

ConnectED: President Obama's Plan for Connecting All Schools to the Digital Age

Driven by new digital technologies, the future of learning is increasingly interactive, individualized, and full of real-world experiences and information. Unfortunately, the average school has about the same connectivity as the average American home, but serves 200 times as many users, and fewer than 20 percent of educators say their school's internet connection meets their teaching needs. And our teachers do not get enough training and support to integrate technology in their classroom and lessons, despite the fundamental and increasing importance of those skills.

Today, President Obama called on the Federal Communications Commission to take the steps necessary to build high-speed digital connections to America's schools and libraries, ensuring that 99 percent of American students can benefit from these advances in teaching and learning. He is further directing the federal government to make better use of existing funds to get this technology into classrooms, and into the hands of teachers trained on its advantages. And he is calling on businesses, states, districts, schools and communities to support this vision.

- **Upgraded Connectivity:** The ConnectED initiative will, within five years, connect 99 percent of America's students to the digital age through next-generation broadband and high-speed wireless in their schools and libraries.
- **Trained Teachers:** The ConnectED initiative invests in improving the skills of teachers, ensuring that every educator in America receives support and training to use technology to help improve student outcomes. The Department of Education will work with states and school districts to better use existing funding through the Elementary and Secondary Education Act to strategically invest in this kind of professional development to help teachers keep pace with changing technological and professional demands.
- **Build on Private-Sector Innovation:** These investments will allow our teachers and students to take full advantage of feature-rich educational devices that are increasingly price-competitive with basic textbooks and high-quality educational software (including applications) providing content aligned with college- and career-ready standards being adopted and implemented by States across America.

ConnectED will Jumpstart Learning Technology Across our Nation's K-12 Schools

Our schools were designed for a different era – based on a limited school day and a seasonal calendar. This system does not take into account the constant learning opportunities of global connectivity, and does not prepare our students for a collaborative and networked economy.

We must make our schools an integral part of the broadband and technology transformation – particularly when that same technology can be harnessed to drive empowered, more personalized learning. From digital textbooks that help students visualize and interact with complex concepts, to apps and platforms that adapt to the level of individual student knowledge and help teachers know precisely which lessons or activities are working, this technology is real, it is available, and its capacity to improve education is profound.

That is why the President is announcing ConnectED, a breakthrough initiative to jumpstart learning technology across our nation's K-12 schools. The initiative would foster a robust ecosystem for digital learning:

CONNECTING AMERICA'S SCHOOLS

The ConnectED initiative would jump-start the effort to connect American students to today's modern broadband connections, and help them keep pace access across the country.

- **Upgraded Connectivity:** The ConnectED initiative will, within five years, connect 99 percent of America's students, through next-generation broadband (at speeds no less than 100Mbps and with a target of 1Gbps) to, and high-speed wireless within, their schools and libraries. The President is calling on the Federal Communications Commission (FCC) to modernize and leverage the existing E-Rate program, and leverage the expertise of the National Telecommunications and Information Administration (NTIA) to deliver this connectivity to states, districts, and schools.
- **Leveling the Playing Field for Rural Students:** Rural communities will experience some of the greatest benefits of new education technologies, as ConnectED will help provide new learning opportunities to level the playing field for rural students. The Universal Service Fund has been transformative in the past twenty years providing rural communities with telephone services, and now broadband. The Broadband Technology Opportunities Program (BTOP) has helped us connect under-served community anchor institutions. ConnectED builds on those efforts, with greater returns for communities finding it difficult to attract broadband investment.

IMPROVING TEACHING

ConnectED will provide educators with the infrastructure and tools to accelerate student learning, regardless of subject area or age group.

- **Trained Teachers:** The ConnectED initiative invests in improving the skills of teachers, ensuring that every educator in America receives support and training in using education

technology tools to improve student learning. Using existing federal funding through Title II of the Elementary and Secondary Education Act, the Department of Education will work with states and school districts to invest in this kind of professional development to help teachers keep pace with changing technology. Additionally, federal funds under Title VI of the Elementary and Secondary Education Act may be used to train educators to use the educational technology needed to implement new, computer-based assessments of student learning.

- **New Resources for Teachers:** ConnectED will lead to new resources for teachers from any school, at any time, to open their classrooms to interactive demonstrations, lessons from world-renowned experts, or the opportunity to build learning communities and to collaborate with other educators across the country or world. New digital education tools that allow for real-time assessments of student learning, provide more immediate feedback to drive professional development, and enable the creation of interactive online lessons can empower teachers to understand each student’s strengths and weaknesses and design lessons and activities that better meet their needs. Our teachers are being asked to do more than ever, and they need to be equipped with better tools to help them succeed. With the right investments, technology can play a central role.

