

## "Brain Expander"

### Ultra-Engaging Online and Blended Learning: Introducing the TEC-VARIETY and R2D2 Models

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Indiana University

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## Poll #1: Ok, Who's thirsty?



## At Starbucks: Online Learning is a Perk!

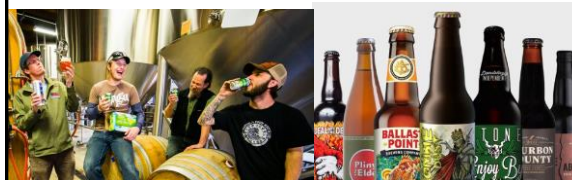


Starbucks Coffee Korea employees learn how to use the firm's online learning system "Starbucks Academy," which was introduced, Wednesday. The two-way learning system provides some 5,000 employees in Korea with various education services, including encyclopedia, latest news and information about coffee among others. Starbucks Korea is the first affiliate of the international coffeehouse selling its products in 60 countries to introduce the system.

## Poll #2: Now who's thirsty?

Universities tap growth of craft beer, offer classes, Chicago Tribune

<http://www.chicagotribune.com/business/ct-college-craft-beer-offer-classes-20160120-story.html>



## Top Program at Oregon State is a blended learning program in beermaking!

<http://www.chicagotribune.com/business/ct-college-craft-beer-offer-classes-20160120-story.html>



### Universities tap growth of craft beer, offer classes



## January 16, 2019 Survey: Online, Blended Dominate Today's Learning Environments

Rhea Kelly, Campus Technology

Campus Technology's 2018 Teaching with Technology Survey

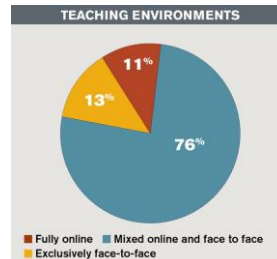
<https://campustechnology.com/articles/2019/01/16/survey-online-blended-dominate-todays-learning-environments.aspx?me=2>

Teaching with Technology Survey

### Survey: Online, Blended Dominate Today's Learning Environments

In our latest Teaching with Technology Survey, the vast majority of faculty members said they teach in either a fully online or blended format.

By Rhea Kelly | 01/16/19



## January 16, 2019 Survey: Online, Blended Dominate Today's Learning Environments

Rhea Kelly, Campus Technology  
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Teaching with Technology Survey

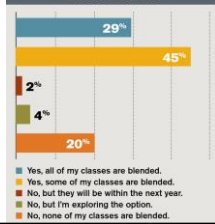
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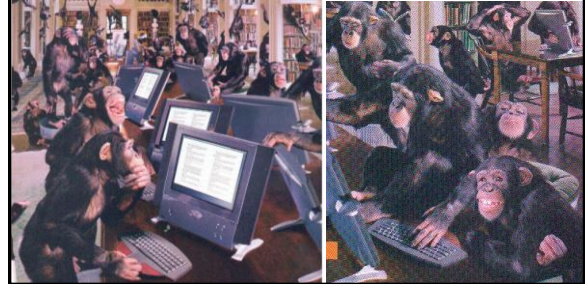
By Rhea Kelly 01/16/19



#### USE OF THE BLENDED OR HYBRID MODEL IN CLASS



## A Dozen Examples of Blended Learning



## March 25, 2019 Blended Solution #1. Use the Media to Supplement Content Engineering Technology

<http://engineertech.org/>



## May 13, 2019 Blended Solution #2. Something in the News Carbon Dioxide Levels In The Atmosphere Hit Highest Mark In Human History

Nina Golkowski, The Huffington Post  
[https://www.huffpost.com/entry/co2-levels-hit-new-high\\_n\\_5c9882ae4bc388e584eb09](https://www.huffpost.com/entry/co2-levels-hit-new-high_n_5c9882ae4bc388e584eb09)

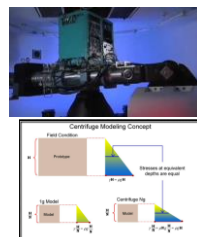
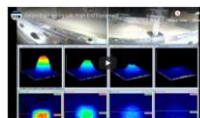


## Blended Solution #3. Virtual Labs and Sensors Conduct physical model simulations of soil and soil-structure systems subjected to an earthquake.

