

Emerging Tools and Technologies for Teaching and Learning
Wednesday, May 23, 2001
Breakout Session A

Identifying Trends in Emerging Tools

- To build upon ideas
- Categorizing what is important

Ideas for questions

Characterize each trend numerically

Scope 1-5

Time frame: years until scope is achieved

Portable computing: How small does it need to get

What size display?

Flexible display?

Will there be classrooms 5-10 years?

Course management systems

- Intelligent course management systems that are flexible to learning styles

Teaching and Learning Centers

System wide IT support

TLT centers

PRS: Personal Response System

You use IR transmitters to register your opinions. If whole class understands you move on, but if they are clueless, you spend time to re-teach. There is a number on the back of the transmitter. Your number appears on screen when your opinion is recorded. If you see a green dot on the transmitter, your opinion has been recorded.

Intelligent Learning Systems

- Portal concept-system best matches user's learning style. Student logs on and system is intelligent enough to identify student's learning style. There are no standards as of yet, but military is working on establishing infrastructure to do this.
- Based on Cisco e-learning engine but with more sophistication.
- Majority thought that this was a very important concept.

Invasion of Privacy (impact)

Intellectual Property (impact)

New Security Tools- to protect the privacy- to protect information from authorized access.

- Impact to academic innovation? Tools to solve.
- Most felt that this was a paradigm shift.

Voice Recognition

- Voice activation and input
- Translation tools
- Most felt that this was important

Ultra-portable technology

- Form will be determined by personal preferences
- Hand held devices
- Can have any form that plugs into a larger network.
- Form and convenience are important
- Draw back is that you only have two hours of battery use
- Majority felt that this was a paradigm shift

Just- in-Time Learning (trend)

- A need-to-know basis. You learn something when you need to know how to do it. Throws out traditional degree learning.
- A teaching method where you pose a question before class and set a need to know.
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Learner Managed Education (trend)

- This turns the concept of education upside down, because it becomes learner managed.
- Why not make it consumer driven?
- Most people felt that this was irrelevant.

Streaming Media

- The majority of the people felt that it was very important if not a paradigm shift

E-books/ E-journals

- The majority felt that this was very important.

Assessment –driven Learning objectives

Video Web Board & Desktop Video Conf.

- Most people felt that this was very important

Next Generation Infrastructures (apps, wireless, Internet 2&3, satellite or terrestrial etc.)

- The concept of what is next with infrastructures. An attempt to aggregate what is already out there.
- The majority felt that this was a paradigm shift

Internet 2 (high bandwidth)

3D

Portals

Prescription-Based Learning

Digital Libraries

- The majority felt that this was a very important concept.

Application Services

Virtual Reality

Wireless

Course-integrated library resources

- Find library resources that correlate with course.
- Most people felt that this was very important.

PRS Systems (see wireless)

Groupware

Three tier integration

Fair use endangerment (copyright fair use, etc)

- Some feel that this is no longer an issue.
- The majority felt that this is very important.

Accessibility testing

Distributed computing applications

High Performance Computing

Direct scholarly communication (omitting the vendor or middleman)

Digital paper, e-ink, on demand publishing

E-textbook rental

Archiving