I am Not Content: The Future of Education Must Come Today...!!!

Curtis J. Bonk, Professor, Indiana University
cjbonk@indiana.edu
http://mypage.iu.edu/~cjbonk/

September 17, 2012
Education 2022: A 360 Degree View
Ten predictions of 2022
John Mayerhofer & Alex Zhu, SAP Training & Educ.

1. Learner-Driven 6. Holistic
2. Openly Accessible 7. Teaching Redefined
5. Ubiquitous 10. Achievement Redefined

I’m Happy...Are you Happy?

Shovelware

Audience Poll #1:
Has learning technology has ever transformed your life.
Change not possible as an accountant…
(Life as a CPA, 1981-1986)

Technology of the 1980s

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)

Looking to the Past...

Fast Forward 25-30 Years…
“Anyone can now learn anything from anyone at any time.”
Sept. 2011 (CLO): Learning is More Tech-Driven
New Technologies = New Delivery Methods...

May, 2012
Robots teaching English and Virtual Worlds
Dr. Meeyong Kim, Dajeon, Korea

Oct. 3, 2012: Learning is More Personal
Episode 99: What Wearable Computers Could Mean for Campuses, Jeffrey R. Young, Chronicle of HE

June 2011: Learning is More Collaborative
Aces of Spaces, Campus Technology, Jennifer Demski

Learning is More Active
University of Minnesota
Active Learning Classrooms (ALC)

Learning is More Social
October 4, 2012
Facebook reaches one billion users, CNN Money, Aaron Smith, Laurie Segall and Stacy Cowley

April 12, 2011: Learning is More Free
NCTM Conference, Free Online Degrees; Integration of Science, Mathematics, and Reflective Teaching (iSMART)
University of Houston

April 29, 2012: Learning is More Open
Open Education’s Wide World of Possibilities, Chronicle of Higher Education, Katherine Mangan

Aug 22, 2011: Learning is More Inclusive
http://www.worldreader.org/

Feb. 21, 2012: Learning is More Flipped
Rethinking Learning with Salman Khan
Stanford Graduate School of Business
Khan Academy Founded: The Inside Story on Online Education Experimentation
Let’s use video to reinvent education, TED, March 2011
http://www.ted.com/talks/salman_khan_let_s_use_video_to_reinvent_education.html

April 12, 2011: Learning is More Free
NCTM Conference, Free Online Degrees; Integration of Science, Mathematics, and Reflective Teaching (iSMART)
University of Houston

April 29, 2012: Learning is More Open
Open Education’s Wide World of Possibilities, Chronicle of Higher Education, Katherine Mangan

Aug 22, 2011: Learning is More Inclusive
http://www.worldreader.org/

Feb. 21, 2012: Learning is More Flipped
Rethinking Learning with Salman Khan
Stanford Graduate School of Business
Khan Academy Founded: The Inside Story on Online Education Experimentation
Let’s use video to reinvent education, TED, March 2011
http://www.ted.com/talks/salman_khan_let_s_use_video_to_reinvent_education.html

Mobile Lorm Glove - A communication device for deaf-blind people.
http://www.youtube.com/watch?v=FLfa9m7X3J

Let’s use video to reinvent education, TED, March 2011
http://www.ted.com/talks/salman_khan_let_s_use_video_to_reinvent_education.html
August 14, 2012: Learning is More Ubiquitous
“Some universities require students to use e-textbooks,” Yasmeen Abutaleb, USA Today
http://www.usatoday.com/money/markets/story/2012-08-13/etextbooks/57039872/1

August 31, 2012: Learning is More in the News
Digital Tools, Chronicle of HE
http://chronicle.com/article/Almanac-2012-Technology/133769/

August 17, 2012: Learning is More Online
NFL gets serious about fan conduct (disruptive fans must take online courses), ESPN.com, Darren Rovell,
http://espn.go.com/nfl/story/_/id/8278886/nfl-require-ejected-fans-take-online-fan-conduct-course

May 5, 2012
Shaq earns doctorate degree
http://www.youtube.com/watch?v=Szj6uQnBdjo

August 27, 2012
Online University For All Balances Big Goals, Expensive Realities, Claudio Sanchez, NPR
http://www.npr.org/blogs/alltechconsidered/2012/08/27/160116814/online-university-for-all-balances-big-goals-expensive-realities

Students work at the University of the People student computer center in Haiti. Students from 129 countries are currently enrolled with the institution.

Naylea Omayra Villanueva Sanchez says her location near the Amazon rain forest in Peru, combined with a disability, makes a traditional university education impossible.

