

Mackinac Center for Public Policy

Issues and Ideas Forum

“The New Face of the FCC: Q&A with Chairman Ajit Pai”

Speaker:
Ajit Pai,
Chairman,
Federal Communications Commission (FCC)

Introduction and Moderator:
Jarrett Skorup,
Director of Marketing and Communications,
Mackinac Center for Public Policy

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JARRETT SKORUP: Thanks for joining us at this Mackinac Center Issues and Ideas that we've – this time doing as a question-and-answer session. So appreciate you all getting up. It's a little bit earlier than our normal lunch events, but we appreciate your being here.

So the Mackinac Center is a – we're an educational – research and educational think tank. We're located up in Midland, but obviously do a lot of work down here in Lansing as well. So we explore a variety of issues from a free-market position and then occasionally do events like this – sometimes as panels, sometimes as debates, sometimes as speeches, and today as a Q&A.

So we're happy to welcome Ajit Pai. Ajit is the chairman and commissioner of the FCC, and he's been on that job for a couple of years now. And we wanted to kind of explore some of what the FCC does, what his approach is to different issues, and then also in particular how these issues affect us here in Michigan besides also across the country.

So, without further ado, we'll just start the Q&A and we'll keep it pretty relaxed. We'll do that for about 30 minutes, and then you'll notice on your tables we have some question cards. So if you fill those out, once we get to the Q&A we'll just – I'll just ask you to hold them up, and then we'll have some of our staff go around and sort those so we're not replicating questions and things like that, and then we'll get to that, and then be out of here pretty promptly. If you've been to these before, you know we're pretty prompt with them. And if you're interested, we're streaming this, and then it'll be back up on our website because I'm sure you'll want to – like me, want to just re-watch it again and again. (Laughter.) So thank you for joining us.

So, first, Ajit, how – can you give us a little bit of your background, how you kind of came to be – to be in this position, anything that helps kind of understand that? I mean, we don't know that many FCC commissioners, so. (Laughter.)

AJIT PAI: Well, first and foremost, Jarrett, thanks so much for having me. Thanks to the Mackinac Center for the invitation and for the work that you do. I have to say you must be scraping the bottom of the barrel to be bringing telecom regulators from D.C. to Michigan to – (laughter) – to generate some attention. Nonetheless –

MR. SKORUP: It's a free breakfast, though. (Laughter.)

MR. PAI: Yeah, that's right. (Laughs.) That plus the Pepsi I think is a big draw. (Laughter.)

But, no, I feel – I feel very blessed in the career and the life I've had. My parents came from India in 1971. I was born in Upstate New York in 1973. When I was in preschool we moved to Kansas, a very small town in rural Kansas, and I grew up there from, you know, the late '70s until 1990, then came out East.

And I feel like, since I moved to Washington 20 years ago this November, I almost feel like the Forrest Gump of the Washington legal profession. I've had the privilege to have a lot of different jobs over the years. My mom and dad, who have had the same or had the same job for 42 years before they retired earlier this year, were worried that I just couldn't keep a job for more

than two years. I kept hopping from place to place, and – I think my mom still held out hope that I would go to medical school just by accident; there would be no other jobs left to fill. (Laughter.)

But so, anyway, I – when I was – I mean, worked at a law firm in 2011. I was powering up my computer and got a call: Would you be interested in interviewing for a position at the FCC? And this was about seven years ago. And it's – I've been very blessed to be in the right place at the right time ever since. And since becoming chair in January of 2017 – almost 20 months ago now – it's been a great, great privilege to be able to serve and to be able to meet people across the country. I've been now to 41 states and the territories of Puerto Rico and the Virgin Islands. And those are the travels, those are the people, those are the stories that really linger with me when I'm sitting in an office looking at a 50-page order on the nuances of Part 32 telecom regulation. Where the rubber meets the road is out there.

MR. SKORUP: We're all familiar, yes. (Laughter.)

MR. PAI: Yes. (Laughs.) Condolences. You know, we're working on it.

MR. SKORUP: So a lot of these groups, I mean, at the federal level – certainly to us; I'm sure to you as well – this is just an alphabet soup of agencies. My brother does tech policy work. I don't know the difference between the FCC, the FTC, all these other agencies. What is – what is the job of the FCC?

MR. PAI: The job writ large is set forth in the Communications Act of 1934, which established the FCC, and in a nutshell it is to extend the promise of communications services to all Americans. And in the old days that meant broadcast radio and TV and the like. Today is means newer technologies like the internet. And as I envision the job, we have a lot of different missions under the Acts. You have many, many different tasks that the Congress has assigned us. But to me there's no higher mission than closing what I call the digital divide, the gap between those who have access to the internet and those who don't.

And that is in part a personal mission for me. I grew up in a part of the country, as I mentioned, that is on the wrong side of the digital divide more often than not. And also just professional; that, you know, having traveled to these places, having seen the impact of the lack of access, I recognize what a gap it is. And I want to make sure that every American has a chance to take charge of his or her future in the digital era.

MR. SKORUP: So, that being said, you know, these departments – you were appointed initially by President Obama, and then serving on the Commission then, and then became chairman under President Trump. So how would you describe –

MR. PAI: Pretty unique combination, I would say.

MR. SKORUP: Yeah. (Laughter.) How would you describe your regulatory philosophy, how you look at these issues? And has there been a change in your time that you've served on the Commission?

MR. PAI: Not really a change in my philosophy as such. And it's outlined on my website, you can see it there, that I believe in markets as opposed to government, have delivered far more value for consumers at the end of the day; that light-touch regulation, as opposed to preemptive Washington-based regulation, is much more valuable in the long run. And I think the success of the internet demonstrates that.

Secondly, the rule of law is very important, so the agency does not just make things up as it goes along. Something might be a good idea as a matter of policy, but if Congress has not given us the authority to enact that policy, then, you know, we are straying beyond the bounds of our legitimacy.

Additionally, we have to respect basic principles of economics and engineering. One of the things that I've found over the years – and you can look at a whole bunch of literature about the FCC – is that for many years we just simply assumed, OK, this is a good idea, let's jam it through and see what happens, without considering the costs and benefits or without thinking about whether or not it would actually work as a physical matter. And so we've tried to, over the last 20 months anyway, to increase the value that economists and engineers are able to bring to the table.

And so, for example, I've set up or we're seeking to set up an Office of Economics and Analytics, in part because we want to make sure that economists have a seat at the policymaking table as opposed to after the fact having to come to us and say, well, you know, this idea might not be a good idea, once the cow has already let the barn.

And so those are some of the principles that animate my decision-making.

