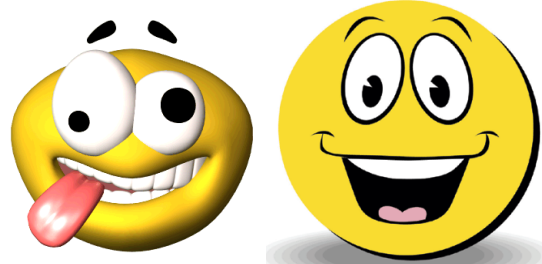


I am Not Content: The Future of Education Must Come Today...!!!

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



Poll Question #1: I'm Happy...Are you Happy?



The End of Shovelware?

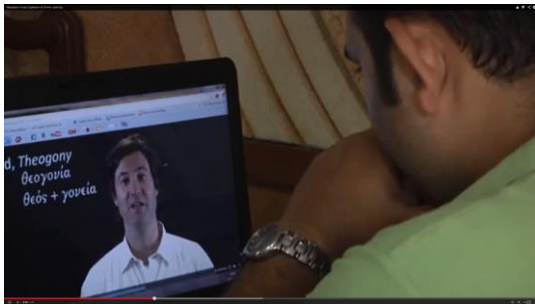


Tech #1. MOOCs

August 5, 2013,

By Kannan Sankaran, Epoch Times

<http://www.theepochtimes.com/n3/229640-5-best-moocs-for-free-online-higher-education/>



Tech #2. 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>



Tech #3. Online Study Groups Open Study

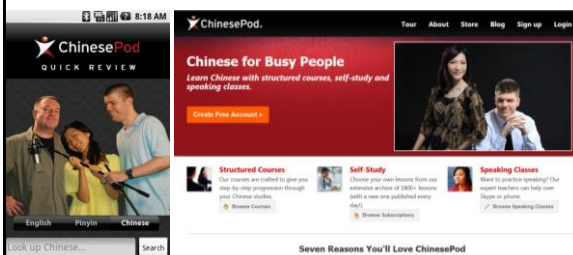
<http://openstudy.com/>



Tech #4. Digital Books



Tech #5. Online Language Learning (e.g., 300,000 people per month listening to ChinesePod, co-hosted by Jenny Zhu, John Pasden, and Ken Carroll)



Tech #6. Music Training Online April 18, 2013

Quincy Jones goes high-tech for the lowdown on music,
Marco della Cava, USA TODAY, Playground Sessions
<http://www.playgroundsessions.com/about.html>



Tech #7. Learning Portals, April 3, 2012

Google Art Project, NBC Nightly News
<http://www.msnbc.msn.com/id/3032619/vp/46945508#46945508>



Tech #8. Remote Animal Streaming

Remote Maine puffin colony up close on HD web cam
Clarke Canfield, The Statesman, June 27, 2012
<http://www.statesman.com/business/technology/remote-maine-puffin-colony-up-close-on-hd-2405257.html>



This still frame from streaming online video, provided by explore.org, the Annenberg Foundation and the National Audubon Society, shows puffins on the shore of Seal Island, Maine, Wednesday, June 27, 2012. The island is the habitat for the largest puffin colony in the U.S.

Tech #9. Interactive Globe with News

http://www.nytimes.com/2013/01/08/science/digital-globes-a-new-way-to-view-the-world.html?nl=todaysheadlines&emc=edr_th_201301088_...



Tech #10. Experts Apprenticeship via Our Glasses



Bill Gates' classroom of the future



Gates: How to make digital classrooms work



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

- A. Yes...
- B. No...



Learning Delivery

My dog is content....



I am not Content!!!



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/



What did Jean-Luc Picard say?

That's right, Engage!

How can technology address diverse learner needs?



Framework #1: 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.

