
Testimony
of
Mark Horan, Dell Inc.

Before the Michigan House Education Committee

March 18, 2010



Agenda

- Education technology trends
- Identifying 21st century skills & job readiness
- Education technology challenges
- Connected classroom & community vision
 - Personalized student & teacher learning
 - Access from any location to any content from any device
- Conclusion

OUR CHILDREN

ARE GROWING IN THE DIGITAL AGE

Grades 3-5

- 28% Email, IM and Text
- 28% Have an online profile
- 32% Share Music, Videos, and Photos
- 51% Use the Internet for Research

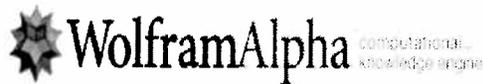
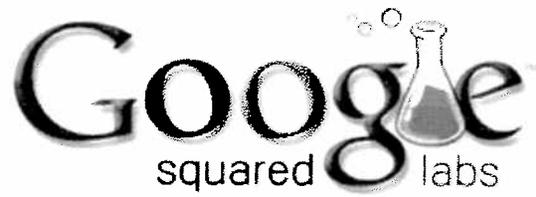
Grades 6-12

- 68% Email, IM and Text
- 63% Have a Cell Phone
- 28% Have a Smart Phone
- 38% Use Social Networking Site to Collaborate on School Projects

© Project Tomorrow

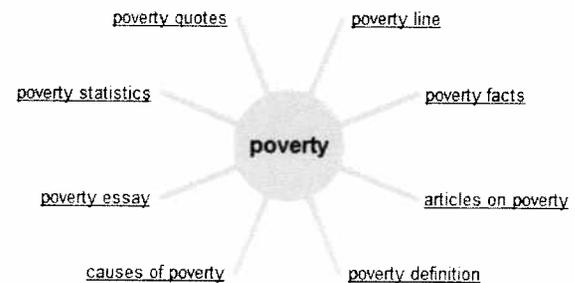
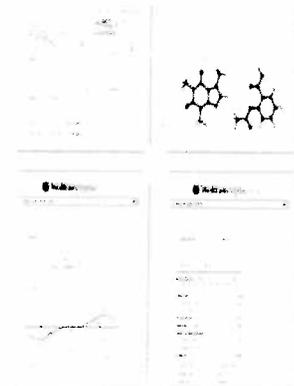
Speak Up 2008 National Data Findings





Making the world's knowledge computable

Today's Wolfram|Alpha is the first step in an ambitious, long-term project to make all systematic knowledge immediately computable by anyone. Enter your question or calculation, and Wolfram|Alpha uses its built-in algorithms and a growing collection of data to compute the answer. Based on a new kind of knowledge-based computing... [more »](#)



american presidents

20 iter

Item Name	Image	Description	Party	Date Of Birth	Preceded By	Religion	Succeeded By
Abraham Lincoln		Abraham Lincoln (February 12, 1809 – April 15, 1865) served as the 16th President of the United States from March 1861 until his assassination in April 1865 ...	Republican	12 February, 1809	James Buchanan	4 possible values	Andrew Johnson
George Washington		A Life in Brief: George Washington was born into a mildly prosperous Virginia farming family in 1732. After his father died when George was eleven, ...	Federalist	22 February 1732	James Wilkinson	Episcopalian	John Adams
Ronald Reagan		Ronald Wilson Reagan (February 6, 1911 – June 5, 2004) was the 40th President of the United States (1981–1989) and the 33rd Governor of California ...	Republican	6 February 1911	Jimmy Carter	4 possible values	George H. W. Bush
John Adams		A Life in Brief: Before becoming President in 1797, John Adams built his reputation as a ... Below is a selection of Miller Center resources on John Adams. ...	Federalist	30 October 1735	George Washington	Unitarian	Thomas Jefferson
Thomas Jefferson		A Life in Brief: Thomas Jefferson, the author of the Declaration of Independence, spent his childhood roaming the woods and studying his books on a remote ...	Democratic-Republican	13 April 1743	John Adams	see below	John Adams
Woodrow Wilson		Thomas Woodrow Wilson (December 28, 1856 – February 3, 1924) was the 28th President of the United States. A leading intellectual of the Progressive Era, ...	Democratic	28 December, 1856	William Howard Taft	Presbyterianism	Warren G. Harding

Timeline Flipbook List Map Full Screen Embed Widget

Follow

The interface features a vertical timeline on the left with a play button and a zoom slider. The main area displays portraits of presidents with callout boxes containing their names, birthplaces, and birth dates. The bottom of the interface has a horizontal timeline axis with decade markers and a scroll bar.

