



# 21<sup>st</sup>-Century Teaching and Learning

Nancy Knowlton, CEO

February 2008

# SMART Technologies Inc.

SMART created the world's first interactive whiteboard in 1991

Pull here

David Martin conceptualized the product in 1986

Pull here

Growth: 2 to 1,000+ people

Pull here

Intel is shareholder

Pull here

Global operations:  
headquartered in Calgary, Canada

Pull here

Offices in China, Japan,  
Germany, US, +++

Pull here

More interactive whiteboards in  
schools and universities than all  
other manufacturers *combined*

Pull here

Deep relationship with  
customers

Pull here

Product development focused  
on ease of use and  
collaborative learning

Pull here



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# SMART's Vision for Education

1

Fun and engaging for teachers and students 

2

Collaborative and connected 

3

Brings out the special abilities in each student 

4

Continuous improvement/advancement 

5

Focus on content 

- Easy to store and retrieve
- Support all media types

6

Learning with technology not about technology 

7

Education is a journey, not a destination 

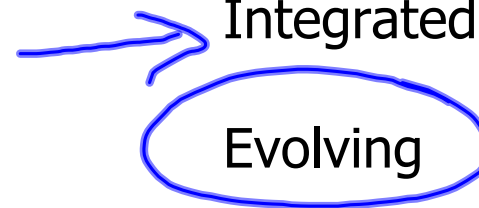
# 21<sup>st</sup>-Century Classroom Components

- Teacher computer, projector, interactive whiteboard
- ✓ • Wireless slate
- Student response system
- Audio enhancement system
- Internet connection
- Digital resources
- Student computers or devices
- Printer
- Conferencing software
- Document cameras, scanners, microscopes, probes

Modular

Integrated

Evolving



# 21<sup>st</sup>-Century Classroom Components



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# Student Response System



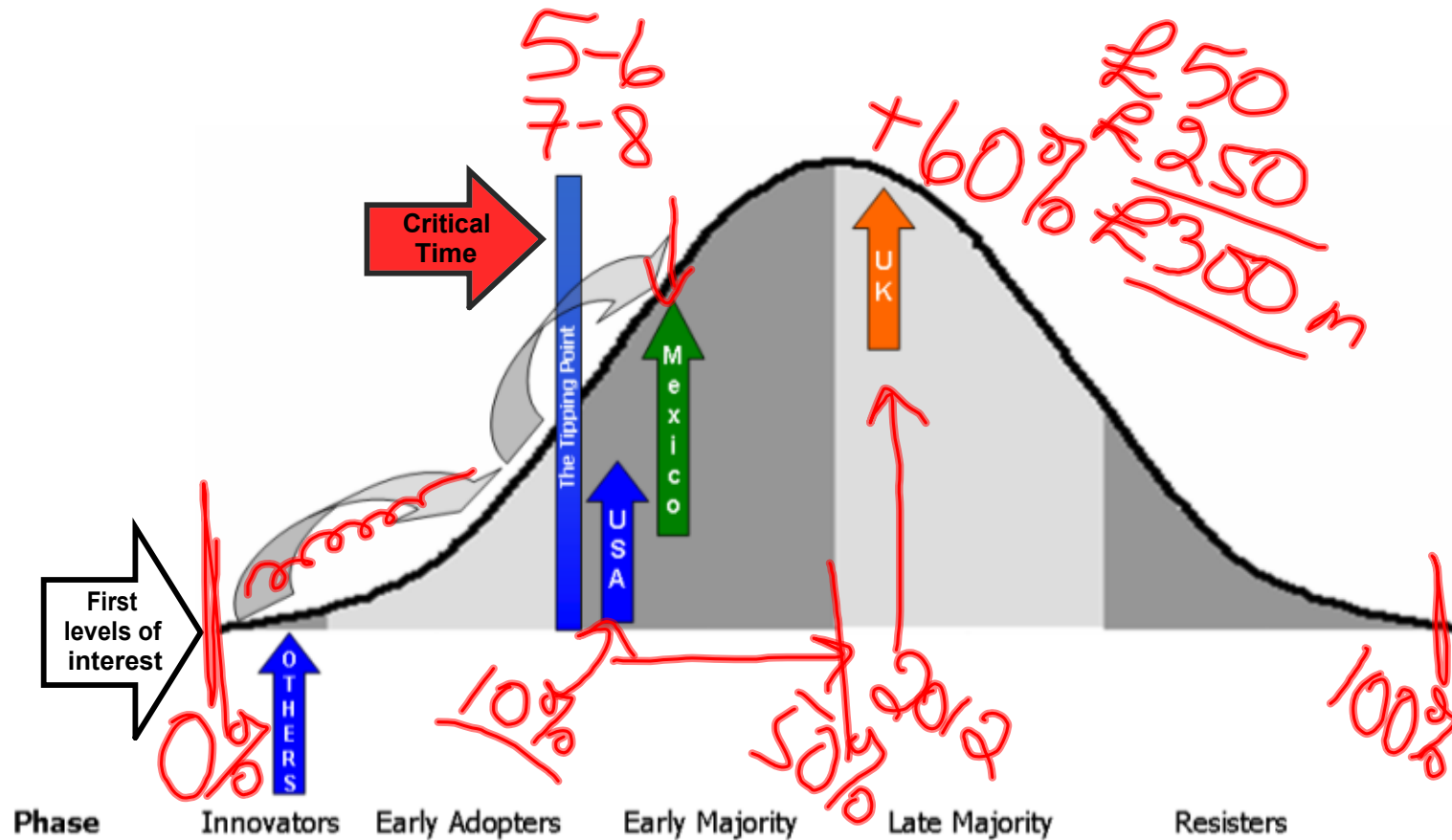
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# Uses for IWBs in the Classroom

