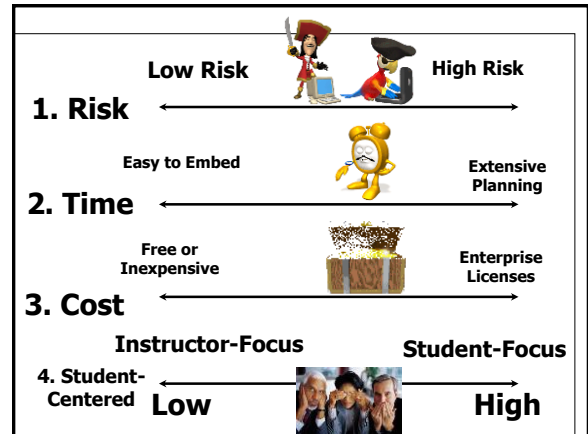


Where Are You R2D2?:

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

Curtis J. Bonk, Professor, Indiana University
cjbonk@indiana.edu
<http://mypage.iu.edu/~cjbonk/>



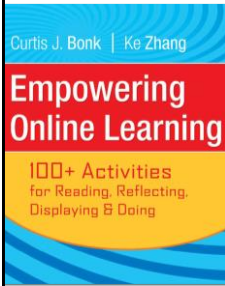
Addressing Learning Styles



Question: How can technology
address diverse learner
needs?



Framework: 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.

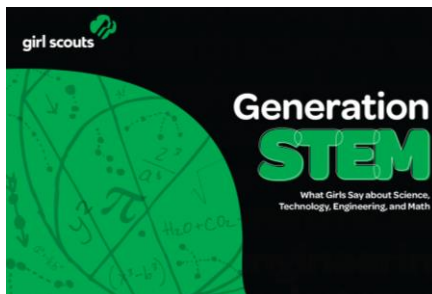
Online Article Portals and Databases

<http://r685articledatabase.weebly.com/>



Generation STEM: What Girls Say about STEM (Girl Scouts, 2012)

https://www.girlscouts.org/research/pdf/generation_stem_full_report.pdf



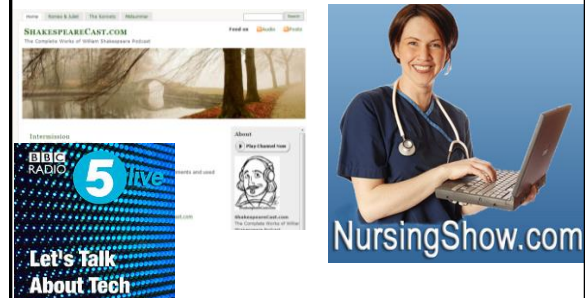
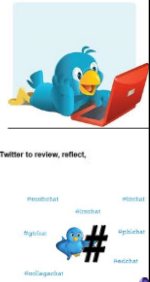
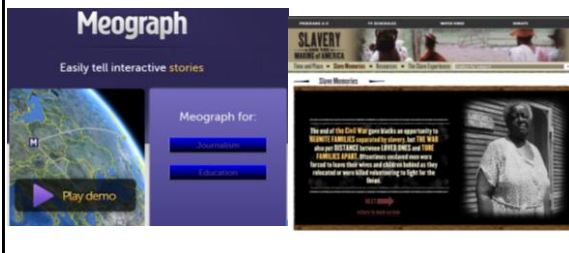
Read 1b. Online Crossword Puzzles

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

Create Online Crossword Puzzles!