<https://virtuallyinspired.org/portfolio/online-engineering-lab-with-high-end-equipment/>  
[https://www.youtube.com/watch?v=C78ax41\\_2w](https://www.youtube.com/watch?v=C78ax41_2w)

Virtual Lab Allows High-End Equipment Access to Online Engineering & Biotechnology Students

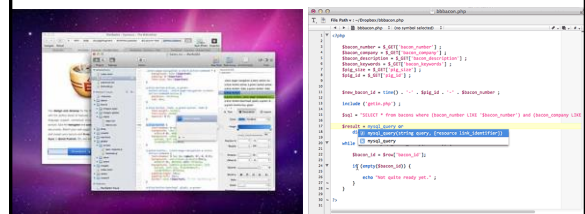
Three universities team up so students can utilize a geo-centrifuge facility



## March 8, 2019 Blended Solution #4. Analyzing Online Raw Data

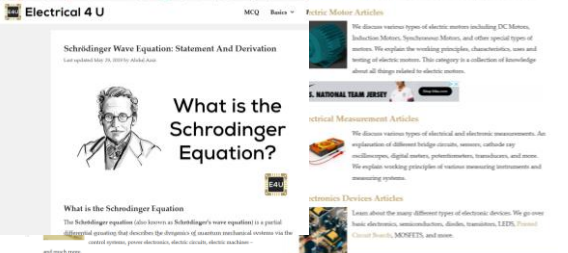
(e.g., Editing computer code; 12 Best Code Editors for Mac and Windows for Editing WordPress Files)

<https://www.wpbeginner.com/showcase/12-best-code-editors-for-mac-and-windows-for-editing-wordpress-files/>

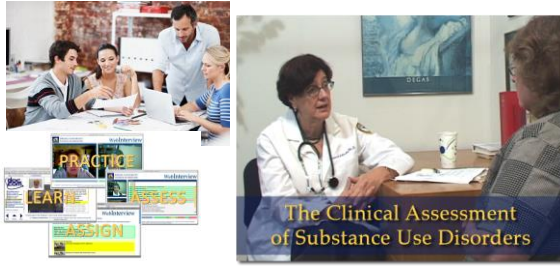


**Blended Solution #5.**  
**Reading from Open Access Journals**  
 (e.g., DOAJ—Directory of Open Access Journals)

<https://doi.org/>  
<https://www.electrical4u.com/>



**Blended Solution #6.**  
**Online Role Play or Debate**  
 (e.g., documentary production)



The Clinical Assessment of Substance Use Disorders


**July 11, 2018**  
**Blended Solution #7.**  
**Streaming Live Events**  
**Open Data Science Conference (ODSC)**  
 Women in Data Science, Stanford University

<https://odsc.com/boston/east-2019-livestream>  
<https://www.widsconference.org/speakers-466253.html>



**Blended Solution #8.**  
**Online Practice Tests and Interactive Flash Cards** (e.g., Physics)


<http://quizlet.com/>  
<https://www.electrical4u.com/electrical-engineering-objective-questions-mcq/>



**Blended Solution #9.**  
**Flipping the Classroom**

Steve Skerlos, Professor in Mechanical Engineering at the University of Michigan, highlights the "flipped classroom" model to engage students during class through active participation.

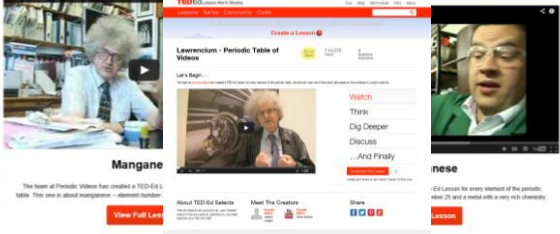
<https://www.youtube.com/watch?v=270wD5004>



**Blended Solution #10.**  
**Online Videos with Test Questions**  
 (e.g., TEDEd)

(Lessons about every single element on the periodic table)

[http://ed.ted.com/periodic-table-video?source=TED-B&5-Subscribers&utm\\_campaign=520105&id=2014\\_09\\_21\\_19\\_203&utm\\_medium=email&utm\\_term=0\\_1a0c0e08-92a302&aid=49754201](http://ed.ted.com/periodic-table-video?source=TED-B&5-Subscribers&utm_campaign=520105&id=2014_09_21_19_203&utm_medium=email&utm_term=0_1a0c0e08-92a302&aid=49754201)





## Blended Solution #11.

### Video Tutorials, Demonstrations, and How-To's (videos, tutorials, etc.) (Jing, GoView, Screenr, Overstream, Screencast-o-Matic;)



## Blended Solution #12.

### Combining Media (Dual Coding Theory: Wikipedia + Video + Pictures)

Text: [http://en.wikipedia.org/wiki/Ray\\_Dolby](http://en.wikipedia.org/wiki/Ray_Dolby)  
Video (September 20, 2000): <http://www.gigawatt.com/news/84155/audio-pioneer->



