Masterclass #1
Engage Number One:
Models for Motivating and Retaining Online Learners (TEC-VARIETY AND R2D2)

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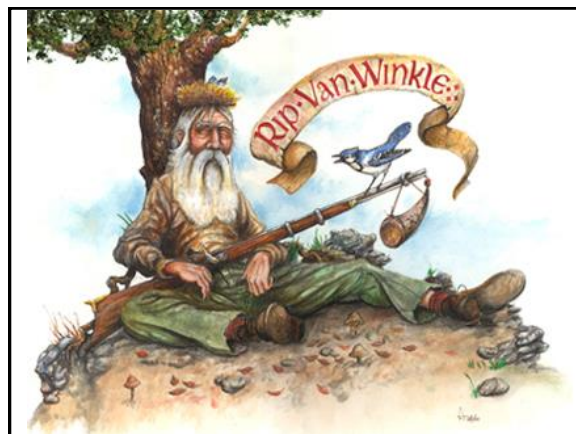cjbonk@indiana.edu
http://mypage.iu.edu/~cjbonk/
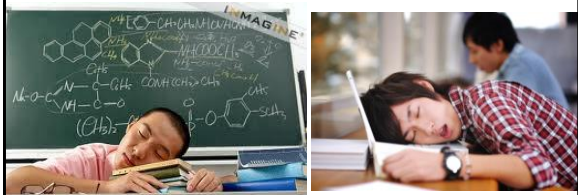

(Circa Confucius 551–479 BCE)

Academos
Plato Circa 428–347 BCE

Rip Van Winkle

Motivation and Engagement

June 4, 2015
AspirEDU
http://aspiredu.com/solutions/

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

Learning is More Video-Based
Online Learning Polyglots
http://www.nytimes.com/2012/03/11/magazine/teenage-master-of-languages-Gnb-online-fellowship.html?_r=1&pagewanted=all

Timothy posts videos of himself speaking several languages on YouTube.
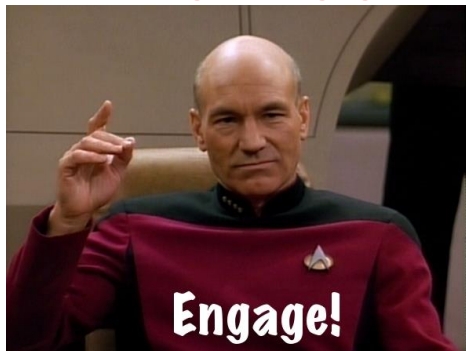

How do we engage online?

What did Jean-Luc Picard say?

That's right, Engage!

Engage!

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

2

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. **T**one/Climate: Psych Safety, Comfort, Belonging
2. **E**ncouragement, Feedback: Responsive, Supports
3. **C**uriosity: Fun, Fantasy, Control
   …
4. **V**ariety: Novelty, Intrigue, Unknowns
5. **A**utonomy: Choice: Flexibility, Opportunities
6. **R**elevance: Meaningful, Authentic, Interesting
7. **I**nteractive: Collaborative, Team-Based, Community
8. **E**ngagement: Effort, Involvement, Excitement
9. **T**ension: Challenge, Dissonance, Controversy
10. **Y**ields 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

ADDING SOME TEC-VARIETY

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

Low Risk   High Risk

1. Risk

Easy to Embed   Extensive Planning

2. Time

Free or Inexpensive   Enterprise Licenses

3. Cost

Instructor-Focus   Student-Focus

4. Student-Centered   Low   High
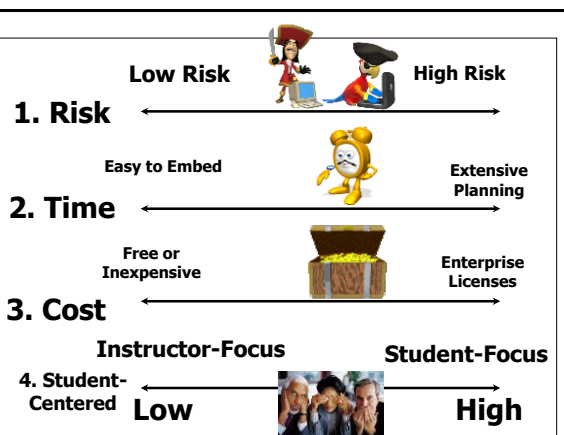
Examples of TEC-VARIETY

1. Tone/Climate: A. Threaded Video Discussions, e.g., Flipgrid
http://flipgrid.com/#429f88c5)
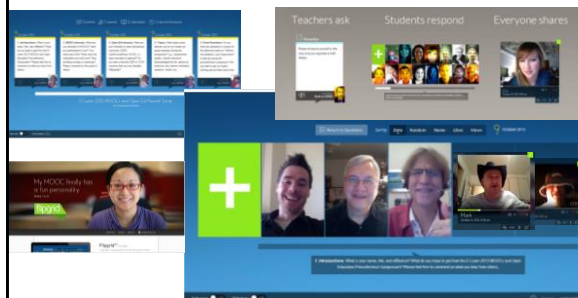
1. Tone/Climate: B. Share links to Favorite Songs (e.g., Royalty-Free Music
http://incompetech.com/music/royalty-free/;
http://freeplaymusic.com/)

