

Adding Motivation to Online and Blended Courses and Activities with the TEC-VARIETY Model

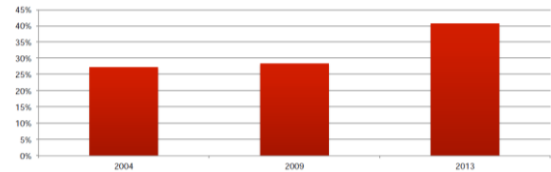
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 cjbonk@indiana.edu
<http://mypage.iu.edu/~cjbonk/>



January 2014 Grade Change: Tracking Online Education in the United States, 2013, The Sloan Consortium, I. Elaine Allen & Jeff Seaman, 2013 Survey of Online Learning Report

<http://sloanconsortium.org/publications/survey/grade-change-2013>
 Direct connect: <http://www.onlinelearningurvey.com/reports/gradechange.pdf>

RETAINING STUDENTS IS A GREATER PROBLEM FOR ONLINE COURSES THAN IT IS FOR FACE-TO-FACE COURSES: 2004, 2009 AND 2013



June 15, 2014 Starbucks offers workers 2 years of free college, CNN Money, Gregory Wallace (from Arizona State online programs)

http://money.cnn.com/2014/06/15/news/economy/starbucks-scholarship-education/index.html?hpt=hp_12

Starbucks offers workers 2 years of free college

By Gregory Wallace @gregorywallace June 15, 2014 9:10 PM EDT

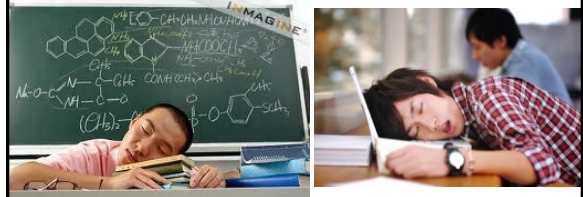


Getting a College Degree, With Help From Starbucks



Starbucks will provide a free, online college education to thousands of its workers, without requiring that they remain with the company, through an unusual arrangement with Arizona State University. The company said the program will announce Monday.

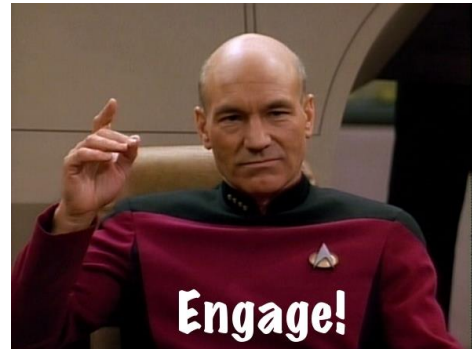
Motivation and Engagement



What did Jean-Luc Picard say?



That's right, Engage!



How do we engage online?



What was it that he said?



Poll #1: Million Dollar Question: What words come to mind when I say that I want to motivate learners?



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: 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

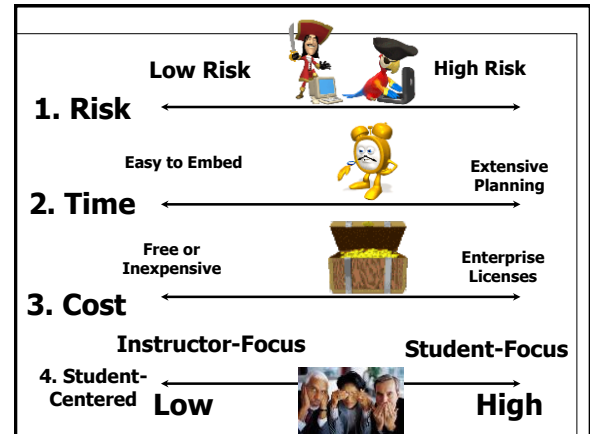
Introducing the "TEC-VARIETY book...

<http://tec-variety.com/>



What motivates?