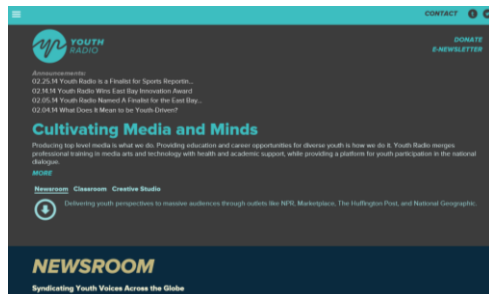


<http://www.eclipsecrossword.com/>



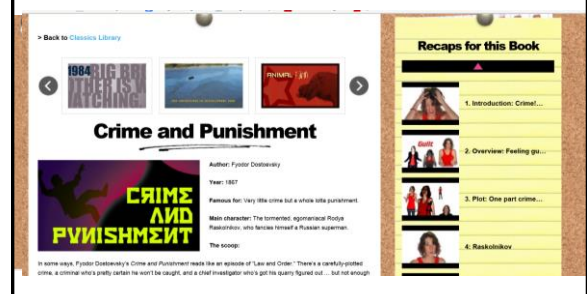
Read 1i. Youth Radio

<http://stemefg.org/>



Read 1j. 60 Second Recap

<http://www.60secondrecap.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

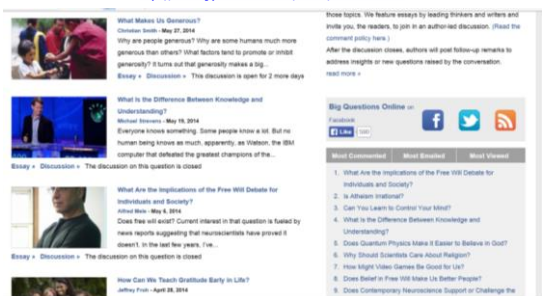


Reflect 2a. Internship and Practicum Experiences



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?)
<http://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-culture-10-cultural-impact/506379/>
<http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>
<http://www.usatoday.com/news/destinations/2011-08-25/Martin-Luther-King-Jr-Memorial-in-Washington-D-Close-look/20130409/3?u=34news>
<http://www.usatoday.com/story/11/movies/2013/04/10/harrison-ford-jackie-robbinson/2001763/>



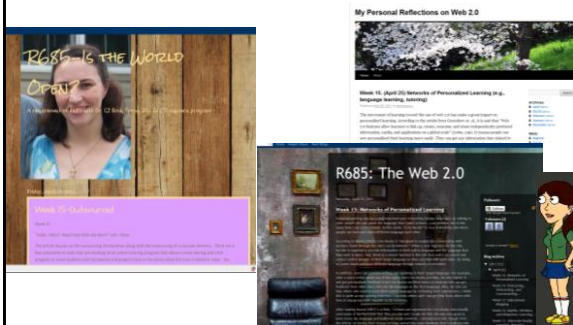
Reflect 2d. Expert and Domain Specific Blog Reflections (English, Health, Business, etc. blogs)



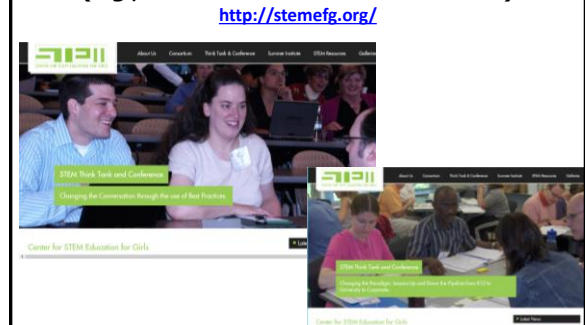
Reflect 2e. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State Univ, Come and See Africa Blog; <http://comeandseeafrica.blogspot.com/>)



Reflect 2f. Critical Friend Blog Postings (Kristen and Susan)



Reflect 2g. Reflect and Discuss (e.g., STEM Education Center for Girls) <http://stemefg.org/>

