Frameworks for Blended Learning at the Edges of Technology-Enhanced Training: R2D2, TEC-VARIETY, and Extreme Learning

Curtis J. Bonk, Professor, Indiana University
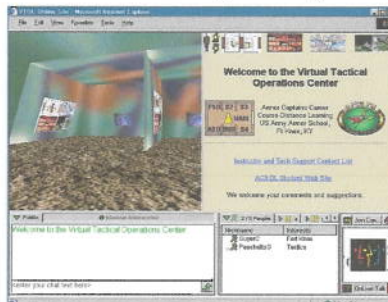cjbonk@indiana.edu
http://mypage.iu.edu/~cjbonk/
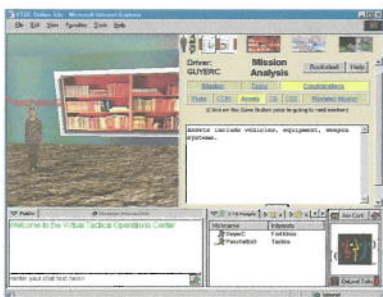
CAUTION
THIS SIGN HAS
SHARP EDGES
DO NOT TOUCH THE EDGES OF THIS SIGN

Reflection Back 10 Years

2001: a space odyssey

2001 a space odyssey

Blended Learning in the Army
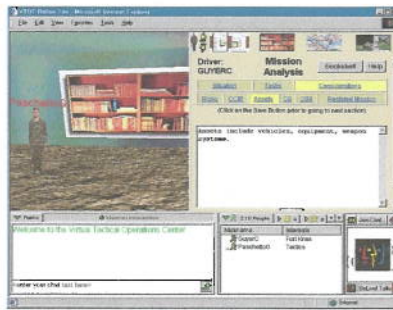
e-Learning that works.

ARMY

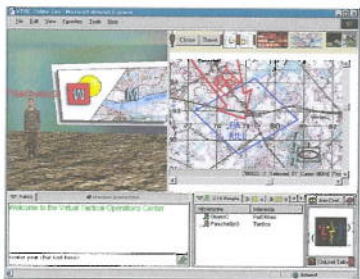## Virtual Tactical Operations Center (VTOC)

Collaborative Online Writing: Peer-to-Peer Document Collaboration

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Document Sharing in the VTOC

Maps in the VTOC

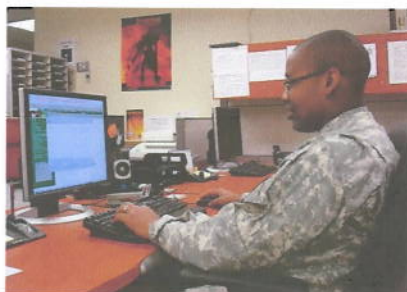

Ten Years Later...

this IS my happy face
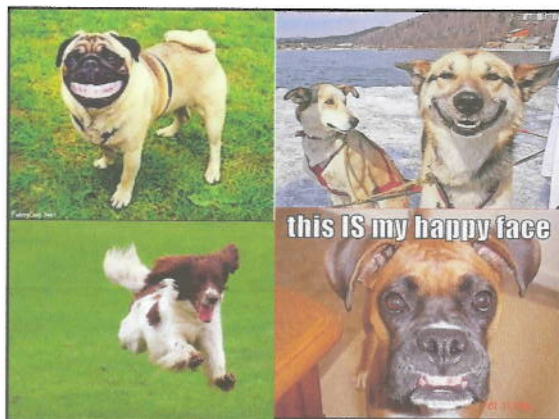
Dog Gets MBA,
The Chronicle of Higher Ed, Unmuzzling Diploma Mills: Dog Earns M.B.A. Online, Marc Parry

Unmuzzling Diploma Mills: Dog Earns M.B.A. Online
By Marc Parry

Many in the Army are Smiling!
Soldiers gain education and promotion points through Skillsoft

June 2010
Clay Shirky, NYU: How cognitive surplus will change the world, TED
http://www.ted.com/talks/clay_shirky_how_cognitive_surplus_will_change_the_world.html

September 5, 2010
Open Source goes to High School (Utah)
http://www.youtube.com/watch?v=sovve-j3xGk

September 2011
Meta-Analysis Update: Blended and Fully Online Still Best!

Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies

Prepared by
Barbara Means
Yukie Toyama
Robert Murphy
Marianne Bakia
Karla Jones
Center for Technology in Learning

U.S. Department of Education
Office of Planning, Evaluation, and Policy Development
Policy and Program Studies Service

October 31, 2010
Online Learning: By the Numbers, Chronicle of Higher Education

October 31, 2010
Online Education vs. Traditional Learning: Time to End the Family Feud
Mark David Milliron, Chronicle of Higher Education

BILL & MELINDA GATES foundation

December 15, 2010
Mark Zuckerberg, Time Magazine, Person of the Year

February 16, 2011
How Bill Gates' Favorite Teacher Wants to Disrupt Education, *Gregory Ferenstein*, Fast Company

February 16, 2011
Bill Clinton in Surprise Talk on Tech: It's the Institutions, Stupid, David Zax, Fast Company

March 3, 2011
Bill Gates Promotes Professor's Online Course at TED, Chronicle of HE, Jeff Young,
The History of Everything
http://www.bighistoryproject.com/

March 13, 2011
Online Public University Plans to Turn Indiana Dropouts Into Graduates, Chronicle of HE, Eric Kelderman

Mr. Desormeaux, whose children, too, have homework, shares a mentor in the Western Governors U. Indiana program with 79 other students, each of whom receives a weekly call to discuss his or her progress in the online program.