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

<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

——激励和模型设计学习者的 100 个活动

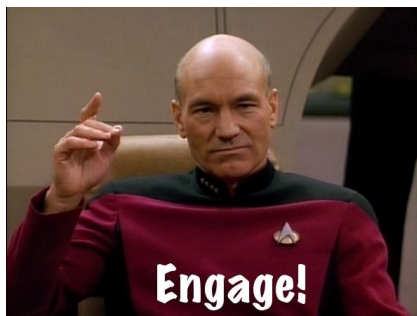
作者: Curtis D. Webb & James H. Kim



## Needed: New Models of Motivation and Engagement



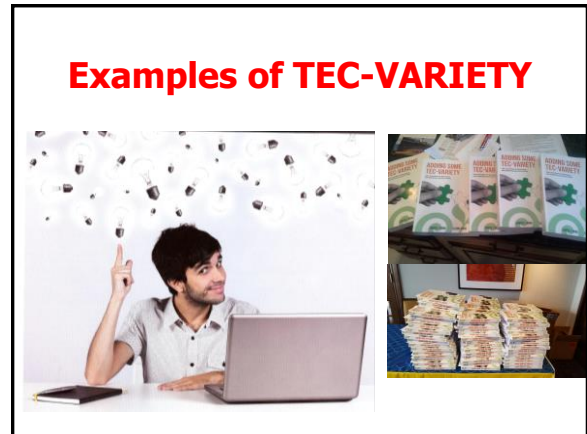
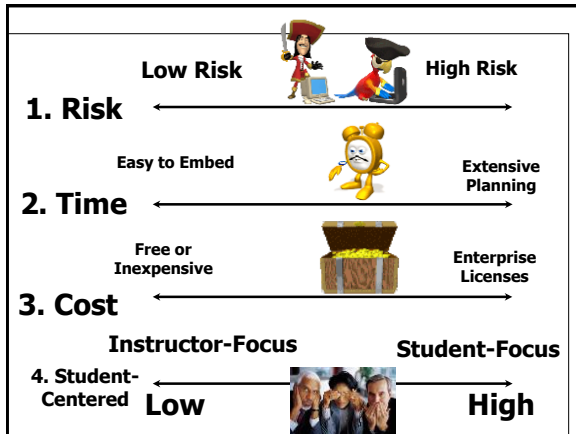
## Poll #3: What did Jean-Luc Picard say?



## 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.





**April 3, 2017**

**1. Tone/Climate:**  
**A. Sli.do**  
<https://www.sli.do/>

**June 18, 2018**

**1. Tone/Climate:**  
**B. Threaded Video Discussions and Questions**  
(e.g., Flipgrid)  
Microsoft acquires social learning platform Flipgrid,  
Brian Heater, TechCrunch  
<https://techcrunch.com/2018/06/18/microsoft-acquires-social-learning-platform-flipgrid/>

**1. Tone/Climate:**  
**C. Instructor Course Introductions**  
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. Blog and Website Polling**  
(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)  
<http://www.pollerywhere.com/>

## 2. Encouragement, Feedback:

### B. Voice/Audio Feedback

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



## 3. Curiosity, Intrigue, Unknowns:

### A. 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\\_34\\_kong](http://www.cnn.com/2014/11/06/living/oldest-photograph-human-daguerre/index.html?hpt=hp_34_kong)



April 17, 2017

## 3. Curiosity, Intrigue, Unknowns:

### B. 1st woman to officially run Boston Marathon does it again, 50 years later

Emanuela Grinberg, CNN, USA Today

<http://www.cnn.com/2017/04/17/us/boston-marathon-kathrine-switzer-trnd/index.html>

July 16, 2017

Julia Hawkins Sets 100-Meter Dash Record for Women 100 Years Old, Joseph Zucker, CNN

<http://thehampden.com/articles/2211195-julia-hawkins-sets-100-meter-dash-record-for-women-100-years-old>



September 27, 2018

## 3. Curiosity, Intrigue, Unknowns:

### C. Immediate Science

New 26,000-pound dinosaur discovery was Earth's largest land animal, Ashley Strickland, CNN

<https://www.cnn.com/2018/09/27/world/new-giant-dinosaur-brontosaurus-relative/index.html>



## 4. Variety, Novelty, Fun, Fantasy:

### A. Random Lists

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

RANDOM.ORG

Coin Flipper

You flipped 2 coins of type Irish €1:



Timestamp: 2011-08-13 01:04:43 UTC

[Flip Again](#) [Go Back](#)

Dice Roller

You rolled 2 dice:



Timestamp: 2011-08-13 01:14

[Roll Again](#) [Go Back](#)

