

Masterclass Part 2: Adding Some TEC-VARIETY for Online Motivation and Retention

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January 15, 2017

3 Reasons to Read the Higher Ed Supplement to National EdTech Plan (e.g., conversation starter, examples of innovation, cross-section of expertise) Joshua Kim, Inside Higher Ed

<https://www.insidehighered.com/blogs/technology-and-learning/3-reasons-read-higher-ed-supplement-national-edtech-plan-9>



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-NEETP.pdf>

'New Normal' Students in Higher Education

74% of all undergraduate students have at least one nontraditional characteristic:

66% transfer between institutions prior to completion	62% work either full or part time	43% attend part time
28% have at least one dependent	35% are enrolled in two-year colleges	63% are first-generation students

Source: National Study of Student Engagement (NSSE) 2012



Reimagining the Role of Technology in Higher Education

A Supplement to the
National Education
Technology Plan

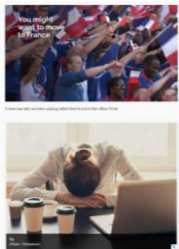


Poll #1: How many of you cannot keep up with educational technology reports and are frustrated?



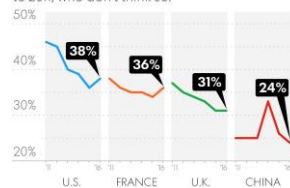
January 7, 2017 Overworked? Join the club. Here's how to handle It.

Laura Petrecca, USA Today
<http://www.usatoday.com/story/money/2017/01/07/overworked-americans/96235044/>



IS YOUR WORKLOAD EXCESSIVE?

Percentage of employees, comparing 2016 to 2011, who don't think so:



January 7, 2017 Overworked? Join the club. Here's how to handle It.

Laura Petrecca, USA Today
<http://www.usatoday.com/story/money/2017/01/07/overworked-americans/96235044/>

Overworked? Join the club. Here's h

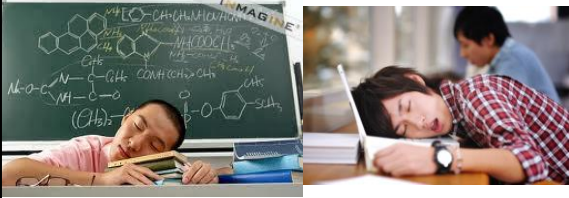


WORK SEEPS INTO PERSONAL TIME

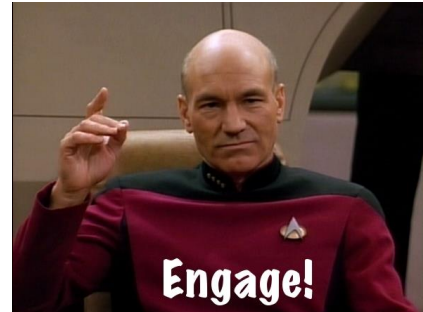
American workers say they:

Have dreamed about work	60%
Check email after leaving work	49%
Work during non-business hours	46%
Are up at night thinking about work	44%
Gave up vacation days in 2015	15%

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?