President	Birthplace	Birth Date
James A. Garfield	Orange, Ohio	Nov 19, 1831 12:00 pm
Herbert Hoover	West Branch, ...	Aug 10, 1874 12:00 pm
Ronald Reagan	Tampico, Illinois	Feb 6, 1911 12:00 pm
Benjamin Harrison	North Bend, Ohio	Aug 20, 1833 12:00 pm
Gerald Ford	Omaha, Nebraska	Jul 14, 1913 12:00 pm
William McKinley	Niles, Ohio	Jan 29, 1843 12:00 pm
Harry S. Truman	Lamar, Missouri	May 8, 1884 12:00 pm
William Howard Taft	Cincinnati, Ohio	Sep 15, 1857 12:00 pm

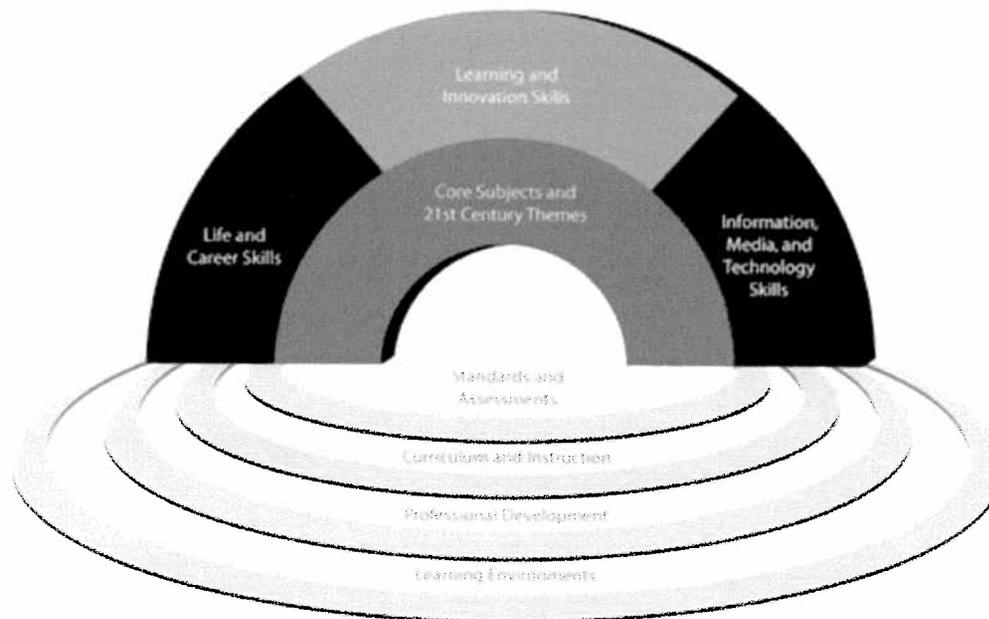
Timeline Flipbook List **Map** Full Screen Embed Widget