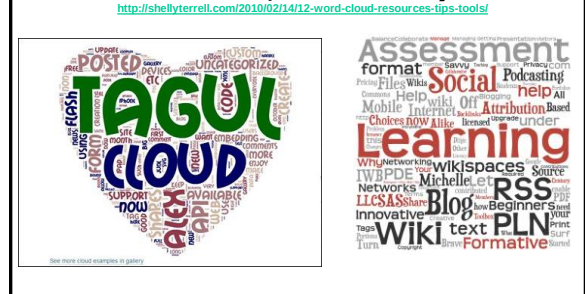


3. Visual Learners

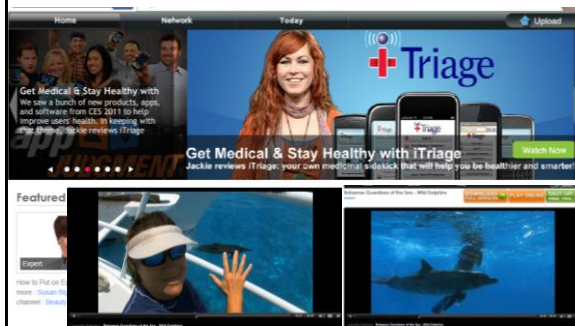
- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.



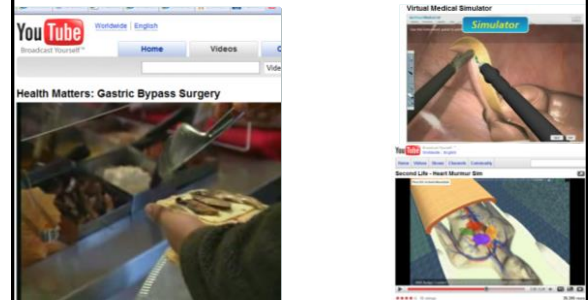
Display 3a. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out) <http://shellyterrell.com/2010/02/14/12-word-cloud-resources-tips-tools/>



Display 3b. TV Lesson (expert videos)



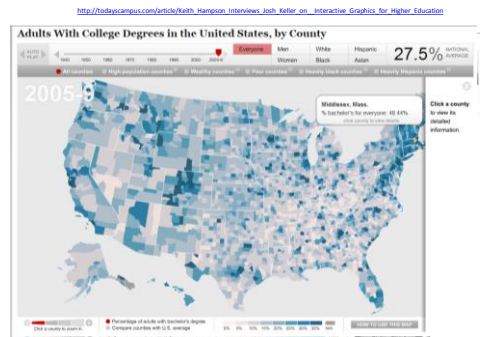
Display 3c. Medical Animations (e.g., YouTube, CNN, BBC)



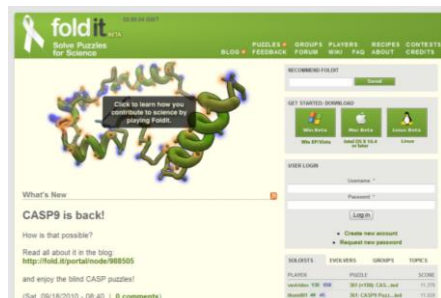
Display 3d. Videos for clinical education (Sungkyunkwan University School of Medicine, www.mededu.or.kr)



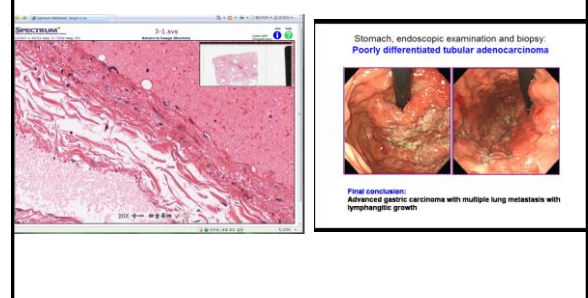
Display 3e. Interactive Map Timelines (adults with college degrees by county, May 7, 2012)



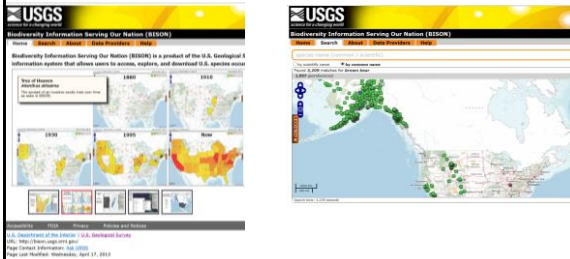
Display 3f. Video Animations and Simulations