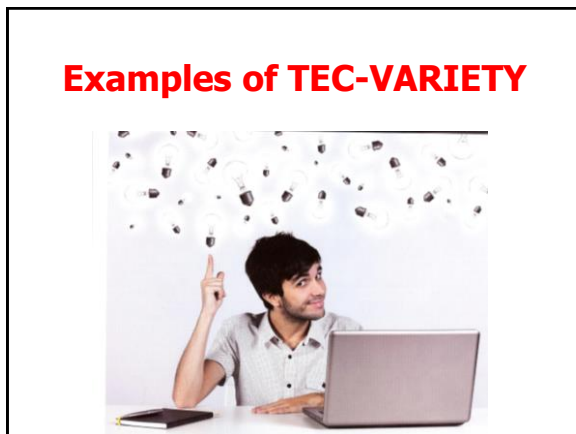
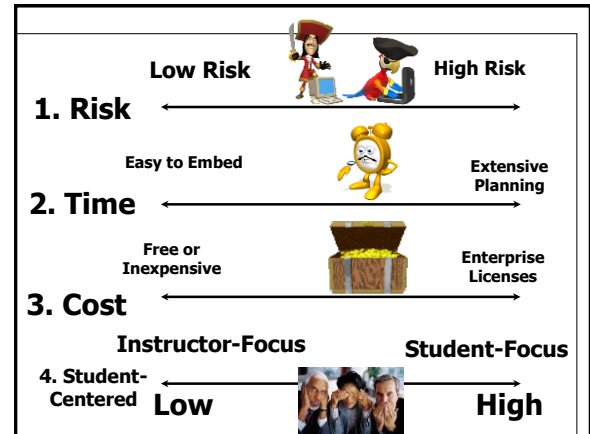
Framework #1: TEC-VARIETY for Online Motivation and Retention

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

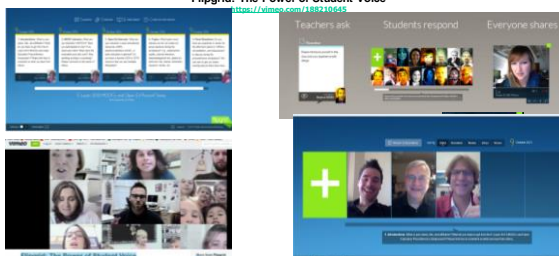
Introducing the free "TEC-VARIETY" Framework...
<http://tec-variety.com/>
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>




**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



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/188118545>



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=Wzbzc3QiiA>
 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>



1. Tone/Climate:
C. Share Visuals of Favorite Places
 (e.g., Panoramio)
<http://www.panoramio.com/>



2. Encouragement, Feedback:

A. Demonstrations and Tutorials

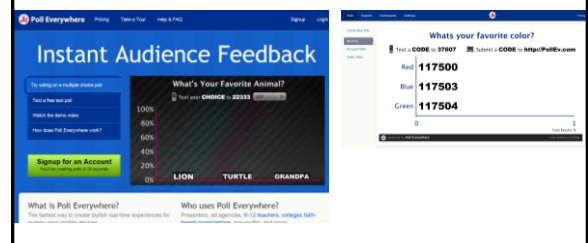
(e.g., Jing, Screenr, GoView, Screencast-o-matic, etc.)
<http://inside.iub.edu/features/videos/2014-05-29-inub-vid-cib.shtml>



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)

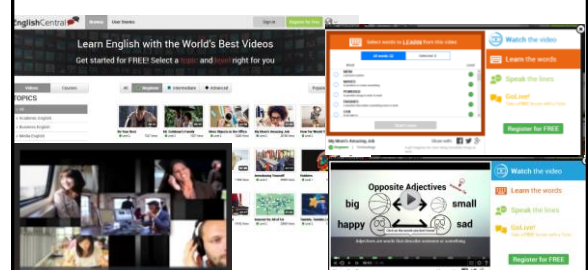


July 21, 2017

2. Encouragement, Feedback:

D. English Central

<https://www.englishcentral.com/videos/1/index>
<https://www.englishcentral.com/videos>



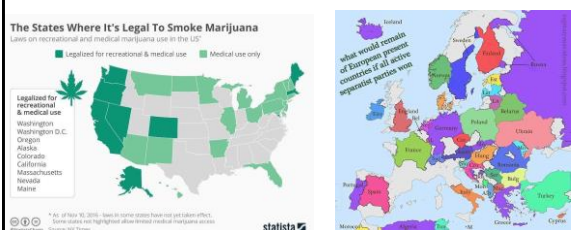
March 27, 2017

3. Curiosity, Surprise, Intrigue, Unknowns:

A. Summary and Comparison Maps

#GeoawesomeMapOfTheDay

<https://twitter.com/geoawesomeness>
<https://www.instagram.com/p/BNwgvJfDAq3/>
<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