1. Tone/Climate: C. Share Visuals of Favorite Places (e.g., Panoramio,
http://www.panoramio.com/)
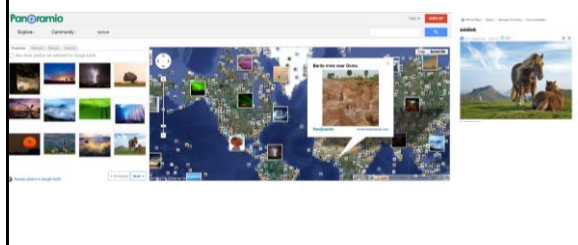
1. Tone/Climate: D. Instructor Course Introductions
(Theatre 10 Intro Video, October 7, 2014, Elizabeth Dale, West Valley College)
https://www.youtube.com/watch?v=_Wzbzc3QiiA
Chuck Severance, U Michigan/Coursera) in Barcelona
http://www.youtube.com/watch?v=JzNHvmSv8TI
Chuck Severance, University of Michigan
https://www.coursera.org/course/pythonlearn

2. Encouragement, Feedback, etc.: A. Demonstrations and Tutorials
Emerging technology specialist, IU UITS, Nitocris Perez,
May 29, 2014
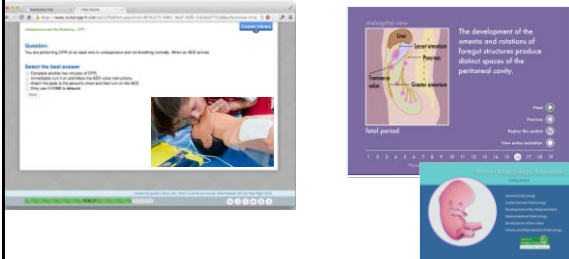http://inside.iub.edu/features/videos/2014-05-29-inub-vid-cib.shtml

2. Encouragement, Feedback, etc.: B. Voice/Audio Feedback
Vocaroo: http://vocaroo.com/
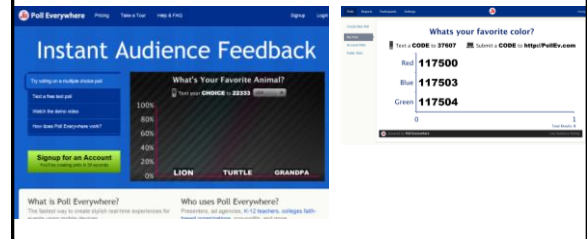http://vocaroo.com/delete/s0x8moQAYAiu/a37bbc9408bb8c95
(Recorded by Curt Bonk for the Open University of China)

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

2. Encouragement, **Feedback,**
etc.: D. Blog and Website Polling
(e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll)
http://www.polleverywhere.com/

3. Curiosity, Fun:
Linking Historical Events
A. **May 25, 2001**
**Man on the moon: Kennedy speech ignited
the dream. Richard Stenger, CNN.com**
http://edition.cnn.com/2001/TECH/space/05/25/kennedy.moon/

President Kennedy calls for a mission to
send man to the moon during a joint
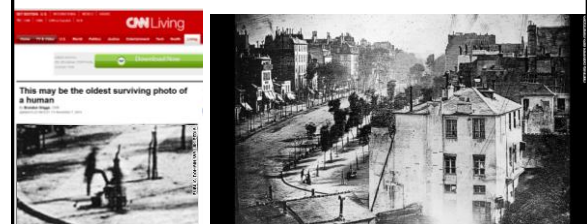session of Congress on May 25, 1961

May 25, 2015
3. Curiosity, Fun:
B. Something in the News
(e.g., Chinese universities move up in world rankings, China Daily)
http://www.cnn.com/2014/12/17/health/healthy-aging/index.html?hpt=hp_t2
http://espn.go.com/sports/endurance/story/_/id/8979487/fauja-singh-101-caps-career-10k-hong-kong
http://www.chinadaily.com.cn/china/2015-05/25/content_20805854.htm

3. Curiosity, Fun:
C. Something in the News
New 'massive' dinosaur skeleton discovered, USA Today,
September 5, 2014 (Dreadnoughtus)
http://www.usatoday.com/story/tech/2014/09/04/dinosaur-skeleton-discovered/15031803/
October 23, 2014: Goofy dinosaur blends Barney and Jar Jar Binks, SF Gate
http://www.sfgate.com/news/science/article/Goofy-dinosaur-blends-Barney-and-Jar-Jar-Binks-5840093.php
Incredible 50-foot 'dragon' dinosaur unearthed by Chinese farmers
January 20, 2015: Naomi Ng, for CNN
http://www.cnn.com/2015/01/30/asia/china-dragon-dinosaur/index.html

