

## Engage, Number One: This is the Next Generation

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## 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>

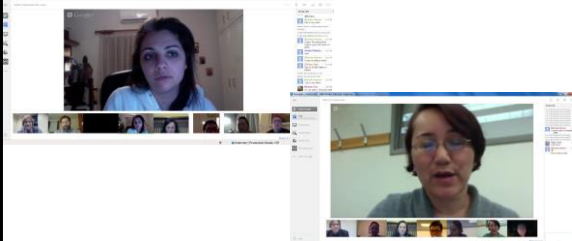


### The New Greatest Generation: Why Millennials will Save Us All Joel Stein, Time, May 20, 2013

<http://www.time.com/time/magazine/article/0,9171,2143001,00.html>



## Google Hangouts Class Sync Collaboration and Discussion (Spring, 2013)



## 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/?\\_isa=0544-d58d](http://business.financialpost.com/2013/02/20/star-trek-like-holodeck-may-be-closer-to-reality-than-you-think/?_isa=0544-d58d)

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

More Related: [Google Glass](#)

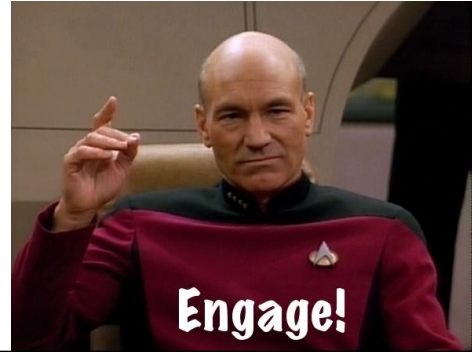
More from Matt Hartley (@mhartley)



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



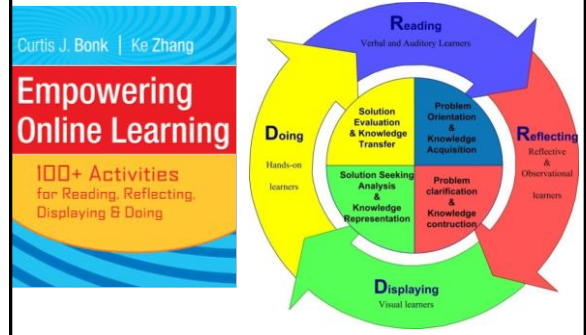
**That's right, Engage!**



**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. Follow an Electrician in Twitter

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



## Read 1b. Twitter Fed Class Discussions

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



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



## Read 2d. Expert Blog Posts

<http://myelectriciansblog.com/>



## Read 1e. Interactive Stories

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



## Read 1f. Online Crossword Puzzles

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

Create Online Crossword Puzzles!



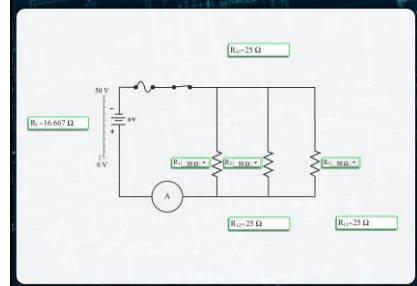
<http://www.eclipsecrossword.com/>

## 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. Live Circuit Analysis and Discussion Forum



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



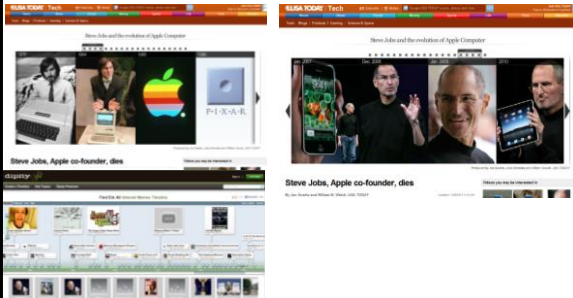
## Reflect 2c. Career Reflections in YouTube

<http://www.youtube.com/watch?v=WwP9W5yJfA>



## 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>



## Reflect 2e. Video Reflections on Big Ideas

Final project, Mark Millard, April 22, 2013  
Big Ideas in Distance and Flexible Learning (HD)

