

Learning is Changing Part II: Models for Motivating and Retaining Online Learners (TEC-VARIETY AND R2D2)

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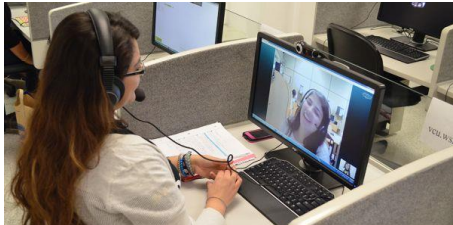
Learning is Changing!



Learning is More Collaborative May 5, 2014

**Technology Provides Foreign-Language
Immersion at a Distance,**

Danya Perez-Hernandez, Chronicle of Higher Education,
http://chronicle.com/article/Technology-Provides/146369?cid=at&utm_source=at&utm_medium=en



Learning is More Shared

Blogging Field Archeology Research
 (e.g., Lily Henry Roberts, UCLA digging in Hope, BC,
 Stó:lō First Nation people from 12,000 years ago)



Learning is More Video-Based Online Learning Polyglots

Adventures of a Teenage Polyglot



TimesCast: Understanding Hyperpolyglots March 6, 2012 - John Collet reports the growing virtual community of people committed to learning dozens of languages.



**Timothy posts videos of himself speaking
several languages on YouTube.**

Learning is More Ubiquitous Learn Anytime, Always On/Mobile

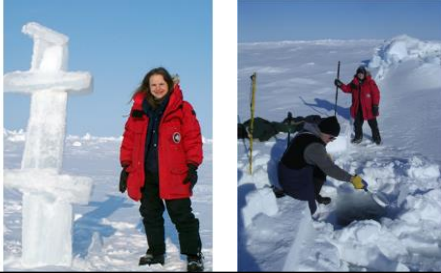
"Everything I need to do today, I can do on my phone," says Robert
 Johnson (Louisville, KY)...He often grades papers and communicates with
 students from a cafe near his home.



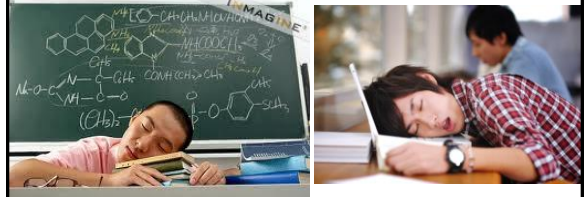
Learning is More Self-Directed

iPod Learning from MIT OCW

(e.g., Wendy Ermold, University of Washington)



Motivation and Engagement



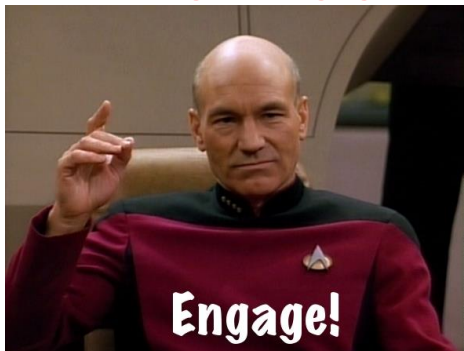
How do
we engage
online?



What did Jean-Luc Picard say?



That's right, Engage!



Poll #1: Million Dollar Question:
What words come to mind when I say
that I want to motivate learners?



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.



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.



Framework: 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

Education 3.0?