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-daguerre/index.html?hpt=hp_t4 kong

3. **C**uriosity, 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

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

INTERNET
HIGH-FIVE
PLACE HAND
HERE

4. **V**ariety, 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-23497559

4. **V**ariety, Novelty, Fun, Fantasy:
B. Random Lists (Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)

March 13, 2015
5. **A**utonomy, Choice:
A. 20% Time in Education
Kendal Rasnake & Troy Cockrum, IU
https://www.dropbox.com/s/tcsr5oae2lcgwuk/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/blognetwork/theubiquitouslibrarian/2015/03/04/confronting-the-unexpected-unlocking-intrinsic-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.

August 8, 2015
Pure Genius: Building a Culture of Innovation and Taking 20% Time to the Next Level
Don Wetttrick, dwettrick@gmail.com
http://theinnovationteacher.com/don-wettrick/#.VcYmU87JBjs
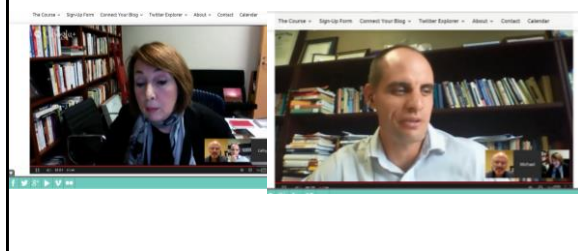http://www.amazon.com/Pure-Genius-Building-Culture-Innovation/dp/0988217627

5. **A**utonomy, Choice:
B. Enroll in a MOOC and Reflect (e.g., see Class Central)
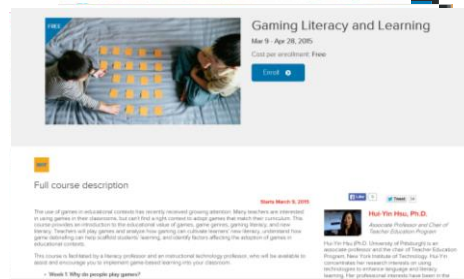
5. **A**utonomy, Choice:
C. Attend Webinar (pick weeks and reflecti)
Cathy Davidson, The End of Higher Education
http://connectedcourses.net/thecourse/why-we-need-a-why/

5. **A**utonomy, Choice:
D. Design Multimedia Glossaries
Ozgur Ozdemir, December 2012
http://r685glossary.shutterfly.com /
Umida Khikmatillaeva, Dec. 2011, P540
http://learningplanet.shutterfly.com/

5. **A**utonomy, Choice:
E. Open Educational Resources (OER)
Digital Public Library of America
http://dp.la/

Poll #3:
Any light bulbs going off in your head so far...?
A. Yes definitely***
B. Yes maybe!
C. Not yet (but hopefully soon...)

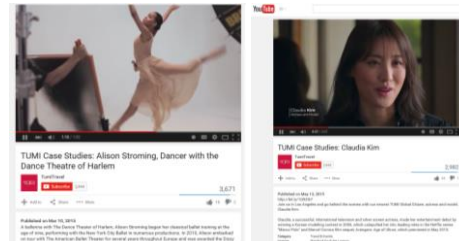**6. R**elevance, Meaningfulness:
A. Guest Chats (e.g., Emily Hixon, January 20, 2015)
https://connect.iu.edu/p259wpiabg9/

6. Relevance, Meaningfulness:
B. Case-Based Learning: TUMI Case Studies: Claudia Kim and
Alison Stroming, Dancer with the Dance Theatre of Harlem
(March 20, 2015 and May 13, 2015)
https://www.youtube.com/watch?v=onhgDnslHgY
https://www.youtube.com/watch?v=v5c7PT5tEFQ

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

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, April 6, 2015
e.g., **Padlet** (What is your secret recipe to engage?)
http://padlet.com/zaid_alsagoff/engage
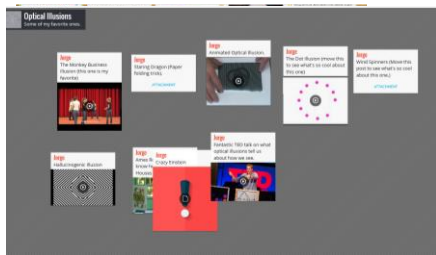
7. Interactive, Collaborative:
C. Collaboration and Discussion in
Google Hangouts, Jabber, Skype, etc
(January 29 and February 25, 2013)

