
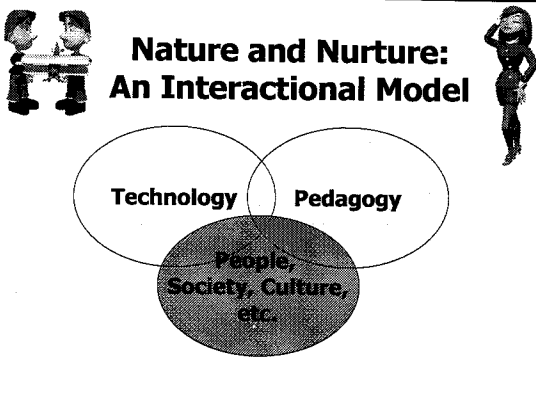
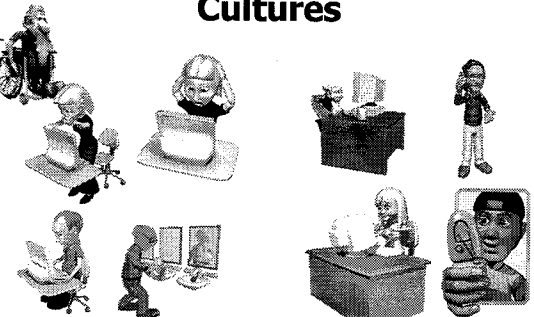


E-Learning: It's about Nature (technology) AND Nurture (pedagogy)
Curtis J. Bonk, Professor, Indiana University
 President, SurveyShare
 cjbonk@indiana.edu
<http://mypage.iu.edu/~cjbonk/>

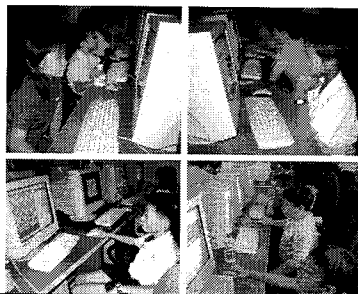



Nature and Nurture: An Interactional Model

Part I. People, Society, and Cultures

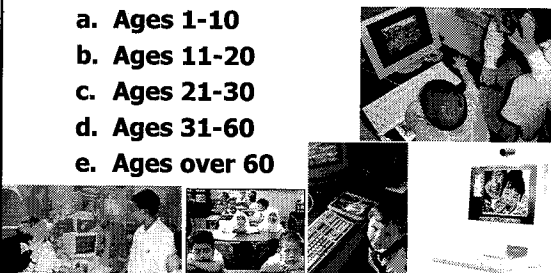


Poll #1:
 Raise your hands if you are a digital native (grew up with a computer at home).



Poll #2:
 What age learners are you interested in?


- a. Ages 1-10
- b. Ages 11-20
- c. Ages 21-30
- d. Ages 31-60
- e. Ages over 60



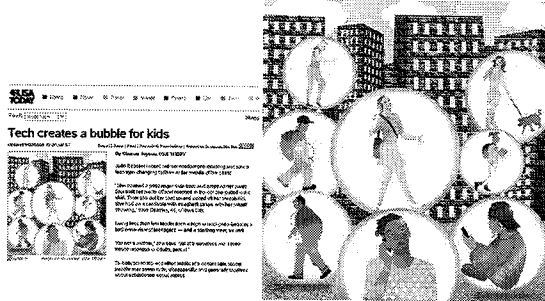
Generations: Dealing with Boomers, Gen-X, and Beyond
N. Boyce Appel, April 1, 2005, Practice Management Digest

Generalizations about Generations—Categorizations vs. Stereotypes

Generational Group	Born	Age	Stereotype
Silent Generation	1925 - 1942	61 - 78	Adaptive
Baby Boomers	1943 - 1960	43 - 60	Idealists
Thirteenth (Gen. X)	1961 - 1981	22 - 42	Reactive
Millennial (Gen. Y)	1982 - ?	13 - 21	Civic



Next Generation of Students



Tech Creates Bubble for Kids
Alejandro Gonzalez, USA TODAY, Updated 6/20/2006 10:34 AM ET

A Different Generation??? Multitasking... "YOUNG AND WIRED," Katherine Seligman, San Fran Chronicle, Sunday, May 14, 2006



Gloria Kwan listens to her iPod while text
messaging a friend who's in class.
Chronicle photo by Mike Kepka



Effects of interactive multimedia in distance learning

Giti Javidi and Ehsan Sheybani, 2004, In Proceedings of the
IASTED International Conference WEB-BASED EDUCATION

"The advancement in technology is
shaping every aspect of our life, including
education. One decade ago, the Internet
was not critical to education. However,
now, it has become an integral part of
learning process. Internet technology is
having a dramatic effect on colleges and
universities, producing what may be the
most challenging period in the history of
higher education."

