

Engage Number One: This is the Next Generation

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



1728: 1st correspondence course advertised Boston
(learn shorthand from Caleb Phillips thru weekly mailed lessons)
The First University Correspondence Course
(University of London, External Program, 1858)
1728-1990s – Generally postal system based
1930s – phonograph and radio
1950s and 1960s – television
1970s and 1980s – VHS tapes
1980s and 1990s – DVD



May 10, 2013
10 ed-tech tools of the 70s, 80s, and 90s
eSchool News, Meris Stansbury
<http://www.eschoolnews.com/2013/05/10/10-ed-tech-tools-of-the-70s-80s-and-90s/print/>



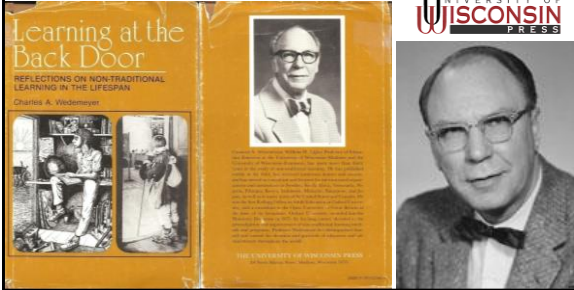
Looking to the Past...



Life as an accountant/CPA in a high tech company in the 1980s...



**Took Correspondence & TV Courses
(thanks to Bob Clasen and Charles
Wedemeyer, the University of Wisconsin)**



**Knowledge Navigator (1987)
Apple Computer**

<http://www.youtube.com/watch?v=hb5AF6wEoc>



**Fast Forward 25+ Years...
"Anyone can now learn
anything from anyone at any
time."**



Audience Polls #2:

- I. Who remembers where they were when they found out that Steve Jobs died?**
- II. Who remembers what they were doing on 9/11?**
- III. Who remembers what they were doing on April 4, 2001?**
- IV. Has this open educ. movement changed your life?**



Charles Vest (April 4, 2001)

<http://web.mit.edu/newsoffice/2001/ocw.html>

"This is about something bigger than MIT. I hope other universities will see us as educational leaders in this arena, and we very much hope that OpenCourseWare will draw other universities to do the same. We would be delighted if -- over time -- we have a world wide web of knowledge that raises the quality of learning -- and ultimately, the quality of life -- around the globe."



**Part I. Learning is Changing
New Technologies =
New Delivery Methods...**



May 20, 2013
The New Greatest Generation: Why Millennials will Save Us All, Time, Joel Stein
<http://www.time.com/time/magazine/article/0,9171,2143001,00.html>

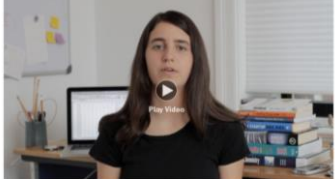



I. Learning is More Open
Learning Portals, April 3, 2012
Google Art Project, NBC Nightly News
<http://www.msnbc.msn.com/id/3032619/vp/46945508#46945508>



II. Learning is More Open
Why I spent 10th grade online. Sophia Pink, Washington Post, August 23, 2013
<http://www.washingtonpost.com/topics/why-i-spent-10th-grade-online/2013/08/22/?hpid=hp-topics-table-main-online-learning:story>

Why I spent 10th grade online




Video: Sophia Pink describes how she finished 10th grade online and why she's choosing to go back to the classroom.
 By Sophia Pink, Published August 22. Email the writer

III. Learning is More Collaborative
Collaboration and Discussion in Google Hangouts or with iPad, Jan. 28, 2013
(Carrie Gong from Beijing Normal University)




IV. Learning is More Mobile
Brown, Keynote talk, "Learning in Hand With Mobile Technology," Wisconsin Distance Teaching and Learning Conference, August 10, 2012

	Beijing 2008	London 2012
Smartphones	139.3 million	657 million
Facebook	90 million	901 million
Twitter	<1 million	300 million
Tweets / day	1.1 million	140 million
Tablets	0	54.8 million
App store downloads	300+ million	25+ billion



Sources: Nielsen, eMarketer, Forrester, Apple



Digital Books (Korea)



