

## Masterclass Part 1: Best Practices for Online and Blended learning: Introducing the TEC-VARIETY Model

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## January 2017 Higher Education Supplement to the National Education Technology Plan

U.S. Department of Education, Office of Educational Technology  
<https://tech.ed.gov/files/2017/01/Higher-Ed-NETP.pdf>

### 'New Normal' Students in Higher Education



### Reimagining the Role of Technology in Higher Education

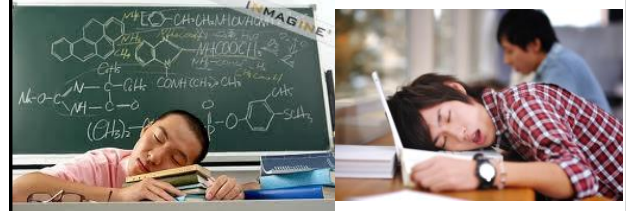
A Supplement to the  
National Education  
Technology Plan



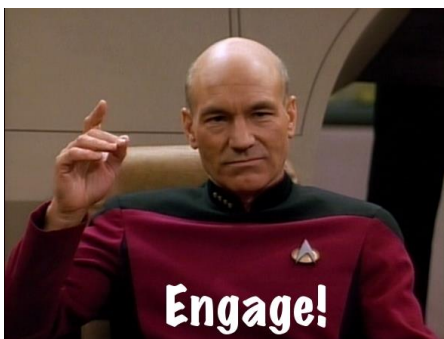
## Poll #1: How many of you cannot keep up with educational technology reports and are frustrated?



## Needed: New Models of Motivation and Engagement



## Poll #2: What did Jean-Luc Picard say?



## 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.



## Poll #3: Million Dollar Question:

What words come to mind when I say that I want to motivate learners?



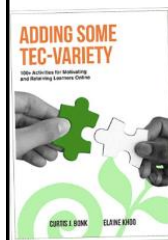
## Framework #1: TEC-VARIETY for Online Motivation and Retention

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 free "TEC-VARIETY" Framework...

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

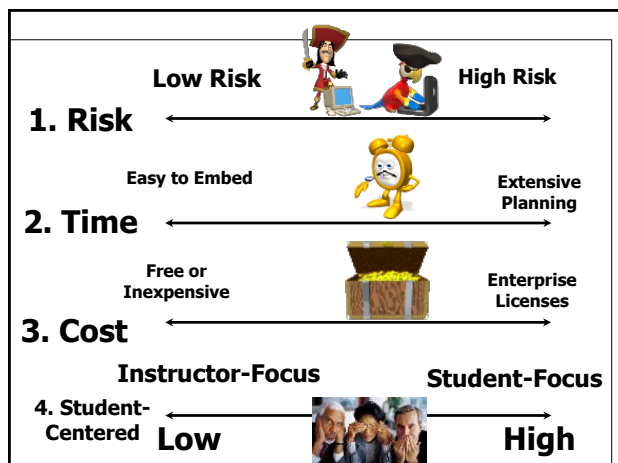
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>



## 在线学习动机与激励: TEC-VARIETY 模型

——激励和留住在线学习者的 100 个活动

作者: Curtis J Bonk & Elaine Khoo IU



## Examples of TEC-VARIETY



**November 10, 2016**

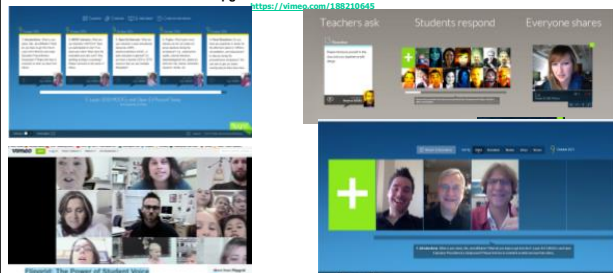
## 1. Tone/Climate:

### A. Threaded Video Discussions and Questions (e.g., Flipgrid)

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

Flipgrid: The Power of Student Voice

<https://vimeo.com/18720055>



## 1. Tone/Climate:

### B. Instructor Course Introductions

(Theatre 10 Intro Video, October 7, 2014, Elizabeth Dale, West Valley College)

<https://www.youtube.com/watch?v=Wzbzc3QjIA>

Chuck Severance, U Michigan/Coursera) in Barcelona

<http://www.youtube.com/watch?v=JzNHvmSv8TI>

Chuck Severance, University of Michigan

<https://www.coursera.org/course/pythonlearn>



## 2. Encouragement, Feedback:

### A. Demonstrations and Tutorials

(e.g., Jing, Screnr, GoView, Screencast-o-matic, etc.)

