

A "KOTOKU" PODCAST

GIZMODO

We come from the future









HOME LATEST REVIEWS EARTHER SCIENCE 109 FIELD GUIDE VIDEO

GOODBYE BIG FIVE

I Tried to Block Amazon From My Life. It Was Impossible



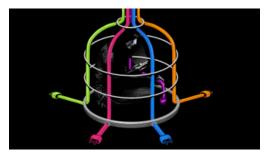












Goodbye Big Five

Reporter Kashmir Hill spent six weeks blocking Amazon, Facebook, Google, Microsoft, and Apple from getting her money, data, and attention, using a custom-built VPN. Here's what happened.

< Prev | Next > | View All

Week 1: Amazon

ADVERTISEMENT

Apparently, I am a masochist.

I am on a mission to <u>live without the tech giants</u>—to discover whether such a thing is even possible. Not just through sheer willpower but technologically, with the use of a custom-built tool that would literally prevent my devices from accessing these companies, and them from accessing me and my data.

I start the experiment by eliminating the company I thought would be most challenging: the Everything Store.

Like millions of other Americans, we use a lot of Amazon products in our house. We have an Echo, an Echo Dot, two Kindles, two Amazon Prime Chase credit cards, Amazon Prime Video on our TV, and two Prime accounts. (Note to self: Why are my husband and I each paying Amazon \$119/year?)

ADVERTISEMENT

So, suffice to say, Amazon is getting a good chunk of my money and a lot of my data. I alone average about \$3,000 a year in purchases on Amazon.com. I've become such a loyal shopper that I barely know where else to go online to buy things. It's the first place I head when I need something, anything—sheets, diapers, toilet paper, a Halloween costume, Bluetooth headphones, roulette cufflinks for a friend who likes to gamble. Basically, anytime I need a random material object, I open up the Amazon app on my phone.

Yes, fuck, I have Amazon's app on my phone. I'm *that* addicted to this company. And I'm not alone: Amazon reportedly controls 50 percent of online commerce, which means half of all purchases made online in America, which is obscene.

Amazon is not just an online store—that's not even the hardest thing to cut out of my life. Its global empire also includes Amazon Web Services (AWS), the vast server network that provides the backbone for much of the internet, as well as Twitch.tv, the broadcasting

behemoth that is the backbone of the online gaming industry, and Whole Foods, the organic backbone of the yuppie diet.

Keeping myself from walking into a Whole Foods is easy enough, but I also want to stop using any of Amazon's digital services, from Amazon.com (and its damn app) to any other websites or apps that use AWS to host their content. To do that, I enlist the help of a technologist, Dhruv Mehrotra, who built me a custom VPN through which to route my internet requests. The VPN blocks any traffic to or from an IP address controlled by Amazon. I connect my computers and my phone to the VPN at all times, as well as all the connected devices in my home; it's supposed to weed out every single digital thing that Amazon touches.

Ultimately, though, we found Amazon was too huge to conquer.

ADVERTISEMENT

AWS is the internet's largest cloud provider, generating 0ver \$17 billion in revenue last year. Though Amazon makes much more in gross sales—over \$100 billion—from its retail business, if you scrutinize its earnings reports, you'll see that the majority of its profits come from AWS. Tech is where the money is, baby.

Launched in 2006, AWS has taken over vast swaths of the internet. My VPN winds up blocking over 23 million IP addresses controlled by Amazon, resulting in various unexpected casualties, from Motherboard and Fortune to the U.S. Government Accountability Office's website. (Government agencies love AWS, which is likely why Amazon, soon to be a corporate Cerberus with three "headquarters," chose Arlington, Virginia, in the D.C. suburbs, as one of them.) Many of the smartphone apps I rely on also stop working during the block.

Luckily, Yale Law's website works, so I can download antitrust expert Lina Khan's 2017 paper making the argument that Amazon is a monopoly that American antitrust law, as it is currently practiced, is ill-equipped to regulate—essential reading for the week.

