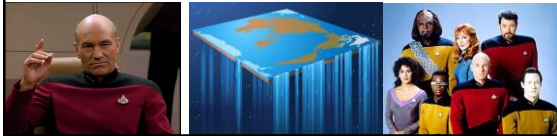


## The Flat World Swung Open: How Web Technology Is Revolutionizing Education

Curtis J. Bonk, Professor, Indiana University  
President, CourseShare, LLC  
cjbonk@indiana.edu  
<http://php.indiana.edu/~cjbonk>



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



**1728: 1<sup>st</sup> correspondence course advertised Boston**  
(learn shorthand from Caleb Phillips thru weekly mailed lessons)  
1728-1990s – Generally postal system based  
1930s – phonograph and radio  
1950s and 1960s – television  
1970s and 1980s – VHS tapes  
1980s and 1990s – DVD



**February 26, 2013**  
**Tablets Rock On: Education Tech  
Through The Ages, Information Week,  
The First Correspondence Course**  
(University of London, External Program, 1858)  
<http://www.informationweek.com/education/leadership/educational-technology-across-the-ages/240149241>

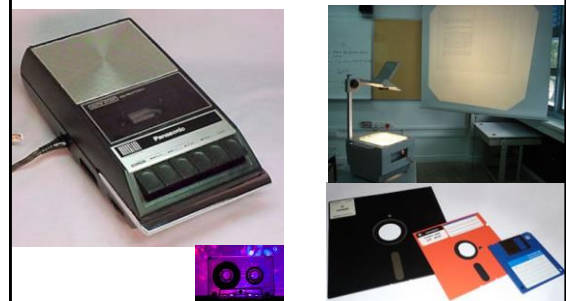


**William Rainey Harper**, first president of the  
University of Chicago, developed the concept of  
extended education. Research Univ. had satellite  
colleges of education in the wider community.

In 1892, he also encouraged the concept of correspondence  
school courses to further promote education, an idea that was  
put into practice by Columbia University.



**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/>



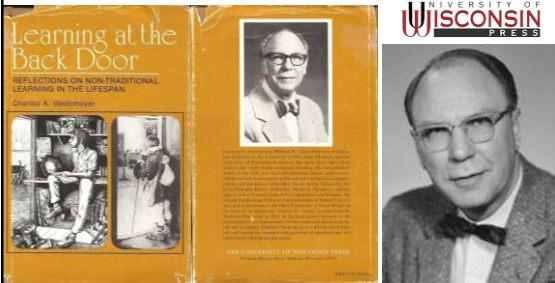
## Looking to the Past...



## 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=hb4As6wEoc>



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



## February 20, 2013

## Star Trek-like holodeck may be closer to reality than you think

Matt Hartley, Financial Post, Canada

[http://business.financialpost.com/2013/02/20/star-trek-like-holodeck-may-be-closer-to-reality-than-you-think/?\\_ga=55464984](http://business.financialpost.com/2013/02/20/star-trek-like-holodeck-may-be-closer-to-reality-than-you-think/?_ga=55464984)

Star Trek-like holodeck may be closer to reality than you think

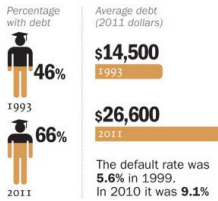


## November, 2012

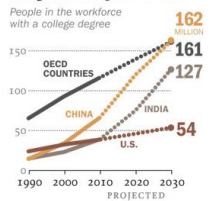
### Degrees of Difficulty, Time

<http://nation.time.com/2012/10/18/degrees-of-difficulty/>

Student debt loads are increasing



Having fewer degrees threatens our global competitiveness



## September/October, 2012

### The Siege of Academy

[http://www.washingtonmonthly.com/magazine/septemberoctober\\_2012/features/its\\_three\\_odock\\_in032373.php?page=all](http://www.washingtonmonthly.com/magazine/septemberoctober_2012/features/its_three_odock_in032373.php?page=all)



## Learning is Changing New Technologies = New Delivery Methods...



## Tablets Rock On: Education Tech Through The Ages, Information Week, February 26, 2013

<http://www.informationweek.com/education/leadership/educational-technology-across-the-ages/240149241>

### Tablets Rock On: Education Tech Through The Ages

From tablets to Google Classroom, education technology has a colorful history. Take a look back at a past trend.

Comments | Erika Swiney | February 20, 2013 08:15 AM

Comment directly with Disqus | Disqus | Disqus



## Technology = Almost Free...



### 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.

Facebook 125 | Twitter 275 | LinkedIn 140 | StumbleUpon 11 | Dribbble 1 | SoundCloud 1 | YouTube 1

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.



**The truth about India's \$35 computer**

By Prasanna K. Roy

How do you get a \$35 computer? The truth about India's \$35 computer. Here we go again: India's Human Resource Development Minister Kapil Sibal has "launched" a \$35 computer, branding it a "dream project" of his. The launch screen, Linux-based device looks iPad-inspired, but we know little about how it works.

It emerged from a student project with a bit of material adding up to \$51, a price that the minister wants to bring down to \$15. To take toward income education, it promises browser and PDF reader, with 2GB memory, USB, Open Office, and multimedia content access and playback.

Will it die a quick death within this year, or a painful, government-backed one over the next year? Not sure.

## Audience Polls #2:

- I. Who remembers where they were when they found out that Steve Jobs passed away?
- II. Who remembers what they were doing on the day that John D. Kennedy was shot?
- III. Who remembers what they were doing on 911?
- IV. Who remembers what they were doing on 411?



