from OraHealth, Amazon wrongfully deducted from payments owed to OraHealth the following amounts which are due. OraHealth promptly objected and requested a refund but, to date, Amazon has not responded.

1081158490VCBSINV cancellation		246.47
1081177664VCBSINV cancellation		264.80
1081158490VCBSINV cancellation		286.51
1081558501VCBSINV cancellation		532.98
1081559692VCBSINV cancellation		264.80
4DD4AGAK	06/21/2017	718.25
5QDB83IZ		1,989.79
6HYROXPX		121.72
	Total	**4,425.32**

20. Amazon purchased no goods from OraHealth after March, 2018. Payments for all goods purchased should have been made promptly without deductions. The outstanding invoices total $8,687.10 long past due.

21. Summing the figures above, the total owed by Amazon for goods delivered to Amazon in response to orders by Amazon is $208,274.64.

Dated this 21st day of January, 2020



Jeff Haley