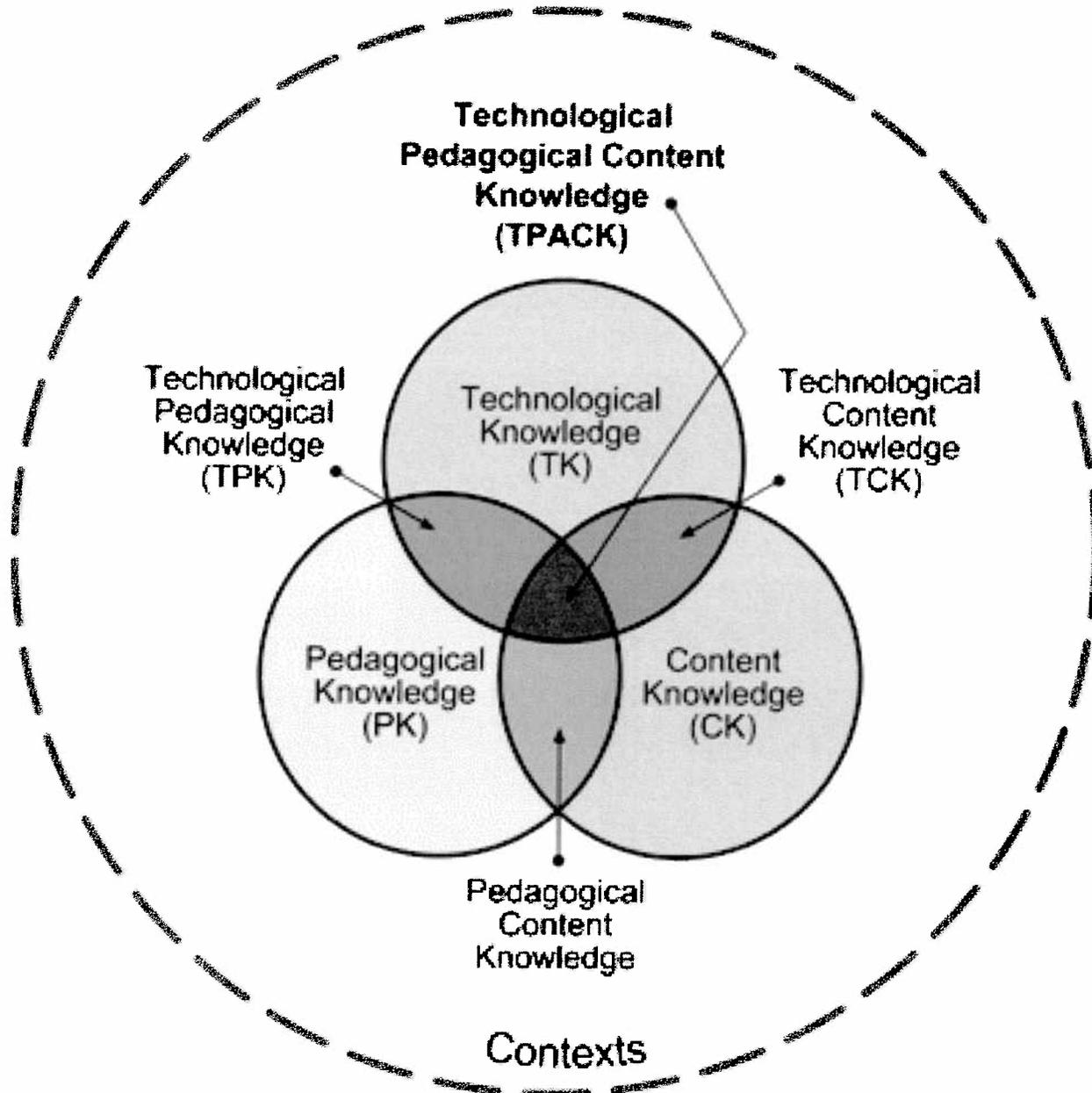
Play Events

- Jul 14, 1913 12:00pm
Gerald Ford-
Omaha, Nebraska
- Feb 6, 1911 12:00pm
Ronald Reagan-
Tampico, Illinois
- May 8, 1884 12:00pm
Harry S. Truman-
Lamar, Missouri
- Aug 10, 1874 12:00pm
Herbert Hoover-
West Branch,
Iowa
- Nov 2, 1865 12:00pm
Warren G.
Harding- Blooming
Grove, Ohio
- Sep 15, 1857 12:00pm
William Howard
Taft- Cincinnati,
Ohio
- Jan 29, 1843 12:00pm
William McKinley-
Niles, Ohio

Defining 21st Century Learning

- Information Fluency
- Communication and Collaboration
- Problem Solving
- Creativity and Innovation

