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It began as an academic subject with a wonky name — network neutrality.

But at its heart, the issue was simple: Internet service providers should treat all content equally. Within a few years, the phrase — shortened to the slightly less-wonky net neutrality — became a rallying cry for Silicon Valley technology companies, liberals and online free-speech advocates.

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**June 5, 2003 Fighting words** – Eight months before a group of Harvard students launched a website called [thefacebook.com](http://thefacebook.com) and more than a year before Google Inc.'s initial public stock offering, a young associate professor at the University of Virginia, Tim Wu, coined the phrase network neutrality in a student-run academic journal. His paper pondered the "conflicts between the private interests of broadband providers and the public's interest in a competitive innovation environment centered on the internet."

For broadband companies and free-market conservatives, net neutrality became code for a government meddling in the vibrant internet economy. Now, after some bizarre pop culture moments, an embrace by a young senator on his way to the presidency, three major court rulings and more than 4 million public comments (and counting) to federal regulators, the term has become part of the online and political lexicon.

It's in the spotlight again because the chairman of the Federal Communications Commission wants to dismantle tough net neutrality regulations enacted in 2015. Ajit Pai, a Republican appointed to head the FCC by President Trump after his inauguration, is pushing the agency to repeal the tough regulatory oversight for internet service providers that Democrats approved in 2015 over the objections of the broadband industry. It's been a long, strange trip — and it's not over.

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For example, Wu discussed the possibility that cable companies could close off competition for certain internet services by limiting access to what applications could be used on their networks. Wu proposed to strike a balance that would "forbid broadband operators, absent a showing of harm, from restricting what users do with their internet connection." He would allow operators to manage technical aspects such as "bandwidth consumption" to keep the network operating properly. The concepts were mostly academic, but the real-world conflicts Wu pondered were on their way.

**Aug. 5, 2005 The FCC's four freedoms** – The Republican-controlled FCC unanimously adopted four principles "to encourage broadband deployment and preserve and promote the open and interconnected nature" of the public internet. Later to be known as the four freedoms, they were based on principles outlined in a 2003 speech by former FCC Chairman Michael Powell, a Republican, and said that consumers were entitled to:

- Access the lawful content of their choice
- Run applications and services of their choice
- Connect their choice of legal devices that do not harm the network
- Have competition among network, application and content providers

Among the concerns at the time were restrictions by cable companies on customer use of virtual private networks and Wi-Fi. But he said the case for government regulations was "unconvincing and speculative." In its 2005 vote, taken after Powell left the agency, the FCC did not adopt net neutrality rules but said it would incorporate the principles in its policymaking. Foreshadowing the political fights to come, Democratic Commissioner Michael Copps said he would have preferred a formal rule that would allow the agency to take enforcement action.

**June 28, 2006 A senator goes tubular** – Pushed by Google and other Silicon Valley companies, some members of Congress — mostly Democrats — tried to add the FCC's net neutrality principles to a Republican-drafted overhaul of the nation's telecommunications law. Sen. Ted Stevens, R-Alaska, who wrote the legislation, didn't want to place restrictions on telecommunications companies. And at a hearing of the Senate Commerce Committee that he chaired, the 82-year-old Stevens gave a rambling speech describing the internet as "a series of tubes." The digital rights group Public Knowledge posted an audio clip of the speech on the internet and it started spreading like wildfire through those tubes.

Comedy Central's "The Daily Show With Jon Stewart" seized on Stevens' comments, helping bring awareness of net neutrality to the masses. Stewart said that Stevens sounded like "a crazy old man in an airport bar at 3 a.m." It reinforced the image that many in Congress weren't tech-savvy enough to deal with net neutrality. Opponents of net neutrality regulations said it didn't matter because the rules were a solution in search of a problem. There were no high-profile examples of broadband providers choking off competitive content. That was about to change.