With the VPN up and running, I start to wonder why so many sites still work. Airbnb, for example, is a famed user of AWS, but I can search for a Thanksgiving vacation home there. I email Airbnb to ask if it still uses AWS for hosting, and a spokesperson confirms the

company does. (I also could have confirmed it with this cool tool, which tells you about the digital provenance of a website.)

That's how Dhruv and I discover a major flaw in our blocking technique. It turns out many sites, in addition to using a company like AWS to host their digital content, employ a secondary service called a content delivery network, or CDN, to load web pages faster.

ADVERTISEMENT

The internet may seem like invisible vapor in the air around us, but it has a crucial physicality, too. AWS has huge buildings of servers around the world, while CDNs have a larger number of smaller ones. Think of AWS as the central warehouse for a site's digital packets; the CDNs are the storefronts around the world that help people get the packets faster so that web visitors don't have to wait for their data to come all the way from the main warehouse.

Amazon runs its own CDN called Cloudfront, but it has fierce competition from other companies like Fastly, Cloudflare, and Akamai—which Airbnb appears to be using.

If a website uses AWS in combination with a non-Amazon CDN, my blocker sees the IP address used by the CDN and lets that AWS-hosted content slip through. When I check with Gizmodo Media Group's tech team, I discover that our own sites are hosted by AWS and use Fastly as a CDN. Just like Airbnb, Gizmodo is sneaking past my blocker.

Still, I am determined to block Amazon as much as possible. So in addition to having the VPN ban all IP addresses controlled by Amazon, I need to shut down the Amazon Echo and Echo Dot in our house. Connecting them to the VPN doesn't work. I think about simply unplugging them, but I am worried someone might plug them back in. (My husband, for example, who refuses to do the block along with me on the grounds that he has a "real job.")

"Why don't you just put them in a drawer?" asks Dhruv.

ADVERTISEMENT

Incredibly, this hadn't occurred to me. The Echo has become such a fixture in the household, I hadn't conceived of just putting it away.

That is a continuing revelation for me this week: Amazon is deeply embedded in my life. I use it repeatedly every single day whether I realize it or not. Without it, I cannot function normally.



My VPN winds up blocking over 23 million IP addresses controlled by Amazon, resulting in various unexpected casualties.

Having to run to a physical store rather than opening my Amazon app every time the house runs out of paper towels is annoying, but the harder challenge is losing access to almost every form of digital entertainment I consume. My favorite time-wasting app, Words With Friends, won't load. I can't watch shows via Amazon Video, obviously, but I also can't watch Netflix because, despite being a competitor of Amazon, Netflix uses AWS to serve its streams. HBO Go is another victim.

When my husband and I go for a run in Golden Gate Park, I discover I can't record the run in my Runkeeper app without Amazon's help. I also can't download an audiobook from the library to my Axis360 app without AWS. Spotify is the last entertainment provider standing (for now), because its music lives in the Google cloud. Thank goog-ness.

ADVERTISEMENT

On the second morning of the block, I hear my daughter in the living room with my husband screaming "Alessa, Alessa!" They forgot that the voice of the Amazon Echo, *Alexa*, has been banished from the house. The block is especially tough on my one-year-old daughter, Ellev, both because the Echo provides the sole source of music in our household and because Ellev is obsessed with three movies (*Coco*, *Monsters Inc.*, and *The Incredibles*), all of which we usually watch either through Netflix or through videos purchased via Amazon.

Ellev is not happy about my experiment particularly because my long-winded explanations about why she can't listen to "E-I-E-I-O" or watch "Incwedibles" make zero sense to her. The low point of the week is when she cries for the Incredibles for a solid five minutes one afternoon, though I manage to distract her, eventually, with puzzle pieces.

In addition to entertainment options going dark, basic tools of my work become unusable, notably the encrypted messaging app Signal and the workplace communication platform Slack.