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

1. Risk

Low Risk ← → High Risk



2. Time

Easy to Embed ← → Extensive Planning



3. Cost

Free or Inexpensive ← → Enterprise Licenses



Instructor-Focus

Student-Focus

4. Student-Centered
Low

High

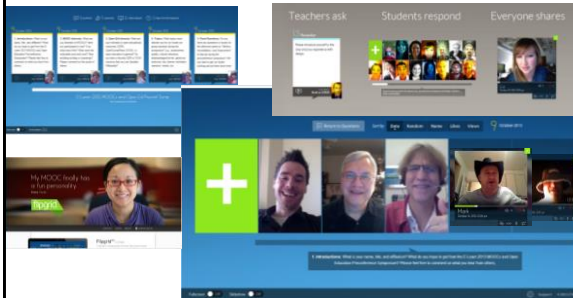


Examples of TEC-VARIETY

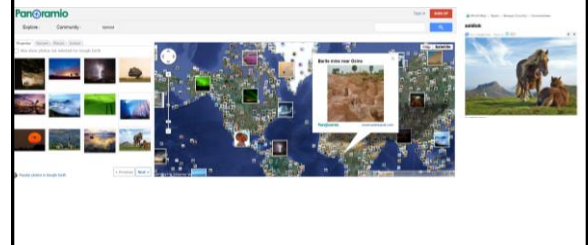


1. Tone/Climate: A. Threaded Video Discussions, e.g., Flipgrid

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



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



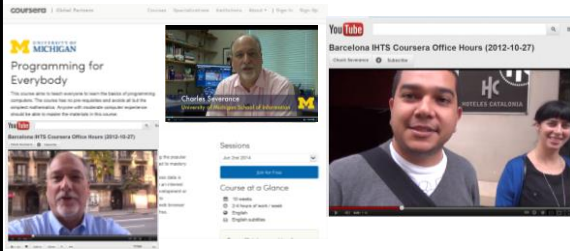
1. Tone/Climate: C. Video Introductions (Office Hours in Other Countries)

Chuck Severance, U Michigan/Coursera) in Barcelona

<http://www.youtube.com/watch?v=JzNHymSv8TI>

Chuck Severance, University of Michigan

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



2. Encouragement, Feedback, etc.: A. Demonstrations and Tutorials

Emerging technology specialist, IU UITS, Nitocris Perez,

May 29, 2014

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



2. Encouragement, Feedback, etc.: B. Voice/Audio Feedback

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

<http://vocaroo.com/delete/s0x8moQAYAi/a37bbc9408bb8c95>
(Recorded by Curt Bonk for the Open University of China)



2. Encouragement, Feedback, etc.: C. Online Practice Tests and Quizzes (e.g., CPR, Human Embryology Animations)

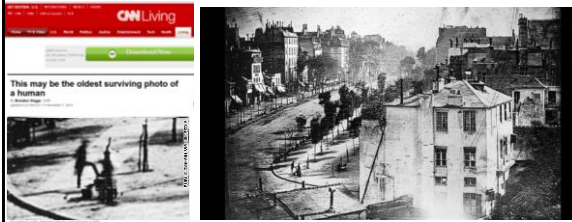


3. Curiosity, Fun:

D. Something in the 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)

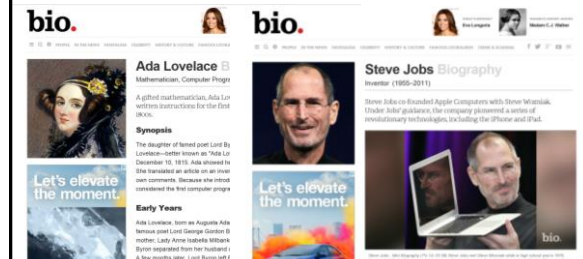
http://www.cnn.com/2014/11/06/living/oldest-photograph-human-daquerre/index.html?hpt=hp_t4_kong



3. Curiosity, Fun:

E. Tracking the Life of a Computer Scientist (bio.com)

<http://www.biography.com/people/steve-jobs-9354805>
<http://www.biography.com/people/ada-lovelace-20825323>



3. Curiosity, Fun:

F. Tracking the Life of a Computer Scientist (Wikipedia)

http://en.wikipedia.org/wiki/Vannevar_Bush

JULY 1945

As We May Think

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



Poll #2:

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, Screnr, etc.)
- D. Voice/Audio feedback (Vocaroo)
- E. Online practice tests
- F. Something in the news
- G. Tracking life of scientist

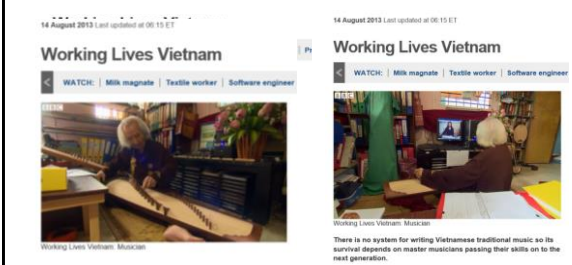


4. Variety, Novelty, Fun:

A. Teach from Vietnam to the World BBC News Asia, August 14, 2013

Even though he is now very elderly Vinh Bao (age 96) still teaches music, using his computer to coach pupils across the globe.