MR. SKORUP: And I'd imagine some of that gets to kind of, you know, in these areas where you're doing – a lot of these companies are working on really cutting-edge stuff. How important is it to them to have kind of a coherent philosophy or kind of know what's coming down the pike? Can you talk about that a little bit?

MR. PAI: It is absolutely essential, and especially if you're talking about something like broadband networks, high-speed internet access, being – infrastructure being built across the country. It is absolutely vital to have regulatory certainty and a more market-based approach, and the reason is pretty simple. These networks are hard to build. They're exceptionally expensive to build. And in parts of the country, like rural America or even lower-income parts of urban America, you might not always find a business case for spending the massive amounts of money to lay fiber lines in the ground or to build a tower.

And so one of the things we hear constantly – and I've seen it in my own travels, especially from smaller companies – is that they need to know what the rules of the road are going to be, and they need to be able to have the freedom to invest and innovate, because these are multiyear decisions that have to be made. They have to go – be able to go to a bank or whatever and say, look, here is the money I would like to borrow from you. Here is how I plan

on getting a return on the investment. And if they can't get that return, these networks are never built, the divide is never closed, and consumers are ultimately worse off.

And I suspect that there are parts of Michigan, just like in my home state – you know, maybe in the UP, for example – where you can't get access. And that's due in part to the fact that these networks just can't find a business case for being built.

MR. SKORUP: So what do we do about that? That is certainly a huge issue here in Michigan. We have a pretty diverse audience, I know some people from across parts of the state, some of that are – you know, we have people in Detroit and Grand Rapids that have access or maybe more competition among providers. What do we do about those areas, or the rural parts of the state? What can you do, what can Congress do, what can our state lawmakers do to try and provide access to those people?

MR. PAI: That's a great question. From the FCC perspective, we have two basic tools in the toolbox. One involves the federal subsidy program that Congress has tasked us with overseeing called the Universal Service Fund, and the other one is modernizing our regulations to make it easier and cheaper for companies to build these networks.

With respect to the first, subsidies, we've reformed the program over the last 20 months, since I came into office. So previously we were spending money to subsidize a fourth, a fifth, or even a sixth competitor in a part of the country that already had access, and meanwhile, as you probably know, there are wide swaths of Michigan and other states that don't have access at all. So we decided to target the unserved parts of the country with some of these subsidies.

The other thing is we want to make sure that these scarce taxpayer dollars are stretched as far as possible. And so instead of simply writing a check to a particular company, we opened it up to competition through what's called reverse auction. So we invited all kinds of companies – electric utilities, satellite companies, wireless companies, and rural telephone companies – to compete for these dollars in a market-based system, and that creates downward pressure on prices.

And just to give you an example of the power of this approach, we recently finished a fixed broadband auction called the Connect America Fund auction. Originally, we budgeted \$2 billion for this auction to provide fixed broadband over the next few years, thinking that would be about the right amount to cover about 700,000 homes and businesses. We recently finished the auction, and it came out just below 1.5 billion (dollars). And part of the reason was we found other nontraditional players who were willing to provide these networks at the same service tier for less money, and that was ultimately a great benefit for the taxpayer. It saved \$500 million that we can now pour into other broadband efforts.

The second tool in the toolbox is modernizing our regulations. And here this is something that – I understand it's the nitty gritty of what the FCC does. It will never make the frontpages of the newspapers or be seen on TV, but fundamental reforms that are going to transform the broadband marketplace and promote more competition.

I'll give you two examples, one that is relevant to lower-income urban areas. So I recently visited – about a year and a half, two years ago – a company called Rocket Fiber in Detroit. And one of the things I was struck by was not only their entrepreneurial spirit – they wanted to provide an alternative to the big incumbents and also connect parts of the Detroit area that had been written off for many years – but they also had these insurmountable regulatory barriers. One of them that they mentioned I took particular note of, was just getting access and cheap access to utility poles. Now, more arcane it could not be, but actually getting access to these utility poles is the number-one cost element for many companies that are looking to build a broadband network.

And so, as a result of that effort – that visit, about a couple of months ago the FCC unanimously adopted – or, sorry, we – the majority adopted a proposal called One-Touch Make-Ready. And under this One-Touch Make-Ready approach, a company like Rocket Fiber would not have to sit and wait for the incumbents or the municipal pole owners to do all the work to move equipment that's already on the pole; they could do all of that work themselves. And, again, a very complex policy, but nonetheless the rubber's going to meet the road in terms of companies like Rocket Fiber being able to install infrastructure much more quickly in urban areas.

In rural areas, too, we're trying to promote creative ways of solving this problem. When I was in Mackinac Island recently, for example, I met with folks from Northern Michigan University who are using a certain kind of spectrum called 2.5 gigahertz spectrum to provide access to parts of the rural – well, I guess all of UP is rural, as I understand it, but really rural parts of the UP that are exceptionally hard to serve – where, for a variety of reasons, you know, not – a sparse population or a very short building season, they might not be able to deploy fiber. And that's one of the things we're trying to encourage: Are there innovative players out there like Northern Michigan that we can help give them spectrum like this in order to provide access?

And to me, at least, it's an all-of-the-above approach. We don't favor a particular technology or company or even sector of the industry. We want all of these technologies to be brought to bear in order to connect Michiganders and Americans writ large.

MR. SKORUP: Yeah, the Upper Peninsula makes Kansas look like Chicago, so. (Laughter.)

MR. PAI: Without the deep dish, I'm afraid. (Laughter.)

MR. SKORUP: So, yeah, we've had some discussions about that legislatively here in Michigan. I see we have Rep. Michele Hoyenga here, who chairs our committee taking a lot of those issues up.

So in some cases you have these obstacles at the local level that you were – that you were talking about. So is there – you were mentioning there's a little bit that the feds can do. So how should state lawmakers look at that? I mean, for a long time or, you know, for a lot of the last decade, some of the discussion has been, all right, we have these underserved areas, it's expensive to serve people or there's not a lot of interest in people that want high-speed

broadband – there are actually a lot of people out there that they don't – they're not willing to pay for it even at any price. So how can states kind of tackle some of those obstacles as well? For a while, there – you know, we've had big, wide-ranging debates and discussions about municipalities running their own broadband networks. Are there alternative approaches to that, which tends to be expensive, particularly now that federal subsidies have kind of dried up from the stimulus dollars?