RANDOM.O

List Randomizer

There were 10 items in your list. Here they are in random order:

Random Sequence Generator

Here is your sequence:

1. 1 Bill

2. 9 Arthur

3. 10 Thomas

4. 2 Shelley

5. 7 Charles

6. 3 Sherman

7. 5 Sander

8. 8 Stephanie

9. 4 Ned

10. 6 Brian

Timestamp: 2011-08-13 01:10

[Again](#) [Go Back](#)

## 4. Variety, Novelty, Fun, Fantasy:

### B. Online Test/Quiz Review Games

(e.g., Jeopardy Rocks)

<https://www.jeopardy.rocks/r511merve/>



#### 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/technology-ckerns/>



January 24, 2019

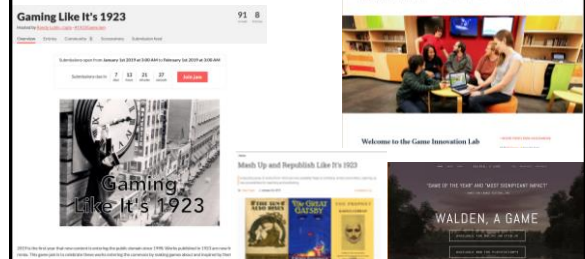
#### 4. Variety, Novelty, Fun, Fantasy:

##### D. Design or Play Games

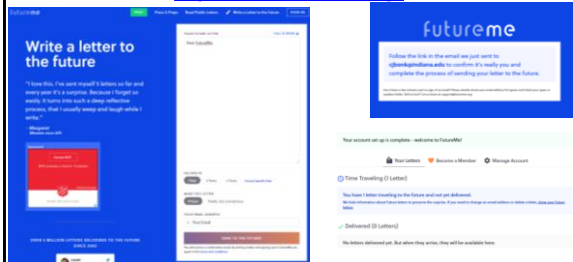
Mash Up and Republish Like It's 1923

Greg Toppo, Inside Higher Ed

<https://www.insidehighered.com/news/2019/01/24/new-release-1923-titles-boon-artists-scholars>

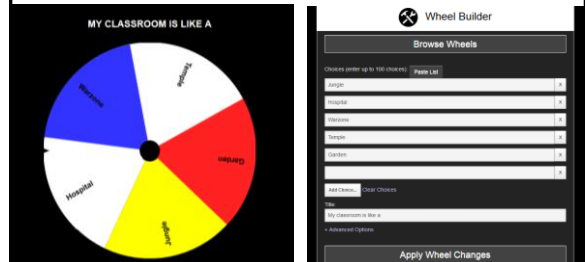


#### October 10, 2018 4. Variety, Novelty, Fun, Fantasy: E. FutureMe.org Write a letter to the future <https://www.futureme.org/>



#### February 21, 2017 4. Variety, Novelty, Fun, Fantasy: F. My classroom is like a,"

<http://wheel-builder.com/index.php?c=1&=Jung&f&2=Jung&f&3=War&f&4=Complex&5=Garfield&6=Myclassroom&7=like&8=like&9=like&10=like&11=like&12=like&13=like&14=like&15=like&16=like&17=like&18=like&19=like&20=like&21=like&22=like&23=like&24=like&25=like&26=like&27=like&28=like&29=like&30=like&31=like&32=like&33=like&34=like&35=like&36=like&37=like&38=like&39=like&40=like&41=like&42=like&43=like&44=like&45=like&46=like&47=like&48=like&49=like&50=like&51=like&52=like&53=like&54=like&55=like&56=like&57=like&58=like&59=like&60=like&61=like&62=like&63=like&64=like&65=like&66=like&67=like&68=like&69=like&70=like&71=like&72=like&73=like&74=like&75=like&76=like&77=like&78=like&79=like&80=like&81=like&82=like&83=like&84=like&85=like&86=like&87=like&88=like&89=like&90=like&91=like&92=like&93=like&94=like&95=like&96=like&97=like&98=like&99=like&100=like>



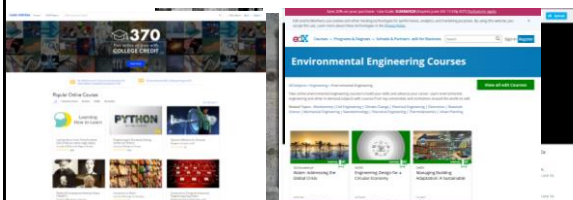
#### January 14, 2019 5. Autonomy, Choice: A. Enroll in a MOOC and Reflect (e.g., see Class Central)

