FCC CHAIRMAN GENACHOWSKI JOINS SECRETARY OF EDUCATION DUNCAN TO UNVEIL NEW "DIGITAL TEXTBOOK PLAYBOOK," A ROADMAP FOR EDUCATORS TO ACCELERATE THE TRANSITION TO DIGITAL TEXTBOOKS

ISSUES CHALLENGE TO STATES AND COMPANIES TO ENSURE EVERY K-12 STUDENT HAS A DIGITAL TEXTBOOK WITHIN FIVE YEARS

FCC Chairman Genachowski joined Secretary of Education Duncan to discuss the state of digital learning in American schools. At the first-ever Digital Learning Day Town Hall in Washington, D.C., the Digital Textbook Collaborative presented them with the "Digital Textbook Playbook," a plan to help K-12 schools transition to digital textbooks. The Collaborative also helped the FCC and the Department of Education update the School 2.0 bandwidth planner to help schools plan for their connectivity needs.

Chairman Genachowski also challenged state leaders and the digital textbook industry ecosystem to make national adoption of digital textbook a reality; he announced a meeting in March 2012 with CEOs of companies in the digital learning space to drive national adoption of digital textbooks in the next five years.

Challenges to digital textbook adoption include state textbook procurement rules, device and content interoperability, connectivity costs, and managing the transition.
- While the United States spends more than $7 billion a year on textbooks, too many students are using books that are 7-10 years old with outdated material.
- Digital textbooks are used in pockets of the U.S., but adoption is not widespread.
- The U.S. trails countries like South Korea in transitioning to digital textbooks; the country has announced that they will begin transitioning all students to digital textbooks starting in 2013.
- About a third of Americans – 100 million people – have not adopted broadband at home. Students need home broadband to access digital content and to complete Internet based homework.

The "Digital Textbook Playbook" is a blueprint to help transition American schools to digital textbooks.
- The *Playbook* is designed to help K-12 educators implement rich and effective digital learning environments in their schools. The Playbook outlines criteria and steps that educators can take to initiate the transition to digital textbooks.
- The *Playbook* will help educators tackle the major barriers to the adoption of digital textbooks, including the *challenge of connectivity,* both at school, in the community, and at home; *the challenge of device procurement*; and the *challenge of making the transition* from paper to digital textbooks.
- The *Playbook* is an output from the Digital Textbook Collaborative, an effort by education technology leaders across private industry, school districts, and nonprofits, to accelerate the deployment of digital textbooks and improving the quality and penetration of digital learning in K-12 education.
- The Digital Textbook Collaborative was convened by the FCC and the U.S. Department of Education and builds on the FCC's National Broadband Plan and the Department of Education's National Education Technology Plan.
- It includes members from the following organizations*: Apple; Aruba Networks; AT&T; Blackboard; Dell; Discovery Education; E-Rate Central/e-Bookroom Initiative; Freed-Hardeman University; Hewlett-Packard; Houghton Mifflin Harcourt; Intel; McGraw Hill; Microsoft; Mobile Beacon; Mobile Citizen; One to One Institute; Pearson; Qualcomm; Samsung; San Diego Unified School District; Scholastic; Software & Information Industry Association; Sprint; Verizon; and Wireless Generation.*

In consultation with the FCC, the Department of Education has released a new version of its School 2.0 bandwidth planner available at etoolkit.org.
- The Bandwidth Planner is intended to help school principals and district CFOs plan their bandwidth needs, demystify bandwidth for nontechnical educators, and bridge the knowledge gap between educators and technologists to improve strategic technology planning.
- The updated Bandwidth Planner is part of the "Digital Textbook Playbook" and the new release is a result of collaboration from FCC engineers and members of the Digital Textbook Collaborative.

Leveraging technology can improve the opportunity for educational access, improve student engagement and achievement, and improve learning productivity.

- Technology-based instruction can reduce the time students take to reach a learning objective by 30 to 80 percent, according to the U.S. Department of Education and recent studies by the National Training and Simulation Association.
- Teachers' believe in the ability of technology to enhance learning; 93 percent believe that interactive whiteboards enrich classroom education and 81 percent feel the same about tablets, according to a PBS study.
- Continuous access to a computing device for every student leads to increased academic achievement and financial benefits, especially when technology is properly implemented, according to Project RED.
- Online collaboration contributes to improved graduation rates and other academic improvements, according to Project RED.
- A Federal Reserve study found that students with a PC and broadband at home have six to eight percentage point higher graduation rates than similar student who don't have home access to the Internet.

