

## Where Are You R2D2?:

Addressing Diverse Learner Needs with the  
Read, Reflect, Display, and Do Model

Dr. Curtis J. Bonk  
Professor, Indiana University  
<http://php.indiana.edu/~cjbok>  
[cjbok@indiana.edu](mailto:cjbok@indiana.edu)



## Audience Poll #1:

Has learning technology has  
ever transformed your life.



## Looking to the Past...



## Change not possible as an accountant...

(Life as a CPA, 1981-1986)



## Knowledge Navigator (1987)

Apple Computer

<http://www.youtube.com/watch?v=hb4AzfEwEoc>



## Fast Forward 25+ 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

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



## I. Learning is More Technology Driven Robots teaching English and Virtual Worlds Dr. Meeyong Kim, Dajeon, Korea, May 2012



## II. Learning is More Video-Based GETideas Channel, Cisco (Thought Leader Series uploaded to YouTubeUdu), July 22, 2011



## Adora Svitak, WFP Youth Representative - 2013 ECOSOC Youth Forum

"Shaping tomorrow's innovators: Leveraging science, technology, innovation and culture for today's youth", 27 Mar 2013 - Statement by the World Programme Youth Representative, Ms. Adora Svitak at the 2013 ECOSOC Youth Forum.  
<http://webtv.un.org/meetings-events/and-social-council/child-environment/and-social-programme-youth-representative-2013-ecosoc-youth-forum-shaping-tomorrow-innovators-leveraging-science-technology-innovation-and-culture-for-todays-youth/25787505500>




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



## IV. Learning is More Open


**The Digital Campus** thinkcc

Open Education's Wide World of Possibilities




And being the Open (digital) gives us learning sets in "flex" for new black education projects in the home region of support (PMA) and student study centers through Yale in a open classes.

By: Performance Management



An 8th-Grade Old Graduate With an Online Marketing Degree Says His Professor



## V. 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

"Super-sizing" the College Classroom: How One Instructor Teaches 2,670 Students



Stanford ONLINE

Designing a New Learning Environment



NovoED

Learn. Collaborate. Innovate.

Designing a New Learning Environment

Startup Boards: Advanced Entrepreneurship


## February 5, 2013

### Bioelectricity: A Quantitative Approach,

#### Duke University's First MOOC

<http://dx.doi.org/10.1016/j.cels.2013.02.001>

On the Meaning of MOOC's



Duke

Bioelectricity: A Quantitative Approach




Figure 2. Bioelectricity Video Views first and last video for each week



Week	First Video Views	Last Video Views
Week 1	10000	10000
Week 2	8000	8000
Week 3	6000	6000
Week 4	4000	4000
Week 5	2000	2000
Week 6	1000	1000
Week 7	500	500
Week 8	200	200
Week 9	100	100
Week 10	50	50
Week 11	20	20
Week 12	10	10
Week 13	5	5
Week 14	2	2
Week 15	1	1
Week 16	1	1
Week 17	1	1
Week 18	1	1
Week 19	1	1
Week 20	1	1
Week 21	1	1
Week 22	1	1
Week 23	1	1
Week 24	1	1
Week 25	1	1
Week 26	1	1
Week 27	1	1
Week 28	1	1
Week 29	1	1
Week 30	1	1
Week 31	1	1
Week 32	1	1
Week 33	1	1
Week 34	1	1
Week 35	1	1
Week 36	1	1
Week 37	1	1
Week 38	1	1
Week 39	1	1
Week 40	1	1
Week 41	1	1
Week 42	1	1
Week 43	1	1
Week 44	1	1
Week 45	1	1
Week 46	1	1
Week 47	1	1
Week 48	1	1
Week 49	1	1
Week 50	1	1

## VI. Learning is More Flipped

TED Ideas worth spreading

Themes: TED Conferences, TED Events, TED Prize, TED Talks, TED Fellows

TALKS

Salman Khan: Let's use video to reinvent education



## VII. Learning is More Empowering

### iPad gives voice to kids with autism

Supraja Seshadri, CNN, May 14, 2012

iPad gives voice to kids with autism



Sharia Siddiqui uses an iPad to help her communicate. Her father says it's "given her a sense of control she never had."

## VIII. Learning is More Social

### Facebook to help overhaul ICT curriculum,

Money, Andrew Marszal, Telegraph, Oct. 19, 2012

CNN Money FORTUNE

Facebook reaches one billion users

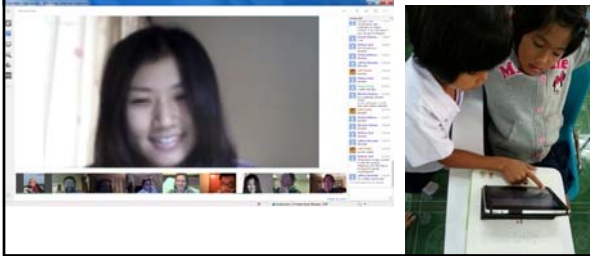


The Telegraph

Facebook to help overhaul ICT curriculum



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



**X. Learning is More Modifiable**  
 New Learning Space Designs



**XI. Learning is More Bendable**  
 Flexible displays bend what's possible for computers,  
 Jon Swartz, USA Today (May 4, 2012)

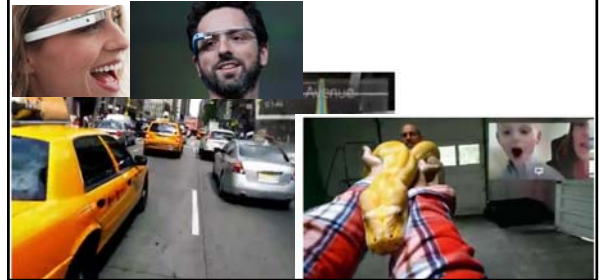


Components of the wrist-worn display prototype developed at HP Labs are shown in this illustration. When completed, the device will incorporate a working flexible display powered by solar cells.