MR. PAI: I think the most important thing that state officials could do – and, Representative Hoitenga, we'd love to work with you and anyone else who's interested in these issues – is to create a consistent set of policies. If you are a company, big or small, it is difficult if not prohibitive to jump through the different hoops of regulatory review on the federal level, on the state level, on the perhaps thousands of municipalities that are involved, as well as the several hundred federally recognized tribes and Hawaiian organizations. And so one of the things we're trying to do is create a consistent set of rules that companies can work around.

And so when it comes to, for example, getting access to a right of way on a highway, in some cases, especially out West where there's a lot of federally held land, what we've heard from some companies is that they have no idea how to get the requisite approval. Which department is it that holds the right to grant the approval? Which person within that department has the right to grant it? Within which timeframe do they have to grant it, if they have to grant it at all? If there are states and localities involved, how do we jump through those hoops? Who do we talk to?

And so I think one of the things we're trying to do is to create a clearer roadmap for all of us to work together on the same page so that we can speed deployment. And the reason why this is important is that we do not operate in a vacuum.

One quick example. Everyone is probably familiar, if you have a smartphone, with 4G LTE, which is the current state-of-the-art wireless standard. Well, we're emerging into the next generation of wireless connectivity, known as 5G, and 5G promises amazing benefits: super-high speeds, great connections that are comparable to what you would get from a wired broadband provider, and all kinds of applications from, you know, virtual reality gaming to being able to attach sensors to patients to be able to intercept cases of sepsis when they leave the hospital, I mean, all kinds of things we can't even conceive.

But the problem is that 5G does not have to be, that companies – or countries around the world have seen the success that America had with 4G and they are trying to claim success for 5G for themselves. And China is a good example of this. They are very determined to win the race to 5G. One of the ways they do that is by setting a national policy that, with respect to spectrum and infrastructure, they are going to have a set – a single set of national rules. They're not going to have what we have, which is multilayered regulatory reviews. And, obviously, we observe those different levels of review for pretty important reasons. But nonetheless, if capital is scarce, if talent is attracted to the place where innovation and investment is most likely to thrive, we're competing against China for that talent, for that capital. And so we need to have a regulatory environment that is conducive to the best and brightest setting up shop here, innovating here, so that our consumers, our citizens, can claim the benefits of 5G. And it doesn't

have to be that America will always lead in wireless, and it won't be if we have a multilayered set of regulatory hoops that companies have to jump through.

MR. SKORUP: So, in 2015, the FCC adopted what's known as the Open Internet Order, sometimes more colloquially called as net neutrality.

MR. PAI: I've heard of that issue. (Laughter.)

MR. SKORUP: Yeah, you might have heard of it. You dissented on this in 2015. And then, last December, you replaced it with the Restoring Internet Freedom Order, which you supported – by far the most controversial thing that the FCC's taken up. I was wondering, could you – could you explain what the difference between those approaches are and why the FCC decided – under your leadership decided on a controversial vote to take that up and make that change?

MR. PAI: Sure. Well, I start from, first, principles: I believe in a free and open internet. I believe the internet is the greatest free-market innovation in history.

And I believe that part of the reason why it has been such a success is that President Clinton and a Republican Congress in the mid-1990s made fundamentally the right choice when they were at the crossroads: How do we treat this new thing called the internet? Are we going to subject it to regulations that were developed in 1934 to regulate a slow-moving utility? Do we want the internet to be as innovative as our water company, to move as fast as your local Department of Motor Vehicles? Or do we want to let the market guide its development? They chose the latter, and I think the results speak for themselves.

Because of the national policy set in 1996 – and you can look it up; it's right there in Section 230 of our Code – we want the internet to be unfettered by federal and state regulation. And the results speak for themselves: \$1.5 trillion of network investment poured into these networks; companies like Facebook and Amazon and Netflix and Google going from scrappy startups to global giants; and we see consumers reaping the benefits of those in ways that could not have been conceived just two decades ago, which is pretty fast when you think about it.

And I think that the absence of a market failure in 2015 was one of the fundamental reasons why that 2015 order was misplaced. The internet wasn't broken in 2015. We weren't living in some digital hellscape that required Washington regulators to save us from ourselves. And so imposing these rules that were developed in the 1930s to guide a 21st-century technology was fundamentally the wrong answer.

Secondly, the effects of these regulations were holding back investment and innovation in networks. When I travel around the country – and as I said, I've been to almost all the states at this point – the number-one concern I hear consistently from consumers is that we don't have internet access at all; or we don't have enough competition, we're locked into one provider. Well, the solution to that is not heavily regulating something out of Washington, making it even harder for a company to build a business case for deployment. And, you know, of course, those bigger companies might have fleets of lawyers and accountants to throw at this problem. But

when you talk to companies like Paladin Wireless in Royston, Georgia, which I've done; when you talk to companies like Vitel in Springfield, Vermont, which I've done; when you talk to companies like Aristotle in Little Rock, Arkansas, which I've done – smaller companies that perhaps none of you have ever heard of – these are the companies that are critical to providing access and competition. These are the companies that bore the brunt of these regulations. And to suggest that Laurens Municipal Utilities in, you know, rural Iowa, which I've also visited, is somehow an anti-competitive monopolist that needs to be regulated at Ma Bell was in the 1930s is simply absurd to me. And so we wanted to make sure that these companies – all companies – have a strong incentive to invest and innovate in networks.

Now, on the other hand, it was also important for us not to simply wipe the – wipe the slate clean of these regulations, and that's what some people were urging us to do. So we charted a middle course. We instituted a very strict transparency rule at the FCC. Every single internet service provider, big or small, has to disclose to us and to the American public all kinds of business practices so that everybody will know exactly how they're operating.

On the backend, we also guaranteed Federal Trade Commission enforcement. The Federal Trade Commission has jurisdiction over any unfair or deceptive trade practice, or any unfair method of competition. That's really broad authority. And so if any company, especially one that's operating without competition, is acting in an anticompetitive way, the current chairman of the FTC, Joe Simons, and his colleagues stand willing and able to vindicate consumers' interests.

And so, going forward, we're going to continue to have the free and open internet that we've had. As you might have noticed, the internet still works over the hundred days or so – (laughter) – since we repealed these regulations. And going forward, consumers are going to continue to be protected, as they have been.

MR. SKORUP: I've read that the – the advocates' point that net neutrality is just this principle that we're – that companies are treating all data the same, they're not treating some data more valuable than others. So people worry that, if they want to get to a certain website that their provider doesn't like, that they'll block it or throttle the data. Is this a valid concern? And does your order allow that to happen?

