

Adding Motivation to Online and Blended Courses and Activities with the TEC-VARIETY Model

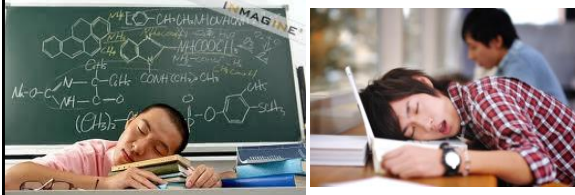
Curtis J. Bonk, Professor, Indiana University
 cjbonk@indiana.edu
<http://mypage.iu.edu/~cjbonk/>



New Instructor Roles (Concierge, Curator, Counselor, etc.)



Motivation and Engagement



Motivation Research Highlights (Jere Brophy, Michigan State University)

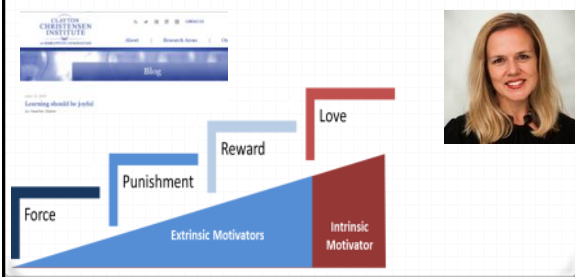
1. **Supportive**, appropriate **challenge**, **meaningful**, moderation/optimal.
2. Teach **goal** setting and self-reinforcement.
3. Offer **rewards** for good/improved performance.
4. Novelty, **variety**, **choice**, adaptable to interests.
5. Game-like, **fun**, fantasy, curiosity, suspense, active.
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.



June 13, 2014

Learning should be joyful,

Heather Stacker, Blog Post, Clayton Christensen Institute
<http://www.christenseninstitute.org/learning-should-be-joyful/>



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 (May 2014)

1. **Tone/Climate:** Psych Safety, Comfort, 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. **Interactive:** Collaborative, Team-Based, Community
8. **Engagement:** Effort, Involvement, Investment
9. **Tension:** Challenge, Dissonance, Controversy
10. **Yields Products:** Goal Driven, Purposeful Vision, Ownership

Introducing the "TEC-VARIETY book..."

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



What motivates?

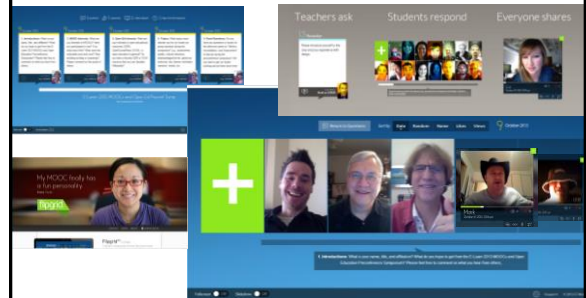
1. **Tone/Climate:** Psychological Safety, Comfort, Sense of Belonging
2. **Encouragement:** Feedback, Responsiveness, Praise, Supports
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Examples of TEC-VARIETY



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

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

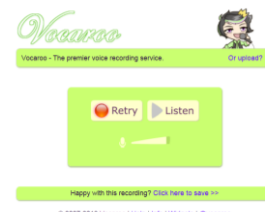


1. Tone/Climate: B. Share Visuals of Favorite Places (e.g., Panoramio, <http://www.panoramio.com/>)



2. Encouragement, Feedback, etc.: A. Voice Feedback

Vocaroo; <http://vocaroo.com/>
<http://vocaroo.com/i/s1ccDbzAz2IN> (Wisconsin)