## 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."



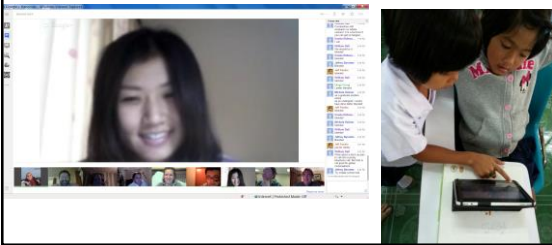
## I. Learning is More Open

(80-Year-Old WGU Texas Grad Keeps His Promise, November 30, 2012, Reeve Hamilton, Texas Tribune)

THE TEXAS TRIBUNE  
An 80-Year-Old Graduate With an Online Marketing Degree Kept His Promise

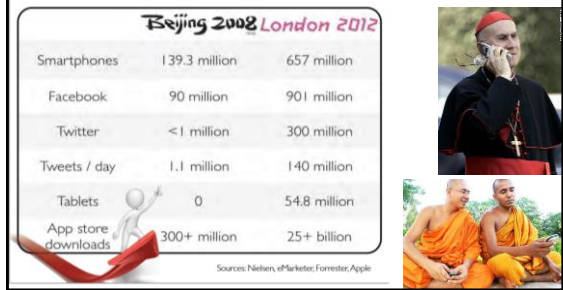


## II. Learning also is More Collaborative Collaboration and Discussion in Google Hangouts or with iPad, Jan. 28, 2013 (Carrie Gong from Beijing Normal University)



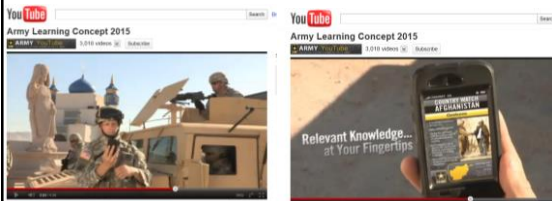
## III. Learning is More Mobile

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



## Military Mobile Learning (See: the U.S. Army Learning Concept for 2015; 2011, January 15).

<http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)



## IV. Learning is More Video-Based

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

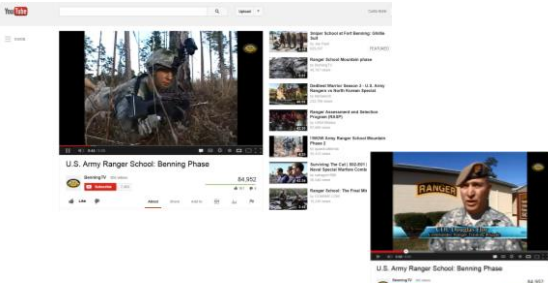
"Shaping tomorrow's innovators: Leveraging science, technology, innovation and culture for today's youth". Statement by the World Food Programme Youth Representative, Ms. Adora Svitak at the 2013 ECOSOC Youth Forum.  
<http://wfp.oh.org/meetings/events/2013-03-27-ecococ-youth-representative-2013-ecococ-youth-forum-shaping-tomorrows-innovators-leveraging-science-technology-innovation-and-culture-for-todays-youth/>





## Benning TV in YouTube U.S. Army Ranger School: Benning Phase

<http://www.youtube.com/watch?v=bD9V801p30E>



## V. Learning is More Social Facebook reaches one billion users, CNN Money, Aaron Smith, October 4, 2012



## VI. 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/>



Mashable  
iPotty Aims To Entertain Toddlers During Toilet Training

## 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 Massive April 16, 2013 (NovoEd)

New MOOC Provider Says It Fosters Peer Interaction  
Chronicle of Higher Education, Jake New

April 16, 2013  
"Supersizing" the College Classroom: How One  
Instructor Teaches 2,670 Students



**NovoED**

Learn. Collaborate. Innovate.



**January 23, 2013: The Bush MOOC Party?**  
**Academic Partnerships Launches MOOC2Degree Initiative**  
**Free, Open Online Courses As A First Step Toward A Degree**  
<http://www.mooc2degree.com/>

**Free, Open Online Courses As A First Step Toward A Degree**

MOOC2Degree can help you achieve your academic goals, giving you the opportunity to try online learning for free. Academic Partnerships is collaborating with many of its 40 public university partners to launch the MOOC2Degree initiative which provides you with free, open online courses that lead to academic credit as a first step toward your degree.

**October 1, 2012: MOOC Students**  
**4 Massive Open Online Courses and How**  
**They Work, Ben Gose, Chronicle of HE**  
<http://chronicle.com/blog/techtherapy/2012/10/03/episode-99-what-wearable-computers-could-mean-for-campus/>

**Krissa Swain, of Knoxville, Tenn., is taking "Operations Management" online to help develop her management skills.**

**Rajeev Bajpai, an airline pilot based in Mumbai, took an online computer-science course to gain programming skills.**

**November 2, 2012**  
**The Year of the MOOC,**  
**New York Times, Laura Pappano,**  
[http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html?\\_r=1&ref=education](http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html?_r=1&ref=education)



Clockwise, from top left: an online course in circuits and electronics with an M.I.T. professor (edX); statistics, Stanford (Udacity); machine learning, Stanford (Coursera); organic chemistry, University of Illinois, Urbana (Coursera).