1. Tone/Climate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement: Feedback, Responsiveness, Praise, Supports
3. Curiosity: Surprise, Intrigue, Unknowns
4. Variety: Novelty, Fun, Fantasy
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactivity: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Investment
9. Tension: Challenge, Dissonance, Controversy
10. Yielding Products: Goal Driven, Purposeful Vision, Ownership

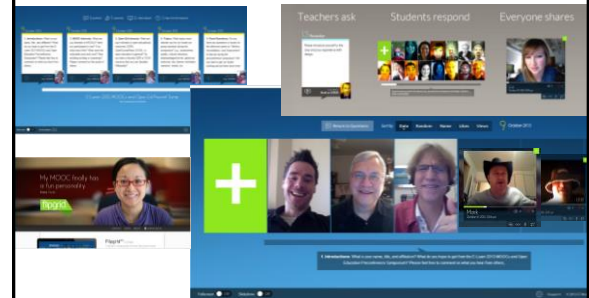


Examples of TEC-VARIETY



1. Tone/Climate: A. Video Introductions, e.g., Flipgrid

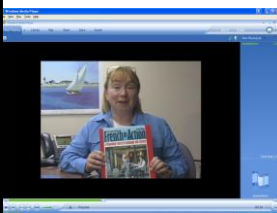
<http://flipgrid.com/#429f88c5>



1. Tone/Climate: B. Video Course Intros (examples from Northern Virginia Community College and Indiana University KD (online MBA) program)

Yun Yun Chow, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0

<http://www.youtube.com/watch?v=BO9rqJD1GXo>



1. Tone/Climate: Social Ice Breakers

C. 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>



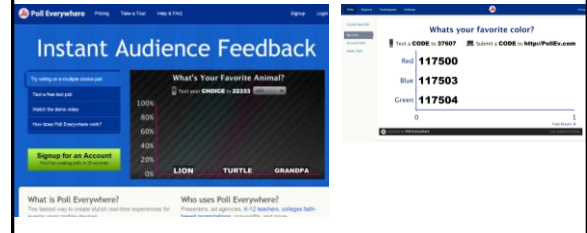
2. Encouragement, Feedback, etc.: A. Voice Feedback

Vocaroo; <http://vocaroo.com/>
<http://vocaroo.com/i/s1puZDTmKO6a> (UK)



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

(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
<http://www.polleverywhere.com/>



3. Curiosity, Fun:

A. Something in the News

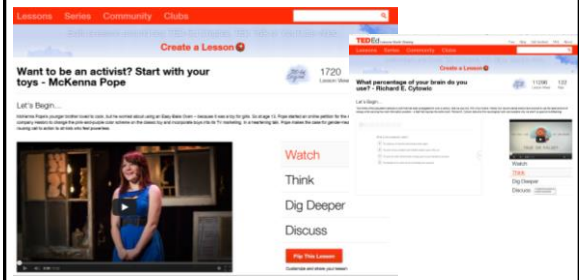
(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)
http://espn.go.com/sports/endurance/story/_/id/8979487/fauja-singh-101-caps-career-10k-hong-kong

Fauja Singh, 101, finishes last race



3. Curiosity, Fun:

B. Online Quizzes (e.g., Want to be an activist? Start with your toys - McKenna Pope, TEDEd)
<http://ed.ted.com/lessons/want-to-be-an-activist-start-with-your-toys-mckenna-pope/watch>



3. Curiosity, Fun:

C. History for Music Lovers

The French Revolution ("Bad Romance" by Lady Gaga)
 Trojan War ("Tainted Love" by Soft Cell)
 Charlemagne ("Call Me" by Blondie)
 The Vikings ("Personal Jesus" by Depeche Mode)
<http://www.youtube.com/user/historyteachers>



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

LaboratoryNews



4. Variety, Novelty, Fun:

A. External Guests

(e.g., Jay Cross, Internet Time Group)



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



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



5. Autonomy, Choice:

B. Design Multimedia Glossaries

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



5. Autonomy, Choice:

C. Online Learning Object Repositories and Portals (shared content)

April 23, 2014
Shakespeare's Dictionary? Skepticism Abounds,
Chronicle of Higher Education, Jennifer Howard



Audience Poll #2:

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

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



6. Relevance, Meaningfulness:

A. Video Scenario Learning Accounting Interviews and Preparatory Course Review Modules (Franklin University, cost and forensic accounting course)

<http://video.franklin.edu/Franklin/acct/managerial/Accounting/cost-behavior-player.html>
<http://video.franklin.edu/Franklin/acct/342/common/fraudScenario02.html>

