

**REMARKS OF FCC CHAIRMAN AJIT PAI
AT FCC FORUM ON ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

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Good morning and welcome to the FCC's Forum on Artificial Intelligence and Machine Learning. It is an honor to host such a knowledgeable and talented group of entrepreneurs, academics, and technologists to share their expertise on what AI and Machine Learning are and how they could shape our society. This will hopefully be the first of many forums where our agency will showcase and learn about the ways different emerging technologies, such as AI, quantum computing, blockchain, and the like, are benefiting consumers, transforming our economy, and impacting the communications marketplace.

There's obviously great interest in this topic. In fact, last night, it was reported that the NBA's Philadelphia 76ers held their monthly team meeting yesterday. During these meetings, a player gives a presentation on a topic of his choosing. 6'10" power forward Jonah Bolden chose to present on . . . artificial intelligence.

I don't share Mr. Bolden's basketball skills, to say the least. But do I share his enthusiasm about the topic. And that's because AI and machine learning has such great potential to enhance decision-making processes to achieve better outcomes. Indeed, a 2016 report by Accenture estimated that AI could double annual economic growth rates by 2035 and boost labor productivity by up to 40%. This is especially true in our field; AI will have major ramifications for our entire economy, but it could revolutionize the communications space.

Here are a couple examples of the impact that AI can have on communications. At the FCC, each year, we recognize breakthroughs by the developers of new communications technologies that can assist people with disabilities. Two of our recent awardees have created applications that sound like something from a science-fiction movie. But each is very real and each is exhibiting at this forum.

Microsoft has developed an app that uses AI and deep-learning tools to narrate the visual world—describing nearby people or objects with spoken audio for those with visual impairments. The app's name, appropriately enough, is Seeing AI.

The second example is from IBM. Its Content Clarifier is an accessible technology that uses AI, machine learning, and natural language processing to make digital content more understandable for people with cognitive disabilities, the elderly, or those learning English as a second language.

One of the great things about this Forum is that you don't just get to hear about these and other technologies. You can check it out for yourselves. I'm looking forward to doing just that and learning how AI is having a real-life impact, whether by improving accessibility, protecting our privacy and data, diagnosing diseases earlier, making networks smarter, or enabling precision agriculture.

It's important to note that this event is about discussion and demonstration. It is not about the FCC dipping its toes in the regulatory waters. These are emerging technologies. And when dealing with emerging technologies, I believe that one of the foundational principles for government should be regulatory humility. History tells us that new technologies will evolve in ways that people don't anticipate and that early intervention can forestall or even foreclose certain paths to innovation. This makes it foolish and counterproductive for government to micromanage—or more accurately, try to micromanage—the evolution of these technologies.

But it is important for agencies like ours, and the American public generally, to be aware of and informed about what's on the horizon and potential impacts on the marketplace that we regulate. For example, our current rules for antennas are framed in terms of maximum power. This reflects an era when radios transmitted on a fixed frequency in a fixed direction at a fixed power. But today's radios are agile in terms of power, frequency, and even modulation. They are software-defined. And we are seeing more and more AI capabilities incorporated into these devices. We want to understand how AI can enable individual radios to make much more efficient use of spectrum—all without human intervention.

AI also holds the potential to help bridge the digital divide, which is the FCC's top priority. We'll hear today about efforts to use AI to more efficiently build and operate communications networks, which should result in more access for more people at lower cost. Bridging the digital divide through AI, machine learning, and other emerging technologies will help all Americans benefit from the digital revolution, regardless of who they are or where they live. That is something every citizen can appreciate.

As you can tell, I'm looking forward to today's Forum and will be back soon to moderate the panels. But first, I'd like to invite Commissioner Carr to make some remarks.