V. Learning is More Video-Based

Adora Svitak, WFP Youth Representative - 2013
ECOSOC Youth Forum, March 27, 2013

"Shaping tomorrow's innovators: Leveraging science, technology, innovation and culture for today's youth", Statement by the World Food Programme Youth Representative, Ms. Adora Svitak at the 2013 ECOSOC Youth Forum.
<http://webtv.un.org/meetings-events/economic-and-social-council/other-meetings/which/adora-svitak-speech-youth-representative-2013-ecosoc-youth-forum-shaping-tomorrows-innovators-leveraging-science-technology-innovation-and-culture-for-todays-youth/225792555593>



VI. Learning is More Social

Facebook reaches one billion users, CNN Money, Aaron Smith, October 4, 2012



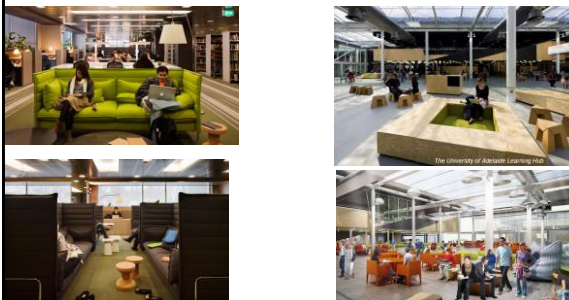
VII. Learning is More Modifiable

Inside Look: Learning Spaces, Meeting classroom teaching and collaboration expectations, University Business, Feb. 22, 2013
<http://www.universitybusiness.com/article/inside-look-learning-spaces>



VIII. Learning is More Comfortable

Design for Students, with Students, "Hub Central", the \$42 million University of Adelaide learning hub opened in October 2011, May 8, 2012, Mike Roberts
<http://designbuildsource.com.au/design-for-students-with-students>



IX. Learning is More Global

UC Irvine (2013 report)

Example 3: Fundamentals of Japanese

Dr. Hidemi Riggs, Fall 2012 & Winter 2013, Tech-enhanced; [EEE AdvancedWebSpace \(dreamweaver\)](#), [Skype](#) video conferencing tool, [Active Learning](#), Format: 5 - 1A lectures (24 students maximum); 3 - 2A lectures (24 students maximum); 2 - 3A lectures (24 students maximum)



X. Learning is More Instantaneous

April 9, 2013

HER Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today
<http://www.usatoday.com/story/tech/2013/04/09/google-glasses-are-really-usable/279191/>
 (i.e., magnify moles or injuries, see vital signs, live stream surgeries, access previous PT sessions, access research and drug info, etc.)
<http://www.fiercehealthcare.com/story/google-glasses-could-have-strong-potential-healthcare-us/2013-03-18>



XI. Learning is More Personal

iPotty Aims To Entertain Toddlers During Toilet Training, Mashable, Kate Freeman
 (January 10, 2013)
<http://mashable.com/2013/01/10/ipotty/>



Bill Gates' classroom of the future



Gates: How to make digital classrooms work



XII. Learning is More Ubiquitous

Flexible displays bend what's possible for computers, Jon Swartz, USA Today (May 4, 2012)



XIII. Learning is More Massive

April 16, 2013 (NovoEd)

New MOOC Provider Says It Fosters Peer Interaction
 Chronicle of Higher Education, Jake New
<http://chronicle.com>



XIV. Learning is More Technology-Based

DataWind Prepared \$20 Tablet Computer for Indian Market

Jan 30, 2013 4:15 AM EST

A Canada-based company believes it can revolutionize education in India by rolling out a \$20 tablet computer.

What can you buy for \$20? A lunch for two? A new shirt? A few groceries? For India's 220 million schoolchildren, \$20 may soon buy a tablet computer.



XV. Learning is More Flipped
One Man, One Computer, 10 Million Students:
How Khan Academy Is Reinventing Education,
Forbes, November 19, 2013, Michael Noer
<http://www.forbes.com/sites/michaelnoer/2013/11/19/one-man-one-computer-10-million-students-how-khan-academy-is-reinventing-education/>
The One World Schoolhouse (Twelve, Oct. 2, 2012)



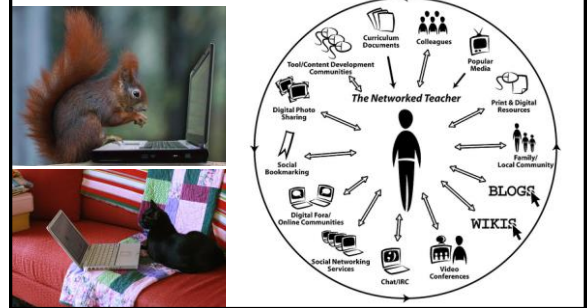
April 15, 2013
World will soon be "Webified"
Google boss: Entire world will be online by 2020,
Doug Gross, CNN
http://www.cnn.com/2013/04/15/tech/web/eric-schmidt-internet/index.html?hpt=hp_13



