



Smart Classrooms with ICTs

July 2008

Nancy Knowlton, CEO

Digital Learning India 2008

SMART
Technologies

SMART Technologies

Interactive whiteboard innovator

- Created the world's first interactive whiteboard in 1991
 - David Martin conceptualized the product in 1986
 - Growth: 2 to 1,200+ people
- Celebrating 21st anniversary this year
- Privately held (management, Intel, Apax Partners)
- Global operations (+100 countries)
- Committed to R&D – user experience
- Deep relationships with the education customers globally

SMART Capabilities

- IWB category leader
- About to ship 1 millionth SMART Board
- Multiple ongoing research projects
 - Action research to scientifically based studies (e.g., University of Virginia's Curry School of Education)
- Strong ecosystem of SMART and third-party training offerings
- Growing emphasis on curriculum integration

SMART's Vision for Education

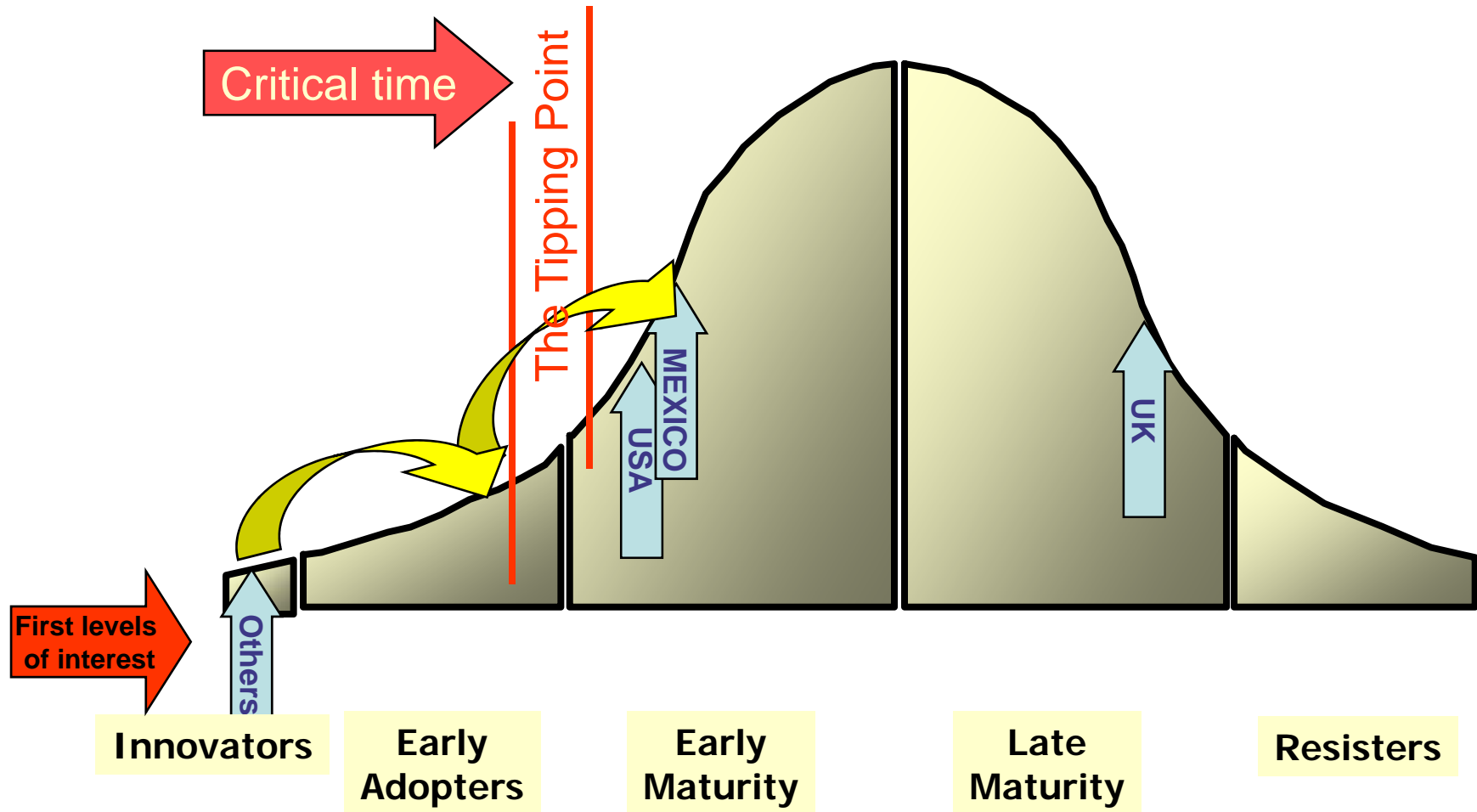
- Fun and engaging for teachers and students
- Collaborative and connected
- Equitable access for all
- Bringing out the special abilities in each student
- Continuous improvement and advancement
- Focusing on content
 - Easy to store and retrieve
 - Supporting all media types
- Learning with technology, not about technology
- Education is a journey, not a destination