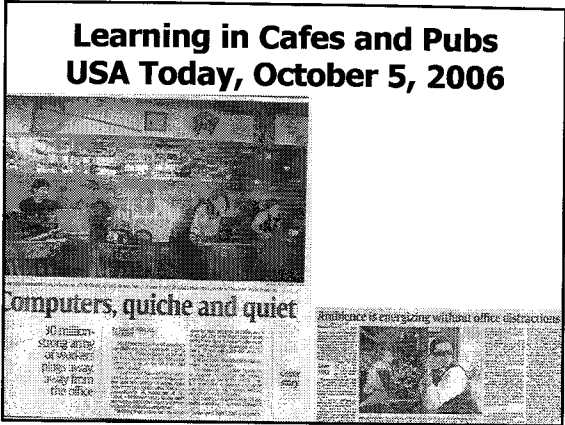
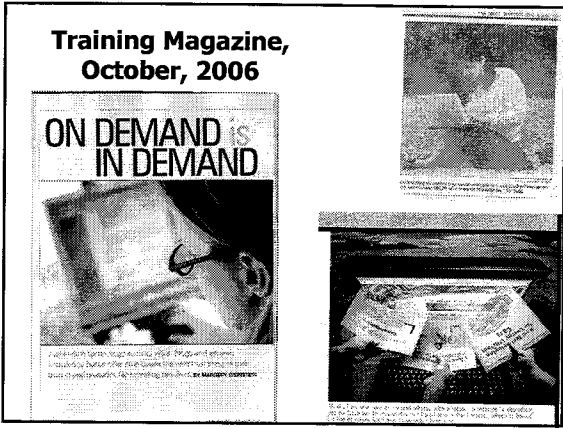
USA Today, October 3, 2006



Generation Raised on the Internet Comes of Age, MSNBC, Dec., 13, 2004, Martha Irvine

- For 21-year-old William Herbert, the Internet has replaced newspapers and TV weather reports (he visits Weather.com every morning). He pays his bills online, registers for classes, books airline and train tickets, checks TV listings, buys movie tickets and gets travel directions.





Yahoo News
Love me, love my blog," as Netorati couple-surf
BY SARA LEDWITH Thu Aug 3, 8:30 AM ET

- Nick Currie and his girlfriend Shizu Yuasa (R) surf the internet over breakfast in Tokyo in this handout photo. As the Internet evolves -- with its webcams, iPods, Instant Messaging, broadband, wi-fi and weblogs -- its image as a relationship-wrecker is changing. Now a sociable habit is emerging among the Netorati: couple-surfing. (Nick Currie/Handout/Reuters)
- "For my birthday, he upgraded my RAM and I thought it was incredibly romantic," writes Jess.

Behavioristic Interactivity

Online PowerPoint?

Learner Control: Older learners

- The traditional instructor-focus is what is expected. The instructor determines what is important to learn and how it should be learned. Consistency and control are maintained with the "tell me, tell me, tell me" approach.

Learner Control: Younger Learners

- Xers expect a range of options, in terms of what they learn and how they learn it. They require autonomy and flexibility for their own learning. They demand a variety of instructional methods from which they can choose to learn, e.g., videotapes, self-paced modules, interactive CDs.
 - "Online gives me something to do when I'm bored with the professor."
 - "I respect myself more as a self-teacher."
- Dziuban, Moskal, & Hartman (2005)

Interaction: Older Learner

- Life experienced at a slower pace promotes an expectation of "it's ok to wait." Learning experienced from an early age as lecture with drill and practice without stimulation/response. Gaming as part of a learning context may be considered less effective because it is less "serious" and in some cases can be distracting.
- Older people prefer less interaction than younger people in distance education (Kearsley, 1995).

Simulation: Younger Learner

- Genxers have a rapid-fire information consumption capability. Rushkoff argues that many of the things for which this generation is maligned, such as short attention spans and lack of ability to concentrate on a single task at once are not problems but actually brilliant coping mechanisms for a world overloaded with information.

