



EMPOWERING STUDENTS IN THE 21ST CENTURY CLASSROOM

MOTOROLA XOOM™ TABLETS FOR EDUCATION

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LIFE.  POWERED.

With new technology becoming available every day, educators nationwide have to face tough questions about how to invest wisely. Which innovations will benefit the greatest number of students across the broadest range of ages, levels and learning styles? In other words, how do we design the best possible 21st century classroom?

At Motorola Mobility, we believe that the answer lies in the power of mobile technologies. For example, we envisioned the Motorola XOOM™ tablet delivering a more interactive, collaborative and fun experience. Teachers are seeing students custom-build their own education with the Motorola XOOM, optimizing lessons and accumulating real-world skills they will need to succeed in our tech-driven environment. Being more involved and engaged during class time means that in addition to getting smarter, students feel smarter too. Improved self-esteem translates into better attendance and a better attitude in class.

Of course, computers in the classroom are nothing new. Easy access to information has always been a part of today's students' daily lives. But the tablet gives students and educators flexibility far beyond information and beyond the PC. Hardware benefits like a shorter start-up time and a longer battery life, plus learning benefits like the ability to choose from thousands of Android™ apps, access online learning sites and watch Flash videos add up to a learning tool with the ability to push today's classroom into the future.

And that's only the beginning. We're partnering with school districts and universities to build 21st century classrooms with the Motorola XOOM. And the results have made believers out of all of us. From improved grades and test scores to better behavior in class, this is a tool that motivates our students to succeed. The tablet takes advantage of students' natural spirit and curiosity to energize class time productively. Giving our students the chance to get more out of their classes while building skills they need to advance their knowledge and their ability to thrive in the world – that's the power of real innovation in the classroom.

The 21st century student is an engaged student

Fighting for students' attention is a huge part of every teacher's job. Even the most talented teachers will have days when students seem more fascinated by the action outside the window than on the blackboard. The Motorola XOOM takes that window off the wall and puts it in a student's hands, opening up the classroom to incorporate the vast and interesting world outside into daily lessons.

The tablet's ability to engage student attention begins with its physical form. The portability and long battery life of the Motorola XOOM means students are freed from their desk chair, so that the layout of the classroom can change according to the goals of each lesson. The screen can be seen from every angle, so it's easy to interact with the tablet while working on group lessons and projects. Unlike laptops or netbooks, tablets don't obstruct eye contact between teacher and student, making for a more supported learning environment. And teachers don't lose time waiting for machines to start up, as they do with PCs: the Motorola XOOM powers on instantly, for a disruption-free transition.

Technology for learning

The Motorola XOOM is powered by Google's Android operating system. Teachers can choose from the thousands of apps on Android Market™, so they're sure to find the one they need. They can use Google Apps, a free offering for education, to share content, enabling richer lesson plans and curriculum development. And since students can create and submit assignments with the same technology, education becomes a journey that students and teachers take together. With access to the whole suite of Google Apps like Gmail™, Google Docs™, Google Calendar™ and Google Talk™, the Motorola XOOM makes communication in the classroom open and accessible to everybody.

Motorola XOOM allows students to:

- Read – with eReader capabilities for electronic textbooks, students can read actively; underlining important ideas, taking notes and instantly looking up words or concepts they don't know to improve information retention.
- Create – with the Motorola XOOM's camera, video, word processing and drawing tools, students can create and edit all kinds of content, and share it instantly with their teachers and peers.
- Access – students can access online learning sites such as Blackboard, Desire2Learn, etc. watch Flash-enabled videos.
- Deliver – students can submit their assignments via Google Docs, which is not only efficient but also builds their arsenal of real-world workplace skills.

Collaboration

Technology does more than connect us with information—it connects us to other people. And in the classroom, the ability for students to collaborate with the teacher and with one another further enhances their learning experience. Students today are digital natives, and they can use their tech smarts to learn, study, share and communicate using the Motorola XOOM in a way that feels natural. Say a student creates a rap to help her remember how to factor an equation. Using the video camera on the Motorola XOOM, she posts a video of her rap on YouTube and shares it with her entire math class. By the time they arrive at their exam, everyone has the lyrics buzzing in their brains—and they can all do better on the test. “They're going to remember it 5-10 years from now. Where as other information they won't recall because they don't have an anchor for it,” says Bruce Cochrane, executive director of pupil services, San Dieguito Union High School District, where the Motorola XOOM is being piloted in select classrooms as a part of everyday learning.