September 12, 2012
How online courses will revolutionize college, Mary Beth Marklein, USA TODAY
http://usa today.com/weather/city/usa-today/usa-today/wx-article-weather-forecast-2012-09-12/usa-today/usa-today/wx-article-weather-forecast-2012-09-12
May 9, 2011
Defense Acquisition University, Training Courses: Reaching the Workforce

Growth Online in Higher Education in the USA

Total and Online Enrollment in Degree-granting Postsecondary Institutions – Fall 2002 through Fall 2010

More than six million post-secondary students are taking online classes in the USA; growing by 10% per year.

Feb 16, 2012: Learning is More Blended
University of Illinois at Springfield, Ray Schroeder
http://sites.google.com/site/rayschroeder/

Poll #2: Is this a revolution in education today?
A. Yes...
B. No...
The Web of Learning

The World is Open…
It is very open!

Framework #1: WE-ALL-LEARN:
Ten Forces that Opened the Learning World

1. Web Searching in the World of e-Books
2. E-Learning and Blended Learning
3. Availability of Open Source and Free Software
4. Leveraged Resources and OpenCourseWare
5. Learning Object Repositories and Portals
6. Learner Participation in Open Info Communities
7. Electronic Collaboration and Interaction
8. Alternate Reality Learning (e.g., MMOG, Second Life)
9. Real-Time Mobility and Portability (e.g., iPhone)
10. Networks of Personalized Learning (Blogs, RSS)

Audience Participation!

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

My dog is content….

I am not Content!!!
The Potential Result...

Who needs online and blended learning?
(Katrina, August 2005; Ike, Sept 2008; Irene, August 2011; Isaac, August 2012)

Those where there are diseases and outbreaks...(SARS, 2003; H1N1, 2009-2010)

Those in blizzards and ice storms...

May 24, 2010
Author Nicholas Carr, The Web Shatters Focus, Rewires Brains, Wired
http://www.wired.com/magazine/2010/05/ff_nicholas_carr/
September 27, 2012
The Crisis in Higher Education, Nicholas Carr, Technology Review

Data from Institute of Education Sciences and Pew Research Center.

September 27, 2012
The Crisis in Higher Education, Nicholas Carr, Technology Review

September/October, 2012
The Siege of Academy
Washington Monthly, Kevin Carey,

September 10, 2012
Credentials in the cloud: how will MOOCs deal with plagiarism?, Beverly Oliver,

September 21, 2012
As Online Courses Grow, Sites Offering Unauthorized Academic Help Get More Brazen, Chronicle of Higher Education, Alisha Azevedo

How can technology address diverse learner needs?
Framework #2:
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.

Read 1a. Learning Planet: Interactive Glossary
Umida Khikmatillaeva, Dec. 2011, P540
http://learningplanet.shutterfly.com/

Reflect 2a. Discuss Videos
(e.g., Grockit Answers and Vialogues;
https://vialogues.com/)

Display 3a. Segment Video Anchors
(e.g., TubeChop of V-PORTAL: Video Primers in an Online Repository of e-Teaching and Learning; “Wikibooks Hooray for Us”)
http://www.tubechop.com/watch/378752

Display 3b. Interactive Maps
(Graduation rates by state, May 7, 2012)
http://todayscampus.com/article/Keith_Hampson_Interviews_Josh_Keller_on_Interactive_Graphics_for_Higher_Education
Do 4a. Negotiate Meanings Online (e.g., MeetingWords: http://meetingwords.com/)
MeetingWords is a simple text editor for the web.
Your text is saved on the web, and more than one person can edit the same document at the same time. Everybody's changes are instantly reflected on all screens.
Work together on meeting notes, brainstorming sessions, homework, team programming and more!

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?
(Please enter in chat window)

Framework #3: TEC-VARIETY for Online Motivation and Retention
1. Tone/Climate: Psych Safety, Comfort, Belonging
2. Encouragement, Feedback: Responsive, Supports
3. Curiosity: Surprise, Intrigue, Unknowns ...
4. Variety: Novelty, Fun, Fantasy
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
   B. Mood Walls
   Yun Yun Chow, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0
   http://www.youtube.com/watch?v=BO9rq1016Xo
   http://www.youtube.com/moodwall_testtube

2. Encouragement, Feedback, etc.:
   A. Create Screencasts Website Polling
   B. GrammarCheck.net
     (e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
     http://www.polleverywhere.com/
3. Curiosity, Intrigue:
A. Online News and Live Feeds (Felix Baumgartner’s 24 mile freefall)