**April 20, 2013**  
**Two Cheers for Web U!**  
**A. J. Jacobs, New York Times**  
[http://www.nytimes.com/2013/04/21/opinion/andrew-grading-the-mooc-universities.html?pagewanted=all&\\_r=1&mcet=at&\\_r=1](http://www.nytimes.com/2013/04/21/opinion/andrew-grading-the-mooc-universities.html?pagewanted=all&_r=1&mcet=at&_r=1)



**May 6, 2013**  
**Faculty Backlash Grows Against Online Partnerships**  
**Chronicle of Higher Education, Steve Kolowich**  
<http://chronicle.com/article/Faculty-Backlash-Grows-Against/1139049/>

May 6, 2013

Faculty Backlash Grows Against Online Partnerships

Michael Sandel, a Harvard professor, taught an online course that San Jose State U. asked its philosophy professors to use in place of their own instruction. They said no.

By Steve Kolowich

**June 19, 2013**  
**2013 is "The Year of the Anti-MOOC"**  
**George Siemens, UW-Madison Summit**  
<http://globalhighered.wordpress.com/european-moocs-in-global-context/>

**European MOOCs in Global Context** Workshop

31-30 JUNE 2013 • UW-MADISON • EDUCATION BUILDING

Workshop 29 June 2013  
 8:00-10:00 am breakfast  
 10:00-12:00 pm registration  
 12:00-1:00 pm lunch  
 1:00-2:00 pm registration  
 2:00-4:00 pm workshop  
 4:00-5:00 pm registration & drinks  
 5:00-6:00 pm dinner

## X. Learning is More Ubiquitous

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



## NAU Continuous Learning (May 2011)

Module Type	Count
Business	15
Contracting	61
Engineering & Technology	40
Gov't Purchase Card	4
International	6
Logistics	28
Acquisition Management & Program Management	33
Requirements	2
Standard Procurement Systems	48
Harvard Business Modules	7
<b>Total</b>	<b>245</b>

**624,854 FY10 Graduates**  
26% increase over FY09 (494,568)

## XI. 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-apple-hair3-glass-jointone-labone-nike-microsoft-samsung/237913/>

(i.e., magnify moles or injuries, see vital signs, live stream surgeries, access previous PT sessions, access research and drug info, etc.)

<http://www.fiercemobilehealthcare.com/story/google-glasses-could-have-strong-potential-healthcare-use/2013-03-18/>

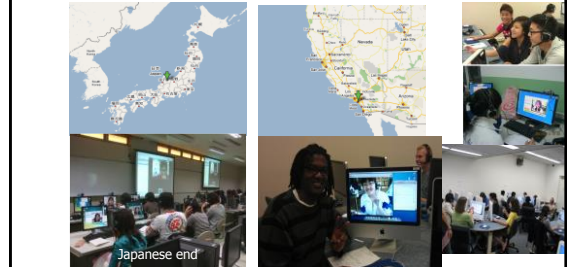


## XII. Learning is More Global

UC Irvine (2013 report)

Example 3: Fundamentals of Japanese

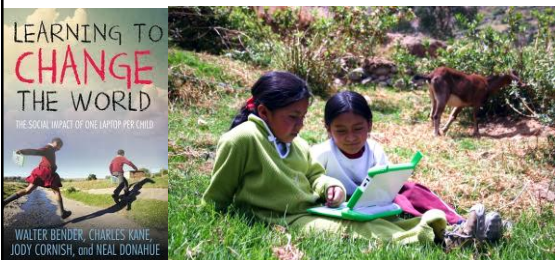
Dr. Hidemi Riggs, Fall 2012 & Winter 2013. Tech-enhanced: [IEEE Advances in Web-based \(Distance\) Learning](#), [Saves](#) video conferencing tool. [Active Learning](#). Format: 5 - 1A lectures (24 students maximum); 3 - 2A lectures (24 students maximum); 2 - 3A lectures (24 students maximum)



## Learning is Changing the World

(Book Review: Ed Tech Mag, May-June 2013)

Walter Bender, Charles Kane, Jody Cornish, and Neal Donahue (2012). *Learning to Change the World: The Social Impact of One Laptop Per Child*. NY: Palgrave Macmillan.



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](http://www.cnn.com/2013/04/15/tech/web/eric-schmidt-internet/index.html?hpt=hp_13)





## Question: What is the Web?

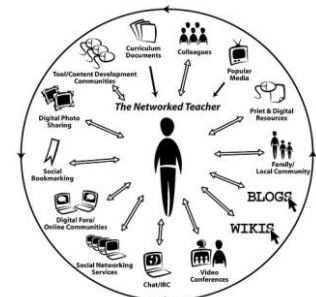
- An entertainment system?
- A writing aid?
- A communications system?
- A means to handle commercial transaction?
- A social networking device?



=====

**No, it is a learning tool!**

## 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!!!**





## Triple Learning Technology Convergence of "WE-ALL-LEARN"



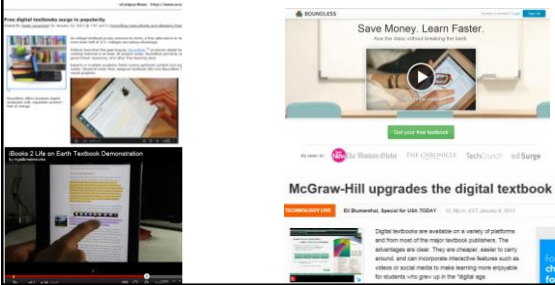
1. **Pipes:** The availability of tools and infrastructure for learning.
2. **Pages:** The availability of free educational content and resources (OER—Open Educational Resources).
3. **Participatory Learning Culture:** A move towards a culture of open access to information, international collaboration, and global sharing.

