

Part I. Education 3.0: Embrace MOOCs or Disappear

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Poll #1: Are you interested in Education 3.0?

A = Yes
B = No
C = Not sure



firstmonday
PEER-REVIEWED JOURNAL ON THE INTERNET

The genesis and emergence of Education 3.0 in
higher education and its potential for Africa

by Derek Keats and
J. Philipp Schmidt

Education 3.0

<http://firstmonday.org/ojs/index.php/fm/article/view/1625/1540>

Table 1: Educational generations in higher education			
Characteristics	Education 1.0	Education 2.0	Education 3.0
Primary role of professor	Source of knowledge	Guide and source of knowledge	Orchestrator of collaborative knowledge creation
Content arrangements	Traditional copyright materials	Copyright and free/open educational resources for students within discipline, sometimes across institutions	Free/open educational resources created and reused by students across multiple institutions, disciplines, nations, supplemented by original materials created for them
Learning activities	Traditional, essays, assignments, tests, some groupwork within classroom	Traditional assignment approaches transferred to more open technologies; increasing collaboration in learning activities; still largely confined to institutional and classroom boundaries	Open, flexible learning activities that focus on creating room for student creativity, social networking outside traditional boundaries of discipline, institution, nation

October 25, 2014
Opening the Curriculum: Open Educational Resources
in U.S. Higher Education, 2014
I. Elaine Allen and Jeff Seaman
<https://www.onlinelearningcenter.com/reports/openingthecurriculum2014.pdf>

Opening the Curriculum:

Open Educational Resources in U.S. Higher Education, 2014

I. Elaine Allen and Jeff Seaman

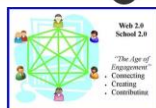


Poll #2: Read any good books lately?

A = Yes
B = No



EDUCATION 3.0



1. Creativity, Inc.
Ed Catmull, President of Pixar Animation
and Disney Animation (2014)

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



2. Finding Your Element: How to Discover Your Talents and Passions and Transform Your Life

Sir Ken Robinson and Lou Aronica (2013)
<http://www.inventtolearn.com/>



3. Makers: The New Industrial Revolution (DIY Culture)

Chris Anderson (2012)
<http://www.inventtolearn.com/>



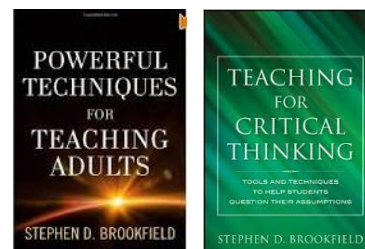
4. Creating Innovators: The Making of Young People Who Will Change the World

Tony Wagner (2012)
<http://creatinginnovators.com/>



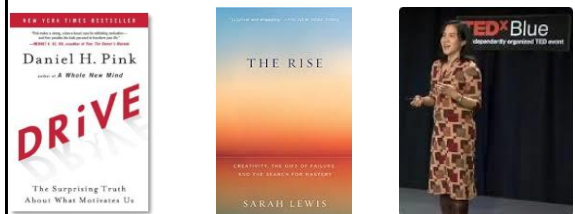
5. Powerful Techniques for Teaching Adults

Stephen Brookfield (2013)
Teaching for Critical Thinking (2012)



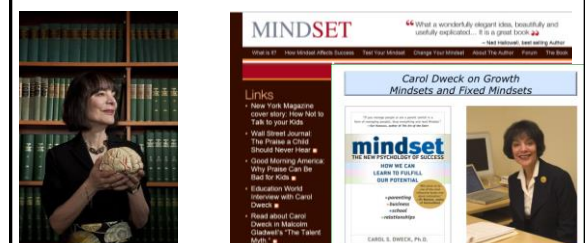
6. The Rise: Creativity, The Gifts of Failure, and the Search for Mastery

Sarah Lewis (2014)



7. Mindset: The New Psychology of Success

Carol Dweck (2006)
<http://mindsetonline.com/index.html>
<http://mindsetonline.com/testyourmindset/step1.php>



What skills do we need in the 21st Century?

The Seven Cs – 21st Century Lifelong Skills

Seven Cs	Component Skills
Critical Thinking-and-Doing	Problem-solving, Research, Analysis, Project Management, etc.
Creativity	New Knowledge Creation, "Best Fit" Design Solutions, Artful Storytelling, etc.
Collaboration	Cooperation, Compromise, Consensus, Community-building, etc.
Cross-cultural Understanding	Appreciate Diverse Ethnic, Knowledge and Organizational Cultures
Communication	Crafting Messages and Using Media Effectively
Computing / ICT Literacy	Effective Use of Electronic Information and Knowledge Tools
Career & Learning Self-reliance	Managing Change, Lifelong Learning and Career Redefinition

Poll #3:

Have you heard of a MOOC (Massive Open Oncourse Course)?

A. Yes

B. No



Audience Poll #4:

Have you taught a MOOC before?
Have you ever taken a MOOC as a student?
Have you ever browsed a MOOC?

A. Yes

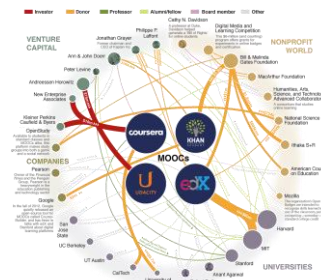
B. No



April 29, 2013

Major Players in the MOOC Universe, Chronicle of Higher Education, Jake New

<http://chronicle.com/article/Major-Players-in-the-MOOC/138817/>



January 2013

MOOCs and the Collaboration Industry, Wainhouse Research Note, Analyst: Alan D. Greenberg



2008	2009 - 2010	2011	2012	2013 - 2017
First MOOC: Athabasca U & Canadian National Research Council (2,300+)	MOOCs slowly take hold: PLENK2010, DS106, University of the People, PZPU	Stanford Intro to AI MOOC (130,000)	Udacity, Coursera, edX (rebranded MIT program)	Big Name U, trial and error, best practices, business "remodeling," mainstreaming

Figure 1: A Short Recent History – and Prediction for the Future – of the MOOC

August 5, 2013

Free Online Higher Education: 5 Best MOOCs

By Kannan Sankaran, Epoch Times

<http://www.theepochtimes.com/n3/220640-5-best-moocs-for-free-online-higher-education/>