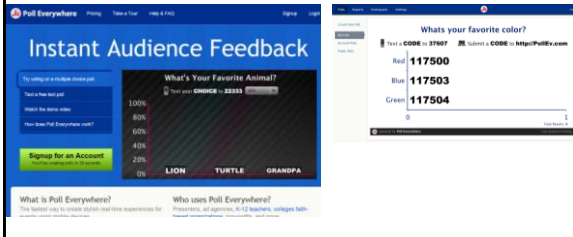


© 2007-2013 Vocaroo / Help / Info / Widgets / @vocaroo

2. Encouragement, Feedback, etc.: B. Blog and Website Polling

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

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



2. Encouragement, Feedback, etc.: C. 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>



May 29, 2014

May 29, 2014

3. Curiosity, Fun:

A. Something in the News

New 'massive' dinosaur skeleton discovered, USA Today,

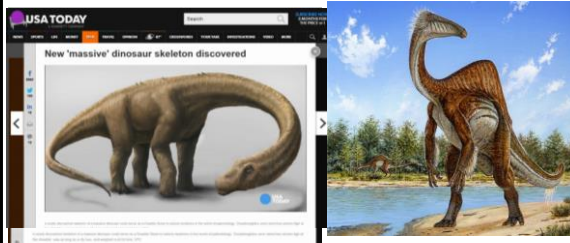
September 5, 2014 (Dreadnoughtus)

<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, Seth Borenstein

<http://www.sfgate.com/news/science/article/Goofy-dinosaur-blends-Barney-and-Jar-Jar-Binks-586001.php>



3. Curiosity, Fun:

B. Something in the News

(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)

http://espn.go.com/sports/endorance/story/_/id/8979487/fauja-singh-101-caps-career-10k-hong-kong

Fauja Singh, 101, finishes last race



3. Curiosity, Fun:

C. Online Quiz Games

Jeopardy Labs

<https://jeopardylabs.com/play/ganttpardy>

I've Got Your Back	The Secret C's	They Got Money and They Know It	"We Are the World"	Justice League
100	100	100	100	100
200	200	200	200	200
300	300	300	300	300
400	400	400	400	400

Team 1

3. Curiosity, Fun:

D. 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/>

LaboratoryNews



3. Curiosity, Fun: E. Twitter Fed Class Discussions

<https://twitter.com/HeartCPR>

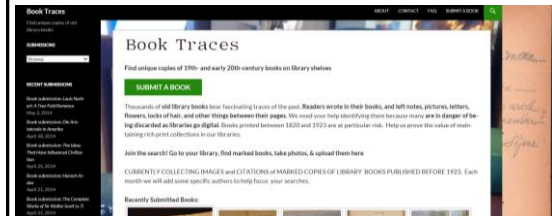


3. Curiosity, Fun: F. Historical Document Analyses

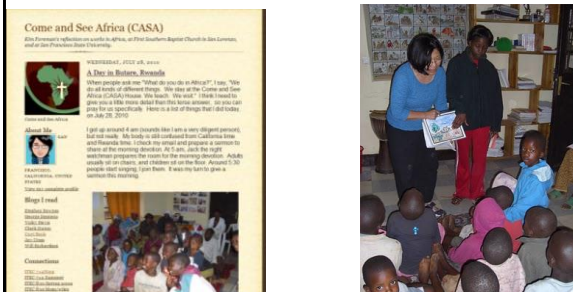
e.g., Book Traces

Find unique copies of 19th- and early 20th-century books on library shelves

<http://www.booktraces.org/>



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

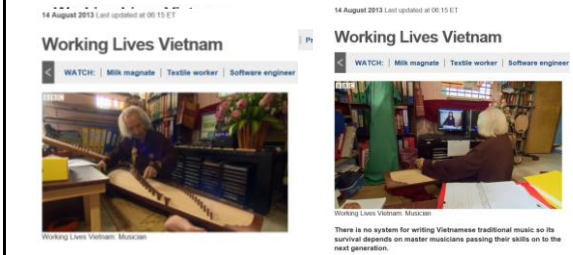


4. Variety, Novelty, Fun: A. External Guests (e.g., Jay Cross, Internet Time Group)



4. Variety, Novelty, Fun: B. 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>



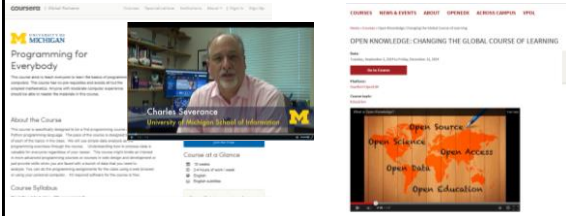
5. Autonomy, Choice: A. Design Multimedia Glossaries

