

## Blended Learning A to Z: Myths, Models, and Moments of Magic

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## Blending Learning Is part of the answer!

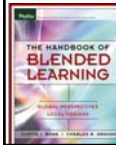


## Who needs blended learning?...



## What I will discuss...

1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
4. Examples of blended learning
5. Two online frameworks of mine



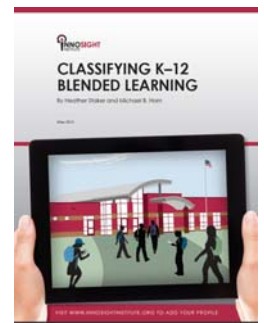
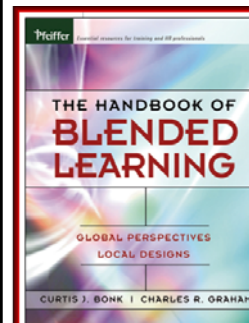
## Myth #1: If you read the enough research you will be able to know the impact of blended learning.

1. Improved Pedagogy
  - More interactive instead of transmissive
  - Authentic, real world, etc.
2. Increased Access/Flexibility
3. Increased Cost Effectiveness



## Recent Reports on Blended

<http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA495731>



Myths #2: Blended learning is easy to define.  
 Myth #3: Blended learning is hard to define.

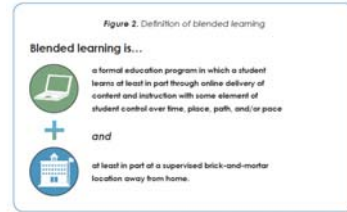
**Blending Online and F2F Instruction**

“Blended learning refers to events that combine aspects of online and face-to-face instruction” (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)



Classifying K-12 Blended Learning,  
 Heather Staker and Michael B. Horn, May 2012  
<http://www.projectred.org/uploads/The-Rise-of-K-12-Blended-Learning.pdf>

“Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home *and at least in part* through online delivery with some element of student control over time, place, path, and/or pace.”



Classifying K-12 Blended Learning,  
 Heather Staker and Michael B. Horn, May 2012  
<http://www.projectred.org/uploads/The-Rise-of-K-12-Blended-Learning.pdf>

One critical part of the definition of blended learning is that it involves “some element of student control of time, place, path, and/or pace.” Digital Learning Now! describes each dimension:

- **Time:** Learning is no longer restricted to the school day or the school year.
- **Place:** Learning is no longer restricted to the walls of the classroom.
- **Path:** Learning is no longer restricted to the pedagogy used by the teacher. Interactive and adaptive software allows students to learn [in a method that is customized to their needs].
- **Pace:** Learning is no longer restricted to the pace of an entire classroom of students.

Source: “Roadmap for Reform,”  
<http://digitalelearningnow.com/wp-content/uploads/2011/10/Roadmap-for-Reform.pdf>

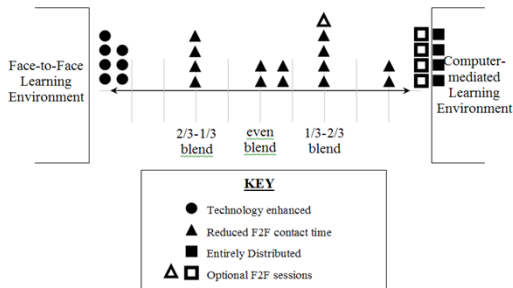
Myth #4: People will know what I am saying when I say “blended learning.”  
 Myth #5: Blended is the same as “hybrid.”

**The Sloan Consortium**



Proportion of content delivered online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used - content is delivered in writing or orally.
1 to 29%	Web facilitated	Course which uses web-based technology to facilitate what is essentially a face-to-face course. Might use Blackboard or WebCT to post the syllabus and assignments, for example.
30 to 79%	Blended/Hybrid	Course that is a blend of the online and face-to-face course. Substantial proportion of the content is delivered online, typically uses online discussions, typically has some face-to-face meetings
80+%	Online	A course where the vast bulk of the content is delivered online. Typically has no face-to-face meetings.

