The Power of Mobile Broadband to Enhance Teaching and Learning

Presenters

• **John G. Flores, Ph.D.**, Executive Director for United States Distance Learning Association (USDLA) and Administrator and Program Professor at the Fischler School of Education, Nova Southeastern University

• **Matt Federoff**, Chief Technology Officer, Vail School District, Arizona Public Schools

• **Ron Blackburn-Moreno**, President and CEO, ASPIRA

Moderator

• **Marilyn Reznick**, Executive Director, Education Leadership, AT&T
Mobile Learning: Transforming Education

• Today’s students have grown up with the Internet and integrated mobile technology into their lives
• But we have not yet integrated mobile technology into education
• Mobility offers a new model for teaching and learning
  – Mobile learning strategies can connect students to their peers, challenge them with real-world issues and involve them in real-time conversations
  – Mobile teaching strategies can help educators tailor learning for individual students, gather and use data more productively, and engage in professional development with increased flexibility
Investing in Education

• AT&T has a keen interest in mobile broadband technology and a long and deep history of support for education.

• Investing in education may be one of the most important things we can do to help America remain a leader in an increasingly competitive, global economy.

• Bringing the benefits of mobile broadband technology to education is not a luxury but a vital component to preparing students for the digital workforce.
The Wireless Communication Revolution!

USDLA
UNITED STATES DISTANCE LEARNING ASSOCIATION
Presentation Agenda

- Introduction to USDLA
- Wireless: Arrival of the Fourth Generation
- Achieving the President’s Challenge
- The Rural America Challenge
- Role of Distance Learning: The Research
- Wireless: Fundamental Part of Educational Toolkit
- Wireless Initiatives
- Broadening Horizons
- Building the Future through Online Opportunity
- Obstacles to Wireless Technology
- Policy Measures to Get the Job Done
Wireless: Arrival of the Fourth Generation

- Evolution of Wireless Communication Revolution
- Final Barriers of Time and Place Removed
- Every American Access to High-speed Broadband Connectivity
The Rural America Challenge

- 20% Rural America No access
- 8% No wired or Wireless technology
- Major Impediment to educational and Career Achievement
Education Challenges in Rural America

- High School Drop Out Rates
- Low College Completion
- Small Size & Limited Resources
- Addressing Special needs of talented students
Distance Learning: Important Piece of Answer

- Academic Options and Coursework to succeed in 21st century
- Not a “Better than Nothing” Alternative
- Quality Option & Real Solution
The Research

Strong evidence indicates:

- Matches or exceeds traditional school in meeting students’ needs (DOE),

- FCC strong evidence online leaning does not sacrifice quality of instruction for convenience and efficiency,

- Is an important ne model for education in 21st century,

- Wireless broadband is changing the way we learn and think.
Wireless: Fundamental Part of Educational Toolkit

- Access anywhere and anytime
- Learners have control reaching remote
- Remote Locations
- Do not have to leave family
Helping Teachers Grow

- Advance professional development
- Wider choices of courses
- Learn at anytime & anyplace
Building the Future through Online Opportunity

- Helping rural economies diversify and grow
- Advances in mobile communication promise:
  - High quality video
  - Access to range of online instruction
Building the Future through Online Opportunity

- Advances in mobile communication promise:
  - Realtime, interactive sessions with instructors around the country
  - Instructional and informational media
  - Mobility: the new dimension
Obstacles to Wireless Technology?

- Wedded to traditional Classroom
- Unmotivated Students
- State education Policies
- Teacher Licensing rules
- Shortage of radio spectrum
Time to Close the Rural learning Gap

- Tear down barriers
- Deliver educational opportunities
- Include mobile communication that will spread advanced broadband in new areas
- World class learning everywhere
Time to Close the Rural Learning Gap

- Every school district provide student access to coursework they need to dream big, to achieve their college dreams and build the future they want!
Time to Close the Rural Learning Gap

Virtual Classrooms:

- No walls or limits on who can learn or where they can learn it.
- We have the tools.
- It is time to grasp them with energy and ingenuity!
The Wireless Communication Revolution!