<http://www.bbc.com/news/world-asia-23497552>



4. Variety, Novelty, Fun, Fantasy:

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

RANDOM.ORG

RANDOM.O

Coin Flipper

Dice Roller

List Randomizer

You Request 2 coins of type 3rd 41:

You rolled 2 dice:

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



Random Sequence Generator
1. 1 Bill
2. 9 Arthur
3. 10 Thomas
4. 7 Shelby
5. 3 Sherry
6. 3 Sharon
7. 3 Scott
8. 8 Stephanie
9. 4 Ned
10. 6 Brian

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

Timestamp: 2011-08-13 01:14

Timestamp: 2011-08-13 01:19

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

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

[Agent](#) [Go Back](#)

March 13, 2015
5. Autonomy, Choice:
A. 20% Time in Education
 Kendal Rasnake & Troy Cockrum, IU

https://www.dropbox.com/s/tcsr5oae2lclgwuk/20_Time_in_Education-Cockrum_and_Rasnake.mov?n=57312573



March 5, 2015
Pink Time: New approach to student projects promotes passion, learning for its own sake,
Virginia Tech News

http://www.collegiatetimes.com/news/virginia_tech/article_4140ba24-ad6b-11e4-b05a-47eb57d77a1e.html
<http://www.vtnews.vt.edu/articles/2015/01/012315-cnre-pinktime.html>
http://chronicle.com/blogs/network/thesubquitoslibrary/2015/03/04/confronting-the-unexpected-unlocking-intrinsic-learning/?cid=at&utm_source=at&utm_medium=en

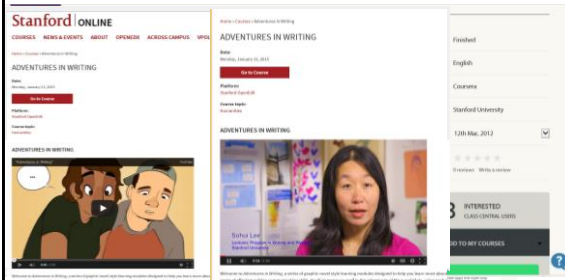
http://chronicle.com/blognetwork/theubiquitouslibrarian/2015/03/04/confronting-the-unexpected-unlocking-intrinsic-learning/?cid=at&utm_source=at&utm_medium=en

[learning/?cid=at&utm_source=at&utm_medium=en](#)



Dr. Tim Baird speaks about his concept of "Pink Time" during the Seventh Annual Conference on Higher Education Pedagogy, February 5, 2015.

5. Autonomy, Choice:
B. Enroll in a MOOC and Reflect
(e.g., see Class Central)



5. Autonomy, Choice:
C. Attend Webinar (pick weeks and reflect)
 Cathy Davidson, The End of Higher Education
<http://connectedcourses.net/thecourse/why-we-need-a-why/>



5. Autonomy, Choice:

D. Design Multimedia Glossaries

Ozgur Ozdemir, December 2012
<http://r685glossary.shutterfly.com/>
 Umida Khikmatillaeva, Dec. 2011, P540
<http://learningplanet.shutterfly.com/>

Umida Khikmatillaeva, Dec. 2011, P540
<http://learningplanet.shutterfly.com/>



5. Autonomy, Choice:

E. Design Article Database in Pinterest, Jenny Webeck

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

EDED 5372 Emerging Trends and Issues in Instructional Technology



5. Autonomy, Choice:

F. Design Article Database in Facebook, Jenny Webeck

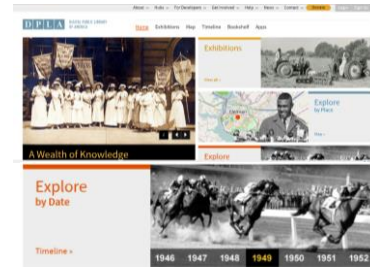
<https://www.facebook.com/JennyBELT/timeline>



