

**REMARKS OF MATTHEW BERRY,
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It is great to be with you this morning in the capital of the Keystone State. Speaking of that nickname, there's actually a dispute about its origins. Some say that it refers to the critical role played by Pennsylvania's delegation at the Continental Congress when the United States declared its independence from Great Britain. Others argue that it derives from Pennsylvania's central geographic location among the thirteen colonies. Both of these theories make sense, but this morning I would like to suggest another reason why Pennsylvania deserves the Keystone State moniker. This state has been and continues to be the keystone of the cable industry.

As you know, cable television got its start right here in Pennsylvania, and it's a classic story of a small entrepreneur developing an innovative solution to overcome an obstacle. John and Margaret Walson owned a small appliance store in Mahanoy City and began selling televisions in 1947. But there was a small problem. Business wasn't brisk because the surrounding mountain ranges made it nearly impossible for area residents to receive Philadelphia television stations. So what did the Walsons do? They put a utility pole with an antenna on top of a nearby mountain and retransmitted broadcast signals through a cable into the valley. After that, television sales at their store exploded.

The cable industry has come a long way from these humble origins. But one thing that hasn't changed is Pennsylvania's central role. Comcast, our nation's largest cable company, is headquartered here as are 5 of the 20 largest operators in the United States. And the American Cable Association, which represents small cable operators, is located in Pittsburgh.

Like the Walsons before them, cable operators in Pennsylvania and across the country are entering new markets and innovating to meet their consumers' needs. It's no exaggeration to say that cable systems have been the keystone for broadband deployment in the United States. During the last two decades, you've invested over \$200 billion in infrastructure, building out and improving your networks. As a result, the cable industry now makes broadband service available to over 93% of American households, and a majority of wired residential broadband connections in the United States are currently provided by cable companies. In Pennsylvania alone, cable connects more than two million customers to high-speed broadband.

And the cable industry isn't resting on these laurels for one simple reason; it can't. Competition is everywhere. On the video side, satellite providers, telephone companies, broadcasters, and over-the-top providers are competing for viewers. On the broadband side, telephone companies and satellite providers vie with you for customers—while many consumers are now choosing mobile options with the expansion of 4G LTE service. That's why cable operators are investing in their networks to improve performance and embracing new wireless options, including a network of hundreds of thousands of WiFi hotspots across the United States.

And it's because of this competition that the Internet has been open and will continue to be open regardless of whether there is government regulation. The private sector has overwhelmingly respected Internet freedom, and the reason why is simple: It's what consumers want. Let's say, with a tip of the hat to Billy Joel, that you're living in Allentown, you're a Service Electric broadband customer, and the company decides to shut down your access to lawful content. You might switch to Verizon. Or, suppose that you're a Frontier customer in Breezewood, and the company prevents you from running applications of your choice. There's a good chance that you'll switch to Comcast.

I wish I could say that everyone in Washington, DC, understood just how competitive and dynamic the market is. But the federal government is all too slow to recognize competition, too quick to impose regulation, and too dismissive of the harm to consumers and innovation caused by too much meddling in the marketplace. This is the same government that believed tying would allow Microsoft to monopolize the browser market and thought AOL would dominate instant messaging forevermore at the turn of the millennium. So I think that Congress got it right back in 1996 when it wrote that the policy of the United States is “to preserve the vibrant and competitive free market that presently exists for the Internet . . . , unfettered by Federal or State regulation.”

And yet, the Federal Communications Commission is once again gearing up to regulate Internet service providers (ISPs) with net neutrality rules. This will be our third attempt to regulate network management practices. In the interest of full disclosure, as the Commission’s General Counsel, I was involved in our first effort, which the Court of Appeals invalidated in 2010. When the FCC then tried to adopt so-called open Internet rules, the D.C. Circuit struck down all but one. So as we are about to take our third bite of the apple, it seems that the Commission is taking its inspiration from the proverb popularized by the British author William Edward Hickson: “If at first you don’t succeed, try, try, try again.”

This morning, I’d suggest the Commission look to an American source: *Reader’s Digest*. In 1949, it published a “Quotable Quote” that was attributed to the legendary comic W.C. Fields: “If at first you don’t succeed, try, try again. And then quit. There’s no use being a damn fool about it.” Now, it’s not entirely clear whether Fields ever actually uttered these words, but when it comes to regulating the Internet, they are wise counsel.