**XII. Learning is More Streamed**  
 April 9, 2013

Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today

<http://www.usatoday.com/story/tech/2013/04/09/google-wearible-smart-glasses-pokemon-where-microsoft-samsung/1979419/>



**February 22, 2013**  
 NASA's spacey Google+ Hangout shows off zero-G antics – and cats!

[http://www.nasa.gov/pdf/content/pdf/702111main\\_20130222\\_1302158main\\_500px-google-hangout-show-off-zero-g-antics-and-cats-1302158main\\_500px.jpg](http://www.nasa.gov/pdf/content/pdf/702111main_20130222_1302158main_500px-google-hangout-show-off-zero-g-antics-and-cats-1302158main_500px.jpg)



**XIII. Learning is More Personal**  
 iPotty Aims To Entertain Toddlers During Toilet Training, Mashable, Kate Freeman  
 (January 10, 2013)

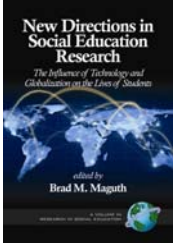

<http://mashable.com/2013/01/10/ipotty/>







### XIV. Learning is More Global

(Book Review by Dr. Mimi Miyoung Lee: Ed Tech Magazine, May-June 2013)  
 (e.g., TakingItGlobal (TIG), RoundSquare, etc.)  
 RoundSquare (<http://www.roundsquare.org/>) and  
 Taking it Global (<http://www.tiqweb.org/>)

### 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.

### XV. Learning is More Web-Based

April 15, 2013

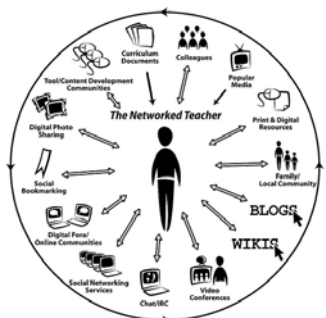

Google boss: Entire world will be online by 2020, Doug Gross, CNN

[http://www.cnn.com/2013/04/15/tech/web/eric-schmidt-internet/index.html?hpt=hp\\_t3](http://www.cnn.com/2013/04/15/tech/web/eric-schmidt-internet/index.html?hpt=hp_t3)

Google boss: Entire world will be online by 2020



### The Web of Learning

### It is very open!

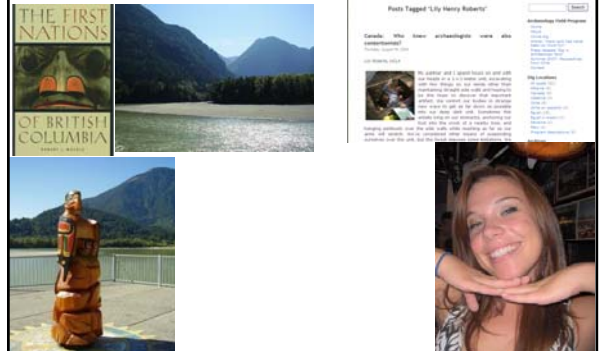
(Norway, the Philippines, Saudi Arabia, etc.)



**We are entering a jumping off point...**

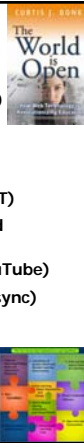


**I'm an Armchair Indiana Jones...**



**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)



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

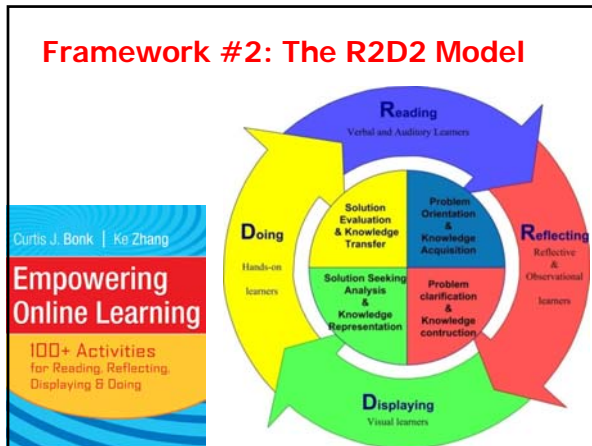


**That's right, Engage!**



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





## 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.

1. Risk: Low Risk (left) to High Risk (right). Illustration: A person with a red exclamation mark.
2. Time: Easy to Embed (left) to Extensive Planning (right). Illustration: A cartoon character.
3. Cost: Free or Inexpensive (left) to Enterprise Licenses (right). Illustration: A treasure chest.
4. Student-Centered: Instructor-Focus (left) to Student-Focus (right). Low (left) to High (right). Illustration: A group of people.

## Read 1a. Twitter Fed Class Discussions

## Read 1b. Grammar Checkers (e.g., Grammarly)

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

Top 10 reasons you'll love Grammarly

## Read 1c. Interactive Stories

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



## Read 1d. Online Crossword Puzzles

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

Create Online Crossword Puzzles!