Simulation: Younger Learner

- "The skill to be valued in the twenty-first century is not the length of attention span, but the ability to multitask - to do many things well at once.... [and] the ability to process visual information very rapidly."
(Rushkoff, 1996:50)



Learner Control: Younger Learner

- Xers expect a range of options, in terms of what they learn and how they learn it. They require autonomy and flexibility for their own learning. They demand a variety of instructional methods from which they can choose to learn, e.g., videotapes, self-paced modules, interactive CDs.
 - "Online gives me something to do when I'm bored with the professor."
 - "I respect myself more as a self-teacher."
- Dziuban, Moskal, & Hartman (2005)

Neomillennial Learning Styles

Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty
Chris Dede, Harvard University, *Educause*, 2005

- Fluency in multiple media--value all types of communication, activities, experiences, not a single best medium
- Actively seek, collect, and synthesize experiences, rather than absorb a single best source
- Active learning and collective reflection
- Non-linear and associated webs of learning
- Co-design of learning experiences for individual needs and preferences not pre-customized



CAMPUSMOVIEFEST.COM showcases the collab work of tens of thousands of student filmmakers from around the world

http://www.campusmoviefest.com/index/promo.html#ramp

FROSH-LIFE MOVIE FESTIVAL

© 2004

Dual Coding Theory

Figure 1. A Model of Attention, Dual Coding and Information Processing.
 Reprinted from: The Basic Model of Learning and Memory: Underlying Memory Information Processing Theories, by R. M. Glaser and M. P. Hirsch, 1988. Educational Technology for Instruction, p. 13.

The promise of multimedia learning: Using the same instructional design methods across different media

Richard E. Mayer, *Learning and Instruction*, 13 (2003) 125-139.

Fig. 1. A cognitive theory of multimedia learning.

The promise of multimedia learning: Using the same instructional design methods across different media

Richard E. Mayer, *Learning and Instruction*, 13 (2003) 125-139.

A review of research on the design of multimedia explanations:

- (a) a **multimedia effect**: in which students learn more deeply from words and pictures than from words alone—in both book-based and computer-based environments,
- (b) a **coherence effect**: in which students learn more deeply when extraneous material is excluded rather than included—in both book-based and computer-based environments,


The promise of multimedia learning: using the same instructional design methods across different media

Richard E. Mayer, *Learning and Instruction*, 13 (2003) 125-139.

- (c) a **spatial contiguity effect**: in which students learn more deeply when printed words are placed near rather than far from corresponding pictures—in both book-based and computer-based environments, and
- (d) a **personalization effect**: in which students learn more deeply when words are presented in conversational rather than formal style—both in computer-based environments containing spoken words and those using printed words.

Nature and Nurture: An Interactional Model

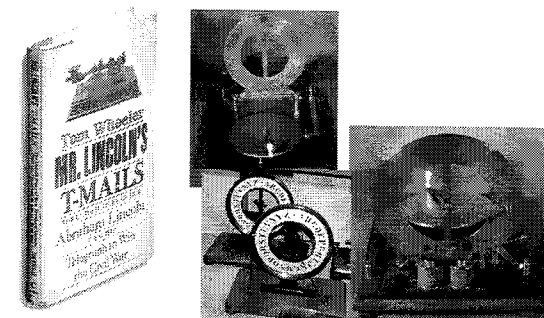
The Ten Forces that Flattened the Learning World




The Learning World is Flat

1. Tools for Searching and Finding Information (e.g., Google, Yahoo!)
2. Rise in Demand for Online Learning
3. Open-Sourcing Learning: Sakai, Moodle, eduCommons
4. Collaboration (e.g., SharePoint, Groove, Word, Interwise, Breeze, Google Talk, Skype)
5. Learning Portability (Podcasting, Mobile technology)
6. Learner Empowerment and Individualization of Learning (Blogs, Wikis, etc.)
7. Online Portals of Information
8. Online Learning Object Repositories (MERLOT, Connexions, Careo, Jurom)
9. Open CourseWare (MIT OCW, Utah State, Johns Hopkins, Japan, CORE, OOPS)
10. Knowledge Brokers and Collectors

Telegraph: Flattening the world in 1860



Technologies of the 1880s?



New Technologies in this audience


NEW... LOW COST Audio Visual Method WITH DISCUSSIONAL CONTROL

Dramatic NEW Teaching Aid...