<http://on.aol.com/video/recession-fuels-explosion-of-online-learning-517885097>

MOOC at UPenn; Recession Fuels Explosion of Online Learning

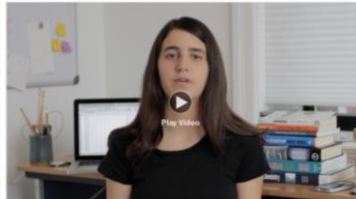
<http://www.youtube.com/watch?v=52rFm40l5w>



Why I spent 10th grade online. Sophia Pink, Washington Post, August 23, 2013

http://www.washingtonpost.com/opinions/why-i-spent-10th-grade-online/2013/08/22/20130822-0d8e-11e2-b0d3-309b96b626871_story.html

Why I spent 10th grade online



Video: Sophia Pink describes how she finished 10th grade online and why she's choosing to go back to the classroom.

By Sophia Pink, Published: August 22. (Email the writer ¶)



Extreme Forms of Learning.

Adventures of a Teenage Polyglot
New York Times, March 9, 2012, John Leland

http://www.nytimes.com/2012/03/11/nyregion/adventures-of-a-teenage-polyglot.html?_r=1&page=1

Adventures of a Teenage Polyglot



Adventures of a Teenage Polyglot



Timothy posts videos of himself speaking several languages on YouTube.

Flipped Learning August 1, 2014

Get schools out of the 1890s, Newt Gingrich, CNN

<http://www.cnn.com/2014/08/01/opinion/gingrich-schools-blended-teaching-technology/index.html?ch=13>

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

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



More on classroom flipping in colleges



View Photo Gallery — Flipping: The classroom's classroom of flipped instruction. Philip Diller is teaching a course called "The American Novel: Critical Studies Since 1900." It's a course with online courses, which offer the world a new sample of education from the elite public university. The public is able to register for the course and watch the video lectures for free, and Diller's class, which can watch the lectures on their own time, taking up precious classroom hours for in-depth discussion. This technique is known as "flipping the classroom."

1728: 1st correspondence course advertised Boston (learn shorthand from Caleb Phillips thru weekly mailed lessons)

The First University Correspondence Course
(University of London, External Program, 1858)

1728-1990s – Generally postal system based

1930s – phonograph and radio

1950s and 1960s – television

1970s and 1980s – VHS tapes

1980s and 1990s – DVD



September 15, 2014

Open, Distance and Online Learning: A Brief History, Sir John Daniel

International Conference on Emerging Technologies in Education and Computer Science, Universidad Da Vinci, Cancun, Mexico

<http://vimeo.com/106002761> (password knou)

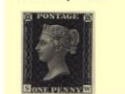
Notes and Slides: http://sirjohn.ca/wordpress/?page_id=29



Lord Geoffrey Crowther
Inauguration of the Open University
1969



Postal systems



Correspondence
course – 1841

Fall 2014, On Wisconsin

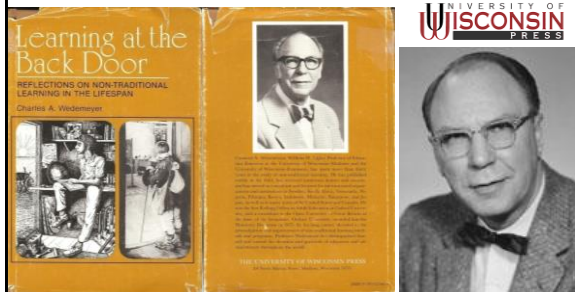
MOOC, Meet MORC (Massive Open Radio Course)

WHA, UW Madison, College of the Air, 1933,
Vocational Training dedicated to Agriculture,
and later Home Economics and Typing



MOOC, Meet MORC

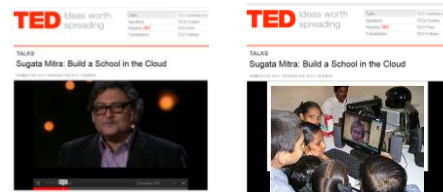
Took Correspondence & TV Courses (thanks to Bob Clasen and Charles Wedemeyer, the University of Wisconsin)



MOOCs from the Cloud February 2013

TED Talks

(Build a School in the Cloud; Self-Organized Learning Environments (SOLES), TED Talk from Sugata Mitra
http://www.ted.com/talks/sugata_mitra_build_a_school_in_the_cloud.html



MOOCs from a Refugee Camp August 1, 2014

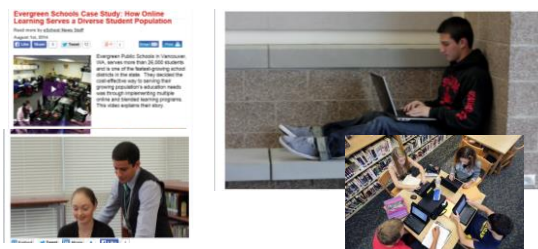
Can You Really Teach a MOOC in a Refugee Camp?, Chronicle of Higher Education, Steve Kolowich
http://chronicle.com/blogs/wiredcampus/can-you-really-teach-a-mooc-in-a-refugee-camp/54191?cid=at&utm_source=at&utm_medium=en



Two men living in Dadaab, a refugee camp in Kenya, would watch lecture videos and take online quizzes at a nearby United Nations compound. (InZone)

Learning is More Online August 1, 2014

Evergreen Schools Case Study:
How Online Learning Serves a Diverse Student Population, eSchool News
<http://www.eschoolnews.com/2014/08/01/evergreen-schools-case-study-online-learning-serves-diverse-student-population/>



The V-PORTAL (Bonk, IU) "Video Primers in an Online Repository for e-Teaching and Learning" V-PORTAL, TravelinEdMan (27 free/open YouTube videos) <http://www.youtube.com/user/TravelinEdMan>



Learning is More Massive Sample Course: 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#> Softcover (\$30): http://www.parlorpress.com/invasion_of_the_moocs Free (PDF): http://www.parlorpress.com/pdf/invasion_of_the_moocs.pdf



Global Health Initiatives

October 7, 2014

Online Mooc courses deliver Ebola health advice, BBC News, Sean Coughlan

<http://www.bbc.com/news/education-29521360>
<http://www.advancelearning.com/why-wait-for-others-to-fight-ebola>



WHY WAIT FOR OTHERS TO FIGHT EBOLA?

