PRESERVING AN OPEN INTERNET FOR CONSUMERS, SMALL BUSINESSES, AND FREE SPEECH

HEARING

BEFORE THE

SUBCOMMITTEE ON COMMUNICATIONS AND TECHNOLOGY

OF THE

COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

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CONTENTS

	Page
Hon. Mike Doyle, a Representative in Congress from the Commonwealth of Pennsylvania, opening statement	2
Hon. Robert E. Latta, a Representative in Congress from the State of Ohio, opening statement	5 6
Prepared statement	7 9
Prepared statement Hon. Greg Walden, a Representative in Congress from the State of Oregon, opening statement Prepared statement	10 12
•	12
WITNESSES	
Denelle Dixon, Chief Operating Officer, Mozilla Corp.	14
Prepared statement	16
Answers to submitted questions	166
Ruth Livier, actress, writer, and UCLA doctoral student	$\frac{21}{23}$
Answers to submitted questions	$\frac{25}{167}$
Joseph Franell, Chief Executive Officer, Eastern Oregon Telecom	27
Prepared statement	29
Answers to submitted questions	169
Press and Free Press Action Fund	33
Prepared statement	35
Answers to submitted questions	171
net & Television Association	61
Prepared statement	63
Answers to submitted questions	187
Tom Wheeler, Visiting Fellow, Brookings Institution, Senior Research Fellow,	
Harvard Kennedy School	71
Prepared statement Answers to submitted questions	73
Answers to submitted questions	190
SUBMITTED MATERIAL	
Article of January 24, 2018, "Net Neutrality Violations: A Brief History,"	
by Timothy Karr, Free Press, submitted by Mr. Pallone	125
Letter of May 28, 2010, from Mr. Pallone to Julius Genachowski, Chairman,	
Federal Communications Commission, submitted by Mr. Walden	128
Letter of June 27, 2017, from A Better Wireless, et al., to Ajit Pai, Chairman,	100
Federal Communications Commission, submitted by Mr. McNerney	130
Letter of October 15, 2009, from Hon. Gregory W. Meeks, a Member of Congress, et al., to Julius Genachowski, Chairman, Federal Communica-	
tions Commission, submitted by Mr. Bilirakis	132

	Page
Majority Staff Report of the Senate Committee on Homeland Security and Government Affairs, "Regulating the Internet: How the White House Bowled Over FCC Independence," February 29, 2016, submitted by Mr. Long ¹	
Article, "Broadband groups cut capex despite net neutrality win," by Kiran Stacey, Financial Times, submitted by Mr. Welch	138
of Killing Net Neutrality Are Real," by Karl Bode, Motherboard, submitted by Mr. Luján	140
Report of The Center for Internet and Society, "Filtering Out the Bots: What Americans Actually Told the FCC about Net Neutrality Repeal," by Ryan Singel, October 2018, submitted by Mr. Luján ²	
Analysis, "Unique Net Neutrality Comments to the FCC in 2017 from NM District #3," submitted by Mr. Luján ³	
Letter of February 7, 2019, from Jonathan Schwantes, Senior Policy Counsel, Consumer Reports, to Mr. Doyle and Mr. Latta, submitted by Mr. Doyle Letter of February 6, 2019, from Kathi Kromer, Associate Executive Director,	143
Washington Office, American Library Association, to Mr. Doyle and Mr. Latta, submitted by Mr. DoyleLetter of February 7, 2019, from TechFreedom, et al., to Mr. Doyle and	146
Mr. Latta, submitted by Mr. Doyle	149
AT&T, T-Mobile, and Sprint Customer Location Data for Years," by Joseph Cox, Motherboard, submitted by Mr. Doyle	153
¹ The report has been retained in committee files and also is available at h	ttps://
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docs.house.gov/meetings/IF/IF16/20190207/108845/HHRG-116-IF16-20190207-SD012.pdf. $^3\rm The$ analysis has been retained in committee files and also is available at house.gov/meetings/IF/IF16/20190207/108845/HHRG-116-IF16-20190207-SD013.pdf.	ttps://

PRESERVING AN OPEN INTERNET FOR CONSUMERS, SMALL BUSINESSES, AND FREE SPEECH

THURSDAY, FEBRUARY 7, 2019

House of Representatives,
Subcommittee on Communications and Technology,
Committee on Energy and Commerce,
Washington, DC.

The subcommittee met, pursuant to call, at 11:02 a.m., in room 2322, Rayburn House Office Building, Hon. Mike Doyle (chairman

of the subcommittee) presiding.

Members present: Representatives Doyle, McNerney, Clarke, Loebsack, Veasey, McEachin, Soto, O'Halleran, Eshoo, Butterfield, Matsui, Welch, Luján, Schrader, Cárdenas, Pallone (ex officio), Latta (subcommittee ranking member), Shimkus, Olson, Kinzinger, Bilirakis, Johnson, Long, Flores, Brooks, Walberg, Gianforte, and Walden (ex officio).

Also present: Representative Rodgers.

Staff present: Jeffrey C. Carroll, Staff Director; Jennifer Epperson, FCC Detailee; Evan Gilbert, Press Assistant; Waverly Gordon, Deputy Chief Counsel; Alex Hoehn-Saric, Chief Counsel, Communications and Technology; Zach Kahan, Outreach and Member Service Coordinator; Jerry Leverich, Counsel; Dan Miller, Policy Analyst; Joe Orlando, Staff Assistant; Kaitlyn Peel, Digital Director; Alivia Roberts, Press Assistant; Chloe Rodriguez, Policy Analyst; Mike Bloomquist, Minority Staff Director; Robin Colwell, Minority Chief Counsel, Communications and Technology; Kristine Fargotstein, Minority Detailee, Communications and Technology; M. T. Fogarty, Minority Staff Assistant; Theresa Gambo, Minority Financial and Office Administrator; Peter Kielty, Minority General Counsel; Tim Kurth, Minority Deputy Chief Counsel, Communications and Technology.

Mr. DOYLE. I think all Members have taken their seats. I know we are getting used to where we sit right now because we have

done a little switching.

But I want to call the Subcommittee on Communications and Technology to order. Before we get started, I want to congratulate Congressman Bob Latta on taking over the ranking member.

Bob, I look forward to working with you in this Congress to address our shared interests, and I would also like to introduce the new members of the committee on the majority side and welcome them to the subcommittee.

They are Congressman Mark Veasey of Texas, Congressman Donald McEachin of Virginia, Congressman Darren Soto of Florida,

and Congressman Tom O'Halleran of Arizona.

And we also have some new friends and returning favorites who have also joined the subcommittee, including Congresswoman Diana DeGette, who is holding a hearing downstairs and probably will not make it up here today.

Ben Ray Luján of New Mexico, Kurt Schrader of Oregon, and Tony Cárdenas of California—I look forward to working with all of

you.

Bob, I will yield to you if you want to introduce your new Members.

Mr. LATTA. Thank you very much, and Mr. Chairman, I want to congratulate you on assuming the gavel and I really look forward

to working with you.

As we all know, this is the greatest committee in Congress, and this is a great subcommittee to be on. So I look forward to working with you, and we all know that the bipartisanship that this committee has exhibited through the years is exemplary, and I think over 94 percent of the bills that went out of the committee last Congress were bipartisan.

So I look forward to working with you. First, I would like to introduce two new Members to our subcommittee. First is Congressman Tim Walberg from Michigan. Tim joined the committee last Congress, but this is his first term being on this subcommittee.

So, Tim, we look forward to working with you and, you know, there is always great cooperation, not just because Tim and I share a border. He says I protect his southern flank, which is Ohio. He protects my northern flank in Michigan. So when Ohio and Michigan work together, we can all work together. So—

[Laughter.]

Mr. DOYLE. Except on the football field.

Mr. Latta. I also would like to introduce to our—new to the committee is Greg Gianforte from Montana. He brings expertise in computer science, electrical engineering, and technology, and so we welcome him to the committee.

So, Mr. Chairman, thank you very much and I yield back.

Mr. DOYLE. Thank you.

Before we get started, I do want to mention some sad news that we got this week. We know our dear friend and former chairman and longtime member of this committee, John Dingell, is now on hospice care as he is being treated for cancer. We want to hold John and Debbie Dingell, who is a great member of this committee, in our thoughts and prayers.

Having said that, I want to welcome everyone to the Subcommittee on Communications and Technology's first hearing of the 116th Congress.

OPENING STATEMENT OF HON. MIKE DOYLE, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA

First of all, I want to thank my colleagues on the Energy and Commerce Committee for making me chair of this subcommittee. I consider it a great honor and a great responsibility to hold this gavel, and I look forward to working with all my colleagues on the committee.

I believe we share many of the same goals and values. I believe in the power of competition to spark innovation, expand access, and give consumers a better experience at a lower price.

Today's hearing is on net neutrality. I believe this is one of the most important digital rights issues we face today. The internet is certainly one of the most influential inventions ever, and today it touches almost all aspects of our economy, culture, and politics.

According to the estimates by the Bureau of Economic Analysis, the digital economy accounts for 6.5 percent of the total U.S. economy or, roughly, \$1.2 trillion a year in GDP.

Last year, the Pai FCC repealed the 2015 Open Internet Order. Let me be clear. This repeal had far greater impact than just removing the FCC's net neutrality rules.

It was a step back by the FCC from its role as an agency that regulates and oversees internet access and a fundamental shift from all previous FCC Chairs who worked to put in place enforceable net neutrality rules and preserve the Commission's vital oversight and consumer protection roles.

Today, the online publication Motherboard is again reporting that mobile carriers sold access to millions of consumers' real time

locations to bounty hunters and who knows who else.

Their investigation found that one entity had requested more than 18,000 data location requests. These allegations are very troubling and need to be addressed and investigated.

Last year, firefighters in California had their mobile command center's internet connection slowed down to a snail's pace because

they exceeded their data limit.

Because of the FCC's repeal of the Open Internet Order and specifically repeal of Sections 201 and 202 of the Communications Act as well as the general conduct standard, the firefighters couldn't call the FCC to restore critical access to their systems.

Instead, they had to call wireless—their wireless company and pay a representative over the phone to increase their data plan while in the midst of fighting the largest, most complex fire in California's history.

In fact, because of the repeal, these practices were permissible under the FTC's jurisdiction because they were disclosed in the terms of service.

Now, if we agree that public safety is a priority, we need to make sure that they are a priority, not just another subscriber. We not only need rules on the books that protect and preserve our Nation's digital economy, we need a cop on the beat and the FCC is the agency that was empowered by Congress to protect consumers, competition, and innovation-and innovators' access to the inter-

[The prepared statement of Mr. Doyle follows:]

PREPARED STATEMENT OF HON. MIKE DOYLE

Welcome to the Subcommittee on Communications and Technology's first hearing of the one hundred and sixteenth congress.

First of all, I would like to thank my colleagues on the Energy and Commerce for making me the chair of this subcommittee,

I consider it a great honor and a great responsibility to hold this gavel.

look forward to working with all of my colleagues on the committee.

believe we share many of the same goals and values

I believe strongly in the power of competition to spark innovation, expand access, and give consumers a better experience at a lower price.

Today's hearing is on Net Neutrality. I believe this is one of the most important

digital rights issues we face today.

The internet is certainly one of the most influential inventions ever, and today it touches almost all aspects of our economy, culture, and politics.

According to estimates by the Bureau of Economic Analysis the digital economy

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Let me be clear, this repeal had far greater impact than just removing the FCC's

Net Neutrality rules.

It was a step back, by the FCC, from its role as the agency that regulates and oversees internet access—and a fundamental shift from all previous FCC Chairs, who worked to put in place enforceable Net Neutrality rules and preserve the Commission's vital oversight and consumer protection roles.

Today, the online publication Motherboard is again reporting that mobile carriers sold access to millions of consumers real time locations to bounty hunters and who

knows who else.

Their investigation found that one entity had requested more than 18,000 data

These allegations are very troubling and need to be addressed and investigated. Last year, firefighters in California had their mobile command center's internet connection slowed down to a snail's pace because they had exceeded their data limit. Because of the FCC's repeal of the Open Internet Order, and specifically the re-

peal of sections 201 and 202 of the Communications Act as well as the general conduct standard, the Firefighters couldn't call the FCC to restore critical access to their systems.

Instead, they had to call up their wireless company and pay a representative over the phone to increase their data plan, while in the midst of fighting the largest, most complex fire in California's history!

In fact, because of the repeal, these practices were permissible under the F-T-C's jurisdiction, because they were disclosed in the terms of service.

If we agree that public safety is a priority, we need to make sure that they are

a priority, and not just another subscriber to be nickel and dimed. We not only need rules on the books that protect and preserve our Nation's digital

economy.

We need a cop on the beat--- and the FCC is the agency that was empowered by Congress to protect consumers, competition, and innovators access to the internet.

Thank you all again for being here and I look forward to the testimony of our witnesses

Mr. Doyle. With that, I would like to yield the remainder of my time to my colleague, Congresswoman Anna Eshoo.

Ms. Eshoo. I thank the chairman and I congratulate you, Mr. Doyle, on being the chairman of this great subcommittee and it is wonderful for the whole committee to be together today and I can't

think of a more important subject to be examining.

I want to reinforce what you just said about what happened last summer. This is a fire department that is part of my district in Santa Clara County. Those of you that don't know the area you know it by the moniker Silicon Valley. These were Santa Clara County firefighters and they were battling one of the worst forest fires in the history of the State of California.

Now, their data speeds were slashed. Now, just picture what is going on. This is an emergency. This is real red lights and sirens blaring, people's lives at stake—and they weren't able to communicate. The firefighter weren't able to communicate with each other to get the directions they needed to do their jobs.

Now, if the 2015 open internet rules—they could have prevented this because if they had—there were specific exemptions for public safety. Now, I don't take a back seat to anyone on public safety issues and telecommunications.

Congressman Shimkus and I have been on this for more years than we want to count. So, you know, what do we want to chalk

this up to? Misbehavior? Bad PR?

Listen, this is the United States of America. We have to have first rate system that works for everyone and that is why the 2015 rules—internet rules are so, so important. So that is why this hearing is so important.

I thank you, Mr. Chairman, and I yield back.

Mr. DOYLE. I thank the gentlewoman.

The chairman now recognizes Mr. Latta, the ranking member.

OPENING STATEMENT OF HON. ROBERT E. LATTA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. LATTA. Well, thank you, again, Mr. Chairman, and I am very glad to see that we are starting off with this subject that has at-

tracted so much attention over the past 15 years.

Despite the long track record on net neutrality, I believe there is plenty of room for consensus here and there is also great need for consensus. In my district, as in many others across the Nation, our constituents want us to focus on getting broadband out to close the digital divide, and the uncertainty generated by these years and net neutrality wars is very unhelpful to that goal.

So I am hopeful that this is the year we can finally come together on a permanent legislative solution. I would also like to welcome our witnesses, especially former FCC Chairman Michael Pow-

ell.

As Chairman, he had the distinction of creating a bipartisan consensus on this subject in 2004. Before internet freedoms he outlined for consumers—freedom to access the lawful content of their choice, use applications and devices of their choice, and receive meaningful information about their service plans still serve as benchmarks for what we are trying to accomplish with net neutrality rules.

Since then, there have been several attempts to create consensus in Congress and I think it would be instructive for us to go back and consider some of them as potential starting points for our con-

versation this year.

To that end, yesterday I introduced a bill that closely tracks Chairman Waxman's proposed legislation from 2010, the attempt to add a compromise on this issue from our Democratic colleagues on this committee.

Like most attempts over the years in Congress and the FCC alike, the bill focuses on the potential behaviors of concern, namely,

blocking, throttling, and discriminatory practices.

What it does not include is the drastic outlier measure of reclassifying broadband into Title II, the part of the statute meant to regulate the monopoly of telephone carriers of the last century, and to that end, this is Title II.

[Holds up old phone.]

It hearkens back to an era where we have a telephone that doesn't even have a dial on it. This was used by my ancestors, and

this is what we don't want to go back to.

And the phones weren't all that was heavy about Title II. Title II carries with it close to 1,000 carrier regulations, a nightmare of Government micromanagement both for the providers bringing the power of the internet into our pockets on devices like these—of course, everyone has on them today—are iPhones and for their consumers alike.

Reversing the consensus on classification made by Chairmen Powell, Martin, and Genachowski, the FCC dropped the anvil of Title II onto broadband providers in 2015. At the time, the FCC did not forebear from applying over 700 of those regulations of broadband service, at least temporarily.

But that just begs the question of why anyone still views Title II as a critical component to net neutrality legislation instead of

complete overkill.

Chairman Waxman recognized 3 years after the first iPhone was introduced that he didn't need Title II to protect Chairman Powell's four freedoms and ensure an open internet. We don't either.

In fact, since the reversal of the 2015 Open Internet Order, the internet has continued to remain open and free. Americans have not been restricted from freely searching, posting, or streaming content.

It is clear that Title II is not needed to protect consumer access to the internet.

I look forward to hearing from all of our witnesses today and I look forward to moving forward on a long-awaited legislative com-

And with that, Mr. Chairman, I yield back the balance of my time.

[The prepared statement of Mr. Latta follows:]

PREPARED STATEMENT OF HON. ROBERT E. LATTA

Good morning and welcome to our first subcommittee hearing of 2019. I'm happy to see my colleague Chairman Doyle starting off right away with a subject that has attracted so much attention for the past 15 years. Despite the long track record on net neutrality, I believe there is plenty of room for consensus here. And there is also great need for consensus.

In my district as in many others across the Nation, our constituents want us to focus on getting broadband out there to close the digital divide. And the uncertainty generated by these years of net neutrality wars is very unhelpful to that goal. So, I'm hopeful that this is the year we can finally come together on a permanent legis-

lative solution.

I'd like to welcome all our witnesses, especially former FCC Chairman Michael Powell. As Chairman he had the distinction of creating a bipartisan consensus on this subject in 2004. The four Internet freedoms he outlined for consumers—freedom to access the lawful content of their choice, use applications and devices of their choice, and receive meaningful information about their service plans-still serve as the benchmark for what we are trying to accomplish with net neutrality rules.

Since then, there have been several attempts to create consensus in Congress, and I think it would be instructive for us to go back and consider some of them as potential starting points for our conversation this year. To that end, yesterday I introduced a bill that closely tracks Chairman Waxman's proposed legislation from 2010, the last attempt at compromise on this issue from our Democratic colleagues on this committee. Like most attempts over the years in Congress and the FCC alike, this bill focuses on the potential behaviors of concern, namely, blocking, throttling, and discriminatory practices.

What it does not include is the drastic, outlier measure of reclassifying broadband into Title II, the part of statute meant to regulate the monopoly telephone carrier of last century. Title II is from the era of this antique that was used by my family before telephones even had rotary dials. [Show old phone.]

And the phones weren't all that was heavy about Title II. Title II carries with it close to 1,000 common carrier regulations, a nightmare of government micromanagement, both for the providers bringing the power of the Internet into our pockets on devices like these [show iPhone] and for their customers alike.

Reversing the consensus on classification made by Chairmen Powell, Martin, and Genachowski, the FCC dropped the anvil of Title II onto broadband providers in 2015. At the time, the FCC did forbear from applying over 700 of those regulations to broadband service, at least temporarily. But that just begs the question of why anyone still views Title II as a critical component to net neutrality legislation, instead of complete overkill.

Chairman Waxman recognized, 3 years after the first iPhone was introduced, that he didn't need Title II to protect Chairman Powell's four freedoms and ensure an

open internet. And we don't either.

In fact, since the reversal of the 2015 Open Internet Order, the internet has continued to remain open and free. Americans have not been restricted from freely searching, posting, or streaming content. It's clear that Title II is not needed to protect consumer access to the internet.

I look forward to hearing from all the witnesses, today, and as we move forward

on a long-awaited legislative compromise.

Mr. DOYLE. Thank you.

The Chair now recognizes Mr. Pallone, chairman of the full committee, for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REP-RESENTATIVE IN CONGRESS FROM THE STATE OF NEW JER-SEY

Mr. PALLONE. Thank you, Chairman Doyle, and I want to thank—first of all, I am glad to see that you're our chair, but I also want to thank you for all that you have done over the years on the subject matter of this subcommittee, but particularly on net neutrality because you were the sponsor of the CRA Resolution.

Today's hearing examines a communications service that is essential to consumers and businesses alike. The internet is indispensable to modern life and a catalyst for American innovation and so-

cial interaction.

Until last year, both Republican- and Democratic-led FCCs recognized that net neutrality principles were core for ensuring the internet remained free and open. Until last year, both Republican and Democratic FCCs believed that when consumers pay their hard-earned money each month to connect to the internet they should get access to the entire internet.

And until last year, both Republican and Democratic FCCs would nod in agreement that your internet service providers should not be the one deciding what you see, how you see it, and when you

see it.

But then came President Trump and the FCC stepped in—well, I should say this. Before Trump, the FCC stepped in to stop net neutrality violations that stifled innovative technologies and allowed ISPs to pick winners and losers on the internet.

They knew that consumers would lose if the Government stood by and did nothing, and that is because the history of broadband is chock full of bad behavior that strong net neutrality protections like those in FCC's 2015 order were designed to address.

And I would like to introduce an article for the record from the Free Press detailing many of those violations with your permission, Mr. Chairman.

Mr. DOYLE. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. PALLONE. But instead of standing with the American people with the FCC's 2015 order, when President Trump came in the Trump FCC eliminated commonsense net neutrality protections under the guise of promoting broadband investment

under the guise of promoting broadband investment.

While ISPs told the FCC what it wanted to hear, its senior executives told a different tale to investors. Hindsight tells us that the ISPs were more honest to Wall Street than the FCC and despite enormous tax benefits from the GOP tax scam and the elimination of net neutrality rules, many of the largest ISPs invested less in broadband than in previous years.

And, again, the Trump FCC ignored the millions of Americans pleading for strong net neutrality protections. The agency falsely claimed a flood of pro-net neutrality comments were a denial of service attack and shortly thereafter it accepted an onslaught of bogus submissions aimed at skewing the FCC's Rulemaking

against net neutrality, clearly.

Now, I just believe that Chairman Pai's mind was made up from the beginning and the Trump administration's mind was made up from the beginning. I often remember listening to TV one night when the—I forget that guy who was President Trump's first press secretary—said, "Oh, don't worry, the FCC is going to repeal the net neutrality rule." Spicer, OK, it was on Saturday night all the time. And Spicer said, "Don't worry"—you know, long before the FCC even took action—"we are going to repeal net neutrality."

You know, I was always told that the FCC was supposed to be

You know, I was always told that the FCC was supposed to be an independent Commission and make—and not make up their mind and not have the administration decide for them, you know, before they even decided what to do. But that, clearly, wasn't the

case with President Trump.

In the wake of the repeal, the Republican-led Senate passed a congressional review act resolution rejecting the FCC's mistake, and 182 Members of the House supported the same. That was Mike

Doyle's resolution in the House.

But Speaker Ryan ignored the public and so the American people handed control of the House to Democrats in November, giving us a second chance. Without a change, there is no backstop to make sure big corporations can't use their power over the choke points of the internet to undermine and silence their small competitors or the political opposition.

Consumers don't have anywhere to turn when they are wronged by these large corporations because the FCC took itself off the beat entirely. Consumers are left watching the internet slowly change in

front of their eyes.

Research shows many ISPs are throttling streaming video service or boosting some Web sites over others. Wireless internet providers charge consumers an HD fee just like your pay for TV company and this is all happening when ISPs are on their best behavior because the court is considering whether to overturn Chairman Pai's order and they know Congress is watching.

So I shudder to think what plans are being hatched up for when they think no one is watching. Those plans won't be good for consumers, competition, or innovation.

Mr. Chairman, until strong open internet protections are enacted, our only hope is the millions of Americans who are fed up and will hold Congress accountable for passing strong net neu-

And I look forward to working in a bipartisan manner to return strong safeguards to the internet. And I want to thank you, Mr. Chairman, because this has always been something that you care so much about and I know that by having this hearing today that we are going to move forward to have a free and open internet again.

Thank you.

[The prepared statement of Mr. Pallone follows:]

Prepared Statement of Hon. Frank Pallone, Jr.

I want to welcome everyone to this first, important hearing of this subcommittee this Congress.

Today's hearing examines a communications service that is essential to consumers and businesses alike. The internet is indispensable to modern life and a catalyst for American innovation and social interaction

Until last year, both Republican- and Democratic-led Federal Communications Commissions recognized that net neutrality principles were core for ensuring the internet remained free and open.

Until last year, both Republican and Democratic FCCs believed that when consumers payed their hard-earned money each month to connect to the internet, they should get access to the entire internet.

And until last year, both Republican and Democratic FCCs would nod in agreement that your internet service provider (ISP) should not be the one deciding what

you see, how you see it, and when you see it.

The FCC under Republicans and Democrats stepped in to stop net neutrality violations that stifled innovative technologies and allowed ISPs to pick winners and losers on the internet. They knew that consumers would lose if the Government

stood by and did nothing.

After all, the history of broadband is chock-full of bad behavior that strong net neutrality protections like those in the FCC's 2015 order were designed address. I'd like to introduce an article for the record from Free Press, detailing many of those violations.

Instead of standing with the American people, however, the Trump FCC eliminated commonsense net neutrality protections under the guise of promoting broadband investment.

While ISPs told the FCC what it wanted to hear, its senior executives told a different tale to investors. Hindsight tells us that the ISPs were more honest to Wall Street than the FCC. Despite enormous tax benefits from the GOP Tax Scam, and the elimination of net neutrality rules, many of the largest ISPs invested less in broadband than in previous years.

The FCC also ignored the millions of Americans pleading for strong net neutrality protections. The agency falsely claimed a flood of pro-net neutrality comments was a denial of service attack. Shortly thereafter, it accepted an onslaught of bogus submissions aimed at skewing the FCC's rulemaking against net neutrality. Clearly, Chairman Pai's mind was made up from the beginning. But while the FCC turned a blind eye to the American people, Congress, the New York Attorney General's Office, and the FBI took heed.

In the wake of the repeal, the Republican-led Senate passed a Congressional Review Act resolution, rejecting the FCC's mistake. 182 Members of the House supported the same, urging then Speaker Ryan to hold a vote on the CRA. Speaker Ryan ignored the public, and so the American people handed control of the House

to Democrats in November, giving us a second chance.

Without a change, there is no backstop to make sure big corporations can't use their power over the choke points of the internet to undermine and silence their small competitors or the political opposition. Consumers don't have anywhere to turn when they are wronged by these large corporations because the FCC took itself off the beat entirely. Consumers are left watching the internet slowly change in front of their eyes.

Research shows many ISPs are throttling streaming video service or boosting some Web sites over others. Wireless internet providers charge consumers an H.D. fee just like your pay-TV company. And this is all happening when ISPs are on their best behavior because the court is considering whether to overturn Chairman Pai's order, and they know Congress is watching. I shudder to think what plans are being hatched up for when they think no one is watching. Those plans won't be good for consumers, competition, or innovation.

Until strong open internet protections are enacted, our only hope is the millions of Americans who are fed up and will hold Congress accountable for passing strong net neutrality laws. I look forward to working in a bipartisan manner to return strong safeguards to the internet.

Mr. DOYLE. The gentleman yields back.

The Chair now recognizes Mr. Walden, ranking member of the full committee, for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENT-ATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. Walden. Well, thank you very much, and congratulations on taking over the gavel of a really cool subcommittee. I mean, I chaired this for 6 years. I can tell you it is—well, you can't pick among your children when you are a chairman or the top Republican leader on the committee, but this is a pretty good subcommittee.

So I look forward to continuing the work and I want to welcome all of our witnesses here. I cannot help myself a bit. In terms of Presidential pressure on net neutrality, we should not forget the video that President Obama put out in the middle of the NPRM that Mr. Wheeler had that I believe caused an enormous pivot in November of 2014 after the election, pushing forward toward Title II regulation because I know from meetings I had prior to that, that was not necessarily the first course of action that the FCC was headed towards. So I don't know that he ever made Saturday Night Live, but certainly there was presidential push to go toward the 2015 Title II.

Look, the internet has been the single most important driver of economic growth, job creation, and better quality of life for Americans and people worldwide. It has brought us together. It has been amazing in terms of the innovation it has brought in every sector of our lives.

And all of that blossomed under a regime of light touch regulation, not Title II—not your grandparents' phone there, or whoever's it is. It was light touch, and entrepreneurs and innovators in Silicon Valley and everywhere else didn't have to come to the Government and get permission to do what they did that gave us what we had.

It was only under the Wheeler regime that we got this heavy Government approach and ask-the-Government-first idea under Title II.

I am delighted that my friend Joe Franell could be here from Eastern Oregon Telecom. He made the long trip from Hermiston, Oregon, and he has a very important voice in this debate about Title II and about how we close the digital divide in rural America. Now, I know my colleagues on the other side of the aisle like to throw big rocks at anybody that is big corporation. Well, you are talking to the small operator here.

Now, in eastern Oregon we might consider him to be a big operator. But these are the kind of people the ISPs that are putting things together to close the digital divide in difficult to serve areas.

And so thanks for being here and I want to welcome the other witnesses and especially former Chairman Powell will be here as well. You actually created bipartisan consensus on this back in 2004 and I think the principles you put forth then should guide us today. And so I will look forward to your testimony as well.

And I think we should be able to agree on this committee on bipartisan solutions we could put in statute to stop bad behavior by ISPs.

As Mr. Latta outlined, Title II is the outlier in our debate. It throws away 20 years of bipartisan consensus that built the modern internet and it replaces it with an authority that dates back to the early 1900s used to govern monopoly telephone companies. It may sound innocuous—Title II—but it gives enormous power

It may sound innocuous—Title II—but it gives enormous power to the Federal Government and unlimited authority to micromanage every single aspect of a provider's business including rates. There is nothing neutral about that kind of authority.

For 15 years, every attempt at legislative compromise from both sides of the aisle has addressed rules on blocking, throttling, and discriminatory behavior like paid prioritization without Title II authority.

But efforts to reach agreement have, unfortunately, failed. I acknowledge there might have been times when our side should have accepted some offers, but the same could be true and said for the other side.

That is why I have introduced the offer I made in 2015, which codifies the FCC's protection so they are not subject to changing administrations and Commissions. The bill prohibits blocking. It prohibits throttling and paid prioritization and requires that ISPs be transparent in their network management practices and prices.

This is the offer, by the way, that has been on the table that preceded Mr. Wheeler's 2015 proposal. If my colleagues don't agree to this—that that is the right starting point—then my friend Mr. Latta has introduced legislation drawn directly from former Chairman Waxman's proposal from 2010 that he also filed to the FCC as then-Chairman Genachowski was drawing up the 2010 offer.

Of course, as a former State legislator, I realized that some of the best ideas actually come from our States, and in this case, my neighbor to the north, Washington State. My colleague, Mrs. Rodgers, has a bill that would give you the Washington State net neutrality rules from 2018.

So it is important to point out that Washington State has a bicameral legislature in which Democrats control both houses as well as the governorship.

As a permanent legislative solution, we should make that our goal to produce in good faith what our colleagues have talked about all along. So I am once again asking my friends across the aisle to work with us on a bipartisan solution.

And let me close with this. I want to read from a letter that is from 2010 and it says, and I quote, "Classifying broadband internet access as telecommunications services that are subject to the provision of Title II of the Communications Act may have far-reaching implications. ... To reclassify these services is to create uncertainty—something that is sure to adversely affect investment decision and job creation, both of which are in short supply right now. This is a job for Congress."

Chairman Pallone, I couldn't agree more with you. This was your letter from 2010, and I look forward to reaching across the aisle to find a solution here that will give certainty to the market and pro-

tection to consumers.

And with that, I yield back the balance of my time. [The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

Congratulations, Chairman Doyle, on assuming the gavel of this subcommittee. For my new friends on the subcommittee, welcome. As a former chair of this subcommittee, I continue to deeply care about the issues under its jurisdiction, including the topic of today's hearing.

ing the topic of today's hearing.

The fact is, since its creation the internet has been the single most important driver of economic growth, job creation, and a better quality of life for all Americans. And I'd like to point out that the internet is working today, quite well in fact, de-

spite hyperbolic warnings to the contrary.

How we address the future of the internet will impact generations of Americans

to come and deserves an open and honest public debate.

I am delighted that my good friend Joe Franell from Eastern Oregon Telecom could make the long trek from Hermiston, Oregon to attend this hearing. For me, this debate is very much about the impact on providers like him who are trying to close the digital divide. Heavy-handed, one-size-fits-all regulations hurt small internet service providers like Eastern Oregon Telecom the most, and this in turn hurts their ability to expand broadband to underserved communities in rural America.

their ability to expand broadband to underserved communities in rural America. I'm also pleased Michael Powell, the former Chairman of the FCC, is here as he created a bipartisan consensus back in 2004. I also welcome the rest of the panel, and hope you agree the Powell freedoms outlined 15 years ago are still the best

guideposts for consumers.

Republicans and Democrats actually agree on these key parameters of a free and open internet. We can agree on a permanent solution to address blocking, as well as throttling, and yes even that untested practice known as paid prioritization.

As Mr. Latta outlined, Title II is the outlier here. It throws away 20 years of a bipartisan consensus that built the modern internet and replaces it with authority from the early 1900s used to govern a monopoly provider. Title II sounds innocuous, but it gives big Government unlimited authority to micromanage every single aspect of a provider's business, that includes setting rates. There is nothing neutral about this kind of authority.

For 15 years, every attempt at legislative compromise from both sides of the aisle has addressed rules on blocking, throttling, and discriminatory behavior like paid prioritization, without Title II authority, but efforts to reach agreement have failed. I acknowledge, there were offers our side should have accepted, but in the same manner, I have been disappointed in the lack of engagement by your side on potential compromise time and time again.

That's why I have introduced the offer I made in 2015, which codifies the FCC's protections, so they aren't subject to changing administrations. The bill prohibits blocking, throttling, and paid prioritization, and requires that ISPs be transparent

in their network management practices and prices.

If my colleagues don't agree this is the right starting point, my friend Mr. Latta has introduced legislation drawn directly from Chairman Waxman's proposal from 2010 that he also filed with the FCC as then-Chairman Genachowski was drawing up the 2010 order.

Of course, as a former State legislator, I realize some of the best ideas come from States, in this case my neighbor to the north, Washington State. My colleague Ms. Rodgers has a bill that will give you the Washington State net neutrality rules from 2018. It is important to point out that Washington State has a bicameral legislature

in which Democrats control both houses, as well as a Democrat Governor who also

happens to be a former member of this committee.

A permanent, legislative solution produced in good faith with our Democratic colleagues is the only way to protect consumers, innovation, and an open internet. I am once again asking my friends across the aisle, to work with us on a bipartisan solution.

In closing, I'd like to share a quote:

"Classifying broadband internet access as telecommunications services that are subject to the provision of Title II of the Communications Act may have far reaching implications. ... To reclassify these services is to create uncertainty—something that is sure to adversely affect investment decision and job creation, both of which are in short supply right now." The letter would go on to say, "This is a job for Congress."

This was from a 2010 letter written by my friend and colleague from New Jersey,

the new chairman of the committee.

I agree with Chairman Pallone, it's past time for Congress to act to pass into law bipartisan, permanent net neutrality rules. We can do this while making sure the internet continues to flourish under a light touch regulatory regime that will help us expand broadband access and bridge the digital divide.

Mr. DOYLE. The gentleman yields back.

I will remind my friend that the past efforts of both Republican and Democratic FCC Chairmen to do it in a way that you describe was struck down by the courts, and the only rule was the Tom Wheeler rule that was also taken to court, was upheld by the courts.

Mr. WALDEN. If the gentleman would yield, since he referenced—

Mr. DOYLE. No. No. We are going to get started now. Thank you. The Chair wants to remind all Members that, pursuant to committee rules, all Members' written opening statements will be made part of the record.

I would now like to introduce our witnesses for today's hearing

and welcome them all to this committee.

First, we have Ms. Denelle Dixon, who is chief operating officer of Mozilla. Next, we have Ms. Ruth Livier, an actress, writer, and UCLA doctoral student; Mr. Joseph Franell, a general manager and CEO of Eastern Oregon Telecom; Ms. Jessica González, vice president of strategy and senior counsel at Free Press and Free Press Action Fund; former FCC Commissioner Michael Powell, who is now president and CEO of NCTA. Welcome back. Commissioner.

is now president and CEO of NCTA. Welcome back, Commissioner. And last, but certainly not least, Tom Wheeler, former Commissioner who—Tom, I know you were before this committee more than any other FCC Commissioner and you thought you would never have to come back here, but here you are, and thank you.

Tom is a fellow with the Brookings Institute.

We want to thank all our witnesses for joining us today. We look

forward to your testimony.

At this time, the Chair will now recognize each witness for 5 minutes to provide their opening statement. Before we begin, in front of our—I want to just talk a little bit about the lighting systems, for those of you that are new to testifying here.

In front of you, you will see a series of lights. The light will initially be green at the start of your opening statement. It is going to turn yellow when you have 1 minute remaining. So please be prepared to wrap up your testimony at that point, and when the light turns red, your time has expired.

So with that, Ms. Dixon, you are now recognized for 5 minutes.

STATEMENTS OF DENELLE DIXON, CHIEF OPERATING OFFICER, MOZILLA CORP.; RUTH LIVIER, ACTRESS, WRITER, AND UCLA DOCTORAL STUDENT; JOSEPH FRANELL, CHIEF EXECUTIVE OFFICER, EASTERN OREGON TELECOM; JESSICA J. GONZÁLEZ, VICE PRESIDENT OF STRATEGY AND SENIOR COUNSEL, FREE PRESS AND FREE PRESS ACTION FUND; MICHAEL K. POWELL, PRESIDENT AND CHIEF EXECUTIVE OFFICER, NCTA-THE INTERNET & TELEVISION ASSOCIATION; TOM WHEELER, VISITING FELLOW, BROOKINGS INSTITUTION, SENIOR RESEARCH FELLOW, HARVARD KENNEDY SCHOOL

STATEMENT OF DENELLE DIXON

Ms. DIXON. Chairman Doyle, Ranking Member Latta, and members of the subcommittee, thanks to net neutrality, with the touch of a button an owner of a small business in Pittsburgh, Pennsylvania, or in Perrysburg, Ohio, can get on the open web and instantly reach billions of customers around the world.

She doesn't need to negotiate with multiple ISPs to make sure none of those customers are blocked from shopping on her site. She doesn't need to hire an army of lawyers to make sure that she isn't put in Comcast's or Verizon's slow lane. She only needs to make sure that she is creating the best product for her customers.

That is the genius of net neutrality—an open internet without ISP gatekeepers where the best ideas and businesses can be seen instantly, and that is what we are here to talk about today.

My name is Denelle Dixon. I am the chief operating officer of the Mozilla Corporation. We are the makers of the open source Firefox browser and other web-based products and services.

As defenders of the open internet, Mozilla has a long history of support for net neutrality and we remain as committed as ever to the strong net neutrality protection and clear FCC authority.

Given the importance of this issue to internet users all around the world, I want to thank you for the opportunity to testify. I would like to make three points today.

First, net neutrality is essential for businesses online and particularly small businesses. We need an internet where small businesses can flourish by delivering what users want, finding the gaps in opportunities in the market that aren't being served, and delivering those.

I am certain that Mozilla would not be here today without net neutrality, and if you look around the tech industry, this same origin story is repeated over and over.

Losing net neutrality does not—does more than just lock in the positions of dominant players. It also stifles the market of ideas, puts innovation behind a barrier of permission and negotiation, and places roadblocks in front of diverse viewpoints and approaches

Second, while the FCC has worked to repeal protections over the last 2 years, the case for net neutrality has grown even stronger. The FCC claimed that repealing net neutrality wouldn't pose any problems and would instead unlock investment and competition in the telecom industry.

But here is what we have actually seen over the last 2 years. We have seen Verizon slow connections of California firefighters as they battled the blaze and research from Northeastern University and the University of Massachusetts reports providers are slowing internet traffic to and from popular video streaming services like YouTube and Netflix.

Did the repeal unlock massive ISP investment as promised? No. The data says that major ISP infrastructure investment has in fact declined. This shouldn't be surprising because, remember, after the 2015 rules were adapted major ISP executives in quarterly earnings calls told their shareholders that the FCC's actions would not impact their investments.

Similarly, many opponents of net neutrality claim that competition among internet service providers would be enough to protect users and small businesses. But competition among ISPs remains an illusion today. Roughly, half of this country has at most one option for high-speed access.

And third, we must restore strong net neutrality protections and clear FCC authority today. There is no time to waste. We need to protect net neutrality and the clearest path forward today is to restore the protections of the 2015 order through litigation.

That is why Mozilla led the effort to file suit against the FCC in the DC Circuit Court and we were joined by a broad coalition of public interest organizations, public sector agencies, and technology companies.

We understand the value of legislative solutions to provide lasting protections. But any effort must offer at the very least the protections that are as strong as the 2015 order with adequate and flexible authority for the FCC to enforce it. Anything less does a disservice to consumers.

In conclusion, as a business leader I would note how unfortunate it is to see this issue take on such a partisan view in DC Polling shows that the broad majority of Americans, both Republicans and Democrats, support net neutrality.

Promoting a level playing field of competition and innovation is not a Democratic or a Republican value. It is an American value.

Thank you for the opportunity to testify.

[The prepared statement of Ms. Dixon follows:]



Statement of Denelle Dixon, Chief Operating Officer Mozilla Corporation

House Committee on Energy and Commerce
Subcommittee on Communications and Technology
"Preserving an Open Internet for Consumers, Small Businesses, and Free Speech"
February 7, 2019

Chairman Doyle, Ranking Member Latta, and Members of the Subcommittee,

Thank you for the opportunity to testify on behalf of the Mozilla Corporation. We appreciate the interest of the Subcommittee in preserving the free and open internet, and applaud the Subcommittee for holding this hearing today.

Today we are here to talk about the fundamental rules of the road governing how internet users and businesses engage online, and the role of the Federal Communications Commission (FCC) as the independent agency designated by Congress with primary authority over American communications systems. In short - we are here to talk about net neutrality. For many years, tech companies of all sizes have recognized net neutrality as a centerpiece of the internet as we know it; the American public, on a nonpartisan basis, has come to recognize it as well.

I speak to this issue from substantial personal and institutional experience. In 2009, Mozilla Chairwoman Mitchell Baker and then-CEO John Lilly penned an op-ed in the Wall Street Journal in support of the FCC's proposal to adopt net neutrality rules. Since then we have engaged throughout the FCC's extensive process leading up to the 2015 net neutrality order, during which period I served as Mozilla's general counsel and chief legal and policy officer. And we are the lead plaintiff in challenging the repeal order adopted by the FCC.

We are at a pivotal moment in the evolution of the internet. We need net neutrality protections today more than ever before. The "honeymoon" is over: We now can see the privacy, security, openness, and trust problems that surround us online. And net neutrality is the foundation upon which we can start to build a better internet future, creating room for new businesses and new ideas to emerge and flourish, and ensuring internet users can choose freely those companies, products, and services that put their interests first.

From this vantage point in 2019, failing to protect net neutrality will have serious consequences. If we don't restore net neutrality protections, the skewed playing field we see on the internet today will only grow more uneven. Without net neutrality protections, it will be even harder for

¹ Mitchell Baker and John Lilly, "Net Neutrality: Spur to Entrepreneurship," Wall Street Journal (Oct. 29, 2009), at https://www.wsj.com/articles/SB10001424052748703573604574490441027049518.

new businesses and new ideas to break into the market. And, if we don't restore net neutrality protections, internet users will suffer the most, because they'll be captive to the caprice of large companies, from both telecom and tech.

Net Neutrality Matters to Mozilla

Net neutrality matters to Mozilla because, as a mission-driven company, our primary objective is to build a better, healthier internet - an internet that puts users first. We build software and take public policy positions in order to serve our mission and to protect user privacy and agency.

We supported the FCC's 2015 net neutrality rules, and believe restoring them is the clearest path forward to provide clear protections for users and clear guidance for businesses. That's why we sued the FCC last year to challenge the agency's repeal order, in *Mozilla v. FCC*, which was argued before the D.C. Circuit last week. We are always happy to engage with Congress as well, both in its oversight of the FCC and in its legislative capacity, to the extent that you consider any legislation that would codify clear FCC authority and strong protections for internet users and businesses. And we are glad to speak to you today from this perspective.