MR. PAI: No, it does not allow it to happen. So what will happen in that case is, number one, these companies would have to disclose exactly how they're treating the traffic, so you would get a lot of public scrutiny there. In addition to that, the Federal Trade Commission could take targeted action to evaluate, is this business practice anticompetitive or not? Is it unfair or deceptive, or is it an unfair method of competition? And so there, too, consumers would be vindicated.

Moreover, I would point out that the real problem when it comes to that kind of – that kind of behavior is not necessarily your network provider; it's some of the Silicon Valley tech giants that are deciding what you see and what you don't. These are the companies that are now just essentially controlling in many ways the consumer's online internet experience. And I think recent disclosures have suggested that lawmakers are taking a look at this and trying to figure out

what should the rules of the road be, and should the Federal Trade Commission – which is the only agency that has authority over the entire internet economy – should they be setting rules of the road that protect consumers regardless of what kind of company is handling data or managing the online experience.

MR. SKORUP: Going along that line, so I had read last fall you were quoted talking about those edge providers – Google and Facebook – and you were saying that they are potentially a bigger threat to the open internet than broadband providers, especially when it comes to discrimination on the basis of viewpoint, and you – and you criticized some of those companies. Why do you feel that way?

MR. PAI: I feel that way because I believe in a free and open internet. And the great thing about the internet is that it gave people who historically might not have had an avenue for expression a way to get their views out there, and so it does disturb me when political candidates have their views censored from Twitter because of the content of their message. It bothers me when people report that their videos on YouTube are being demonetized for – simply because of the reason of the content. It bothers me when there's no transparency into these algorithms that determine what it is you see and what is you don't. And these companies have historically been completely unregulated, which is fine, except that they've also been badgering the FCC and the federal government to heavily regulate their rivals, to abide by regulations that they would not have wanted to abide by themselves.

And so all I'm asking for – and I put it – I followed up on that speech recently with a post in Medium in which I said, look, all we want to have is transparency. All these companies should put their cards on the table and describe how it is that consumers' online experience is being shaped.

For example, privacy is a huge issue right now. Every single week it seems like there's some revelation or the other about how consumers' information is being handled. We don't have insight into that in a lot of cases. And moreover, there are now examples of some of these same companies behaving abroad in ways that they would never behave here; for example, a major search engine collaborating with the communist Chinese government to connect consumers' searches with their phone numbers so that the government can essentially monitor what kind of searches they're doing and connect it to a particular person. Is that indicative of a free and open internet? I don't think so. But we need to have a conversation about these issues.

And back in November of 2017 when I made this point, it was somewhat avant-garde. But now I think if you look at the conversations in Congress, at the FCC, among the general public, I think people are coming to recognize that some of these tech giants have a lot of – have a lot of control of our information and the internet, and we need to have a conversation about transparency.

MR. SKORUP: Some states have tried to fight back against this policy, California most prominently, in trying to impose state-level net neutrality rules. So if these companies want to operate in their state, they have to submit to these – reimpose net neutrality through state regulations. Michigan had a little bit of a conversation about that; nothing legislatively has

advanced or gone anywhere, but it's certainly been a conversation. Is there – is it a good idea for states to do that? I mean, I know how you feel on the federal level. And what would the practical result of that be?

MR. PAI: I think the practical result would be terrible, and it goes back to the point I was making earlier. You need to have a consistent policy when it comes to something like the internet, and the reason is pretty simple: The internet involves inherently an interstate activity. If you email me in this very room, if you tweet me right now, the chances are that that traffic crosses state lines even though we're in the same physical place. And so it follows from that that you can't have 50 different state jurisdictions, however many municipalities, taking a bite at the regulatory apple. You need to have a consistent policy. And that policy, under the Constitution and the laws of the United States as I read it, can only be set at the federal level. And so, to the extent that a state is purporting to regulate in conflict with the federal government, that is something that I do not believe is legal.

And I also believe it's unwise. We don't want to have a segmentation of the internet where companies have to – (laughs) – adjust depending on the state that they're operating in what kind of internet network and what kind of consumer experience people have.

MR. SKORUP: You talked a little bit about 5G.

MR. PAI: Oh, sorry. One other thing I would note, by the way. The 2015 order that we were just describing, the Obama administration order, itself preempted states. And so it's not as if this is some radical break from tradition. The federal government has consistently said that the internet is an interstate activity and only the FCC has the ability to regulate, which is something that the folks in California, I think, have studiously ignored.

MR. SKORUP: That's surprising. (Laughter.)

So you talk a little bit about the 5G network.

And this will be the last question from me, so if you start writing your questions and hold them up, we'll start – we'll start gathering those up, and then we can go to – go to the audience.

You talked about the 5G network and potential benefits this could provide to people. So there are some pilot – pilot program here in Michigan in Ann Arbor. Our state lawmakers have worked on some legislation to try to ready for that, especially as it recalls to replacing some of these 200-foot-tall towers we have for – and moving to more small-cell development. So we've had that discussion here in Michigan. What is – but it's not available right now. You said we should be excited about it. One, why should we be excited about it, especially in rural areas?

And then, what should state lawmakers be doing to try to prepare to that? I know a lot of this is at the federal level, but what can the state do to try to expand that access?

MR. PAI: I think part of it is that the 5G infrastructure will look very different from 4G. So most people are used to 200-foot cell towers intermittently dotting the landscape. But in a 5G

environment, we're using a lot of different kinds of spectrum, and that spectrum travels a shorter distance, and so we'll be relying more on small cells – essentially, infrastructure that might be as small as, say, a pizza box, operating at lower power, and you'll have to deploy a lot more of them.

And so part of the reason why we need to modernize our regulations at the federal level – and we would love to work with the state as well – is that you can't jump through the same regulatory hoops for, say, a hundred or a thousand small cells that you would for a 200-foot cell tower. I mean, among other things, there is just less of an aesthetic impact, less of an environmental impact, and the like. And so we're trying to streamline the regulations to make sure that the public interest is still vindicated, but on the other hand that we don't slow down the deployment of these small cells. And some states have passed small-cell bills to encourage this kind of infrastructure, and we would love to work with any state that's interested in promoting this.

As to why it matters, look, I think we're entering a time when we're going to have all kinds of internet-connected devices. And as I said, we can't predict all the ways that this is going to flower, but to me at least one of the most powerful applications in the future which could be powered by 5G is telemedicine.

I remember when I was growing up in rural Kansas my dad would get up and leave sometimes before dawn to travel 45 minutes to an hour away from our town to be able to see patients in some of these small towns, even smaller than my hometown, where they didn't have a specialist, where otherwise they might not see a specialist ever. And I remember being struck by how long it took, how hard it was. And fast forward to today. If we have the ability to connect all of these communities with broadband, especially 5G broadband, the benefits to patients in terms of improved health outcomes or even saved lives is tremendous.