**Aug. 2, 2008 The solution finds its problem** – An Associated Press report in late 2007 contended that Comcast Corp. was blocking some customers from using BitTorrent's popular software to download online videos. Public-interest groups complained to the FCC. And they got action. By a 3-2 vote, the Republican-controlled agency found that the cable company had tried to cripple online video sites that competed with its on-demand service. The move violated the FCC's four internet freedoms. The FCC's Republican chairman, Kevin J. Martin, sided with two Democratic commissioners in rebuking Comcast. The company was ordered to stop the blocking but wasn't fined. Comcast told the FCC it would see it in court.

**May 15, 2014 Trying to thread the needle** – Judges were not kind to net neutrality. – In 2010, a federal court tossed out the FCC's rebuke of Comcast and said the agency lacked the authority to enforce its net neutrality principles. The FCC now was controlled by Democrats and chaired by Julius Genachowski. He had been appointed by President Obama, who had embraced net neutrality regulations as a senator and then during his campaign.

Genachowski was the next FCC chairman to take a crack at net neutrality. In 2010 the agency voted 3-2 along party lines to adopt its first formal regulations on net neutrality, prohibiting internet service providers from blocking access by their customers to any legal content, applications or services. This time Verizon Communications Inc. sued. In January 2014, a court sided with the industry again, saying the FCC still hadn't used its limited authority correctly. Genachowski had stepped down, and Obama replaced him with Tom Wheeler, a hard-charging former cable TV and wireless industry lobbyist. Wheeler tried to thread the legal needle by establishing new regulations prohibiting broadband providers from discriminating against online data but not specifically outlawing charging some sites for faster delivery of their content, a concept known as paid prioritization. His plan pleased neither side.

Republicans complained that it was too much government interference. And net neutrality supporters weren't happy either. They wanted Wheeler to ban paid prioritization and pass rules that they hoped would withstand industry lawsuits by classifying broadband providers as more highly regulated utilities like conventional phone companies under Title 2 of the telecommunications law. The FCC voted 3-2 to start a formal rule-making procedure. Wheeler still thought that he had found a workable middle ground. Then another TV comedian changed the debate again.

**June 1, 2014 Attack of the dingo** – HBO's "Last Week Tonight With John Oliver" took on the issue of net neutrality and aimed some of its fire at what it said was Wheeler's industry-friendly rules. "The guy who used to run the cable industry's lobbying arm is now running the agency tasked with regulating it," Oliver said on the show. "That is the equivalent of needing a babysitter and hiring a dingo." The wolves were out for Wheeler's plan. Oliver's bit went viral (the video clip has been viewed about 12.8 million times), helping fuel so many public comments that the FCC's website crashed as a filing deadline approached. Most of the 4 million comments supported tough regulations. Wheeler's proposal was in trouble. Then another online video — this one from the White House — helped push the plan over the edge.

**Nov. 10, 2014 Obama weighs in** – Obama had been an early supporter of net neutrality. In 2007 he was one of 11 senators who signed on as co-sponsor of a bill to write net neutrality protections into federal law. Obama touted his support for net neutrality during the 2008 campaign, in contrast to the opposition of his opponent, Sen. John McCain, R-Ariz. Net neutrality was a big deal to Obama. And as the FCC was nearing a vote on Wheeler's proposal, Obama took the unusual step of going public with his views on a matter being considered by the independent agency. In a two-page statement and an online video, Obama pushed the FCC to enact the toughest possible regulations by reclassifying broadband providers for utility-like oversight. Wheeler said there was "more work to do" on his proposal and a vote was delayed.

**Feb. 26, 2015 Net neutrality is voted in** – The debate over net neutrality raged online and in Washington. Sen. Ted Cruz, R-Texas, said tough net neutrality regulations were "Obamacare for the internet." On Feb. 4, 2015, Wheeler released a revised proposal that prohibited broadband companies from blocking websites, slowing connection speeds and charging for faster delivery of content — and subjecting those providers to the utility-like oversight Obama sought. Net neutrality supporters cheered Wheeler's revised proposal and jubilantly packed the FCC's meeting room the day of the vote.