March 16, 2011
California student from Japan finds family alive on YouTube

But I am not Content!!!

4

Shovelware

May 24, 2010
Author Nicholas Carr, The Web Shatters Focus, Rewires Brains, Wired
http://www.wired.com/magazine/2010/05/ff_nicholas_carr/

July 25, 2010
Professors' Use of Technology in Teaching,
Jeffrey Young, Chronicle of Higher Education

August 9, 2010
Bill Gates Predicts Technology Will Make 'Place-Based' Colleges Less Important in 5 Years, By Jeff Young, Chronicle of HE

September 15, 2010
Study: Online learning might be less effective for some, eSchool News, Dennis Carter

Classroom students scored 84.5 percent on the first exam in the economics course, and online students scored 83.3 percent.

December 30, 2010
The year we stopped talking
Sharon Jayson, USA Today
http://www.usatoday.com/printedition/news/20101230/1ayear30_cv.art.htm

January 23, 2011
As the Web Goes Mobile, Colleges Fail to Keep Up, Chronicle of Higher Ed, Josh Keller
http://chronicle.com/article/Colleges-Search-for-Their/126016/

Percentage of Students Who Use Mobile Devices Daily to Access the Internet

"I used it to sign up for classes. I used it to check e-mails," says Laura Patterson, a junior at Nevada State College, about her iPhone. "I used it all the time, for everything." More than 40 percent of all college students, like Nevada State's Laura Patterson, used mobile devices to get on the Internet every day last year, compared with 10 percent in 2008.

February 17, 2011
US internet access still a problem: Gov't says up to 10 pct in US lack good Internet, Joelle Tesslar, AP Technology Writer

US internet access still a problem

Gov't says up to 10 pct in US lack good Internet

February 27, 2011
Actually Going to Class, for a Specific Course? How 20th-Century. New learning technologies prompt a rethinking of traditional course structure, Chronicle of HE, Jeffrey R. Young

THE CHRONICLE of Higher Education

"There's not really much need for teachers anymore," since so much material is online, says Dekunle Somade, a senior at the U. of Maryland at College Park.

10 Blended Models

Blended Model #1. Face-to-Face Primary
(online is for remediation of supplement)

Blended Model #2. Rotation
(students alternate FTF and Oline instruction)

North Pole

South Pole

Blended Model #3. Flex
(curriculum primarily online with instructors available FTF)

Blended Model #4. Online Lab
(lab or field experience component of course is online)

Blended Model #5. Self-Blend
(students decide on which courses they take online or which portion of the course is online)

Blended Model #6. Online Driver
(courses primarily online and physical facilities used to supplement or as needed)

Blended Model #7. Bookend
(first and last part of the course is online and middle portion is online; AMA Special Report, Blended Learning Opportunities Alison Rossett (2006))

Blended Model #8. Anchor
(start with FTF or what students are familiar with and then move to online)

Blended Model #9. Field (combine FTF and online as needed...mix and match)

Table 1. What Might Go in the Blend

Adapted from (Rossett, Douglas, & Frazee, 2003, July)

Blended Model #10. Degrees of Humanness (rely on computer-based feedback and interaction at first and switch to human feedback later on)

Recent Reports on Blended

http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA495731

THE HANDBOOK OF BLENDED LEARNING

GLOBAL PERSPECTIVES LOCAL DESIGNS

CURTIS J. BONK | CHARLES R. GRAHAM

U.S. Army Research Institute for the Behavioral and Social Sciences

Recent Reports on Blended

http://www.projectred.org/uploads/The-Rise-of-K-12-Blended-Learning.pdf

THE RISE OF K–12 BLENDED LEARNING

99 Second Break for questions or reflections on models...

99

Nature AND Nurture: Technology

Technology

Pedagogy

People, Society, Culture, etc.

But new technologies hit us now everyday!

September 15, 2010
Timeline of Technology for Teaching, NY Times
http://www.nytimes.com/interactive/2010/09/19/magazine/classroom-technology.html?ref=magazine

Technology of the 1980s

Radio Shack TRS-80 Model III

Introduced:	July 1980
Price:	US $699 base model
	US $2495 w/ 32K, dual drives.
CPU:	Zilog Z-80, 2.03 MHz
RAM:	4K, 48K max.
Ports:	Cassette tape, expansion, serial
Display:	12-inch B/W monitor: 64 X 16 text
Storage:	0, 1, or 2 internal 178K floppy drives
	External cassette @ 500 / 1500 baud
OS:	BASIC in ROM, TRS-DOS on disk

Things That Became Obsolete This Decade
December 11, 2009, Silicon Alley Insider

Gadgets that Changed Everything This Decade
December 9, 2009, Jay Yarow, Silicon Alley Insider

16 Learning Technology Trends

1. Inexpensive Laptops and Netbooks

2. Online Language Learning
January 27, 2010 and Feb 5, 2010: The Web Way to Learn a Language, NY Times, ERIC A. TAUB (e.g., EnglishCentral, iTalki, Palabea, Babbel)

3. Tablet Computers Hit (iPad)
April 10, 2010: Seton Hill Univ, 2,100 students an iPad and freshmen a 13-inch MacBook laptop
Feb 1, 2011: An Android Tablet Made Just for School, David Zax, Fast Company

Samsung: Galaxy Tab has leg up on Apple iPad, By Stephen Shankland, CNET, September 3, 2010

Feb 8, 2011: CNN HP unveils TouchPad tablet, two phones, Mark Milian, CNN,
Feb 15, 2011: Widescreen tablets are coming soon, Mark Milian, CNN

4. Mobile (e.g., iPad) News
August 10, 2010: Flipboard pretties up social-media updates Facebook statuses and tweets feed into magazinelike format in free app for iPad; Jefferson Graham, USA TODAY

February 1, 2011: A peek at The Daily's iPad news app ($40/year); CNN Tech, Mark Milian

5. Pocket Dictionaries
September 9, 2010: Campus Tech in China: Impressions From 3 Campuses, Jeff Young
http://chronicle.com/blogPost/Campus-Tech-in-China-/26817/

I didn't see any laptops in use here, though the three Korean exchange students I sat with proudly produced their favorite educational gadgets: portable electronic dictionaries that can hunt down words in Chinese, Korean, English, and Japanese. Language learning has the best use of technology here, according to some professors I've talked to this week, and electronic stores sell what seems like hundreds of varieties of digital dictionaries.