<http://inside.iub.edu/features/videos/2014-05-29-inub-vid-cib.shtml>

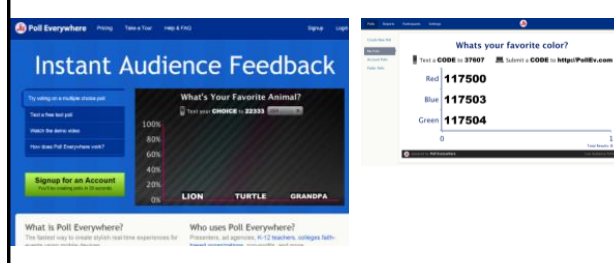


## 2. Encouragement, Feedback:

### B. Blog and Website Polling

(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)

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



## 2. Encouragement, Feedback:

### C. Voice/Audio Feedback

Vocaroo: <http://vocaroo.com/>

<http://vocaroo.com/delete/s0x8moQAYAiU/a37bbc9408bb8c95>  
(Recorded by Curt Bonk for the Open University of China)



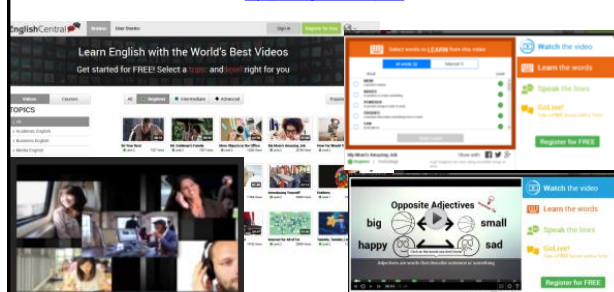
**July 21, 2017**

## 2. Encouragement, Feedback:

### D. English Central

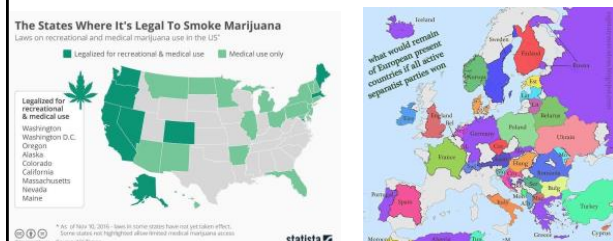
<https://www.englishcentral.com/videos#/index>

<https://www.englishcentral.com/videos>





**March 27, 2017**  
**3. Curiosity, Surprise, Intrigue, Unknowns:**  
**A. Summary and Comparison Maps**  
**#GeoawesomeMapOfTheDay**  
<https://twitter.com/geoawesomeness>  
<https://www.instagram.com/p/BNwgVjDQa3/>  
<https://twitter.com/hashtag/GeoawesomeMapOfTheDay?src=hash>



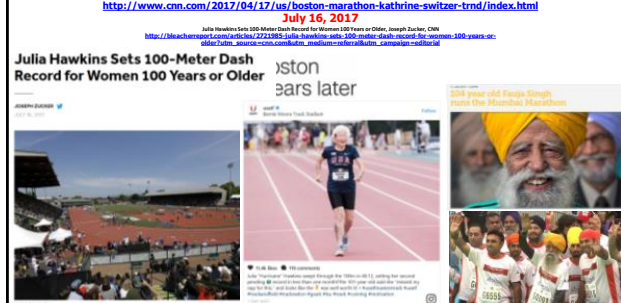
**3. Curiosity, Intrigue, Unknowns:**  
**B. Multimedia News**

(e.g., This may be the oldest surviving Photo of a human, November 7, 2014, CNN, Brandon Griggs; But this image, taken in Paris, France, in 1838)

[http://www.cnn.com/2014/11/06/living/oldest-photograph-human-daguerre/index.html?hpt=hp\\_14\\_kong](http://www.cnn.com/2014/11/06/living/oldest-photograph-human-daguerre/index.html?hpt=hp_14_kong)

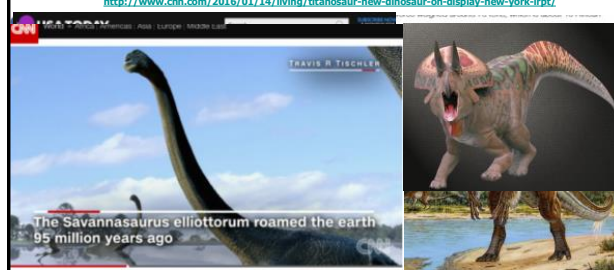


**April 17, 2017**  
**3. Curiosity, Intrigue, Unknowns:**  
**C. 1st woman to officially run Boston Marathon does it again, 50 years later**  
**Emanuella Grinberg, CNN, USA Today**  
<http://www.cnn.com/2017/04/17/us/boston-marathon-kathrine-switzer-trnd/index.html>



**January 5, 2017**  
**3. Curiosity, Intrigue, Unknowns:**  
**D. Immediate Science**

**Move over T. rex, new dinosaur unveiled, Amanda Jackson, CNN**  
<http://www.cnn.com/2016/01/14/living/titanosaurus-new-dinosaur-on-display-new-york-irpt/>



**July 27, 2017**  
**3. Curiosity, Intrigue, Unknowns:**  
**E. Meet Corythoraptor: Newly found dinosaur resembles ostrich gone bad**  
**Traci Watson, USA Today**  
<https://www.usatoday.com/story/news/2017/07/27/meet-corythoraptor-newly-found-dinosaur-sports-fancy-headgear/514191001/>



**February 16, 2017**  
**3. Curiosity, Intrigue, Unknowns:**  
**F. Crowdsourced Science**

**NASA wants you — to find a missing planet**  
**Doyle Rice, USA Today (includes 1:09 video)**  
<http://www.usatoday.com/story/tech/sciencefair/2017/02/16/planet-9-nasa/98007144/>