Google Wi-Fi from the Sky, Steven Levy,
pp. 126-131, Wired, September 2013
<http://www.wired.com/gadgetlab/2013/08/googlex-project-loon/>



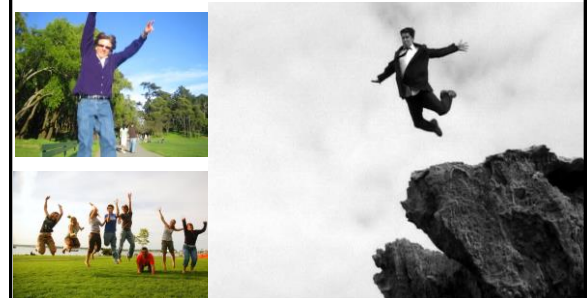
The Web of Learning



It is very open!
(at least in Norway & the Philippines)



We are entering a jumping off point...



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

- **W**eb Searching in the World of e-Books (i.e., Darwin)
- **E**-Learning and Blended Learning
- **A**vailability of Open Source and Free Software (e.g., Moodle)
- **L**everaged Resources and OpenCourseWare (e.g., MIT)
- **L**earning Object Repositories and Portals (i.e., shared content)
- **L**earner Participation in Open Info Communities (YouTube)
- **E**lectronic Collaboration and Interaction (sync and async)
- **A**lternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- **R**ead-Time Mobility and Portability (e.g., iPhone)
- **N**etworks of Personalized Learning (Blogs, RSS)



Audience Participation!

WE

ALL

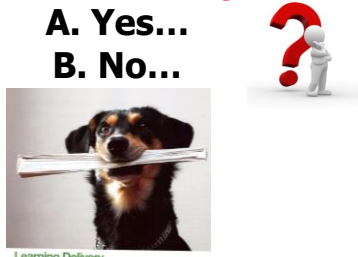
LEARN!!!



Poll #2: Is this a revolution in education today?

A. Yes...

B. No...



Learning Delivery


Part II. Motivation and Engagement



How do we engage online?



What was it that he said?



Ok, Million Dollar Question: What words come to mind when I say that I want to motivate learners?



Motivation Research Highlights (Jere Brophy, Michigan State University)

1. **Supportive**, appropriate **challenge**, **meaningful**, moderation/optimal.
2. Teach **goal setting** and self-reinforcement.
3. Offer **rewards** for good/improved performance.
4. **Novelty**, **variety**, **choice**, adaptable to interests.
5. Game-like, **fun**, fantasy, curiosity, suspense, active.
6. Higher levels, divergence, dissonance, **peer interaction**.
7. Allow to create finished **products**.
8. Provide immediate **feedback**, advance organizers.
9. Show intensity, **enthusiasm**, interest, minimize anxiety.
10. Make content **personal**, concrete, familiar.



Framework #1: TEC-VARIETY for Online Motivation and Retention

1. **Tone/Climate:** Psych Safety, Comfort, Belonging
2. **Encouragement, Feedback:** Responsive, Supports
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

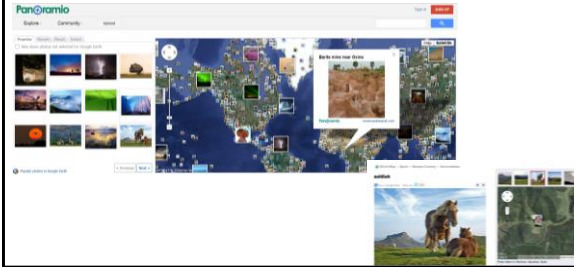
Examples of TEC-VARIETY



1. Tone/Climate: A. Video Introductions, e.g., Flipgrid

<http://flipgrid.com/#429f88c5>

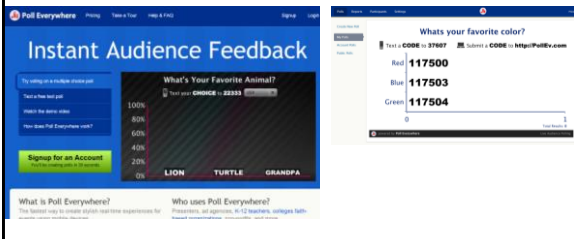
1. Tone/Climate: B. Share Visuals of Favorite Places
(e.g., Panoramio, <http://www.panoramio.com/>)