Cost Behavior

Variable Cost	Fixed Cost
Sheet metal in cars	Advertising costs
Wages paid to the workers driving	Manager salaries
Fuel used by a trucking company	Property insurance
Packing materials needed for shipping products	Warehouse rental costs
	Security guard

6. Relevance, Meaningfulness:

B. Case-Based Learning: Instructor Cases (e.g., Mark Braun, IU)

Stomach, endoscopic examination and biopsy:
 Poorly differentiated tubular adenocarcinoma

Final conclusion:
 Advanced gastric carcinoma with multiple lung metastasis with lymphatic growth

7. Interactive, Collaborative:

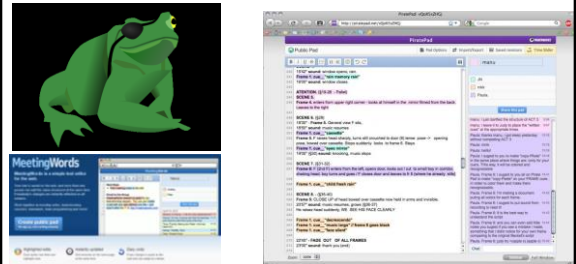
A. Collaboration and Discussion in Google Hangouts, Jabber, Skype, etc (January 29 and February 25, 2013)



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!



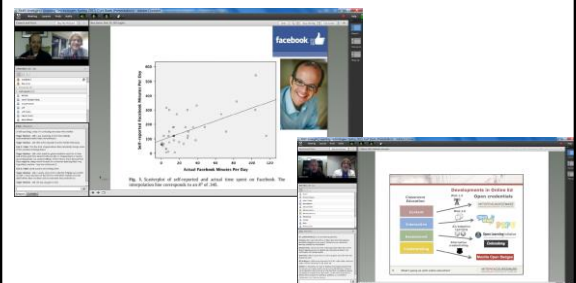
8. Engagement, Effort: A. Arab spring: an interactive timeline of Middle East protests, The Guardian, Garry Blight, and Sheila Pulham, July 12, 2011

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



8. Engagement, Effort:

B. Guest Speaker Quotes (Rey Junco, February 25, 2013)



Audience Poll #3:

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

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



Audience Poll #4:

Which of the last 5 motivational principles will you use the most?

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



Commitments:

Stop and Share:

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

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products



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/?_ha=054d-d58d

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



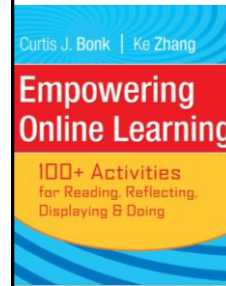
Addressing Learning Styles



Question: How can technology address diverse learner needs?



Framework #2: 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

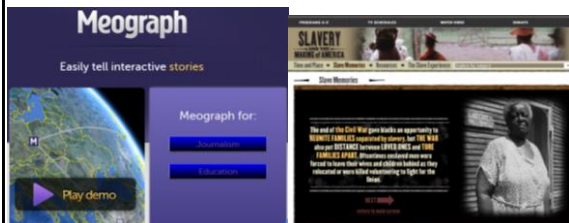
- Auditory and verbal learners prefer words, spoken or written explanations.



Read 1a. Collect and Listen to Interactive Stories

(e.g., Meograph: <http://www.meograph.com/>)
Timelines with Oral Histories, Slavery and the Making of America
Time and Place, PBS

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



Read 1b. Follow Someone on Twitter (Twitter in Education)

<http://twitterforeducation.wikispaces.com/Educational+Uses+of+Twitter>

How might we use Twitter in the Classroom? (please share your ideas!)

1. Project brainstorming
2. Sharing online resources (internet sites)
3. Connecting to others around the world
4. Publishing or sharing links to published work
5. Publicity for important events, blog posts, websites, podcasts, videos, live meetings/discussions, etc.
6. Twitter can serve as a resource to get help
7. Twitter can serve as your support group when struggling with a difficult task
8. Twitter provides a way to virtually attend conferences, workshops, conventions, etc. (via #hashtags)
9. Back channel during lecture (using event specific hashtags like #newtonfirstlaw) – students can go back to Twitter to review, reflect, study key points shared
10. Back channel during videos/discussions
11. Back channel during student presentations

30 Ways to Use Twitter in the Classroom (Google Presentation)
http://docs.google.com/presentation/d/1h0ZceGd_118c8dms8/



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

Create Online Crossword Puzzles!



