"Stretching the Edges of Technology-Enhanced Training: From Tinkering to Tottering to Totally Extreme Learning"

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Social Networking Gaming
(e.g., Farmville) For social networks, it's game on,
USA Today, Jon Swartz, Thursday October 15, 2009

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USA Today, Jon Swartz, Thursday October 15, 2009

June 9, 2010
TwitterPeek:
Restricted to Twitter.

Online Learning: By the Numbers, Chronicle of HE, Oct 31, 2010

Think 10 Years back: Shovelware

U.S. DEPARTMENT OF EDUCATION
Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies

But I am not Content!!

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

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

Salmon Khan (Khan Academy) (videos on math, bio, trig, chemistry, money and banking, economics, statistics, etc.; http://www.khanacademy.org/)

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

Question: What is the Web?
- An entertainment system?
- A writing aid?
- A communications system?
- A means to handle commercial transaction?
- A social networking device?

No, it is a learning tool!
Answer: The Web of Learning

The Web of Learning

Today we have the Web 2.0

We are entering a jumping off point...

Life in the Cloud...?

Where are you headed?
Do you know the shape of the world?

Is the World Flat?

Is the World Curved?

Is it spiky?

Or is it Open?
WE-ALL-LEARN: Ten Forces that Opened the Learning World

- Web Searching in the World of e-books (i.e., Darwin)
- e-Learning and Blended Learning
- Availability of Open Source and Free Software (e.g., Moodle)
- Leveraged Resources and OpenCourseWare (e.g., MIT)
- Learning Object Repositories and Portals (i.e., shared content)
- Learner Participation in Open Info Communities (e.g., YouTube)
- Electronic Collaboration and Interaction (sync and async)
- Alternate Reality Learning (e.g., Massively Multiplayer Online Gaming)
- Synchronous and Asynchronous Learning (e.g., Second Life)
- Real-Time Mobility and Portability (e.g., iPhone)
- Networks of Personalized Learning (e.g., Blogs, RSS)

Audience Participation!

1. WE
2. ALL
3. LEARN!!!

Triple Learning Technology Convergence of "WE-ALL-LEARN"

2. Pages: The availability of free educational content and resources (OER—Open Educational Resources).
3. Participatory Learning Culture: A move towards a culture of open access to information, international collaboration, and global sharing.

The R2D2 Method

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

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

2. Reflect 2. Analyze Online Cases (problems, solutions, etc.)

3. Display 3. Concept Mapping and Timeline Tools (VUE, Bubble.us, Cmap, Freemind, Gifty, Mindmeister, or Mindomo)

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

We are not motivating students with the technologies that they love!
Ok, Million Dollar Question: How do you motivate online learners? What words come to mind?

Magic #1: TEC-VARIETY Model for Online Motivation and Retention
1. Tone/Climate: Psych Safety, Comfort, Belonging
2. Encouragement, Feedback: Responsive, Support
3. Curiosity: Fun, Fantasy, Control
4. Variety: Novelty, Intrigue, Unknowns
5. Autonomy: Choice: Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactive: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Excitement
9. Tension: Challenge, Dissonance, Controversy
10. Yields Products: Goal Driven, Products, Success, Ownership

1. Tone/Climate: A Video Course Intros
   (examples from Northern Virginia Community College and Indiana University KO (online MBA) program)
   Yun Yun Chew, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0
   http://www.youtube.com/watch?v=85nqJvH15yo

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

6. Relevance, Meaningfulness:
   A. Tour an Online Oil Drilling Site or Role Play Situations (i.e., BP)

TEC-VARIETY Model for Online Motivation and Retention
   Tone/Climate
   Encouragement, Feedback
   Curiosity
   Variety
   Autonomy
   Relevance
   Interactive
   Engagement
   Tension
   Yields Products
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. Pubcasts. (videos of authors of scientific papers and science; e.g., SciVee)

Tinker #7. Collaborative Groups (Google Docs, Ning, Google Groups, MSN Groups, Yahoo Groups)

Tinker #8. Track Life of a Scientist or Famous People (e.g., Brian J Ford, independent scientist)

Tinker #9. 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 #10. Online Experiments (e.g., psychology)

Tinker #11. Open Ed Resources & OpenCourseWare (e.g., MIT OpenCourseWare)

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)
Tottering

Totter #1. Digital Textbooks
(What South Korean Schoolchildren Can Teach Colleges About E-Textbooks; Jeff Young, Chronicle of HE. Korea E-Learning Week, Coex, Seoul, Sept. 16-17, 2010.)

