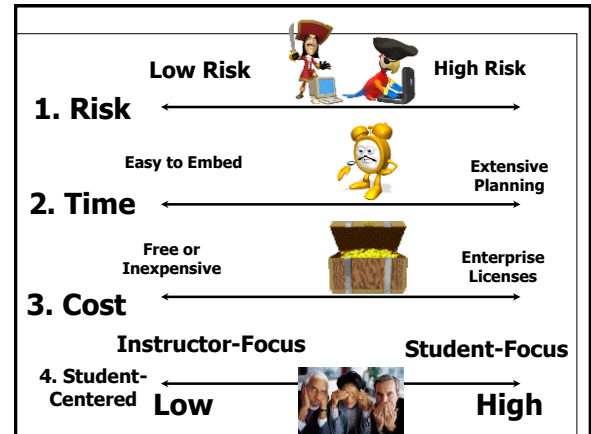


## Where Are You R2D2?:

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

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



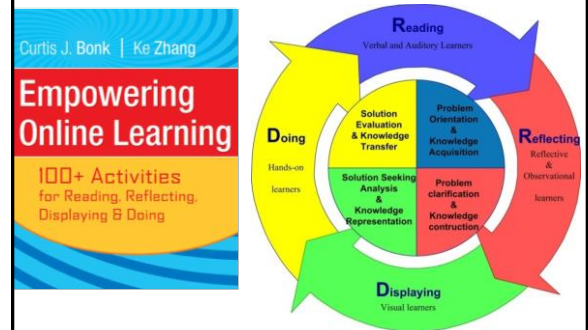
## Addressing Learning Styles



**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

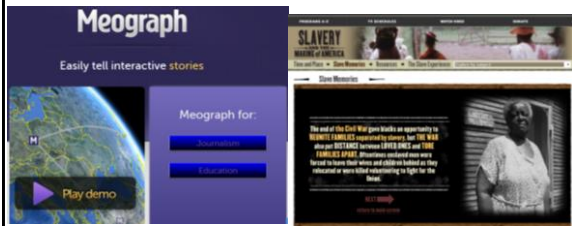
- Auditory and verbal learners prefer words, spoken or written explanations.



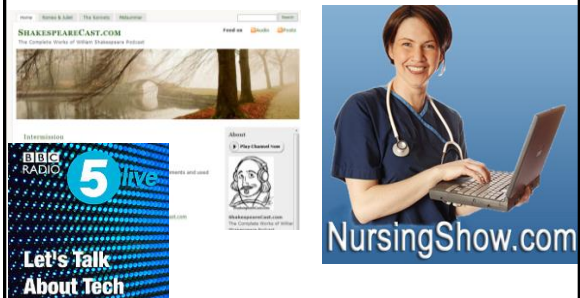
## Read 1a. Collect and Listen to Interactive Stories

(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. Listen to Open Access Audio Files and Podcast Shows



## Read 1c. 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. Publishing 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 i.e. #newtonfirstlaw) – students can go back to Twitter to review, reflect, study key points shared
10. Back channel during video/slideshows
11. Back channel during student presentations



30 Ways to Use Twitter in the Classroom (Google Presentation)  
[http://rbcsa.google.com/presentview?c=slideshow\\_1131&id=1131](http://rbcsa.google.com/presentview?c=slideshow_1131&id=1131)



## Read 1d. Online Crossword Puzzles

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

### Create Online Crossword Puzzles!



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

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



## Read 1f. 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. 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 the classroom.



## 2. Reflective and Observational Learners

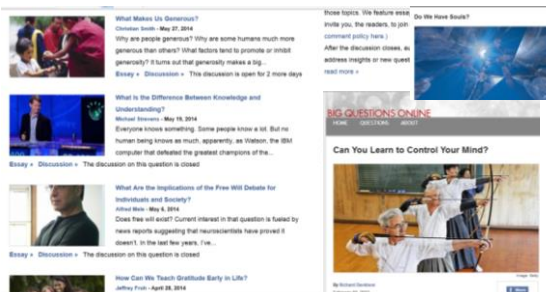
- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives