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

## Read 1e. Talking Dictionaries for Rare Languages

The Wall Street Journal, February 18, 2002

<http://online.wsj.com/article/SB1000142405297020488040457228982976760026.html?articleTabs%3Dvideo>



## 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



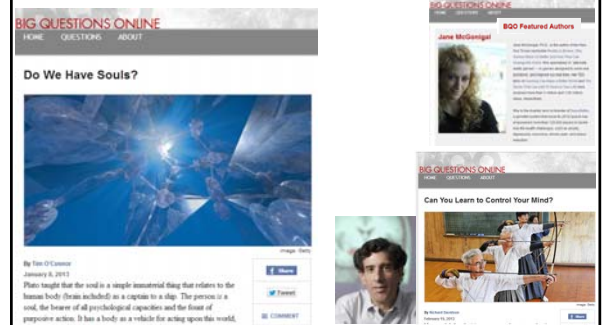
## Reflect 2a. Workplace Internship, Practicum, and Field Reflections



## Reflect 2b. BQQ (Big Questions Online), January 8, 2013

(e.g., Do We Have Souls?)

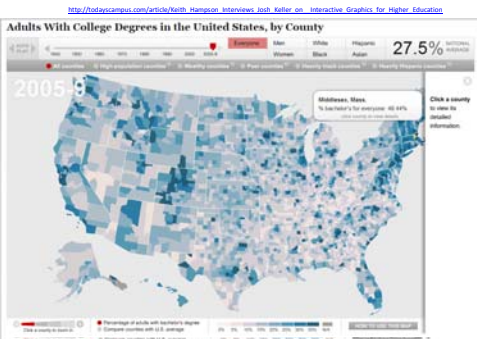
<https://www.bigquestionsonline.com/content/do-we-have-souls>





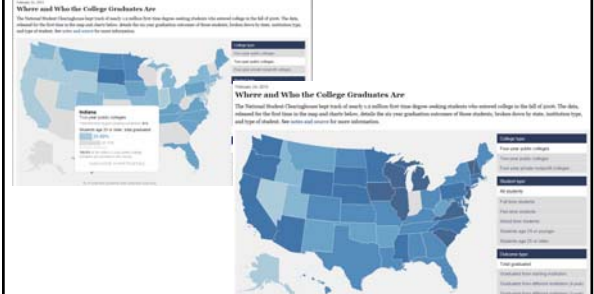


**Display 3b. Interactive Maps**  
(adults with college degrees by county, May 7, 2012)



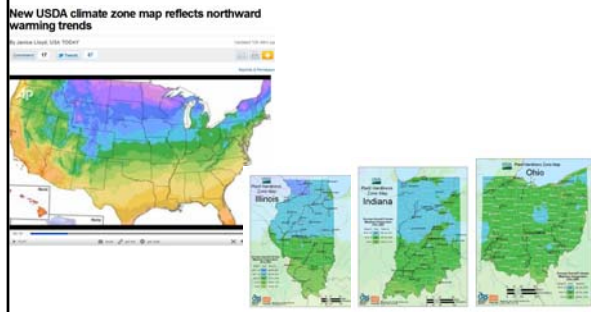
**Display 3c. More Interactive Maps**  
Where and Who the College Graduates Are,  
Chronicle of HE, February 24, 2013

[http://chronicle.com/article/WhereWho-the-College/137551?cid=at&utm\\_source=at&utm\\_medium=en](http://chronicle.com/article/WhereWho-the-College/137551?cid=at&utm_source=at&utm_medium=en)



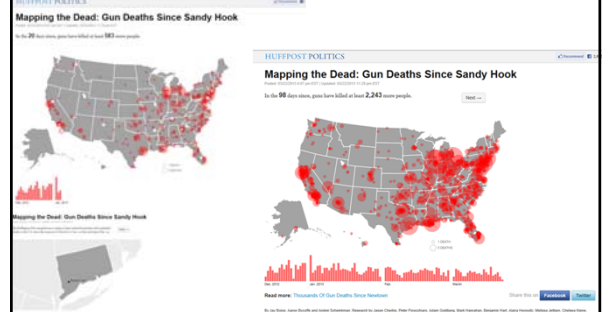
**Display 3d. More Interactive Maps**  
(e.g., New USDA climate zone map reflects northward warming trends,  
By Janice Lloyd, USA TODAY, January 26, 2012)

<http://www.usatoday.com/news/nation/environment/story/2012-01-26/USDA-climate-zone-map/52787142/1>



**Display 3e. More Interactive Maps**  
Mapping the Dead: Gun Deaths Since Sandy Hook,  
Huffington Post, March 22, 2013

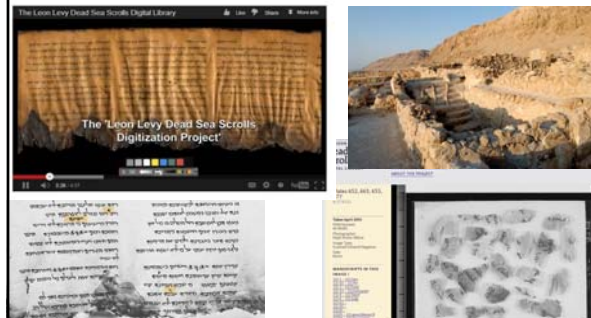
<http://data.huffpost.com/2013/03/gun-deaths>