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

A. **Student designed multimedia glossaries**
B. **Online cases**
C. **20 percent time learning**
D. **Guest chats with former students**
E. **Negotiate meanings online (e.g., PiratePad)**
F. **Enroll in a MOOC**
G. **Discussion in Google Hangouts**

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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/

July 27, 2015
8. Engagement, Effort:
~~B. iPhone Virtual Tour and Games~~

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8. Engagement, Effort:
C. Intercultural learning
Virtual and on-site exchanges between York University students, refugee students on the Thai Burma border and displaced migrant students in Ranong, Thailand, and York University, Toronto, Canada
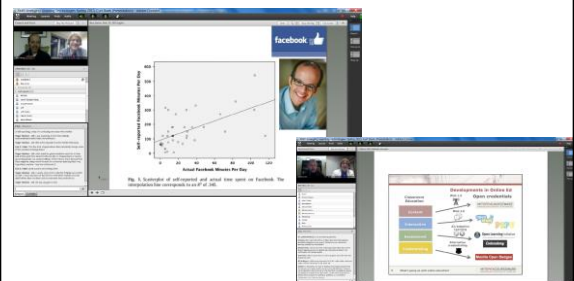**http://aifprojects.yorku.ca/projects/intercultural-learning-thailand-2012-13/**

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8. Engagement, Effort:
D. Simulations

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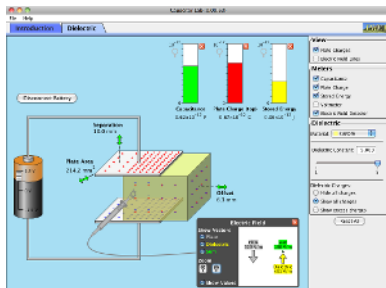
8. Engagement, Effort:
E. Guest Speaker Quotes
(Rey Junco, February 25, 2013)

8. Engagement, Effort:
F. Expert Question and Answer Sessions
http://www.oise.utoronto.ca/dr/Research_Projects/index.html

8. Engagement, Effort:
G. Interactive Timeline Maps,
October 22, 2014, Second immigration wave lifts diversity to record high, Edward Greg Toppo and Paul Overberg, USA Today

8. Engagement, Effort:
H. Interactive Map Timelines
(adults with college degrees by county, May 7, 2012)
http://todayscampus.com/article/Keith_Hampson_Interviews_Josh_Keller_on_Interactive_Graphics_for_Higher_Education
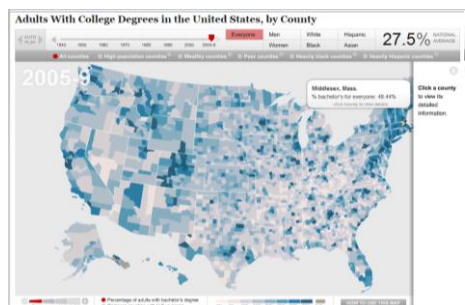
8. Engagement, Effort:
I. Google Map Gallery
September 16, 2014
http://maps.google.com/gallery/

8. Engagement, Effort:
J. Map Trend Interpretations
e.g., Global Forest Watch (April 2014)
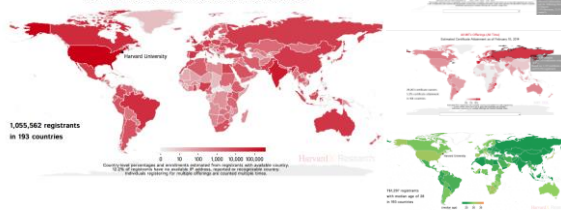http://www.globalforestwatch.org/map/3/-3.72/27.00/ALL/grayscale/loss/596
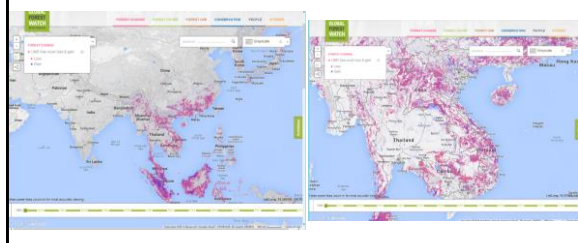
8. Engagement, Effort:
K. Data Visualization Tools (Harvard and MIT MOOCs) Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education
http://chronicle.com/blogs/wiredcampus/harvard-and-mit-release-visualization-tools-for-trove-of-mooc-data/50631?cid=pm&utm_source=pm&utm_medium=en

March 15, 2015
9. Tension, Challenge, etc.:
A. 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-geek-girls-chic-technology-gender-gap/24808699/

March 13, 2015
9. Tension, Challenge, etc.:
B. 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

July 10, 2014
9. Tension, Challenge, etc.:
C. 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/