Ozgur Ozdemir, December 2012
<http://r68sglossary.shutterfly.com/>
Umida Khikmatillaeva, Dec. 2011, P540
<http://learningplanet.shutterfly.com/>



5. Autonomy, Choice: B. Enroll in a MOOC and Reflect

Programming for Everyone
 Chuck Severance, University of Michigan
<https://www.coursera.org/course/pythonlearn>
Open Knowledge: Changing the Global Course of Learning
 September 2, 2014 to December 12, 2014, Stanford
<https://class.stanford.edu/courses/Education/OpenKnowledge/Fall2014/about#>



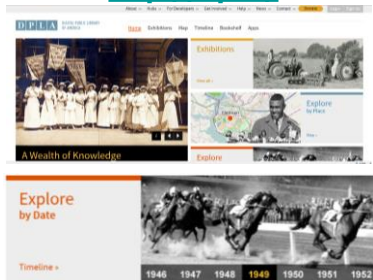
5. Autonomy, Choice: C. Class Central

<https://www.class-central.com/>
<http://oedb.org/open/>



5. Autonomy, Choice: D. Visual Library Search Digital Public Library of America

<http://dp.la/>



5. Autonomy, Choice: E. 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: F. Online Learning Object Repositories and Portals (shared content)

April 23, 2014
Shakespeare's Dictionary? Skepticism Abounds,
Chronicle of Higher Education, Jennifer Howard
<http://shakespeareanbible.com/bards-alvario>



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



6. Relevance, Meaningfulness: B. Collect and Listen to Interactive Stories

(e.g., Meograph: <http://www.meograph.com/>)
Timelines with Oral Histories, Slavery and the Making of America
Time and Place, PBS

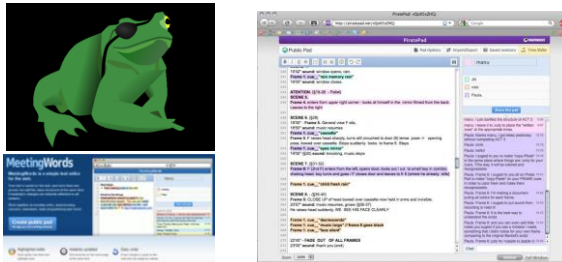


7. Interactive, Collaborative: A. Collaboration and Discussion in Google Hangouts, Jabber, Skype, etc (January 29 and February 25, 2013)



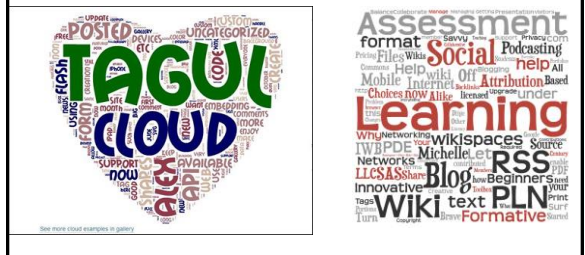
7. Interactive, Collaborative: B. Negotiate Meanings Online (e.g., PiratePad: <http://meetingwords.com/>)

MeetingWords is a simple text editor for the web.
Your text is saved on the web, and more than one person can edit the same document at the same time.
Everybody's changes are instantly reflected on all screens. Work together on meeting notes, brainstorming
sessions, homework, team programming and more!