<http://www.youtube.com/watch?v=RAHRGeytL6M#feature=youtu.be>

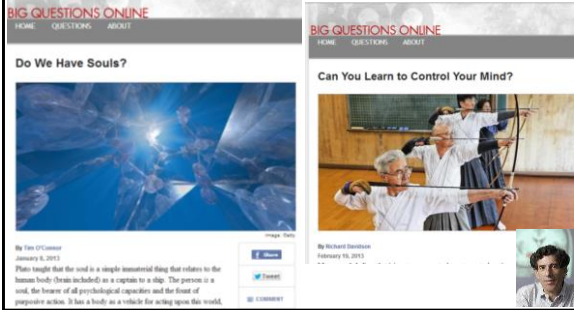




### Reflect 2f.

#### Big Questions Online (BQO) (e.g., Do We Have Souls?)

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



### 3. Visual Learners

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



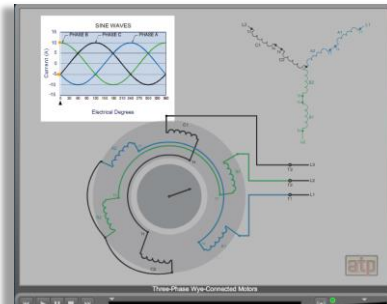
### Display 3a.

#### Simulators (e.g., transformers)



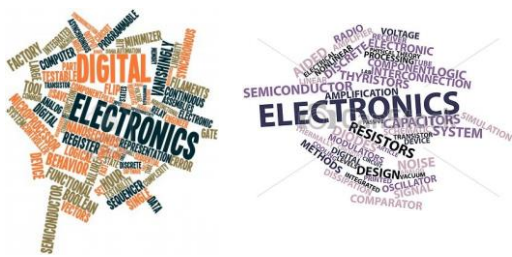
### Display 3b.

#### Video Displays of Theory in Motion



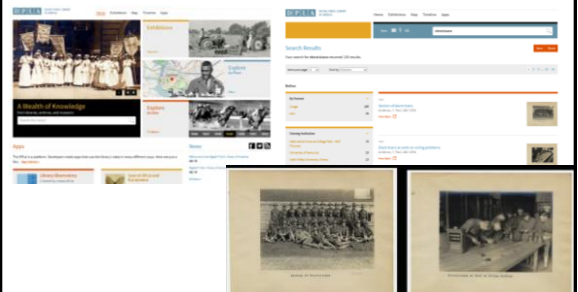
### Display 3c. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)

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

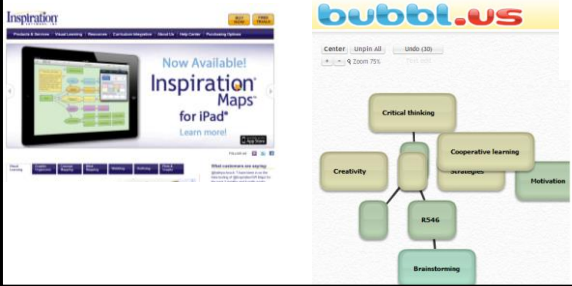


### Display 3d. Visual Library Search DPLA (Digital Public Library Of America)

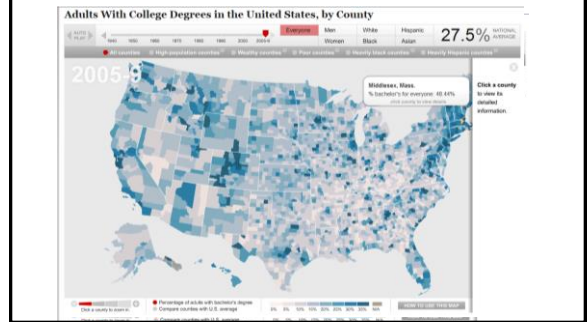
<http://dp.la/>



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



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

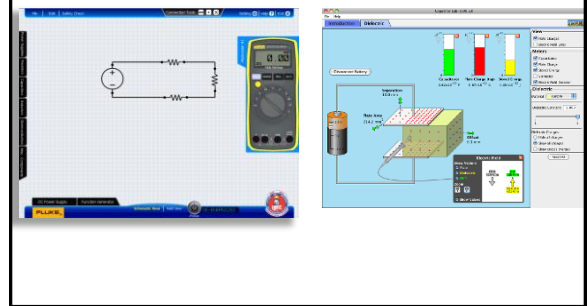


**4. Tactile/Kinesthetic Learners**

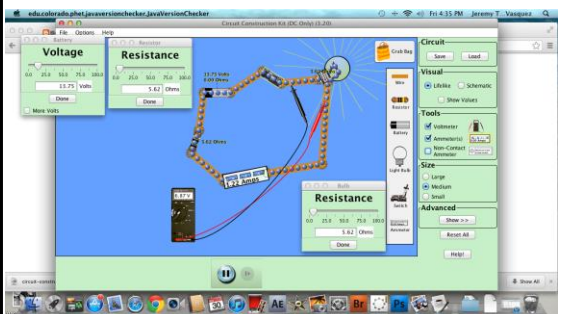
- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.