The regulations were approved along party lines by a 3-2 vote that installed the once-arcane concept of net neutrality as a guiding government doctrine for broadband networks. AT&T Inc. joined other telecom companies and industry trade groups in suing the FCC, saying it overstepped its authority in classifying broadband service for utility-like regulation. In June 2016, a federal appeals court panel dismissed the suit. Less than five months later, Americans elected Republican Donald Trump as president. In 2014, he had slammed Obama's plan as "another top-down power grab." Now Trump was in position to install a new FCC chairman.

**April 26, 2017 Republicans seek a blocked shot** – Pai, who Trump appointed as chairman, is fond of making pop culture references and using plain language to describe complex telecommunications issues. After the election, Pai said the FCC agency needed to "fire up the weed whacker" to slash unnecessary regulation. Net neutrality was the biggest weed on his list. On April 26, he announced that he intended to push the FCC to rescind the utility-like oversight of broadband providers. And in an opinion article in the Los Angeles Times, Pai reached into the NBA to help explain why he wanted to block the FCC's net neutrality shot. He noted that in 2012, the Oklahoma City Thunder had a young trio of outstanding players that included James Harden. But fearful that their salaries at some point would be unaffordable, the team traded Harden to Houston. He went on to become a superstar, and this spring led the Rockets over the Thunder in the first round of the playoffs. "Many Thunder fans would give anything to undo a trade motivated by speculative fears," Pai wrote. The fears were similar to those behind the FCC's decision to enact utility-like oversight for broadband providers, Pai said.

He called them "hysterical prophecies of doom" in a speech April 26. And the "overhang of heavy-handed regulation" imposed by the FCC was hurting the broadband industry and hindering investment in expanded networks, Pai said. The regulations led the nation's 12 largest internet service providers to decrease their capital expenditures on broadband by \$3.6 billion, or 5.6 percent, in 2016 compared with 2014, Pai said. Net neutrality supporters dispute Pai's claim of an investment drop.

Continuing the basketball analogy, Pai noted that Oklahoma City can't get Harden back because he's under contract with Houston until 2020. "But at the FCC, we can correct a past mistake by moving away from government control of the internet," Pai wrote. "And that's exactly what we intend to do." – *Los Angeles Times*

Did you see “The Good Fight”? How can you not be watching “Empire”? Hurry up and finish “The Handmaid’s Tale” so we can talk!

We’re in a TV renaissance, but keeping up is a commitment. Who knows which channels and times anything is on—or which show you’ll be judged for not knowing next. If your remote ever feels like it could use its own valet, I’ve got good news: Watching TV is about to get better.

Live TV-streaming apps like Sling TV and YouTube TV haven’t exactly delivered on the promise of [rescuing us from giant cable bills](#), but they have invented some new ways to sort through gazillions of channels and shows. The newest and best, Hulu with Live TV, which starts at \$40 a month, looks nothing like most cable systems—and comes much closer to how TV ought to work in 2017.

The problem is you might hate it, at least at first. The new Hulu app looks so different, it’s freaking out people who have used the service for years to watch day-after shows on demand. And Hulu’s new live TV service completely axes the one part of watching cable every American has mastered: the channel guide.

What Hulu gets right is that the live TV channel is dying—and needs to be replaced by something that looks a lot more like Netflix. Instead of listing what’s on 50 channels, Hulu opens up with a focus on one thing it thinks you’d most like to watch. Flick up for a different recommendation. It makes no distinction between the live big game, stuff from your DVR or on-demand episodes of “The Golden Girls.”

Hulu isn’t the only service to recognize we need fewer choices, not more. YouTube TV, the Google live service that launched last month, puts search, trending shows and personalized suggestions front and center. Sling TV’s home screen has evolved to include the stuff you watch most. Even Comcast is leading traditional cable companies to adapt with a new X1 cable box that offers “for you” recommendations, plus a voice-commanded remote.