Myth #6: Knowing “how much” to blend is vital.  
**Range of Blends in Pew Cases**



Source: Graham, C. R., & Allen, S. (2005). Blended learning: An emerging trend in education. In C. Howard & J. V. Boettcher & L. Justice & K. D. Schenk & P. L. Rogers & G. A. Berg (Eds.), *Encyclopedia of Distance Learning* (pp. 172-179). Hershey, PA: Idea Group Inc.

Myth #7: Blended learning works everywhere.  
**Where is Blended Beneficial?**

- Intro Classes (Spanish, psych, algebra, biology)
- AP Classes
- Classes with low success rates
- Classes with students working part-time
- Required classes
- Students are rural or spread over a distance
- Classes with certification or standardization
- Classes with new requirements or standards
- Writing intensive classes, theory classes, etc.
- Lab classes?

## Examples of Blended Learning

- Put assessments/reviews online
- Online discussions
- Online labs
- **Put reference materials on Web**
- **Deliver pre-work online**
- Provide office hours online
- Use mentoring/coaching tool
- **Access experts live online**



**Myth #8: People learn more in face-to-face settings than blended or fully online ones.**

### Fully Online and Blended Learning Advantages

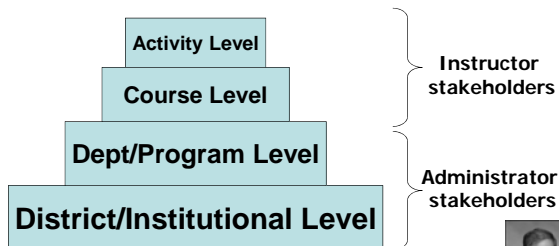
1. Increased Learning (better papers, higher scores)
2. More effective pedagogy and interaction
3. Course access at one's convenience and flexible completion (e.g., multiple ways to meet course objectives)
4. Reduction in physical class or space needs, commuting, parking, etc.
5. Increased opportunities for human interaction, communication, & contact among students
6. Introverts participate more



**Myth #9: Instructors can have a logical discussion with administrators about blended learning.**

### Models of Blending

Blending occurs at the following four levels:



**Myth #10: There is a best model of blended.**

### AMA Special Report, Effectively Implementing a Blended Learning Approach (Steven Shaw & Nicholas Igneri, 2006)



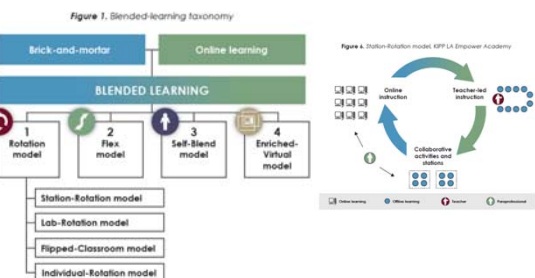
Source: American Management Association, AMA at Work

### Blended Model: Anchor

(start with FTF or what students are familiar with and then move to online)



### Classifying K-12 Blended Learning, Heather Staker and Michael B. Horn, May 2012



## What did Jean-Luc Picard say?



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>

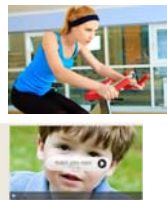
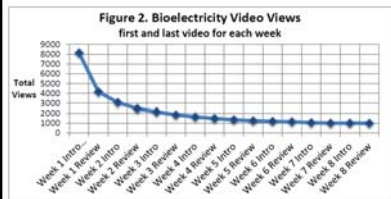


February 5, 2013

## Bioelectricity: A Quantitative Approach, Duke University's First MOOC

[http://address.1b.duke.edu/stream/channel/7101619214/Duke\\_Bioelectricity\\_MOOC\\_Fall012.pdf](http://address.1b.duke.edu/stream/channel/7101619214/Duke_Bioelectricity_MOOC_Fall012.pdf)