**Astronomers discover 7 Earth-sized planets orbiting nearby star**



### Poll #4: Which of these ideas might you use?

- A. Threaded video discussions (e.g., Flipgrid)
- B. Video introductions (instructor or student)
- C. Demonstrations and tutorials (Jing, Screenr, etc.)
- D. Voice/Audio feedback (Vocaroo)
- E. Crowdsourced Science
- F. Something in the News
- G. Summary and Comparison Maps
- H. Immediate Science

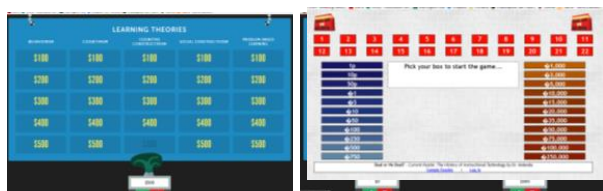


### 4. Variety, Novelty, Fun, Fantasy: A. Random Lists

(Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)

The image shows three screenshots of the Random.org website. The first screenshot shows the 'Coin Flipper' tool with two virtual coins. The second screenshot shows the 'Dice Roller' tool with two virtual dice. The third screenshot shows the 'List Randomizer' tool with a list of 10 items and a random sequence generated.

### October 5, 2016 4. Variety, Novelty, Fun, Fantasy: B. Online Test/Quiz Review Games (e.g., Jeopardy Rocks) <https://www.jeopardy.rocks/r511merve/>

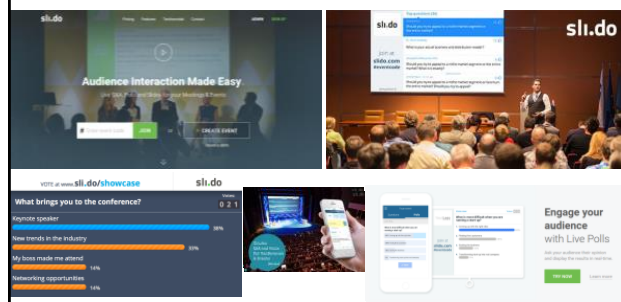


### April 3, 2017 4. Variety, Novelty, Fun, Fantasy: C. Kahoot! <https://getkahoot.com/> July 31, 2017

I'm in 'Kahoots' with Technology in the Classroom  
Cassandra OSullivan Sachar, Faculty Focus  
<https://www.facultyfocus.com/articles/technology-in-the-classroom/i-am-in-kahoots-with-technology-in-the-classroom/>



### April 3, 2017 4. Variety, Novelty, Fun, Fantasy: D. Sli.do <https://www.sli.do/>



### July 17, 2017 4. Variety, Novelty, Fun, Fantasy: E. Learning Chemistry in Virtual Reality, Sarah Hardman, New Learning Times

<https://newlearningtimes.com/cms/article/4519/learning-chemistry-in-virtual-reality>  
1:38 video: <https://vialogues.com/vialogues/play/38337/>

All: <http://curtbonk.com/chemistry-vr.html>  
01:-41: <http://curtbonk.com/chemistry-vr-1.html>  
.41-1:16: <http://curtbonk.com/chemistry-vr-2.html>  
1:16-1:36: <http://curtbonk.com/chemistry-vr-3.html>



## 5. Autonomy, Choice:

### A. Enroll in a MOOC and Reflect (e.g., see Class Central)



**December 8, 2015**

## 5. Autonomy, Choice:

### B. Design Multimedia Glossaries

P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary

<http://natewynne1982.wix.com/p540courseglossary>

Ozgur Ozdemir, December 2012

<http://r685glossary.shutterstock.com/>

Umida Khikmatillaeva, Dec. 2011, P540

<http://learningplanet.shutterstock.com/>

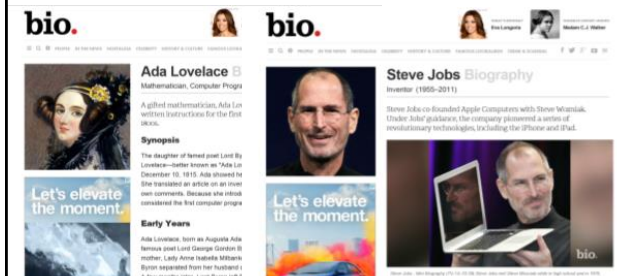


## 5. Autonomy, Choice:

### C. Tracking the Life of a Computer Scientist (e.g., bio.com)

<http://www.biography.com/people/steve-jobs-9354805>

<http://www.biography.com/people/ada-lovelace-20825323>



## Poll #5:

**Any light bulbs going off in  
your head so far...?**

**A. Yes definitely\*\*\***

**B. Yes maybe!**

**C. Not yet (but hopefully soon...)**



## Jan. 20, Oct. 13, & Nov. 2016 (Zoom)

## 6. Relevance, Meaningfulness:

### A. Weekly Guest Expert Chats

R511 Chat with Mike Molenda, IU



## 6. Relevance, Meaningfulness:

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





**July 28, 2017**

## 6. Relevance, Meaningfulness:

### C. Case-Based Learning: Modern medicine breathes new life into virtual training

<https://www.usatoday.com/videos/tech/2017/07/28/modern-medicine-breathes-new-life-into-virtual-training/104073696/>