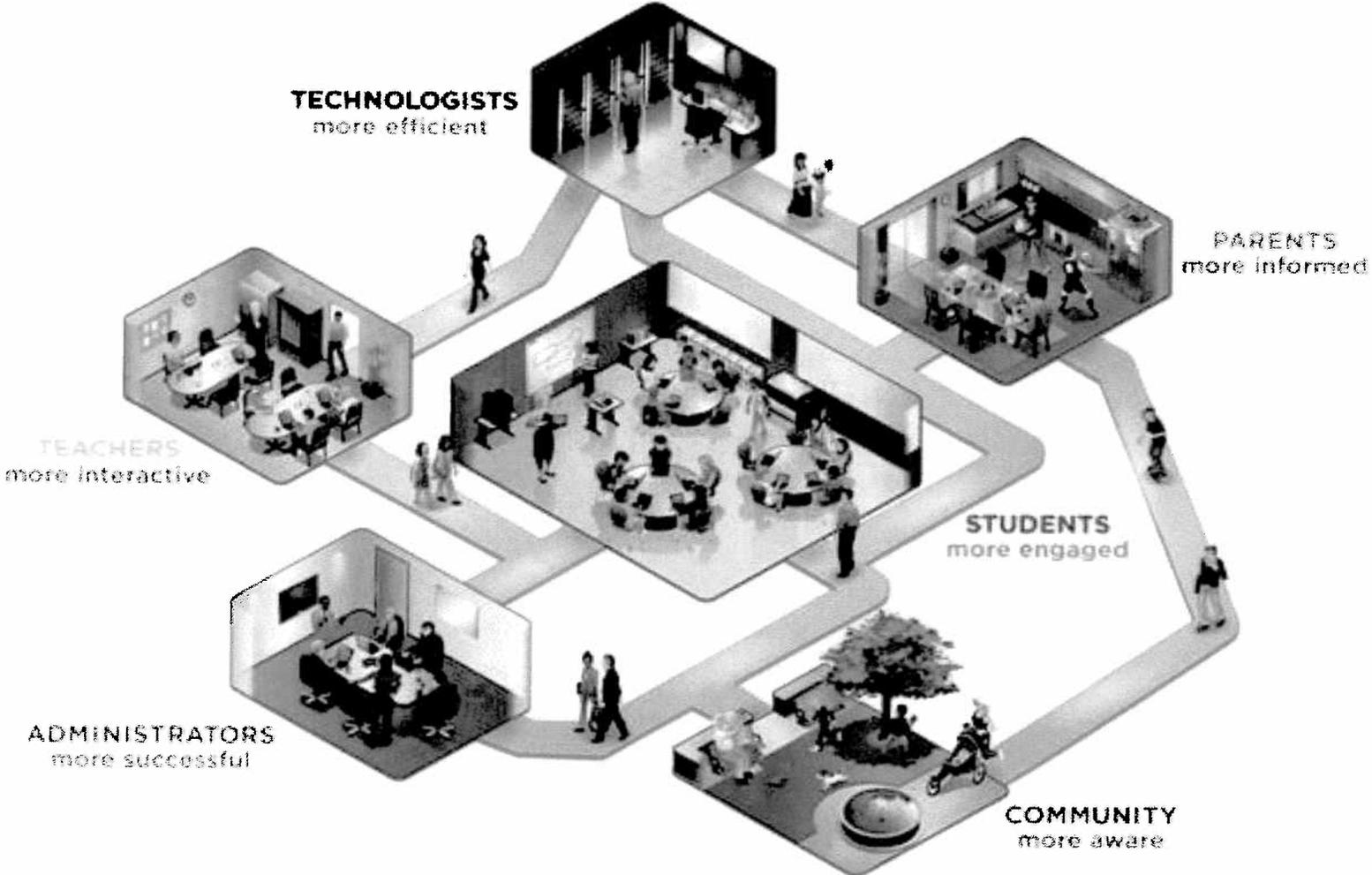




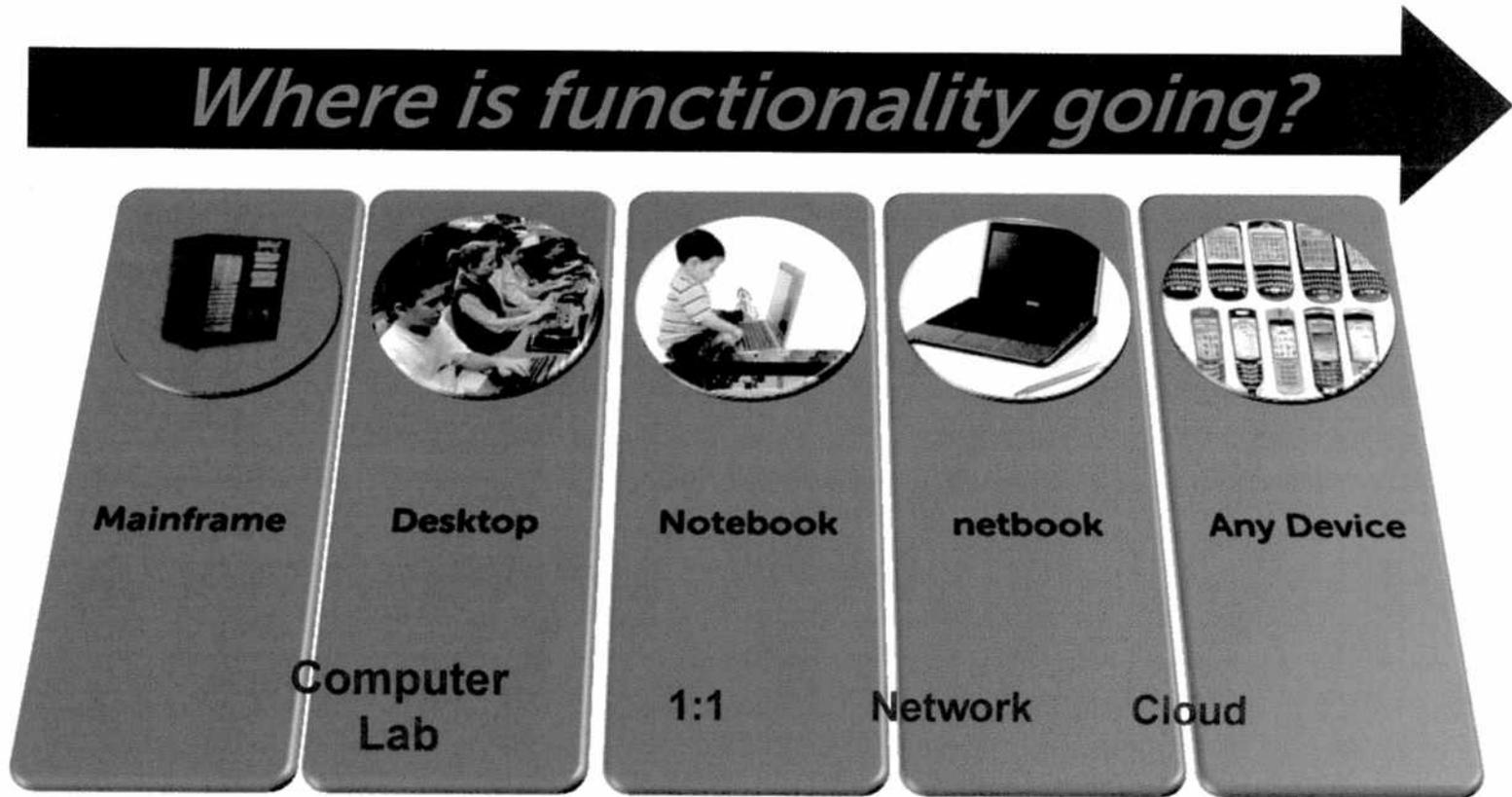
Jobs of the Future

- **Employers value workers who can think critically and solve problems**
- **Occupations that employ large shares of workers with post-secondary education and training are growing faster than others**
- **Competitiveness issue – Michigan is competing not just with other states but with other countries**
- **Our students must be college and career ready when they graduate K-12**
- **Technology is a productivity tool to help achieve these goals**