- Accessing the Internet
- Accessing digital resources
- Student presentations
- All subjects
- Full multimedia integration

# Product Adoption Curve





# Other Countries - Successes/Trends

- UK

- US

- Mexico

- Australia

NSW



## **Keys to Successful Integration of ICT**

Leadership factors

Professional development

In-classroom considerations

# State, District and School Leadership

## Vision

- Local classroom or distance education
- Standardization
- Transformation of teaching and learning
- Integration with curriculum
  - Focus on the learning outcomes that the tools support, not the tools themselves

Pull

Select right teachers to champion adoption

Pull

Create curriculum teams to support effective use

Pull

Ensure digital resources available

Pull

# Professional Development

## Teachers need time to learn new skills

- Ensure teachers are given the opportunity to be successful with new technology

1

Outside  
class  
instruction

2



3

In-class support

- Teaching and learning
- Integration of technology

4

Teachers learn from  
and support each  
other

# In-Classroom Considerations

- Dedicate the product to the classroom

- Product must be available so the teacher can become familiar and comfortable
- More likely to prepare for its use

PULL

- Choose products that are both easy to start using and grow with a teacher's skills

PULL

- Ensure technology is always up and running

- Class time is valuable

PULL

- Involve and train the students

- New online training sessions

PULL

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## Benefits of SMART Board Interactive Whiteboard

Improved student engagement

Improved motivation and attendance

Supports different learning styles and special needs students

Improved review and retention

Teacher productivity

# Designing for Education

- Easy to start using (learning curve)
- Advanced features as skills improve
- Integrated
- Reliable
- Cost effective