Videos

2:34 (entire video): <http://curtbonk.com/vr-medicine4b.html>  
 .01-.21: <http://curtbonk.com/vr-medicine.html>  
 .37-.56: <http://curtbonk.com/vr-medicine2.html>  
 .57-1.29: <http://curtbonk.com/vr-medicine3.html>  
 1:30-2:27: <http://curtbonk.com/vr-medicine4.html>



**July 26, 2017**

## 6. Relevance, Meaningfulness:

### D. MOOC Class Meet-Ups

Beer Matters: Free Online Class With Meetups

(September 6, 2017-October 21, 2017),

Karl Brown, Assistant Professor of History

[http://www.gazettextra.com/20150923/beer\\_matters\\_teacher\\_explores\\_links\\_between\\_germans\\_beer\\_politics\\_brownk@uw.edu](http://www.gazettextra.com/20150923/beer_matters_teacher_explores_links_between_germans_beer_politics_brownk@uw.edu)

Video: <http://curtbonk.com/beer.html> (1:11)



**September 20, 2016**

## 6. Relevance, Meaningfulness:

### E. Editing Wikipedia Pages

College students take to Wikipedia to rewrite the wrongs of Internet science, Rosanna Xia, LA Times

<http://www.latimes.com/local/lanow/la-me-wikipedia-science-classes-adv-snap-story.html>

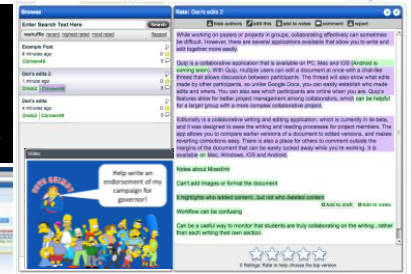


Samantha Erickson, left, of the Wiki Education Foundation; Tina Brock, a dean of the School of Pharmacy at UC San Francisco; and professor Amin Azzam discuss implementing the integration of Wikipedia pages on medical topics with students' work. (David Butow / For The Times)

## 7. Interactive, Collaborative:

### A. Negotiate Meanings Online

(e.g., PiratePad: <http://meetingwords.com/>)  
<http://blogs.alon.edu/technology/6-collaborative-writing-applications-for-group-projects-or-papers/>  
 MeetingWords, Google Docs, NowComment, MixedInk



## 7. Interactive, Collaborative:

### B. Virtual Sharing Walls

e.g., Padlet (What is your secret recipe to engage?)

[http://padlet.com/zaid\\_alsagoff/engage](http://padlet.com/zaid_alsagoff/engage)



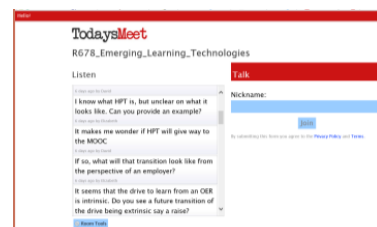
## 7. Interactive, Collaborative:

### C. Backchannel Chat (TodaysMeet)

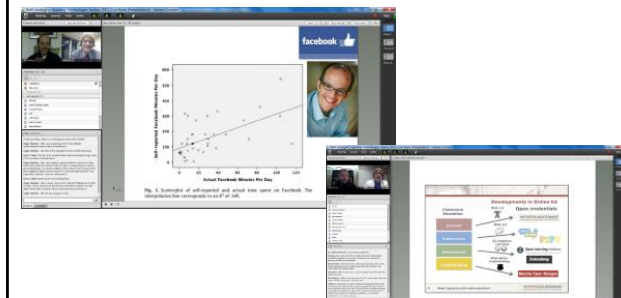
<https://todaysmeet.com/>

R678\_Emerging\_Learning\_Technologies

[https://todaysmeet.com/R678\\_Emerging\\_Learning\\_Technologies](https://todaysmeet.com/R678_Emerging_Learning_Technologies)



## 7. Interactive, Collaborative: D. Guest Speaker Quotes (Rey Junco, February 25, 2013)



## Poll #6: Which of these ideas might you use?

- A. Student designed multimedia glossaries
- B. Edit Wikipedia pages
- C. Guest chats with former students
- D. Negotiate meanings online (e.g., PiratePad)
- E. Enroll in a MOOC
- F. Discussion in Zoom
- G. Guest speaker quotes



## 8. Engagement, Involvement: A. Interactive Maps Timelines

**October 22, 2014, Second immigration wave lifts diversity to record high, Edward Greg Toppo and Paul Overberg, USA Today**

<http://www.usatoday.com/story/news/nation/2014/10/22/diversity-race-ethnicity-change-100-years/16211111>

Rising diversity, state by state

The USA TODAY Diversity Index shows on a scale from 0-100 the chance that two random people are different by race and ethnicity.



Source USA TODAY analysis by Paul Overberg of data from Census Bureau, NHGIS at University of Minnesota and ProximityOne Frank Pompea, USA TODAY

## March 30, 2017 8. Engagement, Involvement: B. Interactive Timelines

(Dipity, xtimeline, Simile, TimeLineCurator, etc.)