Many districts, schools and states have transitioned from traditional paper textbooks to digital learning environments.

- Florida is the first state to mandate adoption of digital learning tools in all public schools. Beginning in the 2015-2016 school year, all instructional materials in grades K-12 in the public school system are required to be provided in electronic or digital format. Florida is not requiring a specific brand or form of digital textbook, nor is it requiring distribution of devices or other supplies. http://fcc.us/ykFj8a
- California has launched a free digital textbooks initiative in 2009 that includes free texts for California students in grades 9-12 in geometry, Algebra II, trigonometry, calculus, physics, chemistry, biology/life sciences, and earth sciences, including the investigation and experimentation strand. http://fcc.us/xj3Z4I
- The San Diego Unified school district in California embarked on a five-year journey to transform its classrooms and completely revamp the way San Diego students learn. Since that time, the i21 Interactive classroom Initiative (i21) has expanded into more than 3,500 classrooms and has distributed some 78,000 digital textbooks and other mobile devices to teachers and students. http://fcc.us/zu3AZW
- Utah announced this month that it will support the development of open source textbooks for all secondary language arts, mathematics, and science courses and is recommending that all schools across the state adopt these textbooks starting this fall. http://tinyurl.com/6s4le4v
- Forsyth County, Georgia's iAchieve Virtual Academy offers students the opportunity to engage in a digital learning environment to achieve their individual potential through innovative, flexible, socially connected and student-focused education. iAchieve is open for students in grades 6-12 who are residents of Forsyth County entering the school system for the first time. http://fcc.us/xQrz4W

THE FCC'S TECHNOLOGY AND EDUCATION AGENDA

The FCC is the biggest funder of connectivity in K-12 schools in the United States and is helping connect America's schools to the networks of the future.

- The FCC's education agenda is focused on helping educators, students and parents transform learning opportunities through the use of technology at school, in the community, and at home.

By modernizing the E-rate program, the FCC is working to ensure that America's students receive the best education and the high-tech skills to compete in the 21st century economy. The E-rate program was established by Congress to bring connectivity to all schools and libraries in America:

- Learning on the Go Mobile Pilots: The FCC is empowering schools and libraries to bring mobile learning solutions to our nation's students and communities through the funding of off-premises wireless connectivity. The pilot program will help the FCC learn how best to support wireless connectivity services for mobile learning devices, like digital textbooks, so that students and patrons can connect with online resources even when they're not in school or at a library. The FCC selected 20 Learning On-the-Go applicants to enable schools and libraries to deliver Internet connectivity and digital learning over mobile wireless devices outside of the school or library.
- Super-Fast Fiber: The FCC's E-rate Order is helping to bring affordable, super-fast fiber connections to America's schools and libraries. It allows participants to use E-rate funds to connect to the Internet in the most cost-effective way possible, including via unused fiber lines already in place across the country and through existing state,

regional and local networks. With these fiber networks, schools and libraries can provide students and communities with cutting-edge connectivity, while at the same time saving millions of dollars by bypassing more expensive options.

- School Spots: The FCC also opened the door to "School Spots" – where schools have the option to provide Internet access to the local community after students go home. With affordable fiber, these School Spots are a major step toward the National Broadband Plan's goal of connecting an anchor institution in every community to affordable 1 Gbps broadband. School Spots will help ensure that people who otherwise lack access can enjoy the benefits of super-fast broadband.

The FCC has worked to increase access to broadband at home for students and low-income families, so students can stay connected from home with teachers, collaborate with classmates, and complete Internet based homework. Through *Connect to Compete* (connect2compete.org) the FCC facilitated the creation of a national public private partnership to provide low cost broadband and device options to the millions of students eligible for free lunch in the National School Lunch Program:

- Connectivity: Participating cable companies that cover 86%+ of the U.S. population will offer all eligible families who currently don't subscribe to broadband two-years of $9.95 + tax broadband cable Internet, with a no installation or activation fees.
- Devices: An offer for a $150 low-cost refurbished family PC or laptop for School Lunch eligible families
- Digital Literacy: Free in person and online digital literacy training nationwide in libraries, community centers, and schools
- Education Content: Free education content for School Lunch families, that includes homework helper, supplemental instructional content, and free eBooks in the areas of basic skills and college preparation.