## Reflect 2a. Internship and Practicum Experiefnces



## 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>



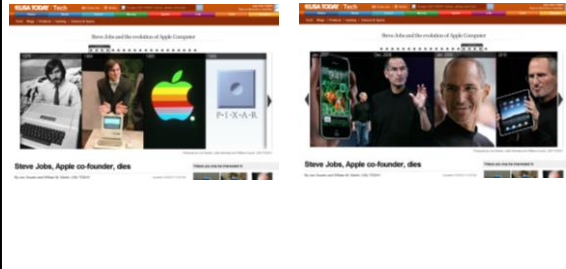
## Reflect 2c. Reflect on Virtual Timelines (Dipity, xtimeline, Simile, etc.) (How Facebook changed our lives, Marco della Cava, USA Today, February 3, 2014) <http://www.usatoday.com/story/tech/2014/02/02/facebook-culture-10-cultural-impact/5063979/> <http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1> <http://www.usatoday.com/news/entertainment/story/2011-08-25/Martin-Luther-King-3-Remembered-in-Washington-A-closer-look/26138476/3?u=34news> <http://www.usatoday.com/story/life/movies/2013/04/10/Harrison-Ford-Jackie-Robinson/2001733/>



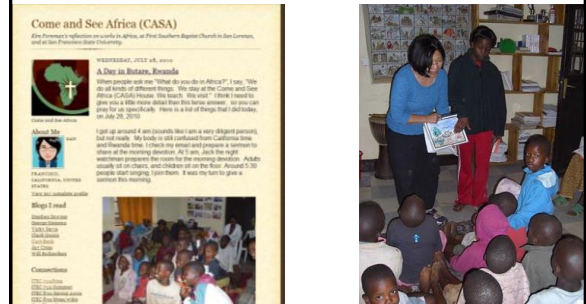


### Reflect 2d. Create or Reflect on Virtual Timelines with Media (Dipity, Simile, Xtimeline, Timeglider, Meograph)

<http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>



### 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)



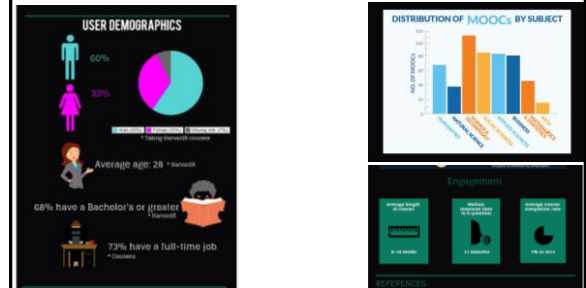
### Reflect 2g. Interpreting Infographics

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>



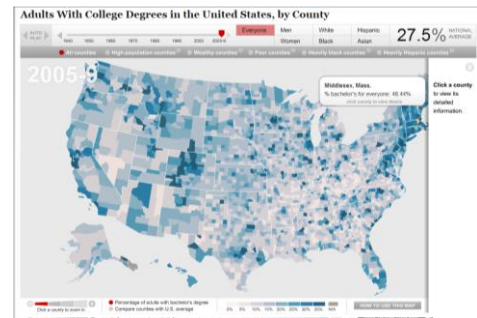
### Display 3b. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)

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



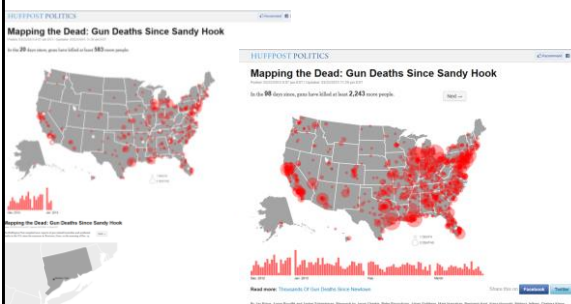
### Display 3c. Interactive Map Timelines (adults with college degrees by county, May 7, 2012)

[http://todaycampus.com/article/Keth\\_Hamilton\\_Interviews\\_Josh\\_Keller\\_on\\_Interactive\\_Graphics\\_for\\_Higher\\_Education](http://todaycampus.com/article/Keth_Hamilton_Interviews_Josh_Keller_on_Interactive_Graphics_for_Higher_Education)



