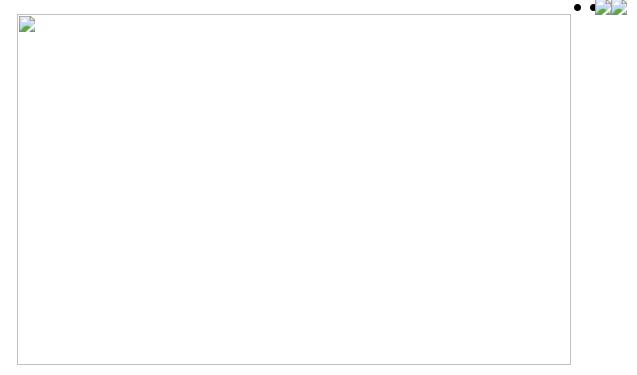
The Death of the Internet

Intended to be open, free, and decentralized, it's now dominated by a handful of companies that control what we see and what we can say.

By Jonathan Tepper •

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The internet was meant to be open, free, and decentralized, but today it is controlled by a few companies with grave consequences for society and the economy. The internet has become the opposite of what it was intended to be.

In the early 1960s, Paul Baran was an engineer at the RAND Corporation when he began thinking about the need for a communications network that could withstand a nuclear strike. RAND was contracted by the Pentagon to create a system that could continue operating even if parts of it were destroyed by an atomic blast. It was supposed to be the ultimate decentralized system.

Baran went on to publish a paper in 1964 titled "On Distributed Communications," which was influential in establishing the concepts behind the architecture of the internet.

Vint Cerf and Robert Kahn put these concepts into practice at the Department of Defense's Advanced Research Projects Agency in the late 1960s, and created the communication methods that make the internet possible. The principles of freedom and openness were at the heart of the design—packet switching made the system robust in the face of nuclear attacks and Internet Protocol allowed for open interconnection.

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Years later, Cerf <u>said</u>, "The beauty of the internet is that it's not controlled by any one group." In his view, "this model has not only made the internet very open—a testbed for innovation by anyone, anywhere—it's also prevented vested interests from taking control."

The principle of decentralization went directly against the business models of technology giants like AT&T and IBM. Until AT&T's monopoly was broken up in the early 1980s, communications were extremely centralized and traveled through dedicated, point-to-point channels. The use of third-party devices on the network was prohibited.

The internet would have remained an obscure channel for government and scientists to communicate had it not been for Tim Berners-Lee. In the late 1980s, he created a way for information to be shared easily using hypertext via the World Wide Web.

Berners-Lee could have become fabulously wealthy, but instead he released the source code for free, embodying the democratic spirit of the internet. Berners-Lee <u>wanted</u> "an open platform that would allow everyone, everywhere to share information, access opportunities, and collaborate across geographic and cultural boundaries."

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In recent years, the great hope of an open and free internet has given way to a dystopia where a few big companies control what we see, how we communicate, and what we can say online.

Today, Berners-Lee thinks the internet is <u>broken</u>. In a <u>2018</u> <u>interview</u> with *Vanity Fair*, he recalled its early days. "The spirit there was very decentralized," Berners-Lee said. "The individual was incredibly empowered. It was all based on there being no central authority that you had to go to to ask permission. That

feeling of individual control, that empowerment, is something we've lost."

Berners-Lee is taking a break from his work at Massachusetts Institute of Technology to launch Inrupt, a startup that he has been working on for the past nine months. His mission is to decentralize the internet, reclaim power from tech giants like Google, Facebook, and Amazon, and allow individuals to control their own data.

Although the architecture of the internet is still decentralized, the ecosystem of the World Wide Web is not. A few giant companies have near-monopolistic control of traffic, personal data, commerce, and the flow of information.

If you had to choose a date for when the internet died, it would be in the year 2014. Before then, traffic to websites came from many sources, and the web was a lively ecosystem. But beginning in 2014, more than half of all traffic began coming from just two sources: Facebook and Google. Today, over 70 percent of traffic is dominated by those two platforms.