It's hard to convey how disruptive this is if you're not a person who uses Slack at work; it tends to replace office meetings, emails, and phone calls. Without Slack, I basically have no idea what is going on at the office for the entirety of the Amazon-blocking week, and my colleagues have little idea what I am up to.

There is a psychological benefit to this. Slack's purpose is to improve workplace communication, but it's also a vehicle for workplace surveillance, made obvious by the green dot next to your name indicating whether you're sitting at a keyboard at the ready, or an empty gray dot revealing your absence. By blocking Amazon, I don't just dismantle Amazon's surveillance of my life, I block my colleagues' surveillance as well.

ADVERTISEMENT

Going dark on the encrypted messaging app Signal is a hardship because I increasingly use it to communicate, not just with sources who have security concerns, but with my husband and my friends.

I am actually surprised that Signal still uses AWS, because, at the beginning of 2018, AWS had threatened to stop hosting Signal because it was disguising its internet traffic to evade being shut down by repressive governments. Ultimately, Signal caved to Amazon's demand because, as Signal founder Moxie Marlinspike tells me, there's no good alternative.

The AWS block also breaks two apps that my daughter's daycare uses to message us. However, a technological quirk allows some leakage from daycare land; the apps' notifications come to my iPhone from Apple's servers instead of Amazon's, so I can still see

updates coming in ("New potty for Ellev," "New meal for Ellev") even if I can't check the app to see what my daughter is eating or excreting.

Maybe that's for the best. Our ability to get access to any information we want whenever we want has created some unhealthy data addictions.



The Amazon blocker takes down almost every form of digital entertainment I consume.

ADVERTISEMENT

There are definite upsides to the week without Amazon. My husband and I break our habit of watching shows on Netflix at the end of the day, opting to read instead or indulge our newfound obsession with cribbage, a card game I had assumed was boring until I started playing it. Also, since we mostly use Signal to text each other, I find myself sending him fewer texts and instead talk to him about things IRL.

We also wean our daughter from much of her screen time, which means quality time playing with her or taking her to a playground rather than giving her a "movie treat." I go running outside rather than doing my three miles on a treadmill watching Netflix. In general, having access to fewer parts of the internet makes me use technology less, which is increasingly my goal in life.

But cutting out Amazon also means severely limiting my ability to use one of our era's crucial conversation tools: the language of links.

I ask a friend where we are meeting for dinner, and she sends me a Yelp link, which I can't open. Dhruv tells me he is busy working on "this," and sends me a Motherboard link that doesn't work. In the heaviest of shorthand communication, someone iMessages me an Eventbrite link; the share text indicates that their partner has succumbed in her fight against

cancer, but I can't access the Eventbrite page to confirm. (I turned off the VPN briefly to check it—it felt worth breaking the stunt.)

We speak in links, even for the most devastating of news, and tech giants have made themselves indispensable for link translation.

ADVERTISEMENT

Dhruv keeps track of all the times my devices try to ping Amazon's servers during the week. It happens nearly 300,000 times, probably in part because apps frustrated not to get a reply from the mothership keep pinging repeatedly until I close them. My devices try to reach Amazon via 3,800 different IP addresses, which suggests that there are a lot of different apps and websites attempting to connect to Amazon throughout the week.

My failure to succeed in a total Amazon ban doesn't stop with the CDN problem. One day, my husband goes out to get lunch for us and comes back with sushi from Whole Foods. I eat a piece of inari before I remember I am consuming Amazon-produced food. (I am not willing to purge for the sake of the stunt.)

Another time I unintentionally patronize Amazon is when I realize we need a phone holder for our car, one of those little plastic things that attach to the air vents. I would usually immediately order a weird doodad, probably within two minutes of realizing I needed it, using the Amazon app on my phone, but not this week. I ultimately order it from eBay. When the package arrives, however, it is a yellow envelope with the tenacious "smile" logo alongside the words "Fulfillment by Amazon"—even the eBay seller relies on it.