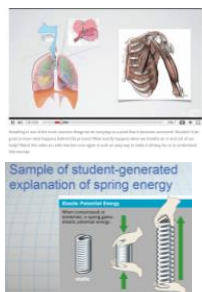
<http://usatoday30.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>

Amy Cavender, The Chronicle of Higher Education



## 8. Engagement, Involvement: C. Interactive Labs and Simulations

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



## December 13, 2016 9. Tension, Challenge, Controversy, etc.: A. Controversial Issue Debates

Librarians for Instructional Technology, Latrice Booker, R511, Fall 2016

<http://bookerlr2000.wixsite.com/librariansforit/cognitivism>





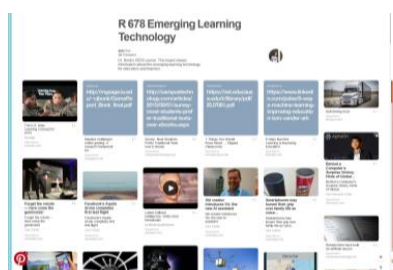
**October 16, 2015**  
**9. Tension, Challenge, Controversy, etc.:**  
**B. Case Learning from the News**  
 (e.g., Newseum Ed)  
<https://newseumed.org/>



**10. Yields Products, Goals:**  
**A. Facebook Course Page (R546)**  
<https://www.facebook.com/JennyBELTT/>

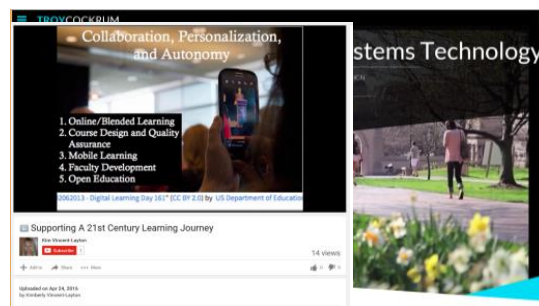


**10. Yields Products, Goals:**  
**B. Database Collection Tools**  
**Design Article Database in Pinterest,**  
**Meina Zhu and Jennifer Weebeck**  
<https://www.pinterest.com/zhumeina0000/r-678-emerging-learning-technology/>  
<https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/>



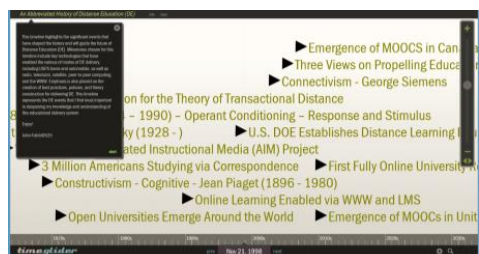
**10. Yields Products, Goals:**  
**C. Student Created Recap Videos**

Piercarlo Abate: [http://www.youtube.com/watch?v=-\\_TURzH00aU](http://www.youtube.com/watch?v=-_TURzH00aU)  
 Q'Li, Gangnam: <http://www.youtube.com/watch?v=7Q429IqZuU8&feature=youtu.be>  
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8omCFW0RWB>  
 Kendal Rasnake (Is IT Right For You?): <https://www.youtube.com/watch?v=M33GUDICIGW>  
 Kimberly Vincent-Layton: [https://www.youtube.com/watch?v=4IC39\\_rUL2k&feature=youtu.be](https://www.youtube.com/watch?v=4IC39_rUL2k&feature=youtu.be)



**March 12, 2016**  
**10. Yields Products, Goals:**  
**D. Student Generated Timelines,**  
**Taxonomies, and Concept Maps**

R678 John Falchi, Timeglider, An Abbreviated History of Distance Education  
[http://timeglider.com/r/50843d8903a48067min\\_zoom=1&max\\_zoom=100](http://timeglider.com/r/50843d8903a48067min_zoom=1&max_zoom=100)



**Poll #7:**  
**Which of these ideas might you use?**

- A. Interactive map timelines
- B. Facebook course page (or Pinterest)
- C. Issue challenges, role plays, and debates
- D. Student designed course recap videos
- E. Student infographics
- F. Interactive timeline tools
- G. Videos with test questions



## 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**

#### 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

## Masterclass Part 2:

**Best Practices for Online and Blended learning:  
Introducing the R2D2 Model**

Curt Bonk, Professor, Indiana University

[cjbonk@indiana.edu](mailto:cjbonk@indiana.edu)

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



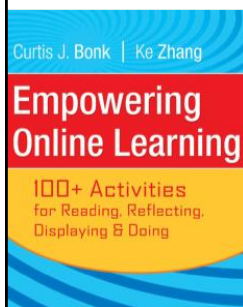
## Addressing Learning Styles with R2D2



**Question: How can technology address diverse learner needs?**

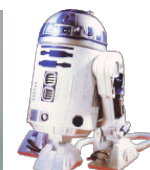


## Model #2: The R2D2 Model: Read, Reflect, Display, Do...



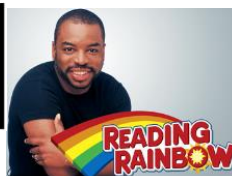
## The R2D2 Method

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.**



**January 20, 2016**

### Read 1a. Podcasts

**IU Bloomington podcast series to launch Jan. 24, Steve Hinnefeld, IU Newsroom**

[http://inside.indiana.edu/headlines/2016-01-20-new-campus-podcast.shtml?utm\\_source=2016-01-20&utm\\_medium=newsletter&utm\\_content=Something-in-the-air&utm\\_campaign=2016-inside-iub-distribution](http://inside.indiana.edu/headlines/2016-01-20-new-campus-podcast.shtml?utm_source=2016-01-20&utm_medium=newsletter&utm_content=Something-in-the-air&utm_campaign=2016-inside-iub-distribution)