May 26, 2015
9. Tension, Challenge, etc.:
D. Controversial Issue Debates:
Auto-Tune (The invention that changed music forever, Jacopo Prisco and Andrew Stewart, CNN)
http://www.cnn.com/2015/05/26/tech/autotune-inventor-mci/index.html
https://soundcloud.com/jacopo-prisco/mci-autotune-After

10. Yields Products, Goals:
A. Uploading Mobile Books and Wikibooks
(e.g., BookRix, http://www.bookrix.com/)

10. Yields Products, Goals:
B. Student Created Mobile Apps
The App Builder: http://www.theappbuilder.com/
Mintian Guo: http://myapp.is/r685final

10. Yields Products, Goals:
C. Student Created Videos
Piercarlo Abate: http://www.youtube.com/watch?v=_-TURzHO0aU
Qi Li, Gangnam: http://www.youtube.com/watch?v=7Q429IqxZaU&feature=youtu.be
Miguel Lara (Web 2.0 FREEDOM): http://www.youtube.com/watch?v=8cmCFWi9IW8
Kendal Rasnake (Is IT Right For You?): https://www.youtube.com/watch?v=MJ3GUDICIGw

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

A. Guest speaker quotes
B. Data visualization tools
C. Issue challenges, role plays, and debates
D. Student designed video productions
E. Student designed e-books
F. Map trends
G. Interactive timeline tools

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

COMMITMENT
Success is largely a matter of hanging on after others have let go.

Recap and Reflect with Neighbor:
Explore Websites from this Session!
Or Find the lieu...
Take a quick 15 minute break...

ADDING SOME
TEC-VARIETY

WC

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

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Masterclass 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

November 25, 2014
OER Research Hub, OER Evidence Report:
Building Understanding of Open Education
2013-2014
http://oerresearchhub.files.wordpress.com/2014/11/oerrh-evidence-report-2014.pdf

What about the Instructor in the Open World?

Nine "C"
Metaphors of Instructors
(e.g., "Cat Herders")

1. Instructor as Credit Manager

2. Instructor as Court Room Judge
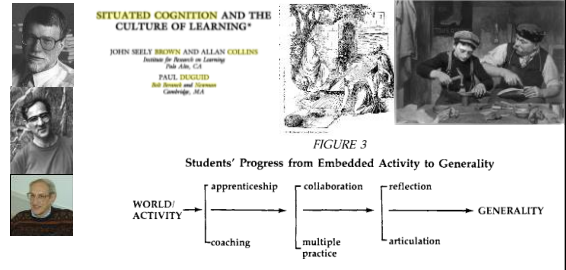

3. Instructor as Counselor

4. Instructor as Consultant

5. Instructor as Conductor

6. Instructor as Course Ambassador

7. Instructor as Curator

8. Instructor as Concierge

9. Instructor as Camping Trip Guide

#10? How About Instruction as a Cognitive Apprenticeship?

Brown, J. S., Collins, A., & Duguid, P. (1988).
Cognitive apprenticeship, situated cognition, and social interaction.
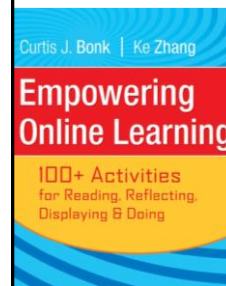Bolt, Beranek, and Newman, Inc., Technical Report No. 6886.

SITUATED COGNITION AND THE CULTURE OF LEARNING*

JOHN SEELY BROWN AND ALLAN COLLINS
Institute for Research on Learning
Palo Alto, CA

PAUL DUGUID
Bell Research and Newman
Cambridge, MA

FIGURE 3
Students' Progress from Embedded Activity to Generality

WORLD/ACTIVITY → apprenticeship / coaching → collaboration / multiple practice → reflection / articulation → GENERALITY

Expert Apprenticeship from Video

Addressing Learning Styles

Question: How can technology address diverse learner needs?

Framework #2: The R2D2 Model

Curtis J. Bonk | Ke Zhang

Empowering Online Learning

100+ Activities for Reading, Reflecting, Displaying & Doing

Reading — Verbal and Auditory Learners
Reflecting — Reflective & Observational learners
Displaying — Visual learners
Doing — Hands-on learners
Problem Orientation & Knowledge Acquisition
Problem clarification & Knowledge contruction
Solution Seeking Analysis & Knowledge Representation
Solution Evaluation & Knowledge Transfer

The R2D2 Method

1. **Read (Auditory and Verbal Learners)**
2. **Reflect (Reflective Learners)**
3. **Display (Visual Learners)**
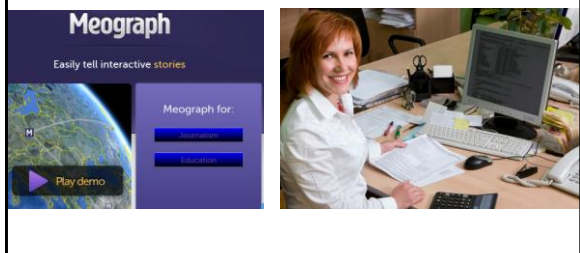4. **Do (Tactile, Kinesthetic, Exploratory Learners)**