## Opener #1. Web Searching (e.g., Google, MSN, Yahoo!) in the World of e-Books (i.e., Darwin, Shakespeare, etc.)

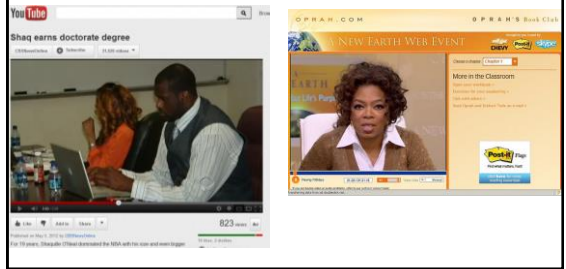


## January 22, 2013 Free digital textbooks surge in popularity, Sarah Langmead, Assistant Editor, eCampus News,

<http://www.ecampusnews.com/featured/featured-on-ecampus-news/free-digital-textbooks-surge-in-popularity/>



## Opener #2. E-Learning and Blended Learning




## May 9, 2011 Defense Acquisition University, Training Courses: Reaching the Workforce



	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Classroom	28,859	25,489	24,368	28,192	29,684	34,587	35,697	33,191	35,861	39,568	45,864
Web	13,380	21,031	36,117	43,649	58,290	75,079	77,582	90,600	118,391	154,399	192,968
Total	42,239	46,520	60,485	71,841	87,974	109,666	113,279	123,791	154,252	193,967	238,832

As of 30 Sep 10

## DAU Formal Training Courses (May 2011)



<b>107 Courses</b>																
DAWA and Core Plus Courses																
24 Level I																
54 Level II																
17 Level III																
12 – Executive & Leadership Support																
Functional Area	AC	BC	CO	CO	F	GR	IN	IR	LO	PM	PQM	RO	SA	ST	SY	TS
	Q	F	N	R	E	T	D	M	G	T	M	M	M	S	T	S

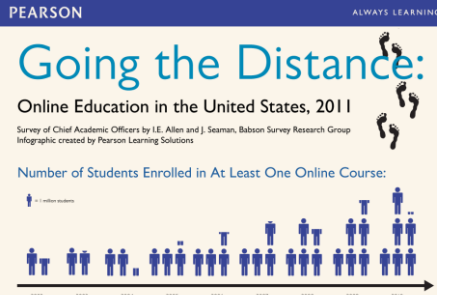
## January 15, 2013

Online programs offered by Kelley and IU schools of education and nursing highly ranked by U.S. News, IU News Room  
<http://newsinfo.iu.edu/news/page/normal/23687.html>



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

[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)



**PEARSON** ALWAYS LEARNING

# Going the Distance:

Online Education in the United States, 2011

Survey of Chief Academic Officers by I.E. Allen and J. Seaman, Babson Survey Research Group  
Infographic created by Pearson Learning Solutions

Number of Students Enrolled in At Least One Online Course:

Year	Number of Students
2002	1,682,870
2003	1,971,387
2004	2,123,783
2005	3,180,050
2006	3,488,361
2007	3,938,111
2008	4,608,383
2009	5,179,052
2010	5,979,052
2011	6,142,285

## Opener #3. Availability of Open Source and Free Software Moodle

(July 18, 2013: 72 million users in 237 countries, 84,518 sites, 7.6 million courses)



## Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from Harvard Edx, MITx, CORE, OOPS)



**OOPS** OOPS  
OpenSource OpenCourseware Prototype System  
開放式課程計劃  
[www.twocui.net](http://www.twocui.net)  
[www.oops.net](http://www.oops.net)

## Saylor.org

<http://www.saylor.org/>  
**RedHoop**  
<http://redhoop.org/>



**February 16, 2012**

**Online Badges and Certifications from OER  
University of Illinois at Springfield, Ray Schroeder**  
<https://sites.google.com/site/opencontinuinged/>

Badges and other alternative certifications

Some sample badges:



How Will Mozilla's Open Badges Project Affect Higher Ed? by Audrey Walters, Hack [Higher] Education - Inside Higher Ed  
The Open Badges Project is a recognition that "learning looks very different today than traditionally imagined. Legitimate and interest-driven learning occurring through a multitude of channels outside of formal education, and yet much of that learning does not "count" in today's world. There is to demonstrate that learning and transfer it across contexts or use it for real results," Mozilla's Eric Knight told me in an interview for [www.insidehighered.com](http://www.insidehighered.com).

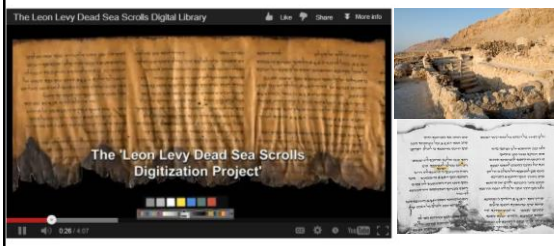
**November 18, 2012**

**Video Streaming  
MOOCs Gaining Popularity, But New Frontier For  
Scaling Up Online Classes Is Course Credit,  
Huffington Post (College), Justin Pope**  
<http://www.usatoday.com/story/news/nation/2012/11/18/more-un-boost-online-education-credit-of-moocs/1713079/>



