

**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**
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




this IS my happy face

Audience Poll #1:
Has learning technology has ever transformed your life.



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



Property of Museum of History & Industry, Seattle



Technology of the 1980s



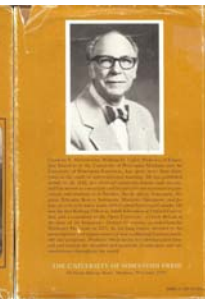
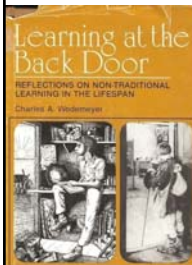
Radio Shack TRS-80 Model III
 Introduced: July 1980
 Price: US \$699 base model
 US \$2495 w/ 32K, dual drives.
 CPU: Zilog Z-80, 2.03 MHz
 RAM: 4K, 48K max.
 Ports: Cassette tape, expansion, serial
 Display: 12-inch SSV monitor 64 x 16 text
 Storage: 0, 1, or 2 internal 178K floppy drives.
 External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



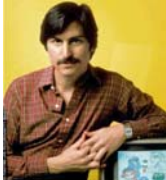
Decided to Read, Read, Read... (e.g., People like Albert Bandura, Howard Gardner, Roger Schank, Elliot Soloway, etc.)



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."

SKILLSHARE LEARN TEACH

Learn anything from anyone, anywhere.



Join us! Start learning and discover unique classes in your city

**Sept. 2011 (CLO): Learning is More Tech-Driven
New Technologies =
New Delivery Methods...**

Learning Delivery
How Do You Deliver Learning?

**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**

<http://techtherapy.com/blog/techtherapy/2012/10/03/episode-99-what-wearable-computers-could-mean-for-campuses>

Tech Therapy think

Episode 99: What Wearable Computers Could Mean for Campuses
October 3, 2012, 4:41 pm
By Jeffrey R. Young

Wearable computers may be coming to campus sooner than you think. Google recently announced "Project Glass" - "augmented reality" devices. The Tech Therapy described cyborg anthropologist, about what the Links discussed in this episode: Google's P

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

Lightbulb! **CAMPUS TECHNOLOGY**
LIGHTS! CAMERA! ACTION!

at Lehigh University from students like "spatial analysis" performers," allowing them to use their own computers to control digital content in the room.

CAMPUS TECHNOLOGY | June 2011

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

UNIVERSITY OF MINNESOTA
Driven to Discover

Office of Classroom Management
Office of Undergraduate Education

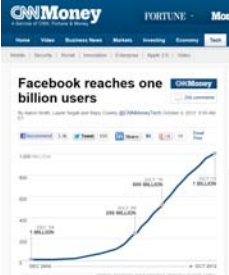
Home • Planning and Projects • U of M Active Learning General Purpose Class

Active Learning Classroom (ALC)
Student centered, interactive, integrated, flexible, active learning spaces.

Watch how ALCs in STSS are utilized.
Video credits: produced by Robin Wright, created by Andy Underwood-Bultmann.

Learning is More Social

October 4, 2012
Facebook reaches one billion users, CNN Money, Aaron Smith, Laurie Segall and Stacy Cowley
http://money.cnn.com/2012/10/04/technology/facebook-billion-users/index.html?hpt=hp_bn5



April 12, 2011: Learning is More Free
NCTM Conference, Free Online Degrees; 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.



Jen Chauvot and Mimi Lee, Univ of Houston


April 29, 2012: Learning is More Open
Open Education's Wide World of Possibilities, Chronicle of Higher Education, Katherine Mangan
http://chronicle.com/article/Open-Education's-Wide-World-of/131672?cid=at&utm_source=at&utm_medium=em



Aug 22, 2011: Learning is More Inclusive
Worldreader: What Makes Ed Tech Successful in the Developing World?, ReadWriteWeb, David Risher
http://www.readriteweb.com/archives/what_makes_educational_technology_successful_in_the_developing_world/
<http://www.worldreader.org/>