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/)

Read 1b.
Reading about the Life of a Musician (bio.com)
http://www.biography.com/people/bob-marley-9399524

Read 1c.
Exploring the Life of a Prominent People (Wikipedia)
http://en.wikipedia.org/wiki/Vannevar_Bush

JULY 1945

As We May Think

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

January 28, 2015
Read 1d. Twitter Fed Class Discussions
Live-Tweeting Assignments: To Use or Not to Use?
he Chronicle of Higher Education, Adeline Koh
http://chronicle.com/blogs/profhacker/live-tweeting-assignments-to-use-or-not-to-use/58949

Read 1e. 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, 3015
(e.g., Is curiosity essential for human flourishing?)
https://www.bigquestionsonline.com/content/do-we-have-souls
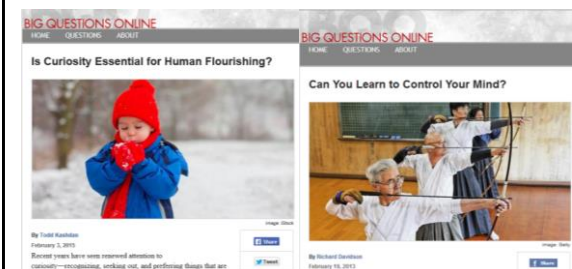
Reflect 2b.
Interpreting Infographics
July 24, 2014
Woman in Computer Science
http://graduatedegrees.online.njit.edu/mscs-resources/mscs-infographics/women-in-computer-science/

Reflect 2c.
Podcast Show Reflections
OperaNow!: http://www.operanowpodcast.com/
LA Behind the Circle Podcast
http://www.laopera.org/news/Podcast-List/
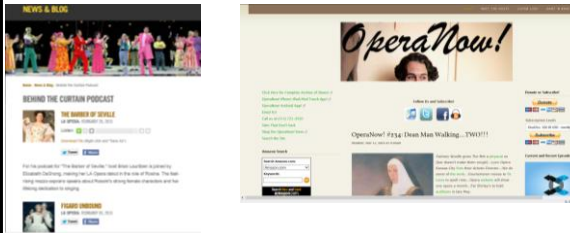
Reflect 2d. Workplace Internship, Practicum, and Field Experiences

Reflect 2e.
Reflect on Virtual Timelines
(Dipity, xtimeline, Simile, etc.)
http://www.usatoday.com/news/destinations/story/2011-08-25/Martin-Luther-King-Jr-Memorial-in-Washington-A-closer-look/50136470/1?csp=34news
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 2f. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State Univ, Come and See Africa Blog; http://comeandseeafrica.blogspot.com/)
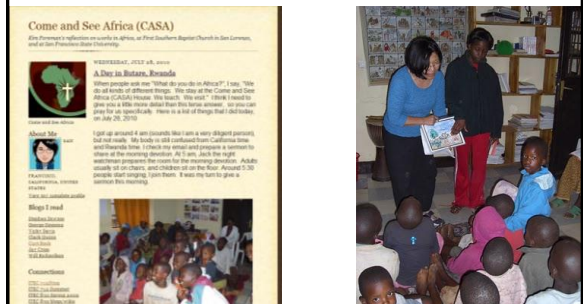
Poll #6:
Any light bulbs going off in your head so far…?

A. Yes definitely
B. Maybe
C. No

3. Visual Learners

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

Display 3a. **Virtualize Words Used (e.g., Wordle, Tagzedo, Tagul, WordSift, Word It Out)**
http://shellyterrell.com/2010/02/14/12-word-cloud-resources-tips-tools/

Display 3b.
More 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/

Display 3c. Map Animations
Yes, Mr. President, We Remade Our Atlas to Reflect Shrinking Ice
Christine Dell'Amore, National Geographic, August 3, 3015
http://news.nationalgeographic.com/2015/08/150803-arctic-ice-obama-climate-nation-science/?utm_content=buffer8a394&utm_medium=social&utm_source=twitter.com&utm_campaign=nbuffer
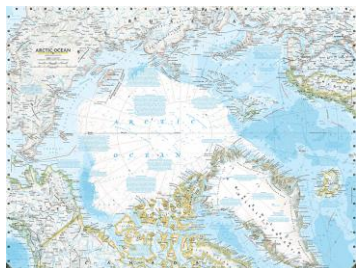
Display 3d. (April 28, 2015)
Concept Mapping and Timeline Tools
(Bubbl.us, Cmap, Gliffy, Spicynodes, or Mindomo)
http://www.spicynodes.org/index.html
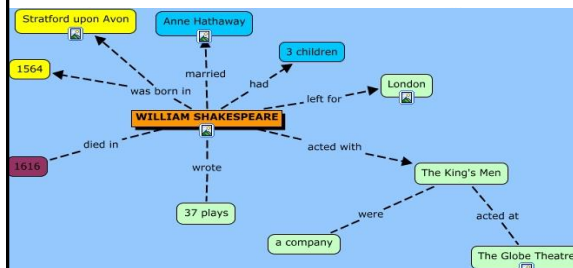
Display 3e. October 31, 2014
Penguin Science (Penguin Cam), Jean Pennycook
http://www.penguinscience.com/
http://www.thistle.org/pcam2/images.shtml