One of the core principles of Mozilla's mission is the precept that "[i]ndividuals must have the ability to shape the internet and their own experiences on it." That is the heart of net neutrality. We need all internet users, especially those with diverse and minority views, to make their internet experience into what they want - not be marginalized, commodified, and served a pre-baked content package for consumption.

Net Neutrality Matters to the Internet

Openness is the secret to the internet's success. The incredible investment, growth, and social and economic value we have seen over the past (very!) few decades was only possible through a climate of permissionless innovation and aggressive competition, without walled gardens or gatekeepers.

We need an internet where small businesses can flourish by delivering what users want, finding the gaps and opportunities not being served by the market today - we need businesses like Mozilla. I am certain that we would not be here today without net neutrality. We saw an opportunity at a time when Microsoft's Windows and Internet Explorer were dominating the internet experience and leaving Web users dissatisfied - but more importantly without choice. Without net neutrality, we might never have been able to take advantage of that opportunity. We would have been competing with built-in prioritization for the incumbent technology, and possibly even blocked outright. If you look around the tech industry, you can see this same story, time and time again.

Don't get me wrong - there are many problems with the internet today. Privacy and data security are critical threats to trust online, and we are working every day to lead by example and champion public policy to promote better practices. Centralization and concentrated corporate control threaten user choice, small business competitiveness, and independent innovation and tinkering. And we see online abuse and misinformation polluting the marketplace of ideas.

But if we don't restore net neutrality protections, we will undermine the foundation on which we strive to build solutions to these problems, and lose the core of how the internet was built.

Net Neutrality Matters Even More Today

You will hear today that competition among internet service providers (ISPs) is sufficient, that if users can choose their ISPs, that will keep ISPs from misbehaving. These are baseless arguments. First, some of the concerning practices in a world without net neutrality are subtle, making them harder to detect and use as leverage for market forces - for example, throttling and prioritization might be hard to detect in individual instances, but in aggregate have tremendous market impact. And second, and maybe more importantly, competition among ISPs is, today, an illusion - roughly half of the country has at most one option for true high speed access.²

The FCC claims that the repeal of net neutrality will somehow increase internet access, citing to flawed studies that claimed that 2015 rules spurred a decline in infrastructure investment by ISPs. This argument conflicts with public statements of ISP executives,³ as well as rising investment figures released by ISPs themselves when the 2015 rules were in effect.⁴ In fact, recent data released by major ISPs shows that infrastructure investment has declined since the repeal.

In the real world of internet access today, where users do not have meaningful choices, net neutrality can ultimately encourage greater long-term investment across the network stack, from the infrastructure layer (forcing ISPs to invest in reaching new customers and offering faster service) to the application layer (forcing competition by delivering more value and trust to the end user, not buying fast lanes over the same potholed roads).

 $^{^2}$ See, e.g., Jon Brodkin, "50 million US homes have only one 25Mbps Internet provider or none at all," Ars Technica (June 30, 2017), at

 $[\]underline{https://arstechnica.com/information-technology/2017/06/50-million-us-homes-have-only-one-25mbps-internet-provider-or-none-at-all/.}$

³ See, e.g., Devin Coldewey, "These are the arguments against net neutrality and why they're wrong," TechCrunch (May 19, 2017), at

https://techcrunch.com/2017/05/19/these-are-the-arguments-against-net-neutrality-and-why-theyre-wrong [("Executives of telecoms are on the record saying that net neutrality and Title II won't be affecting their investments much if at all.").

⁴ See, e.g., Klint Finley, "The FCC says net neutrality cripples investment. That's not true", *Wired* (Dec. 8, 2017), at https://www.wired.com/story/the-fcc-says-net-neutrality-cripples-investment-thats-not-true/.

This is a critical moment for the future of the internet. And that's why we need to preserve and protect net neutrality.

The Role of the Courts, Congress and Potential Legislation

The clearest pathway today to protect net neutrality today is to restore the protections of the 2015 order through litigation. We are optimistic about our court case. We strongly support the 2015 FCC order that was upheld the last time net neutrality was before the D.C. Circuit Court of Appeals, and we believe restoring that order and the FCC's authority is the clearest path forward to provide clear protections for users and clear guidance for businesses, both ISPs and tech companies.

Long term, we understand the value of a legislative solution to provide lasting protections. We published a policy framework in November of 2017 offering our thoughts on what would be needed to protect net neutrality effectively,⁵ building on the views we laid out three years earlier in November 2014 prior to the 2015 order.⁶ We welcome efforts from both Republicans and Democrats to codify strong net neutrality into law. But any efforts must offer strong net neutrality protections and adequate, flexible authority for the FCC to enforce it.

Bipartisan agreement on net neutrality is rare inside Washington, but outside the Beltway, public surveys consistently show broad bipartisan support. In our own polling, 76% of all respondents supported net neutrality. Few - if any - other issues debated in this hearing room have that level of public endorsement. This shouldn't be a partisan issue - but unfortunately this is where we are today.

Consequences of Failure

We are at a pivotal moment in the development of the internet. The internet today is viewed by many as broken. It seems like every day the news presents us with a new story of some abuse of our trust online by a major tech company. Yet these very same big companies are the best positioned to buy fast lanes in a future non-neutral internet. The entrepreneurs, small businesses, and independent voices will be the ones left behind.

⁵ Heather West, "What does it take to get net neutrality?" Mozilla Open Policy & Advocacy (Nov. 29, 2017), at https://blog.mozilla.org/netpolicy/2017/11/29/take-get-net-neutrality/.

⁶ Denelle Dixon, "What we need to do to save the internet as we know it," Mozilla Open Policy & Advocacy (Nov. 10, 2014), at

https://blog.mozilla.org/netpolicy/2014/11/10/what-we-need-to-do-to-save-the-internet-as-we-know-it/.

⁷ Heather West, "Mozilla poll shows Americans agree: Protect the internet, net neutrality," Mozilla Open Policy & Advocacy (June 6, 2017), at

https://blog.mozilla.org/netpolicy/2017/06/06/mozilla-poll-shows-americans-agree-protect-internet-neu-trality/.

If we don't restore net neutrality, it will be even harder for new businesses and new ideas to break into the market. Without these protections, ISPs can channel traffic to preferred applications and limit access to non-favored content and services. This does more than lock in the position of dominant players. It also stifles the market of ideas, puts innovation behind a barrier of permission and negotiation, and places roadblocks in front of diverse viewpoints and approaches.

If we don't restore net neutrality, internet users will suffer the most. The options for internet content, applications, and services they are dissatisfied with today, and increasingly distrust, will be even more baked into their internet experience. Internet users will face less investment in, and less competition over, the quality of their increasingly ossified access service.

At Mozilla, we believe that net neutrality protections are fundamental user rights. These safeguards are essential to facilitate communication, spread new ideas, and foster innovation. We look forward to further discussions with Congress, and we thank the Subcommittee for holding a hearing on this important issue.

^a Ferras Vinh, "Rules of the Road: Net Neutrality's Bright Line Protections," Center for Democracy & Technology (May 11, 2017), *at* https://cdt.org/blog/rules-of-the-road-net-neutralitys-bright-line-protections/.

Mr. DOYLE. Thank you, Ms. Dixon.

We now recognize Ms. Livier. You are recognized for 5 minutes.

STATEMENT OF RUTH LIVIER

Ms. LIVIER. In 2014, I testified before the Senate Judiciary Committee on how net neutrality changed my life as a Hollywood entertainment professional. I shared that the open internet put worldwide distribution of media content at the fingertips of independent artists like me.

This gave us the unprecedented opportunity to tell our stories from our points of view and share them globally without the financial and corporate gatekeeping roadblocks of traditional media. It

empowered us to define ourselves.

This matters, because the media produced by Hollywood historically tell an incomplete and unbalanced narrative about U.S. society. Latinx communities are largely misrepresented, symbolically annihilated and/or positioned as peripheral characters in someone else's story.

With net neutrality rules in place to ensure that internet access service would remain open, with low barriers to entry, artists could actively participate in balancing Hollywood's irresponsible exclusions.

Net neutrality is the reason I went from approaching a traditional media executive for advice on a script I has written and being told by them, "Who are you for anyone to produce your show?" 2 years later, becoming the first person to join the Writers Guild of America West via my work in digital media for a web series that I produced based on that very same script.

The difference between these two scenarios is—was that camera equipment was no longer cost prohibitive and the exciting new frontier of the open internet allowed the rest of us, regardless of ethnicity or socioeconomic standing, to finally tell our stories with-

out getting discouraged, derailed, or turned away.

Net neutrality is about ensuring that traditional media's exclusionary practices are not transferred and amplified by broadband providers. It is about who has the power to control narratives and

does shape perceptions and perspectives.

This has significant impacts on society. From marginalized communities, our presentation or lack thereof is-can be a matter of life or death. When we are dehumanized in the media it makes it easier for immoral individuals and groups to justify their targeted aggressions against us.

A neutral internet empowers us to virtually walk arm and arm with the confidence of knowing that our voices matter and we are not alone, that we are not invisible, and that our experiences are

not isolated.

In the summer of 2018, for example, a group of Latinx entertainment media colleagues and I formed a group to rally against the cruelty of family separations. Because of net neutrality, we were able to learn about the crisis from a variety of online sources.

Brave journalists, activists, and whistleblowers exposed the injustices that were and continue to be perpetrated on brown men, women, and children at our southern border and beyond.

The open internet allowed us to organize and to join forces to push back against this administration's inhumanity. As a Latina who has grown up in a low-income family where English is our second language I have firsthand experiences of how much you have to juggle just to stay afloat and how mentally, physically, and emotionally exhausting it can be to navigate daily and persistent forms of oppression.

The system is so relentlessly stacked against you that it just seems easier to give up, tune out, and put your head down and believe the myth that there is nothing that we can do—that that is

just the way things are.

But social inequities are social constructs. They have been structured to serve particular purposes, helping some and harming many other human beings in very real and very personal ways.

Net neutrality is a ray of light that can put us on the path to bridging some of these inequities by affording us the option to make ourselves visible and to make our voices heard in the digital spaces.

This policy is also about protecting our ability to have access to job opportunities, since more and more jobs are being partially or fully migrated onto the digital space. This is true for me as an actress.

Some of my jobs now take place in the digital arena. As a UCLA doctoral student, this is within the area of my research. Taking a cue from my academic advisor, Dr. Sarah T. Roberts, and her great groundbreaking work in digital labor, my research sheds light on the relationship between the exclusionary structures of traditional media and the exploitation of human beings who are doing creative work in digital environments.

My ability to do this research would be significantly hindered without net neutrality, without access to diverse viewpoints and within such a mediated and corporate-facing environment.

A few powerful internet service providers should not be entitled to mediate our voices, to frame discourses in order to serve their interest nor to decide who or what is worthy of being visible—and/or invisible in our society or under what conditions.

Net neutrality impacts human beings in very real ways every single day. It impacts our ability to participate in society, to make a living, to connect with our loved ones, to earn an education, and to collaborate in pushing back against social inequities.

Market discourse has served the market and are designed to keep conversations within certain parameters. I am here to participate in highlighting the human impacts of net neutrality because things look different from a human perspective.

Thank you.

[The prepared statement of Ms. Livier follows:]

Testimony of Ruth Livier before the Subcommittee on Communications and Technology of the Committee on Energy and Commerce, U.S. House of Representatives. At a Hearing Entitled: "Preserving an Open Internet for Consumers, Small Businesses, and Free Speech." February 7, 2019.

In 2014, I testified before the Senate Judiciary Committee on how net neutrality changed my life as a Hollywood entertainment professional. I shared that the open internet put worldwide distribution of media content at the fingertips of independent artists, like me. This gave us the unprecedented opportunity to tell our own stories, from our points of view, and to share them globally, without the financial and corporate gatekeeping roadblocks of traditional media. It empowered us to define ourselves. This matters because the media traditionally produced by Hollywood, tend to tell an incomplete and unbalanced narrative about U.S. society. Latinx communities are largely misrepresented, symbolically annihilated, and/or positioned as peripheral characters in someone else's story. With net neutrality rules in place to ensure that internet access service would remain open, with low-barriers to entry, artists could actively participate in balancing Hollywood's irresponsible exclusions.

Net neutrality is the reason I went from approaching a traditional media executive for advice and being told, "Who are you for anyone to produce your show?" to, years later, becoming the first person to join the Writers Guild of America West via my work in digital media for a web series I produced based on that very same script. That executive, in the early 2000s, had not read my work. Their objections seemed to be based on the concept of a Latina-driven show written by someone with no track record. Who was I to think that anyone would take me seriously? How was I supposed to prove there was a market for my content? There was

¹ Michelle Caswell, "Seeing Yourself in History: Community Archives and the Fight Against Symbolic Annihilation," *The Public Historian* 36, no. 4 (November 2014): 26–37, https://doi.org/10.1525/tph.2014.36.4.26.

no way in. Not until years later: when camera equipment was no longer cost-prohibitive and the exciting new frontier of the open internet allowed the rest of us, regardless of ethnicity or socio-economic standing, to finally tell our stories without getting discouraged, derailed, or turned away.

Net neutrality is about ensuring that traditional media's exclusionary practices are not transferred and amplified by broadband providers. It is about who has the power to control narratives and thus shape perceptions and perspectives. This has significant impacts on society. For marginalized communities, our representation—or lack thereof—can be a matter of life or death. When we are dehumanized in the media, it makes it easier for immoral individuals and groups to justify their targeted aggressions against us. A neutral internet empowers us to virtually walk arm-in-arm—with the confidence of knowing that our voices matter and we are not alone, that we are not invisible, and that our experiences are not isolated.

In the summer of 2018, for example, a group of Latinx entertainment media colleagues and I formed a group to rally against the cruelty of family separations. Because of net neutrality we were able to learn about the crisis from a variety of online sources and viewpoints. Brave journalists, activists, and whistleblowers exposed the injustices that were and continue to be perpetuated on brown men, women, and children at our southern border. The open internet allowed us to organize and to join forces to pushback against this administration's inhumanity. Some of our actions included creating media and fundraising to help victimized families.

As a Latina who has grown up in a low-income family where English is our second language, I have first-hand experiences of how much you have to juggle just to stay afloat and how mentally, physically, and emotionally exhausting it can be to navigate daily and persistent forms of oppression. The system is so relentlessly stacked against you that it seems so much

easier to give up, tune out, put your head down believe the myth "that's just how things are, and there is nothing we can do." Social inequities, however, are social constructs. They have been structured to serve particular purposes, helping some and harming many other human beings in very real and personal ways. Net neutrality is a ray of light that can put us on a path to bridging some of these inequities by affording us the option to make ourselves visible and our voices heard in the digital arena.

This policy is also about protecting our ability to have access to job opportunities, since more and more jobs are being-partially or fully-migrated onto the digital space. This is true for me, as an actress. Some of my jobs now take place in this digital arena. As a UCLA doctoral student in the department of Information Studies, this is within the area of my research. Taking a cue from my academic advisor, Dr. Sarah T. Roberts, whose groundbreaking work in digital labor and Commercial Content Moderation has brought these laborers and their working conditions out of the shadows, my research sheds light on the relationship between the exclusionary structures of traditional media and the exploitation of human beings who are doing creative work in digital environments.² My ability to do this research would be significantly hindered without net neutrality; without access to diverse viewpoints and within such a mediated and corporate-facing environment.

These are some of the immediate ways in which net neutrality empowers me as an entertainment professional, as a first-time activist, and as a student researcher. A few powerful internet service providers should not be entitled to mediate our voices, to frame discourses in order to serve their interests, nor to decide who or what is "worthy" of being visible or invisible in our society, and under what conditions. Net neutrality impacts human beings in very real

² Sarah T. Roberts, "Content Moderation," in *Encyclopedia of Big Data*, ed. Laurie A. Schintler and Connie L. McNeely (Cham: Springer International Publishing, 2017), 1–4, https://doi.org/10.1007/978-3-319-32001-4_44-1.

ways, every single day. It impacts our ability to participate in society, to make a living, to connect with our loved-ones, to earn an education, and to collaborate in pushing back against social inequities. Market discourses serve the market and are designed to keep our conversations within certain parameters. I am here to participate in highlighting the human impacts of net neutrality because things look different from a human perspective.

Mr. Doyle. Thank you very much.

We now recognize Mr. Franell. You are recognized for 5 minutes.

STATEMENT OF JOSEPH FRANELL

Mr. Franell. Good morning, Chairmen Pallone and Doyle, Vice Chair Matsui, and Republican leaders Walden and Latta, and members of the subcommittee. Thank you for the opportunity to

appear before you today.

It is an honor to be here and talk about net neutrality and the consequences of applying Title II to the internet. The application of Title II as part of net neutrality had a dramatic chilling effect on rural telecom and the Pacific Northwest, and I suspect the same could be said of the rest of the country.

The uncertainty of the regulatory environments, even on nonregulated telcos and internet service providers like Eastern Oregon Telecom made investors hesitant to invest in the telecommuni-

cations sector.

Further, the ill-informed public fervor and fear surrounding the net neutrality subject precluded any objective discussion of the topic. This resulted in distrust of and anger towards ISPs like my company that had never manipulated their networks or internet protocol traffic in any anticompetitive nature.

It also prompted Štate legislation forcing net neutrality practices on local providers who, again, had never violated the public trust

and had no interest in anticompetitive behavior.

All of this took place without the ability to have an objective discussion about the scope of the problem and how to address it without harming the internet all because of the fearmongering by those who didn't fully understand the subject or had other reasons for advancing Title II application to the internet.

Yes, I believe Title II had begun to harm the internet in the U.S. and a reapplications of it has a very real possibility of resulting in

unforeseen and irrevocable damage in the future.

I applaud your interest in having an objective conversation about the subject in this hearing today. Since the repeal of net neutrality, investors have been much more willing and perhaps eager to invest in rural telecommunications.

Additionally, my company has been able to focus on continuing to provide exceptional telecommunications and is currently expand-

ing into other markets that are underserved.

We do this with confidence because we don't have to concern ourselves with unnecessary regulatory interference and the draining

cost of reporting and compliance.

I believe that Title II does not have to be nor should it be part of the solution to the problem of bad behavior by a few internet service providers. Such application of Title II would not just be damaging but also unnecessary. When I say unnecessary, I say so because my company does not participate in the bad behavior that started the net neutrality debate in the first place.

In fact, I don't know of any rural provider in Oregon who does. Nevertheless, I do believe that further discussion on the topic of

prioritization of traffic is warranted.

As a society, we apply different values to everything, sometimes rightly and sometimes not. In fact, I think we would all agree that as most forms of information—voice, data, video, et cetera—are now being moved via internet protocol, some are, clearly, more important than others.

Here are some of my own examples. A long distance call to 911 should take priority over a regular call. If my daughter was in a car wreck and had a head injury late one night I would want the digital imaging that needed to be analyzed remotely by a radiologist or surgeon to take priority over someone else's online gaming tournament.

Students participating in distance education or online standardized testing should get priority over those streaming online movies for entertainment.

Prioritization of traffic becomes a problem only when it is done to harm or eliminate the competition and there are consumer protection laws in place that target this type of behavior. Adding additional layers of regulatory burden is not the answer.

Instead of adding to that burden, I encourage you to consider leaving the longstanding Title 1 regulation of the internet in place, abandon any initiative to reinstate Title II through legislation, and address the anticompetitive abuses that everyone fears with light touch surgical precision.

Finally, I would be remiss if I did not advocate for initiatives from this committee specifically designed to promote competition in the marketplace. Giving consumers choices for their internet service offers the greatest mechanism for rewarding the good performer and punishing the bad performer. If enough customers choose to leave, the bad performer will either adjust their behavior or go out of business.

Only robust competition in the marketplace ensures innovation, lowers prices, and ensures excellent customer service. A complacent monopoly has no incentive to change. Robust competition is the answer.

I would be happy to answer any questions you may have. Thank you.

[The prepared statement of Mr. Franell follows:]

United States House Committee on Energy and Commerce Subcommittee on Communications and Technology

> Testimony of Joseph Franell Chief Executive Officer Eastern Oregon Telecom, LLC

> > February 7, 2019

Good morning Chairmen Pallone and Doyle, Vice Chair Matsui, and Republican Leaders Walden and Latta, and Members of the subcommittee:

Thank you for the opportunity to appear before you today. It is an honor to be here and speak about Net Neutrality and the consequences of applying Title II to the Internet.

Witness background:

I am the Chief Executive Officer of Eastern Oregon Telecom (EOT), a rural competitive telephone company and Internet service provider serving residents and businesses in Umatilla and Morrow counties, primarily in Northeast Oregon. EOT is currently providing residential and commercial gigabit services in four of the communities in its service area.

In 2009, I was appointed by the governor of Oregon to the Oregon Broadband Advisory Council (OBAC) representing rural broadband interests in Oregon. I have been serving as the chairman of the council since 2010. The OBAC's mandate is to advise the legislature and governor's office on matters pertaining to broadband in the state, and to specifically promote the adoption and utilization of broadband for economic development, e-government, tele-health/tele-medicine, education, public safety, and tribal lands.

I also served in various roles as an officer in the United States Army, where I held an SCI – Top Secret security clearance.

The Telecommunications Act of 1996:

The following quote is directly from the FCC's website: "The Telecommunications Act of 1996 was the first major overhaul of telecommunications law in almost 62 years. The goal of this new law was to let anyone enter any communications business -- to let any communications business compete in any market against any other. The Telecommunications Act of 1996 has the potential to change the way we work, live and learn. It will affect telephone service -- local and long distance, cable programming and other video services, broadcast services and services provided to schools."

Internet service was deemed an "Information Service", and so not subject to Title II regulation like voice services. Since that occurred, we have seen the Internet grow into a remarkably impactful tool for good. Nothing else has the same potential for transformative good, whether through distance education, enhanced public safety, access to healthcare, and even enhanced access to government at all levels — all of this regardless of socio-economic status, age, or race. I would argue that it was that freedom from regulation that allowed the Internet to begin to realize its potential.

Title II:

The FCC's 2014 Notice of Proposed Rule Making (NPRM) said that they wanted to "...classify a telecommunications component service of wired broadband Internet access service as a 'telecommunications service'. The Commission also asked whether it should similarly alter its approach to wireless broadband Internet access service, noting that section requires that wireless services that meet the definition of 'commercial mobile service' be regulated as common carriers under Title II."

What would that accomplish? What does Title II say and do? Section 201 says: "All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is hereby declared to be unlawful."

Who determines whether a practice is just and reasonable, and on what grounds? In general, public utilities are subject to centralized ratemaking procedures in which the government dictates the prices that can be charged to consumers based on mathematical formulas that factor in costs of service, operating expenses, taxes, depreciation, investment in capital and interest rates. Rather than allow market competition to set prices, a centralized authority presumes to determine what is "fair".

The U.S. Energy Information Administration lists <u>more than 47,000</u> individual rates for electricity alone, illustrating the immensity and impracticality of this regulatory task. One can only imagine the chaos of trying to apply this process to something as decentralized and quickly evolving as the internet.

Section 205 states: "Whenever, after full opportunity for hearing, upon a complaint or under an order for investigation and hearing made by the Commission on its own initiative, the Commission shall be of opinion that any charge, classification, regulation, or practice of any carrier or carriers is or will be in violation of any of the provisions of this Act, the Commission is authorized and empowered to determine and prescribe what will be the just and reasonable charge or the maximum or minimum, or maximum and minimum, charge or charges to be thereafter observed..."

A plain English translation of this somewhat obscure passage basically states that the FCC can impose any fine it likes on companies that violate its rules, so long as they are "just and reasonable", which is again undefined and left to the discretion of the Commission. And, even though you do not think that the FCC will regulate Internet prices, Title II allows the possibility of someday the FCC being able to do just that — and that is what goes through the mind of an investor if they have to choose between putting their dollars into entities like mine versus an edge provider.

Section 208 states: "No complaint shall at any time be dismissed because of the absence of direct damage to the complainant." This section permits anyone to complain about the activities of a carrier to the Commission without any need of having actually been harmed.

None of the above would keep the Internet free, nor would they address the reason Title II was applied to the Internet in the first place. I am confident that you all remember the public outrage when it was discovered that some providers had incentives to give preference to their own content delivery over the delivery of content that they did not own. It was this that sparked the discussion that ultimately led to application of Title II to the Internet.

Repeal of Net Neutrality - the Impact:

The application of Title II as part of Net Neutrality had a dramatic chilling effect on rural telecom in the Pacific Northwest and I suspect the same could be said about the rest of the country. The uncertainty of the regulatory environment, even on non-regulated telcos and internet service providers like EOT, made investors hesitant to invest in the telecommunications sector. Further, the ill-informed public furor and fear surrounding the Net Neutrality subject precluded any objective discussion of the topic. This resulted in distrust of and anger toward ISP's, like my company, that had never manipulated their networks or internet protocol (IP) traffic in an anti-competitive nature. It also prompted state legislation forcing Net Neutrality practices on local providers who, again, had never violated the public trust and had no interest in anti-competitive behavior.

All of this took place without the ability to have an objective discussion about the scope of the problem and how to address it without harming the Internet, all because of the fear-mongering by those who didn't fully understand the subject or had other reasons for advancing Title II application to the Internet. Yes, I believe that Title II had begun to harm the Internet in the U.S. and a reapplication of it has the very real possibility of resulting in unforeseen and irrevocable damage in the future. I applaud your interest in having an objective conversation about the subject in this hearing today.

Since the repeal of Net Neutrality, investors have been much more willing and perhaps eager to invest in rural telecommunications. Additionally, my company has been able to focus on continuing to provide exceptional telecommunications and is currently expanding into other markets that are underserved. We do this with confidence because we don't have to concern ourselves with unnecessary regulatory interference and the draining cost of reporting and compliance. We also have plans in years 2019/20 to significantly expand our infrastructure, serving many more underserved communities in our region.

I believe that Title II does not have to be, nor should it be, part of the solution to the problem of bad behavior by a few internet service providers. Such application of Title II would not just be damaging but also unnecessary. When I say "unnecessary", I say so because my company does not participate in the bad behavior that started the Net Neutrality debate in the first place. In fact, I don't know of any rural providers in Oregon who do. Nevertheless, I do believe that further discussion on the topic of prioritization of traffic is warranted.

Does all Internet traffic have the same value to society?

Oddly, in the vast media coverage on Net Neutrality, I never heard a discussion about whether all Internet traffic had equal value. As I prepared for this testimony, I struggled with that question. As a service provider or even as a consumer, why would I want to have the choice to prioritize one form of traffic over another?

As a society, we apply different values to everything, sometime rightly, and sometimes not. For example, multi-passenger vehicles can use the High Occupancy Vehicle (HOV) lane while automobiles with only one occupant are not allowed to. Large trucks are most often subject to lower speed limits than smaller vehicles. Some electric utilities charge more for electricity during peak usage times. Even the airline that transports me from the West Coast to Washington, D.C. treats their passengers differently based on how much they were willing and able to pay for their ticket.

In fact, I think we would all agree that as most forms of information, voice, data, video, etc. are now being moved via internet protocol (IP), some are clearly more important than others. Here are some of my own examples:

- A long-distance call to 911 should take priority over a regular call.
- If my daughter was in a car wreck and had a head injury late one night, I would want the digital
 imaging that needed to be analyzed remotely by a radiologist or surgeon to take priority over
 someone's online gaming tournament.
- Students participating in distance education or online standardized testing should get priority
 over those streaming on-line movies for entertainment.

Prioritization of traffic becomes a problem only when it is anti-competitive in nature, when it is done to harm/eliminate the competition. And, there are consumer protection laws in place that target this type of behavior. Adding additional layers of regulatory burden is not the answer.

In conclusion, it is important for me to convey that every dollar I spend reporting to regulatory agencies is a dollar I don't have available to invest in new infrastructure to serve rural Eastern Oregon and Southeast Washington.

Instead of adding to that burden, I encourage you to consider leaving the long-standing Title I regulation of the Internet in place, abandon any initiative to reinstate Title II through legislation, and address the anticompetitive abuses that everyone fears with light touch surgical precision.

Finally, I would be remiss if I did not advocate for initiatives from this committee specifically designed to promote competition in the marketplace. Giving consumers choices for their Internet service offers the greatest mechanism for rewarding the good performer and punishing the bad performer. If enough customers choose to leave, the bad performer will either adjust their behavior or go out of business. Only robust competition in the marketplace ensures innovation, lower prices, and excellent customer service. A complacent monopoly has no incentive to change. Robust competition is the answer.

I'd be happy to answer any questions that you may have.

Mr. DOYLE. Thank you very much. Ms. González, you now have 5 minutes.

STATEMENT OF JESSICA J. GONZÁLEZ

Ms. González. Thank you, Chairman Doyle and full committee Ranking Member Walden. Calling him out on the way out—excuse me. Members of the subcommittee, thanks very much for having me.

I am here today on behalf of Free Press' 1.4 million members who are calling for reinstatement of the FCC's 2015 net neutrality rules and the return of the FCC's legal authority to protect us from ISP discrimination and abuse.

I am also here as a Mexican-American woman from a working class family. My father grew up in a Los Angeles suburb where Mexicans were not allowed to live. I understand that millions of people who came before me, including Members of this House past and present, have fought against discrimination and for other causes that enabled me to be here today.

I say this to underscore that what we are doing here really has impacts on real people's lives. The U.S. Government has a long history of discrimination and racism—indeed, used the media system to legitimize the enslavement of black people and the genocide and displacement of Native peoples.

And although it has taken some steps to reduce racism and discrimination in certain aspects of American life, like housing, it has done little to remedy structural racism in the communications sector.

The FCC's 2015 net neutrality order is one exception. That order gave the FCC clear authority to prevent and investigate shady ISP business practices like, but not limited to, blocking, throttling, and discriminating against lawful content.

The Trump FCC's 2017 decision to repeal that order was wildly unpopular. Polls show that 82 percent of Republicans, 90 percent of Democrats, and 85 percent of independents object, and people of color have been some of the most vocal critics, in part because we have more at stake.

Never before in history have barriers to entry been lower for us to reach a large audience with our own stories in our own words, to start small businesses, to organize for change.

This hits close to home for me because my best friend, Vanessa, is a blogger and small business owner. While she was pregnant and in the midst of the Great Recession, she was laid off from her job, and she began blogging from her apartment in 2010 after her daughter's birth.

It was a labor of love. Her intention was to fill the void of content designed for and by parents of multiracial children. She began writing love letters to her daughter to ensure that the beauty and power of black and brown women were front and center, even in a world that subjugates us at every turn.

Vanessa's blog, desumama.com, underscores that mothers are the storytellers, dream keepers, and legacy builders for the next generation. Today, De Su Mama has a loyal following and is building understanding across cultures.

It is also a successful business that has helped Vanessa supplement the family income and supported her journey to home ownership.

The end of net neutrality means that her voice might be drowned out by corporate media that can pay more to access her audience—some of the same corporate media that have failed spectacularly to

represent us.

This could impair her family's livelihood and the reach of her cultural influence. And Vanessa cares so deeply about this issue that she actually flew here from Long Beach, California—she is sitting behind me today—on her own dime to bear witness to this hearing.

I am not going to look back there. I will get emotional. But she really believes that this is critical to her business model and to her ability to spread the word.

So I will get on to the lawyer points. In my testimony, I go into great detail about how ISPs have abused their power when net neutrality is not in place. I will give just a few examples here.

We have seen Comcast secretly block and slow file-sharing apps. We have seen Metro-PCS announce plans to block streaming from all providers except for YouTube. AT&T said it would disable the use of FaceTime over cell connections unless their customers paid for higher cost options. AT&T, Time Warner Cable, and Verizon deliberately limited capacity ISP interconnection points, throttling Netflix, and those are just a few examples.

And since the 2017 repeal we have seen some seriously suspect ISP behavior that my colleague, Denelle, already touched on. But because the FCC has sworn off its authority to protect broadband consumers it doesn't even have the power to investigate and look into this.

And the real shame of this whole thing is that net neutrality was working. Chairman Pai's justification for the repeal was built on a mountain of lies. Pai promised us that ISP investment and deployment declined under net neutrality and would expand following its repeal.

But the numbers are in and that is just not true. I hope this new Congress seizes the opportunity to right the wrongs of the Pai FCC and restore fundamental protections to Americans.

Thank you.

[The prepared statement of Ms. González follows:]



Written Testimony of

Jessica J. González Vice President of Strategy and Senior Counsel Free Press and Free Press Action Fund

Before the

Congress of the United States
House of Representatives
Committee on Energy and Commerce
Subcommittee on Communications and Technology

Regarding

"Preserving an Open Internet for Consumers, Small Businesses, and Free Speech"

February 7, 2019

Chairman Doyle, Ranking Member Latta, and esteemed members of the subcommittee, thank you for inviting me to testify.¹

I'm here today as Vice President of Strategy and Senior Counsel for Free Press and Free Press Action, on behalf of our 1.4 million members across the United States, in all 50 states, the District of Columbia and Puerto Rico, who are calling for reinstatement of the FCC's 2015 Net Neutrality rules and legal framework. That includes the return of the FCC's authority to protect us from current and future Internet Service Provider ("ISP") discrimination and abuse, as well as the FCC's authority to promote broadband choice, affordability, and privacy.

I'm also here today as a Mexican-American woman who grew up in a working class family and became a first generation college graduate. I understand that millions of people who came before me, including members of this House past and present, have fought against discrimination, and struggled for better public school education, workers' rights, a social safety net and other causes that enabled me to be here today. My father grew up in Redondo Beach, California, where, at the time, it was illegal for his family to live based on their ethnicity.

I reflect on this in this testimony because despite all of the anger and frustration with our government in this age, what we are doing here matters in people's lives. The U.S. government has a long, sordid history when it comes to discrimination and racism, beginning but certainly not ending with Native genocide and slavery. Indeed it used the media to legitimize the enslavement of Black people, and the genocide and displacement Native peoples. And although it has taken some steps to reduce racism and discrimination

¹ I would like to thank my colleagues, Matt Wood, Dana Floberg, and S. Derek Turner for assisting me with the preparation of this testimony.

in certain aspects of American life, including but not limited to laws that prohibit housing and employment discrimination, it has done very little to remedy structural racism in the media and communications sectors, among others.

The FCC's 2015 Open Internet Order is one exception. That order reclassified broadband internet access service as a telecommunications service, which gave the FCC clear authority to prevent and investigate unreasonable discrimination by ISPs.² It prevented ISPs from blocking, throttling or discriminating against lawful content. And it empowered the FCC to investigate and stop shady ISP practices. As dozens of civil rights and racial justice groups noted in the FCC record opposing the Trump FCC's Net Neutrality repeal,

[T]he open Internet has empowered people of color with new opportunities for self-expression, entrepreneurship, political participation, education, employment, housing, healthcare, racial justice, and many other vital human needs. On the other hand, we have witnessed, too, what happens when the powerful few control who is heard in the media. For instance, the vast majority of mainstream media owners and decision makers are white men, and on those platforms we are not able to control our own narratives, we are often absent or dehumanized, we are criminalized, we are habitually painted as threats and as the "others." The open Internet is our digital oxygen in these debates, and the Commission's proposal threatens to take it away.³

In 2017, the Trump FCC nevertheless repealed Net Neutrality and abandoned the successful Title II legal framework supporting the rules.⁴ The repeal decision was wildly unpopular. According to a University of Maryland poll from April 2018, 82 percent of Republicans, 90 percent of Democrats and 85 percent of Independents object to the

² See 47 U.S.C. §§ 153(50), (51), (53), 202(a); see also Protecting and Promoting the Open Internet, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, ¶ 129 (2015) ("2015 Open Internet Order").

³ Comments of Voices for Internet Freedom Coalition, WC Docket No. WC- 17-108, at iii (filed July 19, 2017), https://www.freepress.net/sites/default/files/legacy-policy/voices for internet freedom coalition comments.pdf.

⁴ See generally Restoring Internet Freedom, WC Docket No. 17-108, Declaratory Ruling, Report and Order, and Order, FCC 17-166 (rel. Jan. 4, 2018) ("2017 Net Neutrality Repeal Order").

FCC's efforts to take away our right to choose where we go, what we do, and with whom we connect online.⁵

Millions of American activists, creators, small business owners and internet users objected, and joined Free Press Action and its allies in calling on Congress to reinstate the 2015 Open Internet Order under the Congressional Review Act.⁶ People of color were among some of the most vocal critics of the repeal, and for good reason: we have more to lose. Never before in history have barriers to entry been lower for people of color to reach a large audience with our own stories in our own words; to start small businesses; to organize for change. We are unwilling to yield our newfound access.

This hits really close to home for me as a racial justice activist, but also because my best friend, Vanessa Martínez Bell, is a blogger, small business owner, and cultural curator of multiracial motherhood. While she was pregnant, and in the midst of the Great Recession, Vanessa was laid off from her job at a non-profit in Las Vegas serving at-risk children and families. With a passion for learning and a penchant for deep research and exploration, Vanessa began blogging from her Las Vegas apartment following the birth of her daughter in 2010. Her blog was a labor of love: her intention was to fill the void of content designed for and by parents raising multiracial children.

Vanessa, a Los Angeles native, is the daughter of Cuban immigrants. She is married to the son of a Black Baptist preacher. Upon the birth of her daughter she noticed that there was a dearth of news, analysis and information geared towards Black and

⁵ University of Maryland, School for Public Policy, "Overwhelming Bipartisan Public Opposition to Repealing Net Neutrality Persists" (Apr. 18, 2018), http://www.publicconsultation.org /united-states/overwhelming-bipartisan-public-opposition-to-repealing-net-neutrality-persists/.

⁶ The Senate passed the CRA on a bipartisan basis, but the measure died in the House of Representatives upon adjournment of the 115th Congress because then-Speaker Paul Ryan refused to bring up the bill for a floor vote.

Latinx parents, and even less for mothers raising multiracial children. She began writing love letters to her daughter to guide her as she explores and stands in her identity, and to ensure that she sees the beauty and power in Black and Brown women, even in a world that tries subjugate us at every turn. Vanessa's blog, DeSuMama.com, underscores that mothers "are powerful and worthy of being celebrated! We are the story tellers, dream keepers, and legacy builders for the next generation!" As Vanessa explains:

Multiracial moms have a unique parenting experience. Being of mixed race and bicultural parents, the journey of personal identity for our children will be unlike our own In addition to raising empowered multiracial children, I feel purposed in the core mission of De Su Mama to build a community of like minded mothers who yearn to fully support the various layers of identity that make up our beautiful mixed kids.

Today it is clear that Vanessa is serving an important niche with relevant and timely analysis and information. I only wish such a resource existed when I was growing up. DeSuMama.com has a loyal following, and is shifting culture and building bridges and understanding across cultures. It is also a successful business that has helped Vanessa supplement the family income while being at home with her children. Notably, it has accomplished all of this at Vanessa's own website, not by relying solely on Facebook or other social media platforms to distribute all of her content. De Su Mama helped support her family's return to Los Angeles, and their purchase of a home. For her, the end of Net Neutrality means that she might not be able to reach the same audience with her stories; or that her voice might be drowned out by corporate media that can pay more to access audience and squash diverse voices. This would not only impair her livelihood, but also the reach of her storytelling and cultural influence. For these reasons, Vanessa is one of

⁷ De Su Mama: A Legacy Blog for Multiracial Moms, http://www.desumama.com.

many Free Press members that opposes the Trump FCC's Net Neutrality repeal, and supports reinstatement of the 2015 Open Internet Order.

The Three "Bright-Line" Rules in the 2015 Open Internet Order Alone Are Insufficient To Prevent ISP Discrimination and Protect People on the Internet

To properly protect internet users, we must reinstate the three "bright-line" rules in the 2015 Open Internet Order, and also the FCC's authority to investigate and protect people from other forms of ISP discrimination and abuse. In punting away its own authority under Title II of the Communications Act, the FCC either abandoned entirely or vastly weakened its ability to:

- Promote broadband affordability and deployment;⁸
- Modernize and promote the Lifeline program;⁹
- Protect users from privacy invasions by ISPs; 10
- Protect users from unjust and unreasonable discriminatory practices generally, including investigating whether any new practices might be unjust or discriminatory;¹¹
- Examine data cap and zero-rating schemes to determine if they're unreasonably discriminatory;¹²
- Ensure ISP disclosure of hidden fees or data caps; 13
- Investigate or take enforcement action against improper billing of broadband customers;¹⁴

⁸ See, e.g., Matt Wood & Gaurav Laroia, "All the Details on Pai's Internet-Breaking Plan," Free Press (Nov. 22, 2017), https://www.freepress.net/our-response/expert-analysis/insights-opinions/all-details-pais-internet-breaking-plan; Jon Brodkin, "If the FCC gets its way, we'll lose a lot more than net neutrality," Ars Technica (Jnly 12 2017), https://arstechnica.com/tech-policy/2017/07 /how-title-ii-goes-beyond-net-neutrality-to-protect-internet-users-from-isps/ (hercinafter "Brodkin").

⁹ 2017 Net Neutrality Repeal Order, Dissenting Statement of FCC Commissioner Mignon L. Clyburn.

¹⁰ See, e.g., Gigi Sohn, "The FCC's plan to kill net neutrality will also kill internet privacy," The Verge, (Apr. 11, 2017), https://www.theverge.com/2017/4/11/15258230/net-neutrality-privacy-ajit-pai-fec.
¹¹ Brodkin.

¹² *Id*.

¹³ Id.

¹⁴ Id.

- Promote interconnection and prevent unreasonable access fees that could be charged to third parties and that are not otherwise contemplated or banned by the three bright-line rules;¹⁵
- Promote public safety; 16 and
- Ensure reasonable access for disabled people. 17

There will be far more to say about this list if and when the subcommittee moves forward with legislation, about all of the rights that internet users lost when the Pai FCC repealed the 2015 order. For now, it suffices to say that while restoring the three bright-line rules against ISP blocking, throttling, and paid prioritization is essential, that alone would not be enough to safeguard Net Neutrality itself, let alone to restore all of these other rights lost when the FCC abdicated its statutory mandate.

¹⁵ Id.

¹⁶ Brian Fung, "Net neutrality activists, state officials are taking the FCC to court. Here's how they'll argue the case.," Wash. Post, (Aug. 21, Apr. 2018), https://www.washingtonpost.com/technology/2018/08/21/net-neutrality-activists-state-officials-are-taking-fcc-court-heres-how-theyll-argue-case/?utm_term=.184f35c2b0b4..

¹⁷ Alice Wong, "Net Neutrality, Accessibility, and the Disability Community," Center for Media Justice (Nov. 22, 2017), https://centerformediajustice.org/2017/11/22/net-neutrality-accessibility-and-the-disability-community/.

Without Net Neutrality Rules and Sound FCC Oversight of Broadband Internet Access Services in Place, ISPs Have Abused Their Power

Prior to the 2015 Open Internet Order, ISPs in the United States regularly violated the principles of Net Neutrality. ¹⁸ One even went so far as to admit that it would like to discriminate against certain kinds of content, even while the version of the Net Neutrality rules in place before 2015 was still in litigation..

In 2005, North Carolina ISP Madison River Communications blocked the voiceover-internet protocol ("VOIP") service Vonage, and the nation's largest ISP, Comcast,
began secretly blocking peer-to-peer technologies that Comcast customers were using
over its network. 19 Users of services like BitTorrent and Gnutella were unable to connect
to these services. In 2007, investigations from the Associated Press, the Electronic
Frontier Foundation and others confirmed that Comcast was indeed blocking or slowing
file-sharing applications without disclosing this fact to its customers.

From 2007–2009, AT&T forced Apple to block Skype and other competing VOIP phone services on the iPhone. The wireless provider wanted to prevent iPhone users from using any application that would allow them to make calls on such "over-the-top" voice services. The Google Voice app received similar treatment from carriers like AT&T when it came on the scene in 2009.²⁰

¹⁸ Timothy Karr, "Net Neutrality Violations: A Brief History," Free Press (Jan. 24, 2018), https://www.freepress.net/our-response/expert-analysis/explainers/net-neutrality-violations-brief-history.

¹⁹ *Id*.

²⁰ Id.