Amazon has embedded itself so thoroughly into the infrastructure of modern life, and into the business models of so many companies, including its competitors, that it's nearly impossible to avoid it.



Dhruv kept track of all the times my devices tried to ping Amazon's servers during the week. It happened nearly 300,000 times.

ADVERTISEMENT

In her <u>blockbuster academic article</u>, Lina Khan, now a legal fellow at the Federal Trade Commission, argues that Amazon is breaking the spirit of antitrust law, but that regulators have failed to act because that law has evolved in a way to ignore monopolies if they result in immediate low costs to consumers.

But Khan says that our increasing reliance on Amazon in our everyday lives carries harms that we are only beginning to see, including Amazon being able to exploit its workers (who reportedly pee in bottles to keep up with the company's punishing pace), being able to massively data-mine Americans whose activity it has vast access to (meaning it could charge different people different prices based on what it knows about them, which it experimented with in the past), and being able to kill off competitors who would otherwise offer consumers a variety of options and prices (R.I.P. Diapers.com).

Amazon does not see itself as a monopoly. "There is an important difference between horizontal breadth and vertical depth," said a spokesperson in a statement sent after this story was published. "We operate in a diverse range of businesses, from retail and entertainment to consumer electronics and technology services, and we have intense and well-established competition in each of these areas. Retail is our largest business and we represent less than 1% of global retail and around 4% of U.S. retail."

But, based on my experience this week, I find Khan's conclusions chilling and prescient, especially her points around Amazon's luring third-party sellers to its site. That allows the sellers to make more money by providing access to Amazon customers in the short term, but Amazon slurps up these businesses' data and can ultimately crush them with cheaper prices.

Given Amazon's access to data about many, many businesses through hosting websites via AWS, it could be collecting similar competitive data on a vast scale. In fact, in the past, it has used insights gleaned from AWS to make investments in start-ups that it saw were doing gangbusters growth in its cloud.

ADVERTISEMENT

"I'd be stunned if AWS product managers aren't using data from the usage patterns of their platform to decide with whom and how to build competitive products," said Matthew Prince, who runs Cloudflare, one of the content delivery networks that frustrated my blocker this week. "They've done this relentlessly in retail, there's no reason to think they won't use the data from their platform to do the same with digital services. Companies that use AWS are feeding critical market data directly to the company that, almost certainly, will one day be their largest competitor."

Amazon did not respond to an inquiry about how it uses data gleaned through hosting other companies' web offerings.

Ultimately, I learn that it's simply not an option to block Amazon permanently. It's technically impossible given the use of CDNs, and even if we could come up with a perfect block, it would wall me off from too many crucial services and key websites that I can't function without for both personal and professional reasons. (To be totally honest, I just like watching television shows on demand too damn much.) I can't give up Amazon completely, but it seems like there are other people and companies out there that should be trying very hard to do so.

Next up: Facebook.

Subscribe to our newsletter!

News from the future, delivered to your present.

Type your email

Sign me up

By subscribing you agree to our Terms of Use and Privacy Policy.

This series was supported by a grant to Dhruv Mehrotra from the Eyebeam Center for the Future of Journalism.











Kashmir Hill is the deputy editor for the Special Projects Desk, which produces investigative work across all of Gizmodo Media Group's web sites. She writes about privacy and technology.

SHARE THIS STORY

GET OUR NEWSLETTER





DISCUSSION



Uplrons 1/22/19 1:49PM

This is why it's so scary to be one of the people that are banned from Amazon for doing too many returns. Just google that because the horror stories are real.

I got a message last year from Amazon asking if I was having problems with their service because I had so many returns and I think it was code for "We're watching you, one more return and you're banned" so I am now afraid to buy anything from Amazon that I would even half consider returning. THAT is how powerful Amazon has become!

See all replies