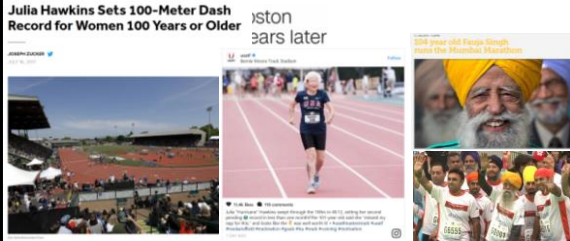
April 17, 2017

3. Curiosity, Intrigue, Unknowns: C. 1st woman to officially run Boston Marathon does it again, 50 years later

Emanuella Grinberg, CNN, USA Today

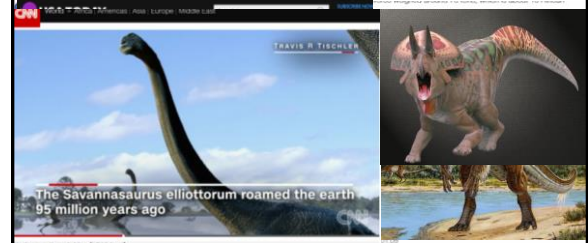
<http://www.cnn.com/2017/04/17/us/boston-marathon-kathrine-switzer-trnd/index.html>**July 16, 2017**

Julia Hawkins Sets 100-Meter Dash Record for Women 100 Years or Older

<http://www.usatoday.com/story/tech/sciencefair/2017/01/30/ancient-human-ancestor-big-mouth/97243458/>**January 5, 2017**

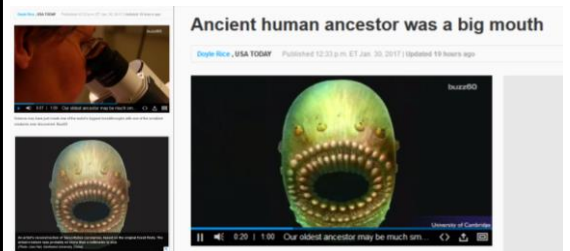
3. Curiosity, Intrigue, Unknowns: D. Immediate Science

Move over T. rex, new dinosaur unveiled, Amanda Jackson, CNN

<http://www.cnn.com/2016/01/14/immigration/dinosaur-new-dinosaur-on-display-trip/>**January 30, 2017**

3. Curiosity, Intrigue, Unknowns: E. Immediate Science Ancient human ancestor was a big mouth

Doyle Rice, USA Today

<http://www.usatoday.com/story/tech/sciencefair/2017/01/30/ancient-human-ancestor-big-mouth/97243458/>**February 16, 2017**

3. Curiosity, Intrigue, Unknowns: F. Immediate Science Woolly Mammoth Could Be 'De-Extinct' In 2 Years, Scientist Says

Hillary Hansan, CNN (video: 3:22)

http://www.huffingtonpost.com/entry/woolly-mammoth-skephant_us_58a62fa7e6b6376176266477?hpid=hp_hp-top-table-main-mammoth-skephant_us_58a62fa7e6b6376176266477

Woolly Mammoth Could Be 'De-Extinct' In 2 Years, Scientist Says

The plan is to create a woolly mammoth-elephant hybrid.

By Hilary Hansan

**February 19, 2017**

3. Curiosity, Intrigue, Unknowns: G. We thought New Zealand was an island nation. Scientists say it's the tip of a 'hidden continent.'