In 2010, Windstream Communications, a DSL provider with more than 1 million customers at the time, admitted to hijacking users' search queries made using the Google toolbar within the Firefox browser.²¹

In 2011, MetroPCS, at the time one of the top-five U.S. wireless carriers, announced plans to block streaming video over its 4G network from all sources except YouTube. ²² Later that year, the Electronic Frontier Foundation found that several small ISPs — Cavalier, Cogent, Frontier, Fuse, DirecPC, RCN and Wide Open West — were redirecting search queries via the vendor Paxfire. Paxfire would intercept a person's search request at Bing and Yahoo and redirect it to another page. By skipping over the intended search service's results, the participating ISPs would collect referral fees for delivering users to select websites. ²³

From 2011–2013, AT&T, Sprint and Verizon blocked Google Wallet, a mobilepayment system that competed with a different mobile payment app the wireless providers intended to provide, which all three carriers had a stake in developing.²⁴

In 2012, the FCC caught Verizon Wireless blocking people from using tethering applications on their phones. Verizon had asked Google to remove eleven free tethering applications from the Android marketplace. These applications allowed users to circumvent Verizon's \$20 tethering fee and turn their smartphones into Wi-Fi hot spots. By blocking those applications, Verizon violated a Net Neutrality pledge it made to the FCC as a condition for acquiring spectrum in the 700 MHz auction.²⁵

²¹ Id.

²² Id.

²³ Id.

²⁴ Id.

²⁵ Id.

Then in 2013, Verizon made its intentions plain during oral arguments in *Verizon* v. FCC. When judges asked whether it would favor some preferred services, content or sites over others if the court overruled the agency's existing open internet rules, Verizon's outside counsel Helgi Walker stated, "I'm authorized to state from my client today that but for these rules we would be exploring those types of arrangements." ²⁶

In 2012, AT&T's proclivity for blocking competing voice and video-calling apps returned, when AT&T announced that it would disable use of Apple's FaceTime video-calling app over AT&T customers' cellular connections unless they also subscribed to a more expensive text-and-voice plan. Essentially, AT&T separated customers from more of their money by blocking alternatives to AT&T's own products.²⁷

Throughout 2013 and 2014, major broadband providers including AT&T, Time Warner Cable, and Verizon, deliberately limited the capacity at ISP interconnection points, effectively throttling the delivery of Netflix content to thousands of U.S. businesses and residential customers across the country while impacting the delivery of content from other sites and sources too.²⁸

The 2015 Open Internet Order helped to curb much of this ISP misbehavior, giving the FCC tools to investigate and even put a stop to any such practices it might have found to be harmful. Since the Pai FCC repealed the 2015 rules and legal framework, we have seen some seriously suspect ISP behavior — even in the face of massive scrutiny from the public and Congress. But because the FCC has abdicated its authority to protect consumers from ISP abuse, it doesn't even have the power to

²⁶ Id.

²⁷ Id.

²⁸ Id.

investigate these instances. According to Lindsay Stern from consumer advocacy group Public Knowledge, ²⁹ there have been several potential Net Neutrality violations and other examples of unreasonable ISP behavior since the repeal:

- Wireless carriers like AT&T, T-Mobile and Verizon distort and contort the
 meaning of the word "unlimited" by offering multiple unlimited plans. But the
 more expensive varieties tend to be either paired with the company's own
 streaming services, as the carriers also degrade the quality of the video under
 certain conditions. These practices may give the carrier's content an advantage in
 the marketplace over smaller, independent video producers.
- A recent study shows that the largest U.S. telecom companies, including Verizon, AT&T, and T-Mobile, are slowing down internet traffic from apps like YouTube and Netflix. The same researchers suggest that Sprint also has been throttling internet traffic to Microsoft's Skype service, causing the video quality to be poorer than it should be. This could be especially worrisome when carriers slow down or treat differently video apps that compete with their own content and preferred partners, or in the Sprint case because Skype is a tool that competes with Sprint's calling service.
- Comcast has new speed limits under which videos will be throttled to 480p on all
 its mobile plans unless customers pay extra, and wired ISPs like AT&T are
 beginning to experiment again with data caps and overage fees not justifiable as
 reasonable network management on a wired connection.³⁰
- Verizon's throttling of services even affected the Santa Clara County Fire
 Department's ability to provide emergency services during the California
 wildfires. The fire department experienced slowed down speeds on their devices
 and had to sign up for a new, expensive plan before speeds were restored.

These examples continue to show that internet companies have likely used the lack of Net Neutrality rules and FCC oversight to their advantage, to make money, slow content based on its source, and escape scrutiny for these and other unreasonable actions.

²⁹ Lindsay Stern, "Broadband Providers Are Quietly Taking Advantage of An Internet Without Net Neutrality Protections," Public Knowledge (Jan. 29, 2019), https://www.publicknowledge.org/news-blog/blogs/broadband-providers-are-quietly-taking-advantage-of-an-internet-without-net-neutrality-protections.

³⁰ See Phillip Dampier, "AT&T Drops Data Caps for Free if You Subscribe to DirecTV Now," Stop The Cap! (Dec. 19, 2018), https://stopthecap.com/2018/12/19/att-drops-data-caps-for-free-if-you-subscribe-to-directy-now/.

The FCC's Main Justification for Scrapping Net Neutrality Is Built on Lies: the Rules Did Not Dampen ISP Investment, Which Continued on Pace After the 2015 Order, But Has Not Increased as Chairman Pai Promised Since the Repeal

During the course of the 2017 proceeding that wrongfully repealed the 2015 Open Internet Order, Free Press used ISPs' own data and their statements to investors to show the true impact – or, more aptly, the lack of any such impact – from the the rules the Trump FCC nonetheless voted to abandon. Even if there were some broadband industry business case to be made here for eliminating the rules, then the policy considerations, statutory rights, and moral arguments above calling for an open and equitable pathway to the internet could easily outweigh those ISP claims. Luckily for us, we face no such choice here: the 2015 Net Neutrality rules were working beautifully for everyone, including ISPs themselves, and the repeal of those rules was a fact-free exercise in irresponsible deregulation by untethered ideology.

During the two years before Chairman Pai's appointment as chair, when the 2015 rules and Title II framework were in place, broadband investment and speeds <u>increased</u> in rural and urban areas alike. This did not stop Chairman Pai from relying for his repeal on faulty arguments and flimsy evidence, cherry-picked and even fabricated to convey the false impression that the 2015 rules and legal framework were somehow negative for ISPs' deployment and spending decisions.

Beyond claiming (falsely) that the 2015 order had harmed ISPs' investment, Pai and his allies confidently predicted in the 2017 repeal decision and elsewhere "that reclassification of broadband Internet access service from Title II to Title I is likely to increase ISP investment and output." These claims can also be tested now against the

³¹ See, e.g., 2017 Net Neutrality Repeal Order ¶ 98.

reality of broadband providers' investment data and deployment decisions over the course of the past two years – either since the appointment of Chairman Pai at the beginning of the Trump administration, with his pre-ordained conclusion and promise to repeal the 2015 Open Internet Order; since the more recent Net Neutrality repeal vote in December 2017; or since that repeal took effect in mid-June 2018.

No matter which of those periods we examine, one thing is clear: individual broadband providers' capital expenditures have <u>not</u> uniformly skyrocketed since the FCC's repeal of Net Neutrality rules in December 2017, even coupled (as that repeal unfortunately was) with massive corporate tax cuts and giveaways made law that same month by the 115th Congress and the Trump White House.³² In fact, many of the largest ISPs have now reported to investors that their capital expenditures <u>fell</u> in 2018, decreasing year-over-year from 2017 – the last full year before the Pai repeal and the Trump tax cuts were both voted on and approved.

In other words, even "freed" from the basic obligation not to discriminate unreasonably against their customers and simultaneously awash in cash from sweeping tax "reform," many of the largest ISPs invested <u>less</u> (and even slashed their workforces at the same time). This proves yet again, as Free Press has maintained in each of its many filings and analyses of broadband investment, that Title II classification and strong Net Neutrality rules are no deterrent to ISP investment, and their removal was no spur to them. The rules aren't even a significant factor influencing investment decisions.

As we did when discussing investment and deployment results during the period when Title II and the 2015 rules were in place, we caution against over-reliance on

³² See, e.g., John Wagner, "Trump signs sweeping tax bill into law," Wash. Post (Dec. 22, 2017).

aggregate investment expenditures, the sheer dollar amount spent by ISPs, or other such minimally meaningful metrics. The blunt measure of an aggregate total is easily swayed by changes in either direction at any large firm, and it obscures changes (if any) in investment decisions, cycles, and strategies by all of the individual firms that make up the total. Looking at those individual results, the majority of publicly traded broadband providers in their own financial disclosures reported investment increases after the 2015 Open Internet Order issued. And even these individual spending totals are less important than the actual results internet users saw from that spending, in the form of faster speeds, improved coverage, and increased competition.

As always, individual companies' investment decisions and directions may vary from one another, with ISPs explaining to their investors in copious detail the reasons for their individual decisions. Those are based on the technological upgrade cycles that tend to take place across different sub-sectors as, say, most cable ISPs upgrade to a new generation of technology during the course of a few years, followed by a subsidence in cable expenditures and an increase in wireless expenditures when it is cellular providers' turn to evolve. What's more, as Free Press never tires of noting, AT&T itself perhaps most succinctly explained the nature of carriers' investment cycles and fluctuations.

[T]here is no reason to expect capital expenditures to increase by the same amount year after year. Capital expenditures tend to be "lumpy." Providers make significant expenditures to upgrade and expand their networks in one year (e.g., perhaps because a new generation of technology has just been introduced), and then focus the next year on signing up customers and integrating those new facilities into their existing networks, and then make additional capital expenditures later, and so on. Minor variations from year to year thus should not be surprising[.]³³

³³ Comments of AT&T, WT Docket No. 10-133, at 34 (filed July 30, 2010); see also id. at 39.

But accounting for these individual variations, or perhaps it is fairer to say because of these variations, we can say three things quite certainly today:

- the fact that more publicly traded ISPs saw investment go <u>up</u> under Title II and the 2015 rules than the smaller number of ISPs that reported decreases shows that the now-repealed framework did not uniformly (or even typically) decrease investment by individual ISPs;
- (2) the fact that several large ISPs have now reported <u>decreased</u> investment in 2018, after the FCC voted for the Pai repeal along partisan lines in December 2017 and after that repeal took effect in June 2018, shows that the repeal did not uniformly increase investment for individual ISPs; and
- (3) in either case, there is no evidence of any change in 2015, 2016, or now in 2017 either, to ISPs' status quo buildout trajectory, which shows steady and even rapid improvements in speed and coverage over the last several years even though deployment gaps persist in some areas.

Investment and Deployment Under the 2015 Rules

Any claim that Title II delayed or dampened broadband rollouts simply is not true. ISPs' own data (discussed in greater detail in Free Press's initial comments in the 2017 proceeding ³⁴) proves such arguments wrong beyond a shadow of a doubt.

Broadband deployment is by no means satisfactory in every area in the nation, and even where it may be sufficiently fast and available at present not every person can afford to subscribe. Yet despite these continuing challenges of availability and affordability, ISPs' own deployment and investment data show that Title II's reinstatement and the 2015 Net Neutrality rules did not slow down deployment, speed upgrades, or overall investment by ISPs. The data that these companies report to the FCC – and also to their own investors, to Wall Street analysts, and to the U.S. Securities and Exchange Commission – all show that deployment continued apace during the time that Title II was in place.

³⁴ See Comments of Free Press, WC Docket No. 17-108, at 86-294 (filed July 17, 2017) ("Free Press 2017 Comments").

Among hundreds of pages and dozens of figures Free Press filed and prepared for its comments, replies, and reports in the 2017 docket, the most well-known showed an aggregate increase in investment by a group of twenty-four publicly traded ISPs. Far more important and illustrative than that aggregate total, as explained above, is our reporting on how different ISPs' spending changed during the two years before adoption of the 2015 Open Internet Order and the two years following its adoption. For instance, as that same figure shows, Comcast saw its capital expenditures increase by more than 26 percent with Title II and the 2015 order in place.

That figure and another we prepared later, more graphically comparing ISPs' capital expenditures in the year before 2015 order with those made in the two years after its adoption, ³⁶ illustrate this point neatly. Twice as many publicly traded ISPs increased their capital expenditures, due to new and continued network upgrades unperturbed by the reinstatement of Title II and the adoption of strong Net Neutrality rules, than the smaller fraction of ISPs that decreased their expenditures due to the completion of prior deployment and upgrade cycles. This fact alone does much to disprove the fanciful notion that Title II systemically threatened or harmed investment across the entire industry.

Some still insist on incorrectly claiming some harm to broadband investment from Title II focus on supposed decreases in aggregate investment figures for that time period, but the manipulated totals they cite stem from vague and unspecified tabulations for the broadband industry as a whole. They distort the amount invested by certain ISPs while

³⁵ Id. at 130.

³⁶ See Free Press Action, "Broadband Investment Basics" (May 15, 2018), available at https://www.freepress.net/sites/default/files/2018-06/fpaf broadband investment basics.pdf.

ignoring freely available public statements explaining individual firms' decisions.³⁷ Alternatively, they sometimes point to supposed decreases or decisions not to invest by small and rural ISPs – rarely if ever backing up those claims with any concrete data, facts or figures. Several such claims appeared in December 2017, just days before the FCC's Net Neutrality repeal vote. Free Press quickly demonstrated that despite unsubstantiated claims from an assortment of small ISPs arguing that they had been forced to curtail investment by the 2015 rules and legal framework, these providers had in fact greatly expanded their coverage areas, their speeds, or both with those 2015 rules in place.³⁸

Most of all, proponents of the now thoroughly-disproved notion that 2015 ordered harmed investment willfully ignore the fact that individual ISPs' various upgrade paths and spending under Title II show there was no uniform decrease from prior periods in individual companies' investments during that time. Most of the individual ISPs we can track (thanks to their publicly-traded status) spent <u>more</u> in the two years following instatement of the rules than they had prior to adoption of the 2015 Open Internet Order, as explained in these carriers' advance guidance and subsequent reports to investors.

³⁷ See Free Press 2017 Comments at 145–151; see also id. at 151 (quoting AT&T's explanation that the company's costs were falling due to technological improvements and the efficiencies therefrom, <u>not</u> due to any regulatory concerns, as evidenced by the fact that AT&T was then "going to deploy more fiber next year than we did this year, but the capital requirements are going down").

³⁸ See Letter from Matthew F. Wood, Free Press, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 17-108 (filed Dec. 11, 2017), https://www.freepress.net/sites/

Investment Since Chairman Pai's Appointment and Net Neutrality's Repeal

It has now been more than two years since the 2016 presidential election, however, which further increased already dire threats to people of color in this country and on its borders. It's even been two full years since Donald Trump appointed Ajit Pai to lead the FCC in January 2017, and since the beginning of Pai's efforts to strip away Net Neutrality along with seemingly as many other vital communications rights as he

To hear Pai and his enablers tell it, the repeal of Net Neutrality and the Title II framework – first threatened by the new administration in early 2017, then carried out before the end of that year – should have automatically and almost magically unleashed ISP innovation and investment. That wouldn't have been a good deal for internet users, who deserve networks that are both affordable <u>and</u> open under Congress's mandate to the FCC; but Pai and others suggested implausibly and offensively that repealing safeguards for broadband customers is a prerequisite to closing the digital divide.

Despite a string of press releases and stray tweets from lobbyists crowing that the investment magic is working, the numbers show otherwise. We were supposed to see booming investment across the board after the Net Neutrality repeal, further bolstered by the Trump administration tax cuts that gifted large ISPs' tens of billions of dollars³⁹ they might have spent on infrastructure and jobs. Instead, we've seen ISPs cut spending, cut jobs, and pocket the tax savings.

During just the last few weeks, as major ISPs began reporting their 2018 revenues and investment numbers, Verizon reported total company capital expenditures down by

³⁹ See, e.g., S. Derek Turner, "Don't Fall for AT&T's Billion-Dollar Swindle," Free Press (Nov. 14, 2017), https://www.freepress.net/our-response/expert-analysis/insights-opinions/dont-fall-atts-billion-dollar-swindle.

half a billion dollars, or about 3.4 percent in 2018 when compared to 2017, ⁴⁰ AT&T reported that its 2018 capital expenditures dropped 1.4 percent compared to 2017, ⁴¹ all while revealing that instead of the tax-cut fueled job growth it had promised AT&T instead would be laying off workers. ⁴² And Comcast reported that capital expenditures for 2018 likewise decreased, by 3 percent in Comcast's case, ⁴³ after the double-digit investment growth for this cable company in the years when Title II and the 2015 Net Neutrality rules were in place.

Looking forward, Wall Street analysts report capital spending among the nation's four largest cable providers (Altice, Comcast, Charter's Spectrum, and CableONE) is expected to decline by another 5.8 percent in 2019. 44 Can we say that the Title II and Net Neutrality repeal are causing these declines? No, no more so than we can say the reinstatement of Title II and the adoption of strong rules in 2015 caused the increases in investment documented above and discussed far more thoroughly in our FCC comments. As we've said repeatedly in the past, equating causation with correlation is a fool's errand, especially with regard to market fluctuations and long-planned corporate investments like broadband infrastructure builds. And it becomes even more foolish if one tries to aggregate investment by multiple ISPs and draw simplistic conclusions from the

⁴⁰ Timothy Karr, "Pai is No Jedi," Free Press (Jan. 31, 2019), https://www.freepress.net/our-response/expert-analysis/explainers/pai-no-jedi.

⁴² Jon Brodkin, "Report: AT&T plans layoffs despite claiming tax cut would create 7,000 jobs," Ars Technica (Jan. 9, 2019), https://arstechnica.com/information-technology/2019/01/att-reportedly-plans-layoffs-despite-tax-cut-and-fcc-deregulation/.

⁴³ Karr, "Pai is No Jedi."

⁴⁴ Jeff Baumgartner, "Cable & Wireless: A Tale of Two Capex Scenarios in 2019," *Light Reading* (Jan. 22, 2019), https://www.lightreading.com/financial/cable-and-wireless-a-tale-of-two-capex-scenarios-in-2019/d/d-id/748966.

In reality, investment cycles in tech rarely if ever swing on any single FCC policy. Trump's giant corporate tax cuts didn't even move the needle. And companies' investments rarely move in lockstep with one another. (For example: While AT&T, Verizon and Comcast investment all went down in 2018, both Sprint and Charter's capex numbers were up last year). There are so many other factors — including new technologies, interest rates and the economy, and competitive pressures — that come into play. It's all about economics on the ground, and what's already in the ground and where.

ISPs' Improving (But Still Imperfect) Speed and Coverage Improvements

Turning finally then to look at what is in the ground, and what as a result is on offer for broadband internet access customers, Free Press research shows the utter foolishness of fixating on investment totals rather than the broadband performance, competition, coverage, and speeds people see as a result of any industry investments.

Even if the manipulated aggregate figures to which Chairman Pai and his repeal order cling were correct (and they aren't), we have explained before that a myopic focus on raw dollars spent ignores the Commission's statutory mandate to promote deployment – as well as the overwhelming evidence that the pace of deployment continued (and even improved) in the years following the 2015 order. In other words, any recent increases in individual broadband providers' speeds, coverage areas, and competition to provide high-speed service just continue a trend uninterrupted by the 2015 Open Internet Order.

Broadband providers spoke at length after the 2015 vote and reclassification decision about how they were leveraging technological advances to deploy higher capacities at a <u>lower</u> capital cost than prior upgrade cycles.⁴⁵ AT&T CEO Randall

⁴⁵ See, e.g., Free Press 2017 Comments at 151 n.307.

Stephenson, at the end of 2015 and thus almost a full year after the adoption of the 2015 rules, bragged to investors that there was a "downward bias on [AT&T] capital spending" – not only because the company had finished major upgrades in 2014, but because technological changes to network software and architecture, the upgrade to LTE, and the upgrade to fiber all meant "capex has come down rather dramatically." But while that was good for AT&T's balance sheet, it was by no means bad for broadband deployment or for the company's internet customers. As Stephenson said of AT&T's fortunes:

We are going to deploy more fiber next year than we did this year, but the capital requirements are going down. It continues to get cheaper The guy with the best spectrum position has the best cost position in terms of deploying capital in the network. . . . Our capital requirements are getting more and more efficient all the time. 47

This explanation from AT&T aligns perfectly with the reality we observed in the broader broadband marketplace at the nationwide level from 2014 through 2017. During that time – now spanning periods before and after Title II's reinstatement, and even including the year in which Chairman Pai promised then delivered on its repeal – ISPs continued to rollout better quality and coverage. Free Press analyzed FCC Form 477 deployment data to arrive at the answer to this central question about changes in the capacities of the broadband access market change following the FCC's February 2015 adoption of a Title II classification and Net Neutrality protections.

This FCC Form 477 data is a rich source of information on broadband deployment. Every ISP submits it to the FCC on a semi-annual basis, providing information on the types of technology and the transmission speeds it makes available for every Census Block in which that ISP offers broadband. We analyzed this data for four

⁴⁶ Id.

⁴⁷ Id.

annual periods: deployments as of December 31, 2014, which was less than two months prior to the FCC's adoption of the 2015 *Open Internet Order*; deployments as of December 31, 2015; deployments as of December 31, 2016 (two years after this policy change – and just before Ajit Pai became FCC chairman and announced his intent to dismantle the strong Net Neutrality rules); and deployments as of December 31, 2017.

Our analysis of this FCC data shows the broadband access market continued to expand following Title II reclassification. ISPs large and small dramatically expanded their offerings, showing no concern about common carrier classification or the strong 2015 Net Neutrality rules. ISPs substantially increased capacities of their broadband internet access services. In particular, telephone company ISPs deployed substantial upgrades to maintain their competitiveness with cable ISPs, which themselves continued their cost-effective DOCSIS3.x system upgrades. These post-Title II restoration deployments resulted in a significant increase in the proportion of U.S. internet users with two or more choices for wired home broadband at the FCC minimum defined speed.

These findings from the FCC's deployment data affirm the Wheeler-era FCC's expectations: With the settling of legal issues surrounding Net Neutrality, ISPs understood that their path to continued profitability could not be discriminatory schemes that diminish output and then charge more for this artificial scarcity. With paid prioritization, blocking, throttling, and other unreasonable discrimination off the table, ISPs realized their growth would come from selling internet users the capacities they demand, spurred by exponential growth in online content and applications.

Highlights of our analysis of the FCC's broadband deployment data show that:

- Residential broadband deployment and system capacity upgrades <u>increased</u> <u>substantially</u> following the FCC's February 2015 restoration of Title II and its adoption of Net Neutrality rules.
 - Residential wired home internet access services (at any speed) were already nearly universally available prior to the FCC's restoration of Title II, with 95.8 percent of the U.S. population living in a Census Block served by one or more wired carriers.
 - But although reported availability was relatively high even at faster speed thresholds prior to 2015 reclassification, large growth in coverage occurred at all speed levels during this time.
 - At the end of 2014, 89.1 percent of the U.S. population lived in a Census Block served by one or more wired home ISPs offering downstream speeds at or above 25 Mbps. By the end of 2016, two years after the FCC's adoption of strong Net Neutrality rules, this increased to 91.1 percent of the population.
 - At the end of 2014, 71.4 percent of the U.S. population lived in a Census Block served by one or more wired home ISPs offering downstream speeds at or above 100 Mbps. By the end of 2016, this increased to 83.6 percent of the population.
 - At the end of 2014, only 10.6 percent of the U.S. population lived in a Census Block served by one or more wired home ISPs offering downstream speeds at or above 300 Mbps. By the end of 2016, this increased to 48.9 percent of the population.
- The number of Census Blocks with available home broadband services <u>increased</u> <u>substantially</u> following the FCC's February 2015 restoration of Title II and adoption of Net Neutrality rules, particularly those at higher speed thresholds.
 - The number of Census Blocks with one or more wired ISP grew by nearly 300,000 between the end of 2014 and the end of 2016, a 4.2 percent increase. Much of this activity occurred in previously unserved rural areas, due in part to the FCC increasing the amount of USF deployment funding.
 - Deployment of faster services continued at a high rate following the 2015 order.
 - At the end of 2014, there were 5.6 million Census Blocks served by one or more wired home ISPs offering 25 Mbps or higher downstream speeds. By the end of 2016, two years after the FCC's adoption of strong Net Neutrality rules, this increased to 6.1 million Census Blocks, a near 8 percent increase.
 - At the end of 2014, there were fewer than 500,000 Census Blocks served by one or more wired home ISPs offering 300 Mbps or

higher downstream speeds. By the end of 2016, two years after the FCC's adoption of strong Net Neutrality rules, this increased to 2.7 million Census Blocks, a more than 470 percent increase.

- The data reflects substantial growth in deployment of higher-speed broadband services in previously underserved areas (i.e., areas with just one high-speed option previously). This is an important indicator of firms' confidence in the market and lack of concern about regulatory costs (because if Title II really did deter investment, this would deter ISP entry into already-served areas where the potential market shares are lower than in unserved areas).
 - At the end of 2014, the average number of available wired home ISPs offering 25 Mbps or higher level service was 1.26, increasing to 1.52 by the end of 2016. This increase reflects substantial upgrades by telephone company ISPs of their first-generation DSL systems to higher-capacity technologies.
 - At the end of 2014, 34.1 percent of the nation's population resided in areas served by two or more ISPs offering service with downstream speeds at or above 25 Mbps. Two years later, following the adoption of the 2015 Open Internet Order, this had increased to nearly 54 percent.
 - O At the end of 2014, less than one percent of the nation's population resided in areas served by two or more ISPs offering service with downstream speeds at or above 300 Mbps. Two years later, following the adoption of the *Open Internet Order*, this had increased to nearly 9 percent, and that increase continues today (standing at 29.1 percent as of the end of 2017).
- Legacy telephone company wired ISPs, which have traditionally lagged behind
 their cable company ISP competitors in terms of offered capacities, were largely
 responsible for this competitive push into the areas previously dominated by cable
 companies. These telephone company ISPs did so primarily by upgrading their
 legacy DSL networks to higher-speed technologies, including fiber-to-the-home
 ("FTTH").
 - The number of Census Blocks with FTTH service increased more than 33 percent in the two years following the 2015 Open Internet Order.
 - The number of Census Blocks with ADSL2/2+ service increased nearly 60 percent in the two years following the 2015 Open Internet Order.
- In sum, U.S. internet users are seeing substantial increases in the capacities of the services available to them, and that trend continued following the adoption of the 2015 Open Internet Order.
 - In the two years while the FCC's strong Net Neutrality rules were in place, the average maximum available downstream speed for terrestrial home

- broadband in deployed Census Blocks increased by <u>150 percent</u>, from 117.5 Mbps to 294.1 Mbps.
- In the two years while the FCC's strong Net Neutrality rules were in place, the average maximum available downstream speed for wired broadband in deployed Census Blocks increased by 154 percent, from 123.8 Mbps to 313.9 Mbps.
- These overall increases were driven by upgrades in all types of broadband technologies.
 - The block-level average maximum deployed FTTH downstream speed more than doubled during 2014–2016, from 261 Mbps to 587 Mbps.
 - The block-level average maximum deployed DOCSIS 3.0 downstream speed more than doubled during 2014–2016, from 121 Mbps to 284 Mbps.

All of these findings tell a consistent story about the remarkable level of deployment and capacity upgrades during the period that followed the FCC's adoption of the 2015 Open Internet Order. These results are irrefutable evidence that the broadband industry's progress continued unhindered by the restoration of Title II authority and the adoption of strong rules – even though, quite obviously, the types of speed and coverage increases documented above have continued since 2017 as well. Those improvements will likely continue looking forward, yet not due to the Pai FCC's repeal and abdication of its authority. And the fact that these continuing upgrades have not yet ensured that broadband is fast enough or that coverage is ubiquitous in every rural market or within each local market is no reason to believe that repealing the rules will change the fundamental economics of serving high-cost areas.

This evidence all strongly suggests that the central premise of the Chairman Pai's repeal was completely wrong. There is simply no evidence that restoration of Title II and adoption of strong Net Neutrality rules negatively impacted broadband internet access deployment and investment. Nor is there any evidence that Chairman Pai's 2017 repeal

has altered the industry's trajectory. All of this data reflects the reality well understood on Wall Street and in ISPs' own engineering and finance divisions: broadband deployment is almost exclusively a function of technology cycles, what is already deployed, and whether or not the economy is in or expected to remain in a prolonged recession. ISPs have historically spent between 10 to 20 percent of their revenues on capital investments, and this fluctuates up or down depending on the particular technology cycle.

That broadband deployment and the level of available competition increased during the 2015-2017 period is completely unsurprising, based on the myriad public statements from ISPs that Title II restoration would not impact their deployment plans. 48 If anything is remarkable about the experience of 2014–2017, it is the level of upgrades pushed out by telephone company ISPs which face a much higher upgrade cost than their cable competitors. This deployment increase despite higher relative costs reflects the confidence these ISPs had in the future of their businesses under Title II and the wrongfully repealed 2015 Net Neutrality rules.

Thank you for this opportunity to testify, and I look forward to your questions.

⁴⁸ See, e.g., Free Press 2017 Comments at 209–294

Mr. DOYLE. Thank you. Commissioner Powell, you have 5 minutes.

STATEMENT OF MICHAEL K. POWELL

Mr. POWELL. Mr. Chairman, members of the committee, it is always an honor and a privilege to be with you. I also send my prayers to the Dingells. John Dingell is a dear friend and was a lion of the legislature, and our thoughts are with him.

To be clear, the virtues of an open internet are simply unassailable. It has proven to be one of the most democratizing forces we have ever known, putting the power to innovate in the hands of billions.

The ISP industry is proud of its role in building that network and engineering it to be an open platform has been good for society and it has been good for the bottom line.

That is why we unequivocally support legislative efforts to codify open internet rules in a manner that preserves the incentives for investment and dynamic growth.

But to craft rules that maximize public welfare, we must appreciate the symbiotic nature of the internet ecosystem. Just as great software depends on great hardware, the internet depends on an ever-improving network to facilitate cycles of ever-improving applications.

We all recognize that users need an open internet to thrive. But we cannot ignore the fact that they also need the network to continuously innovate and improve.

A startup needs confidence that the network will reach their customers. Rural communities need networks to reach them in remote regions. Consumers require high-quality, secure, and reliable networks, and advanced applications will require even more powerful infrastructure.

Put simply, the internet is not fully baked. It must continually innovate and improve, and policy must protect the conditions that make that possible.

But Title II throws a wrench in the flywheel of innovation. Dumping a mountain of regulations designed for a different time for a different network with different economic conditions and different consumer needs throws off the balance.

Title II is a massive body of economic regulations. It lets the Government set prices, decide the terms and conditions of services, and approve new products and services.

Let us be transparent with the American public. A debate about Title II is not a debate about net neutrality. It is a debate about whether to regulate the internet as a public utility with implications that far beyond simply protecting the internet.

The old and haggard Title II should not be tucked in under the shimmering cloak of restoring net neutrality protections. The future of the internet deserves more careful consideration.

Moreover, a bill that includes Title II will rupture any hope of bipartisan legislation in a divided government, ensuring that the count—for countless more years we will go by without the resolution the public deserves.

There is unique common ground on which to build enduring net neutrality rules and we should seize the opportunity rather than squander it.

As you consider legislation, I would encourage you to heed the caution but first do no harm. By almost every measure, the internet ecosystem has thrived for decades. The internet is the fastest deploying technology in the history of the world.

It gets better at a relentless and unprecedented pace. It has been built with trillions of dollars of private capital, freeing public re-

sources for other pressing societal needs.

Innovation has advanced at a dizzying pace, giving birth to startups that have grown to become global giants. And against this positive backdrop there simply is no evidence of systematic patterns of ISPs undermining the openness of their networks.

One must rigorously ask with an open mind how will Title II utility regulation improve on these enviable results and is it worth

risking messing things up by adopting it.

We have compelling evidence that utility regulations will mess things up. There is a voluminous literature documenting the negative effects of utility regulation on dynamic industries. To ignore it is to ignore the hard-won lessons of history.

But we don't need to spend hours in the library reading economic articles. We have real-world examples right in front of us. In Europe, regulators did adopt utility style regulations and as a result they have achieved substantially slower speeds and attracted dramatically less investment than in the United States.

And on our own shores we can see that our utility-based infrastructures in this Nation are crumbling. The electric grid, our roads, our airports, and our drinking water have all earned failing grades due to chronic underinvestment under this regulatory approach.

Is that truly the model we hope to emulate for the internet?

In summary, in software programming an infinite loop is defined as a piece of coding that lacks a functional exit so that it repeats indefinitely. Net neutrality has been stuck in that infinite loop for way too long.

It is time for Congress to debug this debate once and for all and reach a bipartisan solution that protects the open internet without damaging internet growth.

Thank you, and we stand ready to help you do that. [The prepared statement of Mr. Powell follows:]

TESTIMONY OF MICHAEL K. POWELL

PRESIDENT & CEO

NCTA - THE INTERNET & TELEVISION ASSOCIATION

ON

PRESERVING AN OPEN INTERNET FOR CONSUMERS, SMALL BUSINESS, AND FREE SPEECH

Before the

House Energy and Commerce Committee

Communications and Technology Subcommittee

UNITED STATES HOUSE OF REPRESENTATIVES

WASHINGTON, D.C.

February 7, 2019

Good Morning, Mr. Chairman and Members of the Committee. My name is Michael

Powell and I am the President and CEO of NCTA – The Internet & Television Association. It is a privilege to appear before you today to discuss this important topic.

In software programming, an infinite loop is defined as "a piece of coding that lacks a functional exit so that it repeats indefinitely." Similarly, the net neutrality issue is caught in an infinite loop. It is high time to debug this debate—avoiding approaches that will only perpetuate it—and reach a bipartisan resolution that puts in place a sound and enforceable set of rules.

For 15 years, we have swirled endlessly without a stable conclusion to net neutrality. No fewer than six different FCC Chairman of both political parties have wrestled with the issue. Net neutrality rules have moved into the courts now four different times, each taking years of exhausting and expensive litigation to complete. The country sorely needs Congress to break this interminable circularity. That is why we support bipartisan legislation to enshrine core net neutrality safeguards without sacrificing the flexibility needed for all market participants to retain incentives to invest, innovate, and prosper.

Critically, this infinite loop does not stem from a lack of agreement over the need for basic rules that would protect the open internet. All major stakeholders support the establishment of binding rules, which is why the broadband industry has consistently engaged with Congress and other policymakers on establishing durable and enforceable requirements. Moreover, there is a fairly consistent consensus about what the rules should be. Since 2004, when I outlined the four internet freedoms while serving as the FCC Chairman, we have found common ground around the basic tenets of net neutrality rules: There should be no blocking or

throttling of lawful content. There should be no paid prioritization that creates fast lanes and slow lanes, absent public benefit. And, there should be transparency to consumers over network practices. Working in good faith, we could easily write effective code to protect an open internet. So, what is the problem?

A software infinite loop is caused by a programming error where the conditions of exit are written incorrectly. The bug that is responsible for the net neutrality endless loop is ambiguous legal authority. The FCC has struggled to adopt sustainable rules because it lacks a clear basis of jurisdiction on which to moor net neutrality rules that would apply to internet service providers. Figuring out what the rules should be has not been the problem. Rather, the problem for the Agency has been how to adopt appropriately targeted rules in the absence of clear congressional direction. If authority is the problem, congressional action is the answer.

The FCC has spent years trying to shoehorn net neutrality's square peg into the Communications Act's round hole. The difficulties it has faced in doing so are not surprising. The FCC's statutory authority was drafted in an era that predates the rise of the internet. Congress has not comprehensively addressed communications policy since 1996, eons ago in internet time. Trying to address a contemporary question using antiquated tools requires the Commission to engage in contorted legal gymnastics.

Four years ago, then-Chairman Tom Wheeler in his effort to find a sustainable legal basis for net neutrality rules, took a radical step. He shifted from long-standing policy, and subjected internet service providers to a 1930s model of common carrier regulation, known as Title II. Since the birth of the internet, broadband service had been classified as an "information service" under Title I of the Communications Act—a classification that was

affirmed by the Supreme Court, repeatedly reaffirmed on a bipartisan basis and facilitated the rapid growth of the internet ecosystem.

To effectuate this change, the FCC Majority engaged in a bit of regulatory alchemy. They waived their regulatory wand and transformed internet access companies into telephone companies, simply by changing their legal classification. It is something akin to a Fruit Regulatory Commission that cannot find a way to regulate blueberries, so it dyes them red and calls them raspberries. But the consequence of that sleight of hand was far greater than a change in color. It had the collateral, and some might say primary, effect of suddenly expanding governmental power over the internet by plopping companies into a category over which the FCC had enormous pre-existing power. Once ISPs were treated as telephone companies, the FCC could regulate them under Title II's massive body of telephone law.

This action was widely known as the "nuclear option" for good reason. Anyone who has a full understanding of Title II law would agree this was an explosive and destabilizing action. ISPs had built their businesses for decades, investing billions of dollars, on the promise that they were not under the heavy yoke of Title II. Title II consists of thousands and thousands of regulations, as well as common law, developed since the 1930s to regulate the landline telephone system. A telecommunications lawyer spends her entire career gaining a working understanding of these laws and the countless court cases and agency rulings interpreting them. By trying to fix the jurisdiction bug, the FCC ended up introducing a new more damaging one that is fraught with unintended and unexplored consequences that could severely harm the internet ecosystem. Moreover, Title II shattered the strong bipartisan consensus and politicized the issue, guaranteeing that the rules would swing wildly with every election.

As Congress once again takes up this issue, it is important to recognize that Title II is not a synonym for "strong net neutrality" as some advocates breezily maintain. In fact, Title II is entirely distinct from net neutrality and is an unnecessary precondition for Congress to establish strong net neutrality requirements coupled with strong enforcement. The legislature does not have to resort to an antiquated and ill-fitting regulatory framework to achieve its objectives. While the FCC may be handicapped by the limited authority Congress grants it, the Congress is limited only by the Constitution.

Nor is Title II merely a legalistic distinction with no real consequence. Title II is a giant body of law that was crafted more than 60 years before the invention of the internet. Like all regulation, Title II is built on a set of critical predicates about technology, market structures, investment incentives, and consumer protections that existed at the time. The phone technology of that era was analog, twisted-copper wire and wireless technology was pure science fiction. The sole application for decades was a voice call, and the market long consisted of a single telephone company whose monopoly the government supported and preferred over competition.

None of the cornerstones underpinning Title II are valid or logical when applied to the modern internet. Internet digital technology is radically different from the switched phone services of yesteryear. Rather than a single application on the network, there are now literally billions of varied types of applications. The market is dramatically more dynamic and warrants a suitably flexible regulatory framework. Moreover, the internet, in contrast to the phone network, is almost exclusively funded by private capital, freeing scarce public resources for other pressing societal concerns. And, perhaps most critically, the internet network evolves

and innovates at a dramatically faster pace than the telephone network. In this environment, the core provisions of Title II—providing for expansive rate regulation and allowing regulatory second-guessing of virtually every business decision an ISP can make—are a complete mismatch in the internet marketplace.

Title II is so incongruous with the dynamics of the internet today, one should be profoundly reluctant to slap it in place—most certainly without a rigorous, careful and thorough examination of how it will apply and impact the vibrancy of today's internet. The risk of serious unintended consequences is substantial; to name just a few examples: impeding the pace of innovation, undermining investment incentives to deploy broadband to more areas, and raising costs and consumer prices. This is not hyperbole, in the short two years in which Title II was in place, we saw the depressing effects on the market of such a distorted regulatory overhang—innovation slowed as ISPs and edge providers delayed or abandoned new service offerings, and the pace of investment in broadband networks demonstrably slipped. This is precisely what the literature would predict, given the extensive historical evidence of the harms resulting from efforts to impose public-utility-style regulation on dynamic industries.

As Congress diagnoses net neutrality and considers a remedy, it should be guided by Greek physician Hippocrates who famously counseled, "first, do no harm." Even a cursory examination of the internet marketplace raises serious doubts about the wisdom of prescribing a high dose of pain medication to a relatively healthy patient. The internet is the fastest deploying technology in the history of the world. The industry that built it has invested over \$1.6 trillion dollars to bring internet services to 94 percent of American households. The U.S. broadband platform has been the foundation on which the world's most innovative web

companies have launched and thrived—all on our shores. Compare the health and vibrancy of our internet infrastructure, which for most of its existence has not been subject to public utility regulation, to the crumbling infrastructures of those industries that are so regulated. The American Society of Civil Engineers gives America's electric grid, our roads, our airports and our drinking water systems a near failing grade. Are these the models we want to emulate for the internet?

By contrast, in the wake of removing Title II, we have seen a burst of energy flowing into network innovation and investment. America's wireless broadband companies are investing heavily to bring 5G services to our citizens. Equally as impressive, the cable industry has just deployed 1Gbps (Gigabits per second) speeds to 80 percent of American homes, up from just 4 percent two years ago. And, we recently announced our 10G initiative, a dramatic leap in broadband that will bring 10Gbps speeds to American homes—10 times what is available today. These bold initiatives are certainly not going to be advanced by new Title II regulation, and the risk that they will be impeded is significant. The effect will be to undermine American global technology leadership.

The idea of travelling back in time and invoking Title II raises countless questions. Will regulating the internet business under the heavy authority of Title II actually improve upon the results we have seen so far? Will Title II get more broadband to more people in rural and underserved communities? Will Title II increase the pace of innovation? Will it increase the flow of investment capital? Will Title II facilitate more competition? Will FCC regulators do a more efficient job setting prices and terms of service than market forces? Do we want

government attorneys substituting their judgments for those of network engineers on managing this complex infrastructure? I believe the answer to all these questions is no.

Given the great dangers and slim benefits of Title II, and the unquestionable fact that Congress can adequately protect net neutrality without it, Congress has the opportunity and the tools to rewrite the script and end the infinite loop. Unlike the regulators, this institution has the constitutional power to create new legal authority. It has no need for legal alchemy or contorted legal theories to write strong, enforceable net neutrality code. Stated plainly, Congress does not need Title II to achieve its professed objectives.

If, however, Congress looks backwards and tries to force Title II's mold onto today's internet, it will be doing something entirely distinct from protecting the open internet. It will be making an ill-considered decision to regulate the internet in a heavy-handed, aggressive manner that departs radically from the consensus of lighter regulation that has prevailed for decades and has produced admirable and exceptional results. Worse yet, it would take a path with no realistic prospect of attracting sufficient bipartisan support. Such a quixotic exercise would only ensure that we remain trapped in our perpetual loop. And, yet again, uncertainty will reign over clarity, and start-ups and consumers will continue waiting for the essential protections they deserve. The only net neutrality rules with teeth are those that actually become law.

If we can put down the Damocles sword of Title II and work in a constructive bipartisan manner, I pledge that our industry will enthusiastically support legislation and work tirelessly to help finally put in place a set of stable and enforceable net neutrality rules.

Thank you for the opportunity to appear here today.

Mr. DOYLE. Thank you. Commissioner Wheeler, you are recognized for 5 minutes.

STATEMENT OF TOM WHEELER

Mr. Wheeler. Thank you, Mr. Chairman, and I want to begin by associating myself with my friend, Michael, and his wishes for the Dingell family. In all the world, there was only one Big John and he is Mr. Chairman.

One of the things that allows me to reflect on that is that it seems like I have been before this committee so many times over the last 40 years, first when I had Michael's role as the CEO of NCTA, then when I had a similar role in the wireless industry and then when I had the great privilege of being the Chairman of the Federal Communications Commission.

But today, I appear before you as an American citizen who has 40 years of experience dealing and living at the intersection of new

technology and public policy.

The lesson of that is that net neutrality is not a new concept. Essential networks have always historically been required to be open. It started back in feudal times when English common law required that the ferryman had to provide nondiscriminatory access to haul people across the river.

When the telegraph came along, the first telecommunications service, in 1860 Congress said it must be nondiscriminatory. Net

neutrality was passed in 1860.

When the railroads became the dominant network, Congress again stepped up and said open, just, and reasonable, the rules that have to govern that network and, of course, in the Communications Act of 1934 openness and just and reasonableness was applied to the telephone network.

Now, let us be real clear. It was those policies that created the internet. It was the ability of anyone to access an open network

that gave us ARPANET and AOL and everything else.

The 2015 Open Internet Order extended those enduring principles to internet service providers while removing outdated and unnecessary Title II common carrier requirements.

I understand why the ISPs don't like this. They want to be able to make their own rules. They argue that transmitting zeroes and ones rather than analog somehow absolves them of the responsibility to be open and just and reasonable.

That is kind of like saying that electric cars don't have to obey the speed limit because it was established for gas vehicles. No, there are enduring principles that apply to essential networks. Let me quickly address three policy issues that flow from that.

One, the game is being played that we are dealing with an information service as opposed to a telecommunications service. It is clear what that effort is: to shoehorn the ISPs into a less regulatory

structure. It is a phony construction.