Display 3f. **Videos for clinical education**
(Verdi - La Traviata (1988) - Complete opera)
https://www.youtube.com/watch?v=49UZa0TO2zQ

Display 3g.
Educational Videos:
CNN, BBC, TED, TED-Ed, ForaTV

Patsy Rodenburg: Why I Do Theater: https://www.ted.com/talks/patsy_rodenburg_why_i_do_theater
Ben Cameron: The true power of the performing arts : http://www.ted.com/talks/ben_cameron_tedxyyc?language=en
Kenichi Ebina: My magic moves: http://www.ted.com/talks/kenichi_ebina_s_magic_moves
Mallika Sarabhai: Dance to change the world: http://www.ted.com/talks/mallika_sarabhai
Wayne McGregor: A choreographer's creative process in real time: http://www.ted.com/talks/wayne_mcgregor_a_choreographer_s_creative_process_in_real_time
Bill T. Jones: The dancer, the singer, the cellist ... and a moment of creative magic
http://www.ted.com/talks/bill_t_jones_the_dancer_the_singer_the_cellist_and_a_moment_of_creative_magic

Display 3h.
Educational Videos:
CNN, BBC, TED, TED-Ed, ForaTV
BBC One-Minute World News (May 27, 2015)
Turning Van Gogh's The Night Cafe into virtual reality
http://www.bbc.com/news/technology-32751392
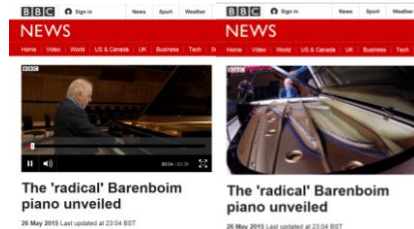
Display 3i.
Key Concept Demonstrations
https://www.youtube.com/watch?v=ReAem-rZp2Y

Display 3j.
Documentary Debates:
e.g., Documentaries on Islamic Extremism
http://www.bbc.com/news/entertainment-arts-32901215
Tribeca Film Festival
https://tribecafilm.com/filmguide/among-the-believers-2015
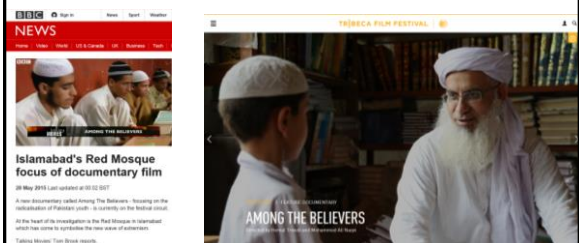
Display 3k. Video Anchor: Drama
(Urban School Performance Project in Lucknow, India)
Kathleen Gallagher from OISE. She does international/urban work using digital technologies to give voices to marginalized youth through drama.
https://www.youtube.com/watch?v=JVCqf1cd4ZI
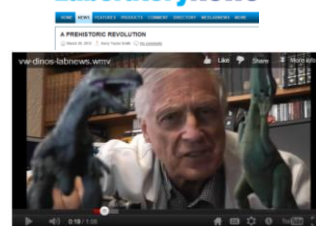

Display 3L.
Tracking the Life of a Scientist
(e.g., Brian J. Ford, independent scientist)
http://www.youtube.com/user/tellymonitor#p/a/u/1/LhGeApsKjasr
http://www.labnews.co.uk/news/prehistoric-revolution/

Display 3m.
Video Tutorials, Demonstrations,
and How-To's
WonderHowTo and Howcast
http://www.howcast.com/
http://www.wonderhowto.com/
http://www.howcast.com/?s=tune+a+drum
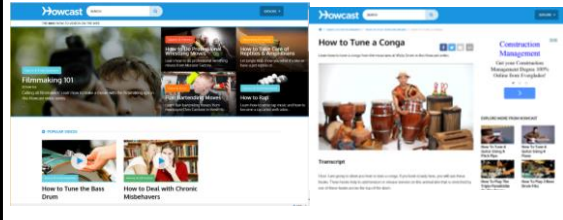
Display 3n.
Video Repositories and Portals
(e.g., Khan Academy, Music Masterpieces)
https://www.khanacademy.org/humanities/music/music-masterpieces-old-new/ludwig-van-beethoven-music/v/ludwig-van-beethoven-part-1