2. Encouragement, Feedback, etc.: A. Voice Feedback
Vocaroo; <http://vocaroo.com/>
<http://vocaroo.com/i/s00c4D6iUNmN> (Wed Nov 13)



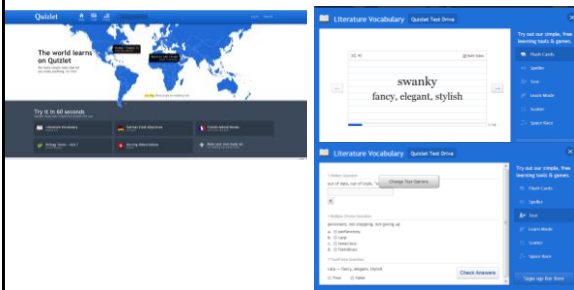
2. Encouragement, Feedback, etc.: B. Blog and Website Polling
(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
<http://www.pollerywhere.com/>



2. Encouragement, Feedback, etc.: C. Create Screencasts
(Jing, GoView, Screenr, slide from Zaid Ali Alsagoff [zaid.alsagoff@gmail.com])



2. Encouragement, Feedback, etc.: D. Quizlet (online quiz tools)
<http://quizlet.com/>



3. Curiosity, Fun: A. Something in the News
(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)
http://espn.go.com/sports/running/story/_/id/8979487/fauja-singh-101-caps-career-10k-hong-kong



3. Curiosity, Fun: B. Online Quiz Games Jeopardy Labs

<https://jeopardylabs.com/play/ganttpardy>



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. Online Database Activities (e.g., WolframAlpha)

<http://www.wolframalpha.com/>



5. Autonomy, Choice: B. Demonstrate, Explore, and Share Websites Commonwealth of Learning, March 2013

http://www.col.org/news/Connections/2013Mar/Documents/Connections_March2013.pdf



6. Relevance, Meaningfulness: A. Video Scenario Learning (Franklin University, cost and forensic accounting course)

<http://video.franklin.edu/Franklin/acct/manAGERIALAccounting/cost-behavior-player.html>
<http://video.franklin.edu/Franklin/acct/342/common/fraudScenario02.html>
<http://www.youtube.com/watch?v=c3mosd5UgQ8&list=TLyymmAKW1T>

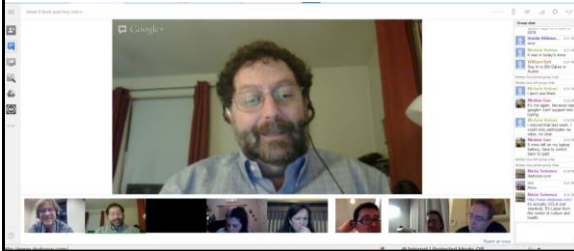


6. Relevance, Meaningfulness: B. Design Multimedia Glossaries

Ozgur Ozdemir, December 2012
<http://r685glossary.shutterfly.com/>
 Umida Khikmatilaeva, Dec. 2011, P540
<http://learningplanet.shutterfly.com/>