I visited Augusta Health in Staunton, Virginia, recently. And they are able to – they give some of their patients who are leaving the hospital post-op these sensors, and the sensors essentially track them when they leave so that the hospital will know, OK, this patient's vital signs are going south, we need to intervene, this could be a case of sepsis, which I adverted to earlier. As a result of that, they have decreased the case of sepsis 38 percent over a very short period of time. One hospital, one application, a number of saved lives.

And so you multiply that around the country in a 5G environment with all these internet-connected devices that could monitor our health and just keep people safer when they're in the hospital, when they're out of the hospital, it's just tremendous. And especially in parts of the country like rural America where health care is really hard to find if you find it at all, this could be a game changer, I think.

MR. SKORUP: So one thing holding back innovation in telecommunications has been a lack of available spectrum. So a lot of these other federal agencies own a lot of the spectrum out there. It's not given kind of to be used by private industry. What's going on in regards to that? And what can happen going forward?

MR. PAI: This is a big issue. So many people might not know, but the federal government actually holds the bulk of the spectrum that is used for wireless communications. The FCC does not have jurisdiction over it. So we have to work with other agencies in the federal government to persuade them to either relinquish that spectrum for us to be able to give to the American public or for us to share that spectrum. So, for example, if a particular government agency is only using a slice of spectrum at a particular time in a particular place along the coast, we'll say, OK, well, let us use it at a different time in the middle of the country, for example. That effort is painstaking. In a lot of cases, federal agencies have no incentive to relinquish or share the spectrum. Why would they? There's no cost imposed on them for doing so.

And so one of the things we're trying to explore is, is there a way that we can facilitate more of the sharing or freeing-up of this federally held spectrum? A lot of the spectrum is really important for us.

For example, one of the first things that many of you might have done when you got into his room was look for an open wi-fi network, right? In many cases I'm sure you've found the wi-fi network is congested. There just isn't room on the network to handle everybody's traffic. Well, part of the reason is that we haven't been able to free up as much spectrum as we would like for the next generation of wi-fi. And that's something I've been pushing now for about six years.

We're working with our federal partners to see, look, can we share the spectrum so that consumers can benefit from greater wi-fi access in the future? It's not easy to do. It involves me talking to the Department of Commerce, the Department of Defense, the FAA, a whole alphabet soup of agencies. But in the long run that is the only solution, I think, for freeing up some of the spectrum, is having those conversations and trying to find – in the words of Ronald Coase – keeping transaction costs low so we can facilitate welfare-maximizing exchange of this scarce asset.

It's my armchair economist coming out.

MR. SKORUP: Yeah, right. You got Coase in there, a University of Chicago guy, so I figured that was coming.

MR. PAI: Yeah, right. (Laughs.)

MR. SKORUP: What do you think most people misunderstand prominently in the net neutrality debate?

MR. PAI: Oh, boy, where do start with that one? (Laughter.) I mean, I think – so one of them is political. One of them is more practical.

The political one, I think, is that the internet did not come to an end as a result of any – (laughs) – will not come to an end as a result of any decision that is made in Washington. As I said, it wasn't broken under the 20 years of light-touch regulation we had from President Clinton

all the way through 2015, and I think a lot of people don't recognize that those were the – that's essentially the same framework to which we have returned. And so all of the apocalyptic rhetoric this past December – this is the end of the internet as we know it, the internet is going to look like Portugal, I'm going to have to pay \$5 per tweet – which, as you can tell from my Twitter feed, is not the case, judging from all the trolls who freely post – (laughter) – you know, that kind of misinformation I think has been very pernicious and just damaging to a core understanding of what is actually going on here.

The practical one is I think that it's just a complete distraction from what is the issue of our time. And I know that of course I work at the FCC so I'm biased on this, but I truly believe that we are leaving millions of Americans – whole communities – on the wrong side of the digital divide, and that should be our national mission. We should have a sense of purpose in making sure that everyone who wants it is able to be connected to the internet, that there's more competition. That is something that everyone can agree on. I mean, I have yet to hear any Republican or Democrat say, no, I'm comfortable with the internet access I've got; I don't need faster, I don't need cheaper. That is something we can unite on. That is actually where consumers' interests lie.

And so, you know, instead of trying to preemptively regulate against these phantoms – you know, we didn't see, as I say, a broken internet before 2015; we don't have a broken internet now despite this light-touch regulation – I wish we could focus on what we all agree on. But, you know, unless and until that happens, we're going to continue to be distracted by this issue.

MR. SKORUP: Yeah, there is some analogy to – I mean, this order came out of regulating telecommunications for, you know, 40, 50 years in this country, you know, with Ma Bell, you mentioned – you know, the previous name for AT&T. And I remember, you know, before I cared much about policy – so I was in middle school or grade school – and my grandfather telling me how amazing it was – he had just gotten a cellphone – that he remembered, you know, in the '80s paying nine (dollars) or \$10 a minute in the '80s for long-distance phone calls; that deregulation led to this increase in competition, presumably, and better cost and service for consumers.

MR. PAI: And that's one thing I think – actually going to the nub of the question, I guess maybe that's the thing that I should say is the biggest misunderstanding, is that government is the reason why and the best guarantor for our online experience. The best analogy is the cellphone.

Marty Cooper, who I've had the privilege of meeting, made the first cellphone call in 1973. Think about when you made your first cellphone calls. Probably in the mid-1990s, late 1990s. Part of the reason was the government put its foot down and micromanaged how the spectrum was going to be allocated, how companies could operate in this space, and so companies naturally said we're not going to invest in this cellular communications revolution. Once the government had a more light-touch approach in the mid-1990s, we of course have the wireless revolution that we have today.

Same thing with the internet. I mean, younger people may not appreciate it, but I hope they will. I certainly do, being in my mid-40s. Twenty years ago, the internet meant getting

AOL CD-ROMs in the mail, hearing that squeak of that modem. Do you guys remember this? It's like – (makes noises).

MR. SKORUP: Fighting your siblings to get on, yeah.

MR. PAI: Oh, yeah. And not only that; if someone was on the phone you couldn't access the internet at the same time, which sounds ridiculous to anybody now. All of this innovation has been amazing within a short period of time. I mean, think of all the technological revolutions in the past. The printing press took hundreds of – you know, not hundreds, but you know, a long time to really take hold. Some of the – you know, even TV, for example, took a long time to be widely adopted. The internet is one of the most rapid, incredibly innovative pieces of infrastructure in our history. And I think it's that light-touch approach that has helped us get there.