AMERICAN OPTICAL OPAQUE PROJECTOR




Technologies of the 1980s




Technologies of the 1980s




Apple I



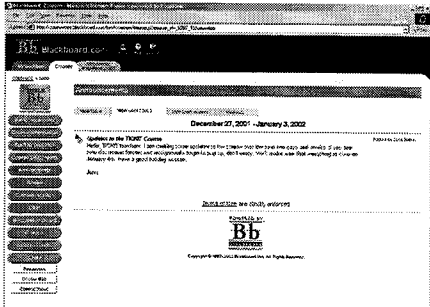
Apple II



Basis 108



Technologies of the late 1990s: Course Management Systems



Technologies of the 2000's Ten Trends



Effects of interactive multimedia in distance learning

Giti Javidi and Ehsan Sheybani, 2004, In Proceedings of the IASTED International Conference WEB-BASED EDUCATION

"The advancement in technology is shaping every aspect of our life, including education. One decade ago, the Internet was not critical to education. However, now, it has become an integral part of learning process. Internet technology is having a dramatic effect on colleges and universities, producing what may be the most challenging period in the history of higher education."

Entice Students with Technology Giveaways

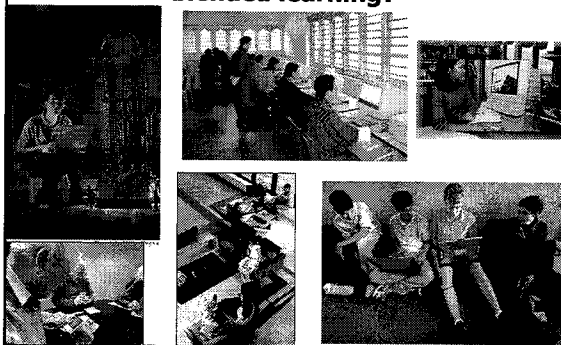
NEWS
Several give out PDA to education students

Gateway M275 tablet PC, Winona State University, Mayville State University
The schools will provide the tablet computers to full-time students who do not have laptops from previous programs.

MedBerry 7110 PDA, University of Maryland
The school has begun handing out the wireless digital assistants to faculty and more than 200 full-time graduate students in the Smith School of Business.

Schools partnered with Intel but in collaboration with Intel.

Who is demanding fully online and blended learning?

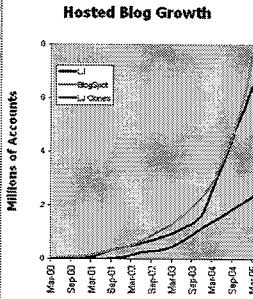


Emerging Technologies



Trend #1: Blogging (75,000 new blogs each day, USA Today, March 27, 2006)

Quarter	Blog Population
Q1 2000	29,500
Q2 2000	65,000
Q3 2000	115,000
Q4 2000	199,000
Q1 2001	352,000
Q2 2001	628,000
Q3 2001	951,000
Q4 2001	1,200,000
Q1 2002	1,570,000
Q2 2002	2,143,000
Q3 2002	2,570,000
Q4 2002	3,073,000
Q1 2003	3,730,000
Q2 2003	4,680,000
Q3 2003	5,780,000
Q4 2003	7,300,000
Q1 2004	9,620,000
Q2 2004	12,820,000
Q3 2004	16,200,000
Q4 2004	21,000,000
Q1 2005	31,800,000
Q2 2005	37,800,000
Q3 2005	45,200,000
Q4 2005	53,400,000



Growth Rate
-
606%
126%
131%
105%

Brandon Hall, Chief Learning Officer Magazine, July 2006

"A blog is a Web journal containing dated entries on a given topic or scheme. They can include search, feedback from readers and links to other sites. They can be written by one person or a group. Blogs can be used to share a viewpoint, enable collaborative discussion, present new product ideas, or explain ongoing news or changes."

Blogging Questions

1. Who has a blog? Any for a specific class?
2. Who regularly reads other people's blogs?
3. Who assigns blogging tasks?
4. Who has created a video blog?
5. Who thinks it is an utter waste of time to blog?

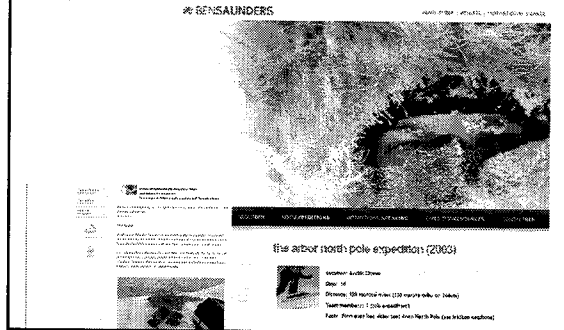
Scholars who Blog, Chronicle of Higher Ed, (Glenn Reynolds, instapundit.com; Stephen's Web, www.downes.ca)

Use of Weblogs (especially English writing class)