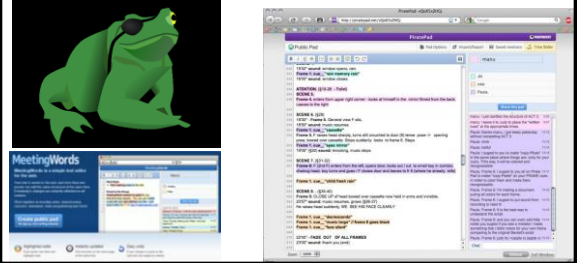


7. Interactive, Collaborative:
A. Collaboration and Discussion in Google Hangouts
 (January 29 and February 25, 2013)

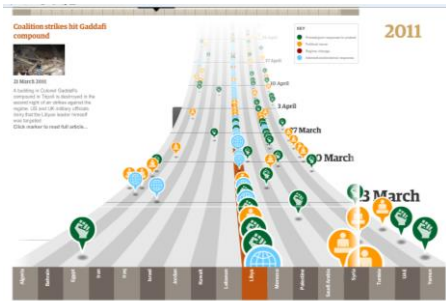


7. Interactive, Collaborative:
B. Negotiate Meanings Online
 (e.g., PiratePad: <http://meetingwords.com/>)

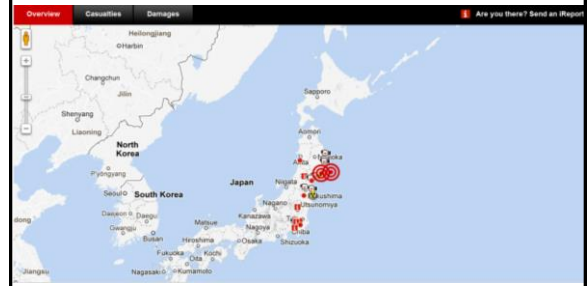
MeetingWords is a simple text editor for the web. Your text is saved on the web, and more than one person can edit the same document at the same time. Everybody's changes are instantly reflected on all screens. Work together on meeting notes, brainstorming sessions, homework, team programming and more!



8. Engagement, Effort: A. Arab spring: an interactive timeline of Middle East protests, The Guardian, Garry Blight, and Sheila Pulham, July 12, 2011
<http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline>



8. Engagement, Effort: B. CNN (2011). Map: Impact of Japan tsunami and earthquake. CNN.
<http://www.cnn.com/SPECIALS/2011/japan.quake/map/>
 also: Visualizing Emancipation



9. Tension, Challenge, etc.:
A. Decision-Making Scenarios
 (e.g., Articulate Storyline)

http://articulate.demos.s3.amazonaws.com/broken_co-worker/story.html



9. Tension, Challenge, etc.:
B. Cage Match or Debate MOOCs at SXSWedu (Curt Bonk & Chuck Severance)

<http://chronicle.com/blogs/wiredcampus/24-south-by-southwest-education-event-hostions-divide-entrepreneurs-and-educators/42777>
<https://soundcloud.com/sxswedu/cage-match-the-massive-open>



**10. Yields Products, Goals:
A. Final Product Video Summaries**

Piercarlo Abate: <http://www.youtube.com/watch?v=-TURzH00aU>
 Qi Li, Gangnam: <http://www.youtube.com/watch?v=7Q4291qzZaU&feature=youtu.be>
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW191W8>



**10. Yields Products, Goals:
B. Interactive Timelines**

(e.g., The Big Sleep, Kate Hurd)
<http://hurdisuranceagency.com/thebigsleep/>



**10. Yields Products, Goals:
C. I Done This, Milestone Planner,
and 43 Things**



**Commitments:
Stop and Share:**
 Which principle(s) of TEC-VARIETY will you use?

- Tone/Climate**
- Encouragement, Feedback**
- Curiosity**

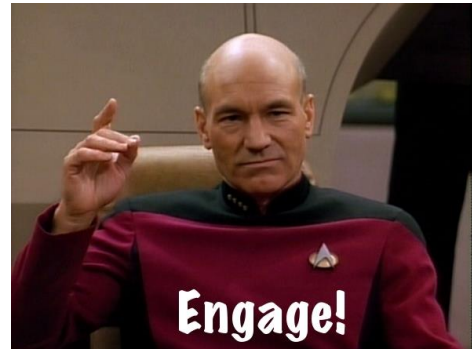
- Variety**
- Autonomy**
- Relevance**
- Interactive**
- Engagement**
- Tension**
- Yields Products**



What did Jean-Luc Picard say?



That's right, Engage!



Part III. How can technology address diverse learner needs?



Framework #2: The R2D2 Model

Curtis J. Bonk | Ke Zhang

Empowering Online Learning

100+ Activities for Reading, Reflecting, Displaying & Doing

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. Collect and Listen to Interactive Stories

(e.g., Meograph: <http://www.meograph.com/>)
 Timelines with Oral Histories, Slavery and the Making of America
 Time and Place, PBS

<http://www.pbs.org/wnet/slavery/timeline/1857.html>



Read 1b. Listen to Open Access Podcast Shows (and write papers)

ENGLISH IN THE REAL WORLD

weekly podcasts

go

NursingShow.com



Read 1c. Grammer Checkers (e.g., Grammarly, Ginger, GrammarCheck, PaperRater, and SpellCheckPlus)