Disinfecting a room in Monrovia, Liberia: Online courses are providing health advice to fight Ebola.

Things are heating up!

<http://routledge-ny.com/books/details/9781138807419/>



MOOCs and Open Education Around the World

By Bonk, Lee, Reeves, & Reynolds

MOOCs and Open Education Around the World

<http://routledge-ny.com/books/details/9781138807419/>



MOOCs and Open Education AROUND THE WORLD



EDITED BY
CURTIS J. BONK, MIHAI M. LEE,
THOMAS C. REEVES
& THOMAS H. REYNOLDS

Audience Poll #2:

- I. Who remembers what they were doing on 911?
- II. Who remembers what they were doing on April 4, 2001?



Charles Vest (April 4, 2001)

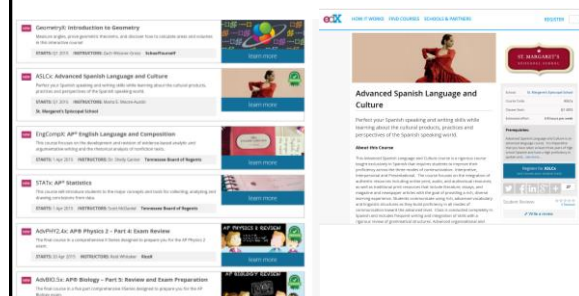
<http://web.mit.edu/newsoffice/2001/ocw.html>

"This is about something bigger than MIT. I hope other universities will see us as educational leaders in this arena, and we very much hope that OpenCourseWare will draw other universities to do the same. We would be delighted if -- over time -- we have a world wide web of knowledge that raises the quality of learning -- and ultimately, the quality of life -- around the globe."



October 6, 2014 High School Initiative

<https://www.edx.org/high-school-initiative>
<http://www.eschoolnews.com/2014/10/06/high-school-moocs-833/print/>



September 16, 2013

Rwandan Degree Program Aims for a 'University in a Box', Chronicle of Higher Education, Megan O'Neil
<http://chronicle.com/article/Rwandan-Degree-Program-Aims/141631/>



Students attend an orientation session at Kepler, a new hybrid program in Kigali, Rwanda, which will use MOOCs and classroom time to help students earn competency-based associate degrees.

May 18, 2014

Harvard goes all in for online courses
The Boston Globe, by Marcella Bombardieri

<http://www.bostonglobe.com/education/2014/05/17/harvard-harvests-online-classes/2014-05-17/action/BzBPhayfX3209a7icm5d5HJlory.html>

Harvard goes all in for online courses

The move to production video, progs, and pro, addressing

Harvard's move to production video, progs, and pro, addressing

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... and achievement



Figures as of April 27, 2014
 SOURCE: HarvardX GLOBE STAFF

November 2, 2012

The Year of the MOOC, New York Times, Laura Pappano,
http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html?_r=1&ref=education



Clockwise, from top left: an online course in circuits and electronics with an M.I.T. professor (edX); statistics, Stanford (Udacity); machine learning, Stanford (Coursera); organic chemistry, University of Illinois, Urbana (Coursera).

July 16, 2013

"Golden Era of Learning"
Bill Gates Discusses MOOCs at Microsoft Research's Faculty Summit
http://chronicle.com/article/A-Conversation-With-Bill-Gates/132591?cid=at&utm_source=at&utm_medium=en

On the Meaning of MOOC's

"Even though I only have a high school degree, I'm a professional student."

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WIRED CAMPUS
 The latest news on tech and education.

PREVIOUS

Next

Bill Gates Discusses MOOCs at Microsoft Research's Faculty Summit

July 16, 2013, 4:10 am

By Steve Grossman

Bill Gates says that this is the "golden era" of learning, thanks to massive open online courses and easy access to information. The chairman of Microsoft gave the keynote address on Monday at Microsoft Research's Faculty Summit, an annual event that brings together Microsoft researchers and academics from more than 200 institutions for a two-day conference in Redmond, Wash., on current issues facing computer science.

January 23, 2013: The Bush MOOC Party?

Academic Partnerships Launches MOOC2Degree Initiative
Free, Open Online Courses As A First Step Toward A Degree
<http://www.mooc2degree.com/>

MOOC2DEGREE

ABOUT US | PRESS ROOM | CONTACT US



Free, Open Online Courses As A First Step Toward A Degree

MOOC2Degree can help you achieve your academic goals, giving you the opportunity to try online learning for free. Academic Partnerships is partnering with many of its 40 public university partners to launch the MOOC2Degree initiative which provides you with free, open online courses that lead to academic credit as a first step toward your degree.



May 6, 2013

Faculty Backlash Grows Against Online Partnerships
Chronicle of Higher Education, Steve Kolowich

<http://chronicle.com/article/Faculty-Backlash-Grows-Against/139049/>

May 6, 2013

Faculty Backlash Grows Against Online Partnerships



Michael Sander, a Harvard professor, taught an online course that San Jose State U. asked its philosophy professors to use in place of their own instruction. They said no.

By Steve Kolowich

June 19, 2013**2013 is "The Year of the Anti-MOOC"**
George Siemens, UW-Madison Summit<http://ipobainghers.wordpress.com/european-mooc-in-global-context/>**Global Ed Issue of the Past Decade:
Free and Open Access to Education
(e.g., OER, OCV, MOOCs)****For example, January 2014 MOOC on
Climate Change, from the World Bank**
<https://www.coursera.org/course/warmerworld>**April 27, 2014****Coursera, Global Translator Community,
Chronicle of Higher Education**<https://www.coursera.org/about/translate>**Coursera Seeks to Create a 'Global
Translator Community'**Bring a great education to the world.
Join the **Global Translator Community**.

Sign Up

The Global Translator Community (GTC) is a community of volunteers and partner organizations working to make great educational content accessible across geographic and linguistic boundaries. GTC participants work together to translate top courses on Coursera into their native languages.