**IU's Media School dean James Shanahan, at left, will host a new campus podcast. Senior Luqmann Ruth will read the news for the inaugural podcast. | PHOTO BY JENNIFER PIUREK, OFFICE OF THE PROVOST**

## Read 1b. Collect Oral Histories

**e.g., Joan Kang Shin, George Mason University, has her students write “This I believe” Statements.**  
(EFL teachers around the world interview elders in their community for a rich database of oral histories and documentaries for social change)

**Oral History Society:** <http://www.ohs.org.uk/>



## Read 1c.

## Exploring Various Resources to Track the Life of a Prominent People

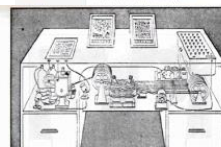
(e.g., Vannevar Bush in *Atlantic Monthly*, *Wikipedia*, *Time*, etc.)

[http://en.wikipedia.org/wiki/Vannevar\\_Bush](http://en.wikipedia.org/wiki/Vannevar_Bush)

JULY 1945

## As We May Think

VANNEVAR BUSH | JUL 1 1945, 12:00 PM ET



**May 28, 2015**  
**Read 1d. Immediate Science and Open Access Science**

**Ancient jawbones put new species on the human family tree, researchers say, Laura Smith-Spark, CNN**

**researchers say,** [Laura Smith-Spark, CNN](#)

<http://www.cnn.com/2015/05/28/africa/ethiopia-fossil-hominin-ancestor/index.html>  
<http://www.cnn.com/2015/05/28/africa/ethiopia-fossil-hominin-ancestor/index.html>  
<http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html>

<http://www.cnn.com/2015/05/28/africa/ethiopia-fossil-hominin-ancestor/index.html>  
<http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html>

<http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html>



## 2. Reflective and Observational Learners

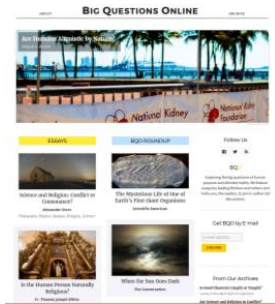
- **Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives**





## Reflect 2a. Big Issue Reflections

(Big Questions Online (BQO)), Feb 3, 2015  
(e.g., [Can a Living Creature Be as Big as a Galaxy?](http://www.bigquestionsonline.com/))



## April 15, 2017 Reflect 2B. "What if" Questions?

Emma Morano, Last Known Person Born During The 1800s, Dies, Hilary Hanson, Huffington Post

[http://www.huffingtonpost.com/entry/emma-morano-dies-born-1800s\\_us\\_58f2581de4b0b9638e455d57ncid=inbknkushpmg00000009](http://www.huffingtonpost.com/entry/emma-morano-dies-born-1800s_us_58f2581de4b0b9638e455d57ncid=inbknkushpmg00000009)  
[http://www.huffingtonpost.com/entry/oldest-woman-emma-morano\\_us\\_583da62ae4b06539a78a760c](http://www.huffingtonpost.com/entry/oldest-woman-emma-morano_us_583da62ae4b06539a78a760c)

WORLDPOST 04/15/2017 12:36 pm EDT Updated 35 minutes ago

### Emma Morano, Last Known Person Born During The 1800s, Dies

She attributed her long life to staying single.

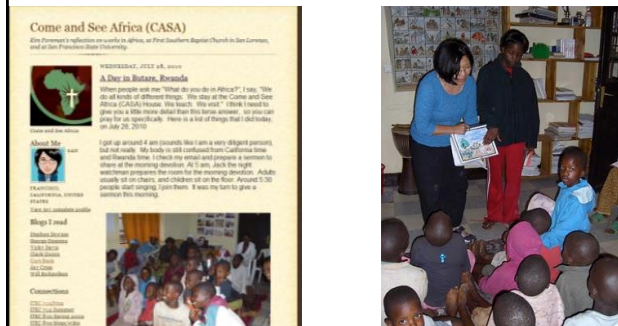
By Hilary Hanson



The last person known to have been born during the 1800s has died.



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



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



## 3. Visual Learners

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

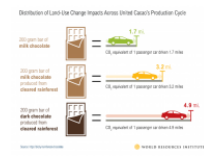
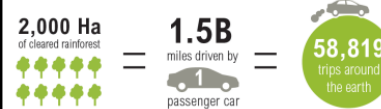


## Display 3a. Interpreting Infographics August 5, 2015

How much rainforest in that chocolate bar?  
Global Forest Watch, Nancy Harris, Octavia Payne and Sarah Mann

<http://blog.globalforestwatch.org/2015/08/how-much-rainforest-is-in-that-chocolate-bar/>