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

Read 1d. Grammer Checkers (e.g., Grammarly, Ginger, GrammarCheck, PaperRater, and SpellCheckPlus) <http://www.grammarly.com/>



Read 1e. Facebook Course Pages (100 ways to use Facebook in education; e.g., homework help, polling students, highlight vocabulary, archive discussions) <http://www.teachthought.com/technology/100-ways-to-use-facebook-in-education-by-category/>

- Ask for information:** Instead of trusting Wikipedia, ask the crowd on Facebook. One kindergarten teacher asked parents to research seeds and got great information about the largest seed in the world according to the Guinness Book of World Records.
- Attend remote lectures:** Using Facebook, you can tune into remote lectures and presentations from around the world.
- Museums and more:** Help your students follow along with local and international museums, art galleries, exhibits, and more for enriched learning on Facebook.
- Firsthand research:** Students can connect with family members for genealogy assignments, discuss issues with local celebrities and more through Facebook.
- Follow politicians:** If your class is studying the current election, use Facebook to follow politicians on the local, state, and national scale. You can even ask students to interact with the candidates, posing questions and getting feedback.
- Learning games:** Plenty of games are on Facebook, and many of them are educational. You can find Facebook crosswords, math games, and more as a reward in your classroom.
- Public polling:** Students can research and poll friends and family on Facebook.
- Applications:** Flashcards, Courses, and more offer easy ways to use Facebook in your classroom.



2. Reflective and Observational Learners

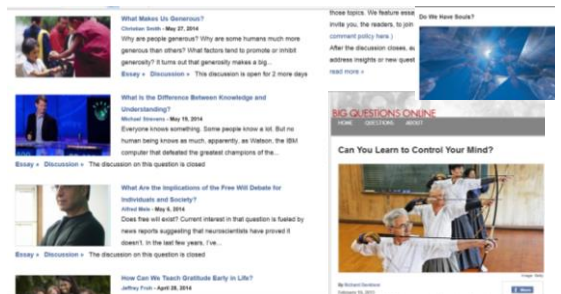
- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives



Reflect 2a. Internship and Practicum Experiences



Reflect 2b. Big Issue Reflections (Big Questions Online (BQO)), May 27, 2014 (e.g., What makes us generous? What is the difference between knowledge and understanding?) <https://www.bigquestionsonline.com/content/do-we-have-souls>



Reflect 2c.

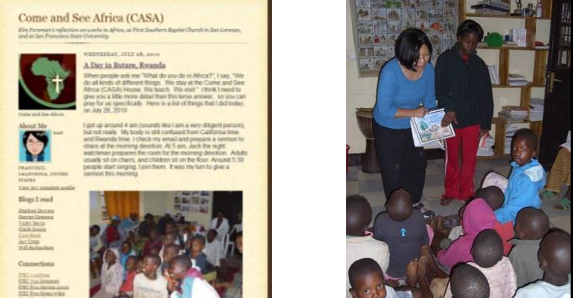
Reflect on Virtual Timelines

(Dipity, xtimeline, Simile, etc.) (How Facebook changed our lives, Marco della Cava, USA Today, February 3, 2014)

<http://www.usatoday.com/story/tech/2014/02/02/facebook-burns-10-cultural-impact/5063979/>
<http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>
<http://www.usatoday.com/news/health/story/2011-08-25/Martin-Luther-King-3-Memorial-in-Washington-A-Closer-look/31336470/1?img=34news>
<http://www.usatoday.com/story/life/movies/2013/04/10/harrison-ford-jackie-robinson/2001783/>



Reflect 2d. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State Univ, Come and See Africa Blog; <http://comeandseeafrica.blogspot.com/>)

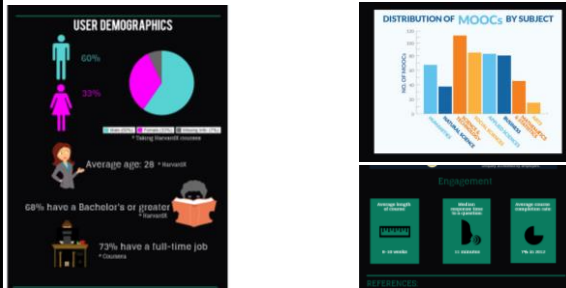


Reflect 2e. Interpreting Infographics

Infographic: Global MOOC statistics, April 17, 2014

eCampus News, Meris Stansbury

<http://www.ecampusnews.com/research/infographic-moocs-global-436/>
 Infographic: <https://magic.piktochart.com/output/1747660-moocs>