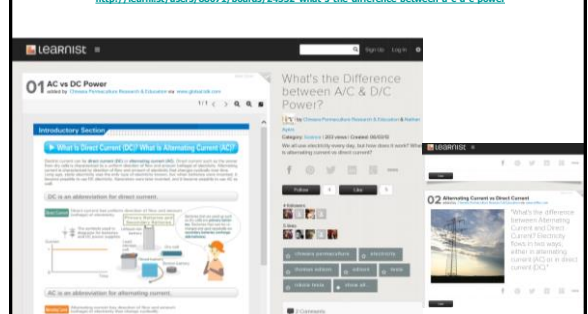
**Do 4a. Lab Simulators**



**Do 4b. DC Circuit Construction Kits**



**Do 4c. Student Expertise (e.g., AC vs. DC Power in Learnist)**



**Do 4d.****Survey Research and Market Analysis**  
(e.g., SurveyShare, Zoomerang, SurveyMonkey)

SurveyMonkey

Create Surveys. Get Answers. Start Today

Design Collect Analyze

Need to Reach a Targeted Audience?

Surveys Made Easy

Electrician Median Wage By State

SurveyShare

**Do 4e. Podcast Productions and Shows**

Homeowners Friend

154 - Video: Chen's Law for the Homeowners - Engaged

**Do 4f. Student Mobile App Creation**

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

YOU are TheAppBuilder!

BOH ELECTRICIAN, Inc

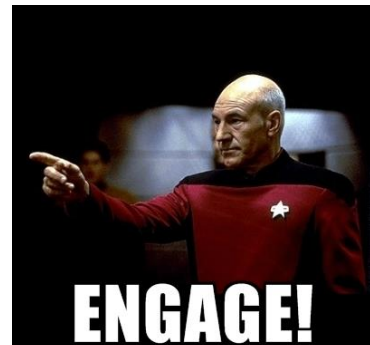
**Poll #1: What phase of the R2D2 Method did you get the most ideas from ?**

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

Empowering Online Learning

100+ Activities for Reading, Reflecting, Displaying & Doing

R2D2 Method: Read, Reflect, Display, Do

**What was it that he said?****That's right, Engage!**

## Where would we all like to work?



ENGAGE UNIVERSITY

## Sleepy U?



## 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.



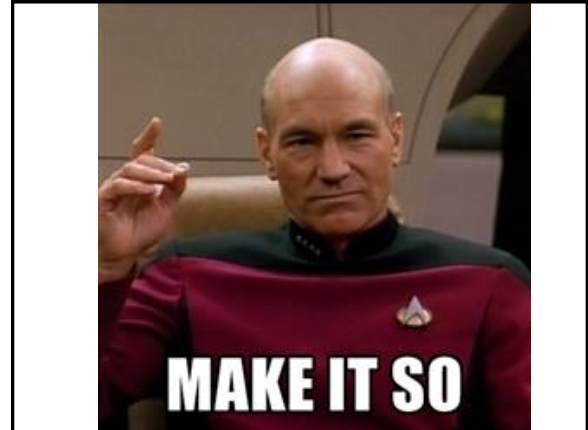
## Ok, Million Dollar Question: What words come to mind when I say that I want to motivate learners?