### THE CONVERSATION



## Sleepy U?



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

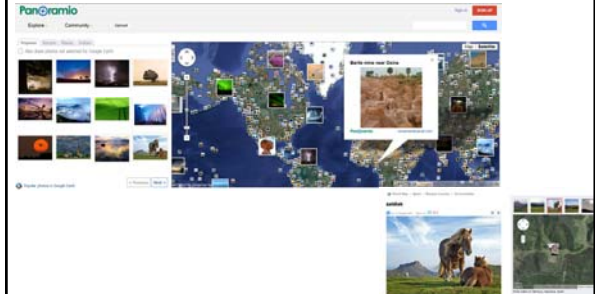
1. Tone/Climate: Psych Safety, Comfort, Belonging
2. Encouragement, Feedback: Responsive, Supports
3. Curiosity: Fun, Fantasy, Control
- ...
4. Variety: Novelty, Intrigue, Unknowns
5. Autonomy: Choice: Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactive: Collaborative,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

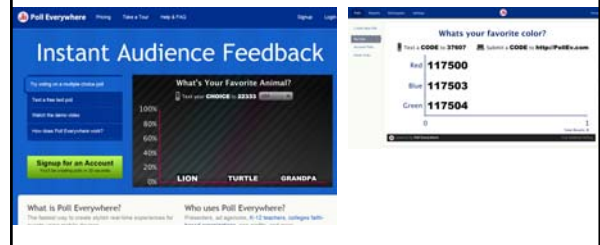


### 2. Encouragement, Feedback, etc.: A. Voice Feedback

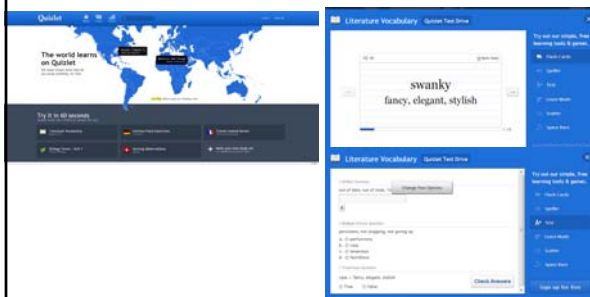
Vocaroo; <http://vocaroo.com/>  
<http://vocaroo.com/i/s1WRRdjCx0rAA>



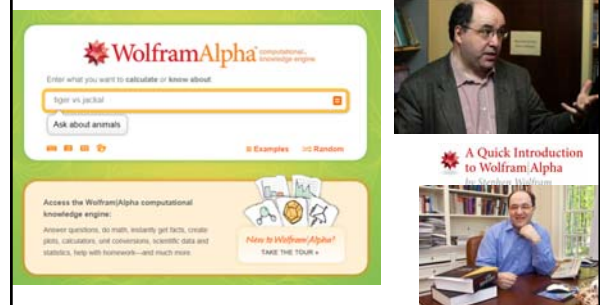
### 2. Encouragement, Feedback, etc.: B. Blog and Website Polling (e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll) <http://www.polleverywhere.com/>



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



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



### 3. Curiosity, Fun:

#### B. Something in the News

(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)  
<http://open.google.com/sports/online/story/716/9279487/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, 20 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 72,000 other runners taking part in the marathon.

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

### 4. Variety, Novelty, Intrigue, Unknowns:

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

### 5. Autonomy, Choice:

#### A. Demonstrate, Explore, and Share Websites 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

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

### 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

### 6. Relevance, Meaningfulness:

#### A. Design Multimedia Glossaries

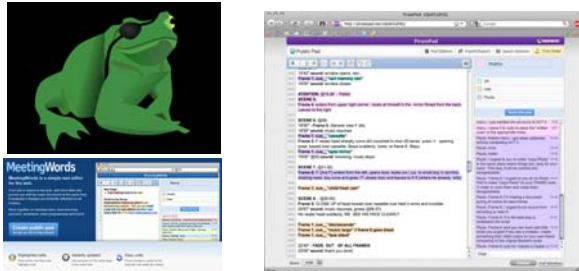
Ozgur Ozdemir, December 2012  
<http://r685glossary.shutterfly.com/>  
 Umida Khikmatillaeva, Dec. 2011, P540  
<http://learningplanet.shutterfly.com/>