<http://www.grammarly.com/>



Read 1d. Twitter Fed Class Discussions



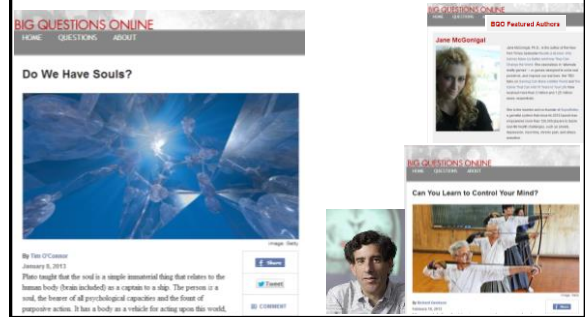
2. Reflective and Observational Learners

- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives



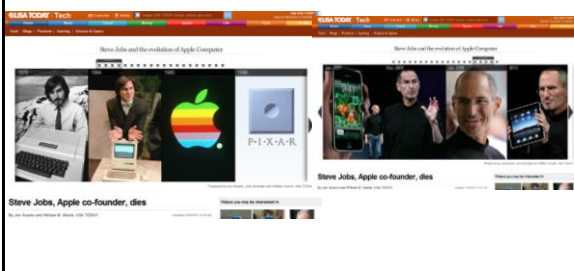
Reflect 2a. Big Issue Reflections (Big Questions Online (BQO)), January 8, 2013 (e.g., Do We Have Souls?)

<https://www.bigquestionsonline.com/content/do-we-have-souls>



Reflect 2b. Reflect on Virtual Timelines (Dipity, xtimeline, Simile, etc.)

<http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>
<http://www.usatoday.com/news/destinations/story/2011-08-25/Martin-Luther-King-3-Memorial-in-Washington-A-close-book/59136470/1?top=34news>
<http://www.usatoday.com/story/life/movies/2013/04/10/harrison-ford-jackie-robinson/2001783/>



Reflect 2c. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State University, Come and See Africa Blog; <http://comeandseeafrica.blogspot.com/>)



3. Visual Learners

- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.



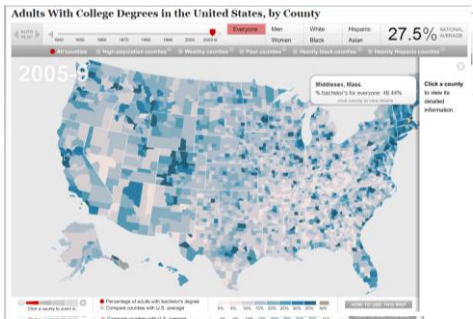
Display 3a. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)

<http://shellyterrell.com/2010/02/14/12-word-cloud-resources-tips-tools/>



Display 3b. Interactive Map Timelines (adults with college degrees by county, May 7, 2012)

<http://todaycampus.com/article/Keith-Hampson-Interviews-Josh-Keller-on-Interactive-Graphics-for-Higher-Education>

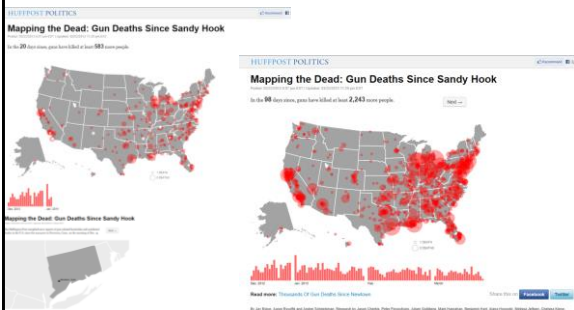


Display 3c. Videos for clinical education (Sungkyunkwan University School of Medicine, www.mededu.or.kr)



Display 3d. Time Revealed Interactive Maps Mapping the Dead: Gun Deaths Since Sandy Hook, Huffington Post, March 22, 2013

<http://data.huffingtonpost.com/2013/03/gun-deaths>



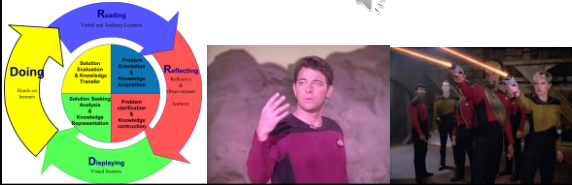
Display 3e. Concept Mapping and Timeline Tools (Bubbl.us, Cmap, Freemind, Glify, Mindmeister, or Mindomo)

bubbl.us



4. Tactile/Kinesthetic Learners

- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.