Beer Matters: Free Online Class With Meetups  
Karl Brown, Assistant Professor of History

<http://www.guestlectures.com/2018/12/14/beer-matters-free-online-class-with-meetups/>

<https://vimeo.com/296408653>

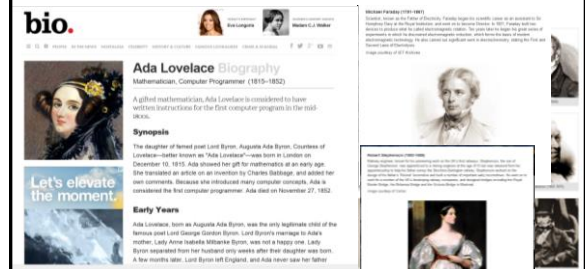
Video: <http://curtbank.com/beer.html> (1:11)



#### 5. Autonomy, Choice: B. 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>





## 5. Autonomy, Choice: C. Design Multimedia Glossaries

P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary  
<http://natewynne1982.wiks.com/p540courseglossary>  
 Ozgur Ozdemir, December 2012  
<http://r685glossary.shutterfly.com/>  
 Umida Khikmatillaeva, Dec. 2011, P540  
<http://learningplanet.shutterfly.com/>



## Poll #4:

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

- A. Yes definitely\*\*\*
- B. Yes maybe!
- C. Not yet (but hopefully soon...)



## Poll #5: Which of these ideas might you use?

- A. Threaded video discussions (e.g., Flipgrid)
- B. Enroll in a MOOC
- C. Demonstrations and tutorials (Jing, Screenr, etc.)
- D. Voice/Audio feedback (Vocaroo)
- E. Designing multimedia glossaries
- F. Something in the News
- G. Summary and Comparison Maps
- H. Immediate Science



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)

Slide 105, acute cholecystitis, acute.

Slide 131, colon with pseudo-membranous colitis.

Slide 131, colon with pseudo-membranous colitis.

Slide 165, bone marrow with cryptococcal infection.

Slide 165, bone marrow with cryptococcal infection.

*I'd like to take the quiz now.*

Stomach, endoscopic examination and biopsy:  
Poorly differentiated tubular adenocarcinoma

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

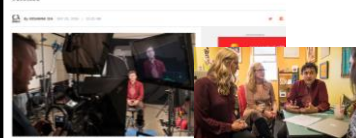
## March 20, 2018 6. Relevance, Meaningfulness: C. Editing Wikipedia Pages

### Women's-Studies Students Across the Nation Are Editing Wikipedia

Emma Kerr, The Chronicle of Higher Education

<https://www.chronicle.com/article/Women-s-Studies-Students/242866>

College students take to Wikipedia to rewrite the wrongs of Internet science



Women's-Studies Students Across the Nation Are Editing Wikipedia



Samantha Erickson, left, of the Wiki Education Foundation; Tina Brock, a dean of the School of Pharmacy at UC San Francisco; and professor Amin Azam discuss implementing the integration of Wikipedia pages on medical topics with students' work



## 7. Interactive, Collaborative:

### A. Negotiate Meanings Online

(e.g., PiratePad: <http://meetingwords.com/>)

<http://blogs.education.technology.ca/collaborative-writing-applications-for-group-projects-on-papers/>  
MeetingWords, Google Docs, NowComment, MixedInk



## 7. Interactive, Collaborative:

### B. Virtual Sharing Walls

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

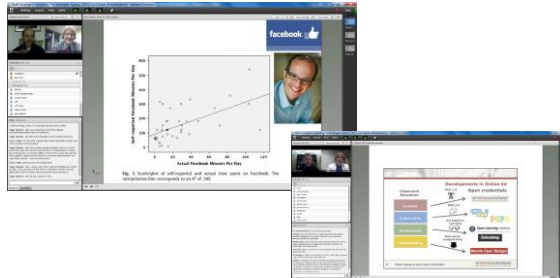
[http://padlet.com/zaid\\_alsagoff/engage](http://padlet.com/zaid_alsagoff/engage)



## 7. Interactive, Collaborative:

### C. Guest Speaker Quotes

(Rey Junco, February 25, 2013)



## 7. Interactive, Collaborative:

### D. Civil Engineering Virtual Lab Collaboration

The decision to use the centrifuge as a virtual laboratory brings the opportunity for remote collaboration and major experimentation into geotechnical engineering classes. A partnership between RPI, Southern Methodist University (SMU), based in Dallas, TX, and the University of North Carolina (UNC) of Charlotte enables students to conduct experiments, access, interpret, evaluate, and exchange relevant technical information.

