

Education 20/20: En"vision"ing the LAST Principles You'll Ever Need

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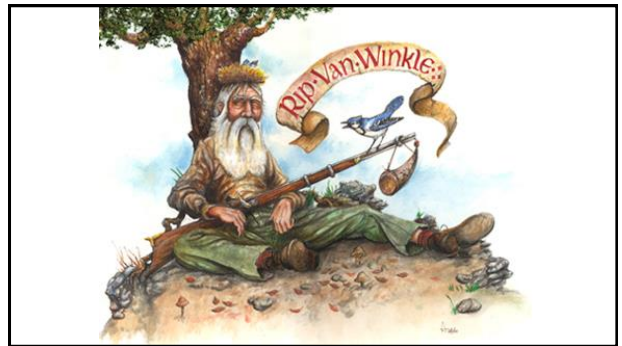


Talk Overview

1. Education 20/20 and the Role of the Instructor
2. First and Last Principles of Instruction
3. 4 E-Learning Ages
4. Megatrends of Learning: Engagement, Access, and Customization (30 ways that learning is changing...)
5. Future Trends and Ideas



(Circa Confucius 551–479 BCE)



Education 20/20



1. Instructor as Counselor



2. Instructor as Conductor



3. Instructor as Course Ambassador



4. Instructor as Curator



5. Instructor as Concierge



Bank's Last Principles of Teaching/Instruction (The PBL Instructor?)

<http://traveledman.blogspot.com/2011/05/banks-last-principles-of-instruction.html>
<http://www.applicadthal.com/articles/education-4-9/>



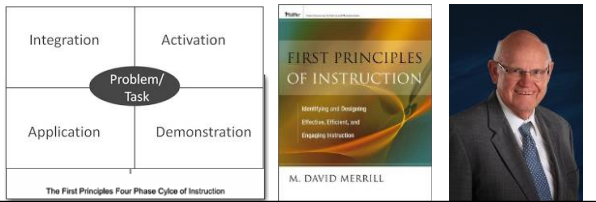
20 New Roles of the Instructor

Captain **Course Ambassador** **Consumer Advocate**
Counselor **Curator** **Cook** **Change Catalyst**
Conductor **Concierge** **Comedian**
Camping Trip Guide **Coach**
Consultant **Course Expedition Leader** **Collaborator**
Community Organizer **Chemist** **Care Giver**
Cultivator **Colleague**



Merrill's First Principles of Teaching/Instruction

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



1. The Principle of Flexibility

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



6. The Principle of Choice and Options

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



7. The Principle of Empowerment and Autonomy

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



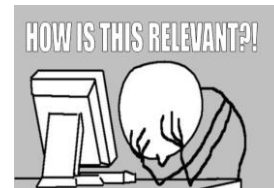
11. The Principle of Sharing

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



14. The Principle of Relevance and Meaningfulness

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



15. The Principle of Trial and Error (i.e., it is ok to fail)

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



16. The Principle of Expanded Resources

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



Bonk's 20 "Last" Principles of Instruction (LAST = Learning Activation System Template)

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

Choice and Options

Flexibility Support and Feedback Nontraditional Learning

Convenience Spontaneity Passion and Inspiration

Collegiality Organization Relevance and Meaningfulness

Cheerfulness and Optimism Sharing Trial and Error (i.e., it is ok to fail)

High Expectations Purpose and Vision Expanded Resources

Empowerment and Autonomy Human Connectedness #20 ???


Cognitive Apprenticeship




Clearly... Learning is Changing!






Poll #1: Do you remember the days before e-learning?



Fast Forward 30+ More Years... "Anyone can now learn anything from anyone at any time."




Education 3.0...Education 20/20

"In Education 3.0, classrooms would move away from lectures, such as this one, to having class time be spent on discussions and projects, using digital technology."
(Per Wikipedia: https://en.wikipedia.org/wiki/Education_3.0)


The World is Open: How Web Technology Is Revolutionizing Education



世界是开放的
网络技术如何变革教育
The World Is Open
How Web Technology Is Revolutionizing Education

TEN OPENERS: (WE-ALL-LEARN)

1. Web Searching in the World of E-Books
2. E-Learning and Blended Learning
3. Availability of Open Source and Free Software
4. Leveraged Resources and OpenCourseWare
5. Learning Object Repositories and Portals
6. Learner Participation in Open Information Communities
7. Electronic Collaboration
8. Alternate Reality Learning
9. Real-Time Mobility and Portability
10. Networks of Personalized Learning





THE WORLD IS OPEN
How Web Technology Is Revolutionizing Education

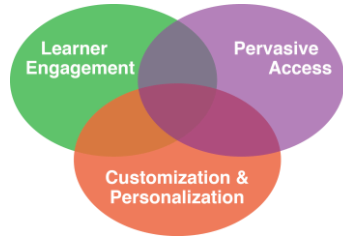


Thirty Ways Learning is Changing...

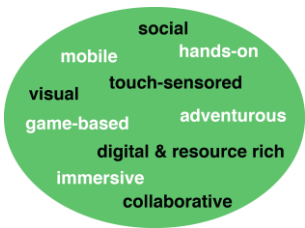
(i.e., it's more informal, video-based, ubiquitous, collaborative, self-directed, global, mobile, open, massive, etc.)