### 7. Interactive, Collaborative:

#### A. Collaboration and Discussion in Google Hangouts (January 29 and February 25, 2013)

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

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

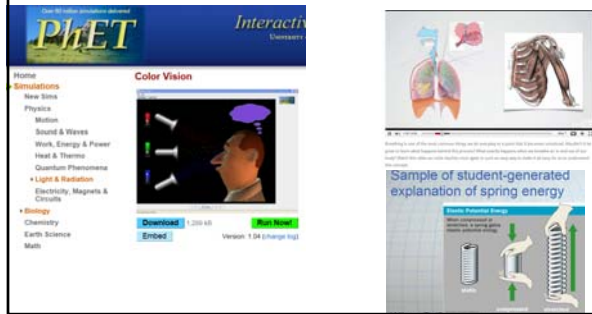


**8. Engagement, Effort: A. Arab spring: an interactive timeline of Middle East protests, The Guardian, Garry Blight, and Sheila Pulham, July 12, 2011**  
<http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline>



**8. Engagement, Effort:  
B. Interactive Simulations**

<http://phet.colorado.edu/en/simulation/energy-skate-park>



**8. Engagement, Effort:  
C. Cyber-Anatomy**

<http://www.cyber-anatomy.com/>



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

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



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

<http://chronicle.com/blogs/sxswedu/sxswedu-by-southwest-education-month-tensions-division-entrepreneurs-and-educators/43777>  
<https://soundcloud.com/sxswedu/cage-match-the-massive-open>



## 10. Yields Products, Goals:

### A. Final Product Video Summaries (on IQ Wall, April 22, 2013)

Piercarlo Abate

<http://www.youtube.com/watch?v=1U69n0Bdu>  
<http://www.youtube.com/watch?v=1U69n0Bdu&feature=youtu.be> (Gangnam)



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



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

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



## Commitments:

### Stop and Share:

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

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

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

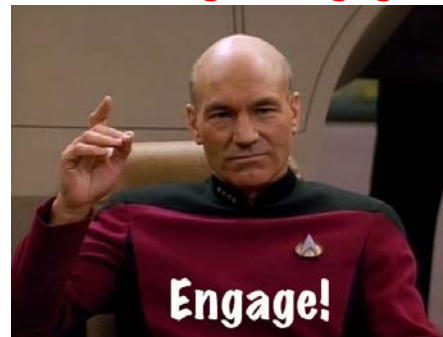


## Poll #2: (Tone, Encouragement, Curiosity, Variety, Autonomy) Any light bulbs going off in your head so far...? If so, where?

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



## Jean-Luc Picard said what? That's right, Engage!

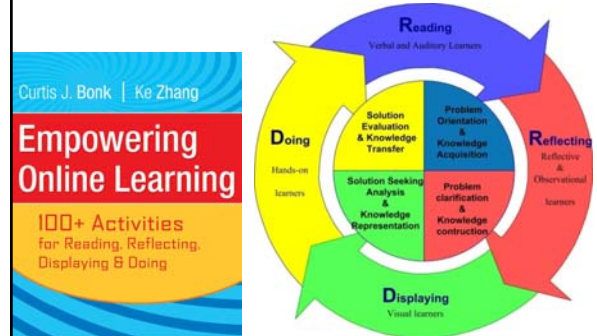




## How can technology address diverse learner needs?



## 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.



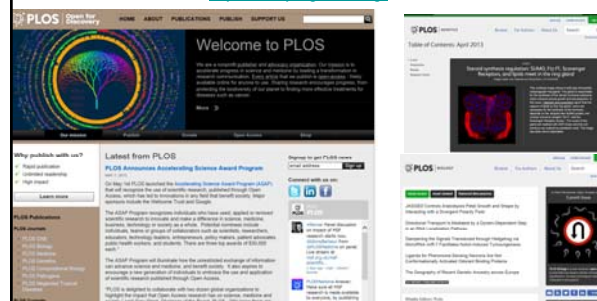
## Read 1a. Interactive Stories

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



## Read 1b. Reading from Open Access Journals (e.g., PLOS)

<http://www.plos.org/>,  
<http://www.plosbiology.org/>,  
<http://www.plosgenetics.org/>