6. Digital Textbook Projects (Korea),
Sept. 21, 2010: What South Korean Schoolchildren Can Teach Colleges About E-Textbooks; By Jeff Young, Chronicle of HE. Korea E-Learning Week, Coex, Seoul, Sept. 16-17, 2010

7. Mobile Music
December 10, 2010: Virtual Bands, Choirs, Singers, etc.
iBand Rocks Tunes on iPads and iPhones; PadGagget.

8. Video Calling/Conferencing/Webcaming
December 20, 2010: Skype for iPhone adds two-way video calling, CNet Reviews

9. Social Networking Gaming
December 24, 2010: *CityVille* 16.8 million daily users, *FarmVille's* 16.4 million. *CityVille* 61.7 million monthly users, *FarmVille* 56.8 million users. Mashable.

"CityVille" Is Now Bigger than "FarmVille"

10. E-Book Readers
January 28, 2011: Amazon: Kindle Books Finally Eclipse Paperbacks, Doug Aamoth
http://www.usatoday.com/life/books/news/2011-01-05-1Aebooksales05_ST_N.htm

Whether a surge in e-book sales can be sustained and what effect it could have on traditional bookstores remains to be seen.

March 2, 2011: Why Amazon would be smart to give away the Kindle, March 4, 2011, CNN Tech, Amy Gahran
http://articles.cnn.com/2011-03-04/tech/amazon.free.kindle_1_barnes-noble-nook-e-reader-e-book-market?_s=PM:TECH

12. New Interfaces
Febuary 18, 2011: Telekinesis 2.0, David Zax, Fast Company

13. Artificially Intelligent Computers
February 18, 2011: Watson dominated at 'Jeopardy!' — but what else can it do? As IBM seeks new uses, man still has edge over machine, Dan Fergano, USA Today.

14. Group Video Chat, February 28, 2011:
SocialEyes delivers group video chat , USA Today, Feb 28, 2011, Jon Swartz, http://www.socialeyes.com/

15. iPad 2, March 2, 2011: Steve Jobs' surprise appearance a 'big deal', CNN Tec, Mark Milian, March 2, 2011,
http://www.cnn.com/2011/TECH/gaming.gadgets/03/02/steve.jobs.ipad2/index.html?iref=NS1

16. Mobile Expert Tutors, April 7, 2011:
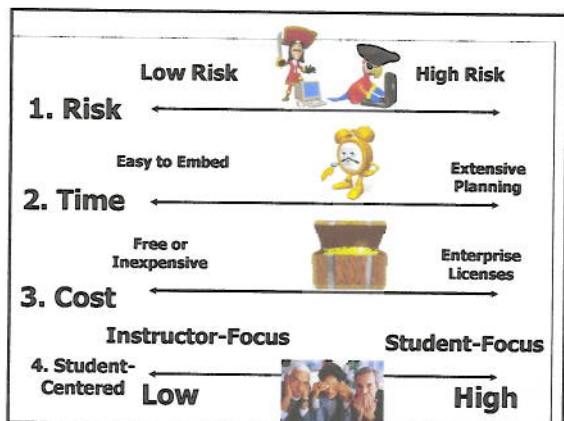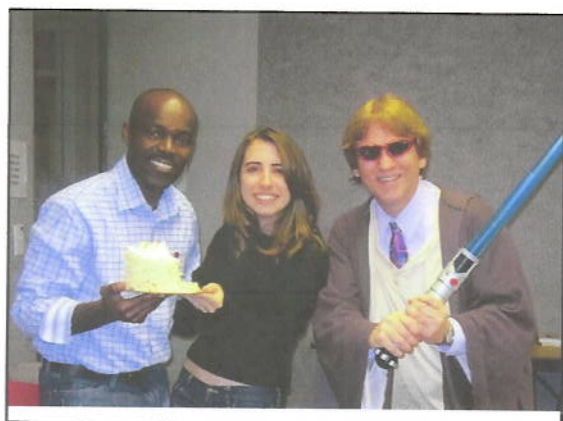Tutor.com Releases First Ed App that Connects Students to an Expert Tutor

Nature AND Nurture: Pedagogy

Slide 1:

1. Risk — Low Risk ↔ High Risk
2. Time — Easy to Embed ↔ Extensive Planning
3. Cost — Free or Inexpensive ↔ Enterprise Licenses
4. Student-Centered — Instructor-Focus ↔ Student-Focus; Low ↔ High

Slide 2:

Magic #2: The R2D2 Model

Curtis J. Bonk | Ke Zhang

Empowering Online Learning

100+ Activities for Reading, Reflecting, Displaying & Doing

Slide 3:

Slide 4: The R2D2 Method

1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

Slide 5: 1. Auditory or Verbal Learners

- Auditory and verbal learners prefer words, spoken or written explanations.