Collaboration means that every student has the opportunity not only to learn but to help other students learn as well, which helps reinforce the lesson and build self-esteem.

Everybody Learns Differently

Whether they are high-performing students who require a tougher challenge to stay engaged, university students who need a better way to acquire and organize research or special-needs students who need extra help and support without stigma, the tablet can deliver for everybody so that all students benefit equally from the teacher's focused attention.

A student in California was failing history. He read and re-read assignments without absorbing their meaning. Reading became a dreaded activity, something other people did with ease and even pleasure but that made him feel left out and stupid. “Everybody learns differently,” his teacher assured him. “Maybe you learn better from your ears than your eyes.” So the student read a story aloud and recorded it on his tablet. Then he *listened* to the story and suddenly he began to understand what he'd been missing. His teacher was right: he was an auditory learner, and his grades immediately began to reflect his newfound level of comprehension.

This story illustrates one of an infinite number of ways that the tablet can be used to customize education for each student without putting undue strain on teachers' resources. The multimedia, cloud-based and productivity applications on an Android tablet give students reach. The Motorola XOOM provides audio capability for aural learners, a touch screen for kinetic learners and video and high definition images for visual learners.

“[T]hese students are really experiencing success and motivation,” says Melissa Pattullo, assistant technology specialist, San Dieguito Union High School District. “[T]hey're taking pride and ownership in their work, their research and their development,” she continues. “It's really great to see. Teachers are reporting fewer behavioral issues and classes are becoming more community-oriented, which is something that we hadn't necessarily expected.”

With the ability to custom-build their education with the Motorola XOOM:

- Special-needs students gain text to speech capabilities, touchscreen keyboard and the ability to connect to special Bluetooth devices depending on each student's particular challenges.
- Hyperactive students benefit from the portability and movement within the device and the classroom, so they are less likely to act out.
- ESL students can use translation and language applications to help them integrate faster into an English curriculum.
- Students can access web-based academic interventions and character development activities as an alternative to traditional suspension to make that time productive and prevent them from falling behind the class.
- All students gain greater access to tools to remediate their skill deficiencies, which helps improve standardized test scores in addition to making them more employable and more attractive to colleges and universities.

A more efficient way to teach

With the Motorola XOOM, teachers can spend less of their valuable time with organizational and housekeeping concerns, and more time pushing students to go farther with their work. Preparation and grading also become easier when teachers can read and respond to student work electronically, without having to haul around unwieldy papers and cassettes. They also gain access to powerful, tested tools to help them make the most of their class time with the “edu” category on the Android Marketplace. There they'll find dozens of tools to enhance classroom learning. Some of the most popular programs include:

- LearnBoost: online software with free lesson plans, grade books, attendance and calendar tools.
- BrainPop: animated Science, Health, Technology, Math, Social Studies, Arts and Music and English movies, quizzes, activity pages for K-12 kids.
- Grockit: a social platform for learning that provides online study rooms where students can “meet.”
- Digication Eportfolio: online tool for students to showcase and share their work online with family, friends, teachers and potential employees.

As much as it does for their students, the Motorola XOOM makes it easy for teachers to collaborate on lesson plans and seek help on a particular classroom challenge. Administrators can get a sense how teachers are faring in class and provide ongoing professional development through document sharing and communication.

Life Empowered: the ability to do more

At Motorola Mobility, we make cutting-edge technology that connects people and enriches their lives. As a company, it's been incredibly gratifying to witness the benefits of the Motorola XOOM in classrooms. And it's not just about wowing students with a fancy new gadget. Even after the technology has been fully incorporated and the newness has worn off, students remain active and engaged in class.¹ Why wouldn't they be? With the ability to customize their own education, the Motorola XOOM gives every student the opportunity to excel. And the skills they learn in the classroom will help them succeed as adults in our tech-driven environment.

Building a better future for our students starts with bringing the future to them. This is tomorrow's classroom, brought to you by the teacher-molded brains at Motorola Mobility.

Contact Us

To learn more about how you can incorporate the Motorola XOOM in your school, contact:

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¹San Dieguito Union High School District interviews.