## 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.momswhothink.com/reading/list-of-nouns.html>
- List of adjectives: (e.g., lazy, powerful, shy, bored, exotic, cooperative, sloppy, rebel, etc.)  
- <http://www.momswhothink.com/reading/list-of-adjectives.html>
- List of verbs: (e.g., coordinate, entertain, amuse, push, unite, beg, dream, publicize, etc.)  
- <http://www.momswhothink.com/reading/list-of-verbs.html>



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

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



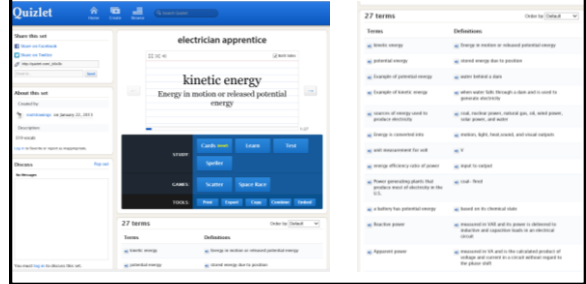
**2. Encouragement, Feedback, etc.: A. Voice Feedback**

Vocaroo; <http://vocaroo.com/>  
<http://vocaroo.com/i/s1Zr7Qp9D3Wm>



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

<http://quizlet.com/>



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

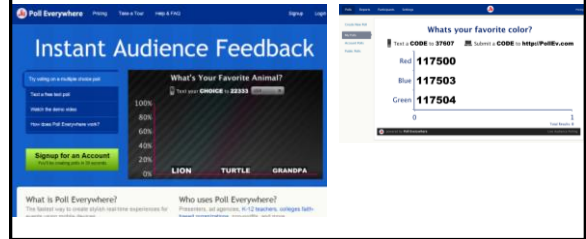
(Jing, GoView, Screenr, slide from Zaid Ali Alsagoff [zaid.alsagoff@gmail.com])

Create Screencasts!



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

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



**2. Encouragement, Feedback, etc.: E. Student response systems (e.g., Socrative; http://www.socrative.com/how-it-works.php)**



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

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



### 3. Curiosity, Fun:

#### B. Something in the News

(e.g., Sports Illustrated, NFL, Superdome warned about power outage before Super Bowl XLVII, February 5, 2013)

<http://sportsillustrated.com/online/2013/02/05/super-bowl-power-outage/>



The lights in the Superdome went out shortly after Jacoby Jones' 108-yard return TD to start the second half.



### 3. Curiosity, Fun:

#### C. Online Quiz Games

##### Jeopardy Labs

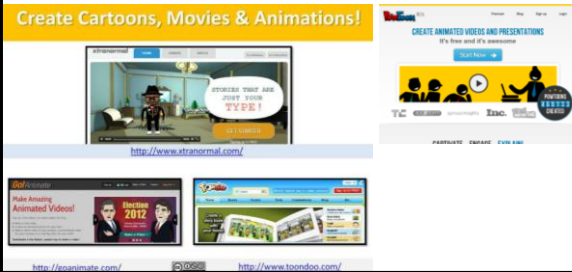
<https://jeopardylabs.com/play/ganttpardy>



### 3. Curiosity, Fun:

#### D. Create Cartoons, Movies, and Animations (e.g., Go Animate, xtranormal, PowTown, etc.)

Create Cartoons, Movies & Animations!



### 4. Variety, Novelty:

#### A. Record Webinars and Guest Expert Talks

Record Webinars/Online Talks!



### 5. Autonomy, Choice:

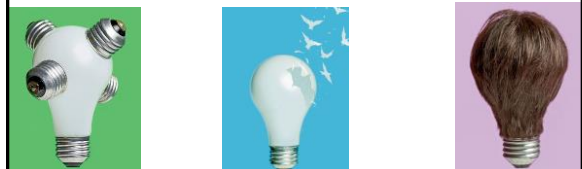
#### A. Assign to Explore and Rate Web Resources (e.g., International Brotherhood of Electrical Workers (IBEW))



### Poll #2: (Tone, Encouragement, Curiosity, Variety, Autonomy)

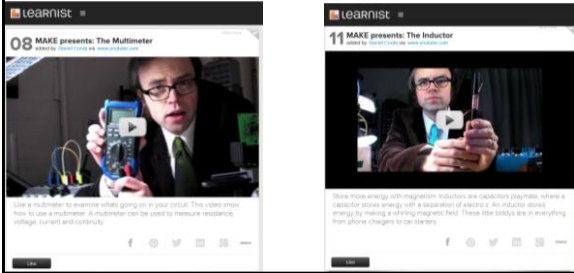
Any light bulbs going off in your head so far...? If so, where?