7. Interactive, Collaborative: C. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)

<http://shellyterrell.com/2010/02/14/12-word-cloud-resources-tips-tools/>



8. Engagement, Effort: A. Student Generated Timelines, (e.g., Dipity, Simile, Xtimeline, Timeglider, Meograph) (e.g., Raymond Chandler, The Big Sleep, Kate Hurd) <http://hurdinsuranceagency.com/thebigsleep/>

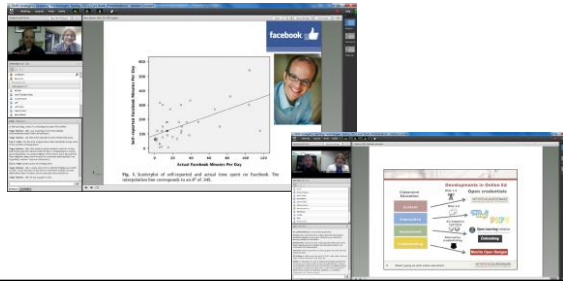


8. Engagement, Effort: B. Virtual Timelines from News Media (How Facebook changed our lives, Marco della Cava, USA Today, February 3, 2014)

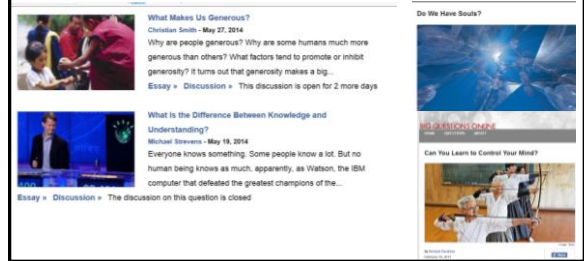
<http://www.usatoday.com/story/tech/2014/02/02/facebook-timeline-10-cultural-impact/5063979/>
<http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498.1>
<http://www.usatoday.com/news/destinations/2011-08-25/Martin-Luther-King-Jr.-Memorial-in-Washington-D-Closes-Book-2013-04-09/3709-34news>
<http://www.usatoday.com/story/life/movies/2013/04/10/Harrison-Ford-Jackie-Robinson/2001793/>



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

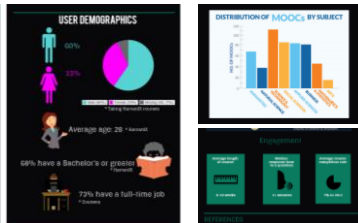


8. Engagement, Effort: D. Big Issue Reflections (Big Questions Online (BQO)), May 27, 2014 (e.g., What makes us generous? What is the difference between knowledge and understanding?) <https://www.bigquestionsonline.com/content/do-we-have-souls>

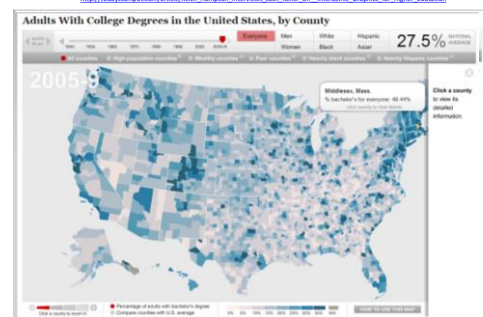


8. Engagement, Effort: E. Interpreting Infographics April 17, 2014

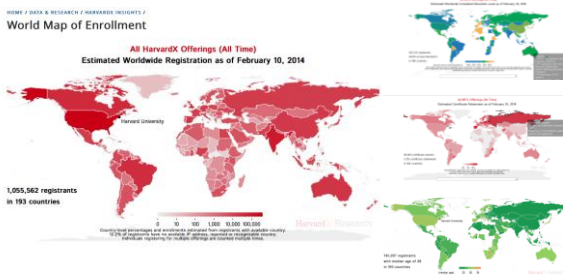
3. Issues of Age, Gender, and Course Type
eCampus News, Meris Stansbury
<http://www.ecampusnews.com/research/infographic-moocs-global-436/>
Infographic: <https://magic.piktochart.com/output/1747660-moocs>