THE CONNECTED CLASSROOM / COMMUNITY



Classroom Technology Evolution



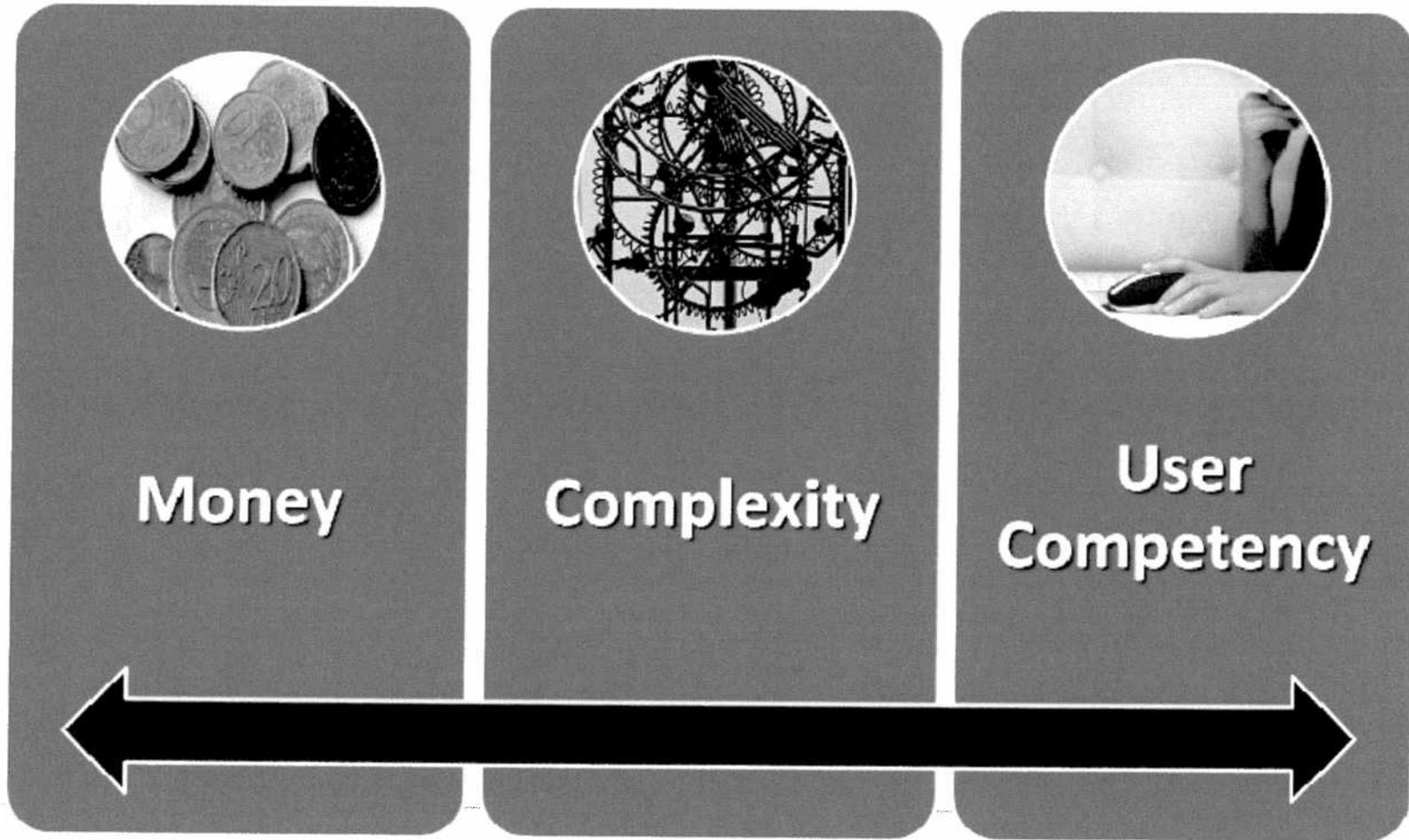
...On the network and the infrastructure