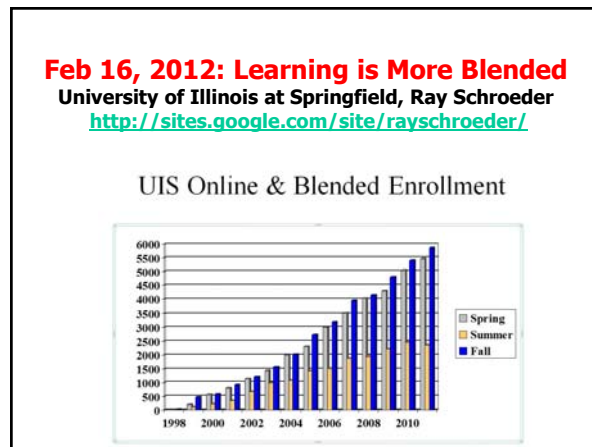
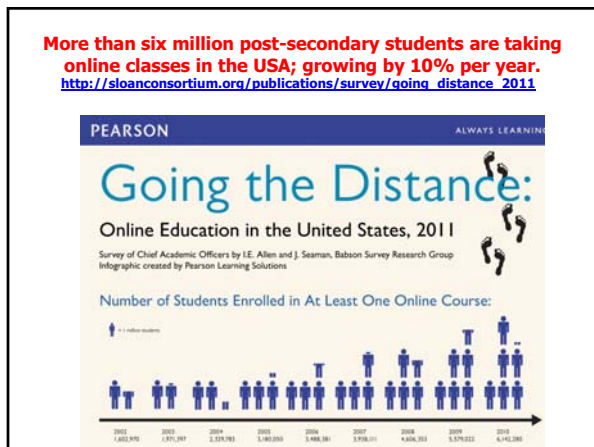
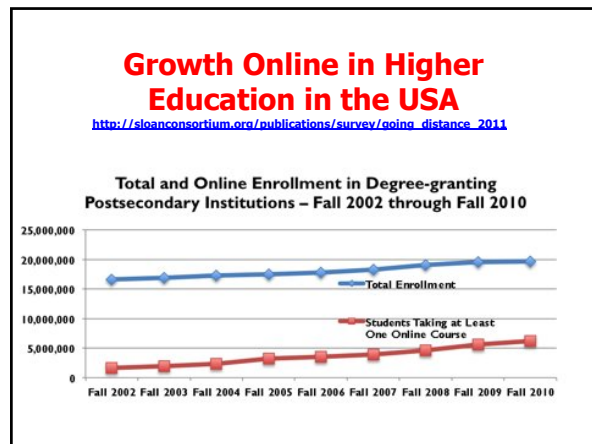


Mobile Lorm Glove - A communication device for deaf-blind people.
<http://www.youtube.com/watch?v=FLfa9ni7X3I>



Feb. 21, 2012: Learning is More Flipped
Rethinking Learning with Salman Khan
Stanford Graduate School of Business
<http://www.youtube.com/watch?v=Wvj68Ho55w>
Khan Academy Founder Finds Simplicity Appeals in Online Education Experimentation
<http://www.pbs-stanford.edu/news/theaffirm/khan-academy.html>
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





U.S. DEPARTMENT OF EDUCATION

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

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

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

Revised September 2010

Prepared by
Barbara Means
Yukie Toyama
Robert Murphy
Marianne Bakia
Karla Jones

Center for Technology in Learning

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

- W**eb Searching in the World of e-Books
- E**-Learning and Blended Learning
- =====
- A**vailability of Open Source and Free Software
- L**everaged Resources and OpenCourseWare
- L**earning Object Repositories and Portals
- =====
- L**earner Participation in Open Info Communities
- E**lectronic Collaboration and Interaction
- A**lternate Reality Learning (e.g., MMOG, Second Life)
- R**eal-Time Mobility and Portability (e.g., iPhone)
- N**etworks of Personalized Learning (Blogs, RSS)

Audience Participation!