4. Variety, Novelty, Fun:
A. Random Lists (Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)

5. Autonomy, Choice:
A. Web Exploration Assignments
1. Complete Works of Charles Darwin Online: http://darwin-online.org.uk/
4. Einstein Archives Online: http://www.alberteinstein.info/
7. iBerry (Open Courseware Directory): http://iberry.com/

6. Relevance, Meaningfulness:
A. Online Cases (e.g., Mark Braun, IU)

7. Interactive, Collaborative:
A. Collaborative Video Annotations and Discussions (Craig Howard, IU)

8. Engagement, Effort:
also: Visualizing Emancipation
9. Tension, Challenge, etc.:
A. Game Show Final Project, April 25, 2011, Kim Seber
Website: http://mypage.iu.edu/~kseeber/web2.0technology.swf

10. Yields Products, Goals:
A. Student YouTube Products
  - Miguel Lara (Web 2.0 FREEDOM): http://www.youtube.com/watch?v=8cmCFWi9lW8
  - Shuya Xu and Yue Ma (Blog my online lrng): http://www.youtube.com/watch?v=im7GQM9fzhc
  - Cesur Dagli (Animal perspectives on course): http://www.youtube.com/watch?v=cDeTEIdO5lc

10. Yields Products, Goals:
B. I Done This, Milestone Planner, 43 Things

Time for Commitments:
Which principle(s) of TEC-VARIETY will you use?
- Tone/Climate
- Encouragement, Feedback
- Curiosity
- Variety
- Autonomy
- Relevance
- Interactive
- Engagement
- Tension
- Yields Products

From Tinkering to Tottering to Totally Extreme Learning...
Tinkering

Tinker #1. Using Online Encyclopedias
(e.g., the Encyclopedia of Earth:
http://www.eoearth.org/)

Tinker #2. Educational Videos: TED-Ed
http://education.ted.com/

Tinker #3. Interactive Event Timeline
Arab spring: an interactive timeline of Middle East protests,
The Guardian, Garry Blight & Sheila Pulham, July 12, 2011
http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline

Tinker #4. Interactive Maps to predict outcomes (e.g., Interactive Political Maps: Huffington Post, Oct. 13, 2012)

Tinkering #5. Tracking the Life of a Scientist
(e.g., Brian J. Ford, independent scientist)
http://www.youtube.com/user/tellymonitor?feature=plcp
http://www.labnews.co.uk/news/prehistoric-revolution/
http://www.youtube.com/embed/yN7MHC29w/o?ct=1
Tottering

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

Totter #2. Combining Asynchronous and Synchronous Events (flipping classes)

Totter #3. Uploading Mobile Books (e.g., BookRix, http://www.bookrix.com/)

Totter #4. Student Collaborative Knowledge Building and Sharing (e.g., Popplet: http://popplet.com/)

Totter #5. Student Films and Documentaries
http://vimeo.com/33090590 (Verily)
http://vimeo.com/33123125 (Anjali)
http://www.youtube.com/watch?v=IQZHvuZ3rbw&feature=youtu.be (Yue)
We are entering a jumping off point...

You Want Totally Extreme?  
Apple’s new ‘spaceship’ campus: What will the neighbors say?, Doug Gross, CNN, May 22, 2012 

August 2, 2012  
Big Think  
Today’s Big Idea: Disrupting Education,  
http://bigthink.com/

Totally Extreme #2.  
iPod Learning from MIT OCW  
(e.g., Wendy Ermold, University of Washington) 

Totally Extreme #3.  
Blogging Field Archeology Research  
(e.g., Lily Henry Roberts, UCLA digging in Hope, BC, Stó:lō First Nation people from 12,000 years ago)
Totally Extreme #4. MBAs from War Zones...!

Totally Extreme #5. Virtual Mentoring
South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN, January 14, 2011

Totally Extreme #6. Adventure Learning about the Environment
(e.g., North of 60, GeoThentic, Earthducation, see Aaron Doering, Chasing Seals; http://chasingseals.com/)

Totally Extreme #7. The Last Ocean Project, Ice Stories, and Shark Theater
(24 foot inflatable screen (and outdoor ocean theater) to tiny island communities) http://www.lastocean.com/ and http://lastocean-project.org/; Cassandra Brooks

Extreme Learning Website
www.extreme-learning.com

Visual Representation of Extreme Learning
HOPES: Humanity’s Open Platform for the Exchange of Stories

Sample HOPES Stories

DREAMS: Design Research for an Engaging and Active Mobile System

Extreme Learning “Stretches the Edges” of Humanity

Where are we headed?

Who is Content Now?
Website: www.Extreme-Learning.com
Slides at: TrainingShare.com
Book: http://worldisopen.com/
Dr. Curt Bonk – CJBonk@Indiana.edu