

**PREPARED REMARKS OF CHAIRMAN JULIUS GENACHOWSKI
FEDERAL COMMUNICATIONS COMMISSION**

DIGITAL LEARNING ROUNDTABLE

**NEW YORK, N.Y.
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Thank you Principal Alisa Berger and Sharon Greenberger from the New York Department of Education for co-hosting this event with us.

Also thank you to the all-star education panel we have assembled, Larry Berger from Wireless Generation, Matthew Small of Blackboard, Bruce Davis of K12, Steve Harris of Dell, and Xavier Williams of AT&T.

Yesterday, President Obama hosted an event at a school in Boston on digital learning -- calling for a new R&D initiative to promote technology-based education tools, modeled after the R&D shop at the Pentagon that created the Internet. When it comes to generating new ideas for harnessing technology to improve education, I know you New Yorkers aren't going to let yourselves be outdone by some folks in Boston.

Before we begin the roundtable, I'd like to briefly put this event into context and also make an announcement.

If you work in the tech space you've probably heard of Mary Meeker. She was Morgan Stanley's leading technology analyst for years and now works with the California Venture Capital firm Kleiner Perkins. Last month, she released an important report that was more than a year in the making. It was called USA, Inc., and you may have seen the report featured on the cover of Businessweek.

Here's the premise of the report: Mary Meeker and her team looked at the U.S. as if it were a public corporation, and we were all shareholders. They examined the financials and the competitive landscape and tried to identify the biggest strategic challenges the U.S. must overcome if we are to lead the world economically in the 21st century as we did in the 20th.

Two findings stand out.

First, the report compared the US to other countries in 29 attributes of our global competitiveness, such as communications infrastructure and spending on R&D, and it looked at how we're doing now compared to the year 2000. According to this study, since 2000, America, relative to other countries, improved in NONE of the 29 attributes of global competitiveness.

So that gives you a sense of the big-picture challenge we face as nation.

The second notable point in the report is their proposed solution. According to their analysis, two of the most important keys to spurring the kind of growth the U.S. will need to lead the global economy are education and technology.

Today's discussion is about the place where these two keys to our economic future and global competitiveness meet.

If we want our kids to be able to compete in the digital economy, we need to equip them with the latest digital tools and the skills to use them.

Everyone here is familiar with the statistics showing that we are falling behind when it comes to educating our children. Just a few of the worst: we rank 21st in the world in science literacy and 25th in math literacy.

And former New York City Schools Chancellor Joel Klein has spoken about how some teachers still work in a classroom equipped only with chalk and a chalkboard, just as it was 60 years ago.

We know that technology, and in-particular high-speed Internet – what we commonly call broadband – has tremendous potential to transform education.

At broadband-connected schools, students can access the best libraries in the country, the best learning tools, the best teachers.

A high-school student in a rural town without a calculus teacher can learn calculus remotely, or physics, or Mandarin. They can get tutoring from eager college students anywhere in the country.

I agree with our great Secretary of Education Arne Duncan, who has said we need to make the transition from a print-based classroom to a digital learning environment.

Technology can empower teachers, amplifying their ability and augmenting their performance.

The military talks about technology as a force multiplier, not a replacement for soldiers; think of it the same way for our teachers and schools.

The FCC has a long-standing commitment to connecting every school and student in America to the Internet.

Established in 1996, our E-Rate program provides discounts for schools and libraries to obtain affordable Internet access.

It has helped connect 97 percent of all U.S. schools to the Internet.

The program was effective in a dial-up world, but needs to be updated for a broadband world.

According to a survey of E-Rate recipients, 78 percent say they need faster connections.

And a February 2011 report by PBS found, quote, “insufficient capacity of computing devices and technology infrastructure to handle teachers’ Internet-dependent instructional activity.

Just recently, the FCC has put in place a number of reforms to modernize the E-Rate program – empowering schools and eliminating regulations that don’t make sense.

We’re giving schools and libraries more choices for broadband connectivity – enabling them to pick among the full range of choices in the marketplace. The result will be faster speeds at lower costs.

We’re allowing schools, if they choose, to open their doors after hours to their communities. Think of these as “School Spots” that can provide online access for job searching, digital-skills training, or government services for those who don’t have access to the Internet.

Seizing the opportunities of broadband to improve education starts with connectivity, but it’s about so much more. It’s about adoption in the home. Only 67 percent of U.S. families have broadband in the home, versus 90 percent in Singapore.

It’s also about digital tools and integrating the network and software, informed by teaching experts, helping students learn and teachers teach.