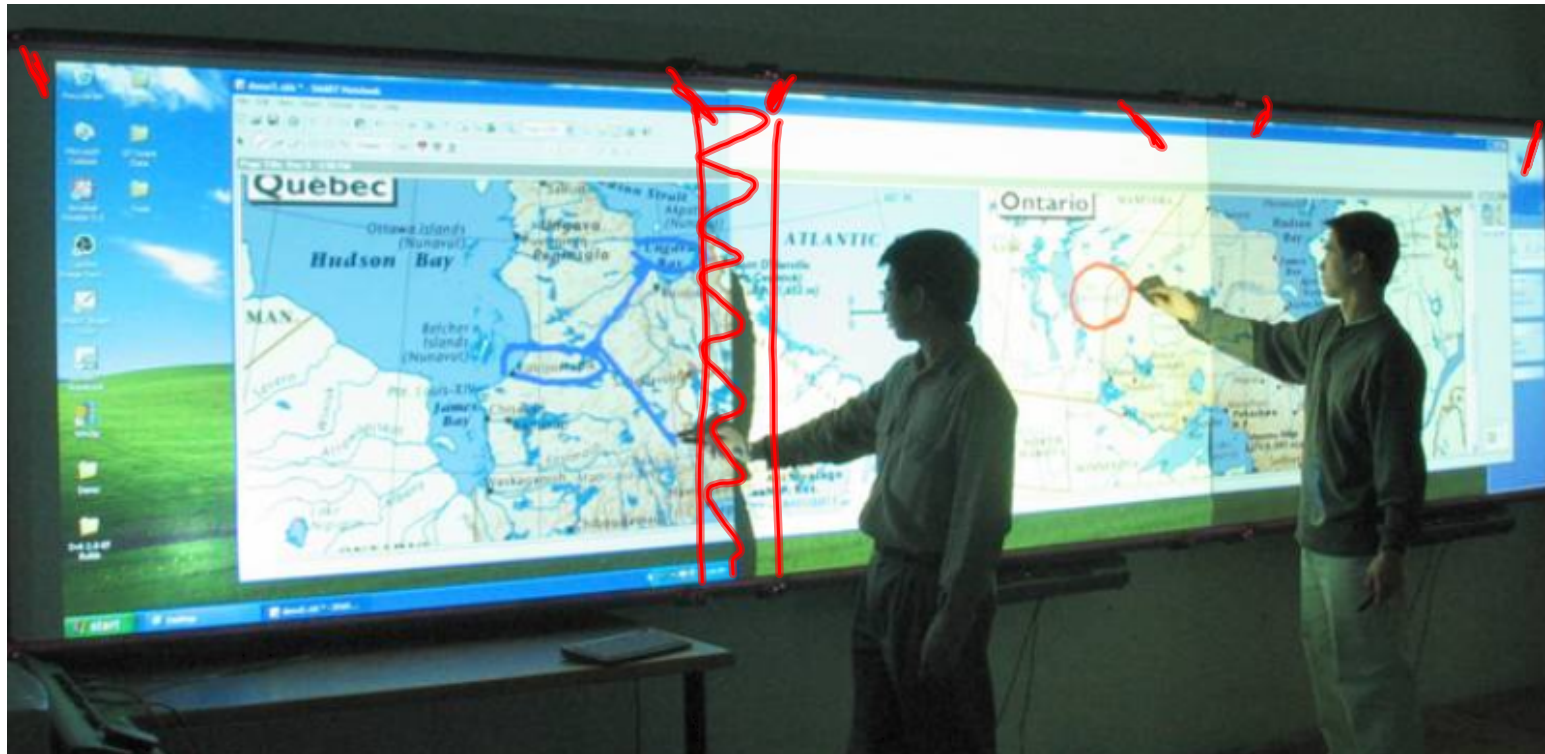


## New features of Notebook 10 software

- 1 Presentation pen - spotlight
- 2 Presentation pen - magnifier
- 3 Presentation pen - invisible ink
- 4 Tables - standard use
- 5 Tables - drag and drop
- 6 Tables - screen shade
- 7 Tables - asymmetric
- 8 Fill tool
- 9 Groups
- 10 Active alignment
- 11 Themes
- 12 Page recording
- 13 Animations - fly in
- 14 Animations - spin
- 15 Animations - fade in
- 16 Animations - shrink and grow
- 17 Fill effects - gradient
- 18 Fill effects - pattern
- 19 Fill effects - image
- 20 Shape pen
- 21 Colour dropper
- 22 Automatic spell-check