MR. SKORUP: There are a couple questions here about what has happened with investment in telecom infrastructure. What was happening prior to the change in the net neutrality regulations and what has happened since, essentially, you've announced that you were making that change?

MR. PAI: So prior to our making the decision, we found – and you can look this up in the order – that infrastructure investment had decreased by – I believe it was about 3.8 percent – or 5.6 percent, or \$3.8 billion, in the two years since these regulations were adopted. And that is notable for two reasons. Number one, because infrastructure investment, of course, is the key to consumers getting on the internet. But more importantly, number two, this was the first-ever decline in infrastructure investment in the internet outside of a recession. And so, once we repealed these regulations, our hope was that infrastructure investment would increase.

We've gotten some preliminary evidence that suggests that this decision was the right one, that infrastructure investment is going up. A study recently came out, for example, suggesting that in 2017 more businesses were connected to the internet, more small businesses in particular – smaller buildings, rather – than in any year since 2004, which is when they started keeping these records. Additionally, I've heard from a number of companies – a small company called Vitel, which I mentioned earlier – which wrote us a letter unsolicited and wrote the Senate a letter in which they said because of this decision they're now pouring \$4 million into their 4G LTE core to make sure that rural Vermont subscribers can have wireless access that is comparable to what people in big cities would get. And so, you know, both anecdotally and in the aggregate. We hope to be able to collect more evidence like this and to show that our decision was the right one.

MR. SKORUP: One of the concerns that I think some places we've seen nationwide, and it's certainly helped kind of slow the process here in Michigan in terms of the 5G issue, has been a concern from some groups of people about health concerns. Has the FCC looked into that? Is that an actual concern that people should worry about? Any thoughts you have on that?

MR. PAI: We always want to make sure that any technology we approved, any service that we regulate is safe for consumers. Historically, that is what we have done on the wireless

side. And so we're working with our teams at the FCC, along with other agencies who have the lead when it comes to these health issues, to ensure that any technology is going to be safe. And so that's one of the things we're looking at. And according to the best judgment of those who wrote a recent national toxicology report, as well as our own engineers, we're confident that we are taking the steps to ensure that that remains the case.

MR. SKORUP: You made a claim that your personal goal as chairman of the FCC is providing access to the digital world for everyone. So how does ending net neutrality follow that goal?

MR. PAI: Oh, it follows directly. I mean, these net-neutrality regulations don't do anything to promote access. I have yet to hear any company rationally say, yes, being micromanaged from Washington? Sign me up. I want to spend more money and hire more work crews to build more fiber. I mean, we actually talk to people who are in this business. They will not do it. I mean, it's hard enough as it is to build a business case for deployment.

So essentially – I don't quite even understand the connection between how these heavy-handed regulations from Washington would promote more access. I mean, the problem is there isn't access to begin with, for a variety of reasons.

Secondly, getting rid of these regulations, as you've heard from small – we have heard from many, many small companies who are critical to providing access and competition. This will help them raise the capital and build these networks.

I'll give you one example. In Paladin Wireless in Royston, Georgia, a very, very small rural town, the owner of Paladin Wire was an individual entrepreneur who told me that they had to spend \$8,000 in the first few months of these regulations simply to comply with them. Now, \$8,000 might not sound like a lot to many. In a small town like Royston, Georgia, that could be a lot of households that he could have connected instead of spending it on legal fees and the like.

So if you aggregate that out across all of the different companies, this is a huge aggregate impact. And so, again, our hope is, going forward, consumers will continue to be protected, both through our transparency rule and the Federal Trade Commission standing as an active cop on the beat, and we can remove this overhang of heavy-handed, 1930s-era regulation that doesn't do anything to promote access and competition.

MR. SKORUP: What are those heavy-handed regulations? So what were the worries that companies had that the federal government could come in and do along the line from the 2015 order?

MR. PAI: Well, first and foremost is price regulation. And I think some members of Congress have been quite explicit. They want the FCC to be in the business of micromanaging the prices for every single one of the thousands of internet service providers out there.

Secondly is micromanaging all kinds of network management practices. For example, if you're a telemedicine provider and you want to be able to ensure that your traffic gets priority

over, say, cat videos, this would empower the federal government to say, no, we just think it all has to be treated equally; we're going to prevent you from doing that. You could envision pro-competitive applications like that that would be banned.

Additionally, if you look at the number one – what is the number one thing the FCC did after passing these regulations? It started an investigation into free data plans. So this is essentially under wireless phones, companies like T-Mobile wanted to be able to offer you the ability to stream music and video and other kinds of services exempt from any data limits. The FCC said that might be a net-neutrality violation. And they were quite clear in late December, early January, saying they were poised to ban that had the election gone the other way.

And so banning consumers who want to enjoy free data doesn't exactly sound like something that consumers would be interested in. But nonetheless, that is exactly the kind of thing these regulations open up the door to.

MR. SKORUP: Your second point there kind of dealt with this issue of what some people call fast lanes.

MR. PAI: Right.

MR. SKORUP: So should fast lanes be allowed? I get – I've had discussions with people. That's a sticking point for them. Everything else they kind of say, OK, maybe it's a little bit overblown, but I don't want that – if I go on Netflix and I'm paying some cost that somebody else gets higher-speed access to it, and so they want the federal government to prevent that from happening.

You mentioned there quickly on a telemedicine maybe that being a benefit. Can you discuss that issue?

MR. PAI: Sure. One can envision – one can envision arrangements that are good for consumers and bad for consumers. I think we could all agree that the arrangements that are good for consumers we would want to allow; the arrangements for bad consumers we wouldn't want to allow.

The problem with these 2015 regulations is that they banned all of them, even the ones that are good. So even if, for example, a public-safety agency wants to be able to prioritize 911 calls in a time of emergency, this would be prohibited, you know, under the strict interpretation of this principle; same thing with telemedicine and other applications.

And so our goal is to say we can't say for all time in the abstract, preemptively, every single one of these arrangements is bad. Let's evaluate on a case-by-case basis which ones are good and which ones are bad, and allow the good ones to go forward. Point number one.

Point number two, one of the things I find interesting about this argument is that it ignores how consumers actually experience the internet. And let me give you the following hypothetical. What if I were to say to you that an internet service provider made a deal with all

of the newspaper publishers and content publishers in the country and said if you pay us a certain amount of money, we will deliver that content to your readers faster on mobile phones? And do you think that's a good thing or a bad thing?