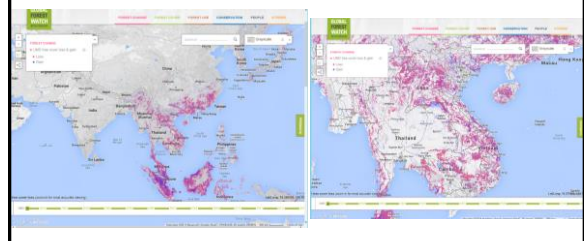
8. Engagement, Effort: F. Interactive Map Timelines (adults with college degrees by county, May 7, 2012)



8. Engagement, Effort: G. Data Visualization Tools (Harvard and MIT MOOCs) Lawrence Biemiller, February 20, 2014, Chronicle of Higher Education <http://chronicle.com/article/Harvard-and-MIT-MOOCs-2014/231511>



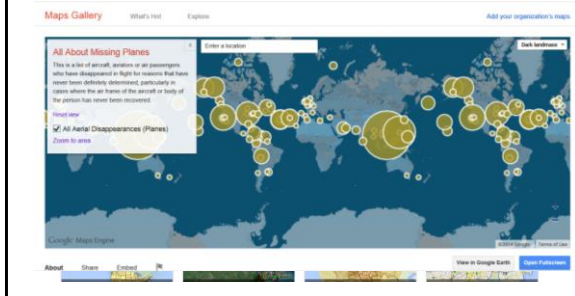
8. Engagement, Effort: H. Map Trend Interpretations e.g., Global Forest Watch (April 2014) <http://www.globalforestwatch.org/map/31/-3.72/27.00/ALL/grayscale/loss/596>



8. Engagement, Effort: I. Google Map Gallery

September 16, 2014

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



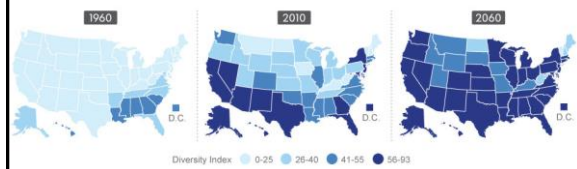
8. Engagement, Effort: J. Interactive Timeline Maps,

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-diversity-record-high/1991111/>

Rising diversity, state by state

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



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

8. Engagement, Effort:

K. Medical Simulations and Practice Cases
The School of Medicine, University of Virginia

http://uvamagazine.org/articles/adjusting_the_prescription/



The newly expanded Medical Simulation Center lets medical trainees practice skills and case scenarios in clinical settings that mimic actual situations. Outside the operating room, a technology specialist manipulates vital signs on a patient simulator and controls the cameras recording the session.

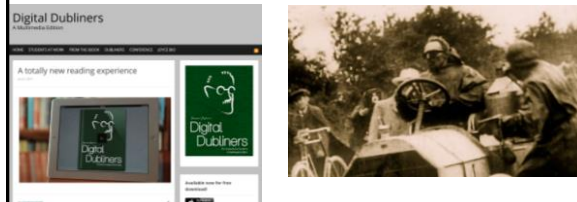
8. Engagement, Effort:

M. 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: N. Heat Map on Misconceptions

October 1, 2014, Smart Sparrow

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



9. Tension, Challenge, etc.:

A. Online Math Competitions

(i.e., Math March Madness, Greg Toppo, March 26, 2013, USA Today)

<http://www.startribune.com/article/20130326/NEWS02/303560000/Fibonacci-Final-Four-Math-March-Madness-coming>

Fibonacci Final Four? Math March Madness coming

7:23 AM, Mar 26, 2013 | 10 Comments



The Shelbyville student Joseph Park competes for his computer in a math competition. - Jack Cooper, USA TODAY