Slide 6: Poll: Podcast Questions

a. Who has listened to a podcast?
b. Who listens to a certain podcast on a regular basis?
c. Who has created a podcast?
d. Who has created a vodcast?
e. Who thinks podcasting is simply more talking heads?

PODCASTING
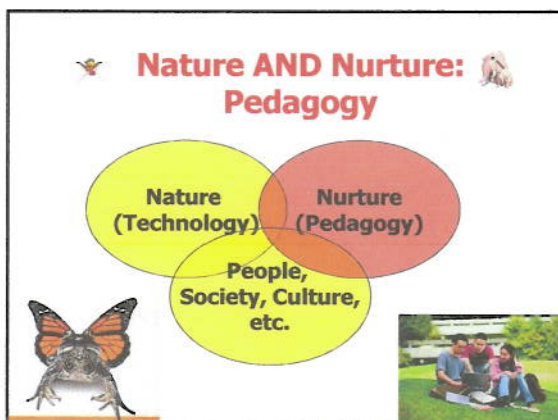
Read 1a. Listen to Podcast Shows

Read 1b. Online Article Portals and Databases

http://r685articledatabase.weebly.com/
http://ella.slis.indiana.edu/~bahalloc/r685/
http://php.indiana.edu/~cjbonk/Syllabus_R685_Spring_of_2011.htm

Read 1c. Wikibook or Wikipedia Editing or Critiques

- Ask students to critique a wikibook or page from Wikipedia

2. Reflective and Observational Learners

- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives

Blogging Questions

1. Who has a blog?
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?

Reflect 2a. Blogging Reflections

Reflect 2b. Critical Friend Blog Postings (Kristen and Susan)

Reflect 2c. Scenario Learning
(Option 6, Bloomington, IN)

Reflect 2d. Workplace and Field Reflections...MM

Mission Assistance in the Workplace
Action learning to enhance performance

Efforts	FY09	FY10
Consulting	176	215
RDT	94	8
Targeted Training	307	363
Total	577	586

Reflect 2e. Free OpenCourseWare of Open Educational Resources (e.g., watch or Listen to Online Courses or Programs on Disaster Preparedness and other areas)

Reflect 2f. Videos on Book Websites (e.g., Brain Rules, John Medina)

3. Visual Learners

- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.

Display 3a. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Gliffy, Mindmeister, or Mindomo)

Display 3b. Visual presentations (e.g., Prezi)
http://prezi.com/ihmhhl59xd46/is-the-world-open/
http://prezi.com/8h7grxlyaymv/the-world-is-open/

Display 3c. World Trends and Indices (e.g. Worldmapper)

Display 3d. Download and Use Online 3D Sketches (Google SketchUp; download http://sketchup.google.com/3dwarehouse)

Display 3e. Videos for clinical education (Sungkyunkwan University School of Medicine, www.mededu.or.kr)

환자의 일쪽에서, 왼손으로 환자의 오른쪽 갑상샘을 반대편으로 밀고.

Display 3f. Anchored Instruction (find anchoring event (YouTube, CNN, BBC, TeacherTube, CurrentTV)

Display 3g. Radical Cartography
http://www.radicalcartography.net/index.html?chicagodots

Boston City Limits
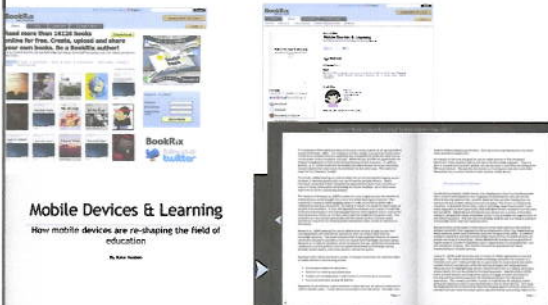annexations and landfill, 1804–1912

4. Tactile/Kinesthetic Learners

- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.

Do 4a. Podcast Productions and Shows

Do 4b. Simulations and Animations
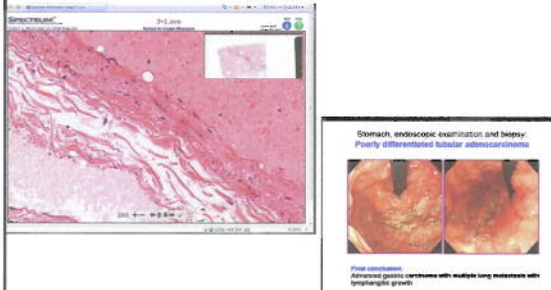
Do 4c. Virtual Worlds

Do 4d. Uploading Mobile Books
(e.g., BookRix, http://www.bookrix.com/

Mobile Devices & Learning

How mobile devices are re-shaping the field of education

Do 4e. Virtual Microscopes (Sungkyunkwan University School of Medicine, www.mededu.or.kr)

Stomach, endoscopic examination and biopsy:
Poorly differentiated tubular adenocarcinoma

Final conclusion:
Advanced gastric carcinoma with multiple lung metastases with lymphangitic growth

Do 4f. Virtual Quizzes
(www.mededu.or.kr)

Do 4g. Create Blogs (e.g., Dr. Kim Foreman, San Fran State University, Come and See Africa Blog; http://comeandseeafrica.blogspot.com/)

Come and See Africa (CASA)

Poll #1: How many ideas did you get from this part of the talk?

a. None—you are an idiot.
b. 1 (and it is a lonely #).
c. 2 (it can be as bad as one).
d. 3-5
e. 6-10
f. Higher than I can count!

99 Seconds Stop and Share:
Top Three Things you can use!

We are not motivating students with the technologies that they love!