To be sure, no one should confuse opposition to government regulation with opposition to an open Internet. Indeed, I strongly support an open Internet. A decade ago, then-FCC Chairman Michael Powell set forth four Internet Freedoms. “First, consumers should have their choice of legal content.” “Second, consumers should be able to run applications of their choice.” “Third, consumers should be permitted to attach any devices they choose to the connection in their homes.” “And fourth, consumers should receive meaningful information regarding their service plans.” These pro-consumer principles attracted wide, bipartisan support and have become a mainstay of our nation’s broadband marketplace.

So how have advocates of government intervention responded? They’ve tried to move the goalposts. Everyone used to agree that an open Internet was tied to consumer freedom. No longer for net neutrality advocates. Now the focus has shifted to flyspecking network management practices. But before doing so, we need to think long and hard about whether taking that step is really good for consumers.

Consider the basis of net neutrality: the concept that all bits are equal and Internet service providers must treat them as such. In effect, it’s a strict non-discrimination principle. To justify that principle, net neutrality advocates often analogize a broadband connection to a dumb pipe, simply moving bits from one location to another. But dumb pipes aren’t an accurate depiction of today’s technology. And it certainly shouldn’t be our goal for the future. Our aim shouldn’t be to crisscross the United States with dumb pipes.

Rather, we should aspire to connect all Americans with smart networks. And private enterprise is doing that. The user datagram protocol (UDP) wasn’t designed for high-quality voice applications—but VoIP providers have made it work through smart design. The transmission control protocol (TCP) wasn’t designed to stream movies—but over-the-top video is a reality thanks to content delivery networks, direct interconnection, and other engineering feats. Cable systems weren’t designed for two-way traffic—but they are now the most commonly used broadband networks in the country.

In other words, innovation within networks is critical for both consumers and edge providers. Consider the following scenario. A company offers to monitor the vital signs of a homebound individual

with a chronic disease remotely over the Internet. During periods of network congestion, should a network operator be able to prioritize that service over other data? Or should the network be required to treat health-care monitoring the same as a YouTube video of John Travolta mangling Idina Menzel's name at the Oscars? The answer is obvious to this consumer. If you have to wait a minute to see the clip of John Travolta introducing "the one and only Adele Dazeem," that's annoying. But a one-minute delay in notifying your healthcare provider about a change in your vital signs could mean the difference between life and death.

Now consider the edge provider's perspective: That Internet-based home health monitoring service isn't likely to fare well in the marketplace if it doesn't work reliably when there is network congestion. Indeed, different applications rely on different characteristics of the network—reliability, latency, capacity—to succeed. A smart, dynamic network that can prioritize traffic and otherwise respond to the needs of all participants in the Internet ecosystem will inevitably create more opportunities for innovation at the edge than will a dumb pipe.

Some advocates of government regulation concede that not all prioritization is nefarious. They acknowledge that strict net neutrality begs the question of what equal treatment means. For example, is the first-in, first-out approach equal because it is agnostic with respect to content or applications? Or is it inherently discriminatory because it disfavors content and applications that are sensitive to latency?

These advocates instead contend that the FCC should permit good prioritization and prohibit bad or "unreasonable" prioritization. That's what the FCC tried to do when it adopted the now-vacated Open Internet rules. Of course, this move just begs another question: What is "unreasonable" discrimination? To answer that question, the FCC said some general categories of network management practices were "likely reasonable," set forth factors to use in evaluating whether a practice was reasonable, and listed types of practices that "we would be concerned about," including arrangements that would raise "significant cause for concern." All that was missing was a "super-duper cause of concern" category.

No one has ever been able to come up with a bright-line test. Rather, the approach is reminiscent of U.S. Supreme Court Justice Potter Stewart's famous definition of pornography: "I know it when I see it." In other words, this is not an area conducive to government micromanagement. We should want network operators to be focused on innovating and providing the best service possible to their customers rather than guessing how the FCC might respond to a particular network management practice. A rule based on amorphous and subjective value judgments will inevitably breed caution and chill progress.

Moreover, the FCC isn't even well-suited for this task. It's not exactly a secret that we can take a long time to resolve proceedings, delays that in this context would impede innovation. Issues at the FCC, like those at any agency, are easily politicized, and operators' network management practices shouldn't be a function of whose lobbyists are well-connected or which companies are in political favor (or disfavor) at any given moment. Rather, in the dynamic, ever-changing broadband environment, network management practices should be a function of providers' responses to their consumers' demands.