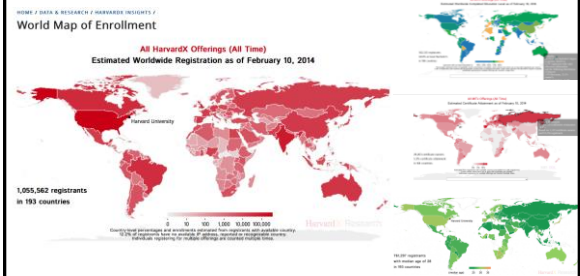
### Reflect 2d. Reflections on Interactive Maps Mapping the Dead: Gun Deaths Since Sandy Hook, Huffington Post, March 22, 2013

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



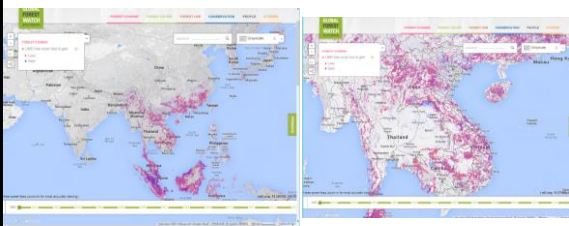
### Display 3e. Data Visualization Tools (Harvard and MIT MOOCs) Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education

[http://chronicle.com/blogs/technology/harvard-and-mit-release-visualization-tools-for-trove-of-course-data/2013/02/20/harvard\\_mit\\_moc\\_data\\_tools](http://chronicle.com/blogs/technology/harvard-and-mit-release-visualization-tools-for-trove-of-course-data/2013/02/20/harvard_mit_moc_data_tools)



### Display 3f. Map Trend Interpretations e.g., Global Forest Watch (April 2014)

<http://www.globalforestwatch.org/map/3/-3.72/27.00/ALL/grayscale/loss/596>



### Display 3g. Making Projections (e.g., Surging Seas, Climate Central)

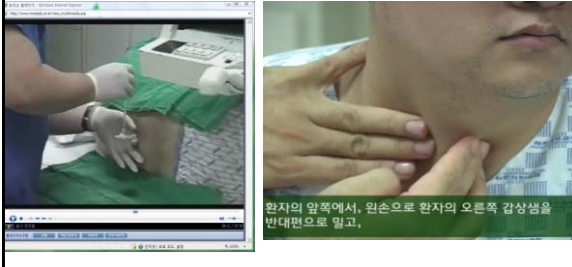
<http://sealevel.climatecentral.org/>

Climate changes visible by ZIP code with new online tools  
Wendy Koch, USA Today, April 20, 2014

<http://www.usatoday.com/story/news/nation/2014/04/20/climate-change-new-online-tools/7739415/>



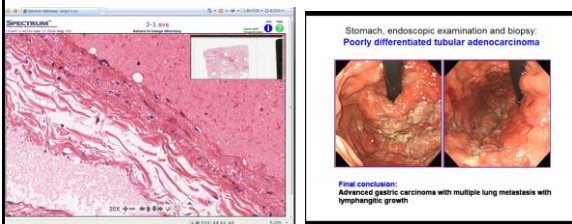
### Display 3h. Videos for clinical education (Sungkyunkwan University School of Medicine, [www.mededu.or.kr](http://www.mededu.or.kr))



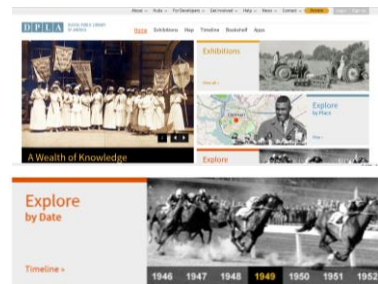
### Display 3i. Video Animations and Simulations