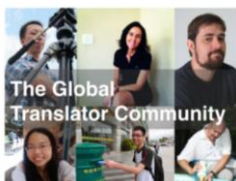
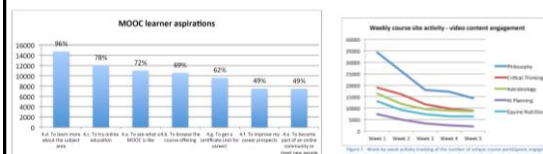
Join the GTC
Meet our translators**October 29, 2014****King of Free Online Courses May Soon Add Videochats
With Professors, Cade Metz, Wired**<http://www.wired.com/2014/10/king-free-online-courses-may-soon-add-videochats-professors/>**But there are problems...!****May 2013****1. Dropout (i.e., retention) Concerns
MOOCs @ Edinburgh 2013– Report #1**

Figure 1: Combined exit survey responses to Q6 "What did you hope to get out of the course and did it meet your expectations?" - calculated as a sum of exceeded expectations, met expectations, and fell below expectations responses - with percentage shown of total exit survey respondents

February 24, 2013

Big (MOOC) Data, Inside Higher Education, Dayna Catropa

<http://www.insidehighered.com/blogs/strategy/big-mooc-data>



June 13, 2014

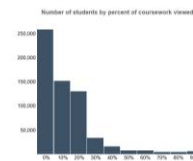
2. Lack of Engagement with Content

8 Things You Should Know About MOOCs
Chronicle of Higher Education, Jonah Newman and Soo Oh
<http://chronicle.com/article/MOOCs-EdX/146901/>

5. Nearly half of registrants never engage with any of the content

Courses are broken into anywhere from 11 to 48 chapters, but few students look at them all. Only 3 percent of participants look at every chapter, and fewer than one in 10 view even half of the material.

In fact, of those who viewed any course material, half looked at 11 percent of the course chapters or less.



April 17, 2014

3. Issues of Age, Gender, and Course Type

Infographic: Global MOOC statistics

eCampus News, Meris Stansbury

<http://www.ecampusnews.com/research/infographic-moocs-global-436/>

Infographic: <https://magic.piktochart.com/output/1747660-moocs>



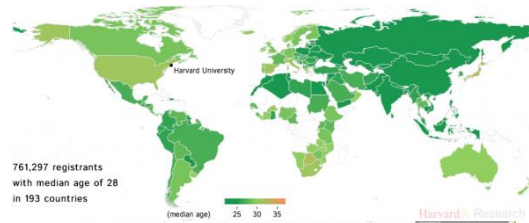
February 20, 2014

4. Issues of Impact and Elitism

Harvard and MIT Release Visualization Tools for Trove of MOOC Data

Lawrence Biemiller, Chronicle of Higher Education

<http://chronicle.com/article/Harvard-and-MIT-Release-Visualization-Tools-for-Trove-of-MOOC-Data/146901/>



April 21, 2014

Not Impacting the Underprivileged

The Revolution Is Not Being MOOC-ized, Students are educated, employed, and male.

Gayle Christensen and Brandon Alcorn, UPenn, New Scientist

<http://www.newscientist.com/article/20140321/moocs-not-educating-the-underprivileged-and-employed-and-male.html>



Filipino youths go online at an Internet café in Manila on Feb. 18, 2014. Two-thirds of Coursera participants come from the developed world, according to a new report.

June 12, 2014

5. Assessment and Credentialing Issues

Will a degree made up of Moocs ever be worth the paper it's written on?

The University of the People can now hand out degrees to its online students – but will employers take them seriously?, Louise Tickle The Guardian

<http://www.theguardian.com/higher-education-network/2014/jun/12/moocs-viable-alternative-traditional-degree>



Moocs can offer a lot, but they don't offer the feedback of a traditional degree.

February 27, 2013 (Inside HE)



8. Grade My Course (i.e., Yelp for Ed)

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

The screenshot shows the Grade My Course website interface. On the left, there's a video player for 'Introductory Organic Chemistry Part 1' by Jeff Moore. Below the video, a description states: 'This is a general chemistry course covering introductory topics in structural and reacting with an emphasis on structural fundamentals including chemical structures, nomenclature, and reactivity.' The right sidebar contains course details: a 'D+' grade, a 'Difficulty: HARD' rating, and a 'Workload: 10 HRS' estimate. At the bottom of the sidebar is a 'Grade This Course' button. The bottom of the page shows a list of related courses with their respective grades and workloads.

Example. May 28, 2014
Alexander the MOOC Lands
Inside Higher Education, Guy M. Rogers
<http://www.insidehighered.com/blogs/higher-ed-beta/alexander-mooc-lands#barbush.UAIXSK7.dpbs>

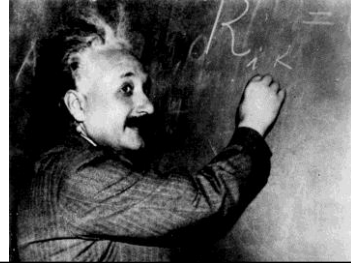
"Inspiring engagement, passion, and a love of learning are of course harder outcomes to measure...Without any prompting from EdX or WellesleyX students also decided to form ongoing Alexander study groups. MOOCs can inspire students all over the world and change their lives too." (Guy MacLean Rogers is Kemper Professor of Classics and History at Wellesley College.)



Mystery of MOOCs: Part III. 5 Types of MOOCs



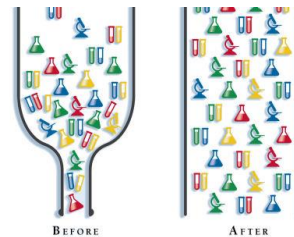
MOOC Type #1. Theory- or Trend-Driven MOOC



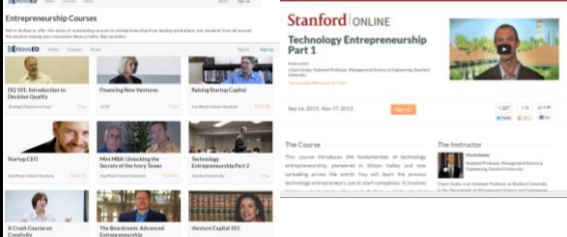
MOOC Type #2. Remedial Course MOOC



MOOC Type #3. Degree or Program Qualifier or System Bottleneck MOOC



MOOC Type #4. Professional Development (PD) (practical) MOOC



MOOC Type #5. Oral History MOOC



ORAL HISTORY
PROJECT

'History Harvest' Project May Spawn a New Kind of MOOC

December 21, 2012, 4:55 am
By Marc Parry



massive open online courses, or MOOC's.