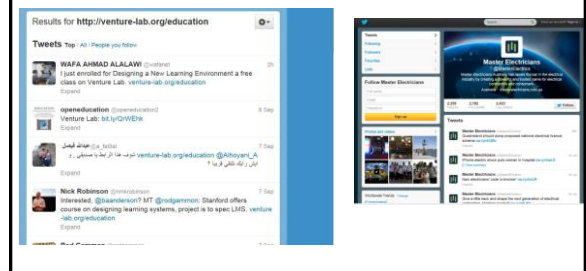
Read 1a. Collect and Listen to Interactive Stories

(e.g., Meograph: <http://www.meograph.com/>)



Read 1b. Follow on Twitter

<http://venture-lab.org/education>
<https://twitter.com/electricians>



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







Read 1d. Grammar Checkers (e.g., Grammarly, Ginger, GrammarCheck, PaperRater, and SpellCheckPlus)

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



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/55136470/1?cap=34news>
<http://www.usatoday.com/story/life/movies/2013/04/10/harrison-ford-jackie-robinson/2001783/>



Reflect 2c. Workplace and Field Reflections



Reflect 2d. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State University, [Come and See Africa Blog](http://comeandseeafrica.blogspot.com/);
<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. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Gliffy, Mindmeister, or Mindomo)

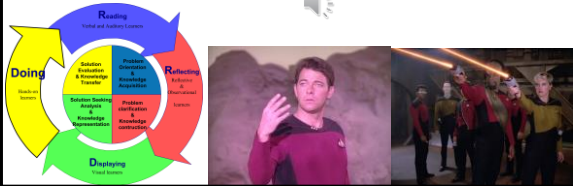
Display 3c. Interactive Map Timelines
(adults with college degrees by county, May 7, 2012)
http://todaycampus.com/article/tech_tipspon_interviews_josh_weller_on_interactive_graphics_for_higher_education

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

환자의 앞쪽에서, 왼손으로 환자의 오른쪽 감상성을 반대편으로 밀고.

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.



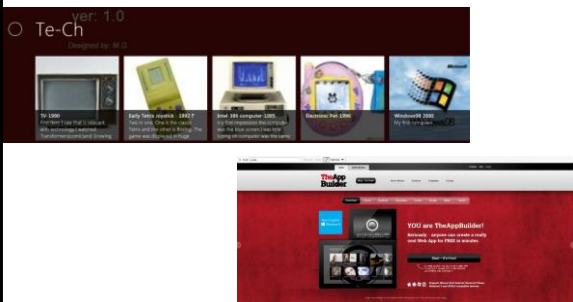
Do 4a. Student Class Documentaries

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



Do 4b. Student Mobile App Creation

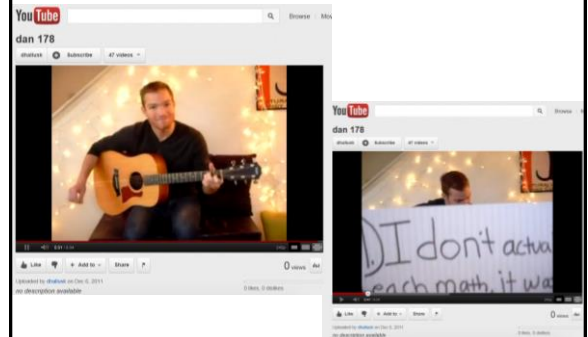
The App Builder: <http://www.theappbuilder.com/>
 Mintian Guo (April 2013): <http://myapp.is/r685final>



Do 4c. Singing YouTube Summaries

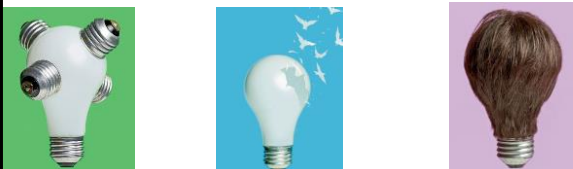
Daniel Halluska, P540, Fall 2011

<http://www.youtube.com/watch?v=t0L7lRgsqmw>



Poll #3:
 Any light bulbs going off in your head so far...?

- A. Yes definitely
- B. Maybe
- C. No

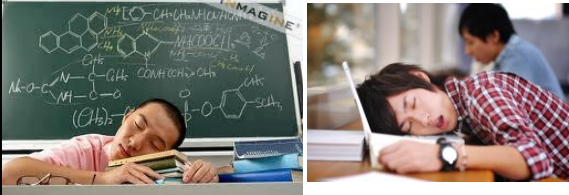


Poll #4: What phase of the R2D2 Method did you get the most ideas from ?

- A. Read (Auditory and Verbal Learners)
- B. Reflect (Reflective Learners)
- C. Display (Visual Learners)
- D. Do (Tactile, Kinesthetic, Exploratory Learners)



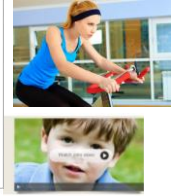
Do you ever sleep through your classes?