Thank You!

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Vail, AZ - 435 Square Miles
Wi-Fi Turns Rowdy Bus Into Rolling Study Hall

By SAM DILLON
Published: February 11, 2010

VAIL, Ariz. — Students endure hundreds of hours on yellow buses each year getting to and from school in this desert exurb of Tucson, and stir-crazy teenagers break the monotony by teasing, texting, flirting, shouting, climbing (over seats) and sometimes punching (seats or seatmates).

But on this chilly morning, as bus No. 92 rolls down a mountain highway just before dawn, high school students are quiet, typing on laptops.

Morning routines have been like this since the fall, when school officials mounted a mobile...
In California, high school interns try out digital “flexbooks” created by the CK-12 Foundation.

By TAMAR LEWIN
Published: August 8, 2009

At Empire High School in Vail, Ariz., students use computers provided by the school to get their lessons, do their homework and hear podcasts of their teachers’ science lectures.

Down the road, at Cienega High School, students who own laptops can register for “digital sections” of several English, history and science classes.
Mobile Broadband, Low Income Students and English Language Learners

Ron Blackburn Moreno
President and CEO
ASPIRA Association
Wireless devices and wireless communications presents new and powerful opportunities for learning

- Access to the Internet becomes relatively inexpensive (devices and connectivity)
- Portability: It extends the time and places students can learn.
- Adjustable to different learning styles and allows for differentiated instruction. It is less “teacher-directed”
- Students can communicate, interact and collaborate with other students worldwide
- Communications among students, teachers and parents is significantly enhanced
- Research has shown that Latino youth overwhelmingly access the Internet via wireless devices (cell and smartphones), not computers.
- Thousands of education apps for wireless devices.
- It can be effective: Research in Ohio found that those students with iPad access in the year leading up to the Ohio Graduation Test had a 6-percent greater chance of passing the test’s reading portion than those without, and an 8-percent greater chance of passing the writing portion.
Wireless devices and wireless communications presents new and powerful options for learning

• While there is a plethora of research on the effectiveness of the use of computer mediated communications in the classroom with low income students and English Language Learners

  – Using technology, English Language Learners: experience less anxiety, higher motivation, use more complex language, more types of sentence structures and enhanced writing skills, increased peer-to-peer collaboration, increased vocabulary, among others

• There is still little research on the effectiveness of using mobile devices in the classroom, especially in low-income neighborhoods and with English Language Learners.

• There are promising examples of teachers using mLearning for teaching of students with low academic achievement or English Language Learners.
Wireless devices and wireless communications presents new and powerful options for learning

Take the case of 6th grade teacher **Fernando Nieto**, a bilingual ed. teacher in Hayward, CA. (New America Media Latino)

• “The speed of learning afforded by these devices, said Nieto, is especially important for English learners, who generally find themselves needing to play “catch up” in order to get their English proficiency to the level of their native-speaking peers by the time they hit high school or college. And, he said, homework completion is not quite the problem it was, prior to his allowing use of the technology...They have the speed of the Internet in their hands,” said Nieto.”

• “It entertains you,” said 12-year-old Mariana, one of Nieto’s students. She often brings an iPod Touch to class, a recent birthday gift. “Instead of sitting right there not knowing the answer, you can use your iPod and search for the answer. It helps a lot,” she said.
Challenges

– Connectivity and connection speed
– Rate of adoption (schools banning cell phones)
– Most apps are better suited for larger portable devices increasing the cost to lower income families
– Innovation in integrating technology into delivering curriculum
– Teachers learning to use the technology
– Lack of teacher control/oversight and data collection of student activities
– Selecting among the thousands of resources
ASPIRA and Mobile Technology

• Technology Tools Conference (600 teachers)

• Use of Mobile apps in ASPIRA Charter Schools
  – Language acquisition
  – STEM
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