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



### 6. Relevance, Meaningfulness: A. Video Demonstrations

<http://learni.st/users/50744/boards/9521-basic-electric-circuits>

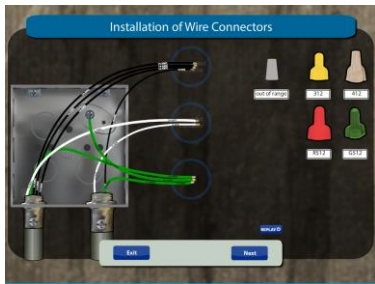


### 6. Relevance, Meaningfulness: B. Video Scenario Learning

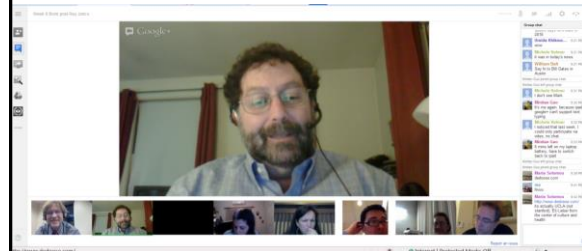
(Franklin University, cost and forensic accounting course)  
<http://video.franklin.edu/Franklin/acct/managerialAccounting/cost-behavior-player.html>  
<http://video.franklin.edu/Franklin/acct/342/common/fraudScenario02.html>  
<http://www.youtube.com/watch?v=Cjmost5UgQ8&list=TLzymmALKWIT>



### 7. Interactive, Collaborative: A. Interactive Exercises (e.g. Branch Circuit terminations)

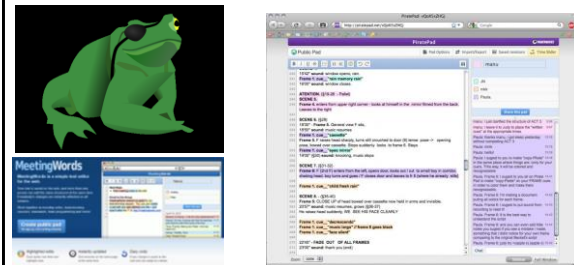


### 7. Interactive, Collaborative: B. Collaboration and Discussion in Google Hangouts (January 29 and February 25, 2013)

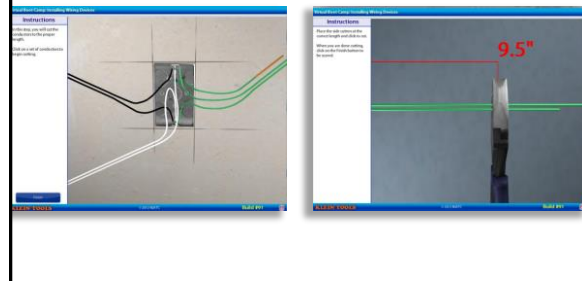


### 7. Interactive, Collaborative: C. Negotiate Meanings Online (e.g., PiratePad: <http://meetingwords.com/>)

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. Installation Practices





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

### Jimmy Wales' Wikipedia, March 19, 2013, Wired Magazine

<http://www.wired.com/wiredenterprise/2013/03/jimmy-wales-wikipedia/>  
[http://www.gbs.org/wgbh/ames/edison/timeline/index\\_2.html](http://www.gbs.org/wgbh/ames/edison/timeline/index_2.html)  
<http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline>

The screenshot shows a timeline for Thomas Edison's life. It includes a portrait of Edison, a glowing lightbulb, and a section titled "The Encyclopedic Mind of Jimmy Wales" with text about his contributions to Wikipedia. There are also navigation arrows and a "Click the arrows to move through the timeline" instruction.

## 8. Engagement, Effort: C. Flash, 3-D Visualization, & Laboratory Software

The screenshot shows a survey tool interface. It features a 3D visualization of people in a line, with a callout box asking "Can you answer some questions for a survey please?". Below this, there are two target group statistics:

Target group	Gender	Age	Min	Max	No.
Target group 1	Female	18 - 30			3
	Male	18 - 30			3
Target group 2	Female	18 - 30			3
	Male	18 - 30			5

On the right, there is a 3D visualization of a survey process with a red line graph and a person's head. The text "ENRON 101" is visible at the top right.