February 5, 2013 Bioelectricity: A Quantitative Approach, Duke University's First MOOC

http://bioelectricity.lib.duke.edu/bioelec/online/health/BIOELEC/Duke_Bioelectricity_MOOC_fat2013.pdf

THE CONVERSATION



How do we engage online?



What was it that he said?



Intrinsic Motivation

“...innate propensity to engage one’s interests and exercise one’s capabilities, and, in doing so, to seek out and master optimal challenges

(i.e., it emerges from needs, inner strivings, and personal curiosity for growth)

See: Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. NY: Plenum Press.



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.

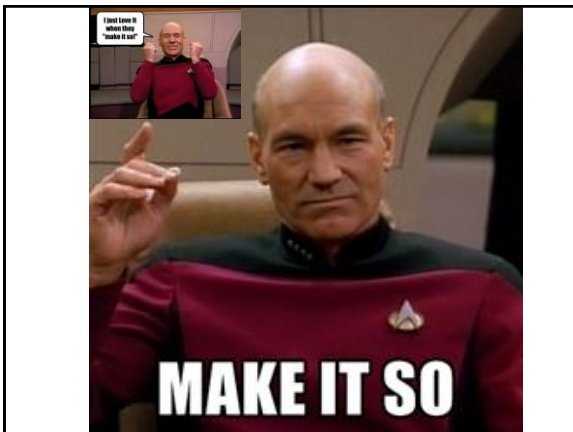


Ok, Million Dollar Question: What words come to mind when I say that I want to motivate learners?



Framework #2: TEC-VARIETY for Online Motivation and Retention

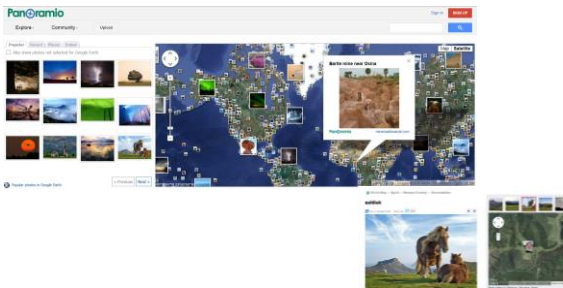
1. **Tone/Climate:** Psych Safety, Comfort, Belonging
2. **Encouragement, Feedback:** Responsive, Supports
3. **Curiosity:** Fun, Fantasy, Control
- ...
4. **Variety:** Novelty, Intrigue, Unknowns
5. **Autonomy:** Choice: Flexibility, Opportunities
6. **Relevance:** Meaningful, Authentic, Interesting
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: B. Share Visuals
(e.g., Panoramio,
<http://www.panoramio.com/>)



1. Tone/Climate: B. Video Course Intros
<http://www.youtube.com/watch?v=jWOUygSnKLO>



2. Encouragement, Feedback, etc.: A. Create Screencasts

(Jing, GoView, Screenr, slide from Zaid Ali Alsagoff [zaid.alsagoff@gmail.com])

Create Screencasts!

URL: <http://zaidali.blogspot.com/2009/11/11-screen-casting-tools-for-education.html>

2. Encouragement, Feedback, etc.: B. Voice Feedback

Vocaroo; <http://vocaroo.com/>
<http://vocaroo.com/i/s1FFzBqb19X> (Kansai Univ.)

© 2007-2013 Vocaroo | [Help](#) | [Info](#) | [Widgets](#) | [@vocaroo](#)

2. Encouragement, Feedback, etc.: C. Blog and Website Polling

(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)

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

What is Poll Everywhere? The fastest way to create and poll real-time experiences for your website and social media.

Who uses Poll Everywhere? Teachers, all agencies, 11-12 teachers, colleges, faith-based organizations, researchers, and more.

2. Encouragement, Feedback, etc.: D. Quizlet (online quiz tools)

<http://quizlet.com/>

Quizlet: The world learns on Quizlet.

Literature Vocabulary: swanky, fancy, elegant, stylish.

3. Curiosity, Fun: A. Something in the News

(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)
http://espn.go.com/sports/enurance/story/_/id/8979487/fauja-singh-101-caps-career-10k-hong-kong

Fauja Singh, 101, finishes last race

HONG KONG — The world's oldest marathon runner ran his last race on Sunday at the age of 101.