Regulating networks like the content they carry is just like saying that because a road leads to Macy's that the road ought to be regulated the same way Macy's is. Justice Scalia said it a lot better when he said there is a difference between delivering a pizza and making a pizza.

There has been a lot of talk about the second point I would make about how the Trump FCC presented false evidence that open internet regulation would hurt investment.

But thirdly, focusing on blocking, throttling, and prioritization ignores the future and doesn't even protect today. It doesn't protect today because it says you are free to discriminate—just don't do it this way.

And worse than that, Michael was right—the cake is not fully baked. But those three principles apply Netflix concepts to a dynamic and constantly evolving internet.

Today, the internet is about transporting things. Web 3.0, which is now upon us, is about a network that orchestrates, not transports. Today, 4G is about full signal transition. 5G is about network slicing into pieces.

There must be a general expectation that no matter how technology develops, the essential networks must be open, just, and reasonable.

Thank you.

[The prepared statement of Mr. Wheeler follows:]

Statement of Tom Wheeler

Visiting Fellow, Brookings Institution – Senior Research Fellow, Harvard Kennedy School

Before Subcommittee on Communications and Technology

United States House of Representatives

Page | 1

February 7, 2019

Mr. Chairman, Ranking Member Latta, Members of the Committee, it is a privilege to once again appear before you. I've lost count of how many times I have appeared before this committee over the years, first as an advocate for the cable and wireless industries, and then as Chairman of the Federal Communications Commission (FCC). Today I appear before you as an American citizen representing only myself and almost 40 years of experience at the intersection of new technology and public policy.

I have represented the industries whose activities the Open Internet Order regulates. As Chairman, I sought to advance the public interest, under the Communications Act adopted by Congress, by ensuring that American consumers and businesses would have access to a fast, fair and open internet. I respect the challenge the digital era presents to the members of this committee.

The early digital era's "permissionless innovation" was made possible by an absence of gatekeepers. The policy challenge today is the rise of digital gatekeepers – both telecommunications networks and the information services that ride on them. Today, however, we focus on the behavior of the networks as the *sine qua non* of the 21stc century.

Throughout history the charting of new territory has resulted in the pioneer making the early rules for the new territory. When the great network revolutions of the mid-19th century — the railroad and telegraph — spawned the industrial revolution, the rules that had governed agrarian mercantilism became insufficient. In the absence of relevant behavioral standards, those who controlled the industrial activities made rules that not surprisingly benefitted themselves. Ultimately, the representatives of the people stepped in to develop a set of policies that served the common good, not just the interests of industry.

In 1860 Congress passed the Pacific Telegraph Act. A hallmark of that act was the requirement that the telegraph company carry all traffic without preference. Section 3 of that act provided, "That messages received from any individual, company, or corporation, or from any telegraph lines connecting with this line at either of its termini, shall be impartially transmitted in the order of their reception, excepting that the dispatches of the government shall have priority." This was a seminal moment. At the dawn of the electronic communication era, the Congress recognized that the party controlling the conduit should not be allowed to discriminate in access to that conduit. It was the Original Net Neutrality.

Page | 2

In 1887 the Congress created the Interstate Commerce Commission (ICC), the first federal regulatory agency. Its job was to oversee the dominant network of the time: the railroads. Early efforts by the ICC, like early open internet efforts, were often false starts. In the early 20th century, thanks to the leadership of the Republican Roosevelt, the powers of the ICC were redefined to include the power to determine whether the actions of the carriers were just and reasonable. The railroads' response was an early iteration of what we would see when the FCC imposed similar just and reasonable standards on the dominant network of the 21st century. The railroads launched what a Roosevelt biographer described as, "a sweeping propaganda campaign to turn the country against regulation." The network giants of the time made the same kind of arguments we hear today, including that "disaster would follow if the government 'should meddle' in the complex business of network decisions." As they have today, the dominant networks of the time argued that "laws already on the books were sufficient to deal with any difficulties."²

When the telephone came along, these two network oversight concepts were applied to it: non-discriminatory access to the network, and the requirement to act in a just and reasonable manner. It was the existence of those requirements that allowed the internet to come into existence. We all remember the screeching modems that would connect computers to the telephone line. Because the phone carriers were common carriers, they were required to allow such access and were prohibited from unreasonably discriminating as to what was carried. The early iterations of the internet, such as DARPANet-connected university computers, and later consumer services such as AOL, relied upon the ubiquitous and open telephone

network. Absent that open and non-discriminatory access, it is questionable if and how the internet might have developed.

Let's recognize that point: had the telecommunications networks of the early internet era been able to exercise the powers now given to ISPs by the current FCC they would have been able to ban modems, except the ones they owned. They would have been able to determine which computers could talk to other computers. We hear much about how "permissionless innovation" created the current cornucopia of the internet — had it not been for the telephone network being a common carrier, there would have been no permissionless innovation in the early internet as terms and conditions would have been set by the network.

The 2015 Open Internet Order of the FCC was simply the extension of these proven regulatory concepts to the most important network of the 21st century. In fact, while we can trace these concepts to the network revolutions of the 19th century, their history is even more seminal. Over 600 years ago, as civilization was struggling to escape the Dark Ages and feudalism, English common law developed to protect the people from the powerful. One of its concepts was the "duty to deal." A traveler could not be denied or discriminated against in using the ferry crossing the river, for instance. Nor could that traveler be denied shelter and food at the tavern along the roadway. That duty to deal concept found continued life in the Pacific Telegraph Act, the Interstate Commerce Act, the Communications Act, and the 2015 Open Internet Order.

Last week the U.S. Court of Appeals for the District of Columbia heard oral arguments in the lawsuit challenging the 2017 decision of the Trump FCC to repeal the Open Internet Order's embodiment of the traditions of common law and congressional precedent. This was, of course, the same court that twice struck down FCC attempts at securing those principles, before ultimately upholding the 2015 Open Internet Order - twice. Those who opposed the openness and non-discrimination of the 2015 Order lost their appeal in both the initial panel's decision as well as in the *en banc* review. When the U.S. Supreme Court refused to grant *certiorari* on the companies' appeal the lower court's decision was confirmed.

Page | 3

The policies articulated by the FCC prior to 2017, and crystalized in the 2015 Order, are backbone concepts for the oversight of networks. They reflect the accumulated wisdom of both Anglo Saxon common law and Congressional deliberations. Any further policy considerations should use the 2015 concepts as the starting point to securing the public's critical interest in a free and open internet.

Page | 4

One of the ways in which the Trump FCC has attempted to cloud the issue is to conflate the activities of a network with the content carried on that network. Since the Telecommunications Act of 1996 created a classification of "information services" as opposed to "telecommunications services," the networks have been trying to shoehorn themselves into the more deregulatory "information services" classification. The Trump FCC went along. Just because an ISP carries content, however, does not mean it should be regulated as though it is a content company. That's like saying that the road leading to Macy's should be regulated like Macy's. To paraphrase Justice Scalia on this topic, the delivery of a pizza is a different activity than the making of a pizza and the two should not be conflated.

The consequence of such a misapplication of the concepts of how a digital network functions was the Trump FCC's decision to walk away from responsibility for the most important network of the 21st century and pass that responsibility to the Federal Trade Commission (FTC). This, of course, has been a long-desired goal of the telecommunications carriers. In September 2013 a Washington Post article headlined, "Here's how the telecom industry plans to defang their regulators." The article reported, "telecom giants including Verizon, AT&T and Comcast have launched multiple efforts to shift regulation of their broadband businesses to other agencies that don't have nearly as much power as the FCC."

The Trump FCC did not simply eliminate an open internet, they also delivered on the carriers' long-sought wish by renouncing its jurisdiction and turning it over to the FTC. Now, the FTC is a fine agency, but, as Chairman Simons repeatedly has testified, it lacks the resources and rulemaking authority, and it also lacks the engineering expertise required for dealing with internet service providers. And remember, the idea of Net Neutrality is not just based on antitrust or marketplace behavior, it preserves diversity of speech and freedom of speech,

important values that are beyond the substantive reach of the FTC. Moreover, as was the goal of the companies all along, there is the risk that America's essential networks get lost amidst the FTC's crowded responsibility for all the activities occurring across the entire economy.

Page | 5

Because of the decision by the Trump FCC to walk away from its responsibilities, when California firefighters couldn't use their mobile phones during the Mendocino Complex fire, they could not turn to the FCC for help. When researchers discovered that mobile carriers were throttling streaming services – something the carriers had promised not to do – the agency that should be responsible for the nation's networks did nothing. And when it was revealed that mobile carriers were selling their customers' GPS location information to third parties who then sold the information to bounty hunters, where is the cop on the beat?

Let me be clear, the operators of America's digital networks are not bad actors – but they preside over the most powerful and pervasive platform in the history of the planet.

Occupying such a crucial position, they cannot simply be allowed to make rules to serve their own interests. Similarly, the agency Congress has appointed to oversee the nation's networks cannot wash its hands and be subsumed into a new digital industrial complex. There was a realization with the telegraph, the railroad, and the telephone networks that these networks possessed the economic incentive and technical capability to engage in abusive behavior. That reality is as true in today's internet revolution as it was in the industrial revolution...or for that matter the feudal era.

The public interest that is inherent in open and non-discriminatory networks has been well established for over half a millennium. The Congress of the United States has historically protected the public interest over the self-interest of the powerful. The 2015 Open internet Order attempted to carry forward that mandate, based on existing statutory authority. To walk away from that responsibility, regardless of the rationale concocted as justification, is to walk away from what is not only a basic responsibility to the consumers of America and the function of a competitive and innovative marketplace, but also to turn your back on the lessons of history.

Page | 6

¹ http://cprr.org/Museum/Pacific Telegraph Act 1860.html
² Doris Kearns Goodwin, *The Bully Pulpit: Theodore Roosevelt, William Howard Taft, and the Golden Age of Journalism,* Simon & Schuster, 2013, p. 448.
³ https://www.washingtonpost.com/news/the-switch/wp/2013/09/12/heres-how-the-telecom-industry-plans-to-defang-their-regulators/?utm_term=_3e90f4486b49

Mr. DOYLE. Thank you very much, and let me say both to Mr. Powell and Mr. Wheeler, I should have referred to both of you as Chairman, not Commissioner.

Mr. POWELL. There are enough chairmen in this room.

[Laughter.]

Mr. DOYLE. My apologies.

With the conclusion of witness testimony, we are now going to move to Member questions. Each Member will have 5 minutes to ask questions of our witnesses. I will start by recognizing myself for 5 minutes.

Chairman Wheeler—

Mr. Wheeler. Sir.

Mr. DOYLE [continuing]. When the FCC enacted the Open Internet Order it included the bright line rules we all talked about—no blocking, no throttling—

Mr. WHEELER. Right.

Mr. DOYLE [continuing]. Paid prioritization. But it also included a general conduct standard, consumer protections, and Commission oversight of interconnection and zero rating policies.

Can you briefly, and I would underline briefly, give us some examples of past problems that necessitated the addition of these ad-

ditional provisions in the order.

Mr. WHEELER. Well, you have heard many of them being discussed in the—in the previous testimony. There is a historical reality when Comcast tried to block P2P. There is the experience of Comcast trying to block—not trying but, indeed, blocking ports into their network.

There is when AT&T and Verizon said they would not allow Google Wallet on their networks. It is when Verizon said they would not allow tethering apps on their wallet, so forcing you to

pay \$20 for their tethering service.

And it continues, as we have heard multiple times. You, Mr. Chairman, referenced the Mendocino fire, and what is significant about the Mendocino fire is not just the impact that it had on the firefighters, which is significant, but the impact it had on the people who were suffering as a result and who suddenly found that they were being throttled and had no place to go because the FCC had washed their hands.

The study from Northeastern University on throttling, how Sprint degraded Skype, the whole—and then the whole issue of the so-called zero rating. There is just a study that just came out that

proves that free is not free.

The interesting thing is that what the study found was that data rates where zero rating free services are allowed are actually higher than where they are not allowed, which makes sense, of course, because somebody has to subsidize what some folks are getting for free.

I mean, there's a—this is an ongoing how creative can you be to figure out ways around it.

Mr. DOYLE. Thank you very much.

Ms. Dixon, your company, Mozilla, has been the lead plaintiff in suing the FCC and hoping to overturn the Pai FCC's repeal of the Open Internet Order.

Can you also briefly tell us why you think these protections are critical for small businesses and innovation, and do you think that the bright line rules of the open internet alone are sufficient by themselves?

Ms. DIXON. Thank you. The bright line rules are just three things we can rattle off very quickly and then ignore the fact that those bright line rules can be—you can get around those rules. There are loopholes everywhere.

So they are not sufficient. Governance is incredibly important in this area and you cannot rely on the FTC consumer protection because it takes years for those things to correct harms that occurred

years before.

So you have to look at how we can stop the harm from occurring so that Americans don't have to suffer during that time, and then we lose years of innovation and opportunity because net neutrality rules wouldn't have been in place during that time period.

So we can't actually make up for it by relying on the consumer protection statutes. So there is a lot in there that needs to be

looked at with respect to it.

I believe very firmly that Mozilla actually wouldn't exist today if net neutrality hadn't been in place and I want to talk about that from the small business angle.

We started 17 years ago or so. We did it because Microsoft had 95, 99 percent of the market share with respect to browsers and

we wanted to give users and opportunity for choice.

And if Microsoft, for example, had been able to negotiate with ISPs during that time to say, let's just throttle or make it harder to get access to our download page we wouldn't be here.

The open internet rules, while they might not have existed in the

order as of 2015, they were status quo. That was how we operated.

That is what the internet was built on.

The openness, the transparency, the standardization, the requirement that we all work together—that is how we got to all of this record revenue that folks have today. So small businesses need an opportunity to participate in that.

Thank you.

Mr. Doyle. Thank you very much.

Tom, I just want to get back to you just for one quick sec. You know, a lot is talked about Title II, and my friends like these props

of bringing the old phones up from the 1800s.

But Title II had many, many sections to it and there was a lot of forbearance in your open internet order. Many of the things that - rate regulation and others, they were are—concerns that forebeared, weren't they?

Mr. Wheeler. So I believe that Title II has, like, 45 sections and we forbore, if that's the word, from 27 of them, and Mr. Latta, I am just-I got to pull this out because-to say that this is also a Title II phone.

Mr. Doyle. Thank you. I see my—I don't want to abuse my time too much because I am hoping other Members don't either. So with

that, I yield to Mr. Latta for 5 minutes.

Mr. LATTA. I appreciate the chairman for yielding and, Chairman Powell, we discussed the four freedoms for internet consumers that you outlined back in 2004. Your accomplishment in creating a bipartisan consensus at the Commission looks even more impressive, given what has happened in later Commissions.

Will you elaborate on the meaning of the first freedom, the freedom to access the lawful content of a consumer's choice? It seems to me that we have all agreed since then that nobody wants ISPs blocking content they don't like.

In your opinion, is there a serious threat to free speech on the

internet today and, if so, where is it coming from?

Mr. POWELL. I think that rule was a predecessor to what has ultimately morphed into the no blocking, no throttling, paid prioritization concepts. It is important to remember historically at the time that we were announcing this the internet was just burgeoning as a commercial service and it was really important to try to create a set of customer and corporate expectations about how the engineering aspects of the internet should evolve.

We did that and I think that proved successful. In fact, recently Reed Hastings of Netflix said quite squarely in his own earnings call that he believed that consumer expectation of net neutrality was so strong even a repeal of rules wouldn't threaten them as a company and noted that many countries don't have net neutrality rules which they operate under open environments quite success-

fully because of that expectation.

Our rules were intended to generate that expectation at a time when things were new, and I would highlight so many of the examples we hear about today, about the flourishing invention of Mozilla or other products and services all took place during a period in which there were no net neutrality rules, in which the fact exists that if you believe ISPs had the incentive and ability and desire to block content, throttle it, and impose paid prioritization they were free to do so for over 20 years with the creation of every product from Google to Uber, and nonetheless those products thrived and survived.

I think it is a misnomer that ISPs do not have a corporate self-interest in an open internet. To be blunt, they made a whole lot of money on an open internet because when you build a network with some costs you are rewarded by filling that network with as much content as possible and creating artificial scarcity. That simply doesn't make economic sense.

Mr. LATTA. Thank you.

Mr. Wheeler. Could I agree with my friend, Mr. Powell?

Mr. LATTA. No, not your time.

Mr. Wheeler. OK.

Mr. LATTA. Continuing on, Chairman Powell, new applications are becoming possible with advanced networks such as self-driving vehicles, remote surgery, and augmented reality. These will require extremely time-sensitive network management. What impact would the 2015 FCC rules, if they were restored, have on these applications?

Mr. POWELL. Well, I would like to be really clear, particularly on behalf of the cable industry. We don't dispute or dissuade anybody from pursuing strong net neutrality, codified rules that can be enforced. The only thing that we have an objection to is the ill-considered application of Title II. Now, in credit to my colleague, Tom Wheeler, he was a regulator. He had a different problem than you have.

He had the problem of finding a source limited authority in order to embrace the rules after a series of court cases that questioned whether they were acting beyond the authority that Congress had

ever given them.

This is not a limitation that applies to the United States Congress whose power is unbound by anything other than the Constitution. So the restoring of net neutrality is also restoring a sort of clever parlor trick to give the Commission FCC jurisdiction where you otherwise did not provide it.

But writing on a blank slate, as you have the power to do, there is no need to import those steps in order to create effective rules. And so the restoring of them as is would create the same problem of unbalancing the flywheels of innovation I mentioned in my opening statement.

Mr. Latta. Let me just ask you one quick follow-up. You know, when you worked on the four freedoms how did you get that con-

sensus at that time?

Mr. POWELL. Yes, how does one ever get consensus?

[Laughter.]

Let me—I think what I would tell you is that I think one of the things we have forgotten as lawyers have taken over the net neutrality debate. In the early days of the internet open internet and net neutrality was an engineering principle. It wasn't a legal principle.

It was the idea that you could use IP protocols and reach any consumer on any computer, whether it was a Macintosh or a Windows computer. Didn't matter what devices they use, what computers they use, and it ensured that it was a network that nobody centrally controlled, which is true today.

In the phone network it was like a spoke and wheel in which somebody sat at the center of the network making all command and control decisions about the flow of traffic.

In the internet world there is no central orchestrator. The network is owned by no one at its core and it flies around unfettered by any intervention.

So what we understood was we were trying to give voice in a regulatory sense to what had already become a pretty rigid engineering concept and there was pretty universal bipartisan agreement about that was in fact how the internet worked and any policy should reflect that.

Mr. LATTA. Thank you very much.

Mr. Chairman, my time has expired and I yield back.

Mr. DOYLE. Thank you. The Chair now recognizes Mr. Pallone, the full committee chairman, for 5 minutes.

Mr. PALLONE. Thank you, Mr. Chairman.

It has been noted, Chairman Wheeler, that you have had the unique experience of leading both the FCC as well as some of the industries that now oppose strong net neutrality and, as you know, when Chairman Pai sought to repeal the 2015 net neutrality protections, he did so citing the potential for increased broadband in-

vestment and now we hear investment went down after Chairman Pai's order was adopted.

So I have two questions. The first one is, can you explain what is going on here? Was the 2015 order as bad for the internet serv-

ice providers as they claim?

Mr. Wheeler. Well, I think the evidence of that is no, in a word, and investment has—investment increased in the 2 years following the Open Internet Order as opposed to the 2 years preceding the Open Internet Order.

Mr. PALLONE. All right. Well, let me ask you my second question. Some internet service providers claim they don't oppose net neutrality protections that would stop blocking, throttling, or paid prioritization.

But I worry and I know Chairman Doyle has expressed this about the threats to an open internet that we haven't anticipated. Rules like the general conduct standard that you included in 2015 rules and that Governor Murphy of New Jersey included in his executive order recently are aimed at providing a regulator the flexibility to protect consumers from new threats or unanticipated threats.

With that in mind, why is it important to have strong Federal protections like the general conduct standard or protections for interconnection?

Mr. Wheeler. Thank you, Congressman.

You know, the interesting thing is that saying I am for an open internet—I am just not for the common carrier rules is kind of like

saying I am for justice, just not for the courts overseeing it.

One of the—the reason that I was saying to Mr. Latta that I agree with my friend, Michael, and the leadership that he showed with his four principles, and there is a huge difference between his four principles as Chairman and the advocacy that you are hearing

The four principles are just that. They are principles. They are broad. They cover a multitude of topics. Blocking, throttling, and paid prioritization, that is it. And as I said in my—in my opening statement, what that means is you are free to do whatever you want in discriminating so long as you say, well, it is not blocking,

it is not throttling, it is not paid prioritization.

We do not know what the internet is going to be and we can't sit here and make Netflix-era decisions that we assume will apply tomorrow. The nature of the internet has changed since Michael did his four points and it is going to change again tomorrow, and our challenge is how do we make sure that the public interest is represented in that change.

Mr. PALLONE. Well, thank you.

And I want to ask one more question. Ms. González, I am concerned that the FCC ran a flawed process leading up to the repeal of net neutrality, specifically by ignoring thousands of consumer complaints and allowing millions of fake comments with stolen identities flood the docket and I am worried that the proceeding is

So, Ms. González, in your view, was the FCC's repeal of net neutrality tainted and does that put the repeal on shaky ground, in your opinion?

Ms. González. Yes, and we actually covered this in our petition for—our brief in the net neutrality case where we are a party. The process seemed to be guided by ideology and not facts right from the outset and in announcing his efforts to begin the repeal process

Chairman Pai said, this is a fight that I am going to win.

And it appeared that that skewed sort of the approach of the Commission. You mentioned thousands of potentially fraudulent comments in the docket that the FCC failed to investigate and just went ahead and rushed forward to a final order without truly vetting what was happening in the democratic process—rulemaking process.

The electronic comment filing system that allows the public to weigh in went down the same night that John Oliver covered net neutrality on his—on his show and thousands of net neutrality complaints that had been filed by consumers with the net neu-

trality ombudsperson were not put on the record.

The only reason we ever heard about them was that National Hispanic Media Coalition filed a FOIA request and analyzed those documents and found that what they showed was that people, the public, understand broadband internet access as a telecommunication service.

So I, too, share your concern that it was a flawed process and that it puts it on shaky ground.

Mr. PALLONE. Thank you. Thank you, Mr. Chairman.

Mr. DOYLE. The gentleman yields back.

The Chair now recognizes Mr. Walden, the full committee ranking member, for 5 minutes to ask questions.

Mr. WALDEN. Thank you, Mr. Chairman, and I want to thank

again all the witnesses.

Mr. Franell, according to Ms. González's testimony, and I quote, "ISPs' own deployment and investment data show that Title II reinstatement and 2015 net neutrality rules did not slow down deployments, speed upgrades, or overall investment by ISPs," and she is relying on her own figures or the organizations' or wherever you got the data.

I am not questioning that, but what I want to know is, Mr. Franell, from your standpoint as somebody on the ground doing build out what did you see during this period?

Mr. Franell. Thank you, Congressman Walden.

So, you know, it is interesting because I have read the U.S. Telecom report on investment and it shows a different or tells a different story than what I am hearing here today.

So I don't know which set of numbers is right. All I can talk about is what things look like for Eastern Oregon Telecom trying to bridge the digital divide, doing the work in these very remote areas and when I say remote it is a different definition than what we have in the East, and I grew up a lot out here. So I know the different between East and West.

And we—you know, we are talking about frontier areas and how do we serve those folks. And so as the discussion about applying Title II and net neutrality rules and, again, the big—the biggest issue for Eastern Oregon Telecom has been Title II, not fair use of the internet.

Mr. WALDEN. Why?

Mr. Franell. But I could not get loans from the bank during the net neutrality debate and during the net neutrality period. It was only as we started to hear the commitment from the new FCC to repeal Title II that we started to see the cash open up—

Mr. Walden. Right.

Mr. Frankll [continuing]. That availability and, quite frankly, for more than a year I never got an offer from a single equity investor. Now I get them weekly almost, and investment cash flow has been freed up.

So there had—at least from my perspective, there was a dramatic impact and it has changed.

Mr. WALDEN. Thank you.

Chairman Powell—Mr. Powell—a couple of things. One, we heard how Title II wasn't all that bad because so many of its provisions were forebeared by the then-Wheeler FCC. Could another FCC change its mind in terms of what would be forborne or not?

Mr. POWELL. I believe so. It is a discretionary act of the Commission.

Mr. WALDEN. Would that require a full rulemaking to determine that, or could a Chairman do it?

Mr. POWELL. I think it would require a full Commission vote, yes.

Mr. WALDEN. But they could do it on their own. Does that create

uncertainty going forward?

Mr. POWELL. Well, obviously, it does. I mean, I think we could play a game about how many rules get forborne from. But what is important to remember is it is not the volume. It is which rules got forborne and which ones don't.

Rules that didn't get forborne from do allow for lawsuits and challenges to rate making proceedings. It allows the Commission to opine on all terms and conditions of service to determine whether they are, quote, "just and reasonable."

Almost all powerful net neutrality—I mean, all powerful Title II rules are derived from Section 201 and 202, which remain in force.

Mr. WALDEN. So would—is it possible under Title II that phone traffic on the internet could be subject to fees like USF?

Mr. POWELL. Well, in fact, under the USF statutes if you are a telecommunications service provider it is mandatory under congressional law that you charge contribution factors to internet service.

So to put this more simply, consumers on the broadband internet today or for the last, you know, 20 years have not seen that morass of phone charges, taxes, and fees that you see on a typical phone bill.

But once an information service becomes a telecom service, there is an argument that the statute requires those same fees and charges go on to an internet bill, which means the consumer's bill would go up.

Mr. WALDEN. So one of the issues I know some groups raised with me last year—I think it was the Realtors—very concerned about what they saw as paid prioritization net neutrality. But what they were really talking about was more uncertainness of some of the search engines and how you could buy rankings. They were afraid their competitors were being ranked up.

Do you think these net neutrality provisions we are debating

here should apply to the edge providers?

Mr. POWELL. Well, I do. I have always been stunned at the lack of comparison between the alleged behavior of ISPs with regard to neutrality and the actual demonstrable behavior of edge providers

with regard to the same principles.

It seems to me just this week we learned about Apple blocking Facebook applications in its store. Just this week we learned of Twitter blocking speakers who they disagree with. All those companies have subjective policies that determine who they allow to speak on their platforms and who don't. Facebook prioritizes news feeds at its choice. Google has a very profitable business model of allowing people to pay for who gets seen in search results higher than others.

It is a hollow promise to consumers to say that we are going to guarantee a world of neutral access when all the destinations that you attend are engaging in the very practices that we say are supposedly so heinous if they are enacted by an ISP.

So, at best, we are talking—we are having a very incomplete con-

versation.

Mr. WALDEN. Thank you.

Thank you, Mr. Chairman, for your indulgence.

Mr. DOYLE. Thank you.

The Chair now recognizes Mr. McNerney for 5 minutes.

Mr. McNerney. Mr. McNerney from California. Yes.

I thank the chairman and I thank the witnesses for your testimony this morning. No, the truth is my constituents care deeply about net neutrality. Just last March, more than 150 of my constituents attended a town hall meeting to voice their concerns.

The way the FCC has handled this proceeding makes me question whether the agency even cared to hear my constituents' concerns and the concerns of millions of Americans who voiced their

opposition.

When the agency's failure to respond to my repeated requests regarding fabricated DDOS attacks to its failure to respond to FOIA requests and its failure to make thousands of submitted comments part of the record, there are major questions about how the proceedings were handled.

In fact, FCC Commissioner Rosenworcel has accused her own

agency of hiding information.

Chairman Wheeler, briefly, please, would you make——

Mr. WHEELER. I am hanging around too long.

[Laughter.]

Mr. McNerney. What would you make of how the agency handled the proceedings and is this any way to run a show?

Mr. Wheeler. No.

Mr. McNerney. That is brief. Thank you.

[Laughter.]

Mr. McNerney. More than 9.6 million identities were stolen and used to file fake comments in this proceeding. About 26,000 of those were my constituents' identities. It is my understanding that these action are now being investigated by Federal and State law enforcement agencies and it has been publicly reported that Broadband For America and Free Press subpoenas are a part of this investigation.

Chairman Powell, what is the NCTA's relationship with Broadband for America?

Mr. POWELL. We are a member of it.

Mr. McNerney. Does Broadband for America still exist?

Mr. Powell. Yes.

Mr. McNerney. Is Broadband for America complying or its former representatives complying with subpoenas and document requests for the investigation?

Mr. POWELL. Yes, my understanding, they are.

Mr. McNerney. Good. Did the NCTA ever engage Broadband for America to submit fake comments using stolen identities in those proceedings?

Mr. POWELL. Absolutely not.

Mr. McNerney. OK. Well, we will be looking into that, Mr. Powell.

Ms. González and Mr. Powell, did either of your organizations' consultants or members pay for fake comments using stolen identities to be considered for the docket?

Ms. González?

Ms. González. No, sir. Absolutely not.

Mr. McNerney. Chairman Powell?

Mr. POWELL. No, sir.

Mr. McNerney. Thank you.

Ms. González, my home State of California is prone to a number of natural disasters from devastating wildfires to floods and earth-quakes. During times of emergency and in the weeks and months that follow, people immediately rush to the web to check evacuation routes to see if their loved ones are safe and to find out if it is even safe to breathe outside.

Ms. González, if some information sources are taking priority because they paid for it and are unrelated to safety information people are trying to access in these circumstances, how might people's access to such information be affected?

Ms. González. I think, you know, it has long been the consideration of this committee and the FCC that public safety is one of if not the most important job that we have to do and we want to make sure that the Commission has the full authority to ensure the consumers are protected in those times.

Mr. McNerney. Thank you.

Ms. Livier, you gave a few examples of how open access was critical to establish artistic talent. Was the example list you gave exhaustive or is it the tip of the iceberg?

Ms. LIVIER. That is the tip of the iceberg.

Mr. McNerney. OK. And so you could give other examples if we asked for that?

Ms. LIVIER. Yes, sir.

Mr. McNerney. OK. I might be asking you to submit a list, if you would, of examples of that.

Ms. LIVIER. I would be happy to, yes.

Mr. McNerney. Ms. Dixon, I understand that some smaller ISPs including Sonic, which serves many of my constituents, raised con-

cerns in a letter to the FCC that Chairman Pai's order would threaten their ability to interconnect with the larger ISPs.

I would like to introduce a letter for the record, Mr. Chairman.

Mr. DOYLE. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. McNerney. Ms. Dixon, can you explain the risks to consumers now that the FCC no longer has a framework to address

interconnection complaints?

Ms. DIXON. It just creates the same issue. It puts the power in the hands of the larger ISPs. It puts the power in their hands to work with the largest companies on the web, the largest companies in the world, and leaves all the small businesses to have to wait and try to get the leftovers in the back and to go behind it.

The interconnection agreements are a very important part of

what the FCC needs to continue to regulate.

Mr. McNerney. Thank you. Mr. Chairman, I yield back.

Mr. DOYLE. I thank the gentleman from the great State of California.

[Laughter.]

Mr. DOYLE. The Chair now recognizes Mr. Shimkus.

Mr. Shimkus. Thank you, Mr. Chairman.

First I want to make sure we recognize Marcia Latta, who is observing her husband's ascension to the leader of the Telecom Subcommittee, and he didn't do that—we usually forget our spouses in public speaking engagements. So I have learned that that is a bad mistake.

[Laughter.]

Mr. Shimkus. Secondly, to the new members of the sub-committee, this is why this is a great full committee and this is why this subcommittee—I mean, we have got really very articulate experts who are trying to wrestle with an issue.

As the chairman of the full committee has reminded me numerous times, if we want—if—you know, we could have messaging

fights, and we will have those, or we could pass laws.

And when we were in the majority I learned from that because when I had to pass things through my subcommittee I had to reach for that bipartisan compromise if we wanted to pass a law. If we want to have this fight and pull our hair out—I taught high school—for a bill to become a law, the President has to sign it.

He is not going to sign this. So I think what our attempt is to say is, where do we go to the middle—where do we address these

real problems?

Now, I sympathize a lot with Mr. Franell because I represent 14,000 square miles in southern Illinois. And Ms. Dixon, Mozilla is a foundation. Does that mean it is a not-for-profit?

Ms. DIXON. We are owned by a not-for-profit.

Mr. Shimkus. Yes. So a lot of my communication providers are not-for-profits, just like in districts like Mr. Franell, where they are—I understand that approach to small business.

Our approach to small business is little, small businesses in towns that don't even have access yet, and Chairman Wheeler or Chairman Powell know that I have been focused, throughout my life, about mapping.

Let us find out where we have service and where we don't.

Mr. Wheeler. Yes.

Mr. Shimkus. And then where do we find out how fast that service is so that when we have these battles—Anna, do you want time? OK. I thought you were trying to—I thought you were—so if we are going to be involved how can we help get that full build out? It would be helpful to everybody.

So I have always been focused in this debate about how do you build out. How do you get the fiber into the ground, and I am not as smart as you all but I know that that's private sector dollars that do that and there has got to be an incentive for them to lay

the fiber.

And fiber is a lot better than coaxial cable and there is more information going out. So I would hope and I would plea that we eventually get through the emotion, which I am not discounting, and we focus on fixing this problem, because if I finally get my small businesses connected in Gallatin County—Old Shawneetown, right—they are going to want to have full access. But I got to get them access first. Otherwise, it is kind of a moot point to some of us who represent rural areas.

So I hope—I just hope we get there. You know, we are having this big fight on border security and one of the responses is walls,

fencing, and some is smart technology.

Now, the southern border, as you probably all know fairly well, is pretty rural. If you are going to use drones—I mean, and this the—one of the Democrat responses is let us do smart technology—let us do drones—let us do technology—let us—cameras and let us see who is coming.

That will require a lot of investment and a lot of build out. Would there—should, if there is information of child trafficking, fentanyl being pushed across the border—is there any role for any-

one to prioritize information?

So if we want our border security guys to go and stop a coyote bring across child trafficking, and that information is trying to get to the operation—the tactical operation center—former military guy like Mr. Powell—should that be prioritized?

And I guess my time has expired and I don't-it is your call, Mr.

Chairman.

Mr. DOYLE. If Mr. Powell wants to answer that briefly I will give him the opportunity. But was there a question in there?

[Laughter.]

Mr. Shimkus. Yes. We need to build more fiber.

Mr. DOYLE. Do you guys have to mention the wall at every hearing?

[Laughter.]

Mr. Shimkus. I didn't vesterday.

Mr. POWELL. Well, Mr. Chairman, I will just take advantage of the opportunity to say—

Mr. DOYLE. Briefly.

Mr. POWELL [continuing]. When I was Chairman I was a huge champion of public safety, and I think it is a perfect example of why we should be careful about what we mean about no prioritization.

There are societal uses that we will all agree should employ a higher priority over other uses. It is true in every tangible part of the economy. I don't know why we think it wouldn't be true in the digital space.

Mr. Wheeler. Well, there is just one thing that you left out,

though.

Mr. Doyle. Yes.

Mr. Wheeler. The 2015 rule allowed for that kind of prioritization. Mr. Shimkus and I started working 20 years ago, probably longer than that, on public safety issues and we allowed—we made sure that the 2015 rule allowed for that kind of prioritization.

Mr. DOYLE. Thank you.

The Chair now recognizes the vice chair of the full committee, Ms. Clarke, 5 minutes.

Ms. Clarke. Thank you—thank you very much, Mr. Chairman. I thank the ranking member and I thank all of our expert panelists for bringing your expertise to the table today, and I say good afternoon.

I am glad that we are having this hearing and we have decided to kick it off this week with the hearing on net neutrality. This issue is a major concern for my constituents on the State of New York.

In fact, Governor Cuomo signed an executive order to keep the net neutrality rules in place post-FCC repeal. Additionally, former New York Attorney General Barbara Underwood led a lawsuit with 22 other attorney generals to reinstate the 2015 open internet rules and led an investigation into fraudulent net neutrality comments.

So along the lines of Mr. McNerney of California, I would like to just ask a couple of things. Well, first, I want to highlight a few things—the voices that the FCC ignored in 2017, those like Brooklyn's own Take Shape and Staff Base and millions of other small businesses across the country whose existence depends on a free and open internet.

And the irony of millions of Americans that took the time to write the FCC opposing the repeal of net neutrality and that literally broke the public comment records doing it, yet their voices went unheard.

So, Chairman Wheeler, can you explain why so many small businesses oppose the gutting of the 2015 net neutrality protections? I think that we need to have that in context and, you know, even when we talk about rural communities the idea at the end of the day is to get us to a broadband ubiquity. But what does this mean for small businesses?

Mr. Wheeler. Thank you very much, Ms. Clarke.

If a business cannot get to its consumers it does not have a business, and the network that connects us all in the 21st century is the internet.

I remember a time when I was in eastern Kentucky meeting with coal miners who were learning to code because they had lost their mining jobs. But I also met with a young man who had a guitar shop in Pikesville, Kentucky. When the bottom fell out of the coal economy the bottom fell out of his guitar shop.

But he went on the internet and started selling guitars on the internet, and he is now a bigger business in Pikesville than he was when he was not.

If you can't get to your customers you don't have a business and the internet is how you get to your customers.

Ms. Clarke. Very well.

Ms. Livier, your testimony discussed how in your line of work lots of jobs are being migrated to the digital space and how this is an opening opportunity for people of color.

How do small companies and entrepreneurs alike end up on the losing end in the 21st century economy without open internet pro-

tections?

Ms. LIVIER. First, there is a series of ways in that you lose out, right. From my experience as an actress and as a creative person, how are people going to find you online if somebody has a faster lane than you do? So they are going to win out in order to, like, reach a client.

I do, for example, voice work and if I recorded on my laptop at home and I sent it in to my client, but if my connection is slow

then that is going to cause a problem.

So for an independent like me and folks like me it is really important to have an open internet so that is an even playing field. Otherwise, we can't—we can't compete. We don't have the pocket-books to pay for access and that shouldn't be the case.

Ms. Clarke. Absolutely. Thank you for your response.

Ms. González, anything you would like—you would like to add on that?

Ms. González. Yes. I mean, there is a lot of research out there, Congresswoman, about how people use the internet and what even a couple of seconds of delay does—turns people away to different sites.

So if I am an independent creator or if I am like my friend, Vanessa, who runs her own blog—she is two rows behind me with her 9-year-old daughter today—and my site is slightly slower than other content produced by mainstream media, some of whom also own the pipes—Comcast owns NBC Universal—they are producing content that competes with Vanessa's content—she will tell you herself she can't pay to go faster to access audience and even a few seconds of delay, people want it now.

We are in a rapid economy, rapid expectations about how we are delivered our content and it really would hamper competition and her ability to run her own business, reach an audience, earn a living.

Ms. Clarke. Very well.

Mr. Wheeler, in 2014, interconnection disputes involving edge providers, backbone companies, and the last-mile ISPs resulted in Netflix video service being degraded for some—I am sorry. I yield back, Mr. Chairman.

Mr. DOYLE. Thank you.

Ms. Clarke. Didn't realize the time.

Mr. DOYLE. The Chair now recognizes Mr. Olson from the great State of Texas, 5 minutes.

Mr. OLSON. I thank the Chair. Congratulations on your having the gavel for the 116th Congress. Here we go again, or as the New York Yankee sage wisdom of Yogi Berra said, "déjà vu all over

again."

It doesn't matter if a Democrat is in the White House, a Republican in the White House, a Democrat Speaker, or Republican Speaker. We fight, fight, and we fight and do nothing about net neutrality, and our inaction has forced agencies like the FCC and the administration to try to fill the void.

And that is sad because as Chairman Latta mentioned in his opening statements, we have so much in common—so much common ground. For example, the title of this hearing, Preserving an Open Internet for Consumers—yes. Small business—yes—and free

speech—double yes.

And then the spirit of bipartisanship, the donkey and elephant in the room, Title II, and that is when this whole thing breaks down because, as Mr. Latta mentioned, Title II is based on the phone of Alexander Graham Bell right over there.

And, sadly, instead of working together as neighbors and friends and solve this problem once and for all, we keep going down this

road over and over and over.

My first questions are for you, Mr. Franell, and Chairman Powell. In you all's testimony—mostly you, Mr. Franell—your testimony brought an in-depth analysis of how Title II regulations would harm small ISPs.

I was hoping you could expand on how shifting away from 20 years of previous precedent of being regulated under Title I would affect small ISPs such as yours.

Mr. Franell. Thank you for the question and, for the record, I graduated from high school and college in Texas. So thank you very much for—

Mr. Olson. The stars at night.

[Laughter.]

Mr. Franell. And so the reality of my world is, and Eastern Oregon Telecom has been around for almost 20 years—in those 20 years we were created to provide advanced telecommunications in a market where the incumbent was not doing their job and today that is still true.

So in the markets that we serve, Eastern Oregon Telecom, a nonregulated competitive carrier who takes no Federal dollars, no State dollars, is providing 100 meg service or gigabit service to the communities that we serve while the incumbent is still struggling to provide ten one.

So we are doing that in an area that on the interstate takes about an hour to drive going 70 if you are driving the speed limit, from one end to the other, and crosses into the Washington border.

We do that with 19 employees. Every dollar that we have made since we started has been reinvested in the company. There has not been a single distribution even for taxes to the owners, of which I am one. So the tax thing is painful, by the way.

which I am one. So the tax thing is painful, by the way.
So even as a nonregulated ISP, there are reporting requirements.
I still have to report the 470, 499—all of those reporting requirements to the FCC that helps with the mapping, even though it is not accurate.

It is still a problem. You know, we are still doing our part. I probably am—between the State and the Federal requirements I

probably have a third full time equivalent right now dedicated to regulatory reporting.

Now, to put that in perspective, every fixed wireless tower that I put up I can put up and activate for about \$10,000 and each one of those towers can serve a community or about 500 addresses.

So if I am—if I am paying full bore for a third full time equivalent, that means I am probably not expanding my infrastructure by some percentage every year. If you add a layer to that or layers to that, then I can't keep up and I can't continue to expand the network.

Mr. OLSON. So, basically, if it is under Title II your small business gets hit hard and over time fades away, fades away, and eventually it is gone?

Mr. Franell. Or, at a bare minimum, is no longer able to continue to expand and serve unserved or underserved communities in the rural remote areas of eastern Oregon and eastern—

Mr. OLSON. No new jobs, no new revenue, no new equipment, no growth, no growth, no growth.

Thank you. I yield back. Mr. DOYLE. Thank you.

We now recognize Mr. Loebsack for 5 minutes.

Mr. LOEBSACK. Thank you, Chairman Doyle and Ranking Member Latta. Really happy that we have got a good team there leading this committee.

I am a little concerned if I am going to have to keep following Mr. Olson every time, given that we are up here on the top. But we have worked together on things and thank you so much.

Mr. OLSON. Stay away from the Army and the Astros and we will be fine.

Mr. LOEBSACK. Yes. We are OK with Navy. That is right. Thank you.

A lot of great people here on the panel—a lot of great issues that we have discussed. I have worked—I have worked with a number of folks on the other side of the aisle since I got on this committee on a number of these issues, and I do want to thank you, Mr. Franell, for being here because we have over a hundred companies like yours in the State of Iowa.

My district is about the size of Shimkus', maybe not quite as big. Walden reminds us all the time that his district is bigger than my State. So I understand the issues in rural America.

But I worked with Congressman Walden to try to reduce some of those regulatory burdens on folks like you when I first got on this committee 4 years ago. I worked with Congressman Latta on precision agriculture—I am going to get to that in a second—and worked with former Congressman Costello on the mapping—I am going to get to that in a second, too.

I have some faith—how much, I don't know—but some faith that we can arrive at some kind of bipartisan solutions to these issues and I am looking over here at Gianforte. He is, like, why am I not talking about him because we worked together on EMS issues as well the last Congress, and I appreciate that, Greg.

I talk all the time about rural broadband. That is my thing. It has to be given to the people I represent in the 2nd District of Iowa and, you know, we have got to do everything we can to make sure

that the quality of service is there and we are able to build out, going forward.

I was going to ask a small business question but that has kind of been dealt with. I do want to go right to precision agriculture's growing importance with connectivity in agriculture, how important—I want to ask Mr. Wheeler this question.

How important do you think the Open Internet Order protections are for advancing smart and connected agriculture? What threats do you see for precision agriculture if these principles are not in place?

Mr. Wheeler. Thank you, Congressman.