30+ Ways Learning is Changing: The Mega Trends



How Learning is Changing: Mega Trend #1. Learner Engagement



August 17, 2016 Learning is More Hands-On

Research: 3D Printing Market to Double by 2020

Joshua Bolkan, Campus Technology
<http://campustechnology.com/articles/2016/08/17/report-3d-printing-market-to-double-by-2020.aspx>

Research: 3D Printing Market to Double by 2020
By Joshua Bolkan | 08/17/16





February 7, 2017 (Engagement)
Learning is More Social
 YouTube takes on Facebook with mobile live
 Jefferson Graham, USA Today
<http://www.usatoday.com/story/tech/2017/02/07/youtube-takes-facebook-mobile-live/97566932/>

YouTube takes on Facebook with mobile live



May 31, 2017
Learning is More Digital and Resource Rich
Enticing Students to Read Again
 Ellen McCracken, The Chronicle of Higher Education
 Digital Dubliners—a guide to Joyce's stories written for students by students, will bring a new reading experience to today's classroom.
<http://www.chronicle.com/article/Digital-Dubliners-a-guide-to-Joyce-s-stories-written-for-students-by-students-will-bring-a-new-reading-experience-to-today-s-classroom/232600>




February 27, 2017 (Engagement)
Learning is More Immersive
Augmented and Virtual Reality Spending to Double in 2017, Sri Ravipati, THE Journal
<https://thejournal.com/articles/2017/02/27/augmented-and-virtual-reality-spending-to-double-in-2017.aspx>
 Worldwide: "forecasts the AR/VR market to reach \$1.3 billion in 2017 — up 130.5 percent from the \$6.1 billion spent in 2016. Furthermore, AR/VR spending is expected to accelerate over the next several years, achieving a compound annual growth rate (CAGR) of 198 percent over the 2015-2020 forecast period and reaching \$143.3 billion in 2020."



May 18, 2017
Learning is More Immersive
Google Cardboard
 Google Expeditions Adds Augmented Reality for Classrooms
 Sri Ravipati, THE Journal
<https://thejournal.com/articles/2017/05/18/google-expeditions-adds-augmented-reality-for-classrooms.aspx>
<https://www.youtube.com/watch?v=2Y5a9W7Ug>
 27 seconds <http://cartoon.com/thejournal22.html>
 38 seconds <http://cartoon.com/thejournal22.html>
 1: 10: <http://cartoon.com/thejournal.html>



May 7, 2015 (Engagement)
Learning is More Adventurous
Aaron Doering, Chasing Seals, TEDx
<http://chasingseals.com/>
<https://twitter.com/chasingseals>



July 22, 2016 (Engagement)
Learning is More Game-like
When Pokémon Goes to Campus: The Good, the Bad, and the Ugly
 Gabriel Sandoval, Chronicle of Higher Education
<http://www.chronicle.com/article/When-Pok%C3%A9mon-Goes-to-Campus-The-Good-the-Bad-and-the-Ugly/218340>



Pokémon Go players converged last week on the U. of Nebraska at Lincoln's Memorial Stadium, which officials had opened to the animated-monster hunters. The hit augmented-reality game has prompted many colleges to jump on the bandwagon.

August 23, 2016 (Engagement)
Learning is More Collaborative
 e.g., reef videoconferencing
 (Great Barrier Reef, Australia)
<http://www.reefqa.com.au/education-at-reef-hq-aquarium/reef-videoconferencing>



February 15, 2017 (Engagement)
Learning is More Synchronous
 Shindig, Future Trends Forum, Bryan Alexander
<https://bryanalexander.org/the-future-trends-forum/>
<http://www.shindig.com/>
<http://events.shindig.com/event/rtf-anniversary>




February 17, 2016 (Engagement)
Learning is More Mobile
 World's Cheapest Smartphone at \$3.67
https://m.facebook.com/hanhsia/launched?refid=528&_in=&_n%3D6
https://m.facebook.com/story.php?story_fbid=1015339690123127&story_fbid=102527938797
<http://gadgets.ndtv.com/videos/trendon-251-launched-as-worlds-cheapest-smartphone-at-rs-251-4040a>

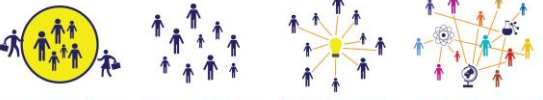


Samsung is hoping to have 10,000 apps by the time the Gear S3 launches this fall.

How Learning is Changing:
Mega Trend #2. Pervasive Access



The Evolution of E-Learning (All 7 year cycles)



Phase I, 1994: THE AGE OF PORTALS AND PAGES (NETSCAPE GOES PUBLIC).


Phase II, 2001: THE AGE OF OPENNESS (MIT OCV & WIKIPEDIA BORN).

Phase III, 2008: THE AGE OF MOOCS (FIRST MOOC OFFERED).

Phase IV, 2015: THE AGE OF PERSONALIZATION.