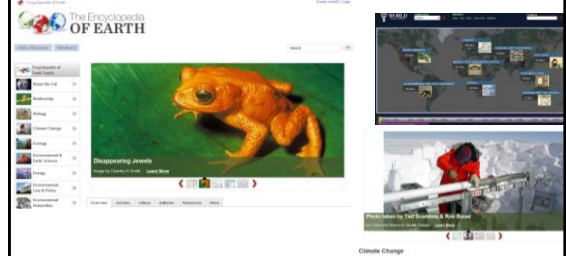
**Opener #5. Online Learning  
Object Repositories and Portals  
(shared content)**

<http://www.deadseascrolls.org/#explore-the-archives>  
<http://www.deadseascrolls.org/#explore-the-archives>  
<http://www.deadseascrolls.org/#explore-the-archives>



**Online Encyclopedias**

(e.g, the Encyclopedia of Earth:  
<http://www.eoearth.org/>)  
[http://en.wikipedia.org/wiki/Encyclopedia\\_of\\_Earth](http://en.wikipedia.org/wiki/Encyclopedia_of_Earth)



**October 2010, The V-PORTAL (Bonk, IU)  
"Video Primers in an Online Repository for  
e-Teaching and Learning" V-PORTAL,  
TravelinEdMan (27 free/open YouTube videos)**  
<http://www.youtube.com/user/TravelinEdMan>



**Opener #6. Learner Participation in  
Open Information Communities  
(e.g., Slashdot, Digg, Wikipedia, YouTube)**





**Opener #7. Electronic Collaboration and Interaction**  
(synchronous & asynchronous)

Soliya Connect

<http://qli.georgetown.edu/#soliya>



**April 15, 2013**  
**Guest Speakers**

Sara de Freitas and Jim Hensman (<https://connect.iu.edu/p2ie1yx6z6x/>)  
Jay Cross (<https://connect.iu.edu/p4bytsoroh/>)



**Tablets Rock On: Education Tech Through The Ages, Information Week, February 26, 2013**

<http://www.informationweek.com/education/leadership/educational-technology-across-the-ages/249149241>



**Opener #8. Alternate Reality Learning**  
(Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)



**Opener #9. Real-Time Mobility and Portability**  
(e.g., iPhone, low cost wireless devices)  
**60,000 earthlings/hour get mobile**



**Testing Smart Phones in the Field**

<http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)





**1. Instructor as Credit Manager**



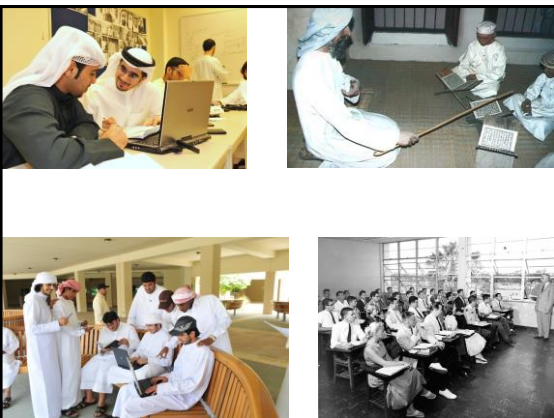
**7. Instructor as Conductor**



**9. Instructor as Curator**



**10. Instructor as Concierge**



**The Next Generation is Here!**





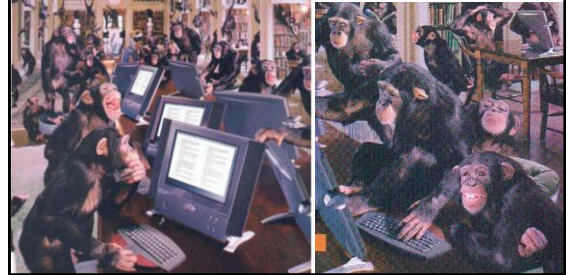
**May 20, 2013**

**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>



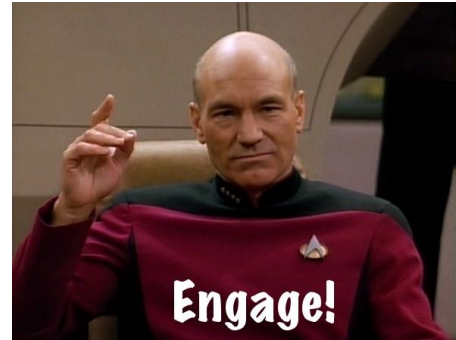
**Part II: How do we apply these ideas?**



**What did Jean-Luc Picard say?**



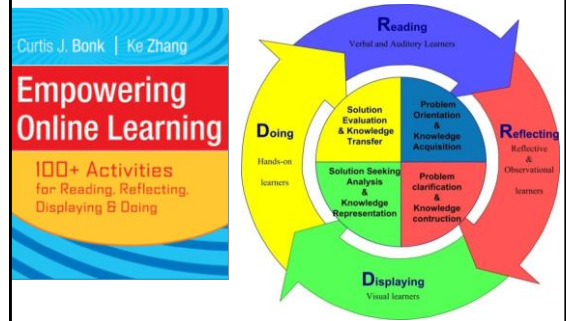
**That's right, Engage!**



**How can technology address diverse learner needs?**



**Framework #1: The R2D2 Model**



## The R2D2 Method

1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

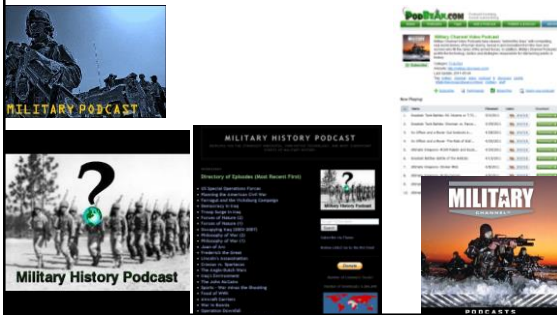


## 1. Auditory or Verbal Learners

- Auditory and verbal learners prefer words, spoken or written explanations.