You know, it is interesting to watch how technology—and you watch it far more closely than I do—but how technology has changed the nature of the agricultural activity and, you know, the day when you had a GPS to your tractor changed productivity for agriculture in a huge way.

We are now moving to a period where fifth generation and next generation broadband services are going to be able to put out into the field things that we haven't even imagined, any more than we

imagined the GPS to the tractor those years ago.

The reality, however, is that somebody is going to control whether or not that capability gets to that field and when you say, well, we are only going to do blocking, throttling, and prioritization, then you say everything else that I can do to advantage myself as the provider of the service can be done.

And so what—a key component of the 2015 order was how do we maintain flexibility to take a look at what happens—what we don't know is going to happen but we know will happen. That is an essence of—a key essence of how you deal with maintaining—not just having an open internet today but maintaining an open internet tomorrow.

Mr. Loebsack. Thank you. I want to move on to a mapping issue. We have got an REC in my district—Chariton Valley Rural Election Cooperative—and they are trying their best—they have tried every which way to get the FCC to allow them to provide broadband service to their service area. But the mapping as it now exists doesn't allow them because it says that there is a lot more coverage there than there in fact is.

And as I said, I worked with Ryan Costello on a bill on that. The FCC is supposed to be coming up with better maps as we speak. But it depends upon the data that they are using, obviously.

I guess I want to ask both the former Chairmen, starting with you, Chairman Powell. How the heck are we going to deal with this? I mean, Shimkus brought this up. You know, this is something that we are just fighting with all the time—and especially to make sure that we get people who want to provide that service who might not be an incumbent carrier. They are not even a telco. It is an REC. How do we get to that point?

is an REC. How do we get to that point?

Mr. POWELL. Well, I think you have all been very articulate about the essential essence and importance of mapping, and I know you have directed and the Commission is working hard to improve their map. So, hopefully, we will get an improvement with that.

Specifically with respect to the circumstances of your company and constituent, I would recommend to them there is a process in place at the FCC to challenge and appeal the current mapping to be able to demonstrate to the Commission that an area that they show is underserved or unserved is in fact unserved.

Mr. Loebsack. Right.

Mr. POWELL. And I am sure that they have been counseled and are pursuing that process. So I think that is very, very important to them.

Mr. LOEBSACK. Thank you, and I know my time has expired. Thank you so much, Mr. Chair, for letting me go on.

Mr. Wheeler, if you would get back to us on that other, appre-

Mr. WHEELER. Well, we were also whispering back and forth here. We agree.

Mr. LOEBSACK. Yes. Thank you.

Mr. Wheeler. How is that for a short answer?

Mr. DOYLE. I thank the gentleman. The gentleman yields back.

We will now recognize Mr. Bilirakis for 5 minutes.

Mr. BILIRAKIS. Thank you, Mr. Chairman. Congratulations, Mr. Chairman, and I want to congratulate the ranking member as well, and also thank you for the bold nameplates, because I have always had a difficult time seeing the nameplates and identifying the witnesses. So I appreciate that very much.

Again, first, I want to acknowledge that we need to protect users from any blocking and throttling of service that threaten freedom

of thought and consumer choice on internet services.

At the same time, I do not want to subject the internet ecosystem to a system of heavy-handed agency control regardless of the administration in charge. This too will lead to limitations on con-

sumer choice and limits on broadband deployment.

Since the 2008–2009 recession, private broadband spending increased year over year except during the period of time Title II scheme was in place. And in a October 15th, 2009, letter to the FCC, 72 Democrat Members agreed that the Commission should, and I quote, "carefully consider the full range of potential consequences that Government action may have on network investment," unquote, and urged against Government regulation.

Mr. Chairman, I would like to submit the October 15th, 2009,

letter in to the record.

Mr. DOYLE. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. BILIRAKIS. Thank you. Thank you, sir.

I have a couple questions. Mr. Franell, in the absence of a Federal solution, how does the prospect of State patchwork legislation impact any interests you may have in expanding services and creating competition just north of you to Washington State and beyond?

Mr. Franell. Congressman, thank you for the question.

So we currently do provide internet service across the river. We serve some wineries so you should come visit, and some large farms. We also serve a small community that is right on the river on the Washington side and, you know, any time there are cross-border jurisdictional differences in regulations it creates, you know, a layer of, first of all, uncertainty where, OK, well, what is different in Washington than in Oregon. Washington has got a net

neutrality law. Oregon has got a net neutrality law. They are different. How do we manage that now?

It is less of a problem for us because our goal is not making money by manipulating things. Our goal is to transform rural eastern Oregon, eastern Washington, and perhaps other areas with broadband and so that is our focus. So, you know, this other discussion about manipulation and all that, that doesn't even fit into our culture as a company. But anything that makes things more complex, you know, it slows us down. It adds a layer of uncertainty when we are dealing with different regulatory environments.

And so I would prefer to see a national standard for this and, again, a light touch. I am not absolutely advocating for Title II. I think that is a bad idea.

But legislation from the Federal Government solves this uncertainty as we look at other States in the West and the Pacific Northwest and expanding in those areas, knowing what—that the playing field is the same would provide us a lot of confidence. Not having that creates uncertainty and makes us hesitant to expand in those areas. I hope that answered your question.

Mr. BILIRAKIS. All right. Thank you very much for the input. Also, again, for you, Mr. Franell—for the most part, a business survives on maintaining a good relationship with its customers, obviously. How has the public misunderstanding of the 2015 order impacted the relationship you have with your customers despite your business not engaging in anticompetitive acts?

Mr. Franell. It was actually quite disturbing how angry people got over the topic of net neutrality, and when I talked about the inability to have a conversation about this that was rational I started talking early on about some of my concerns about net neutrality in the local newspaper, in the East Oregonian, and the feedback was visceral and irrational and I think it was driven off of fear.

So people were afraid that even though we clearly stated up front that we don't manipulate traffic, we just—that is not who we are—

Mr. BILIRAKIS. Yes.

Mr. FRANELL [continuing]. That they just were suddenly fearful and distrustful of all ISPs and somehow it became an evil entity. And so it was disturbing because our business is built on relationships.

Mr. BILIRAKIS. What about now? Are you still getting that to a certain extent?

Mr. Franell. We will see when I get home after this hearing.

Mr. BILIRAKIS. OK.

[Laughter.]

Mr. BILIRAKIS. All right. Good answer. Good answer.

Thank you very much, Mr. Chairman. I yield back.

Mr. DOYLE. Thank you. The gentleman yields back.

The Chair now recognizes Mr. McEachin for 5 minutes.

Mr. McEachin. Thank you, Mr. Chairman, and thank you for the leadership that you are demonstrating on this issue and the leadership that you are providing this committee. I am going to start off by apologizing to my staff, who worked so diligently on questions last night. But I am going to call an audible and go off in a little bit of a different direction.

Mr. Franell, I am a recovering trial lawyer and—

Mr. Franell. Bless your heart, sir.

Mr. McEachin. Thank you. And as such, I am awfully impressed by analogies and I am awfully impressed by what I would call stare decisis, and Mr. Wheeler has taken us back on a journey of 600 years of common law tradition where he tells us that the ferryman in England couldn't discriminate as he took people across the river.

That has a certain appeal to me because at the end of the day aren't you just a ferryman who is taking me from one part of the internet to another?

Mr. FRANELL. Yes, sir, and that is why we don't discriminate with traffic.

Mr. McEachin. Well, and I heard you give some support for the notion of a legislative scheme coming from Washington that ensures that. What would that look like if it is not Title II?

Mr. Franell. Well, and I am not a—I am not an attorney and I am not a legislator. I am a small businessman.

Mr. McEachin. Well, we forgive you for that.

Mr. Franell. But I—you know, I—

[Laughter.]

Mr. Franell [continuing]. Think that we need to first define what is our desired end state, and it is a free and open internet unencumbered by interference, especially noncompetitive, from any provider whether it be the ISP—

And we focus so much on ISPs but, rightly so, a lot of this discussion has to revolve around the browsers, the end users, the edge—you know, those are the folks that today are actually engaging that more often than the ISP. Most of the ISPs that I know that is not our business model and so we don't do that. And so I think we have to figure out a way to address that issue, to create clear boundaries on behavior, so that when people in—an end user like myself goes on the internet, I have confidence that I am going to get where I want to go without somebody interfering.

Now, I did talk about prioritization, and I think prioritization is—I shouldn't be deciding on prioritization. Society should be deciding on prioritization. We have talked about public safety an awful lot and how they need prioritization. That is at the heart of the FirstNet network, that we are spending hundreds of millions of dollars on it maybe in the—with the big B—I can't remember the amount—where it is this nationwide interoperable network that provides prioritization for public safety.

That solves a lot of that problem. But, you know, that is a national decision. That is not me making that decision, although I would love to be able to prioritize every 911 call that goes across a county line and it is a long distance call. I think that should just always be first.

But, you know, Title II and net neutrality says Joe, you ought to just stay out of that because somebody is going to yell at you—somebody is going to get upset with you—you are going to end up in front of Congress, and here I am.

Mr. McEachin. Mr. Wheeler, I am in my second term in Congress and new to these discussions. So I urge you and perhaps your friend, Mr. Powell, to write a book called "Net Neutrality for Dummies." It should be in a yellow cover and that sort of thing.

[Laughter.]

Mr. McEachin. But until you get a chance to do that, can you comment on what Mr. Franell said and tell me where the pitfalls might be? Or maybe you agree with everything he said.

Mr. Wheeler. So, you know, I think thank goodness for the Franells and the Eastern Oregon Telecom of the world because de-

livering to rural America is essential.

Several things—one, the laundry list that he went through in terms of the kind of forms he has to file and has to hire this person to do, most of those are not a result of the Open Internet Order.

They deal, for instance, with the mapping question that we all talk about. They deal with other issues that the FCC needs to collect information on.

Number two, prioritization for public safety activities is specifically allowed for under the 2015 act, and point three, sir, it is not just the firefighters or the policemen who ought to have the—who are affected by the lack of an open internet but it is also the people who are the victims of those emergencies who themselves need to get online and are experiencing the same blocking or throttling realities and, as a result of the decision of the Trump FCC, have nowhere to go because that is not an unfair or deceptive act or practice so long as you say, I am going to be doing that. And so there is no place to go.

We need to make sure that we have open networks and an open network includes openness and prioritization for basic and essen-

tial public services.

Mr. McEachin. Thank you. My time has expired and I yield

Mr. DOYLE. Thank you, Mr. McEachin, and I apologize for keep butchering your name. I think I got it right now.

The Chair recognizes—yes, Billy, you are recognized for 5 minutes—the great State of Missouri.

Mr. Long. Am I that forgettable?

[Laughter.]

Mr. DOYLE. I just couldn't see over there, Billy, you know.

Mr. Long. Yes, I know. I am a little guy.

Well, welcome to this round of Double Jeopardy, and today in Double Jeopardy, just like all "Jeopardy" shows, you need to form your answer in the form of a question.

So if I were to show you Mike Pence, you would say, "Who is the

Vice President?" All right.

Ms. González, you are up—first round. Who is this? Ms. GONZÁLEZ. Who is Mr. Boehner.

Mr. Long. Who—kind of close—Who is Speaker Boehner? Thank you. And there is \$45 for each correct question. I have your-

Ms. González. All right.

Mr. Long [continuing]. \$45 up here.

[Laughter.]

Mr. LONG. And next we have Mr. Powell. Mr. Wheeler, would you not bother the witness? I am trying to communicate.

[Laughter.]

Mr. Long. Next, we have Mr. Powell, and Mr. Powell, the question—or the answer—you need to ask the question but the answer is—

Mr. POWELL. Who is Speaker Pelosi?

Mr. Long. Very good. Very good. You get \$45.

And Mr. Wheeler, you are adept at history, as you have proven here today, and I know that you are a great historian so——

Mr. WHEELER. I am terrified at the picture that is coming up.

Mr. Long. I have already given you your \$45 as you—as you were trying to show Mr. Powell there. So I have great faith that you know the answer to this, and so the question—I guess this is answer. You are going to ask the question.

Mr. Wheeler. Oh, wait a minute.

Mr. Long. Correct. That is——

Mr. Wheeler. That is John Sherman, is it not? No? Who is it?

Mr. Long. I will get my \$45 back.

Mr. Wheeler. OK.

[Laughter.]

Mr. Long. No. This is Henry—Speaker, excuse me. I am doing Ms. González's trick. It is, Who is Speaker Henry Thomas Rainey? He was Speaker of the House when Title II passed Congress in 1934.

Mr. Wheeler. A wise man.

Mr. Long. And I think even Speaker Rainey would admit that a bill that he passed should not be governing this century's internet.

So a question for Mr. Powell. Mr. Powell, if we all agree that the 21st century Congress should establish basic net neutrality rules, can't we solve the problem by putting them under new authority and not use a set of rules passed by the very distinguished Speaker Rainey?

Mr. POWELL. Most certainly. You know, it is a little frustrating to hear people cite certain virtues of certain elements of Title II, which certainly could be in some form of the other written into anything new and organic, without considering the millions of pages of things that aren't considered that would also automatically apply.

It is the difference between should you dump them out in the regulations on a new and emerging service in the hope you can whittle away at it to make it optimal, or should you write from a clean sheet of paper up in order to tailor it to the circumstances

that are affecting you.

I have always believed that the internet is so dynamic, so different, so radically varied from the telephone system that any thoughtful effort to write regulations with respect to its oversight should be done from the ground up, not from the historical mountain down.

And so there are no limits to Congress' power. It can have rules strong. It can add enforcement strong and it can create the sufficient amount of nimbleness to address unforeseen situations.

I think it is a red herring to suggest that only that body of law affords that possibility of intended——

Mr. Long. Let me move on to another question for you.

Chairman Powell, we have seen a rise in the number of comments filed in response to policymaking proceedings at the FCC since your time as Chairman. However, the underpinnings of the Administrative Procedure Acts, legal—APA legal requirements involving the FCC's treatment of those comments remained largely the same as when you were the Chairman.

The APA requires agencies to consider all comments received but does the APA require the FCC or administrative agency to verify

the identity of a commenter before it can be considered?

And in the spirit of John Dingell, that is a yes or no answer.

Mr. POWELL. No, it does not require that.

Mr. Long. Is the FCC under any legal obligation to adopt—to adopt identity verification procedures? Yes or no.

Mr. POWELL. Not that I am aware of.

Mr. Long. If the public had to supply—if the public had to supply proof of identity before a comment could be considered with the FCC, could the additional burdens, not to mention force public be one of the beliefs impacted by the full and robust public participation of policymaking proceedings that have enjoyed, and I think that is probably it.

Mr. POWELL. Yes.

Mr. Long. OK. Now, in my final 15 seconds here of "Jeopardy," I would like to ask for unanimous consent to enter into the record a report examining the influence of the Obama administration over the Wheeler FCC's decision to go down the path of Title II.

Mr. DOYLE. Without objection, so ordered. Mr. Long. Yield back my 1 second. I did it.

[Laughter.]

Mr. DOYLE. I thank the gentleman.

The Chair now recognizes the gentleman from Florida, Mr. Soto, for 5 minutes.

Mr. Soto. Thank you, Mr. Chair, and I think we are developing a consensus that we do need to update the law a little bit and I am glad to hear at least that much agreement in the committee.

You know, the Communications Act was from 1934 under Franklin Delano Roosevelt. I won't—I don't have flash cards to show you all but radio and telephone were the ones that were covered at the time under Title II—common carrier—and in 1984 Congress did an amazing thing.

We actually added another chapter, Chapter 6, on cable. That was 10 years before the World Wide Web was even born. Bell Sys-

tem was broke up at that time.

Macintosh PCs and Dell computers were just launched. Mark Zuckerberg was born that year. People used pagers and cell phones the size of bricks, costing thousands of dollars. So I think we all understand it is time, right. The internet is not a fad.

The FCC tried to legislate but that is always going to be ephemeral. It is always going to be ping ponging back and forth between administrations.

And so I think the most constructive thing we could do with our time is hear from everybody and develop a new chapter. It is time

 $^{^1\}mathrm{The}$ report has been retained in committee files and also is available at https://docs.house.gov/meetings/IF/IF16/20190207/108845/HHRG-116-IF16-20190207-SD009.pdf.

for Congress to act. It is time to have a new chapter covering the

internet with new rules for the 21st century.

But I reject this being used as a stall tactic. It is time for a call for action for it rather than using this to just have more of the same for the next 2 years in this Congress. But we need rules of the road for not only ISPs but content providers and others.

There is a lot of folks that make up the internet and so it would be great to hear, briefly, one priority from each of you that—of what should be in that chapter. And keep your remarks brief or I will unfortunately have to cut you off

will, unfortunately, have to cut you off. We will start with Chairman Wheeler.

Mr. Wheeler. A referee on the field with the ability to throw the flag for unjust and unreasonable activities.

Mr. Soto. OK. And Ms. Livier?

Ms. LIVIER. I am going to piggy back on that and have that folks need to be held accountable and know that there is going to be some repercussions if they are not playing fairly.

Mr. Soto. And Mr. Powell?

Mr. POWELL. I would endorse the original four freedoms that I sponsor with sufficient flexibility to address unknown situations in the future.

Mr. Soto. And Ms. González?

Ms. González. I would support legislation that adopts the full protections of the 2015 net neutrality order.

Mr. Soto. And Mr. Dixon?

Ms. Dixon. Ms. Dixon.

Mr. Soto. Oh, sorry. Ms. Dixon. I am sorry. That says Mr. Dixon in our witness list.

Ms. DIXON. That is OK.

Mr. Soto. Ms. Dixon. I am sorry about that.

Ms. DIXON. We would support legislation that has flexibility for enforcement. The most important thing is making sure that there is a cop on the beat.

Mr. Soto. And Mr. Franell?

Mr. Franell. Thank you. I would—I would add that all pieces of the internet be treated equally so, again, not this myopic focus on the ISP but the whole internet so that the experience of the end user is equal across the board.

Thank you.

Mr. Soto. OK. Thank you for your input. That is what we are really here for, to actually use this committee to hear testimony and develop a new chapter, at least from my opinion, and I appreciate all of your advice on that as we are looking forward to working with everybody to develop actually a new chapter for the internet for the 21st century.

So thank you for that and I yield back. Mr. DOYLE. The gentleman yields back.

The Chair now recognizes the gentleman from Ohio, Mr. Johnson, for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. I appreciate it, and congratulations on your gavel. I look forward to working with you this session.

My colleague, Mr. Long, submitted for the record the 2016 Senate report entitled, "Regulating the Internet: How the White House

Bowled Over FCC Independence." This report documents how FCC staff were working on a net neutrality order that did not use Title II for consumer broadband right up until the moment President Obama announced support for Title II.

Chairman Wheeler, it is good to see you again.

Mr. Wheeler. Sir.

Mr. JOHNSON. Are you enjoying your retirement?

Mr. Wheeler. It is a different life.

Mr. JOHNSON. It is a different life. Good. Well, you have stated publicly that Title II is the only legally sustainable way to protect

net neutrality.

Putting aside for the moment the fact that the DC Circuit gave the FCC a roadmap for adopting net neutrality without Title II and your lead proposal for open internet regulations relied on Title I, isn't it true that Congress can create new authority to protect net neutrality? A simple yes or no would be helpful.

Mr. Wheeler. Well, I need to also respond to the aspersions that

you have made about me and my decisionmaking.

Mr. JOHNSON. No, I didn't—I didn't make any aspersions.

Mr. Wheeler. There have been—there have-

Mr. JOHNSON. I need an answer to the question. We are not going to debate.

Mr. Wheeler. There have been—there were five hearings over nine days held by this body—on this issue and did not come up-

Mr. Johnson. So isn't it true that Congress can create new authority to protect net neutrality?

Mr. Wheeler. The Congress always has the ability to do whatever they want. The question is, what are they going to do-

Mr. JOHNSON. OK. Good. I appreciate that. That is good for now. We are done. We are done.

Mr. Wheeler. What is the quality of the——Mr. Johnson. No, we are done. We are done, Mr. Wheeler. We are done. I have asked my question to you, so now we are done.

Mr. Franell, your written testimony states that since the repeal of net neutrality investors have been much more willing and perhaps eager to invest in rural telecommunications.

As I represent a rural district in eastern and southeastern Ohio, this is encouraging to hear. So do you think the broadband market is more competitive or less competitive than it was 4 years ago?

Mr. Franell. I think today, I think, we are seeing—and I can speak only to my area so not the whole world broadband market but the Pacific Northwest—I see more competition, more robust competition, more effective competition.

And I am part of a group, the Northwest Telecommunications Association, which is rural competitive carriers so nonsubsidized nonincumbents, and the work that is being done by them, competing in markets where, again, the incumbents have failed to meet the needs of rural markets.

I am seeing more competition now than I was, and it is not the last 4 years. Again, you know, the cash has only really freed up over the last, you know, 12 to 18 months. So that's when we have really seen the market, at least in the Pacific Northwest, start to really lift again.

Mr. JOHNSON. OK. Do you have any suggestions for the committee on how we can continue to improve the ability of ISPs to

provide broadband internet access to rural areas?

Mr. Franell. So—wow, that is a big question and we have a minute left. So, you know, I would say, first of all, find ways to encourage competition. Find ways to get the middle mile out to these rural areas and then the ISPs like mine will take it from there. It is getting that long haul out into these rural markets. I mean, it is long distance is what we are talking about.

Certainty is one of the big things, and so I love the idea of legis-

lating this instead of being regulatory.

Mr. Johnson. Right.

Mr. Franell. So if it is regulatory it just—every 4 years it seems like it changes and that is where the uncertainty comes in because, you know, we are talking about infrastructure that we are looking at, you know, a 5- or 10-year ROI sometimes.

And so to invest that money and not know that I am going to have certainty—regulatory certainty, that I am going to be able to

actually pay the bills for that is really difficult.

So this is really encouraging to me that we are talking about legislating to solve this problem. So it's not just a regulatory thing that changes when the Chair of the FCC changes. So I hope that answers that.

Mr. JOHNSON. I appreciate it.

Chairman Powell, what has been the impact on consumers over the past year of the FCC's restoring the internet freedom order?

Mr. POWELL. Well, I think if anyone fairly goes home and uses their internet they won't notice any material difference from any other time they use their internet other than perhaps to notice that

it is a lot faster than it was two or 3, 4 years ago. I would also highlight the fact that both the wireless industry and the cable industry have announced major monumental investments in new generation of networks. With wireless, you are hearing about 5G for the first time and new deployment announcements were made in 2018 and 2019, and at CES this year the cable industry announced an initiative to move to 10 gigabits per second into the home over the course of the next several years, which is a tenfold increase of any speed available today.

Mr. JOHNSON. OK. Well, thank you very much.

Mr. Chairman, I yield back.

Mr. DOYLE. The gentleman's time has expired. He yields back.

The Chair now recognizes the gentleman from Arizona, Mr.

O'Halleran, for 5 minutes.

Mr. O'HALLERAN. Thank you, Mr. Chair. I thank you, the witnesses, today for discussing this issue that I have heard from so many Arizonans about on a continual basis—an issue that has tremendous ramifications for economic opportunity and investment across rural America.

In my district the American people have spoken loudly and passionately about net neutrality. They have spoken out clearly and strong, supportive in free and open internet where winners and losers aren't predetermined and where practices like blocking and throttling have no place.

I, too, support those principles and know how critical they are to ensuring every entrepreneur, every small business, every school and town across rural Arizona and America has a fair shot at success in competing in today's and tomorrow's global marketplace.

Hearing from my colleagues here today and across the aisle as well it seems clear to me that we stand in broader agreement than what is realized. We agree the internet must be-remain openthat the rights of consumers be protected and that innovation and entrepreneurship can thrive.

As has been stated, the question now before us comes down to what we can do about it. Rural America needs a permanent enforceable solution. We can't get the investments we need as long as the courts, other States, and this body all fight over a patchwork of rules.

And so I think that Mr. Soto here took some of my question away but I am going to ask Mr. Wheeler and—Chairman Wheeler and Chairman Powell the same question, and we have a couple of minutes to get this done.

If we had to waive the many things under Title II, why can't Congress write a new title? So I want to get right to the question

that was proposed by a couple people up here.

In your experience, how do we stop the creation of a new title from becoming stalled and how do we prioritize or identify the pitfalls that we are going to be going through if we go down that course?

Mr. Wheeler. That is a great question, Congressman. Thank you.

First of all, we have to agree on what Title II means. To my friend, Title II is a list of awfuls. To my friend, Jessica, it is a list of positives.

And we have got to figure out how to do this. On this panel I might be unique because when I was running the Wireless Industry Association, my members came to me and said, "We want you to go to Congress and have us made common carriers," for precisely the reason that you said. We need uniformity of rules.

And so this body passed legislation, created Section 332 of the Communications Act, which made wireless carriers, at their request, into common carriers. That was my a-ha moment as I was thinking what do we do on an open internet rule, because after that happened, two things.

Well, one thing happened was that the rules were modernized. We went through and did the same kind of forbearance, OK. You did.

And secondly, there were hundreds of billions of dollars that were spent after that on the basis of being a common carrier under Title II and having that kind of certainty, which the industry sought.

So I think you have put your finger on the key driving force, which is how do we have a national program and how does that national program adhere to the kind of concepts that have always been established in protections of Title II.

Mr. O'HALLERAN. I want to give Mr. Powell, or Chairman PowellMr. POWELL. I would agree with much of what Mr. Wheeler said,

with a couple of really critical exceptions.

Number one, I would note that he said Congress established a section making a public determination as to what the parameters of regulation for the wireless industry, not the FCC creating it itself out of a patchwork of laws available to it.

Secondly, while wireless telephone service was regulated as a common carrier, wireless broadband service was not, and the thing that has driven the explosive growth of wireless in the last few years is with smart phones, apps, and broadband connectivity, ask your kids how many telephone calls they make with their Apple iPhone and you will see the difference.

So I wouldn't facilely assume that Title II is a competition empowering a regime. In fact, I think it is the regime favored by monopolists.

Mr. Wheeler. And the reason why nobody wanted—

Mr. O'HALLERAN. I have to cut you short—

Mr. Wheeler. They didn't know—

Mr. O'HALLERAN [continuing]. Because I got my 4 seconds to say the American people, our citizens, have the right to freedom of speech. They don't have that right if we do not allow them to have free and open access to these systems.

Mr. Wheeler. Yes, sir.

Mr. O'HALLERAN. They have a right to be heard.

Mr. Wheeler. Yes, sir.

Mr. DOYLE. The gentleman yields back.

The Chair now recognizes Mr. Walberg for 5 minutes.

Mr. WALBERG. Thank you, Mr. Chairman, and I'd like to take a point of personal privilege, first of all, to express my love and care for John and Debbie Dingell.

John really was the one who gave me the enthusiasm about fighting to get on this committee and, ultimately, on this subcommittee when he said—when I asked, as maybe some of you did, what the jurisdiction was of this committee and he pointed to a globe and said, it is the entire world.

And Debbie and I serve together well and respect that, and so I appreciate your opening comments about supporting and giving

prayers to John and Debbie at this time.

Also, congratulations to you as chairman of this subcommittee and also to my good friend and the border protector leader, Republican Leader Latta. I am happy to serve on this subcommittee finally in Congress.

And in that spirit of bipartisanship, I hope today's hearing provides a good foundation for finding a bipartisan consensus on net

neutrality legislation that, at the very least, ratchets down.

Mr. Franell, I identify with you a bit. Having had a firebombing threat, and I take that personally and the FBI, thankfully, did as well and took action relative to that.

My position, which at this time I didn't serve on this subcommittee, I wasn't involved in that debate. It is an emotional issue and I hope we all can ratchet it down.

I stand ready and willing to find a compromise that protects consumers from anticompetitive harms while not sacrificing longstanding bipartisan policies that should and could promote broadband expansion in the rural parts of my district in southern Michigan, something that remains a challenge today and which I

hope we address in this Congress.

So, Mr. Franell, when it comes down to your business decisions, which probably mirror a lot of what goes on in my district as well like investing in expanded broadband access and upgrading networks to 1G and soon 10G speeds, does the content preference of a handful of people drive those investment decisions? So it is broader than that?

Mr. Franell. It is broader than that, and, if I may, I don't want to lose—please, don't lose sight of the fact that there are still large swaths of the United States that are underserved or unserved and so any legislation or regulation that we put in place together we have to keep in mind the fact that whatever we do should not impede our ability to expand into those areas and take care of those folks.

And if I could give one quick—

Mr. WALBERG. So is there any reason for you to block, throttle, or—

Mr. Franell. No. Heavens, no. No. Again, every dollar I make, I spend on infrastructure. We responded to an RFP to provide broadband to every address in Wheeler County, Oregon.

Wheeler County is 1,750 square miles. The State of Rhode Island is 1,214. So it is larger by a chunk than the State of Rhode Island.

Rhode Island has over a million people.

Wheeler County has about 1,400 and so but those folks still live, work, contribute and trying to access them and provide broadband to them is only possible if I don't have barriers that are unnecessary hurdles that I have to jump over. And we can provide broadband to them. We responded to the RFP. We are hopeful. So there is hope for that. but—

there is hope for that, but——
Mr. Walberg. OK. I hope—I appreciate that and that's based

upon what the customer wants-

Mr. Franell. Yes.

Mr. WALBERG [continuing]. What they need and what you are able to give and based upon some—

Mr. Franell. Absolutely. I have no incentive to throttle, block, or—that is not the business we are in.

Mr. WALBERG. Thank you.

Mr. Powell, when you talk about upgrading the networks to 1G speeds and there are consumer demands for faster internet, that is mostly driven by evolving more data-demanding application services, websites, like video applications, correct?

Mr. Powell. Yes, sir. It is.

Mr. WALBERG. And as the internet matures, is it fair to say that your member companies are going to need to continue innovating and finding ways to manage their networks in order to ensure consumers get the lawful content that they want and that they can access that content without a noticeable delay?

Mr. POWELL. Yes, and your first question, just by way of a data point, according to Cisco, by 2021 82 percent of all internet traffic will be video. That is a massive bandwidth—intensive set of applications and we have to dramatically increase network capacity.

Mr. WALBERG. And that involves a lot of flexibility too, doesn't it?

Mr. Powell. Absolutely.

Mr. WALBERG. Can you reasonably manage your network if broadband is codified as an information service under Title I of the Communications Act and is there adequate enforcement to make sure you are not gaming this exception?

Mr. POWELL. We believe so.

Mr. WALBERG. So what you are essentially telling me today is the FCC can protect consumers from blocking, throttling, and paid prioritization and both ISPs and edge providers will still be able to manage their networks, innovate, and make up dates to keep up with consumers if the FCC is given Title 1 authority with robust enforcement?

Mr. POWELL. Yes, and I would add the fact that under Title 1 you also have the additional enforcement capabilities of the Federal Trade Commission, which remain viable under that regime but would not be viable under Title II.

Mr. WALBERG. OK. Thank you. I yield back.

Mr. DOYLE. The gentleman yields back.

The Chair now recognizes my friend and colleague from California, Ms. Eshoo, for 5 minutes.

Ms. Eshoo. Thank you, Mr. Chairman.

This is an important hearing and I want to thank each one of the witnesses.

Ms. Dixon, I am so proud to represent Mozilla. They are headquartered in my congressional district and you gave excellent testimony, especially about one of the most important things that happens in Silicon Valley and that is new ideas being born every single day.

And if they don't have the tools to do that—we represent the innovation capital of our country. So your testimony is very powerful.

To Ms. Livier, you just killed it. You really did. I will tell you, you are—your writing is powerful. Your artistry is powerful. Your voice is powerful, and amen.

Ms. LIVIER. Thank you.

Ms. ESHOO. I don't know how you do all the things that you are doing—an actress, a writer, a UCLA doctoral student. My goodness

Jessica, thank you. You are always outstanding, and you rep-

resent a great organization.

Mr. Franell, you are a good man and you are in the struggle of doing something that really needs to be done and that is when we have one-third of the American people who either do—are either underserved or not served at all, you are a hero in my book. You have a great—he is not here so he is not going to hear me—your congressman is a terrific representative.

Mr. Franell. Thank you.

Ms. Eshoo. To Michael Powell, I haven't seen you in a long time. It is great to see you. I wish we agreed with each other. We don't. [Laughter.]

Ms. Eshoo. But our friendship is going to survive net neutrality and to—and both of the former Chairmen, you are both really dis-

tinguished people who have done extraordinary work in the public sector that isn't always appreciated.

I haven't changed my mind—and this is not a bragging point, but I am proud of where I am and it is an important debate. Everyone

says that they love the internet—how important it is.

Where were so many people when 2 years ago this last month when ripping privacy off of the internet went through here like a bolt of lightning? Who came in? Were you here, Michael? You weren't here. Were any of the people that you represent here? No.

You know, this Title II has just been beaten to a pulp. I want to read out what applies. You decided, in the audience, and maybe the American people that are listening in how really menacing

these provisions are.

It prohibits unjust and unreasonable discrimination in charges, practices, and services. So are we for discrimination? You know, a lot of references have been made to old laws. You know what the oldest one is? The Constitution. You know, that has got so much dust on it maybe we should throw that one out, too.

Common carriers that violate provisions of Title II are liable for full damages and attorneys' fees FCC can recover or order on their behalf. Carriers are liable for actions of agents when acting within the scope of their employment. What is so horrible about that?

Provides process for FCC to receive consumer complaints and assist consumers in working out the issue with the carrier. Oh, my God. God help us if we help people with their consumer complaints.

Protect privacy of consumer information and data—boy, that is really darkly menacing, isn't it? Is it just—I am telling you, the sky

is caving in.

Ensures fair access to poles and conduits—that is a showstopper, isn't it? Is your heart stopping? Ensures access to telecommunication services for people with disabilities—you know, we can't have that. I mean, that is—that is just off the charts.

Applies certain universal service principles but does not require Universal Service Fund contributions. You know where the whole thing rests? It rests around just and reasonable charges and prac-

It is money. It is money. That is where the whole debate rests, because on the rest of it no one can hold their head up. Just as Mr. Franell said, absolutely not—I don't block and prioritization and all of that.

And, you know, the industry has really behaved themselves for

a while until the court decides what it is going to do.

But you know what? The worst example is public safety. You know, I mean, it just, like, ripped the veil off of this whole thing. Firefighters, and someone at the other end saying, you know what, if you want more service we will charge you more and you can get it, and people's lives are at stake.

I mean, come on. So, you know, to say that these provisions—these are the—what I just read are what apply. There are—the

majority of Title II there is forbearance.

So if you don't believe

Mr. DOYLE. The gentlelady's time has expired.

Ms. Eshoo. Yes. You don't believe in what is forborne and you don't accept this. I don't think these are menacing things and I think that they are worth fighting for. I really do, and how this is going to be settled I don't know. But the internet is an open free accessible internet. I think it is consistent with our Constitution and the values of the American people.

And I thank the chairman for his forbearance.

[Laughter.]

Mr. DOYLE. The gentlelady's time has long expired.

The Chair now recognizes the gentleman Mr. Gianforte. You are recognized for 5 minutes.

Mr. GIANFORTE. From Montana.

Mr. DOYLE. From Montana. Thank you, sir.

Mr. GIANFORTE. Yes. Thank you, Mr. Chairman, and thank you for the panel for being here today. I appreciate this discussion.

The internet as we know it came to be around 1995 and for 20 years it was open and free. It ushered in innovation, transformed our economy, leading to a new high-tech sector and good-paying jobs. That open and free internet gave us Amazon, Facebook, Google, and the company my wife and I started in our home in Bozeman, Montana.

We had an idea that the internet might actually make it possible for folks to work anywhere—that the internet might actually remove geography as a constraint. Our company grew from that one little room to one of Montana's largest employers. We have 1,100 employees with an average Montana wage of almost \$90,000 a

year.

Our business is just one example of how a free and open internet created more high-paying American jobs and increased opportunity and greater prosperity.

In 2015, however, the Obama administration throttled the free and open internet and with unnecessary and unilateral regulations.

The red tape was a solution looking for a problem.

The internet is a lifeline for our rural communities. It contributes to our rural economies. It ties together high-tech and agriculture, education, and health care. One in three Montanans lacks access to broadband.

Unfortunately, these heavy-handed regulatory approach has been a challenge for small telecommunications providers in our-in my district. Even the smallest Federal mandate could impact our rural providers and their ability to extend their service to new communities, further exacerbating the digital divide that we experience in this country.

As I look around this committee today and all of the testimony, I think we have a lot of agreement. I don't see anyone who opposes opening the doors of opportunity to Americans in rural communities and I don't know anyone who wants to discourage the expansion of broadband into more communities. And I don't know of anyone here who wants providers to block or throttle consumers. I think we all agree on these issues.

But the internet of 2019 is not the rotary phone of 1934 and it shouldn't be treated as such with outdated, heavy-handed regulations. I came to Washington to solve problems, and that is what Montanans expect.

The committee should work on a permanent legislative fix to promote a free and open internet with a light-touch regulatory framework. Ultimately, Congress can't and shouldn't turn over authority of unelected bureaucrats who can change how they treat the internet from administration to administration.

The internet has changed our economy in this country. It has created jobs, provided better quality of life for many Americans. We must be cautious about how we approach this, and I look forward to working with my colleagues on the other side of the aisle to find a solution that works for both sides.

So in the little bit of time I have left, Mr. Franell, I would like to direct a couple of questions to you. You testified earlier that these Obama-era regulations cut off access to capital for your business.

Is that correct?

Mr. Franell. Yes, sir.

Mr. GIANFORTE. I would like to have you just highlight for us, if you would, when a business like yours that is providing broadband to rural communities does not have access to capital, what is the impact?

Mr. Franell. Well, for instance, now that capital is freed up and I will answer it because now we have capital—there are three rural communities totaling about 800 or 900 homes to our east, and

they are remote.

They currently are all, by any definition, underserved. Our plans now—and we have the capital to do it—are to build fiber to the home in those three communities with no government subsidies. So that will transform those communities in really dramatic ways.

I mentioned the Wheeler County RFP that we responded to. With capital, we have a plan to provide robust—at least 25/3 but in many cases 100-meg-service to every address in Wheeler County, and by any definition that is a frontier county, one of the most difficult to get to.

So without that capital, I can't do that. All I can do is maintain what I have got.

Mr. GIANFORTE. In these communities are you providing broadband to schools?

Mr. Franell. We will provide broadband to—yes, it is not just residential. We do anchor institutions, residential, and commercial.

Mr. GIANFORTE. And do you provide broadband to critical access hospitals in these communities?

Mr. Franell. We do, yes.

Mr. GIANFORTE. And without capital you are unable to do that?

Mr. Franell. That is correct.

Mr. GIANFORTE. OK. I thank you for your testimony, and I yield

Mr. Franell. Thank you.

Mr. DOYLE. The gentleman yields back.

The Chair now recognizes the gentleman from North Carolina, Mr. Butterfield, for 5 minutes.

Mr. BUTTERFIELD. Thank you very much, Mr. Chairman, and thank you to all of the witnesses. I am told that the hour is late and we are going to be having to rush to the floor in just a few minutes, and so I am going to try to get through this as quickly as I can.

And I am surprised to know that so many of my colleagues also represent rural communities, and that is good to know because I too represent a rural community in eastern North Carolina. But the word "last mile" has not been expressly mentioned here in this hearing and so I want to put it on the table and make sure that we are very clear.

We have got to continue to work on the last mile. We have got to encourage investment. I certainly agree with that and internet access in rural communities is of paramount importance.

Too many citizens are without, and they are being disadvan-

taged. So let me move to Chairman Powell.

Chairman, you offer clear support for net neutrality rules including no blocking, no throttling, no paid prioritization. We certainly thank you for that, and this tells me that providers are taking the net neutrality protection very seriously.

But as you know, net neutrality rules—the 2015 rules—are being challenged in the courts and they are working their way through the courts. And so we will have a decision, I suppose, very soon.

Why are you calling on Congress to step in, considering that these 2015 rules are being litigated? Why should Congress step in at this point?

Mr. POWELL. Well, thank you for the question. I think that is a good explanation of why, because this is the fourth time these rules have gone to court. Each court cycle is 3 years in length. Whatever happens—

Mr. Butterfield. I am a recovering judge now.

[Laughter.]

Mr. POWELL. It was good to you.

Mr. Butterfield. Go ahead.

Mr. POWELL. You know, even if we get a decision this summer, there is going to be appeals to the U.S. Supreme Court, potentially, no matter the result comes out. That is a whole another year or so before you reach a decision.

If the court reaches a mixed decision and part of it is upheld and part of it is remand, there's a whole another FCC regulatory process that could take another year before we even get a final compilation of those rules.

There comes a point at which it is obvious that the problem the Commission struggles with is the absence of clear direction from the people's representatives, and that would bring finality and moot the court jurisdictional fight and that is why we call on you.

Mr. Butterfield. What regulatory framework will best assist in expanding broadband access in rural communities like I represent?

Mr. POWELL. One that is very, very favorable to incentivizing in investment of private capital because the fundamental problem of a rural community is it is inherently uneconomic to serve.

That is, there is either not enough revenue to cover the cost of deployment or the cost of deployment is too high, based on the amount of revenue available.

Anything that might raise those costs significantly only further impedes the ability to meet those remote areas.

Mr. Butterfield. Now, you mentioned the need for stronger protections for consumers and providers. Do you support Congress cre-

ating these new protections and what types of proposals would you

consider to be strong?

Mr. POWELL. I do wholeheartedly. In many ways it is odd for me to hear people criticizing the bright line rules. I have watched this issue for 14 years. The movement to bright line rules was proposed by the most virulent advocates of net neutrality in order to bring certainty and clarity to what is covered.

We have evolved with the debate and we fully endorse those rules that the Commission adopted in 2015, ones that were adopted in 2010, and we are perfectly willing to work with you on any new

set of rules you might consider.

Mr. BUTTERFIELD. Thank you.

Finally, Ms. González, thank you for highlighting the disparities that exist in traditional media for minority communities. I share those concerns. Can you tell me the effect that net neutrality violations like blocking and throttling might have on minority communities? And you have a minute to do that.

Ms. González. Yes, Congressman. Thank you for the question. You know, I think traditionally we have not had a voice in the media in the same way that white folks have. The open internet has democratized not only our access to find an audience, to create small businesses, to make sure that we are able to tell our own stories in our own words.

And so if there is blocking or throttling that would lessen our access to having our stories told in the American fabric that has otherwise been defined by mainstream media gatekeepers.

Mr. Butterfield. So are you saying that it would disproportion-

ately affect minority communities or—
Ms. González. I would say yes. Yes, because we have had less access to mainstream media and the access to the internet to tell our stories has been critically important to change the narrative and invite people to understand who we are.

Mr. Butterfield. Thank you for your passion. I support you

Ms. González. Thank you, Congressman.

Mr. Butterfield. Thank you, Mr. Chairman. I yield back 3 seconds.

Mr. DOYLE. The gentleman yields back.

The Chair now recognizes the gentleman from Texas, Mr. Flores, for 5 minutes.

Mr. Flores. Thank you, Mr. Chairman. I appreciate this hearing

and appreciate the witnesses for joining us today.

I think I am picking up a consensus that Congress needs to act, that it needs to develop a new section to prohibit throttling, blocking, and discrimination in the internet and I think that we can find a way to do that and do it in a way that does—keeps the FCC out of the litigation box, if you will.

That said, my concern about the way Title X has been attempted to be used in the past is that it doesn't have anything to do with net neutrality and so it is not an effective tool for that purpose.

That is the reason Congress needs to act.

So let us have some questions about Title II just so we can get an idea what could go wrong if you had another FCC that wanted to try to go further than even the 2015 FCC.

So, Chairman Powell, could you confirm whether Title II could lead to the following? The Government setting prices.

Mr. POWELL. Yes, that is possible.

Mr. FLORES. The Government determining what services ISPs can offer consumers and whether and how they are bundled.

Mr. POWELL. That is also possible.

Mr. FLORES. That the Government could be directing where ISPs put their investments and how much they should earn.

Mr. POWELL. Yes.

Mr. FLORES. OK. That the Government can dictate how parts of the internet should be interconnected and on what terms?

Mr. POWELL. Most definitely.

Mr. FLORES. OK. And then the Government requiring ISPs to share their networks that they built with private capital?

Mr. Powell. Yes.

Mr. Flores. OK. And then lastly, and this is a little bit of a wild card, could it be used—we are all excited about potential of 5G and I know we are talking wireless versus wired, but is there any way that Title II could be used to inhibit the effective and efficient role out of 5G?