UNLEASHING PRIVATE-SECTOR INNOVATION

Educational devices supported by high-speed networks are the portal to the world of online learning and interactive content, to personalized education software that adapts to students’ needs, and to breakthrough advances in assessing understanding and mastery.

- **Educational Devices for Students:** Leading companies in technology are capable of producing feature-rich educational devices that are price-competitive with basic textbooks. Districts that choose to purchase devices can come together to purchase them in volume to achieve greater cost savings— but purchasing choices remain in the hands of local educational leaders.
- **Exposing Students to Global Opportunities with New Technology:** With access to high-speed broadband and digital technologies, students can have access to more rigorous and engaging classes, new learning resources, rich visualizations of complex concepts, and instruction in any foreign language. Without access to this technology, students would continue to be constrained by the limits of resources at their specific schools – limited by zip code when they could be exposed to global opportunities. With new technology, students also have increased opportunities to work at their own speed and receive additional one-on-one help they need to develop their knowledge and skills.
- **Support for Digital Educational Content:** A robust market in educational software can unlock the full educational potential of these investments and create American jobs and export opportunities in a global education marketplace of over \$1 trillion. Third-party validators can help schools find educational software (including apps) that provide content aligned with college- and career-ready standards being adopted and implemented by States across America.

- **Restoring U.S. Leadership in Vital Areas:** For the better part of the 20th century the United States led the world in educational achievement and attainment. Through the federal E-Rate program, we pioneered connecting schools to the internet. But the United States is now falling behind, squandering that early lead. Many of our leading competitors are moving forward with aggressive investments in digital learning and technology education. In South Korea, all schools are connected to the internet with high-speed connections, all teachers are trained in digital learning, and printed textbooks will be phased out by 2016. The durability of American competitiveness will be tied to our ability to produce graduates with the skills the economy demands.

EXAMPLES OF SUCCESSFUL SCHOOLS

Across the country, schools are seeing the benefits of digital learning and connectivity.

Mooreville School District

Mooreville, North Carolina

The Mooreville Graded School District distributes one device per student (grades 3-12) and uses predominantly digital curriculum content. All teachers are trained on how to integrate technology into their teaching. Since beginning the shift to greater use of technology, learning in Mooreville has changed. As superintendent Mark Edwards has said, “This is not about the technology. It’s not about the box. It’s about changing the culture of instruction — preparing students for their future, not our past.”

In the classroom, students now collaborate in small groups rather than listening to lectures. They are using individualized software that functions like a personal tutor, adapting to their pace of learning. Teachers receive immediate feedback on students’ progress and can better direct their lessons and their teaching to meet each student’s needs.

There has been strong evidence of success in Mooreville. The district’s graduation rate was 91 percent in 2011, up from 80 percent in 2008. On state tests in reading, math and science, an average of 88 percent of students across grades and subjects met proficiency standards, compared with 73 percent three years ago. Mooreville ranks 100th out of 115 districts in North Carolina in terms of dollars spent per student, but it is now third in test scores and second in graduation rates.

Science Leadership Academy

Philadelphia, Pennsylvania

In 2005, the School District of Philadelphia created the Science Leadership Academy as part of a project to address chronic high dropout rates. Science Leadership Academy is a magnet school where students combine project-based learning with modern tools, including laptops for every student. The school uses few print textbooks, instead allowing students to create and produce their own content for learning.

Students at the Science Leadership Academy have consistently tested above the city and state averages in annual statewide standardized tests. 97% of the 2010 graduating class went directly to college.

Loris Elementary School

Loris, South Carolina

Loris Elementary is a Title I elementary school located in a small town that uses technology to meet the personalized learning needs of all students. The school has implemented a variety of technology tools which differentiate content for every student based on real-time assessment data, provide engaging and appropriately-challenging learning content, and allow teachers to manage and enhance the online learning experiences and hold students accountable. The school has provided every student in grades 3-5 with a laptop and a variety of learning software. The school is planning to expand its use of technology to reach more students through blended learning rotations.

Loris Elementary rose from 41st in the state rankings of elementary schools with similar demographics in 2011 to 19th in 2012 after implementing the blended learning program.