And if you think it's a bad thing, which I think some of these advocates would, I would say, well, that actually happens today; except it's not an internet service provider. It's Google, and it's a product called Accelerated Mobile Pages. It literally delivers content on the internet faster, depending on how much the publishers pay. And not only that; if you look at the links, the links don't even link originally to the native-publisher website.

So, look, the whole thing about fast lanes and slow lanes, we need to have a more robust conversation about what it actually is and a more intellectually honest acceptance of the idea that some of them might be good and some of them might be bad, and the government shouldn't be deciding preemptively that all of them are bad.

MR. SKORUP: I, like you, grew up in a rural area. And my parents, they have no interest in Netflix or things like that. So they're interested in basically just getting some basic internet, and potentially at a cheaper price, that being an option. So would that order have previously prevented potentially someone coming in saying, OK, you don't want a lot of data; you just kind of want to email and maybe stream sometimes with your grandkids. Would that have prevented them from coming in and offering a cheaper price to get lower amount of access?

MR. PAI: It certainly depends on your interpretation of the rules. I mean, there's no question that that, I think, is where some of the advocates wanted to go, that every internet service plan had to be all you can eat so that the people like our parents, who are only using it to check email, would have to essentially subsidize the people who are streaming 4K HD movies all day, every day.

To me, that's not exactly how the consumer experience operates. If you and I go to a restaurant and you order three appetizers, four entrees, drinks, and dessert, and I just order a salad, we don't pay the same price, right? So it's not inconceivable that you could see a reason to resist that kind of approach. And so to me, at least, if there's a problem with – if there's an anti-competitive problem with the way these plans are being structured, that's one thing. For the government to simply come in and say every single restaurant in the United States has to be an all-you-can-eat buffet, that's something that I think is way over the line.

MR. SKORUP: So much – a big, large part of the point is the competition among providers then, micromanaging how they operate.

MR. PAI: Absolutely. And to go to one of the previous questions, competition is the solution to these problems. And that is the reason why we have been focused on promoting much more competition, getting Spectrum out there for unique entities to provide internet access.

In the Upper – in the UP, you have incentivizing the next generation of satellite constellations, companies like SpaceX, to beam high-speed internet access, especially in rural and remote areas, that could be comparable to a terrestrial provider, making it easier for the

Rocket Fibers of the world to get access to utility poles, making sure that electric utilities have a chance to compete for these scarce dollars because they have a deeper footprint.

I mean, the – as I said from the get-go – I was quite clear – this is not the sexy stuff compared to net neutrality, but this is actually what’s going to solve the problem that I think most people perceive, which is that there’s not enough competition. Ultimately the solution to this problem is if your internet service provider is doing something you don’t like, you should be able to switch. And that is the future that the FCC envisions and is working very hard to secure.

MR. SKORUP: What has been your greatest frustration in Washington –

MR. PAI: (Laughs.)

MR. SKORUP: – in terms of accomplishing your mission?

MR. PAI: Oh, my God.

MR. SKORUP: So I think we have another hour and a half here, so – (laughter) –

MR. PAI: Oh, boy, where to start? Two things. I mean, number one, I think, is that unfortunately communications policy, like so much of our politics, has become tribal; that where you stand depends on where you sit. And to me, at least, when I got into this field about 20 years ago, you would never know, based on what a congressman or what a policy official like me might be a member of – what party they might be a member of based on what they were saying, because there wasn’t a party affiliation to a lot of this stuff, whereas now, I mean, the lines are firmly drawn. And some of the partisan bickering that has occupied Washington on other issues has now bled over to the FCC. And that’s really unfortunately, because, as I said, when it comes to something like the digital divide, all of us gain when Americans are connected. And I wish we could find that spirit of bipartisanship again.

The second thing is just, you know, obviously the lack of civility in our discourse. That’s something that I see every single day. I saw it this morning on my Twitter feed, and every day in my email. And, you know, look, I understand that it comes with the territory. You’re in a prominent position or what-not. But I wish people would say – there’s something about social media, I think; either the disconnectedness of it and/or the anonymity of it that just coarsens our way of speaking, our way of interacting with each other. And I think we would do a lot better to have more face-to-face conversations in which we can at least agree to disagree civilly, as opposed to just everyone dialing up to 11, in the words of Spinal Tap’s Nigel Tufnel, every single time there’s an issue.

I mean, look, I know communications policy is important and people have very passionate views on it. But ultimately a disagreement about that is, you know, not the reason to call for Armageddon against the other side.

MR. SKORUP: Yeah, it’s true. I mean, I’m sitting here and I think the whole time this guy’s NFL team preference is totally illogical. I cannot understand –

MR. PAI: (Laughs.)

MR. SKORUP: – how anyone would like the Kansas City Chiefs. But I –

MR. PAI: Have you seen Pat Mahomes this year? It's sort of like "The Matrix," right, when Neo does all this stuff in the first, and Laurence Fishburne is like, he is the one. That's how I felt watching Pat Mahomes the last two weeks; like, oh, my God, this is what we were waiting for. All respect to Alex Smith, I'm very happy we have Pat on our team.

MR. SKORUP: I will pull up old interviews to see if you said that about Alex Smith five years ago.

MR. PAI: I guarantee you I did not; yeah, absolutely not.

MR. SKORUP: So the FDA recently completed a \$25 million study on the adverse health effects of wireless transmissions. Is there anything that the FCC is doing to update the acceptable-human-exposure standards along the lines of what the study found?

MR. PAI: Yeah. And that's what I was mentioning earlier. We were working with our federal partners, including the FDA, on, you know, how to think about RF in a newer 5G – a newer wireless environment. And so that's one of the things that our work – our work is ongoing. We've worked with the authors of that – with the folks who were responsible for that report. And, yeah, that work is ongoing.

MR. SKORUP: In your mind, is there any philosophical difference between net neutrality, food neutrality, clothing neutrality, or shelter neutrality?

MR. PAI: Is there any – I mean, other than one involves the internet and the other involves life-essential matters? Yeah.

MR. SKORUP: So I think the point being we – there is not neutrality in those areas. I think trying to establish –

MR. PAI: Oh, oh.

MR. SKORUP: – pure neutrality might have some issues, trying to run that from a top-down approach. So what's the balance between allowing people kind of the freedom in those areas and the freedom in choosing internet connections and that kind of thing?

MR. PAI: Oh, I see what you're – OK. So –

MR. SKORUP: I could have interpreted that way wrong, but that's how I'm reading it.

MR. PAI: Yeah. No, I – gosh, that's a tough – boy, that's a curveball. (Laughs.)