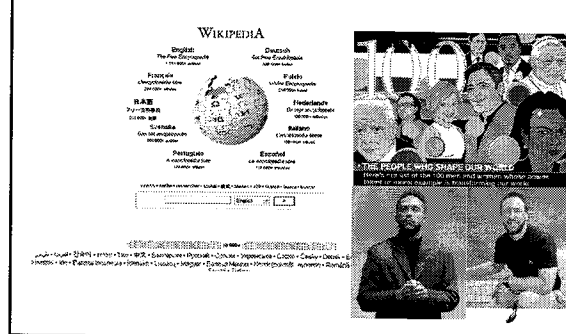
1. Instructor or Tutor blog: resources, information, space to chat
2. Learner blog: reflections, sharing links and pics, fosters ownership of learning
3. Partner blog: work on team projects or activities
4. Class blog: international exchanges, projects, PBL
5. Revision: review and explode sentences from previous posts, add details
6. Nutshell: summarize themes or comments across blogs
7. Blog on Blog: reflections on feelings, confusions, and experiences with blogs

Vlogging (Video Blogging)

Adventure Blogging (Ben Saunders, Mark Fennell)



Trend #2. Wikis



Wiki Questions

1. Who regularly reads Wikipedia articles just for fun?
2. Who regularly reads Wikibooks?
3. Who seeks Wikipedia for content?
4. Who has edited or written new articles on Wikipedia or Wikibooks?
5. Who thinks it is ok for college students to cite from Wikipedia?

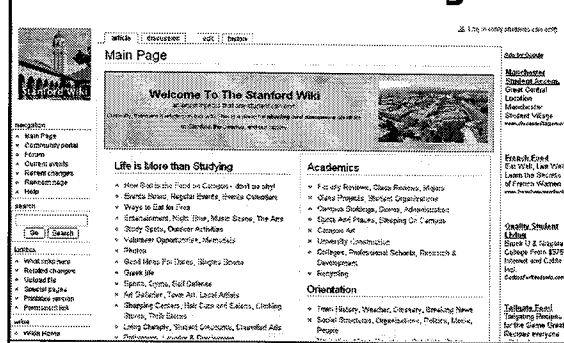
Brandon Hall, Chief Learning Officer Magazine, July 2006

"Wikis can be used to create content on-the-fly, as a repository for information and for archiving group learning. Benefits include speed, simplicity and a sense of ownership among participants."

For Teachers New to Wikis

- Wikis are free, online writing spaces.
- Wikis use simple formatting rules, so no HTML understanding required.
- Highly collaborative composing and creativity
- Authors do not claim ownership
- Published online
- Wikis provide a history and anyone can revisit prior versions of text

How use in teaching



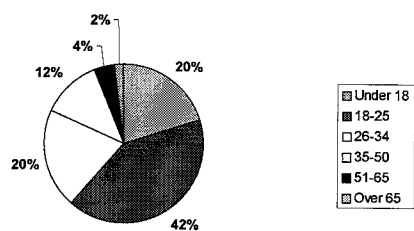
What is a wiki?

- Ward Cunningham, in 1995
- The name, wiki, is based on the Hawaiian term *wiki-wiki*, meaning "quick"
- Also for "What I Know Is"

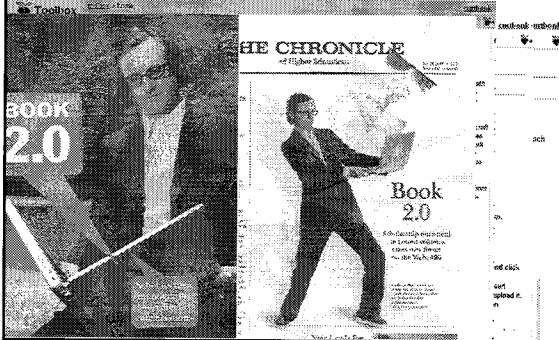


Wikibook Research

Age of Wikibookians



Wikibook Creation and Collaboration



3. Podcasting, Webcasting, and Coursecasting (Adam Curry; www.dailysourcecode.com)

Class-conscious: Teachers v replace - lectures
Teachers want tech to enhance — not replace lectures

By Erin Stewart
Deseret Morning News

Check Wright forgot into the tech-savvy world of the lecture in the online 21st century, he hopes to engage more students. The plan backfires, one-third of Wright's students lost to the excitement of reviewing class notes online, not to class.

"The students thought they were getting away from PowerPoint notes online, but they were missing all that's happening in the classroom," Wright said. "They were thinking they could get by in the class without ever seeing a chemistry professor and assistant pour coffee at the U, found himself taking the technology electronic teaching tools enhance classroom learning, but he's not sure if that's the case."