<https://virtuallyinspired.org/portfolio/online-engineering-lab-with-high-end-equipment/>



## 7. Interactive, Collaborative:

### E. Explore Simulations in Virtually Inspired

<https://virtuallyinspired.org/portfolio/online-engineering-lab-with-high-end-equipment/>



March 27 and April 12, 2019

## 7. Interactive, Collaborative:

### F. Cross-Institutional and Cross-Cultural Projects

Learning From Others Across the World Through Video Exchange

Melanie Hering, New Learning Times

<https://newlearningtimes.com/cms/article/6872/learning-from-others-across-the-world-through-four-steps-to-create-cross-cultural-collaboration-in-online-classes>

Sara Hardman, New Learning Times

<https://newlearningtimes.com/cms/article/6119/four-steps-to-create-cross-cultural-collaboration>

Four Steps to Create Cross-Cultural Collaboration in Online Classes





**9. Tension, Challenge, Controversy, etc.:**  
**C. Yes, Mr. President, We Remade Our Atlas to Reflect Shrinking Ice**

Christine Dell'Amore, National Geographic, August 3, 2015

<https://www.nationalgeographic.com/2015/08/03/yes-mr-president-we-remade-our-atlas/>



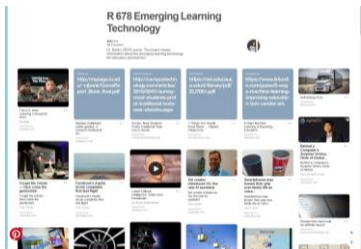
**10. Yields Products, Goals:**  
**A. Facebook Course Page (R546)**  
<https://www.facebook.com/JennyBELTT/>



**10. Yields Products, Goals:**  
**B. Database Collection Tools**  
**Design Article Database in Pinterest,**  
**Meina Zhu and Jennifer Weebeck**

<https://www.pinterest.com/zumeina000/r-678-emerging-learning-technology/>

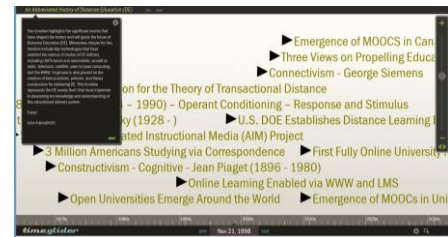
<https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/>



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

R678 John Falchi, Timeglider, An Abbreviated History of Distance Education

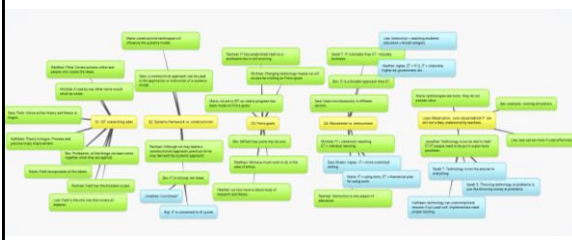
[http://timeglider.com/1508428993a480687mm\\_zomm-1lmax\\_zomm-1l9](http://timeglider.com/1508428993a480687mm_zomm-1lmax_zomm-1l9)



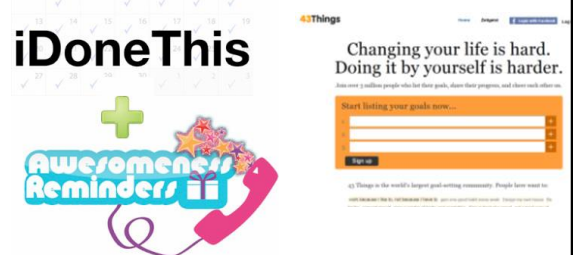
**September 3, 2017**  
**Yields Products, Goals:**

**D. Mindmap Recaps of Online Discussions**  
**Mindmap of Week 2 of R511**

<https://cloud.mindmeister.com/1512050490201212d420a0d0e32963030v0w0d0t1134>



**10. Yields Products, Goals:**  
**E. Goal Setting Tools**  
**(e.g., I Done This, Milestone Planner, and 43 Things)**





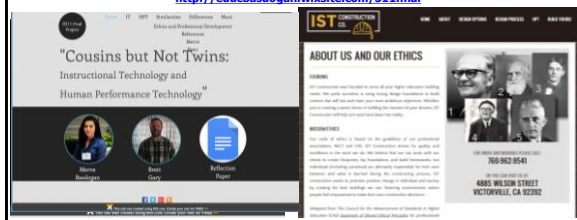
## 10. Yields Products, Goals: F. Student Website Development

R511 Final Projects, **December 12, 2017**

IT and HPT Comparison (Website), Doug Hsi  
<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 #5:

**Which of these ideas might you use?**

- A. Mindmaps of online discussions
- B. Edit Wikipedia pages
- C. Guest chats with experts and former students
- D. Negotiate meanings online (e.g., PiratePad)
- E. Online case analyses
- F. Facebook course page
- G. Guest speaker quotes
- H. Student website development



## Commitments:

**Stop and Share:**

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

**Tone/Climate**

**Encouragement, Feedback**

**Curiosity**



What motivates?

