Teaching in Turbulent Times

Paul R. Hagner
Associate Program Director
EDUCAUSE Learning Initiative
Our Lives

We are here

Singularity: Digital Technology

5/9/2011

FCLD Workshop
Our Students’ Lives

CHANGE

TIME

5/9/2011

FCLD Workshop

© 2005 Marc Prensky
The Technology

• Moore’s Law
  – Computer power doubles every 12-18 months

• Gilder’s Law
  – Network bandwidth will triple every 9-12 months
The Technology

• Law of Disruption
  – Political/Admin. change...slowest
  – Business change...slow
  – Social change...faster
  – Technology change...fastest
Social Technologies

• Humans and technology
• “Co-evolutionary influence”
  – Andy Clark, *Natural-Born Cyborgs*
…but, it’s not the technology that should go first

• How People Learn – National Research Council
The Learning Pyramid

We tend to comprehend...
The Learning Pyramid

We tend to comprehend...

10% of what we **READ**
The Learning Pyramid

We tend to comprehend...

10% of what we **READ**
20% of what we **HEAR**
The Learning Pyramid

We tend to comprehend...

10% of what we **READ**
20% of what we **HEAR**
30% of what we **SEE**
The Learning Pyramid

We tend to comprehend...

10% of what we **READ**
20% of what we **HEAR**
30% of what we **SEE**

50% of what we both **HEAR** and **SEE**
The Learning Pyramid

We tend to comprehend...

10% of what we **READ**
20% of what we **HEAR**
30% of what we **SEE**

50% of what we both **HEAR** and **SEE**

70% of what we **SAY**
The Learning Pyramid

We tend to comprehend...

10% of what we **READ**
20% of what we **HEAR**
30% of what we **SEE**

50% of what we both **HEAR** and **SEE**

70% of what we **SAY**

90% of what we both **SAY** and **DO**
What HPL Tells Us about Successful Learning

- Active
- Contextual
- Engaged
- Interactive
- Social
Learning Communities

• Interactivity
• Communalities
• Diversity of content provision to accommodate different learning styles
• Diversity of content providers
Net Generation & the Neo-Millennials

- Chris Dede
- “Planning for Neo-Millennial Learning Styles”
- Oblinger & Oblinger (eds)
- Educating the Net Generation
Net Generation & the Neo-Millennials

Three complimentary interfaces that will shape how people learn
Interface I: World to the Laptop

- Content delivery and access
- Collaboration
- Mentoring
- Virtual communities
The Net Generation

- Highly deviced
- Highly networked
- Highly interactive
- Highly social
Media saturated lives

- **6:21** hours watching TV
- **26%** of the time kids use more than 2 media simultaneously
- **8:33** of media messages
- **1:02** using computer other than for school work
- **49** minutes playing video games
- **43** minutes of recreational reading

– Kaiser Family Foundation, 2005
Age vs. learning preferences

Students who were very satisfied with Web-based learning by generation

- Mature: 63%
- Boomer: 55%
- Gen X: 38%
- Net Gen: 26%

Dziuban, 2004
Interface I: World to the Laptop

- Content delivery and access
- Collaboration
- Mentoring
- Virtual communities
- Not psychologically immersive
Interface II: “Alice in Wonderland”
Multi-User Virtual Environments
Interface II: “Alice in Wonderland”
Multi-User Virtual Environments

• Immersion
• Immersion Simulated Learning Experiences
• Example: Second Life
• http://secondlife.com
Games

• 65% regular or occasional players
• Rich types of learning and identity formation
• Part of their multi-tasking environment
Games

- Activate prior learning
- Contextual
- Feedback & assessment
- Transfer
- Experiential
- Social
“The Typing of the Dead”
GAMES

• www.socialimpactgames.com
Interface III: Ubiquitous Computing

• Mobile Computing
• Mobile Wireless Devices
• Augmented Reality
  – [http://education.mit.edu/ar](http://education.mit.edu/ar)
Interface III: Ubiquitous Computing

- Swarm Behavior (Alexander)
- Multiple members of a distributed group coalescing on a single point
Interface III: Ubiquitous Computing

- **Smart Mobs** (Rheingold)
- Sociability
- Support
- Information
- Sense of belonging
- Social identity
Enabling spaces

Classroom

Peer-to-peer

Laboratory

Informal

Workshop
Informal spaces

- Students spend more time out of class than in it
- Learning occurs through conversations, web surfing, social interactions
- Team projects
- Spontaneous interactions
- Mingle, share, make connections
Space continuum

Creative commons

Virtual commons

Physical commons:
- classrooms, libraries
- digital media
- social, cultural, political

—Beagle, 2005
Distributed Learning Communities

• Infuses education throughout students’ lives
• Knowledge sources embedded in real world settings
• A setting for interaction, not isolation
“Why are we doing things this ancient way? Our system of education is locked in a time capsule. You’re not using today’s tools! Wake up!!”
Question One

What percentage of the world’s population is 24 or younger?
50%
Question Two

• What % of instructors at the University of Hartford are 24 years or younger?
Question Three

• What percentage of the people in this room are 24 or younger?

• Oops!!!
Who Can Help?
Involve students

• Students as consumers with a choice
• They have a unique perspective on their learning environment
• Input ranges from opinion to action
• Language and perspectives differ; not all students are alike
• “Spend a day in their shoes”
Talk About Learning

• To sustain change, teaching and learning must become part of the campus conversation
• Faculty develop comfort with T&L issues
• This will greatly inform your discussions on strategic planning
Everyone can play a role in student success
Turbulent Times
Terrific Teaching

• Three elements of successful transformation
  – Leadership
  – Inclusion
  – Communication