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

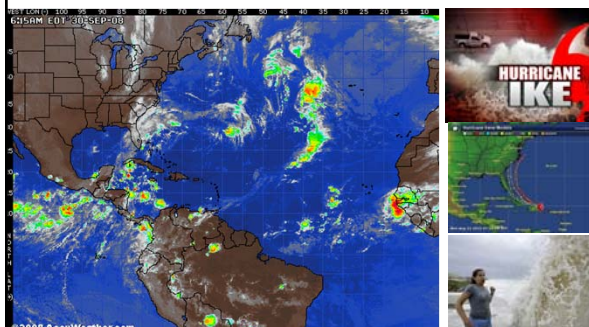
My dog is content....

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)

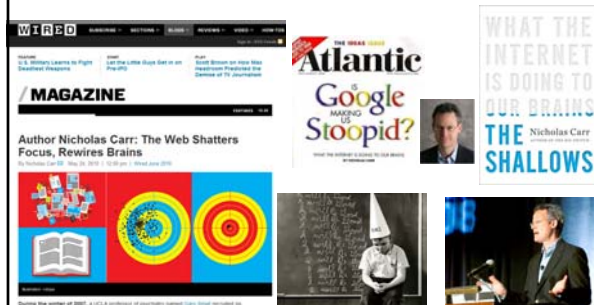


Those in blizzards and ice storms...



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
<http://www.technologyreview.com/featured-story/429376/the-crisis-in-higher-education/>

September 27, 2012
The Crisis in Higher Education, Nicholas Carr,
Technology Review
<http://www.technologyreview.com/featured-story/429376/the-crisis-in-higher-education/>

Undergraduate enrollment in the United States

Year	Enrollment
1970	7.4m
1980	10.5m
1990	12m
2000	13.1m
2010	18.1m

Average cost of a year on campus **\$27,435**

Percentage of people who say the value is fair or poor **57%**

Data from Institute of Education Sciences and Pew Research Center.

September/October, 2012
The Siege of Academy
Washington Monthly, Kevin Carey,
http://www.washingtonmonthly.com/magazine/septemberoctober_2012/features/_its_three_sides_1019373.php?page=all

September 10, 2012
Credentials in the cloud: how will MOOCs deal with plagiarism?, Beverly Oliver,
<http://theconversation.edu.au/credentials-in-the-cloud-how-will-moocs-deal-with-plagiarism-8511>

September 21, 2012
As Online Courses Grow, Sites Offering Unauthorized Academic Help Get More Brazen,
Chronicle of Higher Education, Alisha Azevedo
<http://www.chronicle.com/article/As-Online-Courses-Grow-Sites-Offering-Unauthorized-Academic-Help-Get-More-Brazen/123000>

As Online Courses Grow, Sites Offering Unauthorized Academic Help Get More Brazen
 September 21, 2012, 11:02 am
 By 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)

Curtis J. Boak | Ki Zhang




Empowering Online Learning

100+ Activities For Reading, Reflecting, Displaying & Doing




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/>)



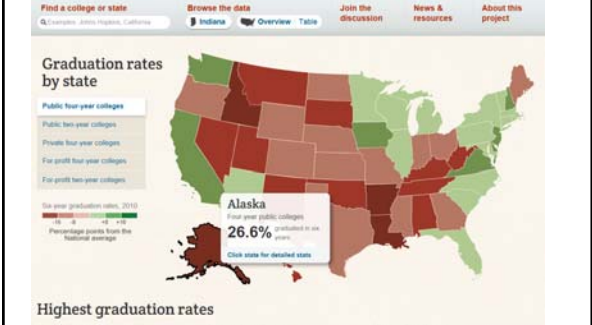
Display 3a. Segment Video Anchors (e.g., TubeChop of V-PORTAL: Video Primers in an Online Repository of e-Teaching and Learning; "Wikibooks Hooray for Us")

<http://www.tubechop.com/watch/378752>




Display 3b. Interactive Maps (Graduation rates by state, May 7, 2012)

http://edexpos.com/articles/tech_education_innovations_pillar_on_interactive_graphics_for_higher_education



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!



MeetingWords
 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!


Create public pad
 No sign-up, start writing instantly

Highlighted edits: Each author has their own highlight color.
 Instantly updated: Get everyone on the same page at the same time.
 Easy undo: Every change is saved on the web and can easily be undone.