Display 3g. Virtual Microscopes



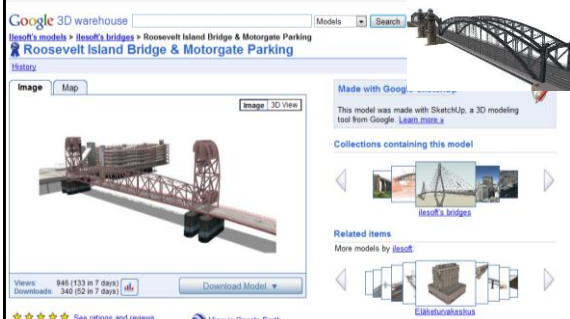
Display 3h. Interactive Species Maps USGS (US Geological Survey) (Biodiversity Serving Our Nation or BISON) <http://bison.usgs.gov/>



Display 3i. Online Timelines (US Presidents)



Display 3j. Download and Use Online 3D Sketches (Google SketchUp; download <http://sketchup.google.com/3dwarehouse/>)



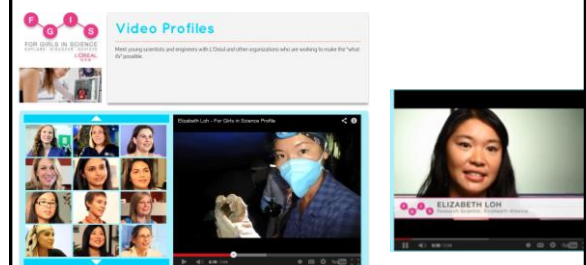
Display 3k. Video Art Tutorials ArtMaker.com <http://artmaker.com>



Display 3L. Online Art Google Art Project, NBC Nightly News, April 3, 2012 <http://www.msnbc.msn.com/id/3032619/vp/46945508#46945508>



Display 3m. Video Profiles of successful female scientists, (e.g., For Girls in Science) <http://forgirlsinscience.org/video-profiles/?key=GE0C4jhUkbg>



Display 3n. Modeling Experiments (e.g., STEM Education Center for Girls)

<http://stemefg.org/>



4. Tactile/Kinesthetic Learners

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



Do 4a.

Survey Research and Market Analysis (e.g., Mister Poll, MicroPoll, Zoomerang, SurveyShare)



Do 4b. Student Class Documentaries

Umida's R546 Documentary Project

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



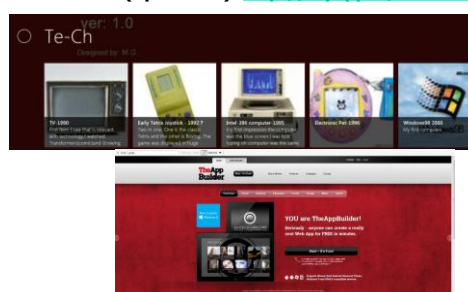
Do 4c. Uploading Mobile Books (e.g., BookRix, <http://www.bookrix.com/>)



Mobile Devices & Learning
"How mobile devices are re-shaping the field of education"

Do 4d. Student Mobile App Creation

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

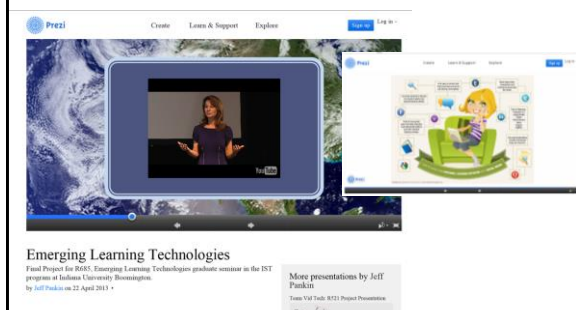


Do 4e. Course Recap Prezi Presentations

Jeff Pankin, MIT, Prezi, Emerging Learning Technologies

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

Jeffrey Barnette, Today's World
<http://prezi.com/-ijyothst-r/r685-final-project>