5. Autonomy, Choice:

G. Open Educational Resources (OER) Digital Public Library of America

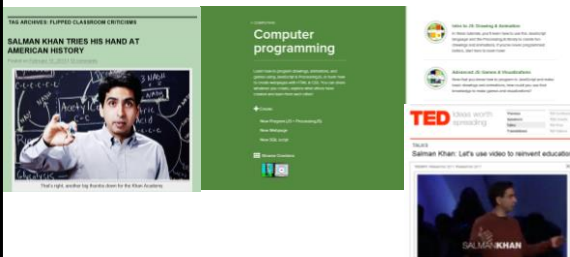
<http://dp.la/>



5. Autonomy, Choice:

H. Video Repositories and Portals (e.g., Khan Academy, Computer Programming)

<https://www.khanacademy.org/computing/computer-programming>



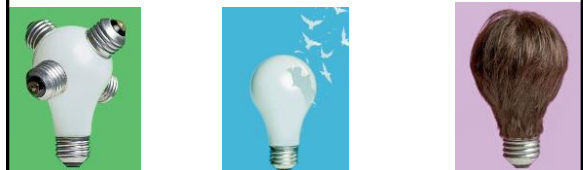
Poll #3:

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

A. Yes definitely***

B. Yes maybe!

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



6. Relevance, Meaningfulness:

A. Guest Chats (e.g., Emily Hixon, January 20, 2015)

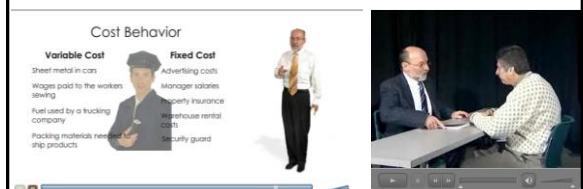
<https://connect.iu.edu/p259wpiabg9/>



6. Relevance, Meaningfulness:

B. Video Scenario Learning Accounting Interviews and Preparatory Course Review Modules (Franklin University, cost and forensic accounting course)

<http://video.franklin.edu/Franklin/acct/managerialAccounting/cost-behavior-player.html>
<http://video.franklin.edu/Franklin/acct/342/common/fraudScenario02.html>



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



Stomach, endoscopic examination and biopsy:
Poorly differentiated tubular adenocarcinoma

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

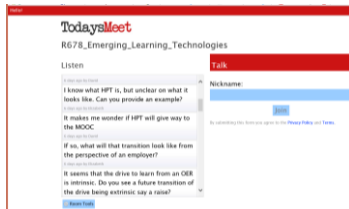
I'd like to take the quiz now.

7. Interactive, Collaborative: A. Negotiate Meanings Online (e.g., PiratePad: <http://meetingwords.com/>)

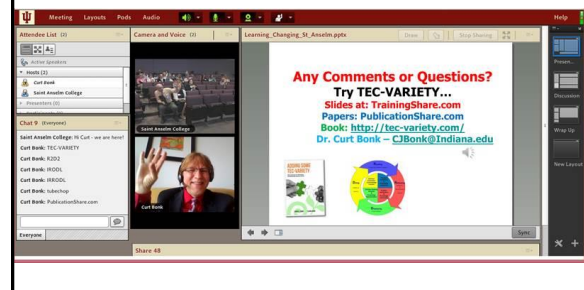
<http://blogs.iu.edu/technology/6-collaborative-writing-applications-for-group-projects-or-hoops/>
MeetingWords, Google Docs, NowComment, MixedInk




January 27, 2015 7. Interactive, Collaborative: B. Backchannel Chat (TodaysMeet) <https://todaysmeet.com/> R678_Emerging_Learning_Technologies https://todaysmeet.com/R678_Emerging_Learning_Technologies



7. Interactive, Collaborative: C. Q&A Web Conferencing (Adobe Connect, Jabber, iMeet, GoToMeeting, etc.) <https://connect.iu.edu/p259wpiabg9/>



7. Interactive, Collaborative: D. Multiple Guest Experts Sara de Freitas and Jim Hensman, U of Coventry, UK (<https://connect.iu.edu/p21e1yx666x/>) Jay Cross, Berkeley (<https://connect.iu.edu/p48ytssoronz/>)



7. Interactive, Collaborative: E. Collaboration and Discussion in Google Hangouts, Jabber, Skype, etc (January 29 and February 25, 2013)