One of the recent E-Rate reforms we are most excited about, and one we want to focus on today, is embracing the potential of *mobile* broadband for schools and students, and the promise of digital textbooks, enabling learning anytime, anywhere.

With mobile broadband, students who now carry 50 pounds of textbooks in their backpacks can instead have digital textbooks with up-to-date materials and cutting-edge interactive learning tools.

Education doesn’t stop at the schoolyard gate or the library door, so support of broadband for education shouldn’t stop there either.

New devices and applications help teachers, integrating school work and homework and improving efficiency. Homework can be graded automatically by a computer, not only saving teachers time, but offering data to reveal areas where more instruction should be targeted.

Digital tools help parents, allowing them to better monitor and evaluate how their children are doing, where they more help.

Most important, mobile learning devices help students by enabling personalized learning tailored to their skill set.

With digital textbooks, you can effectively stretch out the binding of a book and slide new content in – slide in an assessment; slide in a simulation; slide in videos – to bring lessons to life.

If a student makes a mistake, she can get immediate feedback and tutoring to help. The curriculum is literally adjusted.

Some students have textbooks that are decades old; they don't have the same opportunities to learn as other children. Digital textbooks never go out of date and students can get the latest content.

Early research and evidence demonstrates the potential of digital tools.

Studies have shown that technology-based instruction can reduce the time students take to reach an objective by 30 to 80 percent.

The U.S. Navy has begun using “digital tutors” to train recruits as IT administrators, and recruits using the digital tutors are dramatically outperforming peers who receive traditional classroom-based instruction.

In Onslow County, North Carolina, as part of Project K-Nect, high school students were given smartphones with 24/7 Internet access. The students who were taught math on these learning devices were more likely to achieve proficiency in Algebra than classmates who had the same teacher, but weren't given phones.

Part of the challenge is connectivity. We can have digital textbook and the best content to supplement the excellent work of our teachers, but too many kids don't have the ability to connect at home.

Today, I'm excited to announce the selection of 20 pilot schools and school districts to receive support from the FCC's Learning On-the-Go program.

To select our projects we used the Race-to-the-Top model. We set aside a pool of money and asked schools to come up with the best proposals.

We received almost 100 applications, and we have selected the top 20 projects, who will all deliver Internet connectivity and digital learning over mobile wireless devices.

We're providing approximately \$9 million to support 35,000 students in 14 states.

New Rochelle, NY will receive support to provide laptops to low-income students, students with disabilities and students learning English to see if digital tools can help

close the achievement gaps for low-performers. Additionally students will be able to access, off-premise, electronic textbooks, electronic literature-based eBooks, web-based instructional interactive reading and writing software to become more fluent in their use of the tools of the 21st century workplace.

San Diego will receive support to integrate 24/7 online learning into its entire curriculum to serve 6th graders in 10 middle schools. Each student will receive a laptop with wireless connectivity, providing them access to the online curriculum beyond school hours.

And North Carolina's Project K-Nect, which I mentioned earlier, will also receive support through the pilot program.

I should note that we didn't spend all of the money available for this initiative – spending only \$9 million of the \$10 million that had been set aside.

We are being careful to make sure we are funding only a limited number of projects, so we can effectively monitor and evaluate them to determine whether and how off-premises wireless services should be eligible for continued E-rate support.

This program is just one part of a broader agenda to unleash the power of technology to improve education.

Wireless communications rely on spectrum – our invisible infrastructure – to beam bits of information between our devices at the speed of light.

The people of New York know better than anyone that not enough spectrum leads to congestion, which means dropped calls and spinning pinwheels.

Demand for spectrum will soon outstrip supply, and the FCC is working to almost double the amount of spectrum available for mobile broadband.

As the President said yesterday, government should play a role through public-private partnerships to make sure learning technologies are a core part of our R&D agenda.

We also need more transparency, so parents know how their school matches up with other schools in the connectivity race. I know that Karen Cator and the U.S. Department of Education are working hard on this – as outlined in the National Education Technology Plan.

If we tackled these issues, it will not only help us do a better job of preparing our children to compete in the global economy, it will help spur the growth of a new industry for digital learning. Globally, education is a 4 trillion dollar industry. We need to be the first country in the world to figure out how best to utilize this technology and bring it to market, driving innovation and creating new jobs and businesses.

I look forward to working with you to transform education and bring more students into the circle of opportunity.

With that, it my pleasure to turn it back to iSchool principal Alisa Berger, who will lead our panel discussion.