Do 4f. 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.thebooklife.com/2012/01/upcoming-2012-ya-book-trailers.html>

<http://bookriot.com/category/book-trailer/>

<http://scottwesterfeld.com/blog/2009/09/leviathan-trailer/>



Do 4g. Singing YouTube Summaries

Daniel Halluska, P540, Fall 2011

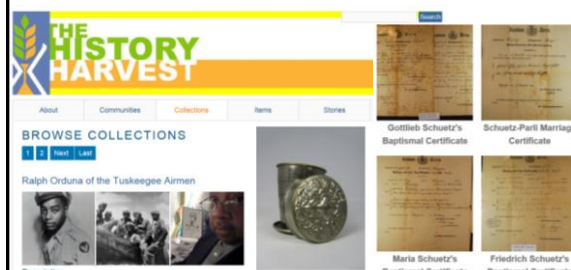
<http://www.youtube.com/watch?v=OL7IrGsqnvw>



Do 4h. Class or Community Oral Histories

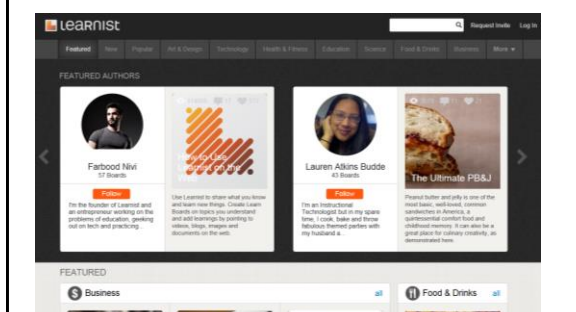
(e.g., The History Harvest, December 21, 2012)

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



Do 4i. Student Expertise (e.g., Learnist)

<http://learnist.org/category/featured#/category/featured>

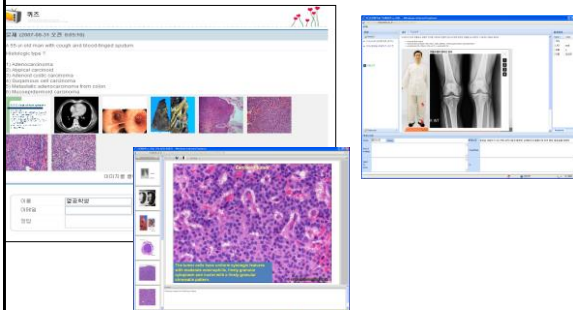


Do 4j. Podcast Productions and Shows



Do 4k. Virtual Quizzes

(Sungkyunkwan (SKKU) University School of Medicine, www.mededu.or.kr)

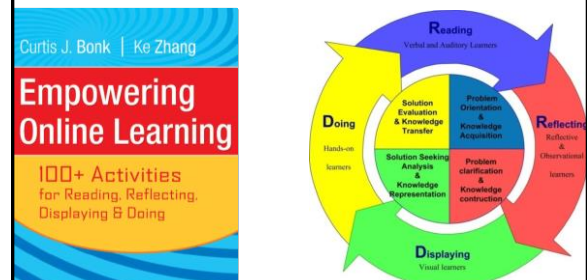


Poll: What phase of the R2D2 Method do you like best?

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



How will you use R2D2?



Next up: The MATRIX!!!!!!!!!!!!

- Mobile
- Auditory
- Thought-stimulating
- Reflective/Real-World
- Interactive Visually
- Xtremely Hands-on



Any Questions?

Try the R2D2 Model!

Slides at: TrainingShare.com

Papers: PublicationShare.com

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

Dr. Curt Bonk – CJBonk@Indiana.edu