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

- A. Student designed multimedia glossaries
- B. Article database in Pinterest
- C. Guest chats with former students
- D. Negotiate meanings online (e.g., PiratePad)
- E. Backchannel chat (Todaysmeet)
- F. Class Facebook group
- G. Discussion in Google Hangouts



8. Engagement, Effort:

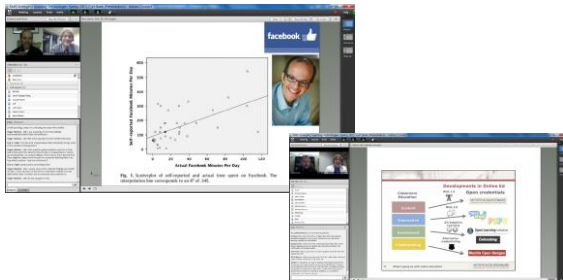
A. Interactive Multimedia E-Books

June 10, 2014, Chronicle of HE, 300 images, more than 700 notes and explanations, multimedia annotations, video commentary, and two dozen videos.

Digital Dubliners: <http://digitaldubliners.com/>
James Joyce: <http://joyceways.com/>



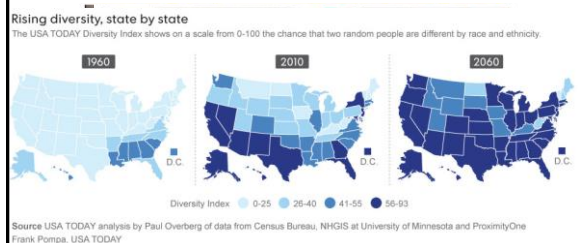
8. Engagement, Effort: B. Guest Speaker Quotes (Rey Junco, February 25, 2013)



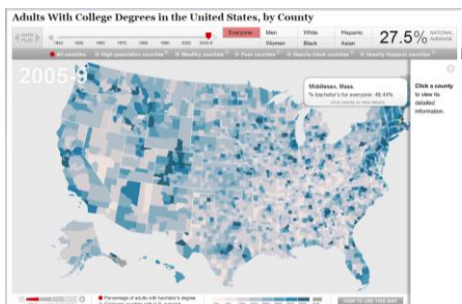
8. Engagement, Effort:

C. Interactive Timeline Maps,

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



8. Engagement, Effort: D. Interactive Map Timelines (adults with college degrees by county, May 7, 2012)



8. Engagement, Effort:

E. Google Map Gallery

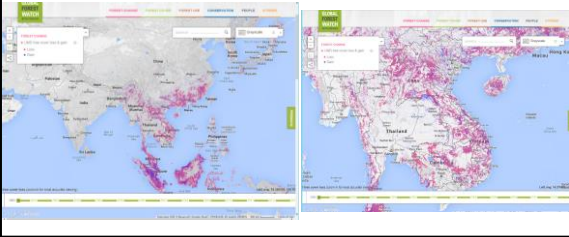
September 16, 2014

<http://maps.google.com/gallery/>



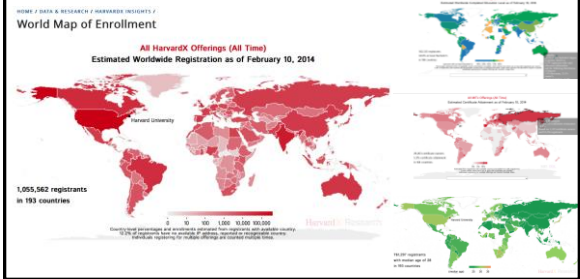
8. Engagement, Effort: F. Map Trend Interpretations e.g., Global Forest Watch (April 2014)

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



8. Engagement, Effort: G. Data Visualization Tools (Harvard and MIT MOOCs) Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education

<http://chronicle.com/blogs/technology/harvard-mit-moocs-lawrence-biemiller-february-20-2014-chronicle-of-higher-education>



8. Engagement, Effort: H. Interactive Timeline Tools (e.g., Arab spring: an interactive timeline of Middle East protests, The Guardian, Garry Blight, and Sheila Pulham, July 12, 2011