## Read 1c. Twitter Fed Class Discussions

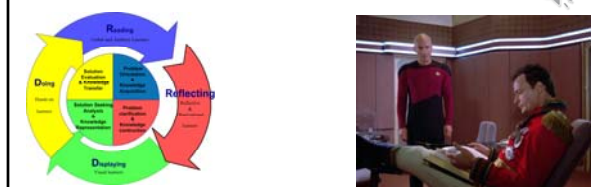


## Read 1d. Online Crossword Puzzles (e.g., <http://www.eclipsecrossword.com/>)



## 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



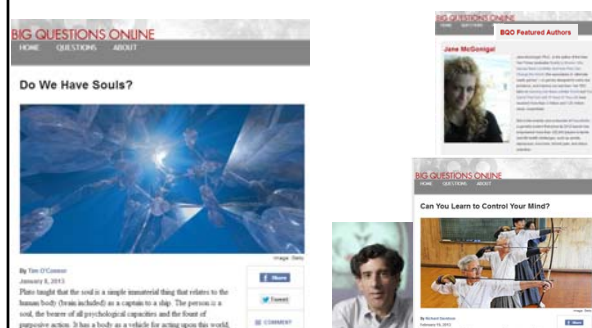
## Reflect 2a. Reflect on Virtual Timelines (Dipity, xtimeline, Simile, etc.)

- <http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>
- <http://www.usatoday.com/story/life/movies/2013/04/10/harrison-ford-jackie-robinson/2001783/>



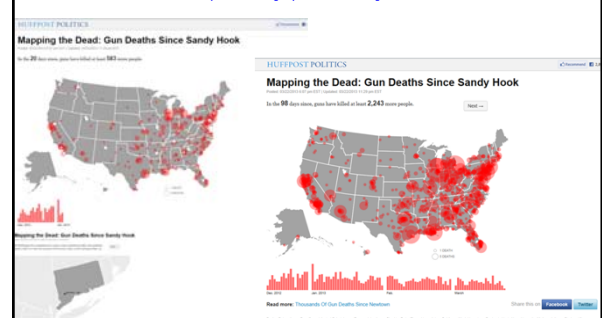
## Reflect 2b. Big Issue Reflections (Big Questions Online (BQO)), January 8, 2013 (e.g., Do We Have Souls?)

<https://www.bigquestionsonline.com/content/80-we-have-souls>



## Reflect 2c. Reflections on Interactive Maps Mapping the Dead: Gun Deaths Since Sandy Hook, Huffington Post, March 22, 2013

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



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



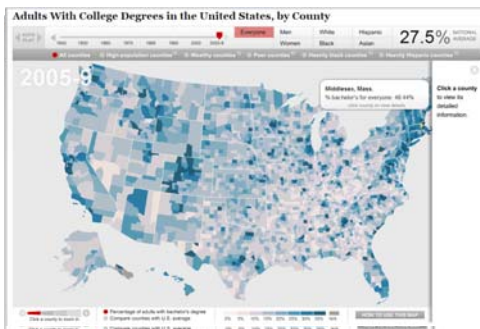
## 3. Visual Learners

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



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

[http://hotascampus.com/articles/Keith\\_Hanson\\_Interviews\\_Josh\\_Keller\\_on\\_Interactive\\_Graphics\\_for\\_Higher\\_Education](http://hotascampus.com/articles/Keith_Hanson_Interviews_Josh_Keller_on_Interactive_Graphics_for_Higher_Education)



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

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

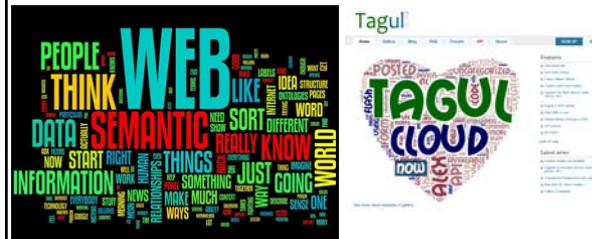
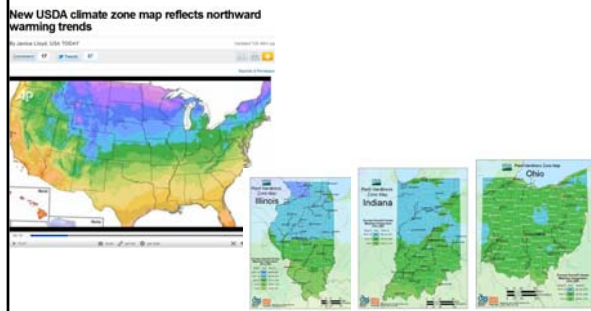


Figure 4. PLENK2010 Wordle.