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=B09rqJD1GXo>
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.pollerywhere.com/>



3. Curiosity, Intrigue:

A. Online News and Live Feeds (Felix Baumgartner's 24 mile freefall)

(CNN, October 10 & 14, 2012, BBC, June 26, 2012; ESPN.com October 14, 2012)

Breaking news Skydiver Felix Baumgartner broke the speed of sound during his record-setting jump from 128,000 feet.

lands safely after historic jump of space

Felix Baumgartner lands safely on the ground after a record-breaking freefall. The 41-year-old hero of the New Mexico desert "has been called a hero back in Austria."

Fearless Felix falls 24 miles, 704 mph and lands on his feet

Felix Baumgartner lands safely on the ground after a record-breaking freefall. The 41-year-old hero of the New Mexico desert "has been called a hero back in Austria."

lands safely after historic jump of space

4. Variety, Novelty, Fun:

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

Coin Flipper
You Flipped 2 coins of type Irish €1:

Dice Roller
You rolled 2 dice:

RANDOM.ORG
List Randomizer

There were 10 items in your list. Here they are in random order:

1. 1 Bill
2. 4 Arthur
3. 10 Thomas
4. 2 Shelley
5. 2 Sherry
6. 3 Sharon
7. 2 Scott
8. 8 Stephanie
9. 4 Ned
10. 4 Brian

Random Sequence Generator

Time stamp: 2012-08-13 11:00:39

00:01:39

Start Stop

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)

Stomach, endoscopic examination and biopsy. Poorly differentiated tubular adenocarcinoma

Slide 198, areas with hyperplastic epithelium.

Slide 171, column with pseudo-membranous colitis.

Slide 171, column with pseudo-membranous colitis.

Slide 163, bone marrow with cryptosporidiosis.

Slide 166, bone marrow with cryptosporidiosis.

I'd like to take the quiz now.

Final conclusion: Advanced gastric carcinoma with multiple lung metastasis with lymphatic growth

7. Interactive, Collaborative:

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

<http://scholarworks.iu.edu/journals/index.php/iidl/article/view/853/912>

Creating video annotations: The Group

Annotations

00:22:01:17

Craig Howard is the teacher. Group and members of this course class.

8. Engagement, Effort:

A. CNN (2011). Map: Impact of Japan tsunami and earthquake. CNN.

<http://www.cnn.com/SPECIALS/2011/japan.quake/map/>
also: Visualizing Emancipation

Overview Casualties Damages

Are you there? Send an Report

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=8cmCFW9RIW8>
 Shuya Xu and Yue Ma (Blog my online frng): <http://www.youtube.com/watch?v=Im7GQMBfzhc>
 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

Task-Tracking Service iDoneThis Wants You To Know How Awesome You Are, April 24, 2012, TechCrunch, Chris Velazco
<http://techcrunch.com/2012/04/24/task-tracking-service-idone-this-wants-you-to-know-how-awesome-you-are/>

Tags: iDoneThis, AwesomenessReminder

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...



Totter #1.

Wikibooks, Wiki-Glossaries, Wiki-Syllabi (Ron Owston, York University, Toronto)

Web 2.0 and Emerging Learning Technologies

From Wikibooks, the open-content textbooks collection

Contents [view]

WIKIBOOKS

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

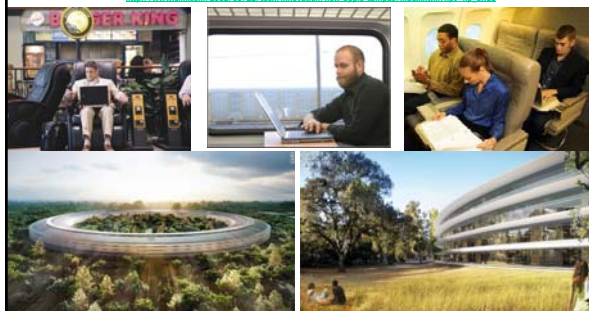
<http://vimeo.com/33090590/> (Verily)
http://vimeo.com/33123125 (Anjali)
<http://www.youtube.com/watch?v=IQZHvuZ3rbw&feature=youtu.be> (Yue)