**Variety**

**Autonomy**

**Relevance**

**Interactive**

**Engagement**

**Tension**

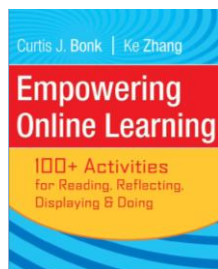
**Yields Products**

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: Now who wants one of these? Any Bingo's?**



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

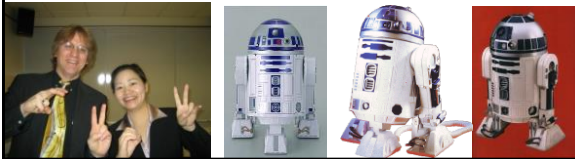


**Question: How can technology address diverse learner needs?**



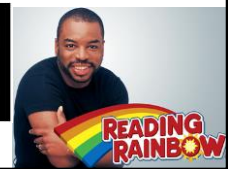
## The R2D2 Model

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

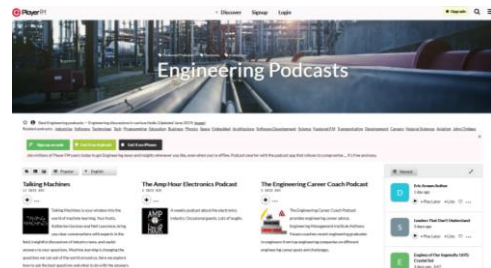
- Auditory and verbal learners prefer words, spoken or written explanations.



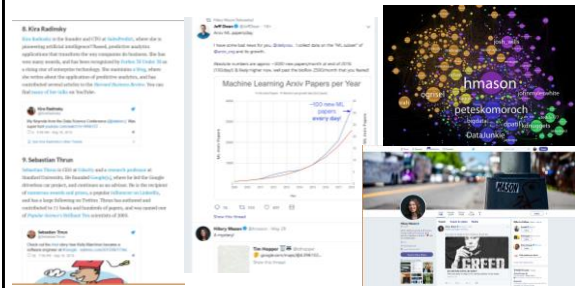
## February 11, 2018 Read 1a. Online Referenceware The Magical Power of Dictionaries Alberto Manguel, The Chronicle of Higher Education <https://www.chronicle.com/article/The-Magical-Power-of/242513>



## January 20, 2016 Read 1b. Listen to Podcasts



## Read 1c. Twitter Fed Class Discussions (e.g., in data science)



## 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



**October 30, 2018**  
**Reflect 2a. Online Debates**  
**Who Can Do My Assignment for Me?**

Megan Batchelor, CEO World  
<https://ceoworld.biz/2018/10/30/who-can-do-my-assignment-for-me/>  
 Assigncode.com: <https://assigncode.com/>



**February 24, 2019**  
**Reflect 2b. Big Issue Reflections**  
**Can Students Handle the Big Questions?**

Beth McMurtrie, The Chronicle of Higher Education  
<https://www.chronicle.com/article/Can-Students-Handle-the-Big/245753>  
<https://godandgoodlife.nd.edu/syllabus/>  
[https://www.youtube.com/watch?time\\_continue=104&v=EMKbtSC3-2I](https://www.youtube.com/watch?time_continue=104&v=EMKbtSC3-2I)



**May 28, 2019**  
**Reflect 2c. What-if Reflections**  
**What If Artificial Intelligence (AI) & Machine Learning (ML) Ruled the World?**  
 Steve Andriole, Forbes

<https://www.forbes.com/sites/steveandriole/2019/05/28/what-if-artificial-intelligence-ruled-the-world-understanding-ai-its-first-principles/#7392409c688a>



**April 13, 2016**  
**Reflect 2d. Interpreting Interactive Graphs and Infographics**

How much rainforest in that chocolate bar?  
 Tech billionaire announces \$250 million in cancer immunotherapy funding,  
 Jayne O'Donnell, USA Today  
<http://www.usatoday.com/story/news/2015/04/13/billionaire-announces-250-million-cancer-immunotherapy-funding/82821158/>



**July 5, 2018**  
**Reflect 2e. Vialogues**  
**EdLab Seminar--Engaging Educators with Digital Collections**  
**Vialogue, Sara Hartman, New Learning Times**