Avi Seik, The Washington Post

https://www.washingtonpost.com/news/science/wp/2017/02/19/we-thought-new-zealand-was-an-island-scientists-say-its-the-tip-of-a-hidden-continent/?hpid=hp_hp-top-table-main-new-zealand-scientists-say-its-the-tip-of-a-hidden-continent?hpid=hp_hp-top-table-main-new-zealand-scientists-say-its-the-tip-of-a-hidden-continent?hpid=hp_hp-top-table-main-new-zealand-scientists-say-its-the-tip-of-a-hidden-continent?hpid=hp_hp-top-table-main-new-zealand-scientists-say-its-the-tip-of-a-hidden-continent<http://www.denverpost.com/2017/02/19/new-zealand-zealandia/>

Reporting of Science

We thought New Zealand was an island nation. Scientists say it's the tip of a 'hidden continent.'

**July 27, 2017**

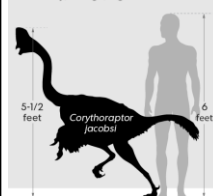
3. Curiosity, Intrigue, Unknowns: H. Meet Corythoraptor: Newly found dinosaur resembles ostrich gone bad

Traci Watson, USA Today

<https://www.usatoday.com/story/news/2017/07/27/meet-corythoraptor-newly-found-dinosaur-resembles-ostrich-headgear/514191901/>

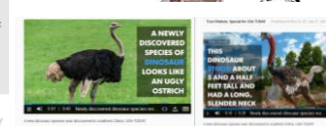
A NEW BIRD-LIKE DINOSAUR

A new dinosaur named Corythoraptor jacobsi resembles the modern-day cassowary, a large, flightless bird.



SOURCE: Scientific Reports

Press Photo: USA TODAY



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.)

RANDOM.ORG

Coin Flipper

You flipped 2 coins of type 10th-43:



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

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

Dice Roller

You rolled 2 dice:



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

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

RANDOM.ORG

List Randomizer

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

Random Sequence Generator
1. 10th-43
2. 10th-43
3. 10th-43
4. 10th-43
5. 10th-43
6. 10th-43
7. 10th-43
8. 10th-43
9. 10th-43
10. 10th-43

Here is your sequence:

1. 10th-43
2. 10th-43
3. 10th-43
4. 10th-43
5. 10th-43
6. 10th-43
7. 10th-43
8. 10th-43
9. 10th-43
10. 10th-43

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

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

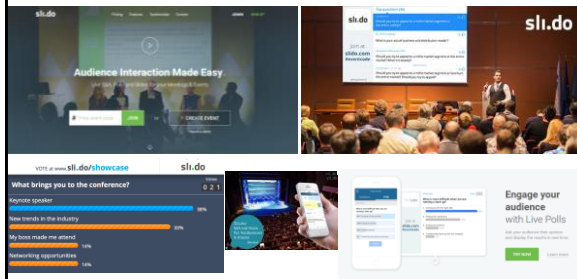


April 3, 2017 4. Variety, Novelty, Fun, Fantasy: C. Kahoot! <https://getkahoot.com/> July 31, 2017

I'm in 'Kahoots' with Technology in the Classroom
Cassandra OSullivan Sachar, Faculty Focus



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/>

Alt: <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://natewynne1952.wis.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>



March 13, 2015

5. Autonomy, Choice:

D. 20% Time in Education

Kendal Rasnake & Troy Cockrum, IU

https://www.dropbox.com/s/tcar5oae2lqgwuk/20_Time_in_Education-Cockrum_and_Rasnake.mov?n=57312573



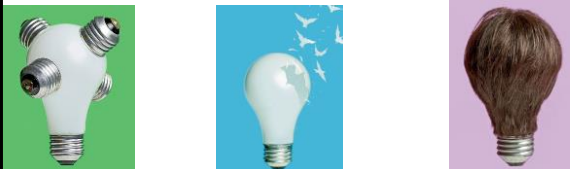
Poll #5:

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)

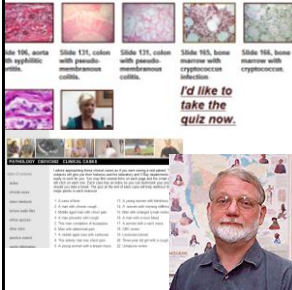
6. Relevance, Meaningfulness:

A. Weekly Guest Expert Chats

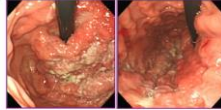
R511 Chat with Mike Molenda, IU



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



Poorly differentiated tubular adenocarcinoma



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

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>



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.uww.edu/ce/beer-matters>
<http://www.gazettextra.com/20150921/uw-whitewater-teacher-explores-links-between-germans-beer-politics>

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>

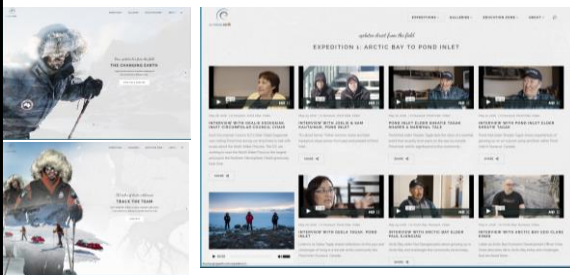


Samantha Erickson, left, of the Wiki Education Foundation; Tina Brock, a dean of the School of Pharmacy at UC San Francisco; and professor Amin Azzam discuss implementing the integration of Wikipedia pages on medical topics with students' work. (David Butow / For The Times)

January 20, 2017

6. Relevance, Meaningfulness:

F. The Changing Earth
<http://thechangingearth.com/>



7. Interactive, Collaborative:

A. Negotiate Meanings Online

(e.g., PiratePad: <http://meetingwords.com/>)
<http://blogs.elon.edu/technology/6-collaborative-writing-applications-for-group-projects-or-papers/>

MeetingWords, Google Docs, NowComment, MixedInk



7. Interactive, Collaborative:

B. Virtual Sharing Walls

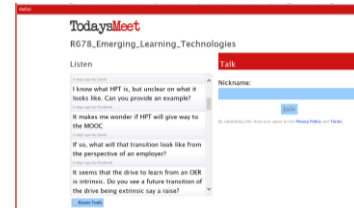
e.g., Padlet (What is your secret recipe to engage?)
http://padlet.com/zaid_alsagoff/engage



7. Interactive, Collaborative:

C. Backchannel Chat (Today'sMeet)

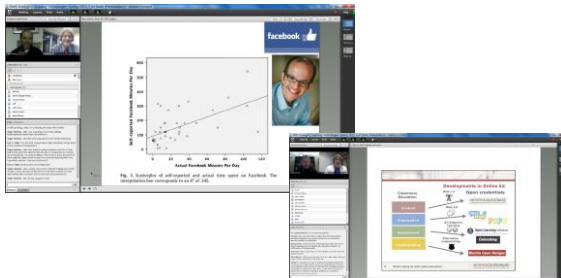
<https://todaysmeet.com/>
 R678_Emerging_Learning_Technologies
https://todaysmeet.com/R678_Emerging_Learning_Technologies



7. Interactive, Collaborative:

D. Guest Speaker Quotes

(Rey Junco, February 25, 2013)



Poll #6:

Which of these ideas might you use?

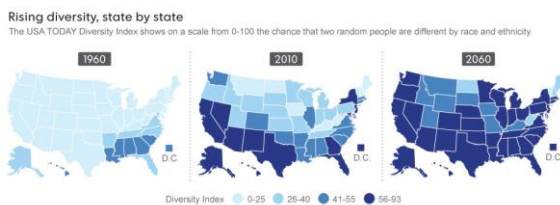
- A. Student designed multimedia glossaries
- B. Edit Wikipedia pages
- C. Guest chats with former students
- D. Negotiate meanings online (e.g., PiratePad)
- E. Enroll in a MOOC
- F. Discussion in Zoom
- G. Guest speaker quotes



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/immigration-race-ethnicity-change-100-years/7421113/>