The internet was meant to be open, anarchic, decentralized, and above all free. In the 1990s, America Online helped people connect and discover content, but it failed to meet the internet's founding ideals because it was ultimately a "walled garden." AOL determined and curated the user experience, which was contrary to the spirit of the web. Once users started going online with their local cable companies, and Google began helping them find the information they needed on the web, people began to leave AOL.

Facebook has since become AOL 2.0, a centrally designed internet for its users. You discover only what the company wants you to. It is about as uncool as AOL, but it won't die the same death because personal Facebook accounts contain so much of a user's life history, photos, and friend and family connections. Many articles and videos only appear behind Facebook's walled garden, and many apps and sites will not even let a user join without a Facebook account.

Vint Cerf, the father of the internet, decries Facebook's walled garden. Cerf, however, now works at Google and is the firm's chief internet evangelist. He fails to see how Google also is swallowing up the internet.

Google started out as a search engine that helped users quickly find the information they needed. It's since gone from directing people to content to directing traffic inwards to itself, according to Rand Fishkin, the world expert on search engine optimization.

Even though competitors like Yelp might have superior local reviews, Google Reviews are given preferential placement in search results. Even though shopping comparison websites like Foundem in Europe might offer better results, Google can effectively blacklist them. Increasingly, Google offers snippets and previews of Wikipedia and Getty Images. Traffic to these websites has subsequently collapsed. Far from directing users to other sites, Google today starves content creators of traffic.

As Fishkin <u>notes</u>, "Google's behavior over the last few years away from an engine that drives searchers to other websites for the answers to their problems and toward self-hosted answers and solutions. That's made SEO much more difficult, as Google, for the first time in its history, is sending less outbound traffic."

Google is eating the web through its new technologies. Pages load faster with tools like Accelerated Mobile Pages or Firebase. Both are like Facebook's Instant Articles. They sound great, until you realize that the faster pages run on Google's and Facebook's servers, displacing third-party advertising networks and further centralizing the web into their ecosystem where they exercise control.

Google also kills off technologies that would reduce the need to search using Google. In 2013, the company announced they were discontinuing Google Reader, which relied on RSS. An RSS feed was a way for publishers to reach their readers directly without using Google Search. But the death of Google Reader in 2013 marked the end of interoperable web services like RSS from large organizations like Google, Facebook, and Twitter.

The current configuration of the web's ecosystem advances Google's business model. Google's Android mobile operating system powers most smartphones in the world with a whopping 85 percent market share. It has integrated the Android OS into its own search engine, and has integrated Android into its own app store, effectively becoming the gatekeeper to what websites, apps, and companies consumers can access.

It uses its dominance in browsers to its own advantage as well. Its Chrome browser has a <u>60 percent market share globally</u>, and comes with a new <u>ad-blocking feature</u>, which it claims is the work of a collective, industry-wide effort to get rid of annoying ads. Yet the software only blocks certain types of online advertisements. Mysteriously, the ads that are blocked are ones its competitors use, not its own.

Confronted with a closed web controlled by two private companies, users are increasingly demanding that Facebook and Google fix themselves. As journalist Matt Taibbi has succinctly put it, "For Google and Facebook to be the cause of and the solution to problems tells you how irrelevant governments and regulators have become."

There is currently a vast imbalance of power between individuals and private companies. The web is not free and open if two companies control the flow of information. André Staltz, a computer programmer, has noted that that the tech giants can ban users and "don't need to guarantee you access to their networks. You do not have a legal right to an account in their servers, and as societies we aren't demanding for these rights."

Conservatives who love democracy should prefer decentralization, as it allows each user to make their own choices. In a centralized system, users have no control over what standards Google or Facebook deem acceptable—someone else makes those choices on our behalf.

Jennifer Granick, the director of civil liberties at the Stanford Center for Internet and Society, has noted that techno-utopians once said things like "the Internet treats censorship as damage and routes around it." Today, that is no longer possible. The centralization of the internet by monopolies "increasingly facilitates surveillance, censorship, and control."

It's a sad irony that the internet, intended to be decentralized and free, is dominated by monopolies with ever-increasing control of our lives.