<https://newlearningtimes.com/cms/article/5426/how-academic-publishing-is-changing-in-the>



**Reflect 2f. Workplace Internship, Practicum, and Field Experiences**







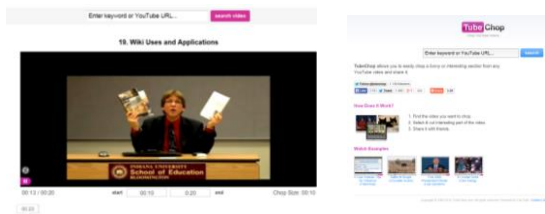
**Display 3e. (April 28, 2015)**  
**Concept Mapping and Timeline Tools**  
 (Bubbl.us, Cmap, Gliffy, Spicynodes, or Mindomo)  
<http://www.spicynodes.org/index.html>



**December 15, 2016**  
**Display 3f. 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 3g. 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>



**Display 3h.**  
**Short Educational Videos:**  
 Anchored Instruction/Macrocontext  
 CNN, BBC, TED, TED-Ed, ForATV  
 BBC One-Minute World News (August 31, 2015)  
<http://www.bbc.com/news/business-34105708>  
 Weekly 1 minute updates: <http://www.danpink.com/pinkcast/>

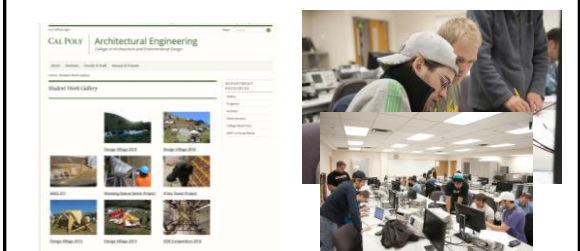


**4. Tactile/Kinesthetic Learners**

- 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.

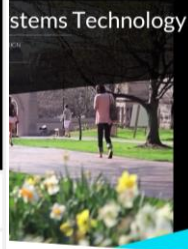
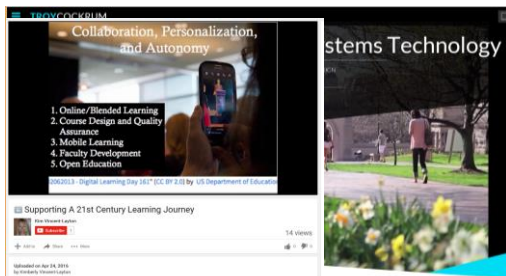


**Do 4a. Sample Student Work**  
 e.g., Interactive Archive/Gallery of best work  
<https://arce.calpoly.edu/student-work-0>  
<https://coen.boisestate.edu/ece/ece-photo-gallery/>



## Do 4b. Student Created Recap Videos

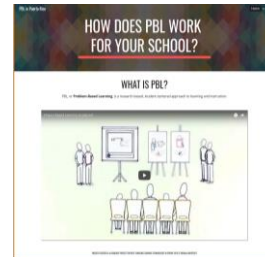
Piercarlo Abate: <http://www.youtube.com/watch?v=-TURzH0aU>  
 Qi Li, Gangnam: <http://www.youtube.com/watch?v=7Qd29lgx2aU&feature=youtu.be>  
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=5cmFw9j9W8>  
 Kendal Rasnake (Is IT For You?): <https://www.youtube.com/watch?v=MJ3GUD1CIGw>  
 Kimberly Vincene Layton: [https://www.youtube.com/watch?v=4LcD9\\_YUJIM&feature=youtu.be](https://www.youtube.com/watch?v=4LcD9_YUJIM&feature=youtu.be)



**March 11, 2018**

## Do 4c. PBL in Puerto Rico

<https://sites.google.com/ia.edu/pbl-in-puerto-rico/home>



## Poll #6:

**Which of these ideas might you use?**

- Interactive map timelines
- Visualize words used
- Issue challenges, role plays, and debates
- Student designed course recap videos
- Student infographics
- Interactive timeline tools
- What-if reflections



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

- 0 if I am lucky.
- Just 1.
- 2, yes, 2...just 2!
- Do I hear 3? 3!!!!
- 4-5.
- 5-10.
- More than 10.



**BRAINY IDEAS**

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



### What motivates?

1. TenseClimate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement: Feedback, Responsiveness, Praise, Support
3. Curiosity: Surprise, Intrigue, Unknowns
4. Variety: Novelty, Fun, Fantasy
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9. Tension: Challenge, Dissonance, Controversy
10. Yielding Products: Goal Driven, Purposeful Vision, Ownership



## 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)  
<http://curtbonk.com/>

