

**REMARKS OF
COMMISSIONER JESSICA ROSENWORCEL
SXSWEDU CONFERENCE & FESTIVAL
AUSTIN, TEXAS
MARCH 6, 2014**

Good morning. It is a treat to be here in Austin and exciting to be a part of SXSW. Texas this time of year is becoming a hot bed of ideas. If you want to see what is happening in culture and technology, in March you head South and you head West. I, for one, am glad to be here—especially because it is cold and snowy back in Washington.

Beyond the weather, another reason I can safely say we are not in Washington is that our nation's capital definitely does not run under the banner of keeping the city weird. Well, at least not on purpose. But today I want to talk to you about what we can do in Washington to improve educational opportunities for students across the country. I want to talk to you about the nation's largest education technology program. It's a program called E-Rate. It's run by the agency where I work—the Federal Communications Commission. And I want to challenge you to work with me to reboot, reinvigorate, and recharge E-Rate. Because it is time to put in place an E-Rate for the future, what I call E-Rate 2.0.

But before heading boldly into the future, I want to look back. Not that long ago, but more years than I wish to count. I want to talk about back when I was in school.

When I went to school, there was only the blackboard. This was our common medium, our shared platform for knowledge. Introducing new ideas involved no graphics, gamification, or video. Just the swipe of an eraser and some dusty chalk.

There was also the mimeograph or ditto machine. Tests and math sets were printed out in a blotchy purple ink. That ink had a smell that even today I would recognize in an instant.

There was also the great heft of biology textbooks and stubby guides covering grammar. They weighed down your backpack and cluttered your locker. And beyond books, multimedia meant grainy filmstrips with history reenactments that had really lousy production values.

So fast forward to the here and now.

My children are not going to know the fine art of clapping together erasers. For me, that purple ink and the physical crank of the mimeograph machine was a practical cap on copying and sharing information. But my kids, all they will know is the infinite capacity of digital distribution. And content for them will mean a lot more than just the printed page or dusty set of school film reels. Because educational texts are being remade and rethought as tablets change the ways we access all forms of media and information.

In short, broadband and connected devices are changing every aspect of our lives. Because we live in an age of always-on connectivity. Increased broadband capacity and decreased costs of cloud computing are changing the ways we access and create content. So

many of our social spaces are virtual. And mobility means we can take the content we consume and create with us wherever we go.

In fact, from my perch at the FCC I can now tell you we are now a nation with more mobile phones than people. One in three adults has a tablet computer—and that number is growing fast.

But the most stunning changes are happening with school-aged kids. Three-quarters of all children now have access to a mobile device like a smartphone or a tablet. Seventy-two percent of children under age eight have used these devices for some kind of media activity. Almost one in five now do so on a daily basis. Among teenagers, half own their own smartphones. Nine in ten have used social media and 95 percent use the Internet regularly.

We are kidding ourselves if we believe all this change stops at the school doors. It will not. So if we are smart, we will let it in and wrestle with its real potential—and do good things. Because doing anything else will not prepare our students for the world they live in. Already, 50 percent of jobs today require some digital skills. By the end of the decade, that number is going to be 77 percent. We do our students no favors when we strand our schools and classrooms in the industrial era. After all, we live in the digital age.

Other nations recognize this. Countries around the world are wiring their schools with high speed broadband. In South Korea, 100 percent of schools are connected to high-speed broadband and schools are converting to digital textbooks by 2016. Ireland will have all schools connected to 100 Megabits this year. Finland will have all schools connected to 100 Megabits next year. Meanwhile, in both Turkey and Thailand the government is seeking a vendor to supply tablet computers to millions of students for a new era of digital learning.

There is no reason for us to settle for the status quo. There is no reason for us to let other nations lead. We can do this. We can make sure that all American students have access to high-speed broadband no matter who they are, where they live, or where they go to school.

Now, I want to leave behind the lofty and get into the details. I want to talk about the mechanics of E-Rate.

E-Rate, as I mentioned at the outset, is run by the FCC and is the nation's largest education technology program. It helps connect all of our schools and libraries to modern communications and the Internet. E-Rate support is based on need. More funding is available for those schools and libraries serving low-income students and those in rural areas.

E-Rate is the byproduct of the Telecommunications Act of 1996. Now think back to 1996. Big broadband was in its infancy. Dial-up was our online destiny. And everyone here probably called the Internet the information superhighway. I know I did. It was a long time ago.

Back in 1996 only 14 percent of schools had access to the Internet. Today, thanks to the support of the E-Rate program, more than 95 percent of schools are now connected.

That might sound like the E-Rate job is done. But nothing could be further from the truth. Because the challenge today is not connection—it's capacity.

Too many of our schools that rely on E-Rate access the Internet at speeds as low as 3 Megabits. That is lower than the speed of the average American home. But in many cases, those schools have 200 times as many users!

Think about what that means. It means too many schools do not have the capacity to offer high-definition streaming video. It means too many schools are unable to take advantage of the most innovative digital teaching tools. It means too many students will lack the ability to develop the science, technology, engineering, and math—or STEM skills—that we know are so essential to compete.

But there is good news. We are doing something about it. At the FCC we recently started a reform effort to modernize our E-Rate system—what I like to call E-Rate 2.0. Just like with the evolution of any operating system, we need to take the good that we have put in place, build on it, and upgrade it for the future.