Land-Use Change Emissions in Miles Driven



<http://bit.ly/rainforest-chocolate>

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



### Display 3c. Map Animations

Yes, Mr. President, We Remade Our Atlas to Reflect Shrinking Ice

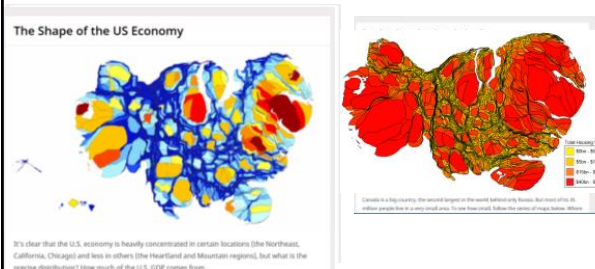
Christine Dell'Amore, National Geographic, August 3, 2015  
[http://news.nationalgeographic.com/2015/08/150803-arctic-ice-obama-climate-national-science/?utm\\_content=buffer8a394&utm\\_medium=social&utm\\_source=twitter.com&utm\\_campaign=buffer](http://news.nationalgeographic.com/2015/08/150803-arctic-ice-obama-climate-national-science/?utm_content=buffer8a394&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer)



# November 19, 2016

## Display 3d. Cartograms, Maps, and Other Visualizations

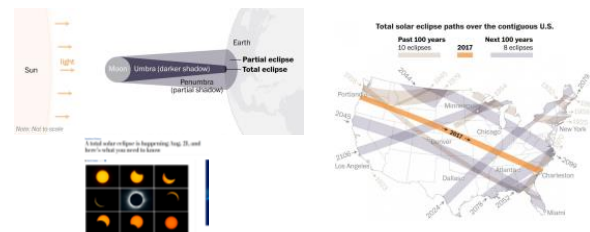
**Metrocosm: Cartograms Archive**  
The Housing Value of Every County in the U.S.  
<http://metrocosm.com/category/cartograms/>



**July 21, 2017**  
**Display 3e. A total solar eclipse is happening Aug. 21 and here's what you need to know**

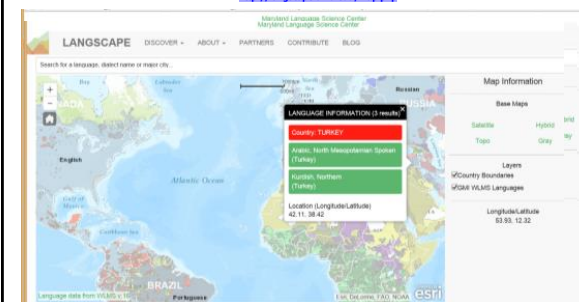
**Sarah Kaplan, The New York Times**

[https://www.washingtonpost.com/news/science/wp/2017/07/21/a-total-solar-eclipse-is-happening-aug-21-and-heres-what-you-need-to-know/?hpid=hp\\_hp-top-table-main-aug-eclipse%3Ahomepage%2Ftcm=319b3fd5d31](https://www.washingtonpost.com/news/science/wp/2017/07/21/a-total-solar-eclipse-is-happening-aug-21-and-heres-what-you-need-to-know/?hpid=hp_hp-top-table-main-aug-eclipse%3Ahomepage%2Ftcm=319b3fd5d31)  
(next one is August 21, 2017)



**March 24, 2015**  
**Display 3f. Maps of Languages**  
**Langscape, Language at Maryland**

<https://languagescience.umd.edu/beyond-umd/landscape>  
<http://theweek.com/articles/545768/cool-interactive-map-lets-explore-worlds-languages>  
<http://landscape.umd.edu/map.php>

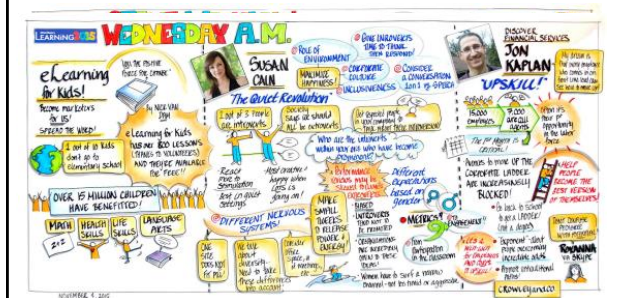


### Display 3g. (April 28, 2015)

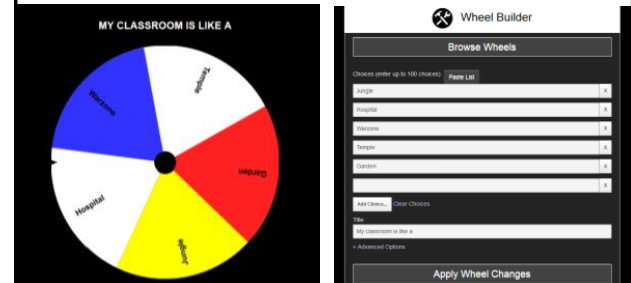
<http://www.spicynodes.org/index.html>



**December 17, 2015**  
**Display 3h. Graphical Recordings**  
 Elliott Masie's Learning 2015, Nov 1-4, 2015  
<http://learningtalks.com/learning-2015-videos/sabrina-kay-the-learner/>  
<http://www.imagemagick.net/>