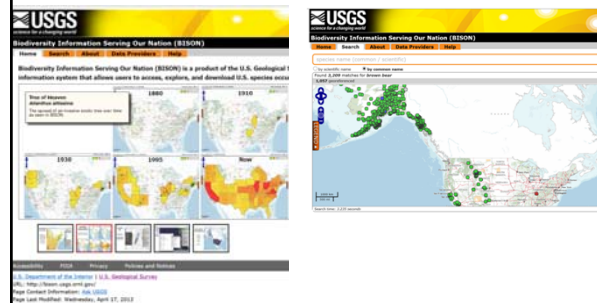
## Display 3c. More Interactive Maps (e.g., New USDA climate zone map reflects northward warming trends, By Janice Lloyd, USA TODAY, January 26, 2012)

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



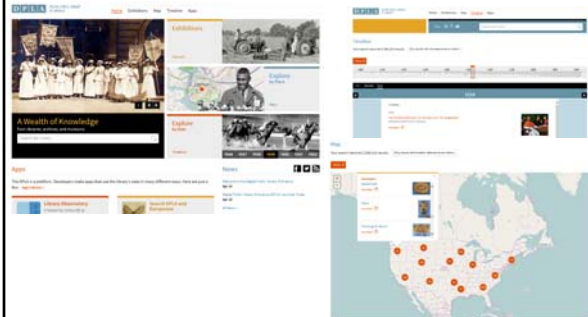
## Display 3d. More Interactive Maps USGS (US Geological Survey) (Biodiversity Serving Our Nation or BISON)

<http://bison.usgs.ornl.gov/>





**Display 3e. Visual Library Search**  
 DPLA (Digital Public Library Of America)  
<http://dp.la/>



**Display 3f. Human Embryology Animations**  
 (Valerie O'Loughlin, Indiana University)



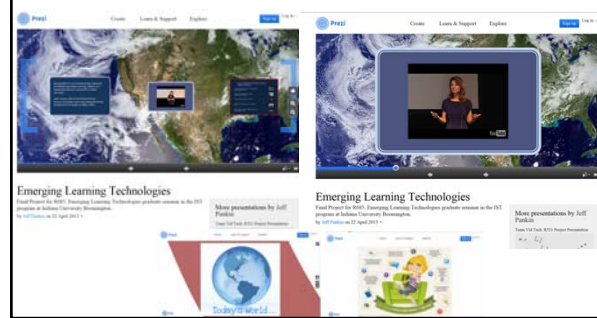
**4. Tactile/Kinesthetic Learners**

- 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. Course Recap Prezi Presentations**

Jeff Pankin, MIT, Prezi, Emerging Learning Technologies  
<http://prezi.com/038aw9nfrct/coming-together-learning-and-technology/>  
 Jeffrey Barnette, Today's World  
<http://prezi.com/-j1eyvtstl-7/r685-final-project>

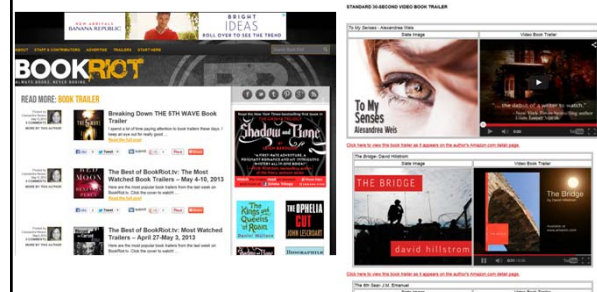


**Do 4b. Student Class Documentaries**  
 Umida's R546 Documentary Project  
[http://www.youtube.com/watch?v=EMLTzqCV\\_5A](http://www.youtube.com/watch?v=EMLTzqCV_5A)



**Do 4c. Book Trailers for Readers**

<http://www.booktrailersforreaders.com/how-to-make-a-book-trailer/>  
[http://www.booksurge.com/content/Video\\_Book\\_Trailer\\_Samples.htm](http://www.booksurge.com/content/Video_Book_Trailer_Samples.htm)  
<http://www.thebooklife.com/2012/01/upcoming-2012-ya-book-trailers.htm>  
<http://bookriot.com/category/book-trailer/>  
<http://scotttwisterfold.com/blog/2009/09/tevatlan-trailer/>