At the FCC, this means we have a public rulemaking. Last Summer we proposed changes to E-Rate and asked for ideas from stakeholders of every stripe. Right now we are processing all of these ideas. There are a lot, so it is taking some time. But when we finish, we need to take this program that Congress authorized almost two decades ago and get it in good shape for the broadband era. Because if we just keep on keeping on with the E-Rate program we have we will miss a big opportunity—the opportunity to bring digital age learning to all of our schools.

I think we can do it, so let me talk about how. You are probably familiar with the three R's: Reading, 'Riting, and 'Rithmitic. So let me move on down the line and introduce you to the three S's of E-Rate reform: Speed, Simplify, and Spending Smart. Or maybe that's four. Then again, the three R's were never all R's. So I think I can take some liberties. But that aside, I want to talk about the three things we need to focus on if we want to put E-Rate 2.0 in place.

First, *Speed*. If you are a school and want to run the most up-to-date educational software, you need high-speed, high-capacity broadband. But a survey from Project Tomorrow found that only 15 percent of schools believe they have the bandwidth they need for instructional purposes. That is a problem—because we have moved from a world where a connected computer lab down the hall is a nice-to-have to a world where high-speed broadband to the classroom is a need-to-have.

So let me tell you what I mean by really-high speed broadband. In the near term, we want to have 100 Megabits per 1000 students to all of our schools. By the end of the decade, we want to have 1 Gigabit per 1000 students to all of our schools.

I call these goals dream likely and then dream big. I think we can do it. And more than that, I think that if we adopt these capacity goals we will send a strong signal to educational

markets. Because by making more bandwidth available at nationwide scale we can foster new opportunities for creative content, services, teaching tools, and devices—everywhere.

Plus, the spillover effect from bringing broadband to anchor institutions like schools is huge. Because simply bringing these kinds of speeds to schools makes it incrementally less expensive to deploy higher-speed broadband to the homes and businesses nearby.

To meet these goals, we are going to have to do things differently. That means the FCC needs to collect better data from each of our applicants about what capacity they have and what capacity they need. That way we can fine tune our efforts over time to achieve our goals.

Second, *Simplify*. The E-Rate program is too complicated. This is a program that can be about blazing a path for broadband in the digital age. Then why does it have such a long and messy paper trail? It has become too difficult and expensive for schools to navigate our process, especially the low-income and rural schools that are most in need. That is just not right.

So I want us to reduce the bureaucracy associated with E-Rate.

To this end, I would like to see multiyear applications. As small as that sounds, the impact could be big. If applications were due every other year, that would cut the administrative cost of applying in half.

I also would like to see more incentives for consortia in the application process. When schools work together they can navigate the process together and benefit from more cost-effective bulk purchasing. Moreover, by encouraging consortia to include nearby schools and districts that lack high-speed connections, we can use local forces to help bring everyone along. That respects the local tradition of education in this country—but also helps us reach our national goal: getting 99 percent of students connected to high-speed broadband over the next five years. I think we can do it. And I think greater use of consortia is the ticket.

A simpler process also should mean greater transparency during the review process for E-Rate applicants. Critics have charged that our existing process is a bit opaque—and they are right. Beyond that, we should welcome other ideas from E-Rate applicants that can simplify the process and reduce the bureaucracy of this program.

The last S—or two—is *Spending Smart*. We need to spend our limited E-Rate dollars intelligently.

Spending smart means better accounting practices that the FCC has already identified will free up for more E-Rate broadband support over the next two years.

But spending smart goes beyond that. Because on a long-term basis we need to make sure that all E-Rate support is focused on high-speed broadband. To that end, the time has come to phase down the estimated \$600 million this program now spends annually on outdated services like paging. If we reduce this expense over time we can free up more funds for high-capacity services.

Spending smart also means owning up to the fact that inflation has cut the purchasing power of this program. The E-Rate program was sized at \$2.25 billion in annual support back in 1998. That was when .03 percent of American households had Internet access at any speed above dial-up. That was when gas was just over a dollar a gallon. It was a long time ago.

We need to fix this now. At a minimum, we need to restore the purchasing power of this program by bringing back what inflation has taken away. Between when the cap was put in place and other adjustments were made in 2010 that is nearly \$1 billion. But we should go beyond this and identify what more we need to meet the goal of connecting 99 percent of schools in five years. Because when it comes to bringing broadband to schools, the rest of the world is on course to do this. We can let them out spend us, out educate us, and out achieve us. Or we can be courageous—and do something about it now.

One further thought—about equity and opportunity. Beyond the S's of speed, simplify, and spending smart. I think a reformed E-Rate speaks to essential issues of equity and access in education. Today, three out of ten households do not have broadband access. Think about what it means to be a student in one of those households—typically low-income and often rural. It means just getting homework done is hard. It means applying for a scholarship is challenging. By bringing broadband to all of our schools, we will be making digital age opportunities available for all. That matters.

So there you have it. E-Rate is a program that has done a lot of good. But we can do so much more. With a reformed E-Rate—or E-Rate 2.0—we can extend the reach of broadband in our schools. We can expand the range of educational content. We can harness digital and mobile platforms and teach in new and exciting ways. In short, we can seize the good in new technology and prepare all of our children for success in the 21st century. And as a policymaker—and a parent—I think that is something worth fighting for.

Thank you.