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

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New Technologies = New Delivery Methods...
CLO, September 2011

Learning Delivery
Audience Poll:
Raise your hands if learning technology has ever transformed your life.

Change not possible as an accountant...
(Life as a CPA, 1981-1986)

Decided to Read, Read, Read...
(e.g., People like Albert Bandura, Howard Gardner, Roger Schank, Elliot Soloway, etc.)

Took Correspondence & TV Courses
(thanks to Bob Clasen and Charles Wedemeyer, the University of Wisconsin)
Fast Forward 25 Years...
"Anyone can now learn anything from anyone at any time."

The Triple Convergence

<table>
<thead>
<tr>
<th>The Flat World P’s</th>
<th>The Open World P’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Processes Leveled</td>
<td>1. Piping/Infrastructure</td>
</tr>
<tr>
<td>2. Playing Field Equalized</td>
<td>2. Pages of Content</td>
</tr>
<tr>
<td>3. Participants</td>
<td>3. Participatory Culture</td>
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WE-ALL-LEARN:
Ten Forces that Opened the Learning World
- Web Searching in the World of e-Books
- E-Learning and Blended Learning
- Availability of Open Source and Free Software
- Leveraged Resources and OpenCourseWare
- Learning Object Repositories and Portals
- Learner Participation in Open Info Communities
- Electronic Collaboration and Interaction
- Alternate Reality Learning (e.g., MMOG, Second Life)
- Real-Time Mobility and Portability (e.g., iPhone)
- Networks of Personalized Learning (Blogs, RSS)

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

It is very open!

Open Yale Courses: https://open.yale.edu

- Video Lectures
- Accessible Resources

Home
Khan Academy:
http://www.khanacademy.org

TED: Technology, Entertainment and Design

Link TV: http://www.youtube.com

GETideas Channel, Cisco (Education Thought Leader Series uploaded to YouTube)
http://www.youtube.com/user/GETideas

CurrentTV
Citizen Generated News

Jon Bowermaster:
http://www.bowermaster.com
Tinkering

Tinker #1. Cases and Video Scenario Learning
(Franklin University, cost and forensic accounting course)
https://vimeo.com/25643948

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

Tinker #3. Timeline Tools
(e.g., USA Today, August 26, 2011)

Tinker #4. Video Animations and Simulations

Tinker #5. Collaborative Groups
(Google Docs, Ning, Google Groups, MSN Groups, Yahoo Groups)
Tinker #6. Case Learning and Role Play (Kelley Direct, IU)

Tinker #7. Online Experiments (e.g., psychology)

Tinker #8. Reading from Open Access Journals; Listen to Open Access Podcasts

Tinker #9. Tracking the Life of a Scientist (e.g., Brian J. Ford, independent scientist)

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.)

Tottering
**Totter #1. Wikibooks, Wiki-Glossaries, Wiki-Syllabi**
(Ron Owston, York University, Toronto)

Web 2.0 and Emerging Learning Technologies

[Image of a slide with a man presenting web 2.0 concepts]

**Totter #2. Student Films and Documentaries**

https://vimeo.com/24641791
https://vimeo.com/31132191

[Images of VIMEO videos]

**Totter #3. Bridges to World of Expert and Practitioners**
(e.g., Invite, Watch, or Listen to Online Conferences, Expert interviews, blogs, chats, etc.)

[Images of various presentations and conferences]

**Totter #4. Global Class Videoconferencing and Remote Lands**

[Images of video conferencing and remote locations]

**Totter #5. Combining Asynchronous and Synchronous Events**

[Images of various virtual gatherings]

**Totter #6. Multi-Site Events**
(e.g., William and Mary, March 3, 2011)

[Images of multi-site events]

[Image of a slide with a man presenting multi-site events]
Totter #7. Podcast Productions and Virtual Performances for students of pronunciation class (e.g., Tzu-Su Chen, Taiwan)

Totter #8. Video Blogging

Totter #9. Uploading Mobile Books (e.g., BookRix, http://www.bookrix.com/)

Totter #10. Podcasting Medical Lectures (School of Dentistry, University of Michigan)

We are entering a jumping off point...

 Totally Extreme Learning
Extreme Learning Defined
(Bonk, 2011)

"Extreme learning can involve learning while on a boat at sea near the North Pole or when sailing around the world. It also occurs when tracking the blog and podcasts postings of those in similar adventures such as riding a bike or a car around the world or through the Americas. Extreme learning also includes more sedate and passive forms of learning including watching an online video in TED, LinkTV, CurrentTV, or YouTube."