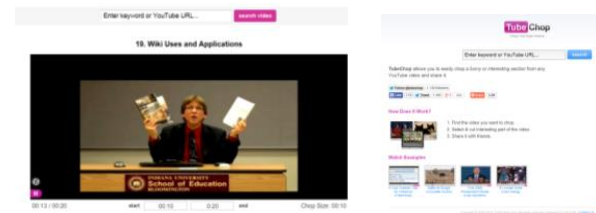
**February 21, 2017**  
**Display 3i. "My classroom is like a,"**  
 Khendum Gyabak  
<http://wheeldecide.com/index.php?c=3&template=3&zone=4&template=4&zone=5&template=5&zone=6&template=6&zone=7&template=7&zone=8&template=8&zone=9&template=9&zone=10&template=10&zone=11&template=11&zone=12&template=12&zone=13&template=13&zone=14&template=14&zone=15&template=15&zone=16&template=16&zone=17&template=17&zone=18&template=18&zone=19&template=19&zone=20&template=20&zone=21&template=21&zone=22&template=22&zone=23&template=23&zone=24&template=24&zone=25&template=25&zone=26&template=26&zone=27&template=27&zone=28&template=28&zone=29&template=29&zone=30&template=30&zone=31&template=31&zone=32&template=32&zone=33&template=33&zone=34&template=34&zone=35&template=35&zone=36&template=36&zone=37&template=37&zone=38&template=38&zone=39&template=39&zone=40&template=40&zone=41&template=41&zone=42&template=42&zone=43&template=43&zone=44&template=44&zone=45&template=45&zone=46&template=46&zone=47&template=47&zone=48&template=48&zone=49&template=49&zone=50&template=50&zone=51&template=51&zone=52&template=52&zone=53&template=53&zone=54&template=54&zone=55&template=55&zone=56&template=56&zone=57&template=57&zone=58&template=58&zone=59&template=59&zone=60&template=60&zone=61&template=61&zone=62&template=62&zone=63&template=63&zone=64&template=64&zone=65&template=65&zone=66&template=66&zone=67&template=67&zone=68&template=68&zone=69&template=69&zone=70&template=70&zone=71&template=71&zone=72&template=72&zone=73&template=73&zone=74&template=74&zone=75&template=75&zone=76&template=76&zone=77&template=77&zone=78&template=78&zone=79&template=79&zone=80&template=80&zone=81&template=81&zone=82&template=82&zone=83&template=83&zone=84&template=84&zone=85&template=85&zone=86&template=86&zone=87&template=87&zone=88&template=88&zone=89&template=89&zone=90&template=90&zone=91&template=91&zone=92&template=92&zone=93&template=93&zone=94&template=94&zone=95&template=95&zone=96&template=96&zone=97&template=97&zone=98&template=98&zone=99&template=99&zone=100&template=100>



**December 15, 2016**  
**Display 3j. Interactive Media Timelines**  
 The Digital Era: How 50 years of the information age transformed college forever, Ben Myers & Erica Lusk, *The Chronicle of Higher Education*  
<http://www.chronicle.com/interactives/50-years-of-technology>



**Display 3k. Short Video Anchors**  
 (e.g., TubeChop of V-PORTAL: Video Primers in an Online Repository of e-Teaching and Learning)  
 Curt Bonk: <http://www.tubechop.com/watch/378752>



**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. Goal Setting Tools**  
 (e.g., I Done This, Milestone Planner, and 43 Things)





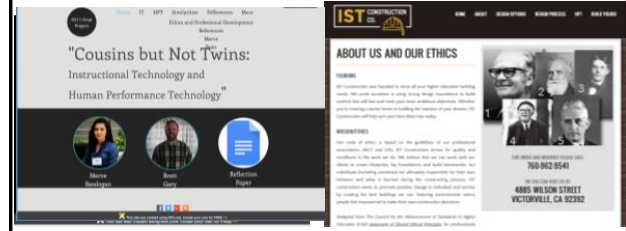
**October 26, 2016**

**Do 4b. Student Research Recap Video**  
**R511, Rob Elliot, Erin Milanese, and Patrick Walsh**  
**Traditional Textbook (8:11)**  
<https://drive.google.com/file/d/0B25ACR50u5NE5dW51E1g1pWWS/view>



**Do 4c. Student Website Development**  
**R511 Final Projects, April 2016**

IT and HPT Comparison (Website), Doug Hsu  
<http://dougandindira.wix.com/r511finalproject>  
 "IST Construction, Co."  
 Rob Elliot, Patrick Walsh, Erin Milanese, R511, December 2016  
<http://reliott.net/istconstruction/index.php>  
 "Cousins but Not Twins: Instructional Technology and Human Performance Technology,"  
 Merve Basdogan and Brett Gary, R511, December 2016  
<http://educbasdogan.wixsite.com/511final>



**Poll #8: Which do you prefer...**  
**(A) TEC-VARIETY or (B) R2D2?**



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



**Poll #9: 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.



**Poll #10: Three Words from this Session...?**

e.g., "I am happy!" and...  
 My minions are happy!



**Any Questions or Comments?**

Slides at: [TrainingShare.com](http://TrainingShare.com)  
 Papers: [PublicationShare.com](http://PublicationShare.com)  
 Free book: <http://tec-variety.com/>  
 Dr. Curt Bonk – [CJBonk@Indiana.edu](mailto:CJBonk@Indiana.edu)