21st-Century Classroom ICTs

- Teacher computer, projector, interactive whiteboard
 - Internet connection
 - Wireless slate
 - Student response system/devices
 - Audio enhancement system
 - Digital resources
 - Collaboration or conferencing software
 - Student software
 - Student computers or devices
 - Printer
-
- Camera, scanner, microscope, probes



Product Adoption Curve





21st-Century Learning

- Creating the enabling environment -

Media shape their messages
Media shape their participants
Infrastructures shape civilization

- Christopher Dede, Timothy E. Wirth Professor in Learning Technologies,
Graduate School of Education, Harvard University

Education for all

- Closing the digital divide with uniform learning opportunities and access across whole countries
 - Whole-class learning, 1-to-1 and distributed learning
- Providing 21st-century learning for disadvantaged groups or those with limited access
 - E.g., special needs, rural or remotely located, sick or infirm
- Enhancing standardized curriculum-based materials

Education for all

- Keeping down the cost of textbooks and other learning materials
- Training teachers for technological literacy
 - Professional development
 - Online training
 - Teacher resources
 - Online community
- Leveraging low total cost of ownership

Education for all

- Distance education
 - Teacher shortage
 - Broadest availability of courses
 - Teacher PD
- Digital resources
 - Still a cottage industry today where teachers recreate the same materials every year
- Student access to materials
 - In class and outside class
- The way children learn



The Evolution of Learning with ICT

Traditional



- Teacher is the sage on the stage
- Students sit and passively take notes

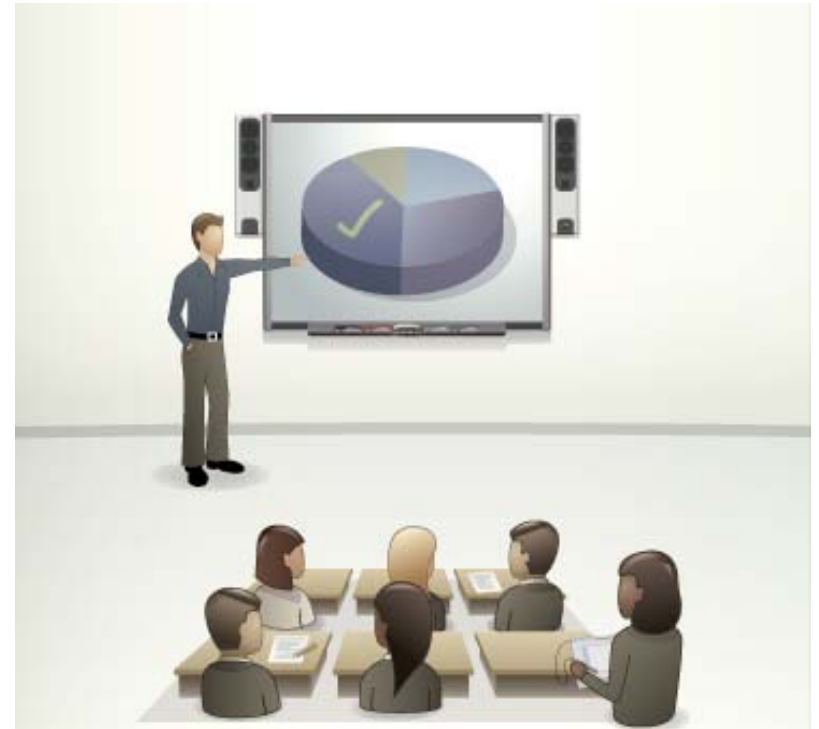
Connected and mobile



- First adoption of interactive whiteboards
- A few boards shared among several teachers
- Not an integral part of daily instruction

Transitional

- Broader adoption with multiple IWBs in each school
- Each board is dedicated to a single classroom teacher with all-day access
- Lessons developed in whiteboard software
- Greater understanding of multimedia content integration
- Support for collaboration and mobility in the classroom



Technology-Enabled



- Integrated systems with better support for multimedia content
- Response systems support formative and summative assessment integrated into direct instruction
- Lessons can be authored and distributed with Notebook Interactive Viewer

Learner-centric

- Teacher facilitates collaborative work
- Teacher becomes guide on the side
- Instruction is differentiated more effectively
- Technology facilitates more meaningful assessment
- More mobility and control over how students use technology in the learning process





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Education – An Economic Imperative

Making the connection between education and prosperity

Society says ...

Knowledge-based economies need knowledge workers

- Trade barriers fall, technological innovation increases
 - Disappearance of unskilled labor opportunities
 - Under-educated = unemployed
 - Education as foundation for economic prosperity
- Technology is or will be pervasive
- Technological literacy is a critical, competitive skill for 21st-century students and teachers
- Technology can be used to break down economic, geographic, social or cultural barriers to advancement

Students say ...