<http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline>



9. Tension, Challenge, etc.: A. Online Vocabulary and Math Competitions

Vocabulary.com: <https://www.vocabulary.com/>

Fibonacci Final Four? Math March Madness coming



March 15, 2015

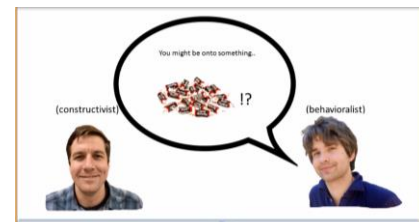
9. Tension, Challenge, etc.: B. Controversial Issue Debates SXSW: Tackling the growing gender gap in technology Mike Snider, USA Today

<http://www.usatoday.com/story/tech/2015/03/15/sxsw-gender-gap-chic-tech-gender-gap/24808699/>



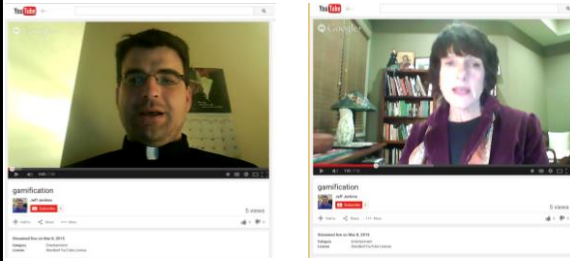
March 13, 2015

9. Tension, Challenge, etc.: C. Controversial Issue Debates R511 Midterm Video How to Create an Authentic Environment in a Content-Driven School?, R511, Nick and Nik https://www.youtube.com/watch?v=Bcr3_aZT_xQ&feature=youtu.be



March 13, 2015

**9. Tension, Challenge, etc.:
D. Controversial Issue Debates
Gamification, Jeff Jenkins and Melody Childs, IU**
<https://www.youtube.com/watch?v=DYe85LMiq5w>



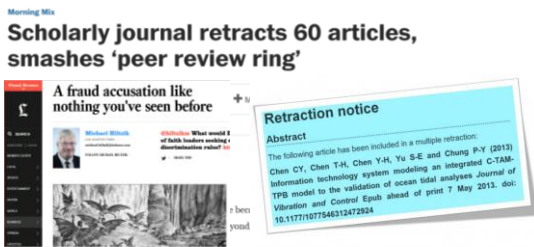
March 13, 2015

**9. Tension, Challenge, etc.:
E. Controversial Issue Debates: Flipped Classroom,
Board Meeting, Nora and Lauren, IU**
https://www.dropbox.com/10/gajemprjmkK/AAu20XcktaicC-2LxP5Ca78l=98?mml=803ea104-9935-a723_3329.mpd



July 10, 2014

**9. Tension, Challenge, etc.:
F. Controversial Issue Debates
Scholarly journal retracts 60 articles, smashes 'peer review ring', Fred Barbash, Washington Post**
<http://www.washingtonpost.com/news/morning-mix/wp/2014/07/10/scholarly-journal-retracts-60-articles-smashes-peer-review-ring/>



**9. Tension, Challenge, etc.:
G. Cage Matches or Debates**

**(with online audience topical suggestions)
Cage Match on MOOCs at SXSWedu 2013
(Curt Bonk & Chuck Severance)**
<http://cherryville.com/2013/07/05/sxswedu-2013-cage-match-the-massive-open>
<https://soundcloud.com/sxswedu/cage-match-the-massive-open>



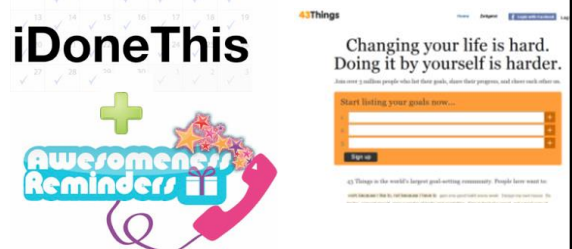
April 23, 2015

**Can Behavioral Tools Improve Online Student Outcomes?
Experimental Evidence from a Massive Open Online Course,
Richard W. Patterson**
http://www.ilr.cornell.edu/sites/ilr.cornell.edu/files/cheri_wp165_0.pdf