May 9, 2011, USA Today

Intrinsic Motivation

"...innate propensity to engage one's interests and exercise one's capabilities, and, in doing so, to seek out and master optimal challenges

(i.e., it emerges from needs, inner strivings, and personal curiosity for growth)

See: Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. NY: Plenum Press.

Ok, Million Dollar Question: How do you motivate online learners? What Words come to mind?

Motivation Research Highlights
(Jere Brophy, Michigan State University)

1. Supportive, appropriate challenge, meaningful, moderation/optimal.
2. Teach goal setting and self-reinforcement.
3. Offer rewards for good/improved performance.
4. Novelty, variety, choice, adaptable to interests.
5. Game-like, fun, fantasy, curiosity, suspense, active.
6. Higher levels, divergence, dissonance, peer interaction.
7. Allow to create finished products.
8. Provide immediate feedback, advance organizers.
9. Show intensity, enthusiasm, interest, minimize anxiety.
10. Make content personal, concrete, familiar.

I even reflected on this for a moment...and then something magical happened...

Magic #1: TEC-VARIETY Model for Online Motivation and Retention

1. **T**one/Climate: Psych Safety, Comfort, Belonging
2. **E**ncouragement, Feedback: Responsive, Supports
3. **C**uriosity: Fun, Fantasy, Control
   ...
4. **V**ariety: Novelty, Intrigue, Unknowns
5. **A**utonomy: Choice: Flexibility, Opportunities
6. **R**elevance: Meaningful, Authentic, Interesting
7. **I**nteractive: Collaborative, Team-Based, Community
8. **E**ngagement: Effort, Involvement, Excitement
9. **T**ension: Challenge, Dissonance, Controversy
10. **Y**ields Products: Goal Driven, Products, Success, Ownership

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1. Tone/Climate: A. Video Course Intros
(examples from Northern Virginia Community College and Indiana University KD (online MBA) program)
Yun Yun Chow, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0
http://www.youtube.com/watch?v=BO9rqJD1GXo

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2. Encouragement, Feedback, etc.:
A. Online Self-Testing (e.g., self study in accounting, vocabulary, anatomy, chemistry, dissection, etc.)

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3. Curiosity, Fun:
A. Online News
(Giant jellyfish, Tiny T. rex, and Ardi)

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3. Curiosity, Fun:
B. Online Games

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3. Curiosity:
C. March 11, 2011, Tsunami hits Japan
http://www.cnn.com/video/?/video/world/2011/03/11/nat.nhk.japan.sendai.tsunami.nhk&iref=NS1

4. Variety, Novelty:
A. Cool Resource Provider or Tech Demos

---

5. Autonomy, Choice:
A. Online Cases (e.g., Mark Braun, IU)

---

6. Relevance, Meaningfulness:
A. Tour an Online Oil Drilling Site or Role Play Situations (i.e., BP)
http://www.youtube.com/watch?v=ts45BkAnqTs

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6. Relevance, Meaningfulness:
B. Business Wikis

### Quote from 7 Effective Wiki Uses and the Companies that Benefit from Them

- **SAP:** On the **SAP Developer Network Wiki** the, "main criteria for choosing to put content in the wiki is its volatility and dynamics, extendability and/or collaborative character. Ask yourself the question, if you want others to be able to change, extend, regroup, add, etc. your contribution." That's an excellent question to ask, especially for content that's going on a public wiki.

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6. Relevance, Meaningfulness:
C. Internal Wikis for Knowledge Management (e.g., Intelpedia)

Per Josh Bancroft, Intel engineer and the creator of Intelpedia at Intel: "Imagine that you could have all the features and functionality that Wikipedia has on your own internal wiki."
'In the four-plus years that Intelpedia has been up and running, I have had exactly zero reported instances of an unwanted edit — of some-one spam-ming or vandalizing or doing something inappropriate.' JD Lasica, July 8, 2010 interview with Josh,
http://www.socialmedia.biz/tag/intelpedia/

7. Interactive, Collaborative:
A. Collaborative Documents (Google Docs)
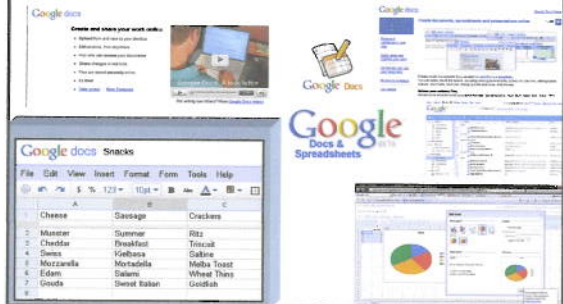
8. Engagement, Effort:
A. Flash, 3-D Visualization, & Laboratory Software

8. Engagement, Effort:
B. Cross-Institutional Wikibook Project (e.g., IU and the University of Houston)

9. Tension, Challenge, etc.:
A. Ethical Debates

10. Yields Products, Goals:
A.   Photo Festivals and Competitions
(e.g., COFA at UNSW, Scrapblog, flickr, etc.)
http://www.youtube.com/watch?v=im7GQM9fzhc

10. Yields Products, Goals:
B. Create Own Channel in YouTube (e.g., my channel "TravelinEdMan")
http://www.youtube.com/user/TravelinEdMan