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
http://www.cnn.com/2012/05/22/tech/innovation/new-apple-campus/index.html?hpt=hp_tech_3



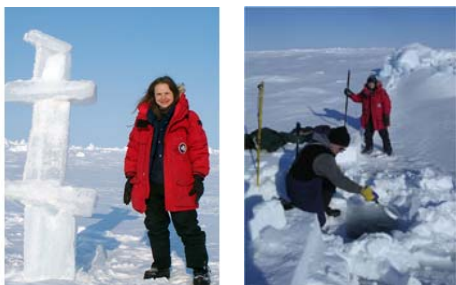
August 2, 2012
Big Think
 Today's Big Idea: Disrupting Education,
<http://bigthink.com/>



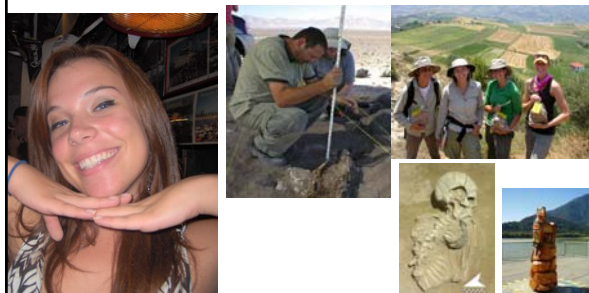
Totally Extreme #1. Michael Perham
 Drives around the World (Sept 17, 2012)
<http://www.mikeperham.tv/>



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...!

YouTube
Army Learning Concept 2015
3,018 views

Self-Structured Learning

4,870 views

Totally Extreme #5. Virtual Mentoring 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>

CNN Living
South African teens get virtual mentoring from all over the world
By Danielle Berger

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

EXPLORE your community

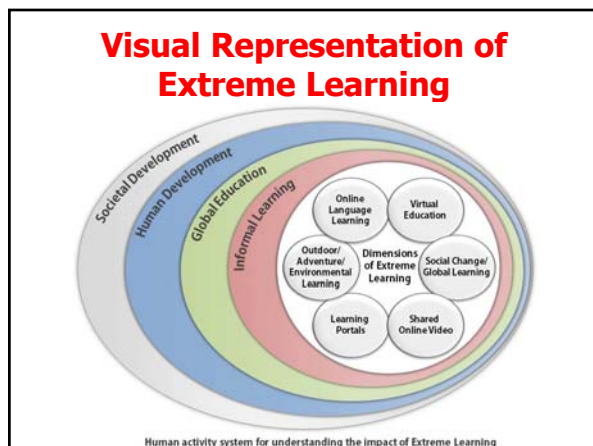
North of Sixty

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

The Last Ocean Project

Extreme Learning Website www.extreme-learning.com

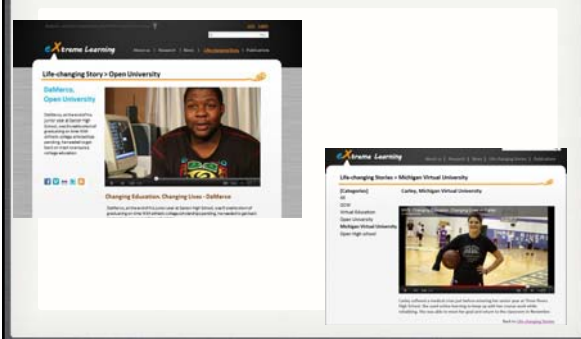
Extreme Learning
www.extreme-learning.com



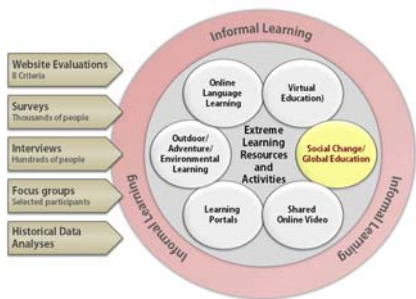
HOPES: Humanity's Open Platform for the Exchange of Stories



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

Contentment