**Display 3f. Unique OER**  
(e.g., Dead Sea Scrolls)

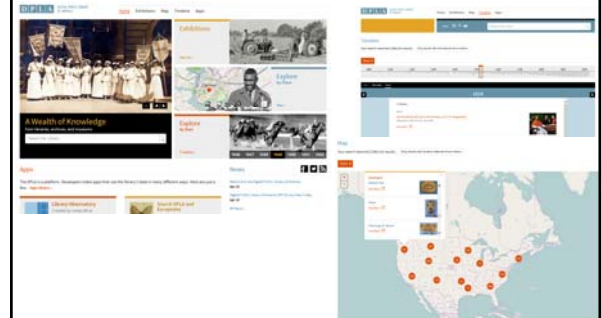
<http://www.deadseascrolls.org.il/collections/the-archives>

[http://www.deadseascrolls.org.il/explore-the-archives/open-the-site\\_en-Domain-Copy\\_4](http://www.deadseascrolls.org.il/explore-the-archives/open-the-site_en-Domain-Copy_4)



**Display 3g. Visual Library Search**  
DPLA (Digital Public Library Of America)

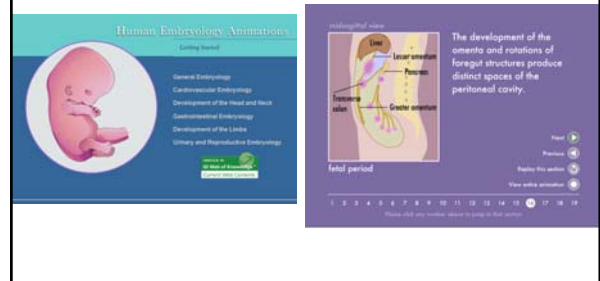
<http://dp.la/>



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



### Display 3i. Human Embryology Animations (Valerie O'Loughlin, Indiana University)



### Display 3j. Online Timelines (US Presidents)



### Display 3k. Video Art Tutorials (ArtMaker.com <http://artmaker.com>)



### 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.

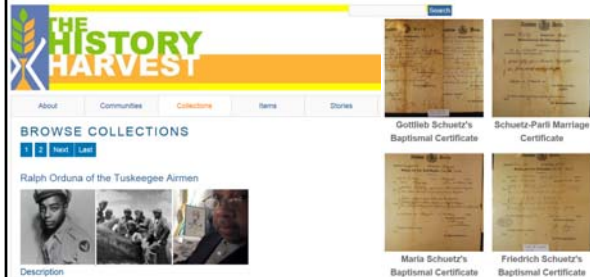


### Do 4a. Podcast Productions and Shows



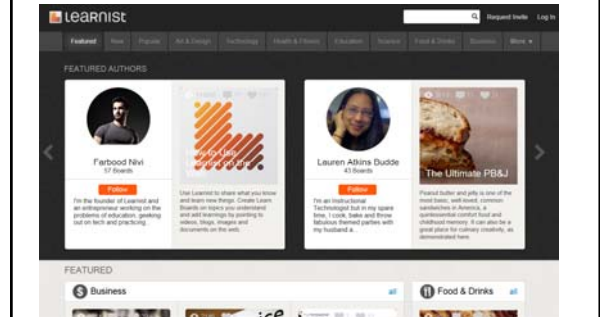
**Do 4b. Community Oral Histories**  
(e.g., The History Harvest, December 21, 2012)

<http://historyharvest.unl.edu/collections>



**Do 4c. Student Expertise**  
(e.g., Learnist)

<http://learni.st/category/featured#/category/featured>



**Do 4d. 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 4e. Negotiate Meanings Online**  
(e.g., 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!



**Do 4f. Student Collaborative Knowledge Building and Sharing**  
(e.g., Popplet: <http://popplet.com/>)



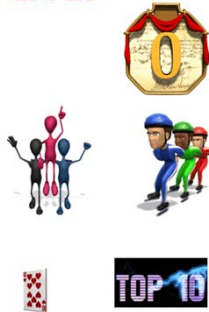
**Poll #2: What phase of the R2D2 Method will you use most?**

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



**Poll #3: How many new ideas did you get from Part 1?**

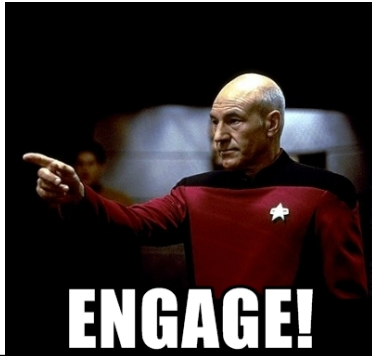
1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.