Mr. POWELL. Well, as we said, if 5G is a telecommunication service not only the voice component of it but the data component of it, then it would—it would suffer from the same restrictions that we have talked about all afternoon.

Mr. FLORES. I look at 5G as a dynamic information service and communications is only a small part of it.

Mr. Franell, like you, I represent several rural counties in Texas and I am very concerned about trying to make sure that those rural counties have the opportunity to move to the dynamic side of the digital divide.

And you discuss in your testimony how every dollar that goes to regulation is a dollar that doesn't go into new broadband infrastructure. Don't these kinds of onerous regulations in Title II crowd out competition and force smaller operators out of business?

Mr. Franell. Yes. I think—and so I have—I have specific concerns about Title II, and if you will bear with me let me list them

real quick.

Mr. FLORES. Be brief.

Mr. Franell. Real quick.

Mr. Flores. OK.

Mr. Franell. First one is determining price, and the cost to build the infrastructure and deliver broadband varies wildly based on location.

Mr. Flores. Correct.

Mr. Franell. And so price—determining price can be catastrophic for rural broadband. The second thing is taxation and fees on broadband, and if you were to apply State Universal Service Fund of Oregon, Federal Universal Service Fund, and then franchise fees to broadband because applying Title II and removing that exemption you could end up with a 20 to 30 percent increase in end user broadband costs.

Mr. Flores. OK.

Mr. Franell. With no productive outcome.

Mr. FLORES. That is another—

Mr. Franell. Those are the things that concern me about Title II.

Mr. Flores. OK. OK. That is the reason Congress needs to come

up with a new title to deal with a new area of technology.

My friend, Mr. Shimkus, ran out of time and I heard Chairman Wheeler and Chairman Powell answer this question that he had about prioritizing internet traffic to protect our borders.

I just wanted to see if the rest of the panel agreed. Should—Ms. Dixon, should internet traffic be prioritized to protect our border?

Ms. DIXON. We already have an exception in the 2015 order with respect to public safety.

Mr. FLORES. So that would be a yes. OK.

Ms. Livier?

Ms. LIVIER. I echo her response. Mr. Flores. OK. Mr. Franell?

Mr. Franell. Yes.

Mr. Flores. OK. Ms. González?

Ms. González. No.

Mr. FLORES. OK. If not, why? Quickly.

Ms. González. I don't want to construct any more walls on our border.

Mr. Flores. OK.

Ms. González. I just am morally opposed to that.

Mr. Flores. Gotcha. OK.

And lastly, Mr. Chairman, I would like to—there was a comment made in the testimony both verbal and written that says that—that says to the extent that Mozilla would not exist today without net neutrality. I want to give you some dates, for the record.

The first version of Phoenix, which ultimately became Firefox, rolled out in 2002. Firefox 1.0 rolled out in 2004. The FCC open internet rule was in effect—was rolled out in February of 2015. It became effective in June of 2015. So Mozilla prospered before net neutrality was in place.

Thank you. I yield back.

Mr. DOYLE. Thank you. The gentleman yields back.

The Chair now recognizes the vice chair of our subcommittee, Ms. Matsui.

Ms. MATSUI. Thank you, Mr. Chairman, and welcome to all the witnesses. I know it has been a long time sitting there.

I know many issues have been covered today and I—one of the issues that I want to concern ourselves with as we continue to grapple with network security in the current next-generation networks and the issue has even gained more notoriety because of the potential intelligence threats posed by Huawei and ZTE.

Now, these companies have provided access to inexpensive and readily available networking equipment to carriers in the U.S. and around the world, and as many of you know, the FCC is currently considering how to balance its universal service mandate with a need to ensure our communication networks are secured from the threat of foreign actors.

Now, in the larger conversation surrounding net neutrality, broadband expansion, and next-generation networks, how should we balance these security concerns?

Now, I expect the Chairmen would have some things to say about it, but I was wondering if anyone else on the panel wanted to start.

OK. Mr.—Chairman Powell, would you like to say something?

Mr. POWELL. Yes, Congresswoman. Thank you.

We have to put front and center concerns—increasing concerns about supply chain security and it needs to be designed from the beginning up. You know, Congress has addressed supply chain issues recently in the National Defense Authorization Act, which we support, and DHS recently launched a supply chain risk management effort, which NCTA members actively participate in.

So we think this is an extraordinarily important activity and we

remain committed and highly focused on these issues.

Ms. Matsui. OK.

Chairman Wheeler?

Mr. Wheeler. History is clear that networks are attack vectors and we should expect that the network of the 21st century is an attack vector for cyberattacks.

The question is whether we are going to sit back and play whack-a-mole in response to those attacks or whether we are going to get in front of them.

Ms. Matsul Right.

Mr. WHEELER. The—Mike just talked about the supply chain. As we left the Commission, we put out a report on the importance of supply chain cyber management to networks that the Trump FCC then pulled.

The Trump FCC has repeatedly said they don't think they have any jurisdiction over the security of the network they have been entrusted to oversee. They pulled the requirements that we put in place for 5G cybersecurity and what we are in the process of blowing is the opportunity to deal with cyber as a forethought rather than as an afterthought.

Ms. Matsui. OK.

You know, I mentioned here as part of this the universal service mandate and I know a lot of people probably think this is boring but it really isn't. The contribution reform regarding the Universal Service Fund—I think in 2006 this committee considered an effort aimed to ensure a stable contribution base for universal service.

Universal Service Fund codified the belief that all Americans should have access to advanced communication services and rural customers should have access to reasonably comparable services at reasonably comparable rates.

Now, contributions to the Federal and universal service support mechanisms are currently based on a percentage of carriers, interstate, and international end user telecommunications revenues.

A necessary part of this discussion surrounding broadband classification is the issue of contribution reform. In the first quarter of 2019 the contribution factor is 20 percent and that number may well continue to climb.

Thirteen years ago the committee considered several different methodologies for the FCC to use when assessing universal service contributions. Mindful we should not make broadband access less affordable, but do you have any suggestions on how to ensure the long-term stability of the Universal Service Fund? And we don't have much time but you might comment on it.

Mr. Wheeler. Yes. You need to expand the base. You cannot rely on a shrinking ice cube.

Ms. Matsul. Absolutely. But we seem to kick the ice cube down the road.

Mr. Wheeler. But every time—every time you want to talk about expanding the base you hear what we hear today—oh, that is going to increase costs for this broadband service or that. We have—we have heard today the importance of delivering to Wheeler County—boy, I like that—and to rural America.

And we have also heard but let us don't raise the money to support that.

Ms. Matsul. Right. OK.

Mr. Wheeler. That is the conflict and, again, it falls—

Ms. Matsul. Well, this is a central—

Mr. DOYLE. The gentlelady's time has expired. We are going to try to get this in before votes and we still have four more witnesses. So I thank the gentlelady for her patience.

The Chair now recognizes Mr. Welch.

Mr. Welch. Thank you very much, Mr. Chairman, and I want to thank the panel. A big concern I have no matter what we do is to get broadband built out on rural areas. You just mentioned that, Mr. Wheeler.

And Mr. Franell, I congratulate you. I live in a rural part of Vermont—eight-mile dirt road—and we have high speed internet and it is a local small company, nonprofit that somehow figured out to do what the big telecoms haven't done and listening to you it sounds like you have done that as well. So my hat is off to you.

But on this question of repealing the net neutrality rules that were part of the Wheeler FCC, one of the arguments that was made is that if we got rid of the heavy hand of regulation that it would result in an expansive capital-intensive commitment by our major telecom carriers that would build out into rural America.

And it turns out that is a fairy tale. I mean, Chairman Pai—because this was a question I think I asked him—he said without the overhang of heavy-handed regulation—and I don't know where this heavy-handed deal is coming from because everyone who is complaining about the heavy hand says they are for what the light hand accomplished.

So there is a lot of rhetoric here. But what Chairman Pai said quite specifically was without the overhang of heavy-handed regulations, companies will spend more building the next-generation networks.

As those networks expand, many more Americans, especially low-income rural and urban Americans, will get high-speed internet access for the first time. And it turns out my skepticism of that assertion has been proven right.

Today, the Financial Times reported that the big four U.S. broadband companies invested less in capital projects last year than they did in 2017, which is when the Wheeler net neutrality rules were still in place, which totally undermines one of the rationales for repealing the net neutrality rules.

And it also showed—that article—that the four companies collectively undertook less capital spending in 2018, and that is the first time there has been a drop in 3 years when the net neutrality rules were first put in place.

Mr. Chairman, I would like to put the Financial Times article

published today in the record, if I may.

Mr. Doyle. Without objection, so moved.

[The information appears at the conclusion of the hearing.]

Mr. Welch. All right. So we all know about the inadequacy in rural America. Twenty-four million Americans lack access to fixed broadband at high-speed internet speeds. Thirty-one percent of Americans in rural areas lack access to broadband. Forty-four million Americans lack access to both fixed broadband at 25/3 speeds and mobile LTE broadband at 10/3 speeds.

I mean, we have—we are on the verge of abandoning rural America and that has got to change, and it is not just regulations. This is about investment. Somehow you have figured out how to do it. ECFiber has figured out how to do it. My view, the big four don't particularly care to do it. There is not a lot of money to be made for them.

So now we have a situation where we don't have the protection of the net neutrality rules in the Wheeler administration in rural America and we are not getting the build out. And I will just ask you, Mr. Wheeler, are you surprised by the earnings report that indicate no increase in capital expenditures since the net neutrality rules came off the books?

Mr. Wheeler. No, sir.

Mr. WELCH. Mr. Powell, can you explain the decrease in capital

expenditures last year compared to the previous 3 years?

Mr. POWELL. I can. The headline numbers in those reports are wrong because capital expenditure in net involves more than investments just in networks. If you look carefully at the earnings reports an enormous amount of that capital reduction was due to the video business and the CPE business, not the network connectivity business.

If you sorted out those decreases for loss of video investment because of competition you would find that the increase—there has been an increase in investment in networks.

Mr. WELCH. OK. I don't want to dwell on this but I don't understand a word you just said.

[Laughter.]

No, and I don't mean that—I really don't understand it and maybe I have to be an accountant. But bottom line, these are year-over-year numbers and what I am seeing is that whatever that explanation is, there is not more internet access in rural America. I mean, we need more people like your company.

Ms. González, would antitrust law prevent an ISP from blocking access to a lawful website that presents an opinion the ISP does

not want?

Ms. González. No.

Mr. Welch. Would antitrust law address the situation, Ms. González, where an ISP slowed down lawful internet traffic after it was pressured to do so by a political figure?

Ms. González. No.

Mr. DOYLE. The gentleman's time has expired. Mr. WELCH. I yield back. Thank you, Mr. Chair.

Mr. Doyle. The Chair now recognizes the gentleman from New Mexico, Mr. Luján.

Mr. LUJÁN. Thank you very much, Mr. Chairman.

Mr. Chairman, we know that this definitely matters. Otherwise, there wouldn't be so much interest, not just here in this committee room but with the millions of people across America who responded to this order.

I know that we are still trying to make sense of the number of bots and trolls that are part of that filing. But nonetheless, I hope that Chairman Pai allows us to make sense of who is a real person and which part of those finally should be taken out. I hoped that we would all agree with that.

The foundation of a record in order to make a decision is only as solid as the quality of the information that has been collected. I think that as Chairman—I would hope, Chairman Powell and Chairman Wheeler, you would both agreed with that, with the im-

portance of what happens at the Commission.

Now, when Chairman Pai announced that he was repealing the 2015 Open Internet Order, he said, and I quote, "Many more Americans, especially low-income rural and urban Americans, will get high-speed internet access for the first time and more Americans

generally will benefit from faster and better broadband.

Mr. Wheeler, the question that I have there is, is this true? Does the repeal of the 2015 Open Internet Order mean that more New Mexicans will have access to high-speed broadband and how does the repeal of that order meaningfully change the economics of building out in rural and tribal communities?

Mr. WHEELER. Mr. Luján, this self-serving economics manipulation has been used by the Trump FCC like a drunk uses a lamp-

post—to lean against, to support the unsupportable.

We have heard comments about what investment was before and what investment was afterwards. There is only one reason to invest and that is to get a return. You don't say, I am not going to invest because of regulation. You say, I am going to invest because I am going to get a return.

And one of the things we have to do, especially in New Mexico and other rural States, is to make sure that we have programs in place that help get that return—a universal service support program, which itself needs to be directed towards building, towards capital expenditures, rather than operating expenditures.

Mr. Luján. And, Mr. Powell, in your response to Mr. Welch I think you touched on this. Do you have the same viewpoint of Mr.

Wheeler or would you agree with sentiment of my question?

Mr. Powell. I would say since 2016, at least in the cable industry, we have had a very significant increase in our network investment. Two years ago, 4 percent of Americans had 1 gigabit speeds. As of the end of 2018 in our industry 80 percent of American households had gigabit speeds. That is a pretty substantial—

Mr. Luján. But, Mr. Powell, my question is specific to tribal communities in rural America in places like where I live. Does the same hold true in States like mine with the statistics you just laid

out?

So if I went back and I evaluated your response would I see a correlation in New Mexico?

Mr. POWELL. Well, you—look, the low-income, hard-to-serve areas are a problem we all agree with serving. I am not so sure whether any of these order fundamentally change that challenge. But, yes, I believe some of this advancement for the citizens of New Mexico is just as viable as it is in other States.

Mr. LUJÁN. Well, I appreciate your response because we agree with these challenges. Chairman Pai said that this was going to revolutionize access in rural America and to tribal communities in places like where I live and it is not-

Mr. Powell. Well, he's the other brown guy. I am not the

Mr. Luján. Well—no, but my point is, it is not true. It is not true, and that is the concern that I have for the constituents that

I represent. I will park that aside.

There are a few things, Mr. Chairman, that I want to get into the record, and I have one question for Ms. González I want to get in. There is an article that I want to submit into the record. It is now clear none of the supposed benefits of killing net neutrality are real. This points to the question I just asked. It is an article by Karl Bode with Motherboard. If I may, Mr. Chairman.

Mr. Doyle. Without objection.

[The information appears at the conclusion of the hearing.]

Mr. Luján. A letter from the internet service providers to Chairman Pai with concerns associated with the order as well, Mr. Chairman, dated June 27, 2017.

Mr. DOYLE. Without objection.

[The information appears at the conclusion of the hearing.]

Mr. Luján. An article, "Filtering Out the Bots: What Americans Actually Have Told the FCC About Net Neutrality Repeal." This goes to the essence of my opening statement as well, Mr. Chair-

Mr. Doyle. Without objection.2

Mr. Luján. And statements from my district as well associated with the net neutrality that I would like submitted into the record. And, Ms. González, I apologize. My time has expired.

Mr. Doyle. Without objection.³

Mr. Luján. I will submit this to you for the record, and I have a few other questions that I will submit to the remaining panelists.

I really appreciate you all being here. Thank you for taking the time. Thank you, Mr. Chairman.

Mr. Doyle. The gentleman's time has expired.

The Chair recognizes Mr. Schrader for 5 minutes.

Mr. SCHRADER. Thank you very much, Mr. Chairman, and thank

the witnesses for coming here, and excellent testimony.

I have to admit I came to this hearing with some degree of trepidation about how it might be conducted and I would like to think we demonstrated a good civil discourse on a very contentious issue

 $^{^2\}mathrm{The}$ information has been retained in committee files and also is available at https://docs.house.gov/meetings/IF/IF16/20190207/108845/HHRG-116-IF16-20190207-SD012.pdf. $^3\mathrm{The}$ statements have been retained in committee files and also are available at https://docs.house.gov/meetings/IF/IF16/20190207/108845/HHRG-116-IF16-20190207-SD013.pdf.

that, from my standpoint, everyone seemed to be in agreement we should fix.

Devil is in the details how to go about that, of course. But everyone came out in favor of the key elements of net neutrality. They at least spoke, which is encouraging from my standpoint, and folks seem to be interested in actually solving the problem—big quotes

on solving the problem—going forward.

This thing has been floating around since the Bush administration. The rules of the road seem to be depending on which party occupies the central office, the presidency. I think, Chairman Powell, you mentioned in your testimony over the last 15 years 6 different FCC Chairmen from both political parties have wrestled with this issue. Net neutrality has been at the courts 4 different times—more coming up, from what you were saying.

You know, I have to believe this leaves consumers, you know, virtually unprotected and businesses completely in the dark about what the rules of the road are and that is not good for anybody or

everybody, at the end of the day.

Consumers and folks in the industry I think all agree we need the transparency, no blocking, no throttling, no paid prioritization except for health and public safety—that came out here today—and no discrimination. Thank you very much for the testimony that Ms. González and Ms. Livier gave. I think that is very important.

I am an Article I of the Constitution person at heart. My job is to legislate. Congress is supposed to be the legislative body. We have far too long abdicated, I think, our responsibilities to the executive branch and we end up—put Mr. Wheeler and Mr. Powell in tough situations doing the best they can. They have done yeoman's work. I appreciate the work both of you have done.

So I think what we have heard so far today is that Congress has failed, you know, to provide the FCC with clear legislative and congressional direction and I, for one, like several others here have

also said today favor that we go down that route.

The last Congress I supported Congress—or excuse me, Chairman Doyle's resolution of disapproval of Chairman Pai's rule because it is pretty irresponsible for Chairman Pai to roll back the Wheeler order without putting in any other, you know, enforceable protections for consumers.

I would love to see our subcommittee work in a bipartisan manner, finally codify some rules with all your help and people out there and back in my home district to protect consumers and provide those clear rules of the road. I think there is an opportunity.

And for my colleagues who are truly concerned following Chairman Pai's action about consumers not being protected right now, if we choose not to solve this problem in this Congress, then those consumers will continue to be at risk at least over the next 2 years and quite possibly into the distant future.

So I think it is time to end the uncertainty for consumers and businesses, do our job, legislate net neutrality.

And with that, I yield back, Mr. Chairman.

Mr. DOYLE. The gentleman yields back.

I recognize the gentleman from California, Mr. Cárdenas, 5 minutes.

Mr. CÁRDENAS. Thank you very much, Mr. Chairman, and thank you so much for having this hearing.

I take it that everybody at this panel is for open and free internet. Is that true?

Ms. Dixon. I am.

Ms. LIVIER. Yes.

Mr. Franell. Yes.

Ms. González. Yes.

Mr. POWELL. True.

Mr. Wheeler. You bet.

Mr. CÁRDENAS. Mr. Chairman, what are we doing here?

[Laughter.]

Mr. CARDENAS. Problem solved. It is not an issue.

Some people would have believed that just allowing things to be the way they are is solving a problem. But I believe that doing nothing in today's space and watching the courts decide the fate of consumers, of smaller businesses, good actors like yourself, Mr. Franell. I am very impressed with your intent and your actions. Thank you so much.

But not every actor on the playing field that we are talking about today has that kind of will and commitment to not do things differently if in fact the lanes are not defined and that is the biggest problem that we have here.

I think we have former incredible Chairmen here. I have so much respect for both of you, former Chairman Powell and then former Chairman Wheeler.

Every time I talk with you I feel enlightened, and I am not joking. I really, really do. The ability for you to articulate the decades of knowledge that you have on something that even one of my colleagues actually said, I don't even understand what you just said.

[Laughter.]

Mr. CÁRDENAS. That—that is amazing, and thank you for your service. Thank you for your service when you were in the public sector as Chairman of the Commission, and thank you for your service in the private sector continuing to try to wrap your head around how do we make a better world for everybody. So thank you so much.

And to all of you—Ms. González, for what you do and I believe that you are in the public sector in the sense that you work for a not-for-profit and you are just trying to make things better for the least among us, and I don't mean it in a derogatory way.

I am talking about the smallest of the smallest businesses, the mothers and fathers who—they just want to make a life for their family better and this happens to be the space that they are doing it in

And for those of you who are in the smaller space on the playing field, God bless you, because you can get squashed like a bug or run over in a moment's notice and most people wouldn't even know you are gone. So thank you for all that you do.

But, Ms. Dixon, if you want to take the opportunity. I think that there was a question—that my esteemed colleague from Texas, Mr. Flores, mentioned Firefox and I think that you may have wanted to comment but ran out of time.

Ms. DIXON. I did. I think that the notion that Firefox and that Mozilla was created at a time when that neutrality rules weren't in play is just silly. We are starting back from the status quo. As much as I have a ton of respect for Chairman Wheeler, he didn't actually create that neutrality. That neutrality existed on the internet for years and years and years.

What we had, we had principles under Chairman Powell's regime in the FCC. We also had merger agreements that had restrictions with respect to net neutrality. We had lots of protections in play

and that is what the web was founded on.

So we were founded—Mozilla and Firefox—during an era when that neutrality was strong. It is now, today, for the first time that we actually don't have net neutrality rules that protect consumers.

Thank you.

Mr. CÁRDENAS. OK. And the thing is that when you talk about protections I call them lanes. I happen to have been a small business owner at one time in a regulated industry and some of my colleagues would get upset when more regulations would come along.

And I would look at those regulations and read them, and then I would realize that many of them actually helped us stay within our lane and actually helped us make sure that we stayed out of the legal system because we had lanes that we could follow.

And when we followed them we could defend ourselves and say we did proper practice when somebody was trying to sue us or

what have you and things of that nature.

So lanes, to me, are very important and this is an arena where the lanes are basically muddled and right now the courts just might even make it even worse as far as less lanes for us to—for everyone to follow by.

But also, Mr. Franell, again, my compliments to you. But at the same time, you mentioned something in your opening statement about the bad actors and kind of like, you know what, the bad actors they will get weeded out because they will lose business.

But with all due respect, the smallest businesses in this space can disappear almost overnight because of a bad actor that they had, you know, run into like a Mack truck. That is—that is my concern—that when we have lanes less of that, the smallest players

on the field, disappear.

And I just want to thank Vanessa, if you don't mind—I met your daughter—if you don't mind me mentioning her name. People like Vanessa, this is the means of which she feeds her daughter, Alina, and I just got to tell you we have to make sure that what we do, Mr. Chairman—and I'll yield back in just 2 seconds—we have to think about everybody, not just the largest players on the playing field.

Thank you, and I yield.

Mr. DOYLE. The gentleman yields back.

The committee would like to welcome Mrs. McMorris Rodgers, who waived on today, and you are welcome to speak for 5 minutes.

Mrs. McMorris Rodgers. Great. Thank you. Thank you, Mr. Chairman. I appreciate the chance to join you all today on an issue that I believe should have been resolved probably many years ago in a bipartisan fashion.

Up until really 2015 there had been decades of bipartisan consensus on the principles of an open free internet—principles that would ensure consumer protections without disrupting the free flow of information and innovation that has made it the cornerstone of our 21st century economy.

This debate isn't about the merits of an open free internet. I support an open free internet. I think we have large agreement on supporting an open free internet. Colleagues on both sides of the

aisle have mentioned that.

This is really about how we as Americans want to shape the future of our economy. Do we want to regulate the internet as a 1930s style utility where we have more burdensome regulation and

price controls that I fear will stifle innovation?

An internet that will leave many rural and underserved communities behind, like in my district? Or do we want a 21st century internet that will juice our economy, create jobs, and allow us to be a leader in new cutting-edge technologies like AI or IoT, autonomous vehicles—an economy that utilizes advances in technology to lift people out of poverty and provide them with more economic opportunities?

I think we all agree that we want the latter. That is why I am introducing the Promoting Free Internet Freedom and Innovation Act, and this bill is based upon Washington State law. It would codify the bright line rules of net neutrality, specifically, no block-

ing, no throttling, no paid prioritization.

This is a solution that passed in my home State on a widely bipartisan basis, a bill that was signed by Democratic Governor, supported by Democrats in the congressional delegation, and was praised by former FCC Commissioner Clyburn.

But, most importantly, it is a solution that does not institute changes to the internet that would stop innovation, stifle broadband deployment, and leave millions of Americans behind a solution that codifies the key principles on which both parties agree and have agreed for many years.

The internet has revolutionized every single aspect of our lives. It has changed how we communicate. It has changed how we ap-

proach our own personal health or travel across town.

It has improved the quality of life for millions of Americans. We all agree it is vital to our future and the opportunity that it provides for our economy and hardworking men and women in our 21st century is really endless.

I want to once and for all resolve what I believe is a manufactured political debate and provide certainty to the internet ecosystem so that we can make that opportunity a reality for every single American.

So I would like to focus my questioning on the Federal versus State debate. While I believe that the provisions of the Washington State law are reasonable and consistent with the principles both parties have been disusing at the Federal level for years now, I do not believe that is wise to regulate by a State-by-State approach.

The internet is the key to interstate commerce. It does not end at our borders and a Federal solution is the only way forward.

Chairman Powell, can you briefly discuss why pursuing an open internet regulation at the State level can be harmful to innovation and consumers and why do we need the Federal solution?

Mr. POWELL. I remember when the internet really rose there was an economist author named Frances Cairncross who said this was the death of distance. This was a network that knew no boundaries, respected no geographical limitations, and consequently can't really responsibly be regulated in buckets and chunks.

We have understood those principles since the days of interstate commerce in trucking, in the environment, and all kinds of areas where you just don't have an ability to logically organize law around different State jurisdictions.

I think there is no question that the internet is interstate in nature. It would be hazardous to regulate it in any other than a single comprehensive way.

Mrs. RODGERS. As a followup, do you believe the FCC currently has the authority to preempt attempts to regulate this issue at the State level?

Mr. POWELL. I do. That has been their position and I also believe that it would fall under conflict preemption, meaning the two regimes are not reconciled.

Mrs. Rodgers. And one final question—do you believe that the Washington State law and this legislation are consistent with the four internet freedoms you described in 2004 when you were Chairman of the FCC?

Mr. POWELL. My limited understanding of it is yes. I think there are some aspects of it be examined more carefully like specialized services. But I also would note it's a really productive piece of work and didn't include anything that looks like Title II.

Mrs. Rodgers. Thank you. OK. I yield back.

Mr. DOYLE. Thank you.

The Chair is going to request unanimous consent to enter the following documents into the record: an article from Free Press, a letter from Consumer Reports, a letter from the American Library Association, a letter from Tech Freedom Coalition, an article from Motherboard, an article from Financial Times, and a 2010 letter to former FCC Chairman Genachowski.

Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. DOYLE. I want to thank the witnesses for their participation in today's hearing. We genuinely appreciate you coming here and I want to remind Members that, pursuant to the committee rules, they have 10 business days to submit additional questions for the record to be answered by the witnesses who have appeared.

I would ask each witness to respond promptly to any such questions that you may receive.

At this time, the subcommittee is adjourned.

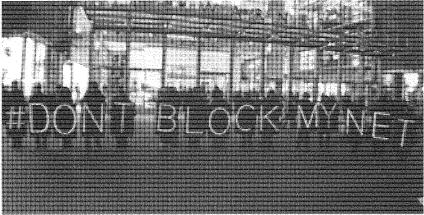
[Whereupon, at 2:20 p.m., the committee was adjourned.] [Material submitted for inclusion in the record follows:]

FREE PRESS

EXPLAINER—Net Neutrality

Net Neutrality Violations: A Brief History

January 24, 2018 Timothy Karr



Original photo by Flickr user the Backbone Campaign

For years a lineup of <u>phone- and cable-industry spokespeople</u> has called Net Neutrality "<u>a solution in search of a problem.</u>"

The principle that protects free speech and innovation online is irrelevant, they claim, as blocking has never, *ever* happened. And if it did, they add, market forces would empel internet service providers to correct course and reopen their networks.

In reality, many providers both in the United States and abroad have violated the principles of Net Neutrality — and they plan to continue doing so in the future.

This history of abuse revealed a problem that the FCC's 2015 Net Neutrality protections solved.

Here's what happens when cable and phone companies are left to their own devices:

MADISON RIVER: In 2005, North Carolina ISP Madison River Communications <u>blocked the voice-over-internet protocol</u> (VOIP) service Vonage. Vonage filed a complaint with the FCC after receiving a slew of customer complaints. The FCC stepped in to sanction Madison River and prevent further blocking, but it lacks the authority to stop this kind of abuse today.

COMCAST: In 2005, the nation's largest ISP, Comcast, began secretly <u>blocking peer-to-peer technologies</u> that its customers were using over its network. Users of services like BitTorrent and Gnutella were unable to connect to these services. 2007 investigations from the Associated Press, the Electronic Frontier Foundation and others confirmed that Comcast was indeed blocking or slowing file-sharing applications without disclosing this fact to its customers.

TELUS: In 2005, Canada's second-largest telecommunications company, Telus, began blocking access to a server that hosted a website supporting a labor strike against the company. Researchers at Harvard and the University of Toronto found that this action resulted in Telus blocking an additional 766 unrelated sites.

AT&T: From 2007–2009, AT&T forced Apple to <u>block Skype</u> and other competing VOIP phone services on the iPhone. The wireless provider wanted to prevent iPhone users from using any application that would allow them to make calls on such "over-the-top" voice services. The Google Voice app received <u>similar treatment</u> from carriers like AT&T when it came on the scene in 2009.

WINDSTREAM: In 2010, Windstream Communications, a DSL provider with more than 1 million customers at the time, copped to hijacking user-search queries made using the Google toolbar within Firefox. Users who believed they had set the browser to the search engine of their choice were redirected to Windstream's own search portal and results.

MetroPCS: In 2011, MetroPCS, at the time one of the top-five U.S. wireless carriers, announced plans to <u>block streaming video</u> over its 4G network from all sources except YouTube. MetroPCS then threw its weight behind Verizon's court challenge against the FCC's 2010 open internet ruling, hoping that rejection of the agency's authority would allow the company to continue its anti-consumer practices.

PAXFIRE: In 2011, the Electronic Frontier Foundation found that several small ISPs were redirecting search queries via the vendor Paxfire. The ISPs identified in the initial Electronic Frontier Foundation report included Cavalier, Cogent, Frontier, Fuse, DirecPC, RCN and Wide Open West. Paxfire would intercept a person's search request at Bing and Yahoo and redirect it to another page. By skipping over the search service's results, the participating ISPs would collect referral fees for delivering users to select websites

AT&T, SPRINT and VERIZON: From 2011–2013, AT&T, Sprint and Verizon blocked Google Wallet, a mobile-payment system that competed with a similar service called Isis, which all three companies had a stake in developing.

EUROPE: A 2012 report from the <u>Body of European Regulators for Electronic Communications</u> found that violations of Net Neutrality affected at least one in five users in Europe. The report found that blocked or slowed connections to services like VOIP, peer-to-peer technologies, gaming applications and email were commonplace.

VERIZON: In 2012, the FCC <u>caught Verizon Wireless blocking people</u> from using tethering applications on their phones. Verizon had asked Google to remove 11 free tethering applications from the Android marketplace. These applications allowed users to circumvent Verizon's \$20 tethering fee and turn their smartphones into Wi-Fi hot spots. By blocking those applications, Verizon violated a Net Neutrality pledge it made to the FCC as a condition of the 2008 airwaves auction.

AT&T: In 2012, AT&T announced that it would <u>disable the FaceTime video-calling app</u> on its customers' iPhones unless they subscribed to a more expensive text-and-voice plan. AT&T had one goal in mind: separating customers from more of their money by blocking alternatives to AT&T's own products.

NETWORK-WIDE: Throughout 2013 and early 2014, people across the country experienced slower speeds when trying to connect to certain kinds of websites and applications. Many complained about underperforming streaming video from sites like Netflix. Others had trouble connecting to video-conference sites and making voice calls over the internet.

The common denominator for all of these problems, unbeknownst to users at the time, was their ISPs' failure to provide enough capacity for this traffic to make it on to their networks in the first place. In other words, the problem was not eongestion on the broadband lines coming into homes and businesses, but at the "interconnection" point where the traffic users' request from other parts of the internet first comes into the ISPs' networks.

An Open Technology Institute <u>investigation</u> that drew on the Measurement Lab's data analysis found these slowdowns were the result of "intentional policies by some of the nation's largest communications companies, which led to significant, months-long degradation of a consumer product for millions of people." Major broadband providers, <u>including AT&T, Time Warner Cable and Verizon</u>, deliberately limited the capacity at these interconnection points, effectively throttling the delivery of content to thousands of U.S. businesses and residential customers across the country.

VERIZON: During oral arguments in *Verizon v. FCC* in 2013, judges asked whether the phone giant would favor some preferred services, content or sites over others if the court overruled the agency's existing open internet rules. Verizon counsel Helgi Walker had this to say: "I'm authorized to state from my client today that but for these rules we would be exploring those types of arrangements." Walker's admission might have gone unnoticed had she not repeated it on at least five separate occasions during arguments.

The court struck down the FCC's rules in January 2014 — and in May, FCC Chairman Tom Wheeler opened a public proceeding to consider a new order.

In response millions of people urged the FCC to reclassify broadband providers as common carriers and in February 2015, the agency did just that.

Since Trump appointed him in January 2017, FCC Chairman Ajit Pai sought to dismantle the agency's landmark Net Neutrality rules. In December, the FCC's Republican majority <u>destroyed all Net Neutrality protections</u>, ignoring the outcry from millions of people.

In the absence of any rules, violations of the open internet will become more and more common.

Don't believe me? Let history be the guide.

ENERGY AND COMMERCE COMMITTEE:
HEALTH SUBCOMMITTEE
CENNIMAN
ENERGY AND ENVIRONMENT
SUBCOMMITTEE
COMMERCE, TRADE, AND CONSUMER
PHOTICCHON SUBCOMMITTEE

NATURAL RESOURCES COMMITTEE: INSULAR AFFAIRS, OCEANS AND WILDLIFE SUBCOMMITTEE

DEMOCRATIC POLICY COMMITTEE: COMMUNICATIONS CHAIR

http://www.house.gov/pallone

FRANK PALLONE, JR. STH DISTRICT, NEW JERSEY

Congress of the United States House of Representatives

Washington, DC 20515-3006

May 28, 2010

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The Honorable Julius Genachowski Chairman The Federal Communications Commission 445 Twelfth Street, SW Suite 8B201 Washington, DC 20554

Dear Mr. Chairman:

I am writing to you with respect to the Federal Communication Commission's (FCC) recent decision to issue a Notice of Inquiry with respect to the regulatory classification of broadband Internet access services.

Let me state at the outset that I support efforts to keep the Internet open and accessible. In fact, in 2006 when the House Energy and Commerce Committee considered an amendment to make a bill's existing neutrality provisions stricter, I voted in favor. I strongly believe consumers have long enjoyed free and unfettered access to the Internet, which has led to a revolution in how Americans communicate with each other and to economic development and job creation across the Internet ecosystem. In addition, I want to commend the work of the FCC on the National Broadband Plan. This is the nation's blueprint for 21 st century communications and it is the first step in addressing a variety of issues critical to the expansion of affordable broadband communications.

As you may be aware, I am the Chairman of the Subcommittee on Health of the House Energy and Commerce Committee. In that capacity I am increasingly sensitive about the tendency of Government agencies, and in particular independent agencies, to arrogate to themselves policy-making authority that is properly exercised solely by Congress. It is in that regard that I am writing to you today.

Independent agencies such as the FCC appear nowhere in the Constitution. They exercise authority delegated by the Congress, and remain independent of the Executive Branch of Government. They are thus creatures of the Congress that must heed the boundaries established by laws passed by Congress, or they run the risk of behaving in decidedly undemocratic ways. While questions involving an agency exceeding the authority granted to it by Congress are decided in the courts, an agency ought to be mindful of the limits on its authority.

Classifying broadband Internet access services as telecommunications services that are subject to the provisions of Title II of the Communications Act may have far reaching

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implications. In fact, I am concerned that a near-term effect of your announced proposal to (re)classify these services is to create uncertainty - something that is sure to adversely affect investment decisions and job creation, both of which are in short supply right now.

If you believe the Agency's legal authority to implement network neutrality rules or provisions of the National Broadband Plan are in question, it is appropriate for you to come to Congress and seek the authority you need. This is a job for Congress, and in fact the relevant Chairmen in the House and Senate have recently announced their intention begin updating the Communications Act.

I encourage you to be mindful of exceeding the authority delegated to you by Congress. Instead, it is my hope that you will choose to work with Congress to pursue policies that will both protect the open Internet and promote broadband deployment, and thereby create good jobs for ordinary Americans.

Thank you for your consideration. I look forward to hearing from you soon.

Sincerely,

FRANK PALLONE, R Mcmber of Congress June 27, 2017

The Honorable Ajit Pai Chairman Federal Communications Commission 445 12th Street SW Washington, DC 20554

Dear Chairman Pai:

We write to inform you that as Internet Service Providers located across the country that we are in full support of the current Open Internet Order and its underlying legal foundation under Title II of the Communications Act. We have encountered no new additional barriers to investment or deployment as a result of the 2015 decision to reclassify broadband as a telecommunications service and have long supported network neutrality as a core principle for the deployment of networks for the American public to access the Internet.

We wish to further express our opposition to the proposed plans to reverse course and again undergo another reclassification of broadband back into an information service. The federal courts have made it very clear that network neutrality depends on the FCC maintaining that broadband is a telecommunications service and that other approaches have already failed as a legal matter. We have always supported a neutral network approach to the Internet and see no reason why it should not be required as a matter of law.

Without a legal foundation to address the anticompetitive practices of the largest players in the market, the FCC's current course threatens the viability of competitive entry and competitive viability. As direct competitors to the biggest cable and telephone companies, we have reservations about any plan at the FCC that seeks to enhance their market power without any meaningful restraints on their ability to monopolize large swaths of the Internet.

Lastly, we implore the FCC to examine the ramifications of the Congressional Review Act repeal of broadband privacy and provide guidance. We have long championed our customer's privacy and believe Congress was in error to erode their legal right to privacy. However, the repeal's detrimental impact on the reach and scope of Section 222's ISP privacy provisions has resulted in great uncertainty in the market that the FCC could help provide clarity.

Sincerely,

A Better Wireless, NISP, LLC Brazos Wifi Burlington Telecom CityLink Telecommunications civanoNET Coastside.Net CredoMobile Cruzio Cybermesa

Davis Community Network

Data Foundry

DC Access, LLC

Digital Service Consultants

Enguity Technology Corp.

Full Channel Labs

GigaNews Golden Frog

Gorge GWI

Hubris Communications Inc.

Islesboro Broadband Committee

LMI.net

Monkey Brains

Mother Lode and Goldrush

netBlazr Inc.

Northwest Ohio Broadband

Om Networks

Pacific Internet

Public Access Networks Corp. (PANIX)

Router12 Networks LLC

SmarterBroadband, Inc.

Sonic

Spiral Internet

Stephouse Networks

Tekify Fiber & Wireless

Telnexus

Ting Internet

Unwired Ltd.

Visionary Communications

Wicked Broadband

Wilson Creek Communications



Congress of the United States

House of Representatives Washington, DC 20515

October 15, 2009

The Honorable Julius Genachowski Chairman Federal Communications Commission 445 12th Street SW Washington, D.C. 20554

Dear Chairman Genachowski:

We write to express both our hopes and concerns related to current and upcoming Commission proceedings focused on the deployment and use of broadband networks.

We applaud the Commission's effort to gather information about broadband and its recognition of the significant progress achieved to date, progress that is a direct result of policies that have encouraged competition and private investment and relied on the exercise of regulatory restraint. A decade ago, broadband was a nascent service, and only one percent of U.S. households connected to the Internet through broadband lines; today by contrast, roughly two-thirds of Americans connect through high-speed connections that are available to ninety-five percent of households. While we have further to go as a nation in extending the benefits of broadband to all, it is our strong belief that continued progress in expanding the reach and capabilities of broadband networks will require the Commission to reiterate, and not repudiate, its historic commitment to competition, private investment and a restrained regulatory approach.

As the FCC embarks on its much anticipated rulemaking addressing the subject of "net neutrality," we therefore urge the Commission to carefully consider the full range of potential consequences that government action may have on network investment. We are confident that an objective review of the facts will reveal the critical role that competition and private investment have played -- and of necessity will continue to play -- in building robust broadband networks that are safe, secure and open. In light of the growth and innovation in new applications that the current regime has enabled, as compared to the limited evidence demonstrating any tangible harm, we would urge you to avoid tentative conclusions which favor government regulation.

Like you, we believe in a transparent, data-driven process and stand ready to work with you on measures that will spur adoption and expand the use of broadband networks. But we remain suspicious of conclusions based on slogans rather than substance and of policies that restrict and inhibit the very innovation and growth that we all seek to achieve.

Thank you for this opportunity to share our views.

Member of Congress

Sincerely, Gregory W. Mycks Member of Congress Joseph Crowley Member of Confi Gene Green Member of Congress Charlie Gonzalez Member of Congress Travis Childers Member of Congress Member of Congress Loretta Sauchez Member of Congress Michael McMahon Member of Congress Chaka Fattah Member of Congress Member of Congress Butterfield mber of Congress Eddie Bernice Johnson Member of Congress Alcee L. Hastings Member of Gongress Member of Congress Dan Boren Member of Congress Walt Minnick

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Dennis A. Cardoza
Member of Congress

David Scott
Member of Congress

Bennie G. Thompson
Member of Congress

Barón P. Hill
Member of Congress

Donnia M. Christensen
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Daniel B. Maffei
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Elijah L. Cummings Member of Congress Kathleen A. Dahlkemper Member of Congress

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Sheila Jackson-Lee Sheila Jackson-Lee Member of Condress	John/Spratt, Jr. Member of Congress
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Danny K. Davis Member of Congress	Michael Arcuri Member of Congress
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Christopher P. Carnes Member of Congress Émanuel Cleaver Member of Congress

CC: Commissioner Michael J. Copps Commissioner Mignon Clyburn Commissioner Robert M. McDowell Commissioner Meredith Attwell

Broadband groups cut capex despite net neutrality win

US industry had argued that scrapping Obama-era rules would unleash investment boom

By Kiran Stacey, Financial Times

The big four US broadband companies invested less in capital projects last year than they did in 2017, undermining one of the rationales for a controversial decision by the Trump administration to remove so-called net neutrality protections.

Earnings reported in recent weeks show the four companies — Verizon, AT&T, Charter Communications and Comcast — collectively undertook slightly less capital spending in 2018 than in 2017, the first time there has been a drop in three years. They spent \$56.9bn in 2018, compared with \$57.1bn the previous year and \$56.1bn in 2016.

The findings call into question one of the main arguments the industry used in its successful campaign to have the Federal Communications Commission overturn the Obama-era net neutrality regulations — a move that sparked anger among internet companies, activists and Democratic politicians.

Companies such as AT&T and Verizon had argued for years against net neutrality rules which forced them to treat all internet traffic equally. The companies said that without such restrictions, they would be able to charge companies more for delivering their internet traffic faster, bringing in money they could use to invest in their networks.

In late 2017 Ajit Pai, the Donald Trump-appointed FCC chairman, announced his organisation would repeal the rules, in one of the most significant pieces of deregulation undertaken by the Trump administration.

Mr Pai said at the time the previous rules had "depressed investment in building and expanding broadband networks and deterred innovation".

However, the 2018 figures suggest that the change has not led to an immediate investment boom.

Following the introduction of the net neutrality rules in 2015, the big four telecoms companies increased overall capital spending in both 2016 and 2017. Last year, however, investment slipped by 0.4 per cent

AT&T and Verizon, the biggest two telecoms companies in terms of customer numbers, both spent less on capital projects in 2018 than in 2017. AT&T's investment slipped from \$21.6bn to \$21.3bn, while Verizon's fell from \$17.2bn to \$16.7bn.

Verizon said its capital spending reduction was "due to the availability of 5G equipment and the company's more efficient capital management processes".

Comcast, which said in 2017 it would invest "well in excess" of \$50bn over the next five years as a result of both the Trump tax cuts and the net neutrality changes, made \$9.8bn in capital spending last year, adjusting for its acquisition of British broadcaster Sky. This was up very slightly from the \$9.6bn it spent in 2017. The company's spending just on networks increased a more sizeable 8 per cent, however.

One company that did increase capital spending significantly was Sprint, which is smaller than its largest four rivals. It raised capital investment in its networks from \$2.5bn in 2017 to \$3.8bn last year. The

company told the Financial Times that the rise "has nothing to do with net neutrality" and was instead based on a longer-term plan to invest in its networks, including a SG mobile network.

There is little expectation that capital spending will rise dramatically in 2019. Craig Moffett, a telecoms analyst and founding partner at MoffettNathanson, said: "You have to ask whether any sane person would make long-term investments based on a change in FCC policy, especially one that is subject to so much legal and political volatility."