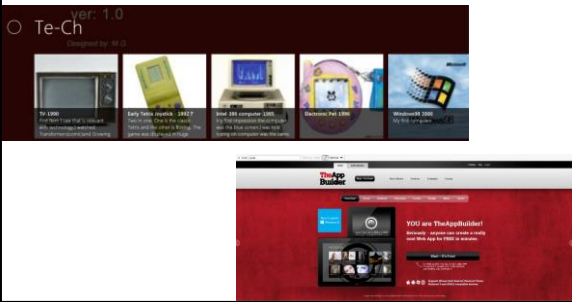
Do 4a. Student Class Documentaries

Umida's R546 Documentary Project
http://www.youtube.com/watch?v=EMLTzqCV_5A



Do 4b. Student Mobile App Creation

The App Builder: <http://www.theappbuilder.com/>
 Mintian Guo (April 2013): <http://myapp.is/r685final>



Poll #6: What phase of the R2D2 Method did you get the most ideas from ?

- Read (Auditory and Verbal Learners)
- Reflect (Reflective Learners)
- Display (Visual Learners)
- Do (Tactile, Kinesthetic, Exploratory Learners)



Poll #3:
 Do you feel "MOTIVATED" to try any of this out?

- Yes, R2D2
- Yes, TEC-VARIETY
- Yes, both
- Neither

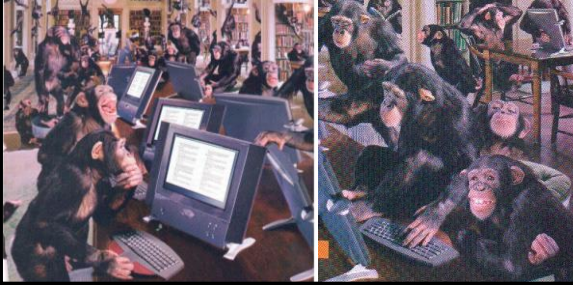


Part IV.

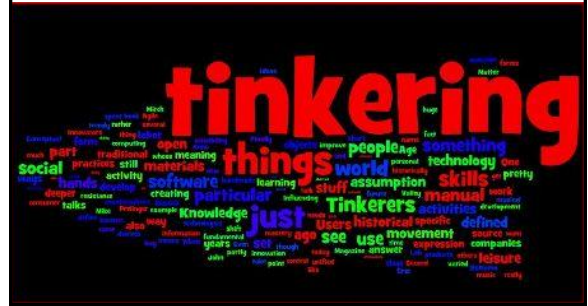
Wait, we are not done yet!



Part IV: From Tinkering to Tottering to Totally Extreme Learning...

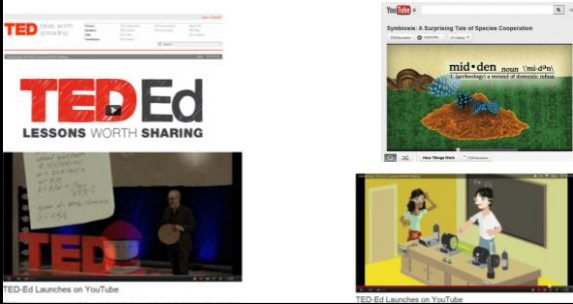


Tinkering

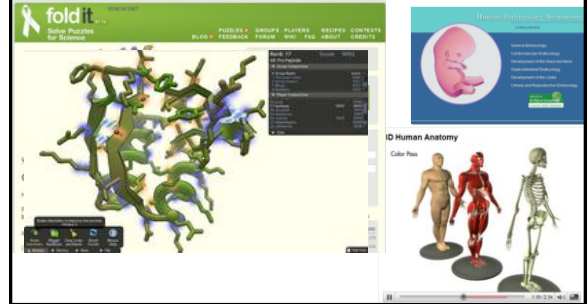


Tinker #1. Educational Videos: TED-Ed

<http://education.ted.com/>



Tinker #2. Video Animations and Simulations



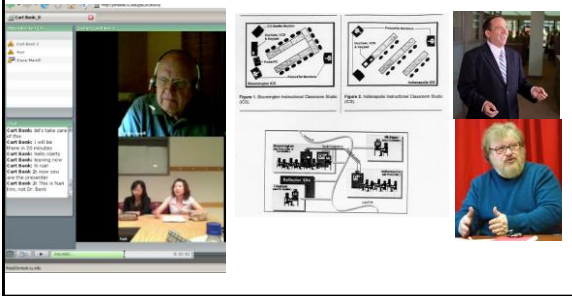
Tinker #3. Online Experiments (e.g., psychology)