**What was it that he said?**



**That's right, Engage!**



**Where would we all like to work?**



**ENGAGE UNIVERSITY**

**Sleepy U?**



**April 15, 2012**

**Can Colleges Manufacture Motivation?,  
Dab Berrett, Chronicle of Higher Ed**

<http://chronicle.com/article/Can-Colleges-Manufacture/131564/>

April 15, 2012

**Can Colleges Manufacture Motivation?**

*By Dan Berrett*

Vancouver, British Columbia

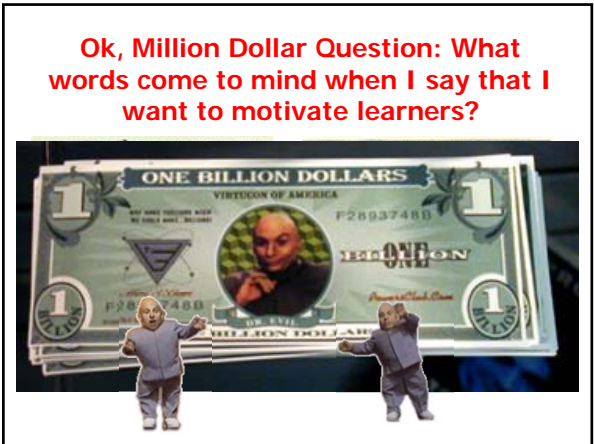
Motivation is often thought of as an inborn personality trait whose absence helps explain why some succeed while others fail to

Recent research, including that presented here at the annual meeting of the Educational Research Association



*Nancy L. Ford*

# How do we engage online?



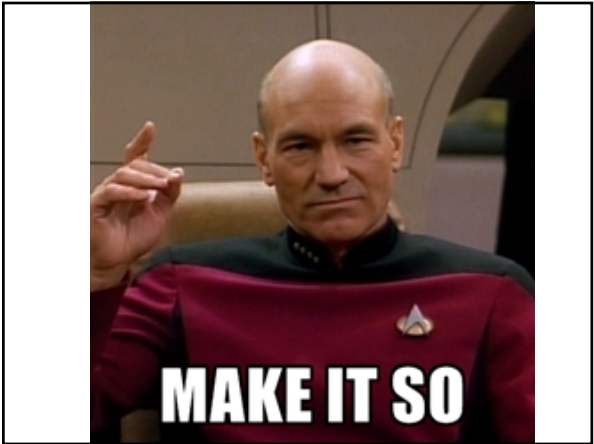
- ### Motivation Research Highlights
- (Jere Brophy, Michigan State University)
1. **Supportive**, appropriate **challenge**, **meaningful**, moderation/optimal.
  2. Teach **goal** setting and self-reinforcement.
  3. Offer **rewards** for good/improved performance.
  4. Novelty, **variety**, **choice**, 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.
- 

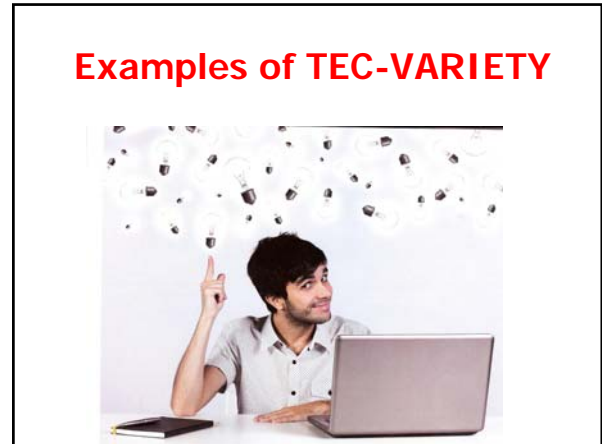
### Intrinsic Motivation

“...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.

- ### Framework #3: 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
- 





**1. Tone/Climate: A. React to Visuals**  
 The happiest and saddest states according to Twitter  
 Heather Kelly, CNN Tech, February 19, 2013  
<http://www.cnn.com/2013/02/19/tech/social-media/twitter-happiness/index.html>

The happiest and saddest states according to Twitter

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

Create Screencasts!

**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. Vocab Sushi (\$25 for 3 months)**  
<http://www.vocab sushi.com/>

### 3. Curiosity, Fun:


#### A. Online Social Networking Games (e.g., scrabble, hangman, etc.)

Google takes swing at Facebook in social games

By Mike Sneider and Scott Martin, USA TODAY August 12, 2011

USA TODAY

introduced a new set of social games with last fall as Angry Birds and Angry Birds: Friends. The new set of social games will be the next networking game. Google is looking to see if the idea of online social game developers, using for one in the ongoing battle for social sites.



Instant Interactive™

5 + 4 = 9  
New Drills 5.3  
Ready for Snow Leopard

### 3. Curiosity, Fun: B. Online

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

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

WolframAlpha

Enter what you want to calculate or know about

type via jsfiddle



Ask about animals

Access the WolframAlpha computational knowledge engine:

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

Now to WolframAlpha!

TAKE THE TOUR >

A Quick Introduction to WolframAlpha



### 3. Curiosity, Fun: C. Track a Scientist, Scholar, Celebrity, Writer (e.g., Biography.com, biography online, FamousPeople.com)

Biography ONLINE

Welcome to Biography Online

Biographies of the famous, influential, and inspirational.

1000 People Who Changed the World

Who are the 1000 people who changed the world? People who influenced and inspired the world.

Women Who Changed the World

Over 100 professional women who helped to shape the world we know today. Including: Virginia, Elizabeth, Lavinia, Florence, Anne of Denmark, Mary's Mother and Mother Teresa.

Inspired People

A selection of inspirational people who have helped create a better world.

Photos That Changed the World

Photos and events that changed the world. From the atomic bomb to the fall of the Berlin Wall.

Top 1000 Biographies

Visit the most influential biographies, as ranked by a worldwide 800 survey.