Hulu’s approach still needs work. But after a week of watching TV—ahem, testing six different ways to watch TV—Hulu’s the one I keep coming back to. It gives you access to all the on-demand network shows, originals and movies it has long offered and then adds live channels (with even fresher on-demand content). And it actually has good ones: networks ABC, CBS, NBC and Fox in many cities, plus CNN, Fox News and MSNBC, as well as ESPN, FX and TNT. What’s missing? HBO, Comedy Central, AMC and MTV.

If you’re looking to cut cable, you’ll have to tally up which of the now five streaming services has the shows you can’t live without. (We have [an interactive to help with that](#). Just don’t expect dramatic cost savings versus cable: You still have to pay for your internet connection and other extras you’ll probably want, like access to HBO, or extra space in your cloud DVR. And with the exception Sling, which starts at \$20, all of these services make you buy lots of channels you don’t want just to get the ones you do.

Unlike the otherwise impressive YouTube TV, Hulu also works on lots of devices—phones, tablets, Apple TVs, Chromecasts and Xboxes. (Apps for Roku, Amazon Fire TV and Samsung smart TVs are in the works.) Hulu also offers a nifty upgrade: For \$4, you can cut commercials from its significant on-demand library.

Hulu will appeal to “cable shavers” like me. We’re fed up with cable but don’t mind paying to watch good stuff in a more convenient way. I loved having TV untethered from my living room, with apps that gave me access to everything I pay for, live or on-demand, on the train or at the gym. When you start, Hulu asks you about your favorite shows and movies. It’s like a dating app, only your soul mate is, hopefully, Hulu’s artificial intelligence. You’re training it when you start watching a show and stop it after two minutes—or binge every episode. You’re training it, too, when you’re browsing or searching, marking particular shows or sports teams as “My Stuff.”

All of this, plus the habits of other Hulu users and insight from Hulu’s editorial staff, feeds into your home screen. It can take up to 30 days for Hulu to get the nuances of what you like to watch on certain devices or at certain times of day. In my first week, I’d give it a solid B. It helped me discover some shows, like Samantha Bee’s “Full Frontal,” that hadn’t been on my radar. But on Sunday night, it failed to suggest “60 Minutes,” which I hadn’t remembered to add to “My Stuff.”

Lots of consumer tech products are heading down the path of artificial intelligence—from [music services](#) to [ovens](#)—and many find it’s hard to get right. Hulu needs everyone, including children, to use separate profiles so its AI can focus recommendations. But it’s missing an important element: feedback from users about whether a recommendation is any good. Hulu says that’s in the works.

The rest of Hulu’s interface isn’t AI-powered, but it’s customizable. Swipe left to see shows or series that you’ve started and might want to finish. Swipe again to see what’s live on your favorite channels—

the closest thing Hulu has to a program guide. In another spot, you'll find "My Stuff," everything you've told Hulu to save or record, sorted into scrollable feeds.

If this sounds like a lot of swiping and tapping, that's Hulu's biggest design weakness: If the recommendations aren't on the money, it's work to get to something else. Hulu wants to be the one app for your entire TV experience, just like the cable box used to be. Its ownership by Hollywood heavyweights— 21st Century Fox, Disney, Comcast and Time Warner —does give it access to lots of good stuff. (21st Century Fox and News Corp , parent of The Wall Street Journal, share common ownership.)

But to really fix TV, Hulu would also need to be comprehensive. It'll never truly get me without seeing my HBO and Netflix feeds as well. Other streaming services have been able to add in HBO, and Comcast managed to integrate Netflix into its X1 box. So it's possible, but I'm not holding my breath. Until then, Hulu makes up for being less exhaustive by being smarter—a direction that feels a lot like the future of TV. – *Wall Street Journal*