## Read 1a. Listen to Podcast Shows



## Read 1b. Collect and Listen to Interactive Stories

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

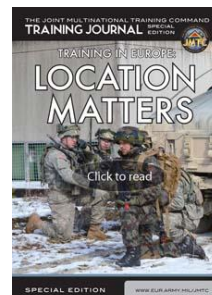


## Read 1c. Follow on Twitter

<https://twitter.com/USArmy>  
<https://twitter.com/electricians>



## Read 1d. Free Online Articles, Technical Reports, and Journals



## Read 1e. Online Crossword Puzzles (e.g., <http://www.eclipsecrossword.com/>)

Create Online Crossword Puzzles!

Welcome to EclipseCrossword!

EclipseCrossword is the first, easy, free way to create crossword puzzles in minutes. It's never been simpler—just go to EclipseCrossword a lot of words and there, and it does the rest. In seconds, you'll have a crossword puzzle with just the words you want. EclipseCrossword has been downloaded more than four million times to people just like you.

Who can use EclipseCrossword?

- **Teachers and parents:** Use crossword to review vocabulary and boost for all subjects. Students may actually more enjoying the engagement. Crossword puzzles encourage logical thinking and correct spelling. Crosswords can be printed or downloaded to use online.
- **Motivation:** You can easily create other online crossword puzzle web pages with EclipseCrossword—crossword puzzles are a great way to get people to stay on your site and come back to the store. You visitors can play the puzzle right on your website, or you can post a printable version or they can solve it at their leisure.
- **Inclusive online:** Includes words you searched! The solving crossword puzzle can be used, and multiple people will look at it before knowing it's done. EclipseCrossword lets you create fun this that can be used in your next presentation or publishing website.
- **Your feedback:** can use EclipseCrossword to generate great looking crossword puzzles. If you're not sure what you'd make a crossword about, check out our suggestions!

<http://www.eclipsecrossword.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. Workplace and Field Reflections



Gen. Raymond T. Odierno & the way ahead for the 82nd Airborne Division's 1st Brigade

U.S. Army Gen. Raymond T. Odierno, commanding general of Multinational Force Iraq, explains the way ahead for the 82nd Airborne Division's 1st Brigade, the army's last fully equipped and active and still complete, currently deployed in a major presence in Camp Marezah, Iraq, Oct. 27, 2009. In the field, the general stressed the need to increase the capacities of Iraq and security force institutions. U.S. Army photo by Sgt. Andrew J. Bickel.



## Reflect 2b. Blogging Reflections



## Reflect 2c. 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 2d. 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/International/story/2011-08-25/Harrison-Lieber-King-in-Rhode-Island-8-Cases-look-20110825/2page=20000>  
<http://www.usatoday.com/story/life/movies/2013/04/10/harrison-ford-jackie-robinson/2001783/>



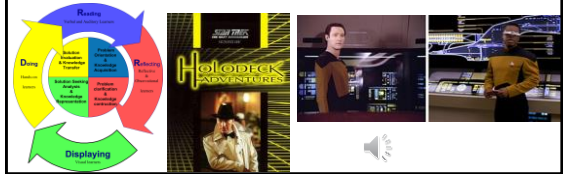
## Poll #2: Any light bulbs going off in your head so far...?

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



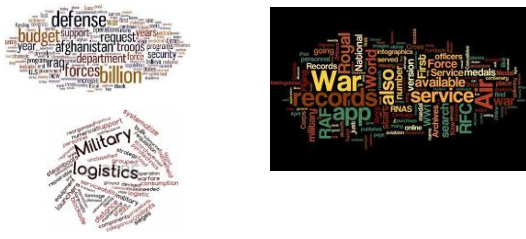
## 3. Visual Learners

- 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/>

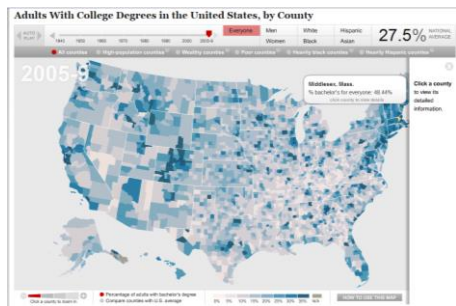


## Display 3b. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Gliffy, Mindmeister, or Mindomo)



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

[http://datavis.com/articles/Keith\\_Hamson\\_Interviews\\_Josh\\_Keller\\_on\\_Interactive\\_Graphics\\_for\\_Higher\\_Education](http://datavis.com/articles/Keith_Hamson_Interviews_Josh_Keller_on_Interactive_Graphics_for_Higher_Education)



## 4. Tactile/Kinesthetic Learners

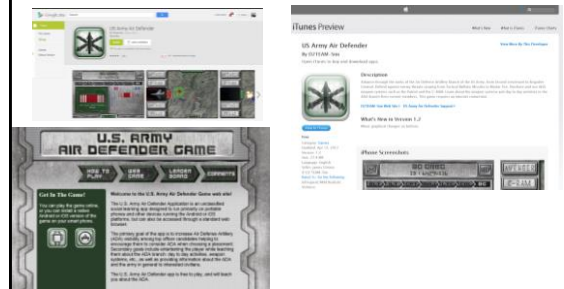
- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.



