

**REMARKS OF FCC CHAIRMAN AJIT PAI
AT THE ANNUAL CONFERENCE OF THE
INTERNATIONAL INSTITUTE OF COMMUNICATIONS**

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Good morning! Thank you to Chris Chapman and everyone at IIC for the opportunity to be here. Whether you are in government or the private sector, all of us at this conference are confronting the challenges and opportunities of the digital era. Despite different approaches and market environments, we share common goals and values. I'm grateful for forums like this, which allow for a frank exchange and sharing of ideas on how best to navigate these fascinating times.

Special thanks to Chairman Contreras and everybody at IFT for hosting us and making us feel at home this week. Thanks in large part to Chairman Contreras' leadership, the IFT and the FCC have long enjoyed a healthy collaborative relationship, particularly on cross-border spectrum issues.

I would like to offer one more thank you to our southern neighbors. Thank you for proving that at least somebody from North America can win a World Cup match. I know that the U.S. and Mexico are soccer rivals, but I think we can all agree that it was glorious when Mexico upset defending champion Germany. I'm not saying that because Germany is absent today. I'm saying that because I'm pandering to our hosts.

As an American, I've grown up with the reality that Mexico has usually been better than us at fútbol, although we're working to change that. And that trend, unfortunate though it is for us, is expanding to other areas as Mexicans have started beating us at one of the things Americans do best: making movies. In four of the past five years, a Mexican filmmaker has won the Academy Award for Best Director: Alfonso Cuarón for "Gravity"; Alejandro Iñárritu for "Birdman" and "The Revenant"; and Guillermo del Toro for "The Shape of Water."

As we each try to chart the future for the communications technology sector, I believe these brilliant storytellers have given us the script.

What sets these filmmakers apart is their daring. When you go to one of their films, you know you're going to see something you've never seen before: a love story between an amphibian god and a mute woman; a movie that starts with a middle-aged man in his underwear, levitating and cross-legged; or, craziest of all in the case of "Gravity," a box-office smash based on an original story with no superheroes.

That's basically the job for those of you in the private sector: to be daring; to push beyond what's been done before; and to test the limits and then keep testing them again.

That's what the ICT sector does at its best.

I think of technologies that I've come across, like the app that uses deep learning tools to narrate the visual world for the blind—describing nearby people or objects with spoken audio in real-time for people who have trouble seeing. That's not science fiction. That's real. Others make magic with a camera. You make magic with silicon, pulses of light, and physics.

My challenge to technologists and engineers this morning is to keep showing us things we've never seen before. Because when we advance technology, we can advance humanity.

As for the public sector, I'd like to share my vision of the role of government in creating a space for innovators and entrepreneurs to re-imagine the future.

It starts with a posture of regulatory humility.

I believe history has shown us, without a doubt, that a competitive free market is the most powerful force we have for driving technological innovation and producing value for consumers. The public interest is best served when the private sector has the incentives and freedom to invest and create. Instead of imposing its will, government should eliminate unnecessary barriers that can stifle new discoveries and services. And in particular, the government should aim to minimize regulatory uncertainty, which can deter long-term investment decisions.

I also believe that a key aspect of regulatory humility is skepticism toward preemptive regulation of new technologies—rules that try to guess about market failures before they occur. I believe that a careful, case-by-case approach to evaluating emerging markets is more likely to maximize consumer welfare and lead to technological progress.

The government should also be as nimble as the industries we oversee. That's probably the hardest to achieve when you oversee the fast-paced, ever-changing technology sector.

One area where you see a lot of these principles at play is the FCC's work on 5G. Our 5G strategy centers on three key elements: freeing up spectrum, promoting wireless infrastructure, and modernizing regulations.

On spectrum, the FCC has moved aggressively to make more airwaves available for the commercial marketplace. We've conducted the world's first incentive auction in which 70 MHz of spectrum in the 600 MHz band once used by TV broadcasters was sold to wireless companies and repurposed for mobile broadband. In November, we'll begin auctioning the 28 GHz spectrum band, followed immediately by an auction of the 24 GHz band. Then, in the second half of next year, we intend to auction off three more spectrum bands—37 GHz, 39 GHz, and 47 GHz. In two weeks, the Commission will vote on two new spectrum proposals. One would modify our rules for mid-band spectrum in the 3.5 GHz band to increase incentives for investment and 5G deployment. Another would allow unlicensed devices to use the 6 GHz band. This could enable faster Wi-Fi connections. It would also help mobile broadband companies by helping them offload traffic and ease congestion.

On infrastructure, our goal is simple: We will not let today's red tape strangle the 5G future. That's why the FCC has reformed its wireless infrastructure rules, and why we'll keep doing so. Earlier this year, we reformed our historic preservation and environmental regulations to make clear that small cells don't have to jump through the same regulatory hoops as a 60-meter tower. And last month, we approved an important order promoting 5G infrastructure. It sets a reasonable shot clocks for cities to rule on small-cell siting applications. And it sets reasonable limits on siting fees, limits that allow localities to cover their costs.