Mr Moffett estimates the industry will increase its capital spending by 3.3 per cent this year, something he called "relatively restrained" given the favourable tax and regulatory regime the Trump administration has tried to put in place.

US Telecom, the telecoms industry body, argued the effects of the FCC's changes will be felt in the longer term. A spokesperson said: "The question is not what happens to broadband investment from one period to the next, but what long-term investment would look like under a different regulatory regime."

The FCC also defended the deregulation, in a statement. "Fibre (fibreoptic internet) was made available to more new homes in 2018 than any year ever, and fixed broadband speeds increased by over 35 per cent — meaning more and more Americans are getting access to high-speed broadband," it said. "The commission's policies are working."

The capital spending figures will add weight to the claims of internet companies such as Google and Facebook, who argued vociferously against dropping the net neutrality protections.

The search engine Mozilla has been leading a legal case against the FCC's decision, the hearings for which began in Washington this month. Meanwhile, Democratic politicians are also keen to push the issue.

Mike Doyle, a Democratic representative and member of the House commerce committee, recently told an industry conference that the repeal of the net neutrality rules had been a "massive, well-funded attack on our democratic process", and should be investigated.

Those investigations will start on Thursday when Mr Doyle's committee will quiz two former heads of the FCC, as well as activists in favour of restoring the net neutrality rules.

It's Now Clear None of the Supposed Benefits of Killing Net Neutrality Are Real Karl Bode, Motherboard 1/24/19

Network investment is down, layoffs abound, and networks are falling apart. This isn't the glorious future Ajit Pai promised.

In the months leading up to the FCC assault on net neutrality, big telecom and FCC boss Ajit Pai told anybody who'd listen that killing net neutrality would boost broadband industry investment, spark job creation, and drive broadband into underserved areas at an unprecedented rate.

As it turns out, none of those promises were actually true.

Despite the FCC voting to kill the popular consumer protections in December of 2017, Comcast's latest earnings report indicates that the cable giant's capital expenditures (CAPEX) for 2018 actually decreased 3 percent. The revelation comes on the heels by similar statements by Verizon and Charter Spectrum that they'd also be seeing lower network investment numbers in 2018.

It's not expected to get any better in 2019.

According to analysis this week by Wall Street research firm MoffettNathanson, capital spending among the nation's four biggest cable providers (Altice, Comcast, Charter Spectrum, CableONE) is expected to decline upwards of 5.8 percent this year.

Phone companies (AT&T, Verizon) are similarly expected to see their wireline capex fall from \$20.3 billion in 2018 to \$19.6 billion this year, notes the firm. And while investment in wireless is expected to jump slightly thanks to fifth generation (5G) investment, there too analysts have noted that overall investment is notably more sluggish than many had predicted.

The FCC did not respond to a request for comment on why its predictions have been so decidedly inaccurate.

Meanwhile, none of this comes as much of a surprise to those well versed in the net neutrality fight.

While the FCC and telecom sector repeatedly tried to claim that net neutrality rules stifled network investment, SEC filings, earnings reports, and even dozens of public statements made by countless CEOs easily disproved those claims. That didn't stop either Pai or the telecom sector from repeating the claims countless times over a two-year span.

Gigi Sohn, a former FCC lawyer who helped craft the agency's net neutrality rules, told

Motherboard that the repeal of net neutrality (and the Title II classification of ISPs that legally underpinned the protections) was based on little more than fluff and nonsense.

"The cornerstone of Ajit Pai's net neutrality repeal order has quickly crumbled," Sohn told me in an email.

"The broadband industry's reduction in investment and CAPEX in the wake of Ajit Pai's repeal of the net neutrality rules proves what advocates for Internet openness have known all along—neither the rules nor Title II authority had any effect on broadband investment."

Sohn told me telecom investment decisions are based on a wide variety of factors including technological advancement, the economy, and the level of competition an ISP sees in its market. Given huge swaths of America only have the choice of one ISP to choose from, there's little pressuring them to put soaring profits back into the network or customer service.

And that's the problem. Net neutrality violations and other bad behaviors by big telecom are just a symptom of a lack of vibrant competition. But the Pai FCC has routinely worked to downplay this problem, even to the point of trying to weaken the very definition of the word "competition" to the exclusive benefit of entrenched ISPs.

Instead, the focus for the Trump administration has been to dole out billions in tax cuts, subsidies, and regulatory favors to giant telecom operators, who in turn routinely promise job growth, network investment, and better service that never actually materializes.

Motherboard has exclusively reported how AT&T is prepping another major round of layoffs despite netting nearly \$20 billion from the Trump tax cuts. And Verizon this week said it would be cutting 7 Percent of its media staff—on the heels of a 10,000 employee "voluntary" severance package—despite its own mammoth windfall of government favors.

Other ISPs, like Frontier Communications, have been literally letting their networks fall apart in many states, despite millions in taxpayer subsidies and repeated allegations of fraud. These are problems that were never going to be solved by killing popular consumer protections.

While this kind of pay to play dysfunction is widespread in telecom, the assault on net neutrality was among the most obvious examples of government kowtowing to natural monopolies, say consumer groups.

"Dismantling the basic principle that prevents companies like Comcast and Verizon from controlling what we see and do online helps no one other than telecom lobbyists and executives," Evan Greer, Deputy Director of Fight For the Future, told Motherboard.

The repeal of net neutrality "will go down in history as one of the most blatant examples of

corruption in our nation's history," Greer said.

"It's not helping workers at these companies. It's not helping people in rural communities. It's not closing the digital divide," Greer added. "The repeal of net neutrality is nothing but a massive government handout to some of the most unscrupulous, and least popular, corporations in the United States."

And while big telecom has been understandably thrilled at its good fortune in the Trump era, there's every indication that a looming backlash could spoil the sector's fun as the pendulum inevitably swings back the other direction.

Next month sees the opening arguments in a lawsuit against the FCC over it's net neutrality repeal, where the agency's false claims (not to mention its decision to make up a DDOS and turn a blind eye to fraud during the public comment period) will take center stage.

If the FCC loses that case, there's a good chance that the FCC's 2015 net neutrality rules could be restored. And even if the FCC and its telecom sector allies win, they still have to find a way to prevent lawmakers from passing a real net neutrality law, no easy task given the shifting political climate and the persistent, bipartisan public anger over the repeal.

https://motherboard.vice.com/en_us/article/gyab5m/its-now-clear-none-of-the-supposed-benefits-of-killing-net-neutrality-are-real?utm_campaign=sharebutton&fbclid=iwar24khpsa0h-kueual4tzxozwrqoliq4x9u_glt6kpnr9by8dv2kdeu6jou



February 7, 2019

The Honorable Michael Doyle Chairman, Subcommittee on Communications and Technology House Energy and Commerce Committee 2125 Rayburn House Office Building Washington, D.C. 20515 The Honorable Robert Latta Ranking Member, Subcommittee on Communications and Technology House Energy and Commerce Committee 2322 Rayburn House Office Building Washington, D.C. 20515

Re: February 7, 2019 "Preserving an Open Internet for Consumers, Small Businesses, and Free Speech" Subcommittee on Communications and Technology Hearing (House Energy and Commerce Committee)

Dear Chairman Doyle and Ranking Member Latta:

Consumer Reports¹ appreciates the Subcommittee's consideration of how policies can and should preserve an open internet, and we look forward to the hearing on February 7, 2019. In advance of that hearing, we urge you to consider the impact of the Federal Communications Commission's recent repeal of its own net neutrality rules (embodied in the 2015 Open Internet Order) has had or will have upon consumers. The current absence of simple, common sense regulations that govern what internet service providers (ISPs) can and cannot do when providing internet access service creates a significant risk of a less open internet and higher prices for consumers. The Subcommittee has an opportunity to assess these dangers and explore what remedies can be pursued to restore strong, enforceable net neutrality rules that guard against harmful ISP interference.

Right this very day, an ISP could decide to block, throttle (that is, specifically slow down or speed up internet traffic per user or website), devise a pay-to-play business model (also known as paid prioritization) or refuse or degrade an interconnection port to its network—and all of this behavior would be perfectly legal in the wake of the FCC's repeal of net neutrality. Of course, to

Consumer Reports is an expert, independent, nonprofit organization whose mission is to work for a fair, just, and safe marketplace for all consumers and to empower consumers to protect themselves. As the world's largest independent product-testing organization, it conducts its policy and mobilization work in the areas of privacy, telecommunications, financial services, food and product safety, and other areas. Using its dozens of labs, auto test center, and survey research department, the nonprofit organization rates thousands of products and services annually. Founded in 1936, Consumer Reports has more than 6 million members and publishes its magazine, website, and other publications.

ensure the legality of these anti-consumer practices, an ISP would have to disclose them in compliance with the one net neutrality rule left standing, the transparency rule (which basically requires an ISPs to spell out its network management practices, which could include blocking, throttling, and paid prioritization among other things).

This untenable situation where ISPs can now engage in content blocking, for example, so long as consumers are told about it in advance, was made all too clear last week when the FCC's general counsel confirmed as much in federal court during the oral argument of *Mozilla vs. FCC* (a case challenging the FCC's repeal of most net neutrality rules). Therefore, if such anti-open internet practices are properly disclosed—even if an ISP openly told consumers that "access to certain content may be slowed down or eliminated" for instance—there is very little if anything the FCC or the Federal Trade Commission could do about it. Consumers are stuck, and the many claims that "competition" or "antitrust law" will discipline ISP behavior ring hollow when a bit more than 70 percent of Americans only have two or fewer choices of a broadband internet service provider.²

Consumer Reports published an article last year that examined the many ways access to the internet may change and cost more without net neutrality rules to discipline ISP behavior. For example, nothing would prohibit ISPs from creating new tiers of internet access service, and one could easily imagine a more expensive tier may be required to stream video in the future. Should data caps become the norm in the fixed broadband market, zero-rating plans that favor an ISP's streaming video service will become much more attractive than competing services that count against a data cap, and using those services might become more expensive for consumers. As stated earlier, ISPs are now free to block sites and applications provided the practice is transparent; though overt blocking could happen, the more likely result of this renewed freedom would be a scenario where ISPs deny access to their networks to content providers (e.g., a website, streaming service, or app) unless an agreement is made to pay for such access—economic blocking, but blocking all the same. All this and potentially more is now possible in an internet ecosystem stripped of net neutrality rules.

² FCC Report 18-181, Communications Marketplace Report, Federal Communications Commission (December 26. 2018) at https://www.fcc.gov/document/fcc-adopts-first-consolidated-communications-marketplace-report-0 (see § 186, Fig. D-1)

³ James K. Wilcox, *How You'll Know Net Neutrality Is Really Gone*, Consumer Reports (June 11, 2018) at https://www.consumerreports.org/net-neutrality/end-of-net-neutrality-what-to-watch-for/

Consumer Reports thanks the Subcommittee for holding today's hearing reviewing the preservation of an open internet, and we hope that the views of consumers are taken into account moving forward. Consumers suffered a real loss when the current FCC stepped back from net neutrality a little more than a year ago. The Legislative Branch can and should restore those lost rules, but any bill considered by the 116th Congress must begin with the FCC's 2015 Open Internet Order as a foundation and starting point for a future net neutrality law. We stand ready to work with you, your fellow Members on the Communications and Technology Subcommittee, and other stakeholders to restore robust net neutrality rules that favor consumer choice over corporate business models.

Respectfully submitted,



Jonathan Schwantes Senior Policy Counsel

cc. Members of the U.S. House Subcommittee on Communications and Technology, Committee on Energy and Commerce

ALAAmericanLibraryAssociation

February 6, 2019

The Honorable Mike Doyle
Chairman
Subcommittee on Communications and Technology
Committee on Energy and Commerce
U.S. House of Representatives

The Honorable Bob Latta
Ranking Member
Subcommittee on Communications and Technology
Committee on Energy and Commerce
U.S. House of Representatives

America's libraries—120,000 strong—depend upon an open internet to carry out their missions and to serve their communities. The American Library Association (ALA) is a nonprofit organization based in the United States that provides leadership for the development, promotion and improvement of library and information services and the profession of librarianship to enhance learning and ensure access to information for all. As the oldest and largest library association in the world, ALA is consistently on the front lines of efforts to protect the open internet with many other public interest organizations. We thank Energy and Commerce Chairman Pallone (D-NJ) and Communications and Technology Chairman Doyle (D-PA) for their leadership on this vital issue and particularly thank Chairman Doyle for his work in the previous Congress to overturn the FCC's repeal of net neutrality protections.

Without strong rules protecting the open internet and ensuring transparency of commercial ISPs' network management practices and commercial terms—as outlined in the FCC's 2015 Open Internet Order—the modern library and its functions are imperiled. Absent a "cop on the beat," commercial ISPs have the financial incentive and the opportunity to block, degrade or prioritize access to internet-based applications, services and content. These practices, if permitted, would have severe adverse impacts on online education, research, learning and free speech.

In short, high-capacity broadband is vital infrastructure that libraries and many other institutions need to carry out their public interest missions. Furthermore, these institutions rely on open, unfettered internet access both to retrieve and contribute content on the World Wide Web. In fact, over the past fifteen years, the public interest mission of libraries has become highly intertwined with the internet, and internet access has long passed the time in which it was an "add-on"— it is now mission critical. The democratic nature of the internet as a neutral platform for carrying information and research to the general public and supporting online collaboration and participation is strongly aligned with libraries' commitment to provide access to and enable engagement with diverse information, digital content, and research.

Unfortunately, the majority of the Federal Communications Commission showed no recognition of the value of the internet for education, learning, research and other services in the public interest in the 2017 order repealing net neutrality protections. We hope this oversight will be addressed and ameliorated through future policymaking. Indeed, a free and open internet *is* important for innovation and commerce, but the educational and public interest benefits of an open internet are just as important.

Libraries are innovative internet users. Virtually every library across the country now provides broadband services at no charge to its patrons, and 98 percent of public libraries provide wireless (Wi-Fi) access as well. According to a 2016 survey by the Pew Research Center, 29 percent of library-using Americans 16 and older said they had gone to libraries to use computers, the internet, or a public Wi-Fi network. (That amounts to 23 percent of all Americans ages 16 and above.) Library patrons regularly use their library's internet access to take advantage of job-training courses, distance learning opportunities, remote medical services, access to e-government services, computer and technology training, and more.

Specifically, the role of libraries' broadband connections in helping people access government services cannot be overstated. The E-Government Act of 2002 mandated that federal agencies cut back many traditional programs for the public and, in their place, offer government services in digital form. This model has been replicated in states and localities across the country. This process allows agencies to cut staffing and office infrastructure costs. It often places the burden on people, however, to find the means of accessing new electronic government services. For people in need of government assistance, this change in the means of service provision by public sector agencies is resulting in the use of local public libraries as de facto e-government service centers. Public law libraries provide unbiased access to legal information for members of the public, the courts, the bar, self-represented litigants, and small business owners; much of which is available online. The library provides the means (computers with internet access) necessary to view and interact with electronic government services, especially for persons who do not have adequate (or any) broadband access at home.

Furthermore, librarians specialize in collecting and hosting robust databases of information, digitizing unique community artifacts and records, engaging community conversations through

¹ Larra Clark & Karen Archer Perry, "After access: Libraries and Digital Empowerment," (Dec 2015), http://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/ALA%20DI%20After%20Access final 12%2017%2015.pdf (last visited Jul 15, 2017).

² John B. Horrigan, "Libraries 2016," Pew Research Center: Internet, Science & Tech (2016), http://www.pewinternet.org/2016/09/09/2016/Libraries-2016/ (last visited Jul 15, 2017).

³ lbid ⁴ lbid

⁵ Dharma Dailey, Amelia Bryne, Alison Powell, Joe Karaganis and Jaewon Chung et al., Broadband Adoption in Low-Income Communities, Social Science Research Council (2010) at p. 8. ("Government agencies, school systems, and large employers increasingly privilege web-based access to many basic services, including job and benefits applications. Because many of the constituents for these services have limited Internet access and/or limited Internet proficiency, these measures often shift human and technical support costs onto libraries and other community organizations that do provide access, in-person help, and training.")

social media, recording and sharing oral histories, developing innovative media, enabling local creation and distribution of digital content, and preserving the free flow of information and research over the public internet for all people. Over 90 percent of public libraries offer their patrons access to commercial reference and periodical databases from thousands of sources.⁶

ALA is especially concerned that, absent strong net neutrality protections, commercial ISPs have financial incentives to block, degrade or prioritize internet service to certain commercial internet companies or customers, thereby disadvantaging nonprofit or public entities such as colleges, universities, K-12 schools, and libraries. For instance, such providers could sell faster or prioritized transmission to certain entities ("paid prioritization") or could degrade internet applications that compete with the commercial providers' own services. Libraries and other institutions that cannot afford to pay extra fees could be relegated to the "slow lane" on the internet. A non-neutral net, in which commercial providers can pay for enhanced transmission that libraries, schools, and higher education cannot afford, endangers our institutions' ability to serve our communities.

ALA and our allies argued in an amicus filing in support of the petitioners in *Mozilla v. FCC* that the FCC's actions to undo strong net neutrality rules will "imperil the internet's continued operation as a reliable platform for research, learning and information sharing and that the FCC's decision should be reversed as arbitrary and capricious." We believe the petitioners will be successful in reversing the FCC's disastrous 2017 decision.

Should the Committee see fit to put forward legislation on net neutrality, ALA believes that any legislation must put in place a strong legal standard and provide the enforceable net neutrality protections outlined in the FCC's 2015 Order. The library community is eager to work with Congress and the FCC on this vital issue.

Sincerely,



Kathi Kromer Associate Executive Director, Washington Office

cc: The Honorable Frank Pallone
Chairman
Committee on Energy and Commerce

The Honorable Greg Walden Ranking Member Committee on Energy and Commerce

⁶ Larra Clark & Karen Archer Perry, "After Access: Libraries and Digital Empowerment"

February 7, 2019

Congressman Michael Doyle Chairman, Communications & Technology Subcommittee House Energy & Commerce Committee 2125 Rayburn House Office Building Washington, DC 20515

Congressman Robert E. Latta
Ranking Member, Communications & Technology Subcommittee
House Energy & Commerce Committee
2125 Rayburn House Office Building
Washington, DC 20515

RE: "Preserving an Open Internet for Consumers, Small Businesses, and Free Speech"

Dear Chairman Doyle and Ranking Member Latta:

It is time to end the lengthy, distracting, and toxic fight over net neutrality. Only legislation can do that. Unless Congress and the President act, jurisdiction over this issue will continue to swing between the Federal Communications Commission (FCC) under Democratic administrations and the Federal Trade Commission (FTC) under Republican administrations. Neither side will be satisfied: Some will argue that the FTC cannot adequately protect consumers. Others will worry that the FCC's claims of vast authority to regulate broadband will necessarily discourage investment — not just in broadband but also other services as well. This looming possibility remains despite the FCC's 2017 Restoring Internet Freedom Order, because companies making long-term decisions must assume the next Democratic FCC will re-assert these broader claims of statutory authority.

There has long been bipartisan consensus on the core of net neutrality. Simply put, consumers should be able to access lawful content and services of their choosing. It was, after all, two Republican FCC Chairmen who first articulated these principles as statements of policy (even if Michael Powell's 2004 "Four Freedoms" speech and Kevin Martin's 2005 Open Internet Policy Statement were not legally binding). Even broadband providers themselves have not contested the so-called "bright-line rules" in the 2015 Order against blocking and throttling (subject to exceptions for reasonable network management), and requiring transparency. Furthermore, the FCC's rules never applied to the niche of broadband providers that clearly hold themselves out as providing a curated experience of the Internet — say, for child protection or religious reasons.

While there remain some important and legitimate disagreements over how to implement net neutrality principles, the debate that has consumed so much of the limited attention of the FCC and this committee over the last eleven years has principally been about the authority claimed by the FCC to regulate Internet services under two statutory provisions:

- Title II of the 1934 Communications Act is, at its core, a system of price controls. Despite the FCC's insistence that it had "forborne" from the most burdensome aspects of Title II in the 2015 Order, the agency did not forbear from the core provisions of the 1934 Communications Act: Sections 201(b) (just and reasonable practices) and 202(a) (no unreasonable discrimination).¹ These provisions are the heart of common carriage regulation, and were taken directly from the Interstate Commerce Act of 1887. Just as the comparable provisions of that act provided a sufficient basis for imposing price controls on railroads, so too would these provisions of the Communications Act provide ample basis for the FCC to regulate broadband however it saw fit. Indeed, we believe the 2015 Order implicitly reclassified not only broadband but any service that uses IP addresses as Title II services most obviously, including Internet telephony.²
- Section 706 of the 1996 Telecommunications Act³ was, until 2010, understood by the FCC as a commandment to use powers elsewhere granted to it for the purpose of promoting broadband. The 2010 Open Internet Order reinterpreted Section 706 as a free-standing grant of authority to regulate any service within its jurisdiction in ways that would somehow promote broadband deployment. The D.C. Circuit clarified in its 2010 *Verizon* decision that this would not allow the FCC to do anything that would violate the Constitution or the Communications Act, such as imposing common carriage requirements on non-common carriers. Even this "limit" would still leave the FCC with staggering discretion that Congress could not have intended not only over broadband but *any* form of communications.

If Congress provides clear statutory authority for the enforcement of net neutrality principles, there will be no need for the FCC to reassert authority under either Title II or Section 706. In exchange for such authority, Congress should clarify that (i) Title II does not apply to Internet-based services other than "interconnected VoIP" (which replicates the ability of traditional telephony to call NANP phone numbers) and (ii) Section 706 confers no independent authority.

In closing these doors on the FCC's unbounded discretion to regulate Internet services, Congress must not open another. Specifically, while there is broad support for codifying the

¹ 47 U.S.C. §§ 201(b) & 202(a).

² See generally Petition for Writ of Certiorari, TechFreedom v. FCC, 825 F.3d 674 (No. 17-503) at 24 [hereinafter TechFreedom Cert Petition], http://docs.techfreedom.org/TF-010-Cert-Petition.pdf.

³ 47 U.S.C. § 1302.

2015 Order's rules, that Order's so-called "general conduct" standard was so hopelessly vague that even FCC Chairman Tom Wheeler, when asked what it meant, conceded that "we don't really know" and "we don't know where things go next." In effect, this standard simply embodied the vagueness of Sections 201(b) and 202(a). Recreating this non-standard standard would effectively codify Title II.

Yet we also understand the need for some catch-all standard to govern net neutrality cases that cannot be anticipated by bright-line rules. In fact, a "general conduct" standard already exists: it is Section 5 of the FTC Act, which gives the FTC broad discretion to punish practices that are anti-competitive, unfair or deceptive. Unlike Title II, this is a meaningful standard because it requires the FTC to justify its actions — either by showing (i) harm to the competitive process, (ii) tangible harm to consumers in ways they could not reasonably avoid without countervailing benefit to them or to the competitive process, or (iii) that consumers were denied the benefit of something they were explicitly or implicitly promised (even without proof of harm). A large body of case law would guide the application of this standard in ways that would be competitively neutral as between ISPs and other players in the Internet ecosystem. In short, Section 5 is the right standard by which to police net neutrality cases, broadband more generally, and indeed, the entire Internet ecosystem.

Assigning the enforcement of bright-line net neutrality rules to the Federal Trade Commission would ensure that a unified, consistent approach. Just as with children's privacy and credit reporting, the FTC could bring complaints under both these rules and its broader Section 5 "general conduct" standard. If, instead, Congress assigns responsibility for these rules to the Federal Communications Commission, the FCC should be required to follow Section 5 principles as its "general conduct standard."

In closing, we must clarify several critical misunderstandings that have frustrated rational discussion of this issue:

- The courts have never "blessed" the FCC's 2015 rules or authority. As the D.C. Circuit said in 2017, "Our task is not to assess the advisability of the rule as a matter of policy." Even on the narrower question of statutory interpretation, the D.C. Circuit did not say the FCC's interpretation of Title II and Section 706 were actually what Congress intended merely that they were reasonable under the highly deferential standard of review under *Chevron*. Under the same standard, the courts will almost certainly defer to the opposite interpretations as well.
- The courts may yet block the FCC from claiming Title II and Section 706 powers.
 Even if the D.C. Circuit should decline to uphold the FCC's 2017 Restoring Internet

⁴ United States Telecom Ass'n v. FCC, 855 F.3d 381, 383 (D.C. Cir. 2017).

Freedom Order under *Chevron*, or find some procedural flaw in the issuance of that Order, the courts would still have to confront the constitutional permissibility of the FCC's interpretations of Title II and Section 706. Then-Judges Kavanaugh and Brown, in their dissents from the D.C. Circuit's decision not to rehear *en banc* the panel decision upholding the 2015 Order, made powerful arguments that the FCC's claims to authority violated the Constitution's separation of powers, and were therefore unconstitutional.⁵ The Supreme Court has clearly grown more skeptical of *Chevron*, even before the appointment of Justice Kavanaugh. As such, Congressional Democrats cannot assume that the Court will uphold the FCC's authority over broadband when reclaimed by a Democratic Commission.

• The FCC's rules were essentially optional. In explaining their vote not to re-hear the panel decision, two judges on the D.C. Circuit dismissed the First Amendment arguments raised by Judges Kavanaugh and Brown in their dissents — because broadband providers could simply opt-out of the rules. They explained that "[t]he rule does not apply to an ISP holding itself out as providing something other than a neutral, indiscriminate pathway—i.e., an ISP making sufficiently clear to potential customers that it provides a filtered service involving the ISP's exercise of 'editorial intervention." Thus, the FCC's rule served to "fulfill the reasonable expectations of a customer who signs up for a broadband service that promises access to all of the lawful Internet without editorial intervention." — essentially akin to the FTC's deception power. As such, the FCC's jurisdiction under the 2015 Order was arguably more limited than the FTC's jurisdiction would be.

* * *

We stand ready to assist the Committee in forging a bipartisan compromise to resolve this issue once and for all; provide certainty to Internet investors, entrepreneurs and users; and finally allow the Congress to move on to other pressing Internet-related policy issues that have suffered because of the paralysis caused by this fight. The sooner Congress resolves this issue, the sooner it can move on to promoting the deployment of broadband to all Americans.

Sincerely,

TechFreedom Americans for Prosperity Lincoln Network Tom Schatz, Citizens Against Government Waste Roslyn Layton, Visiting Scholar, American Enterprise Institute

 $^{^5}$ Id. at 418-26 (Kavanaugh dissenting) and 408-17 (Brown dissenting); see generally TechFreedom Cert Petition. 6 855 F.3d at 389.

⁷ Id.

Hundreds of Bounty Hunters Had Access to AT&T, T-Mobile, and Sprint Customer Location Data for Years

Documents show that bail bond companies used a secret phone tracking service to make tens of thousands of location requests.

By Joseph Cox | Feb 6 2019, 5:10pm

Image: Stuart Kinlough / Getty Images

In January, <u>Motherboard revealed</u> that AT&T, T-Mobile, and Sprint were selling their customers' real-time location data, which trickled down through a complex network of companies until eventually ending up in the hands of at least one bounty hunter. Motherboard was also able to purchase the real-time location of a T-Mobile phone on the black market from a bounty hunter source for \$300. In response, telecom companies said that this abuse was a fringe case.

In reality, it was far from an isolated incident.

Around 250 bounty hunters and related businesses had access to AT&T, T-Mobile, and Sprint customer location data, with one bail bond firm using the phone location service more than 18,000 times, and others using it thousands or tens of thousands of times, according to internal documents obtained by Motherboard from a company called CerCareOne, a now-defunct location data seller that operated until 2017. The documents list not only the companies that had access to the data, but specific phone numbers that were pinged by those companies.

In some cases, the data sold is more sensitive than that offered by the service used by Motherboard last month, which estimated a location based on the cell phone towers that a phone connected to. CerCareOne sold cell phone tower data, but also sold highly sensitive and accurate GPS data to bounty hunters; an unprecedented move that means users could locate someone so accurately so as to see where they are inside a building. This company operated in near-total secrecy for over 5 years by making its customers

agree to "keep the existence of CerCareOne.com confidential," according to a terms of use document obtained by Motherboard.

Some of these bounty hunters then resold location data to those unauthorized to handle it, according to two independent sources familiar with CerCareOne's operations.

The news shows how widely available Americans' sensitive location data was to bounty hunters. This ease-of-access dramatically increased the risk of abuse.

"This scandal keeps getting worse. Carriers assured customers location tracking abuses were isolated incidents. Now it appears that hundreds of people could track our phones, and they were doing it for years before anyone at the wireless companies took action," Oregon Senator Ron Wyden said in an emailed statement after presented with Motherboard's findings. "That's more than an oversight—that's flagrant, wilful disregard for the safety and security of Americans."

Between at least 2012 until it closed in late 2017, CerCareOne allowed bounty hunters, bail bondsmen, and bail agents to find the real-time location of mobile phones. The company would sometimes charge up to \$1,100 per phone location, according to a source familiar with the company. Motherboard granted a number of sources in this story anonymity to provide details about a controversial industry practice.

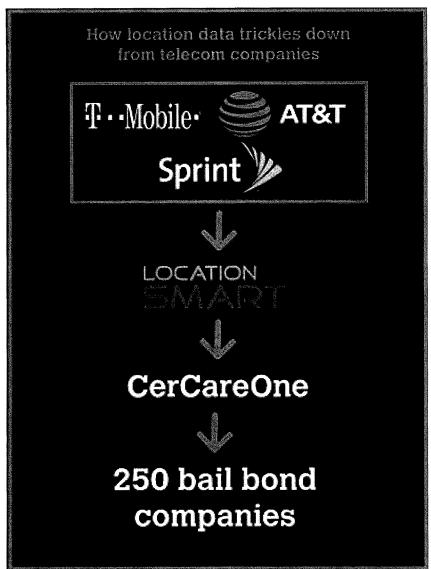
Like with the companies involved in Motherboard's previous investigation, CerCareOne's real-time location data trickled down first from telecom companies, and then to a so-called location aggregator called Locaid. From there, Locaid sold that data access to a number of different companies, including CerCareOne, which in turn sold it to its own clients. Locaid was purchased by a company called LocationSmart in 2015. The documents Motherboard obtained indicate that LocationSmart continued to sell data to CerCareOne after it obtained locaid, and locationSmart confirmed that to Motherboard

Often CerCareOne's phone location service—known in the industry as a phone ping—would use data from cell towers and provide a Google Maps-style interface to the bounty hunter of the device's approximate location.

But some of the data available to CerCareOne customers included a phone's "assisted GPS" or A-GPS data, according to documents and screenshots of the service in action provided by two independent sources. A-GPS inherently relies on telecom company

information—it uses a phone's GPS chip in conjunction with information gleaned from the telecom network to locate a phone. It is used to locate cell phones that dial 911 in an emergency and it operates faster than a phone's GPS chip alone, which can sometimes take minutes to connect to a satellite, according to telecom filings with the Federal Communications Commission. Telecom companies have access to this data, according to letters and filings from telecom lawyers to FCC:

"Carriers and public safety have worked to develop technologies and standards that provide the best possible location estimate," a T-Mobile lawyer <u>wrote in a letter to the FCC in 2013</u>. "A-GPS is reasonably the foundation of wireless [emergency] 911 location for both indoor and outdoor locations."



A flow chart showing how AT&T, T-Mobile, and Sprint customers' location data ended up in the hands of around 250 bounty hunters and related businesses. Image: Motherboard

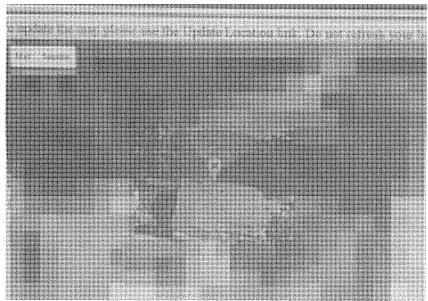
"Oftentimes A-GPS provides location information about where someone is *inside a building*," Laura Moy, executive director at the Center on Privacy & Technology at

Georgetown University Law Center, told Motherboard in an email.

Blake Reid, associate clinical professor at Colorado Law, told Motherboard in an email that "with assisted GPS, your location can be triangulated within just a few meters. This allows constructing a detailed record of everywhere you travel."

"The only reason we grant carriers any access to this information is to make sure that first responders are able to locate us in an emergency," Reid added. "If the carriers are turning around and using that access to sell information to bounty hunters or whomever else, it is a shocking abuse of the trust that the public places in them to safeguard privacy while protecting public safety."

Both Reid and Moy said this was the first instance of a telco selling A-GPS data they had heard of.



A screenshot obtained by Motherboard of a phone being located via its GPS data. Motherboard has blurred and cropped parts of the image to protect individuals' privacy. Image: Motherboard

A LocationSmart spokesperson told Motherboard in an email "Carrier location services available through LocationSmart are based on a variety of technologies depending on

each carrier's particular location infrastructure implementation. That could include AGPS, cell tower, cell sector, or cell site trilateration. While there is no explicit indicator as to the technology used to provide a specific location response from a carrier, each response includes an accuracy estimate that can be used to infer the technology used."

A Sprint spokesperson did not directly answer whether the company has ever sold A-GPS data.

"The chips are inserted by the device manufacturers, and every major carrier offers devices with chips included. In fact, the FCC mandates that devices be GPS enabled," the company said in an email. "This is a necessary step to provide customers with services like rideshare services, GPS enabled maps, roadside assistance and 9-1-1 location service."

When asked if T-Mobile has sold A-GPS data, a company spokesperson told Motherboard in an email "We don't have anything further to add at this stage." AT&T did not respond to a request to clarify whether it sells or has ever sold A-GPS data.

None of the telecom companies specifically denied selling A-GPS data.

HUNTING AT SCALE

CerCareOne's phone tracking service was not a one-off tool for bounty hunters and bail agents. A list of a particular customer's phone pings obtained by Motherboard stretches on for around 450 pages, with more than 18,000 individual phone location requests in just over a year of activity. The bail bonds firm that initiated the pings did not respond to questions asking whether they obtained consent for locating the phones, or what the pings were for.

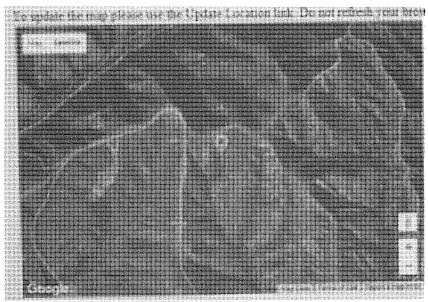
Another set of data is more than 250 pages long and covers around 10,000 phone pings. Another list of a different bounty hunter's activity includes nearly 1,000 phone location requests in less than a year; a third details more than 4,500 pings.

The location requests stretch from 2012 up to 2017, with some phones being located in quick succession multiple times over minutes, hours, and days, according to timestamps included in the documents.

"The scale of this abuse is outrageous," Eva Galperin, director of cybersecurity at campaign group the Electronic Frontier Foundation, told Motherboard in an email.

Bail agents included in a CerCareOne customer list obtained by Motherboard defended their use of phone location data.

"This type [of] information is solely used for and extremely beneficial in locating and tracking wanted fugitives who have jumped bond and are also wanted by law enforcement for absconding from justice," Charles Rhea Shaw III, a bail agent in Georgia whose information was included in the customer list, told Motherboard in an email.



A screenshot obtained by Motherboard of a phone being located via its cell tower data. Motherboard has cropped parts of the image to protect individuals' privacy. Image: Motherboard

William Munck, another bail agent whose information was included in the CerCareOne data, wrote in an email "all of our contracts stipulate that in the event of a forfeiture (bond skip) we are authorized to used electronic phone location services on them." In some cases, agents will have someone released on bail sign a contract saying that if they fail to repay their bail cost, the agent has authority to track them. Munck said he could not recall if he used CerCareOne's services.

CerCareOne's terms and conditions claimed the company audited its systems to monitor for abuse.

Both agents said they had authority from their clients in their bail recovery contracts to use phone location services—Munck said they had to provide documentation to CerCareOne saying they had permission from the phone owner to track them; Shaw said they always "executed a privacy waiver."

A copy of CerCareOne's terms of use obtained by Motherboard says users are required to obtain written consent from those they wish to track.

Got a tip? You can contact this reporter securely on Signal on +44 20 8133 5190, OTR chat on jfcox@jabber.ccc.de, or email joseph.cox@vice.com.

Two sources said target phones received no text message warning that they were being tracked. This leaves open the possibility for phones to be tracked without the target's knowledge or consent.

Telecom companies and location aggregators have previously told Motherboard that they require clients to obtain consent from people they wish to track. Sprint also said it requires aggregators to get permission to share its customers' data with another company; LocationSmart did not obtain this, Sprint said.

"We contractually require location aggregators to obtain prior written consent from Sprint 60 days before the use of any sub-aggregator, and we received no such request related to CerCareOne," a Sprint spokesperson wrote in an email.

A BOUNTY HUNTER'S SECRET

The existence of CerCareOne was a tightly held secret among the bounty hunter and bail community.

"The subscriber agrees to keep the existence of CerCareOne.com confidential by not communicating any information relating to same in any way, shape, or form and will not attempt [sic] make said site known to the public or business community under any circumstances or access will be terminated without notice," a copy of CerCareOne's terms of use, obtained by Motherboard, reads.

Visiting the CerCareOne domain at the time of writing brings up a site under construction message; that message has been on the landing page since at least 2013, <u>according to online archives</u>. However, visiting another specific URL reveals a login portal for the service.

Despite CerCareOne's secrecy, the company seems to originate from a much more public, almost brazen phone location service.

Motherboard found the CerCareOne website is hosted on the same IP address as another phone pinging service. Operational at the same time as CerCareOne, LocateUrCell.com offered to use telecom data to find phones for a wide array of purposes including finding lost elderly relatives and children, tracking down a misplaced phone, or monitoring employees.

In <u>a local news report from 2011</u> by the *Naples Daily News*, LocateUrCell CEO Frank Rabbito claimed he used the service to help a woman find her lost phone in a supermarket parking lot. LocateURCell also worked with AT&T, T-Mobile, and Sprint phones, according to that article.

"With AT&T, Sprint and T-Mobile phones, LocateURcell.com utilizes GPS technology to track registered cell phones to within a few feet of their location," the article reads. "With Verizon, they use less-precise cellular triangulation technology."

Welcome to CerCareOne

Thank you for visiting our site, however, it is currently under construction.



A screenshot of CerCareOne's fake landing page. Image: Motherboard

Rabbito did not respond to a request for comment sent through AshleyNorman, a debt collection and skip-tracing (bounty hunting) service that he co-founded and still works at.

Munck, one of the bail agents in the CerCareOne data, told Motherboard that "years ago it was far easier to access this type of data."

LocationSmart told Motherboard it cut ties with CerCareOne in 2017. Two independent sources said that CerCareOne is no longer in operation.

It seems likely Locaid, LocationSmart's precursor, knew what CerCareOne was doing with cell phone location data. Included in the CerCareOne customer list obtained by Motherboard are Locaid email addresses, which could have been used to audit the service. When asked, LocationSmart didn't dispute Motherboard's speculation that these accounts may have been for auditing purposes, and said that theory is a fair one. But that raises more questions around why CerCareOne was allowed to operate for so many years.

A LocationSmart spokesperson told Motherboard in an email that this story "relates to a legacy Locaid customer relationship. LocationSmart acquired Locaid in 2015. In 2017, the customer did not meet the terms of LocationSmart's Master Services Agreement, and the contract was terminated." When asked why that contract was terminated, the spokesperson did not respond.

After Motherboard's original investigation, AT&T, T-Mobile, and Sprint <u>all said</u> <u>theywere going to</u> cut their relationships with location aggregators. In a statement, an AT&T spokesperson tried to downplay CerCareOne's significance.

"We are not aware of any misuse of this service which ended two years ago," an AT&T spokesperson wrote in an email, after Motherboard explicitly said the data was being provided to bounty hunters. "We've already decided to eliminate all location aggregation services—including those with clear consumer benefits—after reports of misuse by other location services involving aggregators."

Sprint's statement added, "As we previously announced, we [...] are in the process of ending our contracts with data aggregators for location based services."

T-Mobile declined to provide a new statement, and instead pointed to one it previously provided saying it is ending its relationships with location aggregators.

"If the carriers are turning around and using that access to sell information to bounty hunters or whomever else, it is a shocking abuse of the trust that the public places in them to safeguard privacy while protecting public safety."

Even if CerCareOne is no longer operational, it still provides vital context on how American cell phone users' data has been sold and traded without their knowledge or proper consent.

"This is an issue of national and personal security," Jessica Rosenworcel, a commissioner at the Federal Communications Commission told Motherboard in an email. "The FCC needs to act with urgency. There have been press reports calling out the <u>sale of consumer location data since May</u>. I've asked for the letters of inquiry that typically kick off an investigation like this. They have not yet provided them."

Geoffrey Starks, another recently appointed commissioner of the FCC, told Motherboard in an email that "the for-profit location data industry has flourished in the shadows without any government oversight. The lights are starting to come on, and I believe that the FCC should use its authority to stop this practice, safeguard the public, and hold those responsible for this outrageous conduct accountable."

On Friday, a spokesperson for the House Committee on Energy and Commerce told Motherboard the Committee had met with the FCC on the issue.

"In a bipartisan briefing with the FCC [on Friday], Committee staff reiterated their serious concerns about the wireless carriers' unauthorized disclosure of real-time location data and urged the FCC to swiftly and thoroughly carry out its investigation," the spokesperson wrote in an emailed statement.

After Motherboard's original investigation, <u>15 senators called on the FCC and Federal Trade Commission</u> to investigate how consumers location data ended up in the hands of bounty hunters.

The FCC declined to answer specific questions about whether it knew of CerCareOne's existence, and whether it was aware that CerCareOne was selling location data to bounty hunters.

"We are investigating carriers' handling of location information, and we can't comment on what facts we have uncovered in the middle of an active investigation," an FCC spokesperson told Motherboard in an email.

"The scale of this abuse is outrageous."

A Federal Trade Commission (FTC) spokesperson told Motherboard in an email that it "cannot comment on specific companies' practices. And we generally do not comment on whether we are investigating a particular company."

Senator Mark Warner, presented with Motherboard's new findings, said in statement that "we have a systemic problem across the digital economy, where consumers remain totally in the dark about how their data is collected, sold or shared, and commercialized."

"Whether it's a major smartphone operating system tracking users' every move, or a weather app selling users' location data to hedge funds, or cell phone providers allowing intermediaries to sell smartphone location data to bounty hunters, we routinely see companies abusing consumer trust and we're witnessing a complete failure of by the relevant agencies—the FCC and FTC—to address these practices," he added.

Galperin from the EFF said that she's "glad that the company is shut down, but that just leaves me to wonder how many more CerCareOnes we have out there."

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TAGGED:PRIVACYBOUNTY HUNTERCELL PHONE SURVEILLANCESENATOR RON WYDENT-MOBILEAT&T CELL PHONE TRACKINGLOCATIONSMARTCERCAREONE

Attachment-Additional Questions for the Record

Ms. Denelle Dixon, Chief Operating Officer, Mozilla

The Honorable Greg Walden (R-OR)

1. In your testimony, you indicated that the "clearest pathway today to protect net neutrality today is to restore the protections of the 2015 order through litigation." If the litigation proves unsuccessful for Mozilla, will you commit to taking this battle out of the courtroom and working with me and my colleagues on the Committee on legislation to enact rules against blocking, throttling, and paid prioritization—all of which can be done without invoking the heavy hand of Title II—and finally put an end to the net neutrality battles, yes or no?

Response: We are certainly willing to discuss legislative solutions to protect the open internet with you and your colleagues on the Committee.

2. How does Mozilla distinguish the payments it receives to deliver and prioritize its search partners' results in the Firefox browser, such as those from Google but not Verizon-owned Yahoo, from other forms of paid prioritization? How is the former scenario "neutral" in Mozilla's view, but the latter one is not?

Response: Users of the Firefox browser have specific and direct control over their search experience. In addition to being freely able to change their default search provider at any point in time, we present the user with a number of search engines in the browser's address bar, and users can freely access the websites of other search engines. In no way is the speed or performance of searching, through any engine, modified by our product, nor are the results of search queries modified by Firefox in any way.

Paid prioritization arrangements, in contrast, disempower users significantly. Users' everyday experience of the Web is changed, in ways beyond their ability to choose or control. And there is little or nothing they can do about that, as most users are severely limited in their options for high-speed fixed broadband.