### Display 3j. Virtual Microscopes



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



### Display 3k. Explore Online Library Timeline (e.g., Digital Public Library of America, <http://dp.la/>)

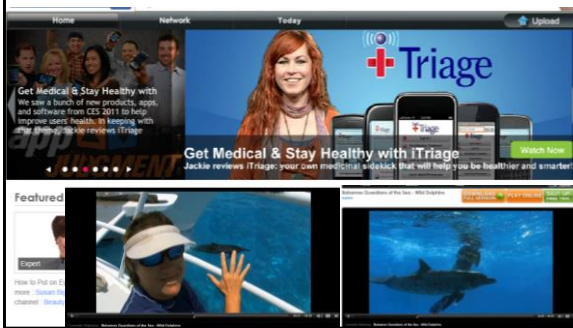


### Display 3L. Online Timelines (US Presidents)

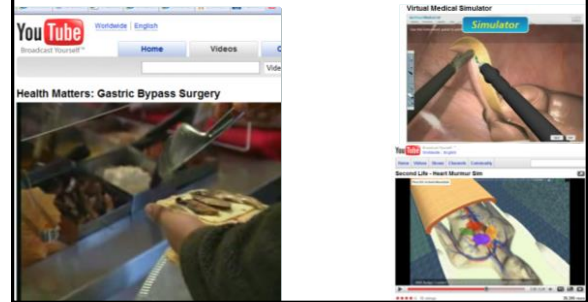




## Display 3M. TV Lesson (expert videos)



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



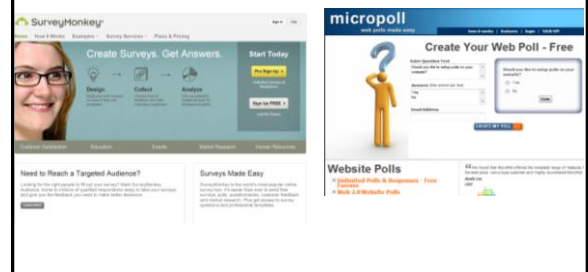
## 4. Tactile/Kinesthetic Learners

- 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.

### 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](http://www.youtube.com/watch?v=EMLTzqCV_5A)



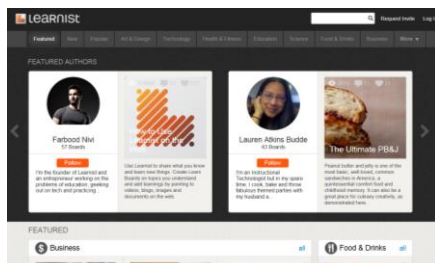
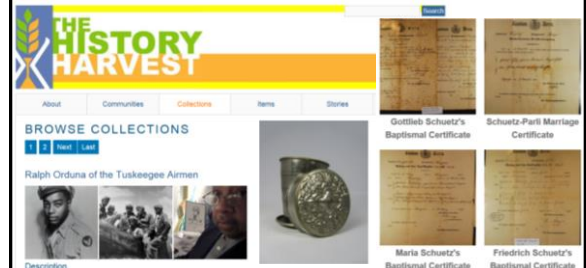
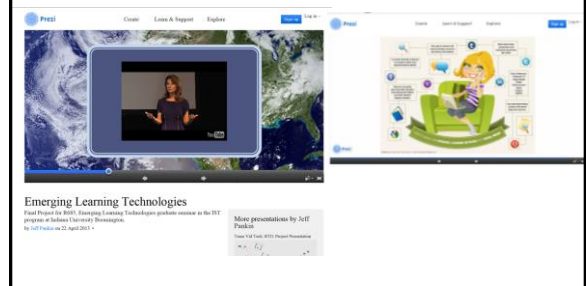
## Do 4c. Uploading Mobile Books

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



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



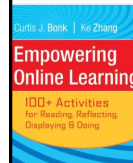




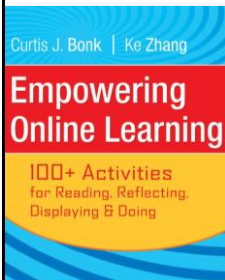


### Poll #1: What phase of the R2D2 Method do you like best?

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



### Poll #2: How will you use R2D2?



### Poll #3: 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 Share: Three Words from this Session!



3 3 3



### Any Questions?

Try the R2D2 Model!

Slides at: [TrainingShare.com](http://TrainingShare.com)

Papers: [PublicationShare.com](http://PublicationShare.com)

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

Dr. Curt Bonk – [CJBonk@Indiana.edu](mailto:CJBonk@Indiana.edu)