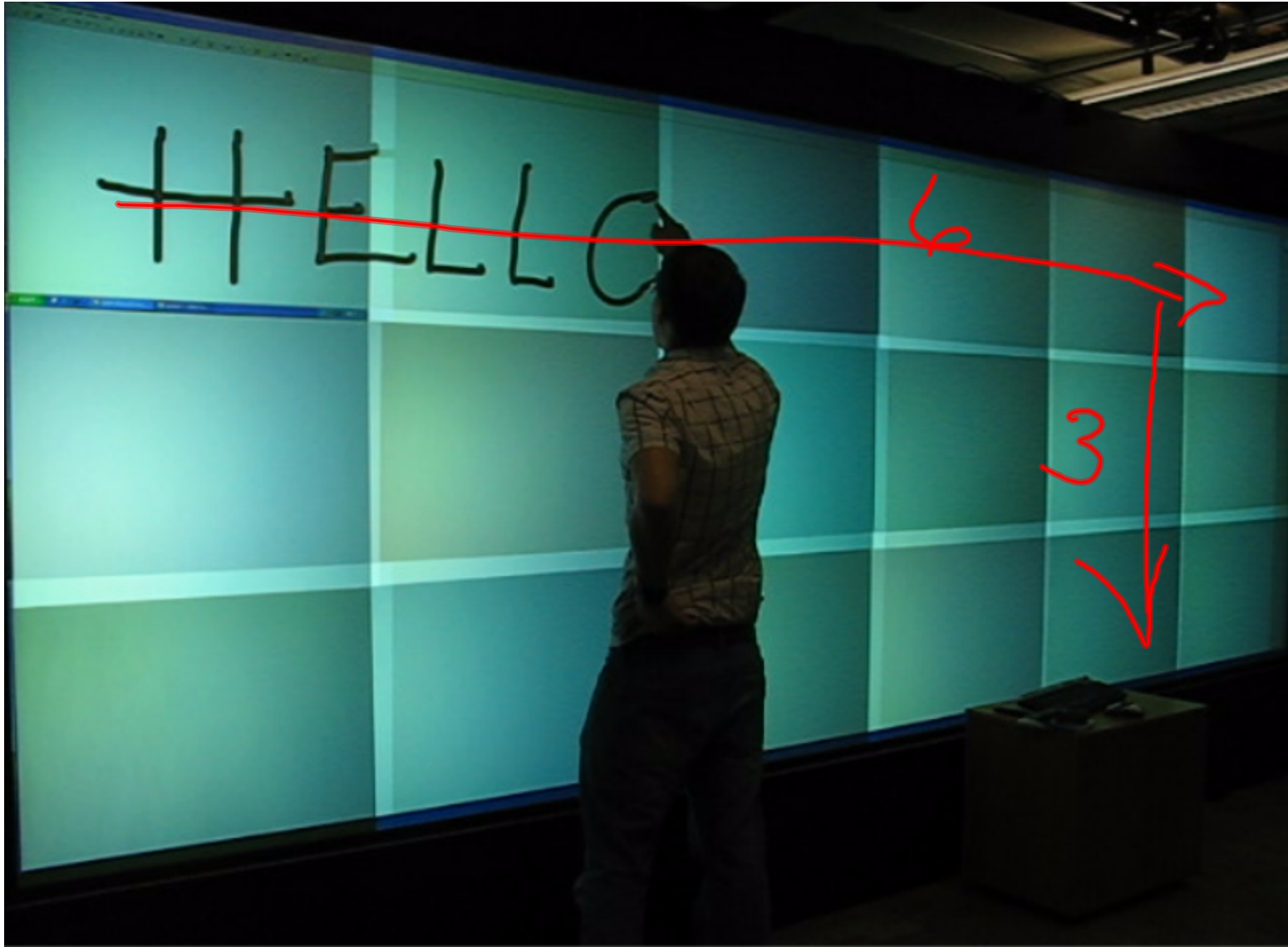


# R&D - Thinking about new interactions



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# Other interactive surfaces



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WRITE



# Education - An Economic Imperative

*Connecting prosperity to education*



# Society Says...

Pull here for notes

- Trade barriers fall, technological innovation increases
  - Disappearance of unskilled labor opportunities
  - Under-educated = unemployed
  - Education as foundation for economic prosperity
- Technology forms a critical infrastructure; it is or will become 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
  - Ability to compete globally

# Students Say...

Pull here for notes

- 21st-century students need to learn differently
  - Experience, active learning is central
  - Knowledge is always in 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...

Pull here for notes

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

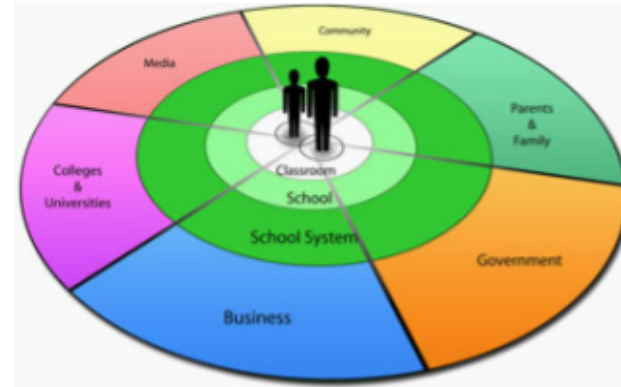
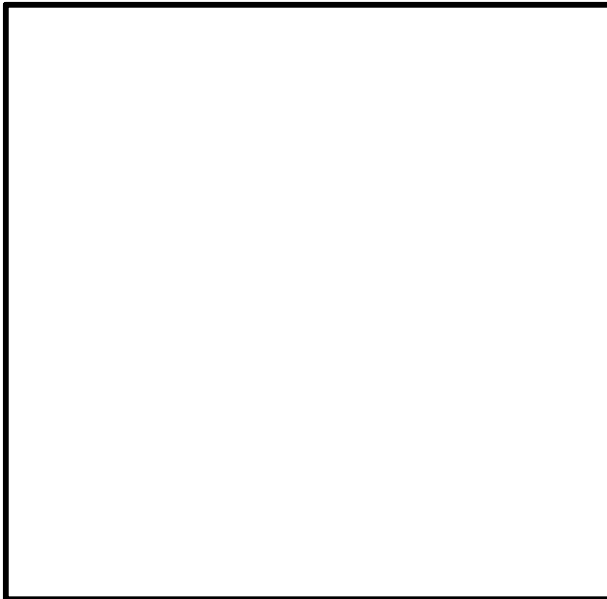


## SMART Says...

Pull here for notes

- 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



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