3. Visual Learners

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



Display 3a. Online Art Google Art Project, NBC Nightly News, April 3, 2012

<http://www.msnbc.msn.com/id/3032619/vp/46945508#46945508>



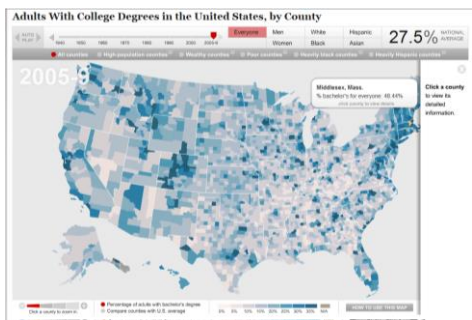
Display 3b. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)

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



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

http://todaycampus.com/article/Keith_Hampson_interviews_josh_keller_on_interactive_graphics_for_higher_education



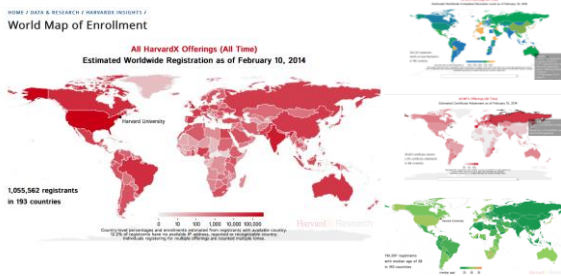
Reflect 2d. Reflections on Interactive Maps Mapping the Dead: Gun Deaths Since Sandy Hook, Huffington Post, March 22, 2013

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



Display 3e. Data Visualization Tools (Harvard and MIT MOOCs) Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education

<http://chronicle.com/blogs/technology/harvard-and-mit-reveal-visualization-tools-for-trace-of-mooc-data/26833>



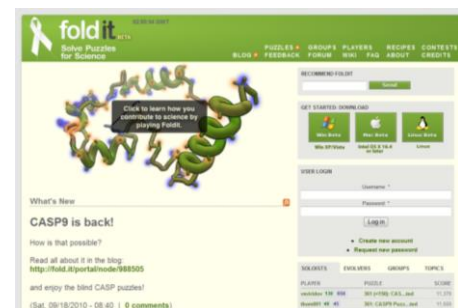
Display 3f. Map Trend Interpretations e.g., Global Forest Watch (April 2014) <http://www.globalforestwatch.org/map/3d/-5.27/22.00/ALL/areaScale/none/598> (e.g., Surging Seas, Climate Central) <http://sealevel.climatecentral.org/>



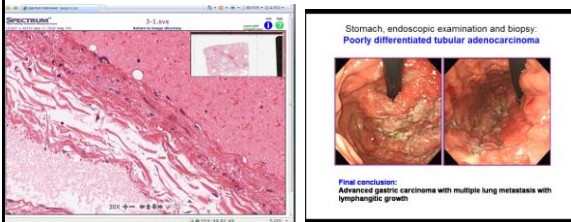
Display 3g. Videos for clinical education (Sungkyunkwan University School of Medicine, www.mededu.or.kr)



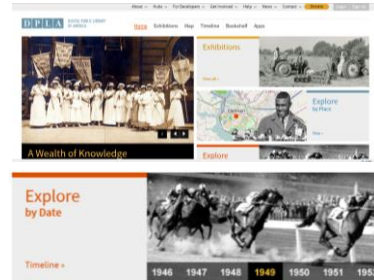
Display 3h. Video Animations and Simulations



Display 3i. Virtual Microscopes



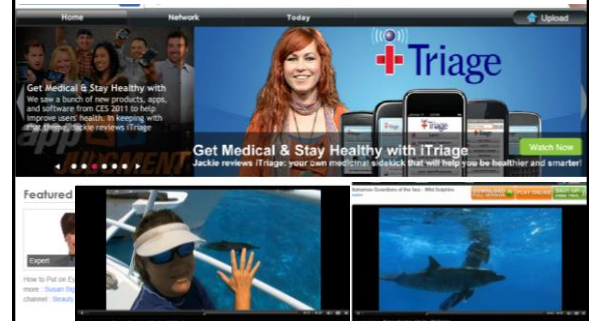
Display 3j. Visual Library Search Digital Public Library of America <http://dp.la/>