Now, Wright refuses to put his class notes online, had become just one more excuse for absent-minded students are really busy. They're working full time, but get a little bit of extra time by not wanting to do material, that's absolutely what they're doing," he said.

Podcast Questions

1. Who has listened to a podcast?
2. Who listens to a certain podcast on a regular basis?
3. Who has created a podcast?
4. Who has created a vodcast?
5. Who thinks podcasting is simply more talking heads?

Learning TRENDS by Elliott Masie - September 18, 2006.
#402 - Updates on Learning, Business & Technology.
52,889 Readers - <http://www.masie.com> - The MASIE Center.

Fingertip Knowledge Podcast & Transcript:
One of my focus points these days is Fingertip Knowledge. You and I and most of our colleagues are increasingly using search engines, from Google to Corporate Intranets, to "walk" our way to the information or knowledge that we need.

Podcast (and Transcript) about the implications of Fingertip Knowledge and the Learning Field:
- <http://www.learning2006.com/university/>
(Duration: 20 Minutes)

Webcasts: WorldBridges Goals

What is Worldbridges?

- Worldbridges is a network of individuals and organizations that use live, interactive webcasting and other new media technologies to help people connect, learn, & collaborate. (Webheads, Koreabridge, Worldbridges Tibet, EdTechTalk, etc.)

Goals & Values

- Our primary goal is to foster understanding and cooperation amongst the citizens of the world. We value civility and respect, open source collaboration, fair distribution of income, and a sense of world identity.

Podcasting and Coursecasting (Adam Curry; www.dailysourcecode.com)

"Just the word 'podcast' scares a lot of teachers away," Ms. Schrock said. "There are a lot of misconceptions."

"All you need is a computer, access to the Internet and a microphone that you can buy at Toys 'R' Us," Mr. Warlick said. "I listen to podcasts on my computer." (NY Times, Jan 25, 2006)



Language Learning (ChinesePod—learn Mandarin)

The screenshot shows the ChinesePod website interface. At the top, it says "Learn Mandarin on Your Terms". Below that is a "Podcast Archive" section. A specific podcast entry is highlighted for "Jenny Zhu". The entry includes a title, a date, and a description. The description mentions that the podcast is for intermediate learners and includes audio and video content. There are also navigation links like "Home", "About", "Contact Us", and "Podcast Archive".

Educational Applications

- Recordings of lectures (Coursecasting)
- Supplemental textbook or entire book
- Student projects
- Interviews
- Language lessons
- Oral reports
- K-12 classroom interactions
- Downloadable library of resources
- Recordings of performances



Listen: iTunes, PodcastAlley

The screenshot shows the iTunes application window. The main area displays a list of "Featured Podcasts" under the "Education" category. Each podcast entry includes a cover image, the podcast title, and the publisher's name. The list includes various educational podcasts such as "The History of the World in 100 Episodes" and "The History of the World in 100 Episodes".

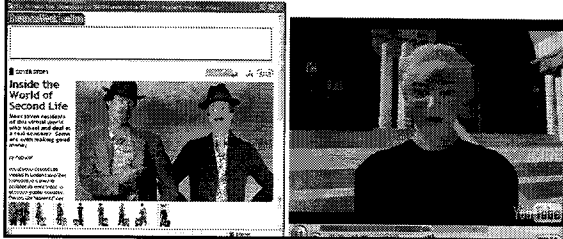
4: Virtual Worlds/Virtual Reality/MMOG

The collage includes several images of virtual worlds and a bar chart. The bar chart shows the percentage of visitors to game websites by age group in September 2004. The data is as follows:

Age Group	Percentage
12-17	10.5%
18-24	13.2%
25-34	17.9%
35-44	20.3%
45-54	19%
55-64	8.4%
65+	3.9%

SOURCE: GameScore Media Lab

Trend 4: Virtual Worlds/Virtual Reality/MMOG
First Course in a Virtual World (Second Life)
Wednesday, August 30, 2006
Harvard Law School (Charles & Rebecca Nesson)
Chronicle of Higher Ed (open to the public)
<http://chronicle.com/daily/2006/08/20060830011.htm>