MR. SKORUP: Well, I think one area maybe is the difference in competition in those areas. So we don't – we're not concerned as – I was talking recently on – there's areas of the state that are trying to establish government-owned networks and operated networks. And the reason they're doing that is they're feeling there's not good providers of private providers.

We wouldn't say, even in the Upper Peninsula, man, you know, we have some people that have trouble getting food. We give them essentially vouchers, food stamps, to get food if they have a lack of access and can't afford it. We don't have the city of Marquette run a grocery store and provide food for them. So maybe a lot of that is solved by competition.

MR. PAI: And certainly we're focused on competition as a solution to that problem. And so, to go to your point, that's why we encourage all kinds of companies and nontraditional providers like electric utilities and the like to engage – to promote much more of that access and competition. So, yeah, in that regard, I guess you could say they were somewhat similar.

MR. SKORUP: Yeah. So in terms of applying that to internet access, broadband access, is it a route the FCC is going in terms of these subsidies, both – you mentioned about getting them more to underserved areas. It seems like it would make more sense to kind of try to use the private providers there, make that access better, versus creating a whole new network. Can you discuss that?

MR. PAI: Yeah. So, I mean, that's part of the reason why our universal service fund is about \$10 billion a year. The overall infrastructure spend in the private sector is many, many multiples of that. So obviously these USF – these federal subsidies I'm discussing don't – can't solve the problem and don't solve the problem.

But within the – given the funds we have under our jurisdiction, we're trying to allocate it in a market-friendly way, not to supplant private investment but, to the contrary, to provide a better business case in parts of the country where otherwise access is just not going to happen. And so that's part of the reason we haven't had the approach of simply writing checks and hoping for the best, but, you know, allocating using the reverse auction, having accountability on the back end so these companies use these scarce funds appropriately, and then broadening the base of competitors so it's not just the historic incumbents, but it's the new nontraditional providers that can provide access.

MR. SKORUP: So the FCC is part of the administrative state. So what are the controls to keep the FCC or other agencies from running amok?

MR. PAI: (Laughs.) That's a good question. What –

MR. SKORUP: We got him right here.

MR. PAI: Yeah. No, one of my – one of my best friends texted me shortly after I became chairman, and he's always been kind of a sort of hard-core constitutionalist on these issues. And he said, hey, Ajit, congratulations. You're my favorite head of an unconstitutional independent agency. (Laughter.) Thanks so much, yeah.

Anyway, I think that's part of the reason why, if you went to my opening answer about my principles, it's so important we stick to those principles and having a market-based view of regulation as opposed to a government-driven view of regulation; sticking with the rule of law. I mean, Congress sets the policy. We can't stray beyond it and simply say we're going to impose whatever crazy idea we have, even if it's a good one, ultimately, because we have to stick with the rule of law; also respecting the principles of economics and engineering.

I mean, economics, people respond rationally to incentives that they are provided. If we are adopting a policy that doesn't respect those incentives, we're going to distort investment. It'll ultimately be much worse for consumers. Now, on the engineering side, if we simply mandate, OK, you shall use this technology or whatever, and this technology doesn't work, that ultimately doesn't do anyone any good.

So trying to stick within those three core principles, I think, is really important.

MR. SKORUP: Last question: So we've talked a lot about internet and broadband networks. One other – but really FCC has control over lots of all-tel communications. So this person says call spoofing is out of control. The do-not-call list has been ineffective. Cell phones numbers are getting passed around a lot more easier because of the rise of other technology. Is there anything the FCC is doing to combat this?

MR. PAI: This issue drives me crazy. And I'm not the only one. For years, robocalls, unwanted robocalls, have been the number one source of consumer complaints to the FCC. It's a distraction. It's harassment. In a lot of cases it ends up in fraud. Consumers, especially vulnerable consumers – elderly, recent immigrants, and the like – have been victimized by some scams through these robocalls.

And one of the most pernicious recent practices is spoofing. And so, for those of you who don't know, this is when you get a call on your cell phone. It might be the same area code. The next three numbers might even be the same as yours. But when you answer it, it's someone who is completely in a different place, maybe even a different country, and they're looking to sell you something, or you've just won a vacation from Marriott or whatever it is.

So we are taking action. This is our number one consumer-protection priority. We've gone after it very, very hard in a number of different ways. Number one, we are allowing carriers to experiment and to use call-blocking technologies. Historically, before I came into office, the FCC said we demand that all carriers carry all of these calls, no matter what. So we want to make sure that they are enabled – they are empowered to block some of these calls that are obviously spoofed.

The second thing we are doing is encouraging technologists to come up with a call-authentication standard; a lot of complex engineering, but the gist of it is that if you see a phone number on your phone, ultimately, once a standard is in place, you will be able to answer it knowing that it has been – it is a genuine number that has been assigned to a real person who is authorized to have that phone number.

The next thing we're doing is enforcement. We've gone after a lot of these robocallers. In fact, the largest fine ever imposed in the FCC's 84-year history was imposed under my tenure, \$120 million against a robocaller in Florida who unleashed tens of millions of robocalls in just a three-month period on consumers. We have a number of other fines that are in the works or that have been imposed.

Additionally, I personally have been working with my foreign counterparts. A lot of these calls come from abroad, as I mentioned. And so I've talked to one, for example, of my counterparts from South Asia and said, look, this is a really important issue. We have evidence that there are call centers in your country that exist solely for the purpose of robocalling American consumers.

And we saw a report in the newspaper here last year that suggested that just from nine of these call centers, this illicit operation was generating \$250,000 every single day just in profit from calling people up and saying, I'm from the IRS. You owe money. And if you don't hand over the money, we're going to take your house. And, you know, a lot of people, when you get a call purporting to be from the IRS, the hair stands up on the back of your neck. And if you don't really owe them money, you might be tempted to fork something over. So we're working cooperatively with them, sharing law-enforcement and the like; but all of which is to say that this is a huge issue for us, and we're going to try to stamp it out as best as we can.

MR. SKORUP: All right. Well, we appreciate you being here, Ajit.

So, please, let's give him a hand. (Applause.)

MR. PAI: Thank you. Thanks for your – (inaudible).

MR. SKORUP: Thank you all for joining us; great crowd. We are going to be doing another one of these Issues and Ideas next Tuesday, September 25th. That'll be over at the Radisson, and totally separate issue. We're going to be talking about bail reform and improving pretrial release to benefit defendants and taxpayers. So we invite you to join us. That will be a noon lunch event.

And we also thank Auto Owners Insurance who helped sponsor all of these events that we do throughout the year.

And we thank you all for coming in and getting educated on these important issues. (Applause.)

(END)