### 3. Curiosity, Fun: D. Tracking the Life of a Scientist (e.g., Brian J. Ford, independent scientist)

<http://www.youtube.com/user/tellymonitor#p/a/u/1/LhGeApsKjar>

<http://www.labnews.co.uk/news/prehistoric-revolution/>

LaboratoryNews

A prehistoric revolution

Prehistoric revolution: new way to study prehistoric life

Prehistoric revolution: new way to study prehistoric life

Prehistoric revolution: new way to study prehistoric life




### 3. Curiosity, Fun: E. Cross-Cultural Exchanges (e.g., Georgetown Learning Initiatives in Soliya)

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

GEORGETOWN LEARNING INITIATIVES

Soliya Connect

Overview: At Georgetown, Case Study, Student Perspective, Partners

Soliya at Georgetown (CNN video):



### 3. Curiosity, Fun:

#### F. Blog Adventures

Tracing the fate of Algal Carbon Export in the Ross Sea, Antarctica TRACERS: The NBP13-02 Cruise, February 12 to April 5, 2013

<http://tracers-nbp1302.blogspot.com/p/the-project.html>

From: Cassandra Brooks [cbrooks1@stanford.edu]

Sent: Thursday, January 31, 2013 12:09 AM

Subject: I'm heading out today to New Zealand, then flying to Antarctica where we pick up our NSF icebreaker. We'll be at sea for about 54 days.

Tracing the fate of Algal Carbon Export in the Ross Sea, Antarctica TRACERS: The NBP13-02 Cruise

The Project

Collaborative Research

Tracing the fate of Algal Carbon Export in the Ross Sea (TRACERS)

PROJECT DESCRIPTION

Tracing the fate of Algal Carbon Export in the Ross Sea (TRACERS)






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

(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)  
<http://oanp.gov.com/sports/endurance/story/716/9979487/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 3 hours, 32 minutes, 26 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, among about 22,000 other runners taking part in the marathon.

The Indian-born runner, nicknamed the "Furthest Frontier," had said that he would hang up his sneakers after the race in the southern Chinese city, just before his 103rd birthday.






### 4. Variety, Novelty, Fun, Fantasy: A. Timers (Random.org, Stopwatches, coins, playing cards, dice, Countdown Timers, Stopwatch Bombs, etc.;

<http://www.online-stopwatch.com/countdown-timer/>)



### 4. Variety, Novelty: B. Sync Session with Guest Speakers Designing a New Learning Environment Professor Paul Kim, Stanford University

<http://venture-lab.org/education/lectures/45>




### 5. Autonomy, Choice: A. Online Resource Search (Class Google Jockeys)

(links to text, soundtracks, video clips, etc.)



### 5. Autonomy, Choice: B. 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.jane-goodall.org/>
10. Timeless Hemingway: <http://www.timelesshemingway.com/>



### 5. Autonomy, Choice: C. Commonwealth of Learning, March 2013

[http://www.col.org/news/Connections/2013Mar/Documents/Connections\\_March2013.pdf](http://www.col.org/news/Connections/2013Mar/Documents/Connections_March2013.pdf)

ONLINE COURSE DEVELOPMENT FOR TEACHER EDUCATION IN JAMAICA



**5. Autonomy, Choice:**  
**D. Center for Open Educational Resources and Language Learning**

<http://www.coerll.utexas.edu/coerll/>  
**LRC (Language Resource Center)**  
<http://www.nflrc.org/>



**Poll #4:**

**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



**Poll #5:**  
**Any light bulbs going off in your head so far...?**

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



**6. Relevance, Meaningfulness:**

- A. Online Cases (e.g., Mark Braun, IU)

Stomach, endoscopic examination and biopsy.  
**Poorly differentiated tubular adenocarcinoma**

Slide 196, areas with hyperplastic epithelium.  
 Slide 171, colon with pseudo-membranous colitis.  
 Slide 171, colon with pseudo-membranous colitis.  
 Slide 165, bone marrow with cryptosporidium infection.  
 Slide 166, bone marrow with cryptosporidium infection.

*I'd like to take the quiz now.*

**Final conclusion:**  
 Advanced gastric carcinoma with multiple lung metastasis with lymphovascular growth.

**6. Relevance, Meaningfulness:**

- B. Multimedia Glossaries

Ozgur Ozdemir, December 2012  
<http://r685glossary.shutterfly.com/>



**7. Interactive, Collaborative:**

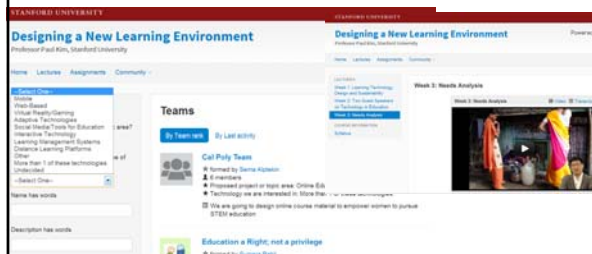
- A. Online Language Learning

(Skype, MSN, ECpod, Mixer, Livemocha, Babel, KanTalk etc.)