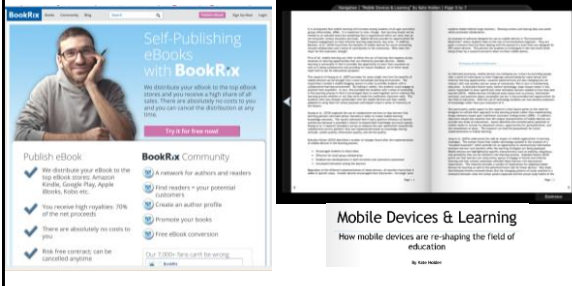


10. Yields Products, Goals:

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



10. Yields Products, Goals: B. Uploading Mobile Books (e.g., BookRix, <http://www.bookrix.com/>)



10. Yields Products, Goals:

C. Student Created Mobile Apps
The App Builder: <http://www.theappbuilder.com/>
Mintian Guo: <http://myapp.is/r685final>



10. Yields Products, Goals: D. Student Created Videos

Piercarlo Abate: <http://www.youtube.com/watch?v=...TUrCh00au>
Qi Li, Gangnam: <http://www.youtube.com/watch?v=7Q429IqZaU8&feature=youtu.be>
Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW9Iw8>
Kendal Rasnake (Is IT Right For You?): <https://www.youtube.com/watch?v=M3GUD1CIGw>



January 23-25, 2015 10. Yields Products, Goals: E. Global Game Jam

25,000 participants. 518 jam sites. Egypt had more than 800 participants. Over 5,000 games made. Includes Belarus, Cuba, Ecuador, Faroe Islands, Georgia, Ghana, Guatemala, Guernsey and Luxembourg as first time participants.
<http://globalgamejam.org/news/ggj15-closes> (reflect, discuss, etc.)



10. Yields Products, Goals: F. Business Plans and Virtual Mentoring toward Goals, September 22, 2014, Chronicle of HE <http://chronicle.com/article/Start-Up-Slow-Down/1489237cid=at>



10. Yields Products, Goals: G. Interactive Archive/Gallery of Exemplary First-Year Writing Projects (Fresh Writing, University of Notre Dame, September 24, 2014; <https://freshwriting.nd.edu/>)



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

- A. Guest speaker quotes
- B. Data visualization tools
- C. Challenge debates (cage matches?)
- D. Student designed video productions
- E. Student designed e-books
- F. Goal setting tools
- G. Gallery of exemplary work

Reflection

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



Recap and Reflect with Neighbor: Explore Websites from this Session! Or Find the lieu...

Take a quick 5-10 minute break...



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



Part II Where Are You R2D2?:

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

Curtis J. Bonk, Professor, Indiana University

cjbonk@indiana.edu

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



This Generation of Students



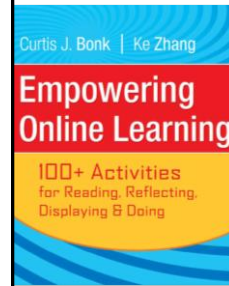
Addressing Learning Styles



Question: How can technology address diverse learner needs?



Framework #2: 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)



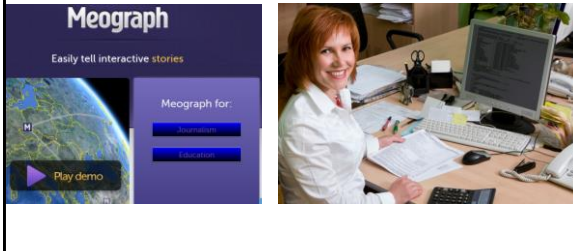
1. Auditory or Verbal Learners

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



Read 1a. Collect and Listen to Interactive Stories

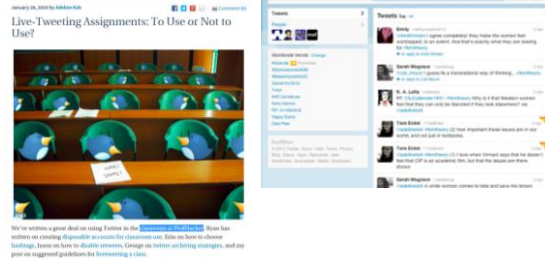
(e.g., Meograph: <http://www.meograph.com/>)



January 28, 2015 Read 1b. Twitter Fed Class Discussions

Live-Tweeting Assignments: To Use or Not to Use?
The Chronicle of Higher Education, Adeline Koh

<http://chronicle.com/blogs/profcheck/live-tweeting-assignments-to-use-or-not-to-use/58949>



