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

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

generations about Generations—Categorizations vs. Stereotypes

<table>
<thead>
<tr>
<th>Generational Group</th>
<th>Born</th>
<th>Age</th>
<th>Stereotype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silent Generation</td>
<td>1929 - 1942</td>
<td>61 - 78</td>
<td>Adaptive</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>1943 - 1960</td>
<td>45 - 60</td>
<td>Idealists</td>
</tr>
<tr>
<td>Thirteen (Gen. X)</td>
<td>1961 - 1981</td>
<td>22 - 42</td>
<td>Reactive</td>
</tr>
<tr>
<td>Millennial (Gen. Y)</td>
<td>1982 - ?</td>
<td>13 - 21</td>
<td>Civic</td>
</tr>
</tbody>
</table>

N. Boyce Appel, April 1, 2005, Practice Management Digest
Next Generation of Students

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

Effects of interactive multimedia in distance learning

USA Today, October 3, 2006
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 social 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

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)

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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
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,
(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.
The Ten Forces that Flattened the Learning World

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, CAnotes, Jurong)
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?

Technologies of the 1980s

Technologies of the 1980s
Technologies of the late 1990s: Course Management Systems

Effects of interactive multimedia in distance learning

"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 the 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

Who is demanding fully online and blended learning?

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

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?

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 chart]

Wikibook Creation and Collaboration

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

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.

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:
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)

Educational Applications
1. Recordings of lectures (Coursecasting)
2. Supplemental textbook or entire book
3. Student projects
4. Interviews
5. Language lessons
6. Oral reports
7. K-12 classroom interactions
8. Downloadable library of resources
9. Recordings of performances

Listen: iTunes, PodcastAlley

4: Virtual Worlds/Virtual Reality/MMOG
Trend #8. Open CourseWare
Tufts OpenCourseWare Project

Vietnam Fulbright Economics OCW
Change from GNP to GDP in Vietnam

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

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

The G8: Taking technology to the developing world
A revolution in a laptop
By Greg Manman
Sunday 13 August 2006, 18:49
Askla Time, 15:49 GMT

OLPC aims to turn the tide of urban poverty
12. Skype: Online Phone Calls

13. Social Networking Software (Web 2.0)

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

15. Use Google Maps Mashups in K-12 Education
   By Jeffrey Bransburg, May 15, 2006
   http://www.techlearning.com/story/showArticle.html?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!!!!!!!

Nature and Nurture: An Interactional Model

Technology  Pedagogy

People, Society, Culture, etc.

The End...Remember

It’s Over...

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

A. Yes
B. No
C. Not sure
Sorry...it really is the end!!!

Time for a BL Competition???

Sample HOBlE chapters at:
http://www.publicationshare.com/

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