Totter #2. Bridges to World of Expert and Practitioners (e.g., Watch or Listen to Online Conferences, Expert blogs, chats, interviews)

Totter #3. Famous Expert Via TED (shared online video), Fast Company, Anya Kamenetz, September 1, 2010

Chris Anderson: The entrepreneur bought TED in 2001. "It felt like something you could devote your life to," he says
Totter #4. Real World Problems (PBL online): Real-time Cases

Superseding the case method, making it more realistic and engaging.

Totter #5. Class Synchronous Sessions and Archives (Breeze/Adobe Connect Pro, Elluminate, WebEx, Dim Dim)

Faster, more realistic case and archives that have been set up.

Totter #6. Global Class Videoconferencing

On Wisconsin, Fall 2010

Dissolving Borders
Close physical distances to explore the dairy industries in Wisconsin and Mexico.

Totter #7. Synchronous and Asynchronous Events (e.g., Breeze + Video + Online Forum + Online Papers)

Totter #8. Online Language Learning and Conversations (e.g., PalTalk, iTalki, Palabea, Babbel)
Totally Extreme #1. Free Online Degrees

iSMART: Integration of Science, Mathematics, and Reflective Teaching (iSMART), University of Houston

You see the big picture. You find the connections. Make it official: become iSMART.

Jan Chauvot and Mimi Lee, Univ of Houston

Totally Extreme #2. Live Science
(e.g., Human brain dissections, colossal squids discovered and investigated)

Totally Extreme #3. Immediate Science
Ida (a transitional species) 47-Million-Year-Old Fossil the Missing Link? (May 20, 2009)

Totally Extreme #4. Live Expeditions
(Oceanographer touts deep sea web surfing; Nautilus Live allows people to watch expeditions live & listen to scientists in control rooms as discoveries made, eSchool News, June 2010, Deep-sea images reveal colorful life on ocean’s floor, Sept. 2010)
Totally Extreme #5. Adventure Learning, GeoThentic, GoNorth (National Geographic) (Aaron Doering, Univ of Minnesota)

Earthducation, Aaron Doering and Charlie Miller, The University of Minnesota
http://lt.umn.edu/earthducation1/

Explorer Blogging and Interaction, e.g., Cassandra Brooks, Ice Stories

THE LAST OCEAN, The Last Ocean Project
http://www.lastocean.com/ and
http://lastocean-project.org/
Cassandra Brooks

Adventure Learning (cars and bikes) Dan Grec and Mark Beaumont

Totally Extreme #6. Armchair Archeology UCLA Summer Digs Program
Totally Extreme #7. Google Earth Archeology (David Thomas, Archeologist, La Trobe University, Australia)

Totally Extreme #8. Teen Solo Sailing. May 2010, Jessica Watson became the youngest person ever to sail solo, non-stop and unassisted around the world.

Totally Extreme #9. South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN, January 14, 2011

South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN January 14, 2011 3:44 p.m. EST

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

Totally Extreme #11. Robot Teachers Another Benefit of Robot Teachers: No 'Moral Problems', Chronicle of Higher Ed, elf Young, Sept 15, 2010
**Totally Extreme #12. International and Global Education and Competitions**
(e.g., Global Game Jam, online role play, Global Videoconferencing)

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

**Totally Extreme #14. Second Life**
(business, law, education, English, medicine)

**Totally Extreme #15. Telepresence and Teleportec Systems (e.g., Cisco and HP)**

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**Final Poll: How many ideas did you get?**

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.

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**Any Extreme Questions and Comments?**

Note: Bonk papers and talks at:
Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/