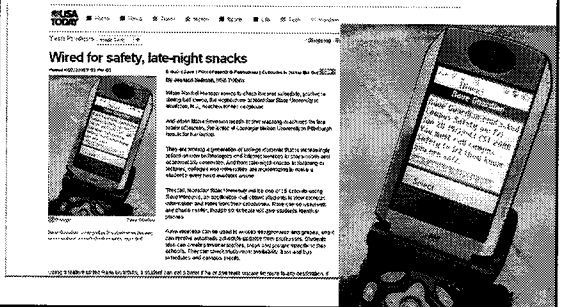
Trend #5: Wireless Technology



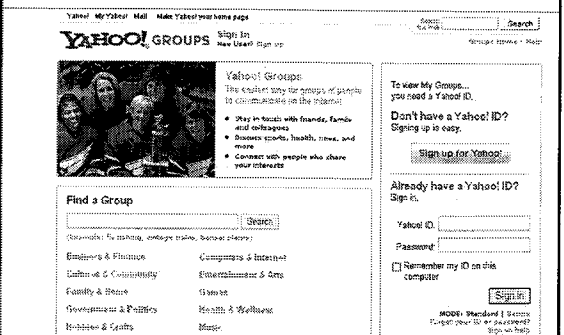
Trend #6: Mobile Technology




All learning in one's own hands?




Trend #7. Collaborative Tools



Trend #8. Open CourseWare Tufts OpenCourseWare Project



IDP200 Pathophysiology of Infectious Diseases, Fall 2004/2005



Faculty:
Susan Hasty
Michael Gaces
Shahrooz Dabestani
Linda Ho
Lara Kigerman
John
Dan
Chen
Mark

Vietnam Fulbright Economics OCW

Chương trình Giảng dạy Kinh tế Fulbright
Hỗ trợ quản lý PEEP 2005-2006








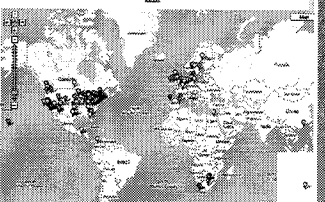





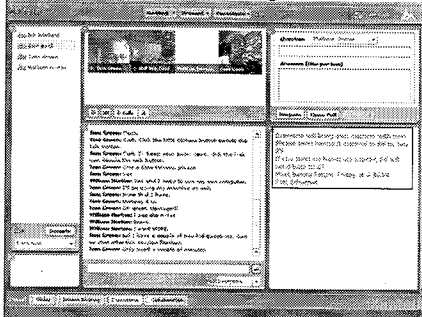




9. OpenSource Courseware Moodle and Sakai Project

Trends #10. Synchronous Conferencing



**Next-Generation Course Management
Systems, Educause Quarterly, Number 1,
2003, Colleen Carmean & Jeremy Haefner**

“A very good thing has grown very large, very quickly, and few faculty are speaking or being heard in the discussions of what an ideal CMS might look like in maturity.”





“Difficult choices lie ahead both for CMS vendors and for institutions of higher learning.”

11. Accessible Technology

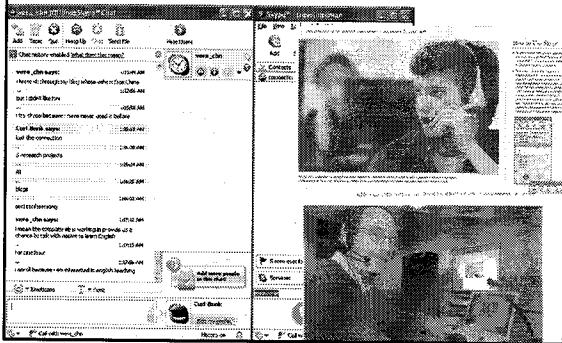
The project aims to build peer-to-peer communications

Negroponce says the new laptop is designed to be kid-friendly

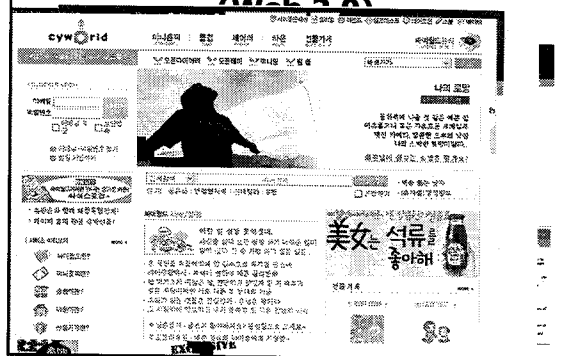
**The CM1: Taking technology to the developing world
A revolution in a laptop
By Greg Norman
Sunday 13 August 2006, 18:49
Makka Time, 15:49 GMT**