Key technology trends

- Digital textbooks
 - Texas, California have enacted legislation authorizing textbook \$\$ to be used for digital content
 - Florida & Georgia are considering legislation
- Open source learning initiatives
- Cloud computing & virtualization
- Distance learning, requiring connected learning environments (school construction costs cut 50% by 2014)
 - E.g., Providing access to specialized courses and teachers
- Professional learning that supports the integration of digital content and Connected Classroom technologies into daily teaching practice, including platforms like Brain Honey.
- Better data management to support monitoring, evaluation and budgetary decision-making
- Robust data systems linked to individual students (and teachers) – used not just for compliance, but for continuous improvement



Education Technology Challenges



Examples of Innovative Uses of Technology in the Classroom in Greater Detroit

- Godfrey-Lee Public Schools
- Rochester Community Schools
- Chippewa Valley Schools
- Novi Community Schools
- Wayne-Westland Community Schools

Examples of Innovation in Other States

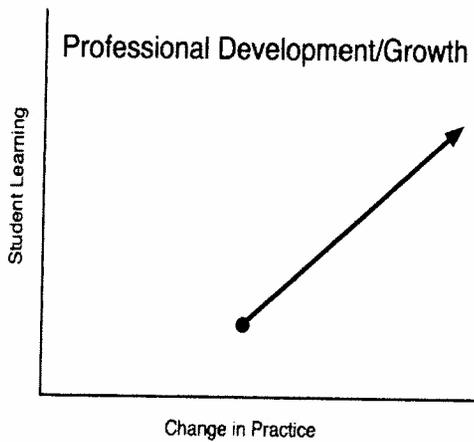
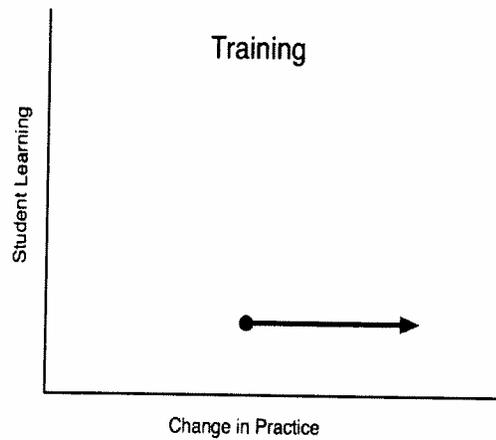
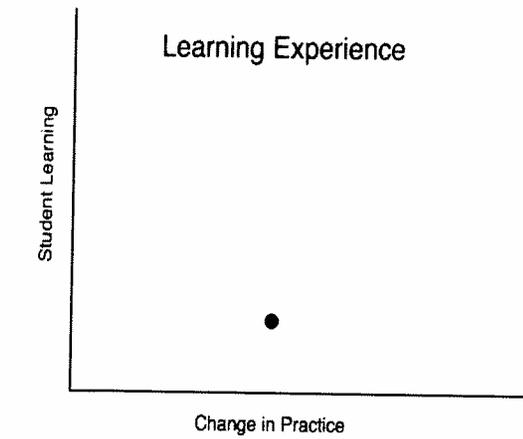
- Henrico, Virginia
 - Blended approach to learning
 - 21st C learning environment implemented
- Edgecome, NC
 - 1x1 implemented
 - 20% decrease in drop-out rate y/y
- Anderson County Schools
 - Tablet PC / Touch Screen for special needs Student
- Bellevue ISD, Washington
 - Connected Classrooms integrating multiple devices
 - Intranet houses lesson plans and resources for teachers
 - › Elementary Schools scores >23% above state average
 - › Middle Schools scores >30% above state average

What is Professional Development?

NSDC definition and study states:

- **The term “professional development” means a comprehensive, substantiated, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement**
- **Effective professional development is intensive, ongoing, and connected to practice; focuses on the teaching and learning of specific academic content; is connected to other school initiatives; and builds strong working relationships among teachers.**

Dell's Professional Learning Framework



Recommendations for Policymakers

- Ensure that students have access to digital content and open source learning – not simply traditional textbooks
- Support teacher development to ensure digital literacy
- Encourage your state education department to partner with the 21st Century skills movement and drive 21st Century skills into the learning environment and assessment process
- Support robust state and local development and use of data systems

Thank you