Mystery of MOOCs: Part IV. Five MOOC Business Plans and Models



MOOC Business Model #1. Advertisers Underwrite Courses and Degrees



MOOC Business Model #2. Small and Flexible Application or Enrollment Fee



MOOC Business Model #3. Course Assessment Fee

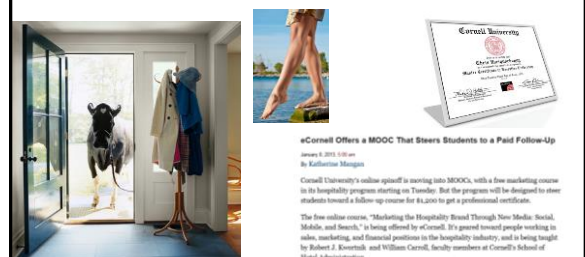


MOOC Business Model #4. Certificate Fee (with sticker)

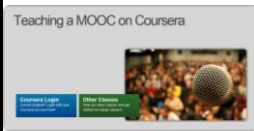
<https://twitter.com/drchuck/status/262423228717355009/photo/1>



MOOC Business Model #5. Free Entryway Course



Mystery of MOOCs: Part V. Ten MOOC Instructor Guidelines



MOOC Instructor Guide #1. Plan and Prepare

October 12, 2012

Radical rethink: how to design university courses in the online age, Paul, Wappett, The Conversation, Australia

<http://theconversation.uwa.edu.au/public-rethink-how-to-design-university-courses-in-the-online-age-8232>

THE CONVERSATION

TRADITIONAL STUDY MODEL - LINEAR



ONLINE STUDY MODEL - DYNAMIC



MOOC Guide #2. Designate Feedback Providers and Tasks (especially in Week One)



MOOC Guide #3. Use Peer, Machine, Volunteer, and Self-Assessment



MOOC Guide #4. Address Participants by Geographic Region



MOOC Guide #5. Personalize Where Possible

Chuck Severance (U Michigan/Coursera) in
Barcelona, Seoul, Manila, Melbourne, etc.

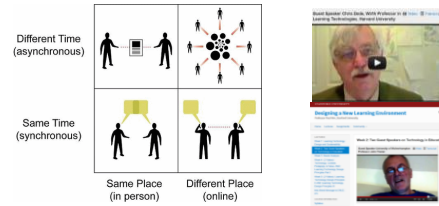
<http://www.youtube.com/watch?v=JzNHmSv8T1I>



MOOC Guide #6. Form Groups and Social Supports



MOOC Guide #7. Combine Sync and Async Instruction



MOOC Guide #8. Arrive Early for Sync Session



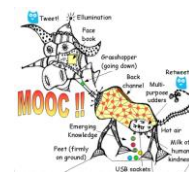
MOOC Guide #9. Share Resources and Recap them Weekly



MOOC Guide #10. Involve the Participants (e.g., use debates, polling questions)



Audience Poll #4: Would you like to teach or take a MOOC now? A. Yes... B. No...



Gordon Lockhart, Berry,
<http://iberry.com/>
<http://git55.wiredcampus.com/2011/03/08/cck11-man-this-mooc-is-something-else/>

Part II.
Education 3.0:
Embrace MOOCs or Disappear

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



**What about the Instructor
 in the Open World?**



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



1. Instructor as Counselor



2. Instructor as Consultant



3. Instructor as Course Ambassador



4. Instructor as Curator



5. Instructor as Concierge



6. Instructor as Camping Trip Guide



Expert Apprenticeship from Video



1. Expert Presentations with Audience Questioning and Commenting

The guest expert makes a formal or semi-formal presentation of ideas, activities, cultural norms and practices, or research to the class.



2. Expert Demonstrations and Audience Questioning

The guest expert demonstrates a certain technique, idea, principle, etc., while the learners observe and ask follow-up questions.



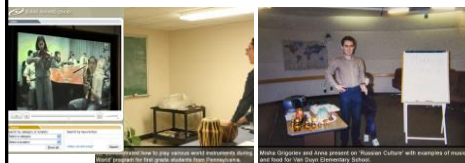
3. Responding to Book or Article Quotes

The learners come to the synchronous session with quotes from those articles or resources for the guest expert to respond to.



4. Expert Cultural Sessions

The guest might conduct a short presentation of some aspect of their culture followed by questions from the class.

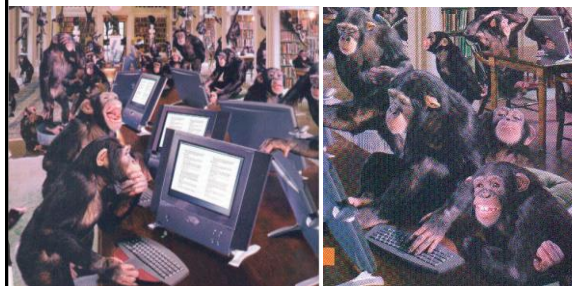


5. Expert Life Stories

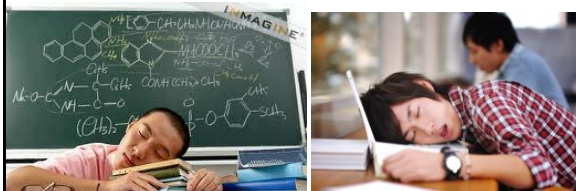
The guest expert might detail different stories or situations that he or she has encountered related to a certain topic of the class. Students in the class can comment on them and ask questions as needed.