9. Tension, Challenge, etc.:

B. Vocabulary Competitions

(e.g., Kids learning new words at warp speed, January 14, 2014, Greg Toppe (Georgia Scurletis, Dir of Curriculum Development, for Vocabulary.com (Thinkmap) presents a banner to Marc Williams, Brooklyn Technical High School) <http://www.warbooks.com/news/2014/01/13/vocabulary-schools-online-competition-education-students-teachers/455586/>
Vocabulary.com: <https://www.vocabulary.com/>



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/>

Morning Mix

Scholarly journal retracts 60 articles, smashes 'peer review ring'

A fraud accusation like nothing you've seen before



Retraction notice

Abstract

The following article has been included in a multiple retraction. Chen CY, Chen T-H, Chen Y-H, Yu S-E and Chung P-Y (2013) Information technology system modeling an integrated C-TAM-TPS model for the validation of ocean tidal analyses Journal of Vibration and Control. ahead of print 7 May 2013. doi: 10.1177/1077754613472934

9. Tension, Challenge, etc.:

D. Cage Matches or Debates
(with online audience topical suggestions)
Cage Match on MOOCs at SXSWedu 2013
(Curt Bonk & Chuck Severance)

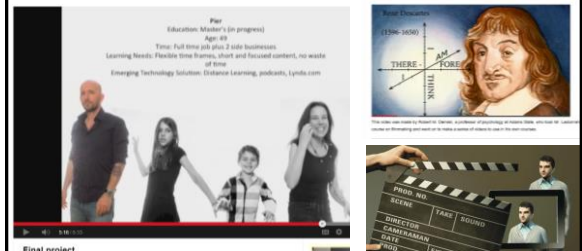
<http://chronicle.com/article/How-to-avoid-the-cage-match-on-moocs-at-sxswedu/42777>
<https://soundcloud.com/sxswedu/cage-match-the-massive-open>



10. Yields Products, Goals:

A. Multimedia Assignments and Final Product Video Summaries

Piercarlo Abate: <http://www.youtube.com/watch?v=-TURzH00aU>
Qi Li, Gangnam: <http://www.youtube.com/watch?v=7Q429lqxZaU&feature=youtu.be>
Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW9lW8>
http://chronicle.com/article/Multimedia-Assignments-Not-145939/108-outlook_america-within_multimedia/



10. Yields Products, Goals:

B. Student Class Documentaries

Umida's R546 Documentary Project

http://www.youtube.com/watch?v=EMLTzqCV_5A



10. Yields Products, Goals:

C. Business Plans and Virtual Mentoring toward Goals,

September 22, 2014, Chronicle of HE

<http://chronicle.com/article/Start-Up-Slow-Down/148923?cid=at>



September 22, 2014

Start Up, Slow Down

Under pressure to take an invention to market, MIT grad students must push their academic work aside



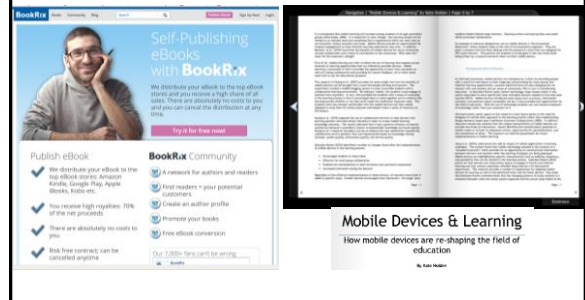
By Paul Thomas

Chronicle.com

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



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



10. Yields Products, Goals:
F. Student Mobile App Creation
 The App Builder: <http://www.theappbuilder.com/>
 Mintian Guo (April 2013): <http://myapp.is/r685final>



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



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



Any Questions?
Try TEC-VARIETY...
 Slides at: TrainingShare.com
 Papers: PublicationShare.com
 Book: <http://tec-variety.com/>
 Dr. Curt Bonk – CJBonk@Indiana.edu