Attachment-Additional Questions for the Record

Ms. Ruth Livier, Actress, Writer, and UCLA Doctoral Student

The Honorable Jerry McNerney (D-CA)

- In your written testimony you note different ways in which net neutrality empowers you as an entertainment professional, as a first-time activist, and a student researcher.
 - a. Can you please outline some additional examples of how net neutrality protections have been important in your work and experience?

Response: To achieve a more robust understanding of net neutrality's impacts on our society, it is important to understand how it is operationalized at local and individual levels. Discussions about net neutrality tend to center around corporate concerns, so I am very grateful for your question, Mr. McNerney, because it focuses our attention on the effects of net neutrality on human beings. Thank you.

In the closing of my Feb. 7th testimony, I briefly listed some of the ways in which net neutrality protections impact human beings in real ways every single day: They affect our ability to participate in society, to make a living, to connect with our loved-ones, to earn an education, and to collaborate in pushing back against social inequities. As someone who comes from a low-income family, I have witnessed how mobility and money management—and by this, I mean making every penny count—are also impacted by net neutrality. A democratic digital environment should be a basic human right in our 21st century world because it is a basic human need.

Following, are some scenarios that illustrate how, from my experience, net neutrality protections come into play in our daily lives:

Many folks juggle multiple jobs just to stay afloat and, also, have the desire to expand their opportunities in life. If you are a single parent, work a fulltime, and are also trying to get yourself through school, having high-speed access to an open internet and tech literacy are essential. You should be able to access the web to do research, to choose from online schooling options, to access course materials and, via education, broaden your life-choices. And, you should be able to do this in the U.S. without it being a further financial burden and without you accessing an ISP-controlled internet where corporations decide what you can access and how you should engage with the internet. We should not be further burdened with an unjust, inadequate, corporate controlled, and costly, digital space. Additionally, for those of us who live on a tight budget, price comparisons in an open online environment are crucial. An open internet is a basic human need and it should be protected for the sake of humans in situations like these.

For those who work and, also, want to start a small business on the side. Having access to an equal playing field is key. They need a digital environment with net neutrality protections to

ensure that they are entering a democratic and truly competitive arena. If you are, for example, an independent fashion designer, creating a website, uploading your fashion line, finding customers, and marketing your business online are indispensable to your small business. Net neutrality is needed to ensure your startup has a fair chance to compete.

For low-income communities it is difficult and expensive to visit family and love-ones who don't live nearby. They should have access to a neutral internet that helps to bridge some of these geographical and mobility issues. For immigrant communities who have family members in other countries, technology may be crucial for their ability to stay in touch with their loved ones. This is also true of folks with disabilities. A protected neutral internet may be critical for them. AT&T's facetime blocking, which hurt deaf communities, is one clear example of the egregious abuse of power wielded by corporations that prioritize profits over the well-being of humans. What else are these ISPs willing to do for profits?

For independent filmmakers, writers, actors, and other artists a neutral internet is essential if you want to create content to showcase your work and/or access job opportunities. When I created my web series, I was able to do a lot of my work with the editor via the neutral internet. This was very helpful because it kept costs down especially because it saved on travel costs and travel time. It also allowed me to work with a very talented editor who happened to live in a different city. We were able to upload the web series and folks were able to download and watch it at no extra cost – to either of us—we were not unjustly charged for 'fast-lanes'. This was key. The low-barriers to entry of the neutral internet were the only way we were able to complete production, distribute our content, and to find worldwide audiences. We, the public, are no longer just consumers, we are also producers of content and products, and creators of job opportunities.

These are some brief examples of how net neutrality protections have had significant impact on our lives. To be clear access is not enough. There is some digital divide rhetoric that is tainted by corporate interests. It is a false binary; a false-choice discourse fueled by ISPs. The democratizing potential of technology can only truly be realized in a digital environment that is protected from being hijacked by corporate interests. Digital democracy can only flourish if we assure that the well-being of human-beings are prioritized over profit margins.

Thank you.

¹ Jon Brodkin, "AT&T Wants You to Forget That It Blocked FaceTime over Cellular in 2012," Ars Technica, December 1, 2017, https://arstechnica.com/tech-policy/2017/12/att-says-it-never-blocked-apps-fails-to-mention-how-it-blocked-facetime/.

Attachment-Additional Questions for the Record

Mr. Joseph Franell, General Manager and CEO, Eastern Oregon Telecom

The Honorable Greg Walden (R-OR)

- 1. The Chairman of Vermont Telephone Company (VTel), Dr. J. Michel Guité, copied me on a letter to Mr. Welch addressing the issues VTel experiences as a rural broadband provider. The full letter is located at the following link [https://www.vtelwireless.com/wp-content/uploads/2019/02/Letter-to-Congressman-Peter-Welch-and-Committee-RE-T-Mo-Sprint-2.15.2019.pdf]. In the letter, Dr. Guité specifically noted the "very direct connection between [its] investments and the light regulatory touch that the current Federal Communications Commission (FCC) instituted starting in 2017." Dr. Guité said that VTel "would not have made the decision to invest millions of dollars on Ericsson 4G/5G upgrades in the absence of the commitment by the FCC, under Chairman Pai, evidenced by his Internet Freedom and other deregulatory policies, to the economic revival of rural broadband providers."
 - a. Can you please comment on Dr. Guité's remarks regarding investment?

Response: Congressman Walden, I appreciate the follow up question to my testimony on maintaining a free and open Internet.

During the period following the adoption of the FCC's 2015 Open Internet Order and prior to the announcement in early 2017 by FCC Chairman Pai that he intended to repeal it, new capital was very difficult to obtain. Eastern Oregon Telecom (EOT) was only able to expand infrastructure and capacity using organic resources and an existing line of credit. Even if we had additional sources of capital available, EOT's board of directors was very cautious and conservative regarding any expansion or additional financial commitments and so would not have taken advantage of them. Instead of expansion, our focus was on cash conservation and debt reduction. Specifically, the uncertainty of the market and the regulatory environment shifted the company's focus from growth to risk mitigation.

This was a very difficult time in the life of the business. Since EOT was founded with the expressed mission of bringing advanced telecommunications to Eastern Oregon, it was extraordinarily frustrating to see un-met needs in our region and not have the confidence and resources to meet those needs.

However, within a few months of FCC Chairman Pai's announcement that he intended to repeal the 2015 Open Internet Order and revert to a light touch regulatory framework for the Internet, private equity firms, investors, and banks began openly and sometimes aggressively offering capital. It was as if the financial flood-gates had suddenly opened.

Since the formal repeal of the Open Internet Order, the three C-level employees of EOT (of which I am one) were able to obtain bank financing to purchase the business and have refocused EOT on growth. We now have access to unprecedented levels of capital and are actively planning fiber to the home builds in three additional communities that are currently significantly under-served. Additionally, our strategic plan includes significant growth over the next three to four years that will have a transformative positive impact in rural, rural remote, and frontier areas of the Pacific Northwest.

The possibility of a return to the Title II-based, heavy-handed regulatory framework of the 2015 Open Internet Order is very concerning and would cause us to seriously re-evaluate our plans for the future. At best, it would likely result in a much more conservative growth plan. At worst, it could result in a return to the risk mitigation, status quo approach of a few years ago. That would be a tragedy for rural residents of the Pacific Northwest.

I concur with Dr. Guite's remarks. It seems as if our experiences are similar.

I hope that this answers your question. Feel free to let me know if any additional information is needed.

Ms. Jessica J. González Page 1

Attachment-Additional Questions for the Record

Subcommittee on Communications and Technology Hearing on "Preserving an Open Internet for Consumers, Small Businesses, and Free Speech" February 7, 2019

Ms. Jessica J. González, Vice President of Strategy & Senior Counsel, Free Press & Free Press

Action Fund

The Honorable Jerry McNerney (D-CA)

- As part of the testimony received by the Committee, assertions were made by Eastern Oregon Telecom that the 2015 Protecting and Promoting the Open Internet Order had a chilling effect on investment.
 - a. Do you have a response?

Response: Thank you for your question, Representative McNerney.

According to FCC Form 477 data submitted by Internet Service Providers ("ISPs"), ISPs' public statements to their investors, and detailed news reports on ISPs' expenditures and performance, the FCC's 2015 *Open Internet Order* did <u>not</u> have a chilling effect on investment. I discussed this in detail on pages 12-26 of my written testimony for this hearing.

Free Press has long used broadband providers' own SEC disclosures to show the true impact – or, more aptly, lack of any impact – of FCC Net Neutrality rules on broadband provider investment and deployment. We get it directly from investment reports of publicly traded companies, and deployment reports that broadband providers file on FCC Form 477.

Beyond claiming (falsely) that the *Open Internet Order* had harmed investment, Chairman Pai and his allies predicted that the FCC's 2017 repeal would increase broadband investment. But now we have new data proving that individual broadband providers' capital expenditures have <u>not</u> uniformly skyrocketed since the FCC's repeal vote, even as coupled with massive corporate tax cuts. In fact, many of the largest broadband providers have now reported decreased expenditures in 2018, the year that repeal took effect.

As always, we caution against over-reliance on aggregate investment expenditures, the sheer dollar amount spent by ISPs, or other such blunt metrics easily swayed by temporary changes in either direction at any large firm. Aggregates obscure changes (if any) in investment decisions, cycles,

¹ Jessica J. González, Free Press and Free Press Action Fund, "Preserving an Open Internet for Consumers, Small Businesses, and Free Speech," before Committee on Energy & Commerce, Subcommittee on Communications & Technology (Feb. 7, 2019) ("González Testimony"), https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Gonzalez Testimony.pdf.

Ms. Jessica J. González Page 2

and strategies by all individual firms that make up the total. Those firms' decisions and directions may vary from one another, with broadband providers explaining to their investors the reasons for their individual decisions based on technological upgrade cycles that different companies move through at different times.² As AT&T itself concluded, "there is no reason to expect capital expenditures to increase by the same amount year after year.³

Three additional data points and data sets have come to light since the February 2019 hearing on this topic.

First, Eastern Oregon Telecom's ("EOT") claims at the February 7th hearing did not detail the full extent of its investments under Title II. Most notably, EOT continued investing and improving service under Title II.

EOT testified that during 2015 and 2016, the company "could not get loans from the bank" saying it was "only as we started to hear the commitment from the new FCC to repeal Title II that we started to see the cash open up." Free Press Action has no way of knowing what passed between EOT and its bankers or prospective investors. We can only assume that those specific statements were true, at least in some respect. But here's what we do know now, based on a review of FCC broadband deployment data self-reported by EOT, and a cursory internet search.

- In March 2015, just a few days after the FCC's historic vote returning to Title II, EOT and Huawei put out a joint press release announcing a new fiber-to-the-premises deployment project that would bring gigabit service to "over 8,000 homes and businesses in Hermiston and the surrounding area." The release announced initial deployment in late 2015, continuing into 2016. A local newspaper report that same day quoted the EOT witness saying that with the new build EOT "expects to invest \$2 million" on the project.
- EOT substantially expanded its cable footprint into previously unserved areas; upgraded 100 percent of its cable lines to higher-capacity DOCSIS 3; and more than tripled the marketed downstream speeds of all of these cable-modem lines from 30 Mbps to 100 Mbps. This upgrade occurred predominantly in 2016 as well that is, long before Donald Trump's election, and before EOT could have "started to hear the commitment from the [Trump] FCC to repeal Title II."

² See generally, S. Derek Turner, Free Press, "It's Working: How the Internet Access and Online Video Markets Are Thriving in the Title II Era," (May 2017), https://www.freepress.net/sites/default/files/2018-06/internet-access-and-online-video-markets-are-thriving-in-title-II-era.pdf (documenting every single publicly traded ISP investor call transcript prior to and following the 2017 repeal, and finding that none of these companies indicated that Title II Net Neutrality had any impact on their own investment decisions).

³ Comments of AT&T, FCC WT Docket No. 10-133, at 34 (filed July 30, 2010).

⁴ See S. Derek Turner, Free Press "Tale Tales and Title II," (Feb. 15, 2019), https://www.freepress.net/our-response/expert-analysis/insights-opinions/tall-tales-and-title-ii. The post links to EOT's joint press release with Huawei, contemporaneous news stories, and additional sources.

Ms. Jessica J. González Page 3

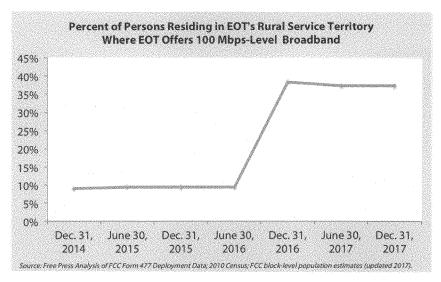
A substantial number of EOT's deployments and upgrades made during this time were in areas classified as rural or unpopulated blocks as of the 2010 Census. Between the end of 2014 and the end of 2016, EOT expanded its total number of rural blocks served by 24 percent; the number of rural blocks where it offers cable-modem service by 315 percent; and the number of rural blocks where it offers fiber service by 25 percent.

At the subcommittee's legislative hearing on this topic held on March 12, 2019, the ranking member for the full committee suggested that the above facts and others Free Press had presented still did not tell the full story of EOT's investment. We do not at this point have available to us all of the additional submissions EOT may have made prior to that hearing.

However, while Free Press will be glad to review those new explanations when we receive them, it suffices to say for now all of Free Press's analysis of EOT deployment and investment stemmed from publicly available sources: namely EOT's own FCC Form 477 submissions, EOT's press releases, and contemporaneous news articles. And none of the points raised during the course of the March 12th hearing appear to rebut Free Press's analysis.

In fact, the explanation that EOT secured \$2 million in financing prior to 2015 yet still decided to spend it after the FCC's 2015 *Open Internet Order* vote only reinforces the obvious conclusion that the 2015 order did not deter such investment and deployment. So too does the suggestion that EOT's cable-plant upgrades were a cost-effective method for upgrading facilities during the period prior to Chaiman Pai's repeal of the rules. That is exactly our point. Cost-effective upgrades remained available to EOT and other broadband providers during the restored Title II-era, and EOT and other ISPs made such upgrades routinely.

Ms. Jessica J. González Page 4



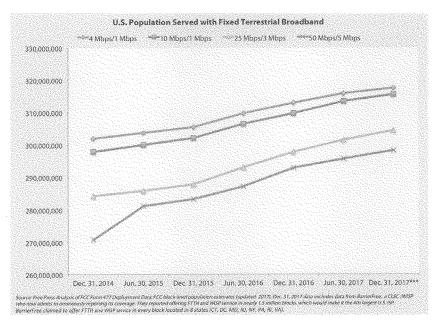
Second, the FCC's broadband data for 2017, the Pai FCC's first year, shows increases at the same pace as before and after the 2015 Title II Net Neutrality vote. As my testimony demonstrated, there is irrefutable evidence that broadband deployment, coverage, speed, and competition progressed unhindered by restoration of Title II and adoption of strong rules.

We are now able to analyze FCC Form 477 data for year-end 2017 as well, which of course reflects only a few weeks time after the Pai FCC actually voted in December of that year on the repeal. But to assume EOT's premise, broadband providers knew for all of 2017 that the newly installed FCC chairman was likely to make good on his promise of repealing the rules and running away from Title II. Did broadband investments leap in anticipation of that repeal?

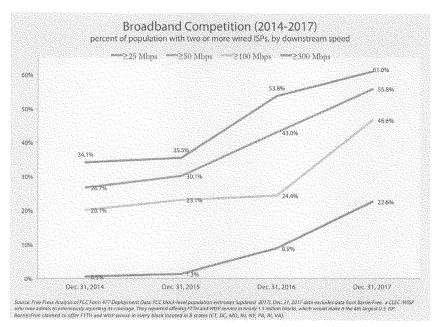
In short, no. Improvements in wired broadband coverage, speeds, and choices continued on the same trajectory seen from the end of 2014, before the FCC adopted the *Open Internet Order*, through the time that order remained in place and seemed in no jeopardy before the 2016 election. The fact that these continuing upgrades have not yet ensured broadband fast enough or ubiquitous in every rural market, or within each local market, is no reason to believe that the repeal of the rules could or would change the trajectories we see holding steady before, during, and after Title II's return.

Two sample charts, updated with 2017 data, illustrate the steady (if by no means sufficient in every congressional district) pace of broadband improvements during this period, unaltered by continued debate over how to preserve Net Neutrality.

Ms. Jessica J. González Page 5



Ms. Jessica J. González Page 6



Third, many large broadband providers decreased their investments in 2017 and 2018, even after the 2017 Net Neutrality Repeal vote.

In my written testimony, I noted that many major ISPs had begun reporting their 2018 revenues and investment numbers.⁵ At that point, Verizon already had reported an investment decrease for 2018 when compared to 2017. So had AT&T, which announced that instead of the tax-cut fueled job growth the company had promised it would instead be laying off workers.⁶ And Comcast reported that capital expenditures for 2018 likewise decreased, after double-digit growth in the years when Title II was in place.

Now that numbers are in for almost all publicly traded broadband providers, we can update our tally of investment changes across all of these ISPs. As always, we caution against reading too much into aggregate totals, and focus more on individual companies' changes.

⁵ Timothy Karr, "Pai is No Jedi," Free Press (Jan. 31, 2019), https://www.freepress.net/our-response/expert-analysis/explainers/pai-no-jedi.

⁶ Jon Brodkin, "Report: AT&T plans layoffs despite claiming tax cut would create 7,000 jobs," *Ars Technica* (Jan. 9, 2019), https://arstechnica.com/information-technology/2019/01/att-reportedly-plans-layoffs-despite-tax-cut-and-fcc-deregulation/.

We see now even more clearly that the Net Neutrality repeal, coupled with giant corporate tax cuts, didn't even move the needle in a positive direction – despite a series of Commission and broadband provider claims that explosive growth was bound to occur as soon as the repeal appeared on the horizon.

With 2018 in the books, and a year-plus elapsed after the Title II repeal vote, several individual broadband providers are spending less than they did prior to that repeal and other favorable regulatory changes they've obtained from this administration. In fact, many are spending markedly less since Chairman Pai's confirmation than they did in the two years prior to that, when Title II was in place.

On an inflation-adjusted basis, Verizon saw a 6.4% decline for the most recent two-year period, while Comcast's growth slowed to 3% compared to 23.7% growth in 2015-2016. Even allowing for accounting complications introduced by the AT&T/DIRECTV merger, and other changes affecting accounting for Sprint's expenditures on leased handsets, the <u>inflation-adjusted aggregate investment total</u> for this collection of publicly traded broadband providers increased by at least 3.6% in 2015-2016, but <u>dropped by 0.3% in the two years thus far of the Pai era.</u>⁷

⁷ See Matthew F. Wood, Free Press and Free Press Action Fund, "Legislating to Safeguard the Free and Open Internet" before Committee on Energy & Commerce, Subcommittee on Communications & Technology at 30 (Mar. 12, 2019), https://docs.house.gov/meetings/IF/IF16/20190312/109059/HHRG-116-IF16-Wstate- WoodM-20190312.pdf ("Wood Testimony").

Attachment-Additional Questions for the Record

Ms. Jessica J. González, Vice President of Strategy & Senior Counsel, Free Press & Free Press
Action Fund

The Honorable Ben Ray Lujan (D-NM)

 We use the Internet to learn, to stay informed, and to keep in touch with those we love. We also use it to shop, to connect businesses with customers, and to consult with our doctors.

But when it comes to broadband access, far too many New Mexicans have been left behind. According to data recently released by the U.S. Census Bureau, New Mexico ranks 48th in the country when it comes to broadband subscriptions. Only 73 percent of New Mexico homes had a broadband subscription. In addition, the FCC's own numbers suggest that 80 percent of New Mexicans living in tribal communities and almost 60 percent living in rural communities lack access to high-speed, fixed broadband.

We know this matters. Now, when Chairman Pai announced that he was repealing the 2015 Open Internet Order, he said "many more Americans, especially low-income rural and urban Americans, will get high-speed Internet access for the first time. And more Americans generally will benefit from faster and better broadband."

Ms. Gonzalez, your testimony has a thoughtful discussion of this issue.

a. Does the 2015 repeal of the Open Internet Order mean more and better broadband for New Mexicans? And if not, what should we be doing to expand access?

Response: Representative Lujan, thank you for your question. The simple answer is no, the Pai FCC's 2017 repeal of the Wheeler FCC's 2015 *Open Internet Order* has not meant more or better broadband for New Mexicans. Chairman Pai's entire premise is flawed, for several reasons. First, broadband deployment in New Mexico and elsewhere did not suffer during the time when the 2015 rules were in place; so the claim that "many more" people would get more broadband as a result of their repeal is misleading at best, in that it assumes the need for turnaround rather than the need for continuation of a positive trend. Broadband deployment, coverage, and speeds remained on the increase.

Second, as discussed in my testimony and then more fully during the subsequent March 12th legislative hearing in this subcommittee, that upward trajectory did not change markedly as a result of Chairman Pai's repeal. If anything, broadband deployment and investment by the largest ISPs have been more of a mixed-bag since the repeal than they were before the repeal, because of where individual ISPs are in their upgrade and spending cycles.

Third, when it comes to what we should be doing about it, the Pai FCC's repeal actually made the job harder. In fact, as my colleague, Matthew Wood, described in detail in his March 12th testimony before this subcommittee, when the Pai FCC repealed the *Open Internet Order*, it removed some of its own power under Title II of the Communications Act to ensure speedy, affordable and equitable deployment of broadband services to poor and rural people. For instance, since the Pai FCC Net Neutrality repeal, we are missing the following tools to spur broadband affordability, deployment and adoption:

- Section 202(a), which prohibits "unjust or unreasonable discrimination" in charges, practices, or services, or "any undue or unreasonable preference or advantage to any particular person, class of persons, or locality."
- Section 201(b), which requires all "charges, practices, classifications, and regulations for and in connection with" specified communication services to "be just and reasonable," or else declares them unlawful.
- Section 254, which allows the Universal Service Fund, including the Lifeline program, rural health fund, and the high-cost fund that subsidizes deployment in rural areas, to be used expressly for broadband internet access service when that service is properly classified as a telecommunications service.
- Section 224, which ensures that broadband providers have a process to access infrastructure and rights-of-way, to clear the way for build out.⁸

Investment under the 2015 Net Neutrality Rules. As I discussed in my written testimony, all available data strongly indicates that the FCC's 2015 actions had no impact on the broadband market's status quo deployment trajectory. Nor should it ever have been expected to make such an impact. This is a highly-profitable, highly concentrated industry, and there's no realistic reason to expect the mere affirmation of the FCC's narrow regulatory authority over ISPs would cause any pullback in investment. Any ISP that did so would have been leaving money on the table.

The subsequent company-level investment and deployment data bear this out. ISPs continued to invest. Cable company ISPs continued their rollouts of the newer generations of the DOCSIS technology they use to provide high-speed data services such as broadband internet access. Many telephone company ISPs continued to deploy faster speeds, using a mix of technologies, with fiber-to-the-home ("FTTH") deployments sharply increasing as those legacy telephone companies felt pressure to compete with the ever-faster services offered by legacy cable company ISPs. And mobile wireless carriers, which had all largely completed their 4G LTE deployments during 2014, filled out their capacities with lower-cost stepwise enhancements such as Multiple Input/Multiple Output antennas.

The same general nationwide trend of steady (if not sufficient) improvement in broadband coverage, speed, and choice is also observed in New Mexico:

⁸ See Wood Testimony at 12-22.

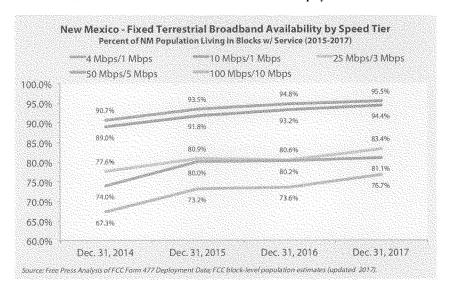
- During the period Title II classification and the Open Internet Rules were in effect (2015-2017), the number of New Mexicans living in an area with one or more fixed terrestrial ISPs offering service that meets the FCC's minimum standard (25 megabits per second downstream/3 megabits per second upstream) increased by 8 percent. This was slightly above the national growth rate in this category, which was 7.1 percent (see additional tables below for full New Mexico data).
 - The proportion of persons residing in New Mexico served by one or more fixed terrestrial ISPs offering the FCC-minimum speeds stood at 77.6 percent prior to the FCC's February 2015 Title II reclassification vote and adoption of the Open Internet Rules. By the end of 2017, when the Pai FCC took action to reverse the 2015 vote, this proportion had risen to 83.4 percent. New Mexico's broadband availability remains below the national level, which was 89.4 percent at the end of 2014 and 93.5 percent at the end of 2017. This difference is in part due to the fact that New Mexico's population is more rural than the nation as a whole (according to the 2010 Census, 22.6 percent of New Mexico's population resided in non-urban areas, compared to 19.3 percent for the total U.S. population).
- New Mexico's rural residents saw substantial increases in broadband availability, even as it remained well below full deployment. The proportion of persons residing in rural New Mexico Census Blocks (as designated in the 2010 Census) served by one or more fixed terrestrial ISPs offering the FCC-minimum speeds stood at 35.4 percent prior to the FCC's February 2015 vote. By the end of 2017, as the Pai FCC took action to reverse the 2015 vote, this proportion had risen to 47.6 percent of New Mexico's rural population.
 - New Mexico's rural areas, like rural areas in many other states, are economically challenging for ISPs to adequately serve. Thus, the carriers serving the people of these rural areas are particularly dependent upon money distributed from the FCC's Universal Service High Cost Fund. The FCC initially subsidized rural networks offering 4 megabits per second downstream/1 megabit per second upstream. At the end of 2014, this minimum threshold for rural subsidies was increased to 10 megabits per second downstream/I megabit per second upstream. The FCC's complicated processes also resulted in fund availability differing depending on a carrier's particular regulatory status (e.g., rate-of-return vs. price cap). These policies had (and continue to have) a demonstrable positive impact on broadband availability in New Mexico's rural areas. In part because of the FCC's subsidies, New Mexico's rural inhabitants saw substantial improvements in broadband availability with the Title II classification in place. At the end of 2014, 63.5 percent of rural New Mexicans lived in a block served by one or more terrestrial providers offering the 10/1 Mbps USF-minimum standard speed. By the end of 2017 this had increased to 79.3 percent of the state's rural inhabitants.
- As was the case at the national level, during the Title II-era New Mexicans saw their telephone company ISPs deploy faster speeds in order to maintain competitiveness with cable company ISPs. This resulted in a growing proportion of the population with a choice of ISPs at faster transmission speeds. For example, at the end of 2014 only 31.9 percent of New Mexicans could choose between two or more wired ISPs offering downstream speeds

exceeding 50 Mbps. By the end of 2017, this had increased to 45.6 percent of the state's inhabitants. Of course, though duopoly is preferable to monopoly, the level of broadband competition in New Mexico and the rest of the nation is substandard. This is in part why the regulatory backstops against unreasonable practices codified in Sections 201 and 202 of the Communications Act are necessary to maintain.

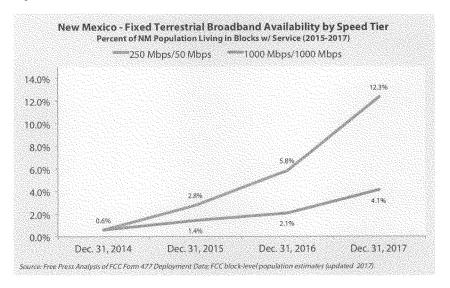
- As mentioned above, New Mexico's cable company ISPs deployed substantial capacity
 enhancements while under Title II authority. The average available cable company ISP
 downstream speed in New Mexico was 102.9 Mbps at the end of 2014, increasing more
 than 8-fold by the end of 2017 to 888.7 Mbps. (These values represent the maximum
 available cable company ISP speed in New Mexico blocks where such ISPs offered service,
 weighted by the population of each block.)
 - This sharp increase in cable ISP capacities is entirely due to the rapid deployment of the latest cable modern standard, DOCSIS 3.1, which now covers more than half of all New Mexicans.
- It costs much less money to upgrade a cable ISP system than it does to upgrade a telephone company ISP system. Despite this, New Mexico's telephone company ISPs continued to enhance their networks in the Title II era. The average available xDSL downstream speed in New Mexico was 51.1 Mbps at the end of 2014, increasing to 59.6 Mbps at the end of 2017. The average available fiber-to-the-home downstream speed in New Mexico was 124.2 Mbps at the end of 2014, increasing to 559.9 Mbps at the end of 2017. (These values represent the maximum available xDSL and FTTH speeds in New Mexico blocks where these technologies were offered, weighted by the population of each block.) Though FTTH availability in New Mexico is limited (available to 8.7 percent of the state's residents), FTTH deployment more than doubled during the Title II era (from 3.9 percent of the state's residents at the end of 2014, to 8.7 percent at the end of 2017).
- Comcast and CenturyLink are New Mexico's dominant ISPs. Comcast offers broadband service to 56 percent of New Mexicans. CenturyLink offers internet access service to 78 percent of New Mexicans, with two-thirds of its lines in New Mexico capable of delivering transmission speeds at or above the FCC's 25/3 Mbps standard. Both Comcast and CenturyLink made substantial enhancements to their New Mexico infrastructures during the period Title II was in place.
 - Prior to the FCC's February 2015 vote, Comcast had already upgraded 100 percent
 of its New Mexico systems to the DOCSIS 3.0 standard, with maximum offered
 downstream speeds of 100 Mbps. But during the Title II-era, Comcast upgraded 95
 percent of its New Mexico lines to the DOCSIS 3.1 standard, and now offers neargigabit downstream speeds to more than half of all New Mexicans.
 - Despite the expenditures and financing needed to consummate a large merger with Level 3 late during this time period, CenturyLink also upgraded its New Mexico broadband networks during the Title II-era. At the end of 2014, CenturyLink offered FTTH to just 1,904 persons residing in New Mexico. But by the end of 2017 this FTTH availability from CenturyLink had increased substantially to 27,523 New Mexicans. At the end of 2014, just under 700,000 New Mexicans lived

in an area where CenturyLink offered downstream speeds at or above 50 Mbps. By the end of 2017, this had increased to nearly 914,000 New Mexicans.

Select New Mexico FCC Form 477 Broadband Deployment Data



Ms. Jessica J. González Page 13



Moreover, though there were significant and continual improvements during the Title II-period, New Mexicans are not alone in still wanting for better broadband options. New Mexicans, like most others in the U.S., tend to face at best a duopoly market for wired broadband, where the backstop Title II protections against unreasonable practices are essential. As of the end of 2017 (the latest year for which broadband deployment data was available) we see at the national level:

- 31.4% of people in the U.S. had just one choice for a broadband provider offering downstream speeds of 25 megabits per second. Another 7.6% had <u>no</u> wired options at that speed.
- At higher speeds, such as a relatively modest in modern times 50 Mbps, the number goes to 44.2% of the population with just one option or no options.
- At 300 Mbps downstream, it's a large majority of people (53.3%) that have only one wired option, while another quarter of the population (24.1%) has none.⁹

In sum, the Pai FCC's Net Neutrality repeal is, if anything, a step in the wrong direction for connecting more New Mexicans to broadband, and restoration of those rules through the Save the Internet Act is critically important. However, even more can be done. Late last year, Free Press Action released its *Priorities for a New Year and a New Congress*, ¹⁰ which lays out a number of

⁹ See id. at 10-11.

¹⁰ Free Press and Free Press Action, *Priorities for a New Year and a New Congress*, https://www.freepress.net/sites/default/files/2018-11/fp_fpaf_2019_policy_priorities.pdf.

policy recommendations to help make internet access ubiquitous and more affordable across all U.S. states and territories. Our recommendations include:

Restoring Net Neutrality and the FCC's mandate to promote universal broadband. The Save the Internet Act restores Title II's affordability, competition, deployment and privacy measures as well.

- Promoting affordable internet with Lifeline and tax credits. Closing the digital divide isn't just a matter of building more broadband. While internet access is technically available to many low-income families, too often it comes with terms and prices they can't afford. And our research shows people of color face a digital divide not tied solely to income disparities but traceable to systemic discrimination.
 - The FCC should abandon its cruel attack on the Lifeline program, which subsidizes
 phone and internet access for low-income people, and adhere to the common-sense
 reforms already adopted to strengthen and expand this program.
 - Congress should create a broadband-affordability fund granting a \$150 annual tax credit for internet access to households with incomes below \$35,000 a year.
- Promoting competition on existing networks through resale of wired broadband.
 Wireless is typically more affordable than wired internet because people have more
 choices. These include prepaid services that don't require discriminatory credit checks,
 offered by resellers that buy wholesale from big carriers like AT&T and Sprint. The lack
 of wired resale options is a market failure, and one we need to confront.
- Preserving existing choices by rejecting the harmful T-Mobile/Sprint merger.
 Combining two of the four nationwide wireless carriers would drive up prices for everyone
 and be especially disastrous for value-seeking customers in communities of color and lowincome populations. Competition among T-Mobile, Sprint and their affiliates helps the
 whole wireless market. The DOJ and the FCC should reject this merger.
 - I am of the strong opinion that process matters. Process is how we make good policy.

There were a series of process abuses during the repeal of the 2015 net neutrality rules. It seems like the prudent thing would have been to stop, investigate, and not race forward to a conclusion without understanding what happened.

Instead, we saw 9.5 million identities were stolen to submit comments, and the FCC did not include some net neutrality complaints in the docket.

A recent study found that an overwhelming amount – 99.7% — of unique comments that were left on the FCC's website ahead of its decision to repeal net neutrality last year were in favor of keeping the protections. The study showed that, in the Third District of New Mexico, there were 1,702 unique comments submitted to the FCC in the 2017 net neutrality repeal proceedings, which I submitted to the record for this hearing. The FCC washed these opinions away and never did anything about it.

a. Why do you believe the FCC didn't thoroughly investigate this issue?

Response: Representative Lujan, thank you for this question. Fraud in a U.S. government policy-making proceeding is completely unacceptable, and I believe the FCC should have thoroughly investigated alleged fraud on the record at the time this came to its attention. In fact, minority commissioners Jessica Rosenworcel and Mignon Clyburn called for such an investigation and called into question these serious process fouls, among others.

For instance, Commissioner Clyburn's dissent to the Pai FCC 2017 repeal highlighted that:

There has been a darker side to all of this over the past few weeks. Threats and intimidation. Personal attacks. Nazis cheering. Russian influence. Fake comments. Those are unacceptable. Some are illegal. They all are to be rejected. But what is also not acceptable, is the FCC's refusal to cooperate with state attorney general investigations, or allow evidence in the record that would undercut a preordained outcome. 11

Commissioner Rosenworcel offered a similar rebuke in her dissent:

To date, nearly 24 million comments have been filed in this proceeding. There is no record in the history of this agency that has attracted so many filings. But there's something foul in this record:

Two million comments feature stolen identities.

Half a million comments are from Russian addresses.

Fifty thousand consumer complaints are inexplicably missing from the record.

I think that's a problem. I think our record has been corrupted and our process for public participation lacks integrity. Nineteen state attorneys general agree. They have written us demanding we halt our vote until we investigate and get to the bottom of this mess. Identity theft is a crime under state and federal law—and while it is taking place this agency has turned a blind eye to its victims and callously told our fellow law enforcement officials it will not help.

This is not acceptable. It is a stain on the FCC and this proceeding. This issue is not going away. It needs to be addressed. 12

Order, Restoring Internet Freedom, FCC WC Dkt. No. 17-108, Dissenting Statement of Commissioner Mignon

L. Clyburn at 2, https://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db1214/DOC-348256A1.pdf.

12 Order, Restoring Internet Freedom, FCC WC Dkt. No. 17-108, Dissenting Statement of Commissioner Jessica Rosenworcel at 3, https://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db1214/DOC-348259A1.pdf.

The 2017 Pai FCC repeal suggested that the Title II framework re-established in 2015 was legally unsound and detrimental to broadband investments. Free Press's testimony before this subcommittee in February and March show that none of those claims were true. Yet another aspect of the repeal that makes it difficult to accept, however, is that it was built on a tainted record. The FCC ignored the facts, the law, and the consequences of its policies, as well as its duty to consider legitimate comments while weeding out obviously fraudulent ones.

At the outset of the proceeding, before he'd sought public comment, Chairman Pai had already made up his mind. Based on his ideological dissent to the 2015 Open Internet Order, it's as if his prejudiced and pre-ordained conclusion was based on revenge. Giving a closed-door speech with industry backers to announce his plan, he said this was "a fight that we are going to win." That's not an open-minded decision-maker.

How else to explain the fatally flawed process the FCC rushed through to repeal the Open Internet Order? It could not handle comments first generated in response to its repeal plans, and falsely claimed a cyberattack when really the agency was simply not ready for robust public participation in the docket. 14 It ignored tens of thousands of relevant Net Neutrality complaints submitted under the Open Internet Order. 15 And it allowed potentially millions of comments submitted with stolen identities and under false pretenses to remain on the record without so much as a cursory investigation. 16

Remarks of FCC Chairman Ajit Pai at the Newseum, Washington, DC (Apr. 26, 2017), https://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0427/DOC-344590A1.pdf.

14 Chris Mills, "FCC Chairman defends lying about fake DDoS attack – even after admitting he knew the truth," BGR

⁽Aug. 16, 2018), https://bgr.com/2018/08/16/fcc-ddos-attack-ajit-pai-congress-testimony/.

15 "Release: NHMC Challenges the FCC's Repeal of Net Neutrality Rules in Court" (Feb. 23, 2018), http://www.nhmc.org/release-nhmc-challenges-fccs-repeal-net-neutrality-rules-court/.

16 See, e.g., Dell Cameron & Jason Prechtel, "How an Investigation of Fake FCC Comments Snared a Prominent D.C.

Media Firm," Gizmodo (Feb. 21, 2019), https://bit.ly/2NiMQMU.

Attachment-Additional Questions for the Record

Mr. Michael Powell, President and CEO, NCTA-The Internet & Television Association

The Honorable Anna G. Eshoo (D-CA)

- 1. In your written testimony, and many times during the hearing, you asked that Congress create a new statutory framework to regulate broadband, instead of reverting to classifying broadband as a "telecommunication service" regulated under Title II of the Communications Act, as the FCC's 2015 Open Internet Order did. In addition to classifying broadband as a "telecommunication service," the FCC's 2015 Order also states that the FCC "exercise[d] the Commission's forbearance authority to forbear from application of 27 provisions of Title II of the Communications Act, and over 700 Commission rules and regulations."
 - a. For the record, please provide a list of all remaining provisions of Title II that were applicable to your member companies after the FCC's forbearance in the 2015 Order. Of these statutory and regulatory requirements, which specific provisions do you propose Congress exclude from a new statutory framework for broadband? Please also specify which of these provisions you believe should be subject to rulemaking authority or simply subject to Commission enforcement action.

Response: "Title II" consists of much more than the provisions enumerated in the statute. To understand its full impact, one must take note of the thousands of regulations and common law precedents developed since the 1930s to regulate the landline telephone system. In the 2015 Open Internet Order, the Commission conducted forbearance only at the statutory level. It left muddy and unresolved the myriad questions about which parts of this massive body of telephone law applied to broadband providers. Such an exercise would inevitably take years, if not decades, to resolve.

Even at the statutory level, the Commission left in place a host of regulatory requirements. Those provisions include Sections 201, 202, 206, 207, 208, 209, 214(e), 216, 217, 222, 224, 225, 251(a)(2), 254 (except the first sentence of subsection (d), as well as subsections (g) and (k)), and 255.

It is critical to highlight the fact that while the Commission claimed it forbore from rate regulation, it in fact did not. It clearly left in place provisions that would allow it to pass judgment on broadband prices in an adjudicatory proceeding. Moreover, it retained provisions that authorize class action lawsuits in federal court, challenging the prices charged in the broadband market. While the Commission did forbear from rules requiring ISPs to file tariffs, it preserved the power to regulate rates through other procedures. Any claim that the 2015 Order guaranteed "no regulation of rates" is simply untrue.

None of the Title II provisions should be included in new legislation. The rotary-phone-era assumptions underlying Title II are simply not valid or logical when applied to the modern internet. Moreover, Title II is entirely distinct from net neutrality and is an unnecessary precondition for Congress to establish strong net neutrality requirements backed by robust agency enforcement and oversight. Instead, Congress should use its constitutional power to create new legal authority, enshrining core net neutrality safeguards for consumers without sacrificing the flexibility needed for all market participants to retain incentives to invest, innovate, and prosper. Any policy embodied in a provision of Title II that might have value in a modern context could be thoughtfully considered and potentially included in a new title specifically designed for net neutrality and the internet. Dumping a mountain of old rules on the market and then hoping we can lighten the impact by chipping away unwanted provisions makes little sense. It is far better to start on a clean page and be thoughtful about what to put on that page, avoiding the pronounced danger of impacts from legacy regulations that are impossible to foresee clearly.

The Honorable Tony Cárdenas (D-CA)

- Since the Trump Administration signed the Tax Scam into law, investment in broadband infrastructure has not increased. According to a February 7, 2019 article in the *Financial Times*, the big four US broadband companies invested \$56.1 billion in 2016 and \$57.1 billion in 2017 in capital projects. In 2018, after the Tax Scam went into effect, the companies invested \$56.9 billion.
 - a. Can you explain why investment in broadband infrastructure has not increased since the Tax Scam took effect?

Response: These companies are large and diverse. They spend capital on many things besides their networks, including video services, new products, and facilities. Therefore, looking at total capital expenditures is not informative in assessing the impact of net neutrality rules. One must look specifically at the amount of capital spending directed to network investment and how it has changed.

The figures cited above are measures of total expenditures, and do not separately break out infrastructure investments made by broadband providers in expanding and enhancing their networks. In fact, network expenditures increased in 2018 for Comcast (+4%) and Charter (+13%), the two largest cable broadband providers (offset in the totals cited above by a decrease in spending on video-related customer premises equipment). Both companies also provided guidance to the investor community that network capital expenditures are likely to grow again in 2019.

Indeed, capital expenditures by cable broadband providers, which eclipsed \$20 billion in 2017 and 2018, enabled our industry to complete major network upgrades, deploying gigabit service to virtually their entire footprints. Specifically, cable providers expanded the reach of residential gigabit cable broadband service from only 4% of U.S. housing units in December 2016 to 80% of U.S. housing units in December 2018.

Moreover, in January 2019, the cable industry announced its 10G initiative to deliver 10 Gigabit per second speeds to American households. Lab trials are already under way and field trials are expected to commence in 2020. Similarly, the wireless industry has equally dramatic plans for transitioning to 5G networks—a massive, multi-year expansion of investment. These are very substantial, long-term plans to dramatically increase network capability and clearly evidence the industry's growing commitment to infrastructure investment and network innovation.

Attachment-Additional Questions for the Record

Mr. Tom Wheeler, Fellow, Brookings Institution

The Honorable Ben Ray Lujan (D-NM)

1. There were a series of process abuses during the repeal of the 2015 net neutrality rules. It seems like the prudent thing would have been to stop, investigate, and not race forward to a conclusion without understanding what happened.

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a. How did the FCC allow this to happen?

Response: The Administrative Procedure Act requires that an agency such as the FCC make its decisions based on the facts in the record. Why the Trump FCC decided to ignore the 1,702 facts that were sent by your constituents is something I can neither comprehend nor explain.

Mr. Tom Wheeler, Fellow, Brookings Institution

The Honorable Tony Cárdenas (D-CA)

- Since the Trump Administration signed the Tax Scam into law, investment in broadband infrastructure has not increased. According to a February 7, 2019 article in the *Financial Times*, the big four US broadband companies invested \$56.1 billion in 2016 and \$57.1 billion in 2017 in capital projects. In 2018, after the Tax Scam went into effect, the companies invested \$56.9 billion.
 - a. Can you explain why investment in broadband infrastructure has not increased since the Tax Scam took effect?

Response: Unfortunately, I cannot. During discussion of the Open Internet rules the carriers claimed the rules would negatively affect investment. This has subsequently been shown to be lobbying scare. The two years after the enactment of the Open Internet rule, investment by the major broadband carriers increased when compared to the two years before the rule.

One would think that if the rule was so "damaging," that after the Trump FCC lifted the rule, infrastructure investment would have shot up. Similarly, the tax breaks given the carriers in the aforementioned legislation were supposed to spur investment. Based on the representations made during the repeal of the Open Internet rule as well as the tax act, one would have thought that the combination of the tax advantages and the alleged gains from elimination of the Open Internet rule would have driven investment through the roof. Your statistics suggests, however, that was not the case.

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