10. Yields Products, Goals: C. Employee Film Competitions (Deloitte Film Festival)
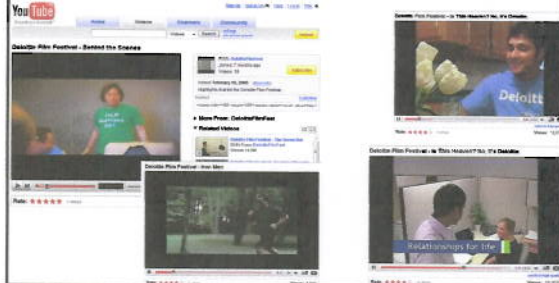
All: http://www.youtube.com/user/DeloitteFilmFest
Is This Heaven: http://www.youtube.com/user/DeloitteFilmFest#p/u/14/k4Wn_h5ce7c
Dude Where's My Proposal: http://www.youtube.com/user/DeloitteFilmFest#p/u/4/eH1Bu7G5Hrs
Behind the Scenes: http://www.youtube.com/user/DeloitteFilmFest#p/u/0/Wfx6-5aDaUE
The Green Dot: http://www.youtube.com/watch?v=id0uHBuhXtY
Kid Fakes Job Interview http://www.youtube.com/watch?v=b9ghb6-l7Fs&feature=related

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TEC-VARIETY Model for Online Motivation and Retention

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products

Poll #2: How many ideas did you get so far?

1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
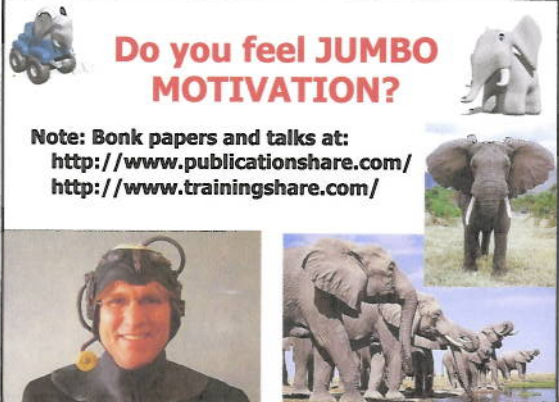5. 4-5.
6. 5-10.
7. More than 10.

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99 seconds: What have you learned so far?

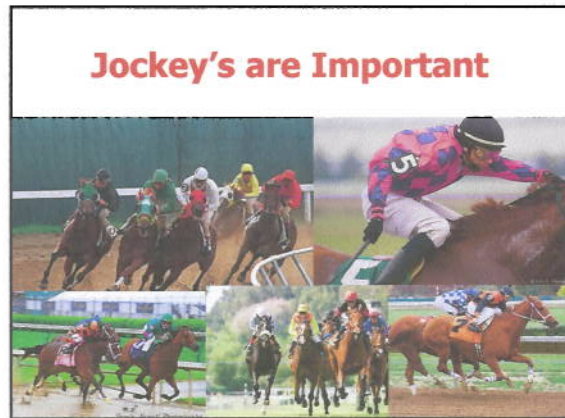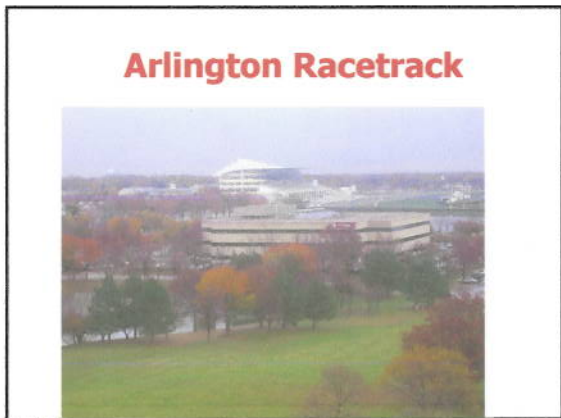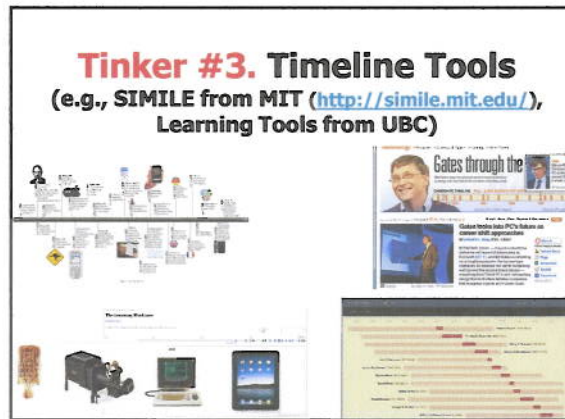- Solid and Fuzzy in groups of two to four

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Do you feel JUMBO MOTIVATION?

Note: Bonk papers and talks at:
http://www.publicationshare.com/
http://www.trainingshare.com/

Tinkering, Tottering, or Totally Extreme?

Tinkering

Tinker #1. Reading from Open Access Journals (e.g., PLOS)

Tinker #2. Webcast Lectures
(Tegrity, Echo360, Mediasite, etc.)

Tinker #3. Timeline Tools
(e.g., SIMILE from MIT (http://simile.mit.edu/),
Learning Tools from UBC)