Fauja Singh finished the Hong Kong marathon's 10-kilometer (6.25-mile) race in 1 hour, 32 minutes, 28 seconds.

Singh, a Sikh with a saffron turban and a flowing white beard, followed the route along the northern tip of Hong Kong island.

He was accompanied by a group from the city's local Sikh community, joining about 23,000 other runners taking part in the marathon.

The Indian-born runner, nicknamed the Turbaned Tornado, had said that he would hang up his sneakers after the race in the southern Chinese city, just before his 102nd birthday.

Fauja Singh, the world's oldest marathon runner, runs his last race at the age of 101 on Sunday.

3. Curiosity, Fun: B. Create Cartoons, Movies, and Animations

(e.g., Go Animate, xtranormal, PowToon, etc.)

Create Cartoons, Movies & Animations!

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

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

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

3. Curiosity, Fun, Fantasy, Control:
C. Online Database Activities
 (e.g., WolframAlpha)
<http://www.wolframalpha.com/>

WolframAlpha computational knowledge engine

Enter what you want to calculate or know about

Sign in (optional)

Ask about animals

Examples: 100 Random

Access the WolframAlpha computational knowledge engine:

Answer questions, do math, instantly get facts, create plots, calculate, unit conversions, scientific data and statistics, help with homework—so much more.

How to "WolframAlpha" TAKE YOUR TOUR >

A Quick Introduction to WolframAlpha
by Stephen Wolfram

3. Curiosity, Fun:
D. Online Quiz Games
Jeopardy Labs
<https://jeopardylabs.com/play/ganttpardy>

Five Star Year Book	The Seven C's	They Got Skills and They Know It!	"We Are the World"	Justice League
100	100	100	100	100
200	200	200	200	200
300	300	300	300	300
400	400	400	400	400

Team 1
0

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

RANDOM.ORG

List Randomizer

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

1. Bill
2. Arthur
3. 10 Thomas
4. 2 Shelby
5. 7 Shacey
6. 3 Sharon
7. 5 Suse
8. 8 Stephanie
9. 4 Ned
10. 8 Brian

Random Sequence Generator

Here is your sequence:

Timestamp: 2011-08-13 01:09:41

Dice Roller

You rolled 2 dice:

5. Autonomy, Choice:
A. Web Exploration Assignments

The Complete Works of Charles Darwin Online

Einstein Archives Online

Workshop on OER use and re-use for teacher educators in Jamaica

Poll #5:
Which of the first 5 motivational principles will you use the most?

- A. Tone/Climate**
- B. Encouragement/Feedback**
- C. Curiosity/Fun**
- D. Variety/Novelty**
- E. Autonomy/Choice/Flexibility**



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=cJmosLSUarQ&list=TL-symmALKWIT>

Cost Behavior

Variable Cost	Fixed Cost
Shovel rental to dig	Advertising costs
Wages paid to the workers	Manager salaries
Electricity	Depreciation expense
Fuel used by a trucking company	Depreciation expense
Printing variable rate	Salaries of guards
Shipping products	Shipping products

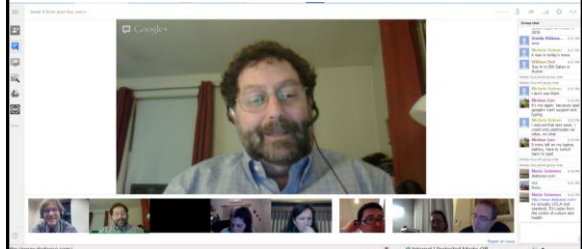
6. Relevance, Meaningfulness: B. Design Multimedia Glossaries

Ozgur Ozdemir, December 2012
<http://r68sglossary.shutterfly.com/>
 Umida Khikmatillaeva, Dec. 2011, P540
<http://learningplanet.shutterfly.com/>



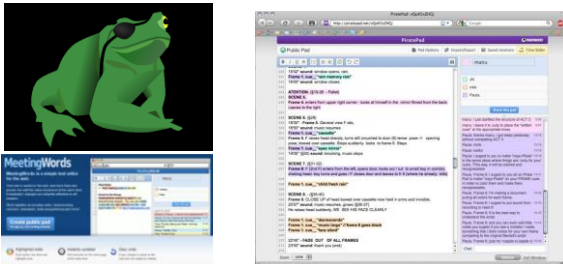
7. Interactive, Collaborative: A. Collaboration and Discussion in Google Hangouts

(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!