Part II: TEC-VARIETY and R2D2 Models



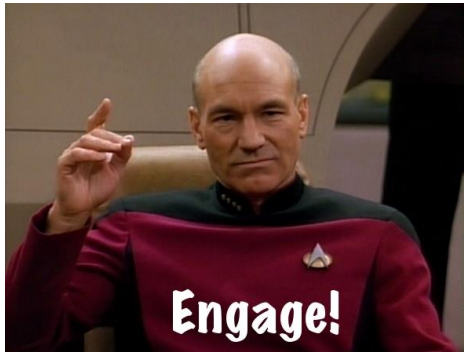
Motivation and Engagement



What did Jean-Luc Picard say?



That's right, Engage!



**How do
we engage
online?**



What was it that he said?



**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.



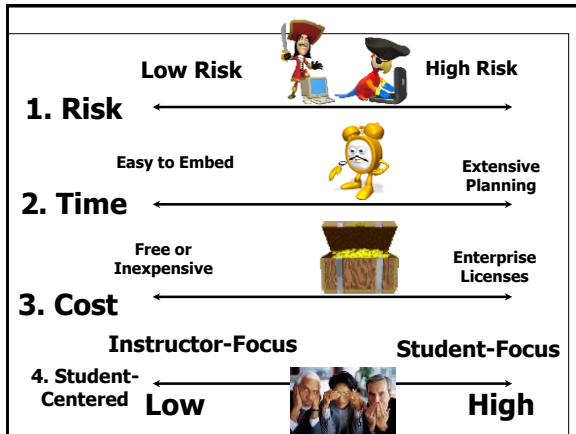
Framework #2. **Introducing the "TEC-VARIETY"** **book...**

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



What motivates?

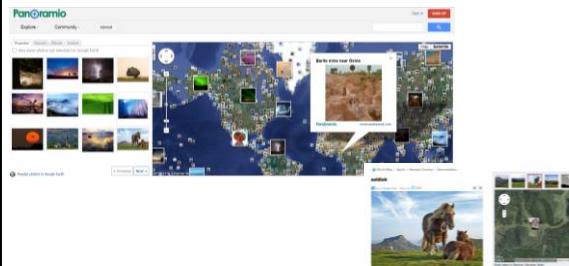
1. **Tone/Climate:** Psychological Safety, Comfort, Sense of Belonging
2. **Encouragement:** Feedback, Responsiveness, Praise, Supports
3. **Curiosity:** Surprise, Intrigue, Unknowns
4. **Variety:** Novelty, Fun, Fantasy
5. **Autonomy:** Choice, Control, Flexibility, Opportunities
6. **Relevance:** Meaningful, 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



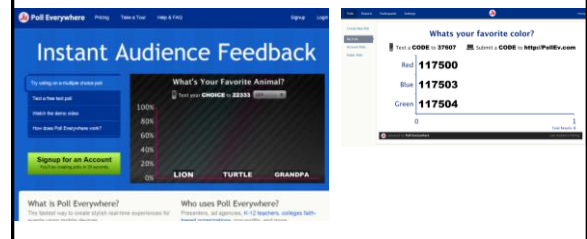
Examples of TEC-VARIETY



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



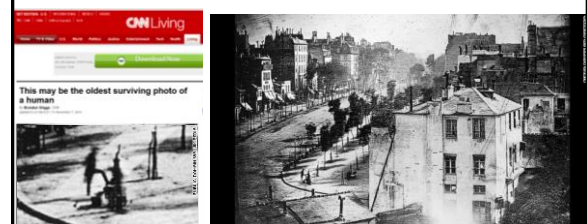
2. Encouragement, Feedback, etc.: A. Blog and Website Polling (e.g., Poll Everywhere, BlogPolls, BlogPoll, MicroPoll) <http://www.pollereverywhere.com/>



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

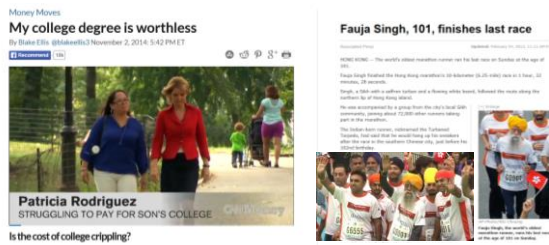


3. Curiosity, Fun: A. Something in the News (e.g., This may be the oldest surviving Photo of a human, November 7, 2014, CNN, Brandon Griggs; But this image, taken in Paris, France, in 1838) http://www.cnn.com/2014/11/06/living/oldest-photograph-human-daguerre/index.html?hpt=hp_14_kong



3. Curiosity, Fun: B. Something in the News (e.g., My college degree is worthless, November 2, 2014, CNN Money, Blake Ellis)

http://money.cnn.com/2014/11/02/pdf/collage/for-profit-college-degrees/index.html?h=hp_15
http://espn.go.com/sports/endurance/story/_/id/1073487/fauja-singh-101-caps-career-10h-hong-kong

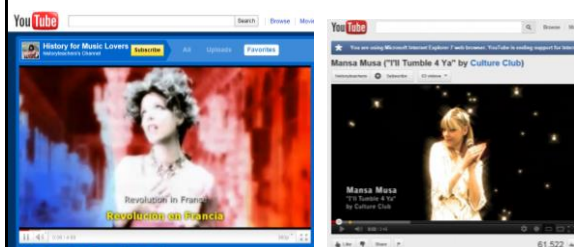


October 31, 2014 3. Curiosity, Fun: C. Remote Research (e.g., Penguin Science, Jean Pennycook)

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



3. Curiosity, Fun: D. History for Music Lovers The French Revolution ("Bad Romance" by Lady Gaga) Trojan War ("Tainted Love" by Soft Cell) Charlemagne ("Call Me" by Blondie) The Vikings ("Personal Jesus" by Depeche Mode) <http://www.youtube.com/user/historyteachers>

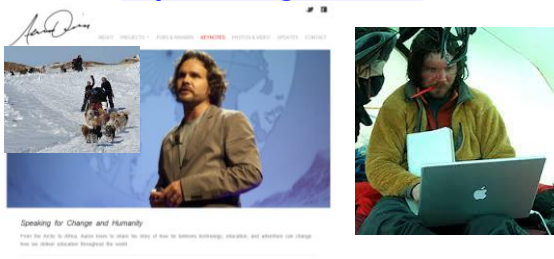


3. Curiosity, Fun: E. Tracking the Life of a Scientist (e.g., Brian J. Ford, independent scientist) <http://www.youtube.com/user/tellymonitor#p/a/u/1/LhGeApsKjas> <http://www.labnews.co.uk/news/prehistoric-revolution/>