## 9. Tension, Challenge, etc.: A. Reflect on Ethical Dilemmas

The screenshot shows a news article from smartcompany.com. The headline is "Victorian refrigerator installer fined \$10,000 for taking deposits and doing no work". The article text reads: "A 62-year-old Victorian man working as a refrigerator installer has been fined \$10,000 by the Commonwealth Magistrates' Court for taking deposits, but failing to do any work. The court has ordered Neil Turner to also pay \$8000 in compensation to three customers from whom he wrongfully took commissions. In November 2010, Turner took a \$4000 deposit to install a cool room at a milk bar in Seaford. On another occasion in August 2011, he agreed to supply and install an air conditioning unit and central vacuum system at a Barmington North property, and in March 2011, he was paid a \$3000 deposit to install a new cool room at a Warburton farm."

## 9. Tension, Challenge, etc.: B. 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)

The screenshot shows an Articulate Storyline decision-making scenario. It features a character in a blue shirt and a pink shirt. The interface includes several choice boxes with text like "I'm sorry, but I can't do that right now." and "I'll do my best to get it done for you." The scenario is titled "broken\_co-worker" and includes a "free daily newsletter" sign-up form.

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

Piercarlo Abate: <http://www.youtube.com/watch?v=-TURzH09aU>  
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=BcmCFW9I9W8>

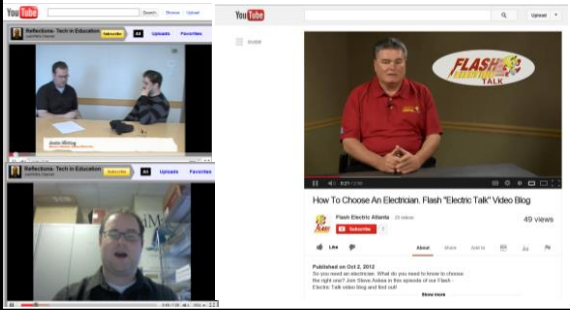
The screenshot shows a YouTube video player. The video title is "web2.0 Freedom". The video content includes a person speaking and a graphic with the text "FREEDOM" and "Flexibility, Creativity, Innovation & Collaboration in Open Resources Motivation". The video player shows a progress bar and a "Final project" label.

## 10. Yields Products, Goals: B. Course Recap Prezi Presentations

Jeff Pankin, MIT, Prezi, Emerging Learning Technologies  
<http://prezi.com/t2bawqjmf/emerging-learning-technologies/>  
 Jeffrey Barrette, Today's World  
<http://prezi.com/-tjy9tst-r/r685-final-project>

The screenshot shows a Prezi presentation interface. It features a video player on the left and a 3D visualization of a person sitting in a chair on the right. The presentation is titled "Emerging Learning Technologies" and includes a "Final project" label.

**10. Yields Products, Goals:  
C. Video Blogs**



**Commitments:  
Stop and Share:**

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

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

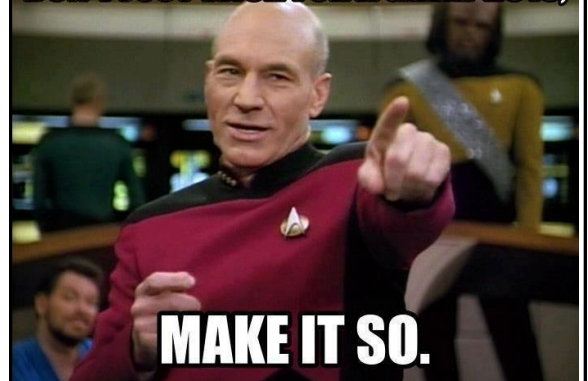
**Variety**  
**Autonomy**  
**Relevance**  
**Interactive**  
**Engagement**  
**Tension**  
**Yields Products**



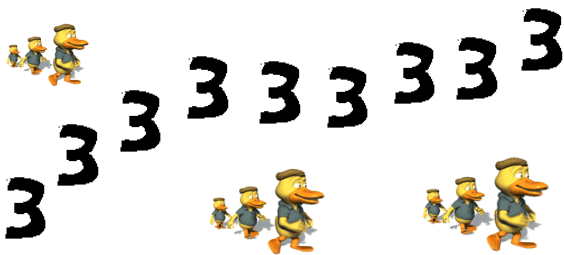
**Poll #3:**  
**Do you feel "MOTIVATED" to try any of this out?**  
**A. Yes, R2D2**  
**B. Yes, TEC-VARIETY**  
**C. Yes, both**  
**D. Neither**



**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)** 🗣️