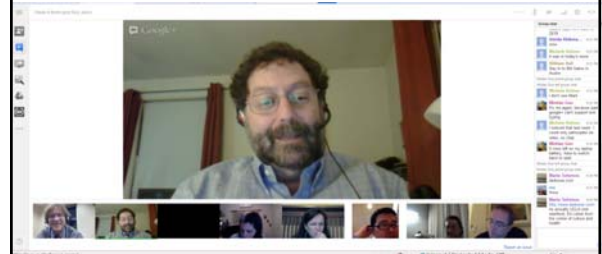


## 7. Interactive, Collaborative: B. Online Teams

**Paul Km, Stanford: Oct 28, 2012**  
17,380 students. I haven't met f2f. I am shocked to see students from places where Internet is very limited. You will find students from even Zanzibar!!! Many teams are formed and they meet f2f in the region where they live.  
<http://venture-lab.org/education/>



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



## 8. Engagement, Effort: A. Arab spring: an interactive timeline of Middle East protests, The Guardian, Garry Blight, and Sheila Pulham, July 12, 2011

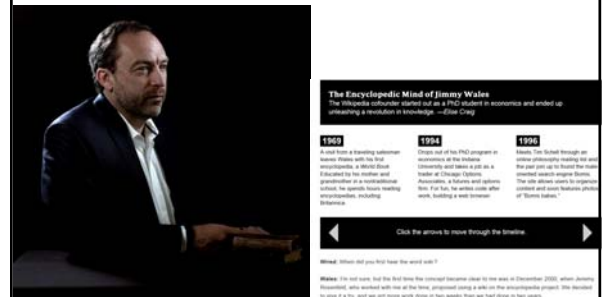
<http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline>



## 8. Engagement, Effort: B. Life on Timeline.

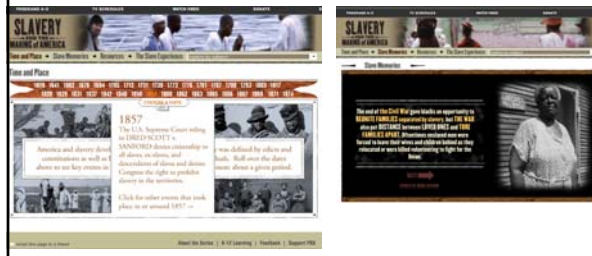
How Jimmy Wales' Wikipedia Harnessed the Web as a Force  
for Good, Ted Greenwald, March 19, 2013, Wired Magazine

<http://www.wired.com/wiredenterprise/2013/03/jimmy-wales-wikipedia/>

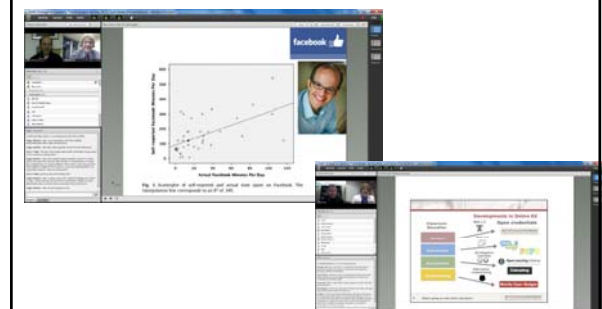


## 8. Engagement, Effort: C. Timelines with Oral Histories, Slavery and the Making of America Time and Place, PBS

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



## 8. Engagement, Effort: D. Guest Speaker Quotes (Rey Junco, February 25, 2013)



**8. Engagement, Effort:**  
**E. Interactive Simulations**  
<http://phet.colorado.edu/en/simulation/energy-skate-park>

The screenshot shows the PhET website interface. On the left is a navigation menu with categories like 'Home', 'Simulations', 'Physics', 'Math', 'Sound & Waves', 'Work, Energy & Power', 'Heat & Therm', 'Quantum Phenomena', 'Light & Radiation', 'Electricity, Magnets & Circuits', 'Biology', 'Chemistry', 'Earth Science', and 'Math'. The main content area features the 'Color Vision' simulation, which includes a diagram of a human head with light rays entering the eye and a 'Download' button.

**8. Engagement, Effort:**  
**F. Cyber-Anatomy**  
<http://www.cyber-anatomy.com/>

The screenshot shows the Cyber-Anatomy website. It features a header with the site name and a navigation bar. Below the header, there are several anatomical models, including a human figure and a detailed view of a joint. A prominent feature is a 'Sample of student-generated explanation of spring energy' which includes a diagram of a spring and a graph showing potential energy.

**8. Engagement, Effort:**  
**G. Visualizing Emancipation (June 12, 2012.**  
 Chronicle of HE, Angela Chen, Interactive Map Traces Slaves' Path to Emancipation)  
<http://dsl.richmond.edu/emancipation/>

The screenshot shows an interactive map titled 'Visualizing Emancipation'. The map displays a network of red lines and dots representing the movement of enslaved people from the Southern United States to the Northern United States. A legend on the right side of the map provides information about the data points and lines.

**9. Tension, Challenge, etc.:**  
**A. Google Hangouts/Google On Air**  
 (Jay Cross, 10 MOOC experts; February 27, 2013)  
<http://www.jaycross.com/wp/2013/02/businessmoocs-the-hangout-recording/>

The screenshot shows a Google Hangout recording page. The main content is a video player showing a man wearing a headset, identified as 'dave corner'. To the right of the video player is a 'Blog' section with a photo of a man and text describing the hangout. Below the video player, there are social media links for Twitter and Facebook.