7. Interactive, Collaborative: C. Combining Asynchronous and Synchronous Events (flipping classes)



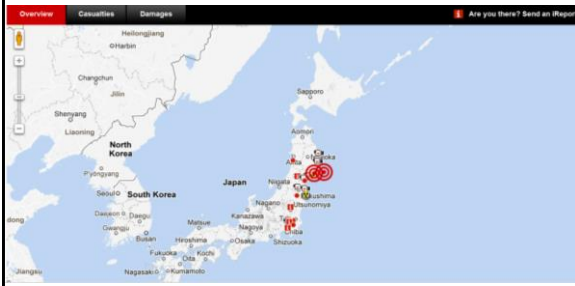
8. Engagement, Effort: A. Arab spring: an interactive timeline of Middle East protests, The Guardian, Garry Blight, and Sheila Pulham, July 12, 2011 <http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline>



8. Engagement, Effort: B. Timelines with Oral Histories, Slavery and the Making of America Time and Place, PBS <http://www.pbs.org/wnet/slavery/timeline/1857.html>



8. Engagement, Effort:
C. 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. Game Show Final Project,
 April 25, 2011, Kim Seeber
 Website: <http://mypage.iu.edu/~kseeber/web2.0technology.swf>



9. Tension, Challenge, etc.:
B. Decision-Making Scenarios
 (e.g., Articulate Storyline)
http://articulate.demos.s3.amazonaws.com/broken_co-worker/story.html



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=7Q429lqxZaU&feature=youtu.be>
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW9lW8>



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



Poll #6:
Which of the last 5 motivational principles will you use the most?

- A. Relevance/Meaningfulness**
- B. Engagement/Effort**
- C. Interactive/Collab/Community**
- D. Tension/Challenge/Dissonance**
- E. Yielding Products/Goals**

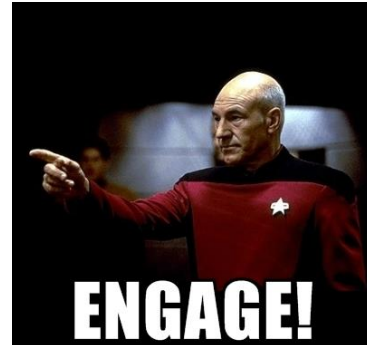


Commitments:**Stop and Share:**

Which principle(s) of TEC-VARIETY will you use?

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products

**Where to next?****Poll #7:**

Do you feel "MOTIVATED" to try any of this out?

- A. Yes, R2D2
- B. Yes, TEC-VARIETY
- C. Yes, both
- D. Neither

**Poll #8: How many new ideas did you get so far?**

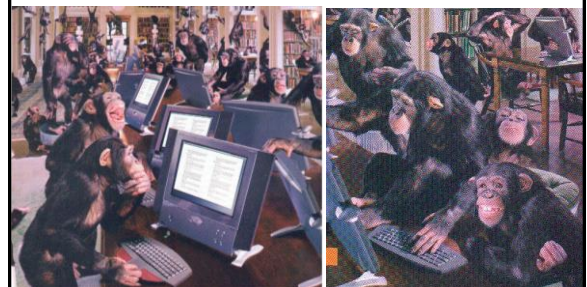
- 1. 0 if I am lucky.
- 2. Just 1.
- 3. 2, yes, 2...just 2!
- 4. Do I hear 3? 3!!!!
- 5. 4-5.
- 6. 5-10.
- 7. More than 10.

**Part III:**

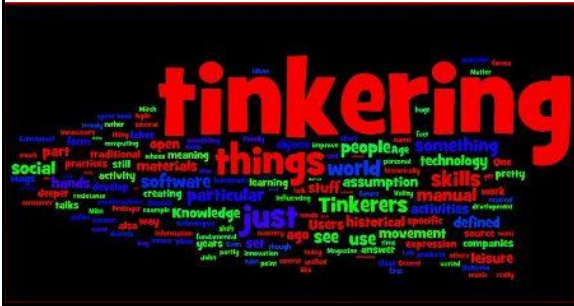
Wait, we are not done yet!