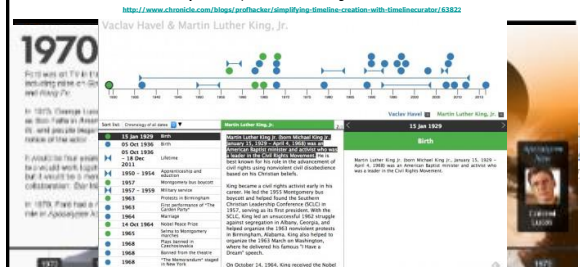


Source: USA TODAY analysis by Paul Overberg of data from Census Bureau, NHGIS at University of Minnesota and ProximityOne
 Frank Pompa, USA TODAY

8. Engagement, Involvement:

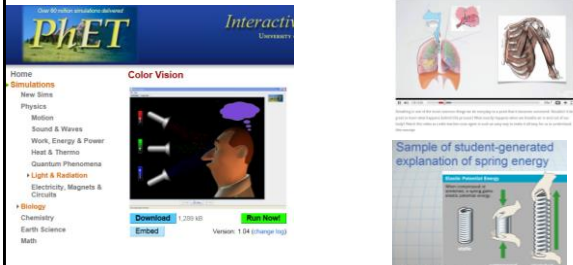
B. Interactive Timelines

(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
<http://www.chronicle.com/blogs/profracke/simplifying-timeline-creation-with-timelinecreator/53822>



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

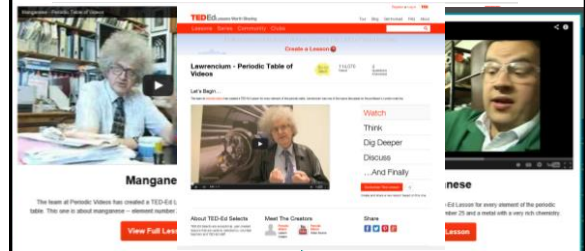
<http://phet.colorado.edu/en/simulation/energy-skate-park>



8. Engagement, Involvement: D. 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-Ed+Subscribers&utm_campaign=20150606&2015_09_21_19_2013&utm_medium=email&utm_term=0_1aacc0d48-9261554a6d-48761281



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>

R511 Midterm Video How to Create an Authentic Environment in a Content-Driven School? R511, Nick and Nik



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/>

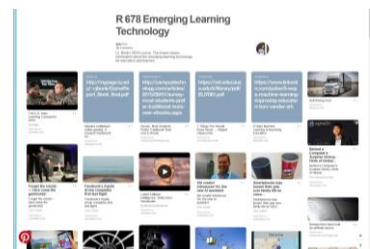


10. Yields Products, Goals: B. Database Collection Tools

Design Article Database in Pinterest,
Meina Zhu and Jennifer Weebek

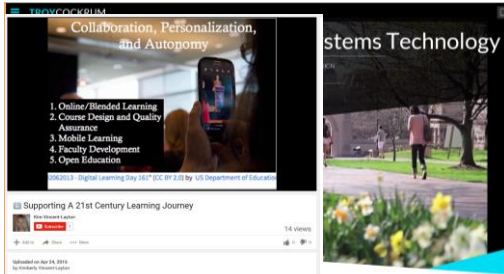
<https://www.pinterest.com/zhumeina0000/r-678-emerging-learning-technology/>

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



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

Piercarlo Abate: <http://www.youtube.com/watch?v=-TURzH00aU>
 Qi Li, Gangnam: <http://www.youtube.com/watch?v=7Q429lqZaU&feature=youtu.be>
 Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW919B8>
 Kendal Rasnake (Is IT Right For You?): <https://www.youtube.com/watch?v=MJ3GUD1C1Gw>
 Kimberly Vincent-Layton: https://www.youtube.com/watch?v=41c39_VY111&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/?20843d8923a480287min_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, Support
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 #8: Three Words from this Session...?

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



Any Questions or Comments?

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