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

Display 3p. Unique OER
(e.g., Dead Sea Scrolls)
http://www.deadseascrolls.org.il/explore-the-archive
http://www.deadseascrolls.org.il/explore-the-archive/search#q=site_en'Qumran,_Cave_4'
http://www.deadseascrolls.org.il/home
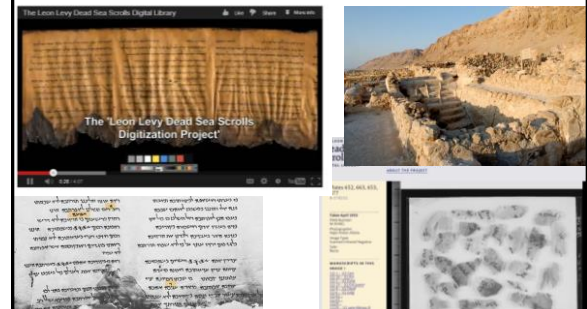
Display 3q.
Syrian Cultural Destroyed, CNN,
July 3, 2014

Display 3r. Virtual Microscopes

4. Tactile/Kinesthetic Learners
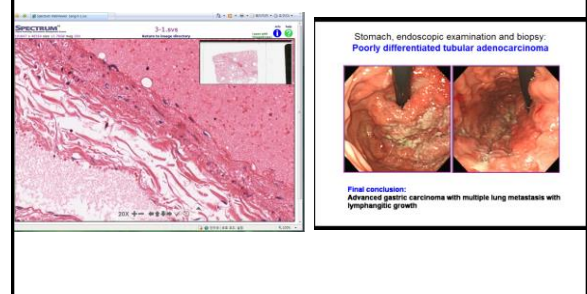
- **Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.**

February 8, 2015
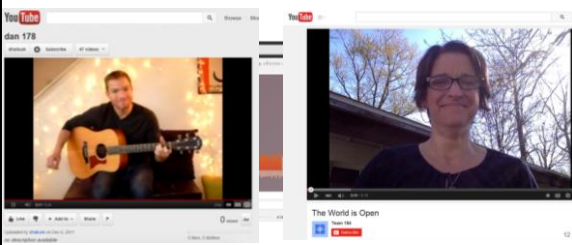**Do 4a.** Recap Discussion (e.g., Prezi from Thuy Han for R678 class Week 4)
https://prezi.com/r4vkwqokrn9/httpswesbarchiveorgweb20040303191129httpwwwnetco/?utm_campaign=share&utm_medium=copy

https://web.archive.org/web/20040303191129/http://www.n

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=ZRGV0Mg5Vmw&feature=youtu.be
Daniel Halluska, P540: http://www.youtube.com/watch?v=tOL7lrGsqnw

Do 4c. Interactive Archive/Gallery of Exemplary First-Year Writing Projects
(Fresh Writing, University of Notre Dame, September 24, 2014; https://freshwriting.nd.edu/)

1. Combining Phases (Media)
(Dual Coding Theory: Text + Video)
Text: http://en.wikipedia.org/wiki/Ray_Dolby
Video (September 20,2000): http://www.gigwise.com/news/84155/audio-pioneer-

2. Combining Phases (Media)
Unique Open Educational Resources and Portals
(e.g., Mozart: http://www.mozartproject.org/)

22
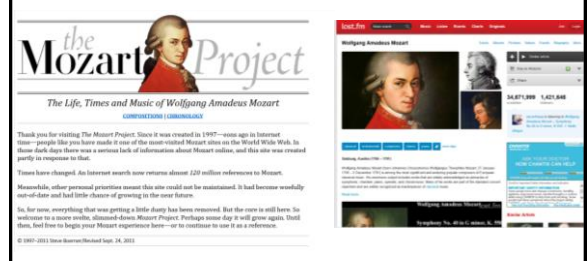
3. Combining Phases (Media)
Media Generated Content as Instructional Anchor
(e.g., Blues Music, Film, etc.)
(Blues legend B.B. King dies at age 89, May 15, 2015, VNN)
http://www.cnn.com/2015/05/15/entertainment/bb-king-dead/index.html

4. Combining Phases (Media)
Tracking Researchers and Explorers
http://lt.umn.edu/earthducation/expedition6/

5. Combining Phases (Media)
Design Article Database in Facebook, Jenny Webeck
https://www.facebook.com/JennyBELTT/timeline
Dr. Bonk's creative fun time group (R546)
https://www.facebook.com/groups/830496290323899/

Poll #7: Which do you prefer...
(A) TEC-VARIETY or (B) R2D2?

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.

Poll #9: 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/?__lsa=054d-d58d

Poll #10: Any Questions?
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
Dr. Curt Bonk – CJBonk@Indiana.edu