### Do 4a. Simulations and Animations



### Do 4b. Mobile Simulations (US Army Air Defender)



### Do 4c. Student Class Documentaries

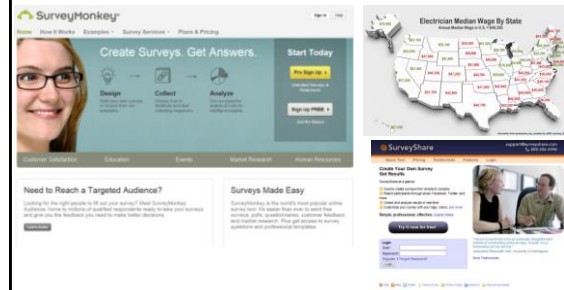
Umida's R546 Documentary Project

[http://www.youtube.com/watch?v=EMLTzqCV\\_5A](http://www.youtube.com/watch?v=EMLTzqCV_5A)

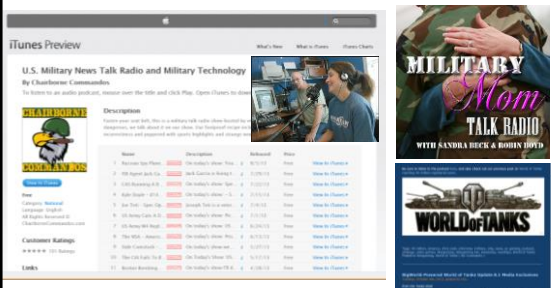


### Do 4d.

### Survey Research and Market Analysis (e.g., SurveyShare, Zoomerang, SurveyMonkey)



### Do 4e. Podcast Productions and Shows



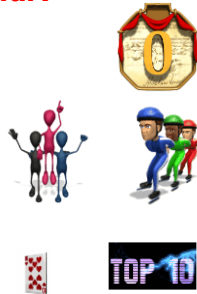
### Poll #3: What phase of the R2D2 Method did you get the most ideas from ?

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



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

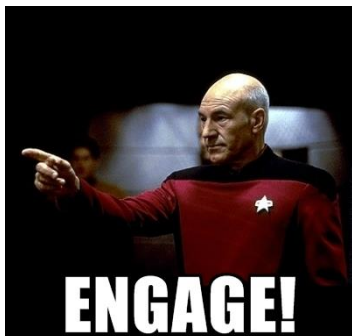
1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.



**What was it that he said?**



**That's right, Engage!**

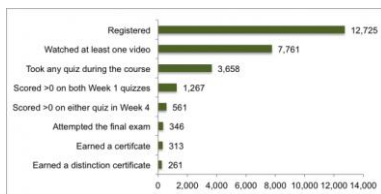


**But Sleepy Times...?**



**February 24, 2013**  
**Big (MOOC) Data, Inside Higher Education,**  
**Dayna Catropa**

<http://www.insidehighered.com/blogs/strategy/big-mooc-data>



**How do we engage online?**



## 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: Social Ice Breakers

### A. 8 nouns (adjectives, verbs)

- List of nouns: (e.g., pirate, computer, traveler, roadrunner, wind, bookworm, musician, mentor, etc.)  
- <http://www.momsworthink.com/reading/list-of-nouns.html>
- List of adjectives: (e.g., lazy, powerful, shy, bored, exotic, cooperative, sloppy, rebel, etc.)  
- <http://www.momsworthink.com/reading/list-of-adjectives.html>
- List of verbs: (e.g., coordinate, entertain, amuse, push, unite, beg, dream, publicize, etc.)  
- <http://www.momsworthink.com/reading/list-of-verbs.html>



## 1. Tone/Climate: B. Video Course Intros

<http://www.youtube.com/watch?v=e5jLwUZ3flg>



## 2. Encouragement, Feedback, etc.: A. Voice Feedback

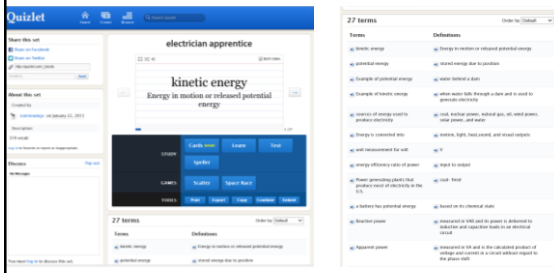
Vocaroo; <http://vocaroo.com/>

<http://vocaroo.com/i/s0iIAqCoVTH7> (Fort Sill)



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

<http://quizlet.com/>



## 2. Encouragement, Feedback, etc.: C. Create Screencasts

(Jing, GoView, Screener, slide from Zaid Ali Alsagoff

[zaid.alsagoff@gmail.com])



## 2. Encouragement, Feedback, etc.: D. Blog and Website Polling (e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)

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

The screenshot shows the Poll Everywhere interface. On the left, there's a 'What's Your Favorite Animal?' poll with a bar chart showing results for Lion, Turtle, and Grandpa. On the right, a 'What's your favorite color?' poll shows results for Red (117500), Blue (117503), and Green (117504).

## 3. Curiosity, Fun: A. Online Games



## 3. Curiosity, Fun, Fantasy, Control: B. Online Database Activities (e.g., WolframAlpha)

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

The screenshot shows the WolframAlpha search engine interface. The search query 'AC Milan 1234' is entered, and the results include a graph and a link to 'A Quick Introduction to Wolfram Alpha' by Stephen Wolfram.