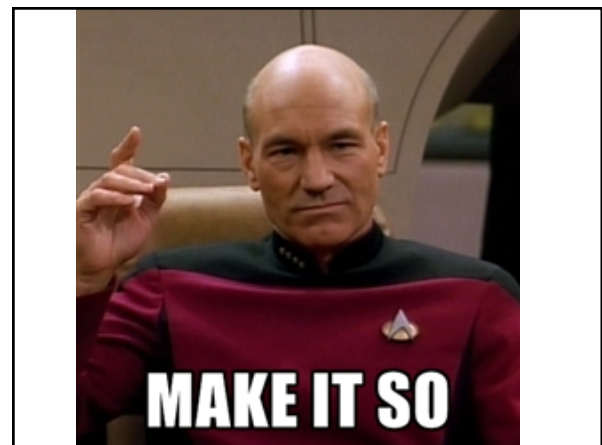


**Do 4d. Student Collaborative Knowledge Building and Sharing**  
 (e.g., Popplet: <http://popplet.com/>)

**Do 4e. Student Mobile App Creation**  
 The App Builder: <http://www.theappbuilder.com/>  
 Mintian Guo (April 2013): <http://myapp.is/r685final>

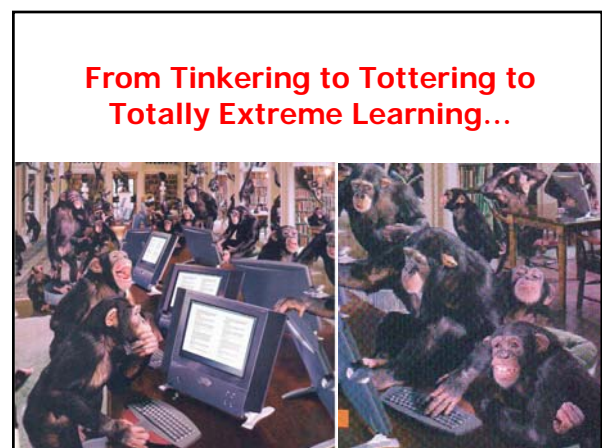
**Poll #1: What phase of the R2D2 Method did you get the most ideas from?**

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

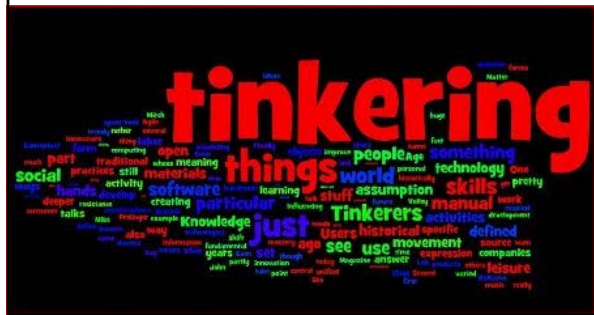


**Poll #7:**  
 Do you feel "MOTIVATED" to try any of this out?

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



# Tinkering



## Tinker #1.

### Using 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)



## Tinker #2.

### Educational Videos: TED-Ed

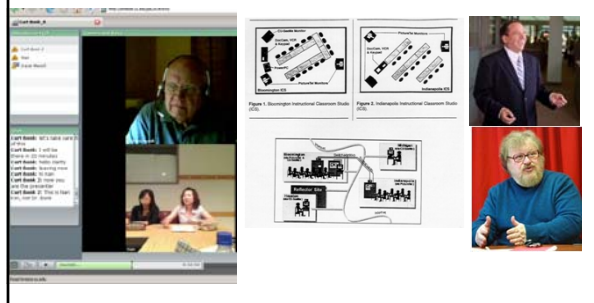
<http://education.ted.com/>



# Tottering



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



## Totter #2. Multiple Guest Experts

Sara de Freitas and Jim Hensman, U of Coventry, UK

<https://connect.bu.edu/p2in1v3010x/>

Jay Cross, Berkeley (<https://connect.bu.edu/p2in1v3010x/>)