Prepare today's learners for their future

- 21st-century students need to learn differently
 - Experience, active learning is central
 - Knowledge is always situated in a context
 - Reputation, accomplishments are measures of quality
- Technology enables a new mindset, a new skill set
 - Fluency in multiple media
 - Learning based on collectively seeking, sorting and synthesizing experiences
- Education uses technology to create active, lifelong learners

Teachers say ...

New models of teaching for new kinds of learners

- Involve all parties interested in education
 - Students and teachers
 - Government and education systems
 - Parents
 - Community
 - Business
- Move from teacher led to learner led
 - Constructivist approach
- Keep technology in perspective
 - It's about learning, not technology: "A computer is just a thing. It cannot replace a person."
 - Young Jordanian girl

SMART says ...

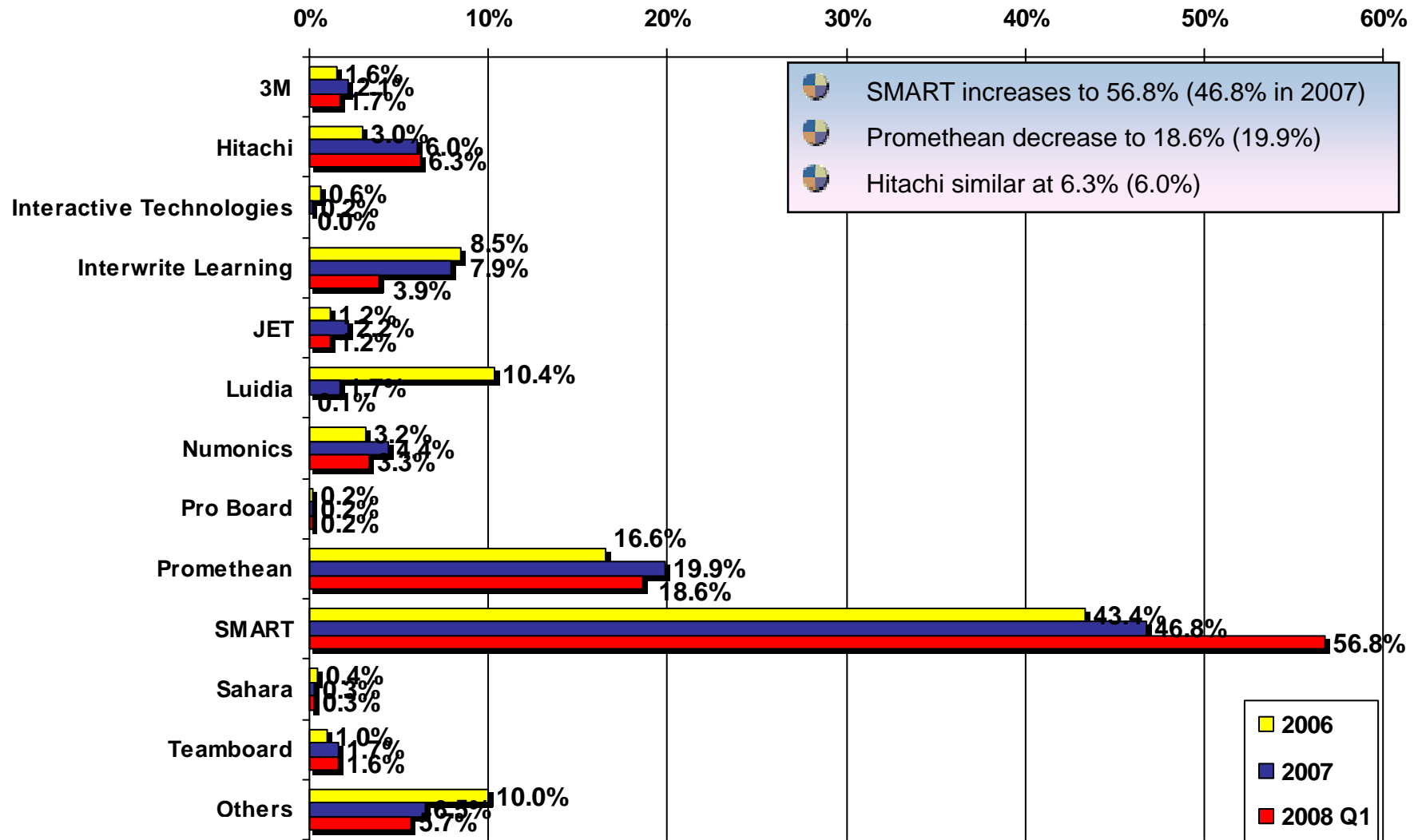
Responsible commitment to civil society

- Support education that gives students the skills and tools they need to fully engage in a competitive global economy
- Contribute positively to the health of education systems worldwide
- Develop best-in-class technology products that support 21st-century teaching and learning
- Begin every initiative with consideration for those most affected by our actions: students

The future is collaborative

- None of us alone can achieve the scale of improvements and change required to meet the global challenges of the 21st century
- We must build the future by learning and working together

Worldwide – Annual Brand shares



Others include Polyvision and Mimio Board

All research is on "solid" boards and does not include attachment devices such as: Mimio and eBeam

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