LaboratoryNews



3. Curiosity, Fun: F. Adventurous Learning Aaron Doering, Chasing Seals, TEDx <http://chasingseals.com/>



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

RANDOM.ORG

RANDOM.0

Coin Flipper

You Request 2 coins of type Irish 41:



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

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

Dice Roller

You rolled 2 dice:



Timestamp: 2011-08-13 01:14

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

List Randomizer

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

Here is your sequence:

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

Timestamp: 2011-08-13 01:19

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

5. Autonomy, Choice: A. Enroll in a MOOC and Reflect Programming for Everyone

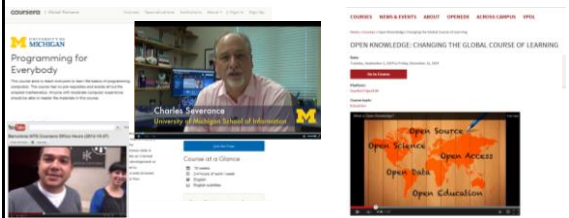
(Chuck Severance, University of Michigan)

Open Knowledge: Changing the Global Course of Learning

September 2, 2014 to December 12, 2014, Stanford

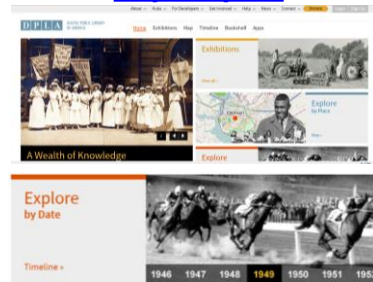
<https://www.class-central.com/>

<http://loedb.org/open/>



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

<http://dp.la/>



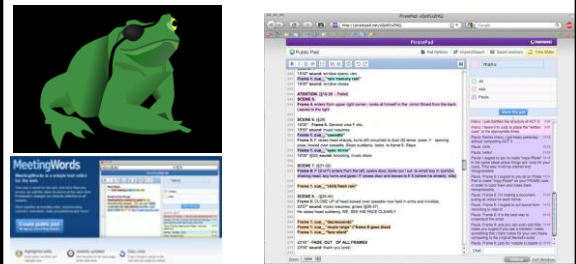
6. Relevance, Meaningfulness: A. Project-based Learning



7. Interactive, Collaborative: A. Negotiate Meanings Online

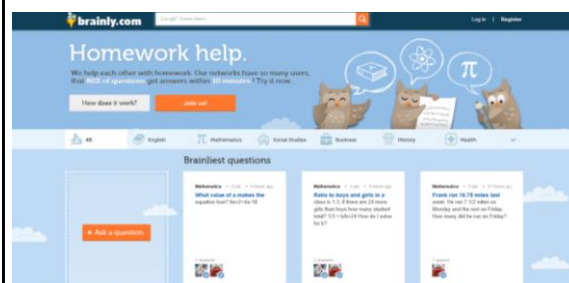
(e.g., PiratePad: <http://meetingwords.com/>)

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: B. Homework Help (e.g., **Brainly.com**)

<http://brainly.com/>



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



9. Tension, Challenge, etc.:

A. 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.vocabulary.com/news/2014/01/13/vocabulary-schools-online-competition-students-teachers-6555867/>
Vocabulary.com: <https://www.vocabulary.com/>

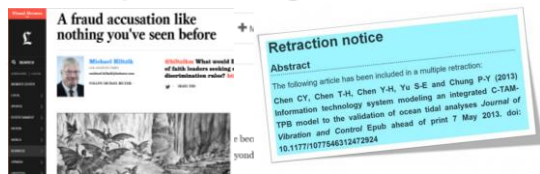


July 10, 2014

9. Tension, Challenge, etc.:

B. 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/>

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



10. Yields Products, Goals:

A. Goal Setting Tools

(e.g., I Done This, Milestone Planner, and 43 Things)



10. Yields Products, Goals:

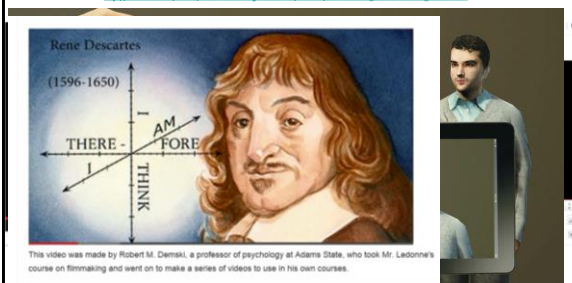
B. Fresh Writing, Interactive Archive of Exemplary First-Year Writing Projects
(University of Notre Dame, September 24, 2014)
<https://freshwriting.nd.edu/>



10. Yields Products, Goals:

C. Course Video Summaries and Multimedia Team Assignments (April. 24, 2014)

Piercarlo Abate: <http://www.youtube.com/watch?v=-TUR2H00aU>
Qi Li, Gangnam: <http://www.youtube.com/watch?v=7Q429lqZaU8&feature=youtu.be>
Miguel Lara (Web 2.0 FREEDOM): <http://www.youtube.com/watch?v=8cmCFW9l9W8>
<https://www.youtube.com/watch?v=8cmCFW9l9W8>



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



The End...(Part #1)

Two Cheers for Web U!

A. J. Jacobs, New York Times

http://www.nytimes.com/2013/04/21/opinion/sunday/grading-the-moc-university.html?openwid=1&_r=3&mcetad=1&_ga=2.111111111.111111111.111111111.111111111.111111111

Two Cheers for Web U!



Audience Poll #2:

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

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



I just Love It when they "make it so!"