Arlington Racetrack

Jockey's are Important
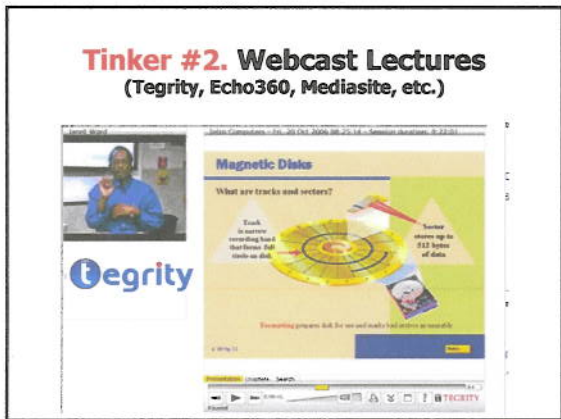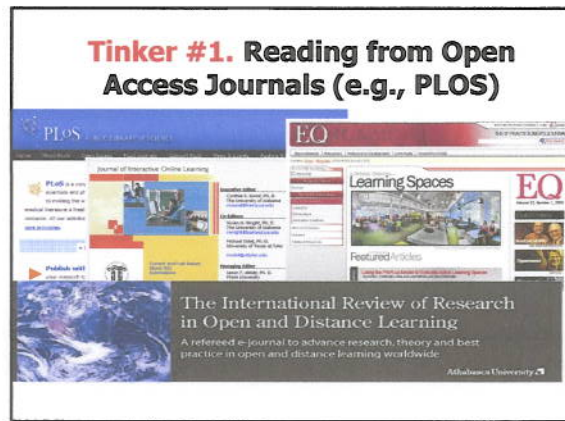
Tinker #4. Online Literature Search
(Class Google Jockeys)
(links to text, soundtracks, video clips, etc.)

Tinker #5. Video Animations and
Self-Testings

Tinker #6. Anchored Instruction
with Shared Online Video

Tinker #7. Pubcasts.
(videos of authors of scientific papers
and science; e.g., SciVee)

Tinker #8. Collaborative Groups
(Google Docs, Ning, Google Groups, MSN Groups,
Yahoo Groups)

Tinker #9. Track Life of a Scientist or
Famous People (e.g., Brian J Ford,
independent scientist)
http://www.youtube.com/user/tellymonitor#p/a/u/1/LhGeApsKjasr

Tinker #10. Online Portals of Rich Data
United Nations Opens World Digital Library, Turning the Pages from the British Library, etc. (history, culture, literature, writing, art, etc.)
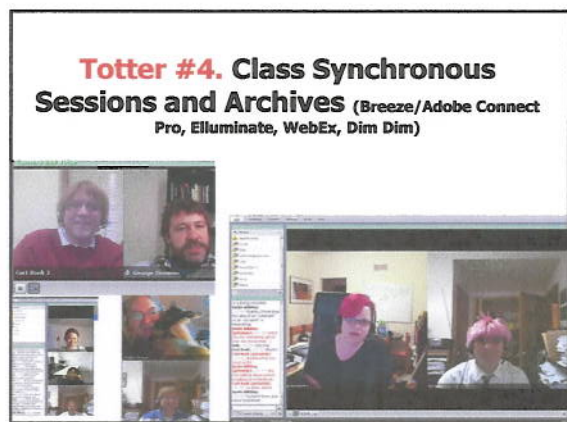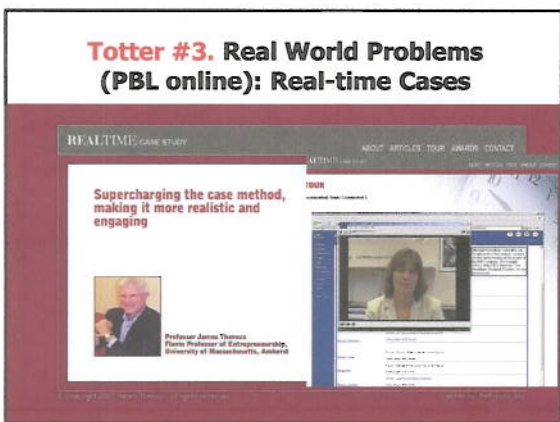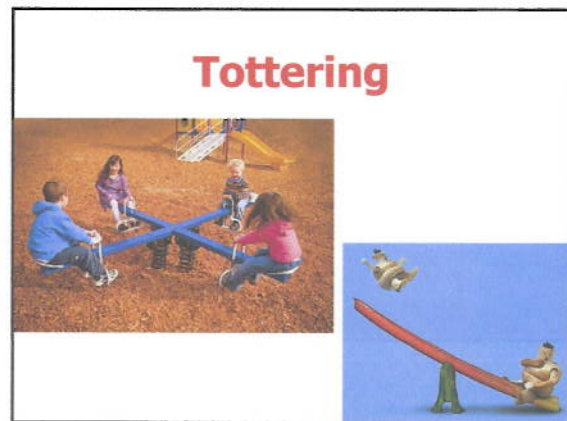

Tinker #11. Online Experiments
(e.g., psychology)

Tinker #12. Educational Simulations

Tinker #13. Online Role Play
(e.g., Tulane University, Exercise for Renewable Energy, Freeman Sch. of Business, roles include power traders and utility dispatchers, etc.)

Tinker #14. Podcast Reflections

Tinker #15. Expert and Domain Specific Blog Reflections
(English, Health, Business, etc. blogs)

Tinkering

Tottering

Totter #1. Bridges to World of Expert and Practitioners
(e.g., Watch or Listen to Online Conferences, Expert interviews, blogs, chats, etc.)

Totter #2. Famous Expert Via TED
(shared online video), Fast Company, *Anya Kamenetz*, September 1, 2010

Totter #3. Real World Problems
(PBL online): Real-time Cases

Totter #4. Class Synchronous Sessions and Archives (Breeze/Adobe Connect Pro, Elluminate, WebEx, Dim Dim)

Totter #5. Global Class Videoconferencing

Totter #6. Videoconferencing in Remote Lands

(e.g., The seminar was structured on a series of videoconferences and virtual classes on e-learning platform, organized by the Major of the Health and Veterinary Corps of Italian Army Lorenzo TIDU, Veterinary of the Task Force South of the Regional Command West, which is strongly involved in the specific field in favor of populations of the villages in the province of Farah.)