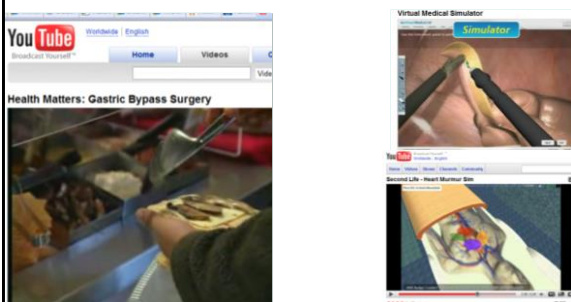
Display 3k. Online Timelines (US Presidents)



Display 3L. TV Lesson (expert videos)

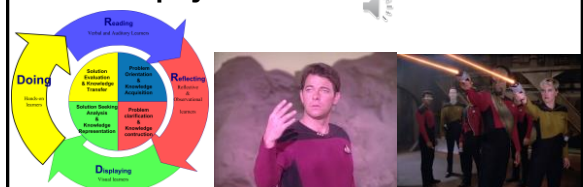


Display 3m. Medical Animations (e.g., YouTube, CNN, BBC)



4. Tactile/Kinesthetic Learners

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



Do 4a. Student Class Documentaries

Umida's R546 Documentary Project

http://www.youtube.com/watch?v=EMLTzqCV_5A



Do 4b. Uploading Mobile Books (e.g., BookRix, <http://www.bookrix.com/>)



Mobile Devices & Learning

How mobile devices are re-shaping the field of education

By Peter Holscher

Do 4c. Student Mobile App Creation

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



Do 4d. Course Recap Prezi Presentations

Jeff Pankin, MIT, Prezi, Emerging Learning Technologies

<http://prezi.com/t2bawqjmf/emerging-learning-technologies/>

Jeffrey Barnett, Today's World

<http://prezi.com/-tjeyothet-/r685-final-project>



Emerging Learning Technologies

Final Project for R015, Emerging Learning Technologies graduate seminar in the IST program at Indiana University, Bloomington.

by Jeff Pankin on 22 April 2013

More presentations by Jeff Pankin

Do 4e. Singing YouTube Summaries

Daniel Halluska, P540, Fall 2011

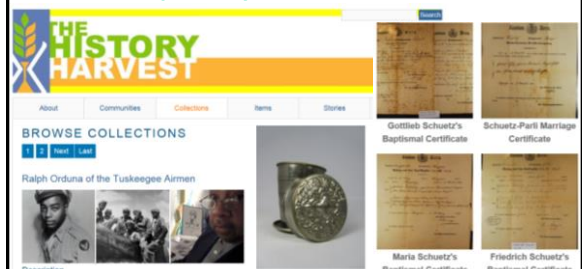
<http://www.youtube.com/watch?v=tOL7lrGsqnw>



Do 4f. Class or Community Oral Histories

(e.g., The History Harvest, December 21, 2012)

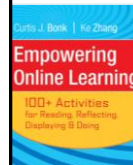
<http://historyharvest.unl.edu/collections>





Poll #5: What phase of the R2D2 Method do you like best?

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



Poll #6: Which do you prefer... R2D2 or TEC-VARIETY?



What motivates?

1. Tone/Climate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement: Feedback, Responsiveness, Praise, Supports
3. Curiosity: Surprise, Inquire, Unlocks
4. Variety: Novelty, Fun, Fantasy
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interacting
7. Interactivity: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Investment
9. Tension: Challenge, Dissonance, Controversy
10. Yielding Products: Goal Driven, Purposeful Vision, Ownership

Poll #7: How many ideas did you get from this talk?

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.



Stop and Explore:
Explore Websites from this Session!
Find the lieu...
Take a break...



Any Questions?

Try TEC-VARIETY...

Slides at: TrainingShare.com

Papers: PublicationShare.com

Book: <http://tec-variety.com/>

Dr. Curt Bonk – CJBonk@Indiana.edu