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/?_ga=2.111111111.111111111.111111111.111111111.111111111

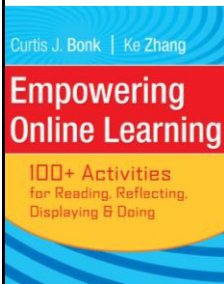
Star Trek-like holodeck may be closer to reality than you think

MATT HARTLEY: I COULDN'T PUT IT

View from Matt Hartley's @mhartley



Framework #3: The R2D2 Model



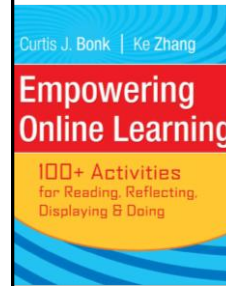
Addressing Learning Styles



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)



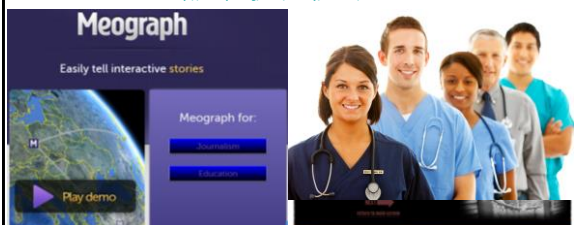
1. Auditory or Verbal Learners

- 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/>)
Timelines with Oral Histories, Slavery and the Making of America
Time and Place, PBS
<http://www.pbs.org/wnet/slavery/timeline/1857.html>



Read 1b. Grammar 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. 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>

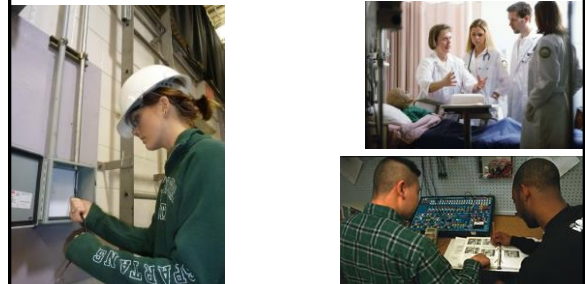


Read 1b. Twitter Fed Class Discussions

<https://twitter.com/HeartCPR>



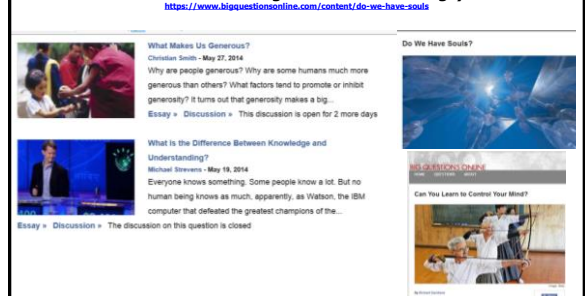
Reflect 2c. Workplace Internship, Practicum, and Field Experiences



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



Reflect 2e. 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>



3. Visual Learners

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



Display 3a. Interactive Timeline Maps, October 22, 2014

Second immigration wave lifts diversity to record high: Edward Greg Toppo and Paul Overberg, USA Today

<http://www.statetoday.com/topics/news/texas/2014/10/22/immigration-diversity-change-101.aspx?cid=111111>

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 Poppo, USA TODAY

Display 3b. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)

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

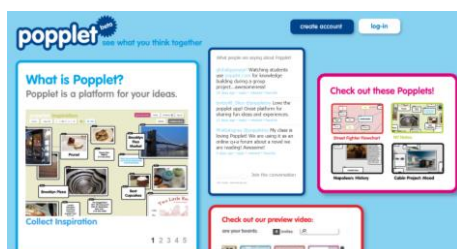


Display 2c. Reflections on Interactive Maps Mapping the Dead: Gun Deaths Since Sandy Hook, Huffington Post, March 22, 2013

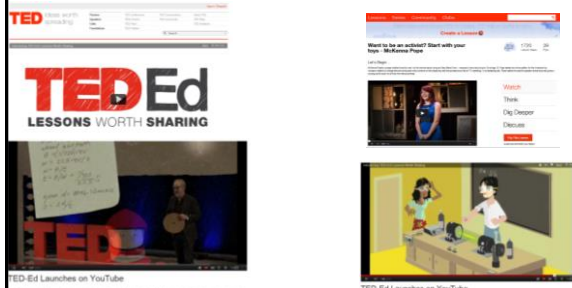
<http://data.huffingtonpost.com/2013/03/gun-deaths>



Display 3d. Student Collaborative Knowledge Building and Sharing (e.g., Popplet: <http://popplet.com/>)



Display 3e. Shared Online Video Tests and Quizzes (e.g., TED-Ed) <http://education.ted.com/>



Display 3f.

Anchored Instruction in Shared Online Videos (e.g., WonderHowTo)

Each abdominal thrust attempts to clear the victim's airway of the foreign object by forcing air out through the windpipe.

Dealing with Burn Injuries

4. Tactile/Kinesthetic Learners

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



Do 4a. Student Class Documentaries

Umida's R546 Documentary Project

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



Poll #3: Which do you prefer... R2D2 or TEC-VARIETY?



What motivates?

1. Tense/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 #5: Who is Stretched Now?

Try TEC-VARIETY...Try R2D2

Slides at: TrainingShare.com

Papers: PublicationShare.com

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

Dr. Curt Bonk – CJBonk@Indiana.edu



Poll #5: Which do you prefer... R2D2 or TEC-VARIETY?



What motivates?

1. Time/Climate: Psychological Safety, Comfort, Sense of Belonging
2. Encouragement: Feedback, Responsiveness, Praise, Supports
3. Curiosity: Surprise, Intrigue, Unknowns
4. Variety: Novelty, Fun, Fantasy
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactivity: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Investment
9. Tension: Challenge, Dissonance, Controversy
10. Yielding Products: Goal Driven, Purposeful Vision, Ownership



Poll #4: 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.



Bonk's Last Principles of Teaching/Instruction

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



1. The Principle of Flexibility

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



2. The Principle of Convenience

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



3. The Principle of Collegiality

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



3. The Principle of Collegiality???

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



4. The Principle of Cheerfulness and Optimism

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



5. The Principle of High Expectations

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



6. The Principle of Choice and Options

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



7. The Principle of Empowerment and Autonomy

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



8. The Principle of Support and Feedback

<http://traveledman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



9. The Principle of Spontaneity

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



10. The Principle of Organization

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



11. The Principle of Sharing

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



12. The Principle of Nontraditional Learning

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



13. The Principle of Passion and Inspiration

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



14. The Principle of Relevance and Meaningfulness

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>