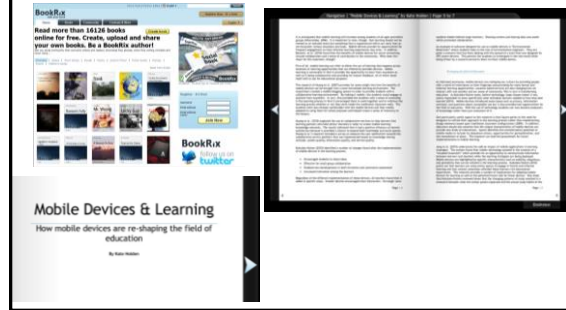
Tottering



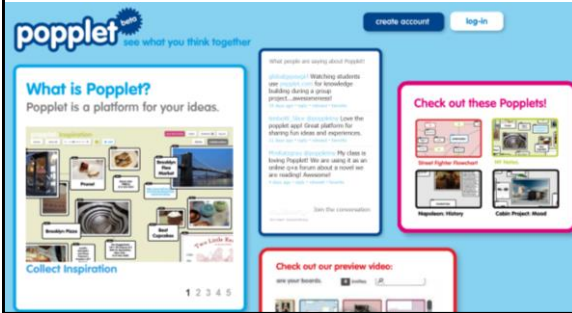
Totter #1. Combining Asynchronous and Synchronous Events (flipping classes)



Totter #2. Uploading Mobile Books (e.g., BookRix, <http://www.bookrix.com/>)

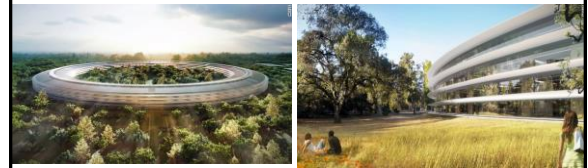


Totter #3. Student Collaborative Knowledge Building and Sharing (e.g., Popplet, <http://popplet.com/>)



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_hp11



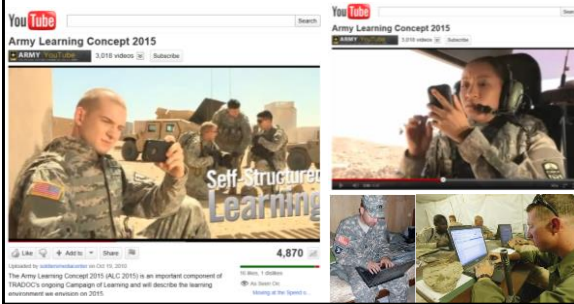
Totally Extreme #1. Blogging Field Archeology Research (e.g., Lily Henry Roberts, UCLA digging in Hope, BC, Stó:lō First Nation people from 12,000 years ago)



Totally Extreme #2. Virtual High School Learning by Boat (e.g., Bridy Fennell and her family sailing and learning in the Caribbean)



**Totally Extreme #3.
MBAs from War Zones...!**

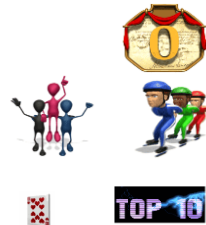


**Totally Extreme #4.
Posting from the Sauna**
Mark Curcher, Flipgrid post, October 16, 2013
<http://flipgrid.com/#38330c15>

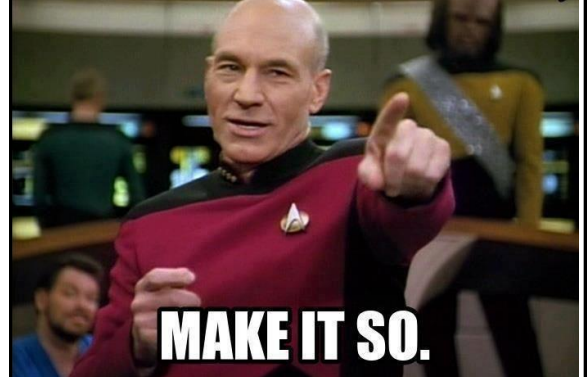


Poll #4: How many new ideas did you get?

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.
7. More than 10.



DON'T JUST WISH FOR A GREAT 2013,



**Stop and Share:
Three Words from Today's Session!**



Poll #5: Any Questions?

**Try the R2D2 Model!
Try TEC-VARIETY too...**



**Slides at: TrainingShare.com
Papers: PublicationShare.com**

**Book: <http://worldisopen.com/>
Dr. Curt Bonk – CJBonk@Indiana.edu**

