

**REMARKS OF  
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FEDERAL COMMUNICATIONS COMMISSION  
20 YEARS OF CONNECTING SCHOOLS AND LIBRARIES: POLICY SUMMIT  
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Good afternoon. Thank you to the National Coalition for Technology in Education and Training for bringing us together. It's a privilege to join you and a fantastic honor to share the stage with Senator Jay Rockefeller and Senator Ed Markey. As you know, more than two decades ago they joined with Senator Olympia Snowe to create the E-Rate program. Thanks to their bold, bipartisan vision schools and libraries in communities in every state across the country are now connected to the internet. They built—from the ground up—the nation's largest educational technology program. That is an extraordinary legacy—and one we righteously celebrate here today.

From the start, the idea behind E-Rate was simple: Let's get all of our schools and libraries connected to modern communications and the internet. In the rear-view mirror that seems easy—and spot on. But remember that when the Telecommunications Act became law, a device meant a Nintendo 64. Few Americans had regular access to the “information superhighway” and if they did, they spent no more than 30 minutes online a month. Moreover, at the time teaching tools meant a blackboard and a bulky textbook. If you wanted a platform to share, you needed a mimeograph machine with its blotchy, smelly, purple ink or if you were lucky, a noisy new Xerox copier. And research in school meant a trip to the card catalog, where the universe of available knowledge was itemized on uninspired stacks of off-white index cards.

So in retrospect, E-Rate was ahead of its time. But in time, as the benefits of connectivity became clear, institutions in every state signed up.

In fact, when I arrived at the FCC five years ago, 95 percent of our nation's schools were connected to the internet. It sounded a lot like the job was done. But nothing could have been further from the truth. Because the challenge is no longer connection—it's capacity. In fact, at the time nearly half of E-Rate schools were accessing the internet at 3 Megabits or less. That's too slow for streaming high-definition video and not fast enough for the most innovative teaching tools. Moreover, with these bandwidth limitations, only 5 percent of high schools were offering computer science courses. As a policymaker—and a parent—this struck me as just wrong.

At the same time, other countries were forging ahead and building plans for big bandwidth to reach all their students. South Korea, Estonia, and Uruguay had already made enormous inroads connecting their schools. China, India, and Thailand were exploring the large scale purchase of connected devices for next generation education. Of course, the policies and cultures of these nations are different from the United States. But they have students, like ours who will compete in a global economy—and there is simply no reason to let other nations outspend us, outeducate us, and outachieve us.

So we did something about it. And by we, I mean so many of the people in this room today. You did it. You clamored for change. You decided that E-Rate needed an upgrade—because it was not acceptable for the nation’s largest educational technology program to stay stuck in the dial-up era. You made a difference—because you made a ruckus.

As a result, the FCC put in place E-Rate 2.0. It rebooted, reinvigorated, and recharged E-Rate for the digital age. That means it now has clear capacity goals—and Gigabit speeds are in sight. Moreover, it put a new premium on Wi-Fi to facilitate one-to-one learning environments. It also has an updated budget—built for the future of education.

These changes have produced results. More than 39 million students now have the broadband they need in their classrooms and libraries. More than 2.6 million teachers have connections that now meet our capacity targets. The benefits have been especially dramatic in rural areas, which have seen increases of over 65 percent in funding levels for Wi-Fi. Libraries, too, have been big beneficiaries of these reforms, with one survey showing a 50 percent increase in support since reforms were put in place. These numbers add up—to real progress.

But numbers don’t tell the whole story. So let me illustrate. After returning to the FCC last year, I had the privilege of visiting schools to see in person the promise of E-Rate 2.0. In North Carolina I saw math classes rolling mechanical spheres at different angles in order to calculate speed and velocity. In rural New Hampshire I joined Senator Maggie Hassan to see high school students using digital programs to compose melodies for string instruments. The arts teacher described how instruction had changed because instead of relying on a few slim folders of sheet music he now had infinite libraries of compositions exponentially multiplying what his students could play and learn. I also headed to Maine to visit the Waterville Public Library with Senator Angus King, which earned a national award for its effort to connect the community to career opportunities by offering support for digital literacy and entrepreneurship. E-Rate makes this all possible.

That doesn’t mean the job is done. Let’s acknowledge systems at the Universal Service Administrative Company need work. Great programs like E-Rate do not thrive without continuous attention and care. We need to fight for the gains we’ve made and ensure that they stay in place—so twenty years from now we can gather again to celebrate E-Rate’s success and progress.

But we also need to recognize that connecting our schools and libraries is not enough. Because preparing the next generation for digital success now requires connections not just at school—but at home.

Seven in ten teachers now assign homework that requires access to broadband. But FCC data suggest that as many as one in three households do not subscribe to broadband service. Where these numbers overlap is what I call the Homework Gap.

According to the Senate Joint Economic Committee, the Homework Gap is real. By their estimate, it affects 12 million children across the country. They are everywhere. In my time at the FCC, I have spoken with students in Texas who do homework at fast food restaurants with

fries—just to get a free Wi-Fi signal. I have heard from students in Pennsylvania who make elaborate plans every day to head to the homes of friends and relatives just to be able to get online. I have heard from high school football players in rural New Mexico who linger in the school parking lot after games with devices in the pitch-black dark because it is the only place they can get a reliable connection. These kids have grit. But it shouldn't be this hard. Because today no child can be left offline—developing digital skills is flat-out essential for education and participation in the modern economy.

More can be done to address the Homework Gap. Carriers across the country are pitching in by making available low-cost broadband service. Libraries everywhere from Maine to Missouri are loaning out wireless hotspots—and letting students borrow connectivity for schoolwork. Rural school districts are putting Wi-Fi on buses and turning ride time into connected time for homework. Communities are mapping out where free online access is available for student use. These efforts deserve applause. More importantly, they deserve expansion. We need to get creative about the Homework Gap if we want to solve it. If we do we can turn more of our students from digital consumers into digital creators. And that's worth the effort.

I'll end here and thank you again for having me join you to mark this important anniversary. Thank you to everyone in this room for what you have done to make E-Rate the powerful program it is today. Thank you for what you will do to fight for it in the future. And thank you for your deep commitment to ensuring that every student has the opportunity they need to develop the digital skills they need for a fair shot—no matter who they are, where they live, or where they go to school.