## 3. Curiosity, Fun: C. Something in the News

(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)

[http://espn.go.com/sports/endorurance/story/\\_/id/8979487/fauja-singh-101-cape-carerw-10k-hong-kong](http://espn.go.com/sports/endorurance/story/_/id/8979487/fauja-singh-101-cape-carerw-10k-hong-kong)

The collage features several images: Fauja Singh celebrating with a crowd, him running in a race, and him being interviewed. The text 'Fauja Singh, 101, finishes last race' is prominently displayed.

## 3. Curiosity, Fun: D. Online Quiz Games Jeopardy Labs

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

The screenshot shows the Jeopardy! game board. The board has five columns and five rows of questions. The categories are: 'Five Get Your Back', 'The Secret C's', 'They Got Skills and They Know It', 'Who Are the World', and 'Justice League'. The values range from 100 to 400.

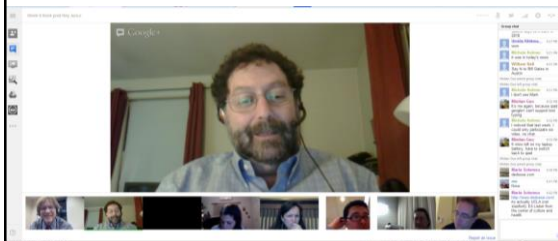
## 3. Curiosity, Fun: E. Create Cartoons, Movies, and Animations (e.g., Go Animate, xtranormal, PowToon, etc.)

The collage includes: a banner for 'Create Cartoons, Movies & Animations!', a screenshot of the Go Animate website, and a screenshot of the xtranormal website.



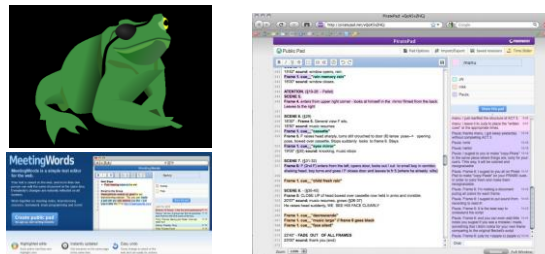


**7. Interactive, Collaborative:**  
**A. Collaboration and Discussion in Google Hangouts**  
 (January 29 and February 25, 2013)



**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>

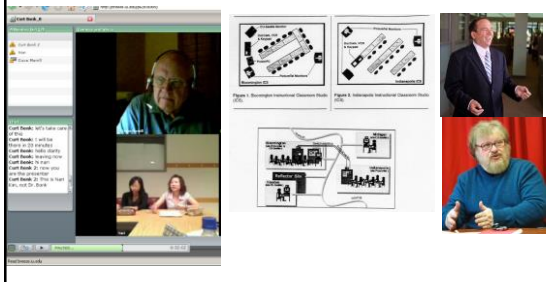


**9. Tension, Challenge, etc.:**  
**A. Decision-Making Scenarios**  
 (e.g., Articulate Storyline)

[http://articulate.demos.s3.amazonaws.com/broken\\_co-worker/story.html](http://articulate.demos.s3.amazonaws.com/broken_co-worker/story.html)



**9. Tension, Challenge, etc.:**  
**B. Combining Asynchronous and Synchronous Events (flipping classes)**



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

Piercarlo Abate: <http://www.youtube.com/watch?v=-TURzH0a0U>  
 Gagnam: <http://www.youtube.com/watch?v=7Q429lqzZaU&feature=youtu.be>  
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW9lW8>



### 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?

**T**one/Climate  
**E**ncouragement, Feedback  
**C**uriosity

**V**ariety  
**A**utonomy  
**R**elevance  
**I**nteractive  
**E**ngagement  
**T**ension  
**Y**ields Products



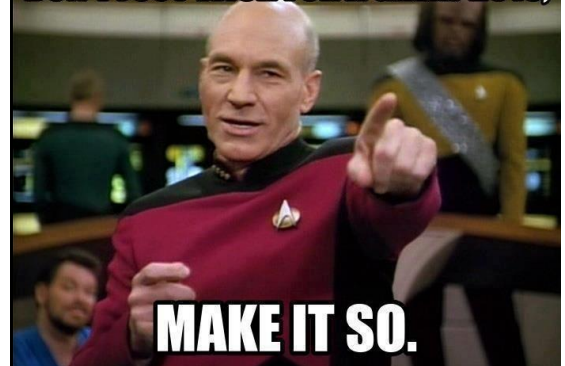
### Poll #3:

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

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

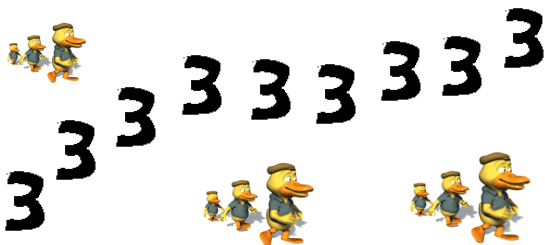


**DON'T JUST WISH FOR A GREAT 2013,**



### Stop and Share:

Three Words from Today's Session!



**Any Questions?**  
**Try the R2D2 Model!**  
**Try TEC-VARIETY too...**



**Slides at: [TrainingShare.com](http://TrainingShare.com)**

**Papers: [PublicationShare.com](http://PublicationShare.com)**

**Book: <http://worldisopen.com/>**

**Email: [curt@worldisopen.com](mailto:curt@worldisopen.com)**