Extreme Learning continued...
(Bonk, 2011)

"Through extreme learning Web resources, those stuck behind prison walls, injured and in a hospital bed, or unemployed and unable to pay for college tuition can learn to be more productive members of society. Others might be in transition from one career to another and find open educational resources and OpenCourseWare can arouse new interests and confidence" (see Ilyoshi & Kumar, 2008).

Extreme Learning

"Still others might be retired and offer their educational ideas and mentoring services to anyone interested in the topic. Others might be earning their MBA while in war zones in Iraq or Afghanistan."

Extreme Learning Areas

1. Adventure Learning and environmental education,
2. Virtual Education (formal as well as informal),
3. Social Change and Global Learning,
4. Language Learning,
5. Shared online video,

Visual Representation of Extreme Learning

Totally Extreme #1. Immediate Science
Ida (a transitional species) 47-Million-Year-Old Fossil
the Missing Link? (May 25, 2009)

[Image of visual representation and diagram relating to extreme learning topics]
Totally Extreme #2. Live Science
(Nautilus Live allows people to watch expeditions live &
listen to scientists in control rooms as discoveries are made)

Totally Extreme #3.
Blogging Field Archeology Research
(e.g., Lily Henry Roberts, UCLA digging in Hope, BC,
Stó:lo First Nation people from 12,000 years ago)

Totally Extreme #4.
Google Earth Archeology Research
(e.g., 450 sites of interest in Afghanistan found by
David Thomas, La Trobe Univ., Melbourne, Australia)

Totally Extreme #5. Adventure Learning
(e.g., GeoThentic, Earthducation, Polar Husky,
GoNorth; Aaron Doering, Univ of Minnesota; cars and
bikes—Dan Grec and Mark Beaumont)

Totally Extreme #6.
Virtual High School Learning by Boat
(e.g., Bridget Fennell and her family sailing and
learning in the Caribbean)

Totally Extreme #7.
Kids Learn Online, Teach Online
(e.g., the World's Youngest Teacher; Adora Svitak)

 Totally Extreme #9. iPod Learning from MIT OCW (e.g., Wendy Ermold, University of Washington)


 Totally Extreme #11. Learning from Localized OER and OCW (e.g., OpenSourse OpenCourseware Prototype System (OOPS), Lucifer Chu, Janitor of OOPS)

 Totally Extreme #12. Open Teaching and Massive Open Online Courses (i.e., MOOC, David Wiley, George Siemens, Ray Schroeder)

 Totally Extreme #13. International and Global Education and Competitions (e.g., Global Game Jam, online role play, Global Videoconferencing)

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

**Totally Extreme #15.**
Military Mobile Learning and MBAs from War Zones (U.S. Army Learning Concept for 2015; 2011, January 15).  
http://www.youtube.com/watch?v=KoMk6vN92-8 (4:26 minutes)

**Totally Extreme #16.**
Online Language Learning  
(e.g., 300,000 people per month listening to ChinesePod, co-hosted by Jenny Zhu, John Paaschen, and Ken Carroll)

**Totally Extreme #16.**
More Online Language Learning and Conversations  
(e.g., PalTalk, Talki, Palabea, Babbel)

**Totally Extreme #17.**
Shared Online History Videos  
(e.g., "History for Music Lovers" with over 50 songs including:  
Trojan War "Tainted Love" by Soft Cell, Charlemagne "Call Me"  
by Blondie, Cleopatra, Napoleon, Shakespeare, the Vikings)

**Totally Extreme #18.**
MBAs from War Zones...!
Totally Extreme #19.
Learn Anytime, Always On/Mobile.
Will Technology Kill the Academic Calendar? Online instructors give way to students who set their own schedules. Marc Perry, Chronicle of Higher Ed, October 16, 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 #20. Pocket School and Videoconferencing in Developing World
(Paul Kim, Stanford and Seeds for Empowerment in Rwanda, India, Mexico, Tanzania, etc.)

Extreme Learning Stories
Mobile Storytelling and Pocket Schools
(e.g., Paul Kim, Stanford & Seeds for Empowerment)

Extreme Learning Website

HOPES: Humanity’s Open Platform for the Exchange of Stories

Sample HOPES Stories

2/17/2012
Web Platform Storytelling System

HOPES Mobile Platform Storytelling Entrance

DREAMS: Design Research for an Engaging and Active Mobile System

Extreme Learning "Stretches the Edges" of Humanity

What are your Extreme Learning HOPES and DREAMS?
Website: www.Extreme-Learning.com
Slides at: TrainingShare.com
Book: http://worldisopen.com/
Write to me: curt@worldisopen.com