Read 1c. Grammer Checkers (e.g., Grammarly, Ginger, GrammarCheck, PaperRater, and SpellCheckPlus)

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



2. Reflective and Observational Learners

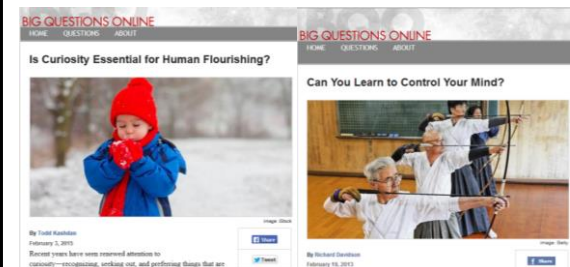
- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives



Reflect 2a. Big Issue Reflections

(Big Questions Online (BQO)), Feb 3, 2015
(e.g., Is curiosity essential for human flourishing?)

<https://www.bigquestionsonline.com/content/do-we-have-souls>



Reflect 2b. Interpreting Infographics July 24, 2014

Woman in Computer Science

<http://graduatedegreesonline.njit.edu/msc-resources/msc-infographics/women-in-computer-science/>



Reflect 2c. Workplace Internship, Practicum, and Field Experiences

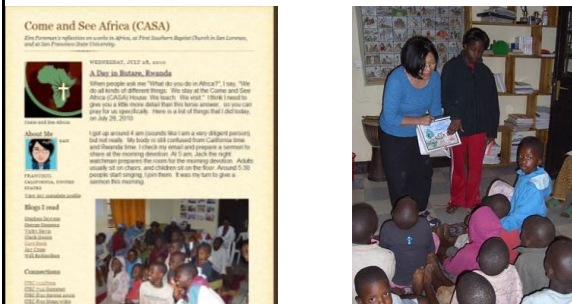


Reflect 2d. Reflect on Virtual Timelines (Dipity, xtimeline, Simile, etc.)

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



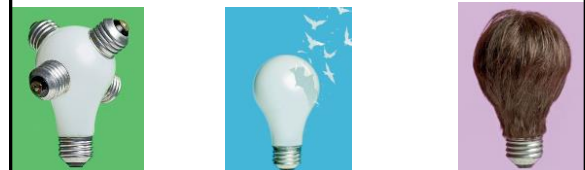
Reflect 2e. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State Univ, Come and See Africa Blog; <http://comeandseeafrica.blogspot.com/>)



Poll #6:

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

- A. Yes definitely
- B. Maybe
- C. No



3. Visual Learners

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



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



Display 3d. Unique OER (e.g., Dead Sea Scrolls)

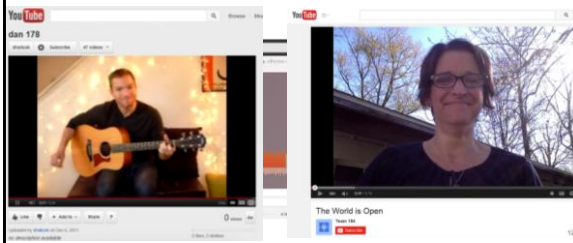
Display 3e. Virtual Microscopes

[illegible][illegible]

Do 4b. Student Music Recordings of Course Content

April 26, 2015

IST Groove Song, Jeffrey Jenkins, R511: <https://soundcloud.com/jeffjenkins25/ist-groove>
The World is Open, Jill Kaufman, R678: <https://www.youtube.com/watch?v=2R6V0Ma5Vmw&feature=youtu.be>
Daniel Halluska, P540: <http://www.youtube.com/watch?v=tOL7irGsqnw>



Poll #7: 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, 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: 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.



Where are we headed? Where is Education 3.0?



February 20, 2013 Star Trek-like holodeck may be closer to reality than you think

Matt Hartley, Financial Post, Canada

http://business.financialpost.com/2013/02/20/star-trek-like-holodeck-may-be-closer-to-reality-than-you-think/?_ha=954d-d58d

Star Trek-like holodeck may be closer to reality than you think

Many headlines - covered in the past - have said that the future is now. Now that's not true. But the future is closer than you think.



Any Questions or Comments? Try TEC-VARIETY...Try R2D2

Slides at: TrainingShare.com

Papers: PublicationShare.com



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

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

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