Totter #7. Combining Asynchronous and Synchronous Events

Totter #7b. Asynchronous and Synchronous Events
(e.g., William and Mary, March 3, 2011)

Totter #8. Online Language Learning and Conversations
(e.g., PalTalk, iTalki, Palabea, Babbel)

Totter #9. Course Announcements
(e.g., Teaching with Twitter; Course announcements and following people (e.g., microblogging)

Totter #10. Wikibooks, Wikipedia editing, wiki syllabi, wiki glossaries
(Ron Owston, York University, Toronto)

Totter #11. Student YouTube Products
http://www.youtube.com/watch?v=xiwSIryPzsQ
http://www.youtube.com/watch?v=x3FJyi4Pn_E
http://www.youtube.com/watch?v=eD1awpaSuP0
http://www.youtube.com/watch?v=BP7BjONKycY&feature=player_profilepage

Totter #12. Podcast Productions and Virtual Performances for students of pronunciation class
(e.g., Tzu-Su Chen, Taiwan)

Totter #13. Video Blogging

Totter #14. YouTube as Class

Totter #15. Collect Student Data for Shared Online Videos (e.g., Michael Wesch, Kansas State)

Totally Extreme Learning

Totally Extreme #1. Live Science
(Nautilus Live allows people to watch expeditions live & listen to scientists in control rooms a discoveries made)

Totally Extreme #2. Immediate Science
Ida (a transitional species) *47-Million-Year-Old Fossil the Missing Link?* (May 20, 2009)

Totally Extreme #3. Armchair Archeology
UCLA Summer Digs Program

Totally Extreme #4. Google Earth Archeology (David Thomas, Archeologist, La Trobe University, Australia)

Totally Extreme #5. Adventure Learning, GeoThentic, Earthducation, Polar Husky, GoNorth (Aaron Doering, Univ of Minnesota), Impossible to Possible, Ray Zahab

What lies beyond effectiveness and efficiency? Adventure learning design (Doering & Veletsianos, 2008)

Totally Extreme #6. Learning on the Sea. (May 2010, Jessica Watson became the youngest person ever to sail solo, non-stop and unassisted around the world.)

Abby Sunderland's blog

Totally Extreme #7. The LAST OCEAN Website and The Last Ocean Project http://www.lastocean.com/ and http://lastocean-project.org/; Cassandra Brooks

Totally Extreme #8. Adventure Learning (cars and bikes) Dan Grec and Mark Beaumont

Totally Extreme #9. South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN, January 14, 2011 http://www.cnn.com/2011/LIVING/01/13/cnnheroes.stokes/index.html?hpt=T2

Totally Extreme #10. On-Demand Multi-Participant Synchronous Conferencing

Totally Extreme #11. International and Global Education and Competitions
(e.g., Global Game Jams, online role play, Global Videoconferencing)

Global Game Jam

Totally Extreme #12. Learn Anytime, Always On/Mobile. Will Technology Kill the Academic Calendar? Online, semesters give way to students who set their own schedules, Marc Parry, Chronicle of Higher Ed, October 10, 2010

Robert Johnson, who championed the open-format Learn Anytime program at a two-year college in Louisville, Ky. checks students' e-mail while waiting for a flight. "Everything I need to do today, I can do on my phone," says Robert Johnson…He often grades papers and communicates with students from a cafe near his home.

Totally Extreme #13. Pocket School and Videoconferencing in Developing World
(Paul Kim, Stanford, Rwanda, August 2010, Kigali Institute of Education linking up with universities in India and Cameron through Satellite Internet video conferencing system. They were discussing Java programming.)

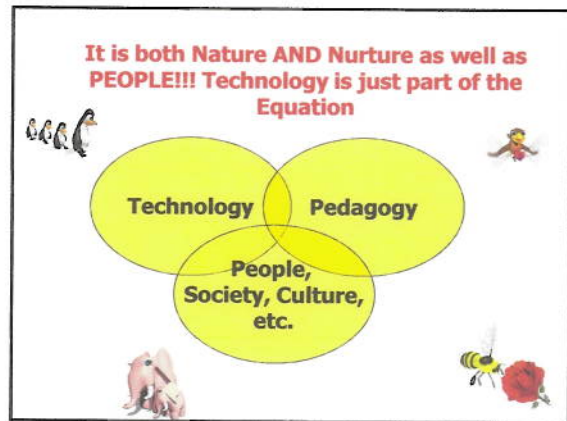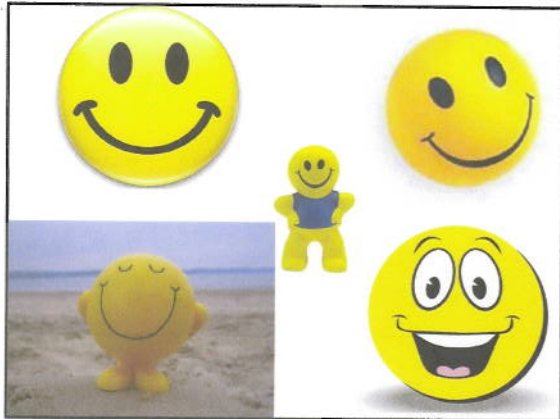**Totally Extreme #14.** Telepresence and Teleportec Systems (e.g., Cisco and HP)

Totally Extreme #15. Space tourism comes closer to fruition, USA Today, April 27, 2011, Charisse Jones
http://www.usatoday.com/travel/flights/2011-04-26-space-tourism-travel_n.htm

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Poll #3: Is your brain mush?

1. Yes.
2. No.
3. Not sure yet…

HELLO HELLO

It is both Nature AND Nurture as well as PEOPLE!!! Technology is just part of the Equation

Any Extreme Questions and Comments?
Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/
Email: curt@worldisopen.com