When it comes to modernizing regulations, the FCC is revising or repealing outdated rules to promote investment in the wired backbone of 5G networks. We've modernized rules that required investment in maintaining out-of-date copper networks. This will direct more investment toward the resilient networks of the future, not the fading networks of the past. We're also making it cheaper and easier to string fiber lines on utility poles with what we call "one-touch make-ready." This policy would allow a single entity to do the advance work to make space for broadband infrastructure on a utility pole. It will substantially lower the cost and shorten the time to deploy broadband on utility poles, and thereby promote more competition.

We also overturned the prior FCC's 2015 decision to heavily regulate the Internet like a slow-moving utility under rules developed in the 1930s. We've replaced it with a consistent national policy for broadband providers, one that protects the free and open Internet and encourages infrastructure investment.

Our 5G strategy is a good example of light-touch regulation that will deliver benefits for consumers and the American economy. But it's critical not to confuse regulatory humility for an absence of government, because government does have an important role to play in the communications sector.

For example, government clearly must take action when it comes to public safety and consumer protection. Indeed, I personally and the FCC generally have spent a lot of time over the past 14 months helping communications networks recover after a difficult hurricane season in 2017. As you know, last year's hurricane season was one of the most destructive in recent memory. During each of those disasters, the FCC has worked in close coordination with our federal and state partners to restore communications, which can have a critical impact for the safety of both the public and first responders. And we are working closely with our federal and state partners once again as Hurricane Michael, a Category 4 storm, hits the Florida Panhandle today.

There's also an important governmental role in protecting consumers. Our top category of complaints from the public, and hence our top priority when it comes to consumer protection, is stopping unwanted telemarketing calls. We have hit back hard against illegal spoofing schemes—assessing \$200 million in fines, and just last month proposing another \$37 million fine for a spoofing telemarketer. And American industry is stepping up to help. More than two dozen carriers are now participating in the industry's traceback efforts—efforts that help federal law enforcement track down the source of unlawful robocalls. And earlier this year, industry leaders announced the formation of the call authentication governance authority, a key step towards ensuring that scammers can no longer hide their tracks by spoofing Caller ID.

Another area where government can help is digital inclusion. Earlier, I spoke about how we share a common set of values. I think no value is more broadly shared than the idea that everyone is better off when everyone, everywhere can get online and share in the benefits of the digital age. But in my country, and perhaps in yours too, there are too many people who live in rural areas where there is no business case for the private sector building broadband networks alone. Government should assist to try to bridge that connectivity gap. Last month, for example, the FCC concluded a reverse auction that awarded about \$1.5 billion to over 100 bidders to help provide broadband to more than 700,000 unserved homes and small businesses.

We've also been busy promoting other technologies that could better serve our citizens. For example, the FCC has encouraged the development of the next-generation of broadcast television. Last year, we authorized broadcasters to begin using this new standard, known as ATSC 3.0. By allowing use of this Internet-based standard on a voluntary, market-driven basis, we've opened the door to a substantially improved, free, over-the-air television broadcast service and fiercer competition in the video marketplace. We've also given approval to a new generation of satellite constellations that hold the promise of delivering high-speed, lower-latency satellite broadband service. And the United States government has been working to stand up FirstNet in order to provide our first responders and public safety officials with state-of-the-art, interoperable communications.

This is some of what the United States been doing. But as I wrap up, I'd like to talk about what we can do together. With so many common challenges, it's important that we maintain a dialogue.

On some issues, like spectrum, we simply cannot go it alone. In this regard, I'm pleased to note that the Americas region continues to steadily advance regional proposals for the WRC-19. We are also deeply focused on the upcoming ITU Plenipotentiary Conference. We will need to work together to set the course for the future work of the ITU, as we seek to promote a dynamic, global communications marketplace.

This year's ITU Global Symposium of Regulators in Geneva offers a good recent example of officials working together across national lines. At that event, which many of you attended, I was part of a panel discussion on artificial intelligence (AI). There was broad recognition that AI is a game-changing

economic opportunity, with an estimated \$13 trillion in additional economic activity by 2030. At the same time, there was very candid talk about how emerging AI technologies could automate jobs and dramatically change the future of work, disrupting the lives of millions around the globe. People agreed that we should avoid regulation in this space for now, but that it's also important to start thinking about the challenges AI could unleash and make sure that regulators aren't caught unprepared. I know I learned by hearing from my international colleagues about the challenges they saw in this space, and I look forward to learning from you as well as we continue our work together.

Speaking of working together, I'd like to make a pitch, as I've done before, for the U.S. candidate for Director of the ITU's Development Sector, Doreen Bogdan. Those of you who know her understand that no one has worked harder to bring the benefits of communications technologies to all corners of the globe. With 20 years of experience at the ITU, 14 of those focused on the ITU's development work, Doreen has a strong track record in mobilizing support for bridging the digital divide.

Let me end with this. There was one more thing about the trio of Oscar-winning Mexican filmmakers that I found relevant to my remarks today. They are all incredibly close friends. When each won his first Oscar, he thanked the other two. They are all artistic geniuses in their own right, but they credit their relationships with making them even better. We can learn from that. We may not be able to make movies together. But we can certainly do our best to extend digital opportunity together. ¡Vamos!