There's another reason we should stay the government's hand when it comes Internet regulation. Premature regulatory action could prevent a two-sided market from developing, even if such a market benefits everyone in the Internet space.

Building and upgrading high-speed broadband networks is an enormously expensive undertaking. In the last fifteen years, for example, the private sector has invested over \$1 trillion in our nation's broadband networks. And these investments will continue to be necessary because Americans are demanding higher capacity networks. Most notably, our appetite for data-intensive, high-quality Internet video has grown and will continue to skyrocket. Today, video constitutes over half of all downstream Internet traffic on fixed networks in the United States. And by 2017, Cisco projects that figure will increase to sixty-nine percent.

The question then becomes: Who will pay for network upgrades to come? After all, money doesn't grow on trees. In a one-sided market, the answer is simple. Consumers will pay. But why is that fair? Why should the paper salesman from Scranton, the pub owner from Philadelphia, and the piano teacher from Punxsutawney bear the entire burden of expanding our nation's broadband capacity? How is the government mandating such an outcome "pro-consumer"?

In a two-sided market, by contrast, funding can come from both consumers and content providers. For consumers, that could mean lower prices and more competition, as payments from content providers displace consumer payments and draw competitive providers into further deployment. And if a content provider pays for a better connection and helps to fund network upgrades, that's all to the consumer's benefit.

Some content providers might be eager to participate in a two-sided market. There were reports last year, for example, that ESPN was in talks with a major wireless carrier regarding a sponsored data agreement where ESPN would pay the carrier for its content not to count against consumers' monthly data caps. The *Wall Street Journal* noted that "[s]ubsidizing wireless-data usage would make sense for companies like ESPN whose content has seen a surge of mobile-phone viewing." And while the value of additional revenues to network operators is obvious, people sometime overlook the value to the consumer: more data at the same price.

Indeed, many content providers recognize that their business models place substantial demands on ISPs' networks. Netflix, for instance, accounts for about 30 percent of all Internet traffic in the United States today. It's in Netflix's interest to make sure their consumers have the best user experience, so it's no surprise that Netflix has been working directly with Internet service providers to improve that experience. Although some call these direct-interconnection agreements a violation of net neutrality, I see no reason why the government should stifle these two-sided business models rather than allow the market (and the network) to develop organically. As FCC Chairman Tom Wheeler put it: "[W]e're . . . going to see a two-sided market where Netflix might say, 'well, I'll pay in order to make sure that you might receive, my subscriber receives, the best possible transmission of this movie.' I think we want to let those kinds of things evolve." He's right.

To be sure, good-faith concerns have been raised about a two-sided market. Most common is the objection that it would make it harder for smaller content providers to reach consumers. And while this is an argument that deserves a response, at the end of the day, it misses the mark.

President Kennedy, speaking about our national economy, famously said that a rising tide would lift all boats. Well, when it comes to broadband, increasing network investment will lift all content providers. When ISPs boost capacity and make their networks smarter, that's good for industry giants and small start-ups alike. And there is simply no evidence that permitting a two-sided market will lead to ISPs interfering with consumers' ability to access the lawful content of their choice. Indeed, as explained earlier, such action likely would cause providers to lose customers.

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Congress declared eighteen years ago that it is the policy of the United States to "promote the continued development of the Internet" and that phrase—"continued development"—is vitally important. President Reagan once said of the United States that we are "a land that has never become but is always in the act of becoming." Something similar could be said about the Internet. It is not static; it is dynamic. It is a network of networks that has never developed, but is always in the act of developing.

Accordingly, the FCC shouldn't try to lock in place today's broadband business models, and it shouldn't try to codify yesterday's network management practices. Rather, it should stand aside and allow for the Internet to continue developing, to continue evolving. Such restraint should be the keystone of our nation's Internet policy going forward because it will maximize our nation's broadband capacity and produce the smartest networks, outcomes that would be good for consumers, edge providers, and

network operators alike. Let's continue to give providers the freedom to respond in dynamic, innovative ways to consumers' demands. This is the approach that has worked ever since the Walsons first brought cable service to a valley not far from here.

Thank you very much for inviting me to join you this morning, and I look forward to answering your questions.