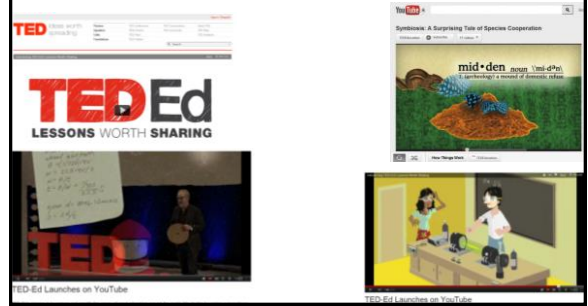
**From Tinkering to Tottering to
Totally Extreme Learning...**



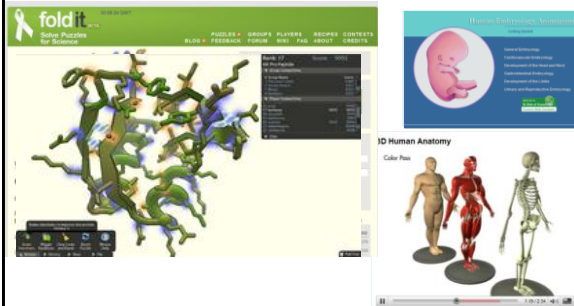
Tinkering



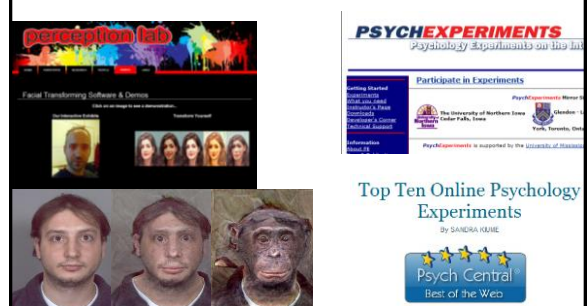
Tinker #1. Educational Videos: TED-Ed <http://education.ted.com/>



Tinker #2. Video Animations and Simulations



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





Tottering



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

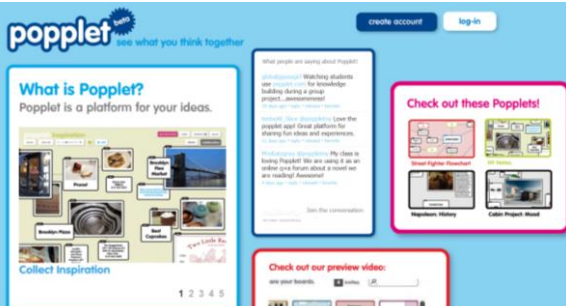


Totter #2. Uploading Mobile Books (e.g., BookRix, <http://www.bookrix.com/>)

Mobile Devices & Learning
How mobile devices are re-shaping the field of education

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





popplet see what you think together

What is Popplet?
Popplet is a platform for your ideas.

Check out these Popplets!

Check out our preview video:



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_hp1

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., Bridey Fennell and her family sailing and learning in the Caribbean)

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



YouTube

Army Learning Concept 2015

Self-structured Learning

4,870

Where are we headed?



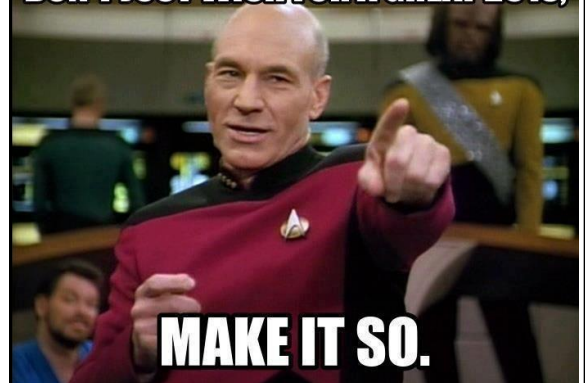
1. Mobile Video Connections to Experts and Friends



2. Expert Access from Our Watches

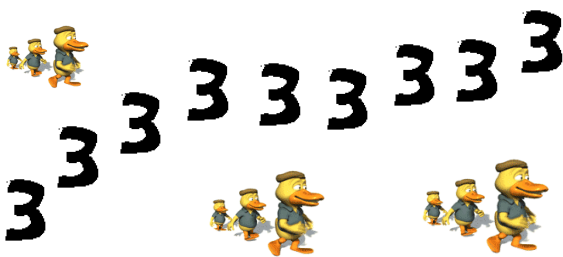


DON'T JUST WISH FOR A GREAT 2013,



MAKE IT SO.

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



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

