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

1. Learner-Driven
2. Openly Accessible
3. Personalized
4. Social
5. Ubiquitous
6. Holistic
7. Teaching Redefined
8. Policy Redefined
9. Industry Engaged
10. Achievement Redefined

I’m Happy…Are you Happy?

Shovelware

Audience Poll #1:
Has learning technology 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.)

Technology of the 1980s

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 19, 2012
Facebook to help overhaul ICT curriculum,
Money, Andrew Marszal, Telegraph

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

Feb. 21, 2012: Learning is More Flipped
Rethinking Learning with Salman Khan
Stanford Graduate School of Business

Mobile Lorm Glove - A communication device for deaf-blind people.
http://www.youtube.com/watch?v=FLla9m7X3I

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/news/education/story/2012-08-13/e-textbooks/57039047/1

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

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
Audio: http://www.npr.org/player/v2/mediaPlayer.html?action=1&t=1&islist=false&id=160116814&m=160135003

September 12, 2012
How online courses will revolutionize college, Mary Beth Marklein, USA TODAY

More than six million post-secondary students are taking online classes in the USA; growing by 10% per year.
October 27, 2012: Learning is More Massive
Chuck Severance (U Michigan/Coursera) in Barcelona
http://www.youtube.com/watch?v=JzNHvmSv8TI

17,380 students. I haven’t met f2f. I am shocked to see students from places where Internet is very limited. You will find students from even Zanzibar!!! Many teams are formed and they meet f2f in the region where they live.

http://venture-lab.org/education/

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

- 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!!!

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)

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

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

Data from Institute of Education Sciences and Pew Research Center.
October 10, 2012
How Australian university can play in the MOOCs market, David Sadler, The Conversation, Australia

October 11, 2012
MOOC and you’re out of a job: uni business models in danger, Mark Gregory, The Conversation, Australia

October 12, 2012
Radical rethink: how to design university courses in the online age, Paul, Wappett, The Conversation, Australia
http://theconversation.edu.au/radical-rethink-how-to-design-university-courses-in-the-online-age-9737

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
Do 4a. Negotiate Meanings Online
(e.g.m 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!

October 9, 2012
MOOCs and exercise bikes – more in common
than you’d think, Robert Nelson and Phillip Dawson, The Conversation, Australia

Are you motivated or do you need a social setting and role models
to keep you driven?

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=Bf0eqQO1G3e
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/
      2. The Complete Works of William Shakespeare:
         http://shakespeare.mit.edu/
      3. Edgar Allan Poe Society of Baltimore:
         http://www.eapoe.org/
      4. Einstein Archives Online:
         http://www.alberteinstein.info/
      5. Federal Resources for Educational Excellent project:
         http://free.ed.gov/
      6. Global Text Project:
         http://globaltext.org/
      7. iBerry (Open Courseware Directory):
         http://iberry.com/
      8. Jane Austen:
         http://www.janeausten.org/
      9. The Jane Goodall Institute:
         http://www.janegoodall.org/
      10. Timeless Hemmingway:
         http://www.timelesshemingway.com/

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

7. Interactive, Collaborative:
   A. Collaborative Video Annotations and Discussions (Craig Howard, IU)
      http://scholarworks.iu.edu/journals/index.php/jidl/article/view/852/912
8. Engagement, Effort:
also: Visualizing Emancipation

9. Tension, Challenge, etc.:
A. Game Show Final Project, April 25, 2011, Kim Seeber
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 learning): http://www.youtube.com/watch?v=im7GQM9fzhc
    Cesur Dagli (Animal perspectives on course): http://www.youtube.com/watch?v=cDeTEIdO5lc

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=mh_vision
http://www.labnews.co.uk/news/prehistoric-revolution/
http://www.youtube.com/embed/yRHFHCZk6m0
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

Totally Extreme #1. Michael Perham Drives around the World (Sept 17, 2012)
http://www.mikeperham.tv/

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/

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**October 5, 2012 (Felicity Aston, UK)**
First woman to cross Antarctic solo: I’ve never felt so alone, Ivana Kottasova, CNN

http://www.nytimes.com/2012/03/11/nyregion/a-teenage-master-of-languages-finds-online-fellowship.html?_r=1&pagewanted=all

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**Totally Extreme #8. Lacking Teachers and Textbooks**, India’s Schools Turn to Khan Academy to Survive, New York Times, October 15, 2012, Anupama Chandrasekaran

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**Totally Extreme #9. 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**

**DREAMS: Design Research for an Engaging and Active Mobile System**

**Extreme Learning “Stretches the Edges” of Humanity**

**Where are we headed?**
October 17, 2012
The university campus of the future: what will it look like?, David Lamond, The Conversation, Australia


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