12. Skype: Online Phone Calls



13. Social Networking Software

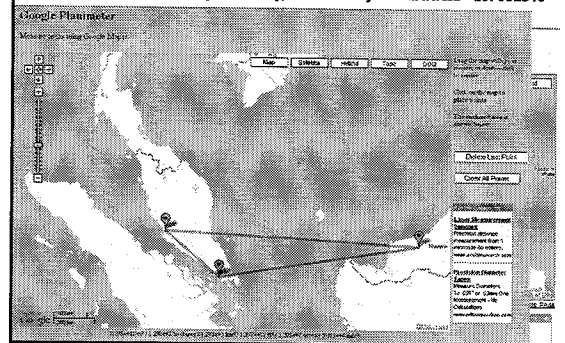


14. Explore Virtual Worlds and Online Representations (UCLAs CVRLab)

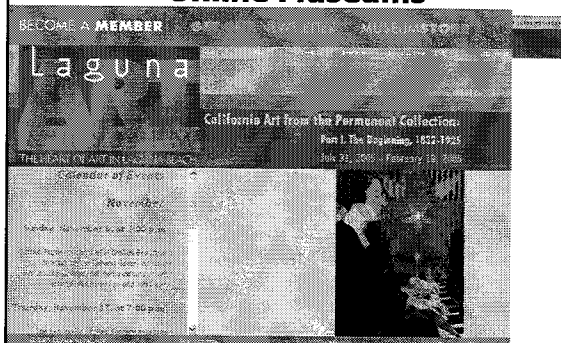


15. Use Google Maps Mashups in K-12 Education

By Jeffrey Branzburg, May 15, 2006
<http://www.techlearning.com/story/showArticle.jhtml?articleID=187002846>



16. Portals: e.g., Museum of Online Museums



17. Learning Object Directors (e.g., Connexions Growth)

>3500 modules (3-5 pages)
 >180 courses (October 2006)
 multiple languages
 engineering, computer science,
 nanotech, physics, statistics, math,
 history, music, bio-diversity, botany,
 bio-info, IP, BRIT, UNESCO, UN, Sigma
 Xi, ...
 from authors worldwide

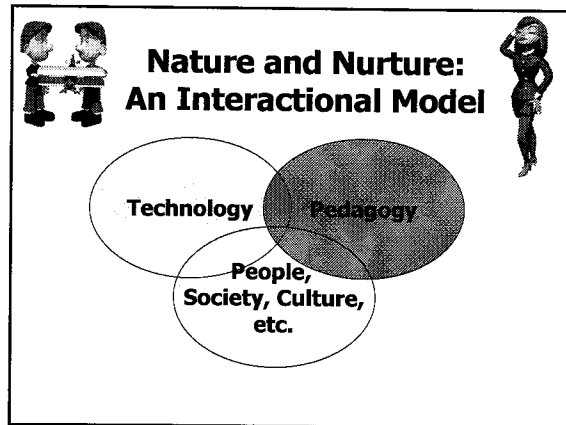
Usage September 2006
 17 million hits
 1.2m page views
 520k unique users
 from 157 countries

Sharing Questions (future)

- How will such learning objects of today be viewed in 100 or 200 years?
- What new technologies will emerge and be used for knowledge sharing?
- Will online sharing become expected of all faculty members around the planet?
- If so, how will that change the face of higher education?
- What collaborations are possible between corporate world and OOPS, OCW, MERLOT, etc.?

What can we say about emerging online technologies then???

- **They is everywhere!!!!!!!**
- **Resistance is futile!!!!!!!**



The End...Remember



It's Over...

Poll: Ok, then, who wants more???

A. Yes
B. No
C. Not sure

The collage includes several images of military aircraft in flight and three large naval ships (battleships or cruisers) at sea. The text "It's Over..." is prominently displayed in the center. Below the text is a poll question and three answer options. There are also small images of people's faces in the bottom corners.

Sorry...it really is the end!!!

BONK!

Your skeletal muscles maximum burn rate is double that of your brain. Think about it.

Boring & Learning

Experience. The difference.

Time for a BL Competition???

The Handbook of Blended Learning
Global Perspectives
Local Designs
Christy J. Stone
Charles R. Graham

Blended learning is one of the most significant developments in education in the past decade. This book is the most comprehensive assessment of the field ever published.

Available December 2015

The Handbook of Blended Learning is a critical resource for anyone interested in the design and implementation of blended learning environments. The book explores the theory, practice, and research of blended learning and provides a comprehensive overview of the field. The Handbook of Blended Learning is a critical resource for anyone interested in the design and implementation of blended learning environments.

Sample HOBLE chapters at:
<http://www.publicationshare.com/>

Archived talks at:
<http://www.trainingshare.com/>