**9. Tension, Challenge, etc.:**  
**B. Cage Match or Debate**  
**MOOCs at SXSWedu (Curt Bonk & Chuck Severance)**  
<http://chrisvick.com/blog/wp-content/uploads/2013/03/2013-sxswedu-panels-curt-bonk-and-chuck-severance-42177>

The photo shows two men, Curt Bonk and Chuck Severance, sitting at a round table covered with a black cloth. They are in a room with a banner for 'SXSWedu' in the background. Curt Bonk is on the left, wearing a red hat, and Chuck Severance is on the right, wearing a dark jacket and glasses. The names 'Bonk' and 'Severance' are printed at the bottom of the photo.

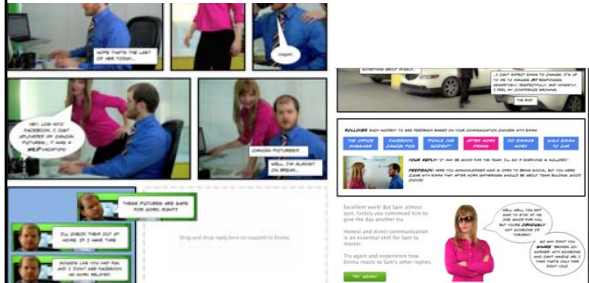
**9. Tension, Challenge, etc.:**  
**C. Final Four Competitions; i.e., Math March Madness**  
**Greg Toppo, March 26, 2013, USA Today**  
<http://www.stargazette.com/article/20130326/NEWS02/303260008/Fibonacci-Final-Four-Math-March-Madness-coming>

**Fibonacci Final Four? Math March Madness coming**

The photo shows a young man, Joseph Park, sitting at a computer workstation in a math competition. He is looking intently at the screen. In the background, another person is visible. The photo is captioned with the text: 'Ten Kiley watches student Joseph Park compete for via computer in a math competition.' and 'Jack Osipov - USA TODAY'.

**9. Tension, Challenge, etc.:**  
**D. Articulate Storyline**

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

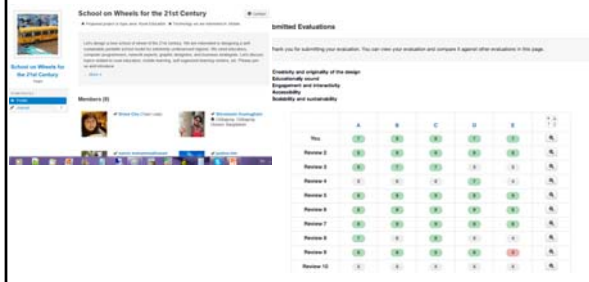


**9. Tension, Challenge, etc.:**  
**E. Peer Discussion on Final Projects**  
(from Paul Kim's MOOC, Stanford)

Week 1 Introductions

Posts	Velocity	Replies	Views	Last Post
It's time for the left-out people to exercise their right to educate themselves. By Anthony Berman	2	3	31	1 day ago
Design Thinking, Learning and Building on Value By Carolyn Estuary	2	24	226	17 minutes ago
Open Source+Open Content+Open Community = Open Education By Anthony Berman	2	3	27	about 24 hours ago
Creativity, Education, Technology and Arts By Luis Galindo	2	3	40	1 day ago

**9. Tension, Challenge, etc.:**  
**F. Peer Ratings on Final Projects**  
(from Paul Kim's MOOC, Stanford)



**10. Yields Products, Goals:**  
**A. Student YouTube Products**  
Qi Li: R685 Gangnam Style, December 2012

<http://www.youtube.com/watch?v=70429iqzUk&feature=youtu.be>



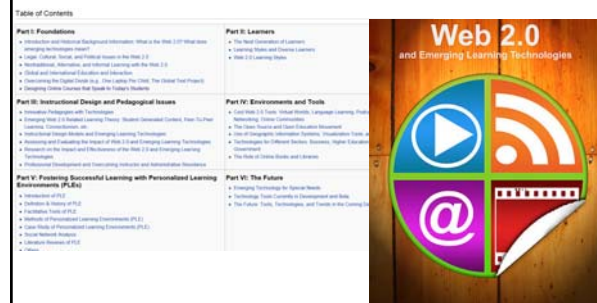
**10. Yields Products, Goals:**  
**B. Interactive Timelines**  
(e.g., The Big Sleep, Kate Hurd)

<http://hurdinsuranceagency.com/thebigsleep/>




**10. Yields Products, Goals:**  
**C. Wikibook Chapter**

[http://en.wikibooks.org/wiki/Web\\_2.0\\_and\\_Emerging\\_Learning\\_Technologies/Andragogy\\_and\\_Technology](http://en.wikibooks.org/wiki/Web_2.0_and_Emerging_Learning_Technologies/Andragogy_and_Technology)



**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 #7:**  
**Do you feel "MOTIVATED" to try any of this out?**

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

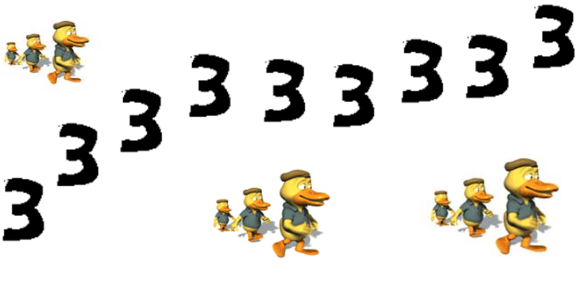


**DON'T JUST WISH FOR A GREAT 2013,**  
**MAKE IT SO.**



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

**3 3 3 3 3 3 3 3 3**



**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)**