Other prior significant e-learning dates: 1985: FIRST ONLINE COURSE, LINDA HARASIM, UNIV. OF TORONTO; 1987: HYPERCARD FIRST SHIPPED.

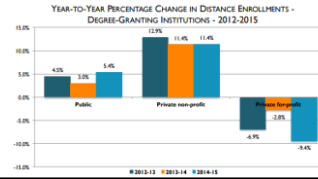
Learning is More Online (Access)
June 15, 2014
 Starbucks offers workers 2 years of free college, CNN Money, Gregory Wallace
 (from Arizona State online programs)
http://money.cnn.com/2014/06/15/news/economy/starbucks-schultz-education/index.html?hpt=hp_s2
<http://www.cnn.com/2014/06/15/tech/starbucks/college-education-for-thousands-of-workers.html>



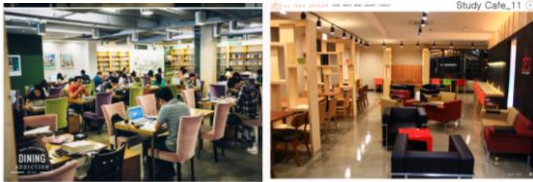
November 22, 2016
Learning is More Online (Access)
 Indiana University, Online Course Enrollments
<https://cbi.bi.u.edu/>



May 2, 2017
Learning is More Online (Access)
 'Volatile' but Growing Online Ed Market,
 Carl Straumsheim, Inside Higher Ed
<https://www.insidehighered.com/digital-learning/article/2017/05/02/online-ed-market>



August 1, 2016 (Access)
Learning is More Ubiquitous
 363 by Idea Group; Study Café Meeting Place; Idea Space (Seoul, Korea)
http://363.co.kr/wp/?page_id=244
http://363.co.kr/wp/?m=gallery&study-cafe_11



May 7, 2014 (Access)
Learning is More Global
 CNA - Speaking Exchange (video chats)
<https://www.youtube.com/watch?v=5v51rnpF0K>
 FCB Brazil and the CNA language school network are launching the Speaking Exchange project, which connects CNA students in Brazil with Americans living in retirement homes.



August 5, 2015 (Access)
Learning is More Informal
 Shubham Jaglan (10 years old) Overwhelmed by "Dream" Return Home After Double World Championship
 Disha Chopra, NDTV Sports
<http://reports.ndtv.com/story/news/2015/08/05/india-golf-prodigy-shubham-jaglan-returns-home-after-double-world-championship>
<http://www.youtube.com/watch?v=6H7H13M1m3w>



May 19, 2016 (Access)
Learning is More Free and Open
 From MOOC to bootcamp to MIT
 MIT News, Office of Digital Learning
 (Jin Wu—from MITx to MIT Global Entrepreneurship Bootcamp to master's student)
<http://news.mit.edu/2016/mooc-bootcamp-mit-0519>



May 3, 2017
4 out of 5 Companies Have Hired a Coding Bootcamp Graduate
Sri Ravipati, Campus Technology
<https://campustechmag.com/2017/05/03/4-out-of-5-companies-have-hired-a-coding-bootcamp-graduate/>



Code.org said Thursday that it has enrolled more than 14,000 students in its CS Principles course. About half of the students are Latino or African American. (The Atlantic and Science, Assessment/Post)

Resumes with "coding bootcamp" education experience
 For 1,000,000 resumes on Indeed



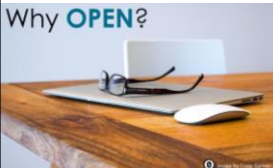
April 6, 2017 (Access)
Learning is More Free and Open
Indiana University's eText program saves students over \$3.5 million
 (Program makes digital textbooks cost less and do more, grows 56 percent),
Indiana University Newsroom
<https://inews.iu.edu/articles/2017/indiana-university-student-program-saves-students-over-3.5-million.php>




Indiana University's eText program saves students over \$3.5 million
 https://inews.iu.edu/articles/2017/indiana-university-student-program-saves-students-over-3.5-million.php

March 27, 2017 (Access)
Learning is More Free and Open
Beyond Free: Harnessing the resonant value in open and collaborative practices for the public good
David Porter, CEO, eCampus Ontario, Open Education Ontario Summit
https://www.slideshare.net/David_Porter
<https://www.ocis.ca/events/open-education-ontario-summit>

Why OPEN?

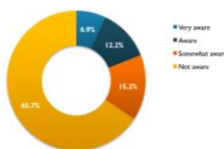


There is a direct relationship between textbook costs and student success

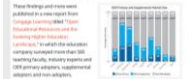


July 2016
The Awareness Problem: Opening the Textbook: Educational Resources in U.S. Higher Education, 2015-2016
I. Elaine Allen and Jeff Seaman, Babson Survey Research Group
<http://www.onlinelearningurvey.com/reports/openingthetextbook2016.pdf>

AWARENESS OF OPEN TEXTBOOKS: 2015-16




OER Use to Triple Over Next 5 Years




May 4, 2016 (Access)
Learning is More Video-Based
What I Learned at the ASU GSV Summit
Kenneth Green, Inside Higher Ed
<https://www.insidehighered.com/digital-learning/article/2016/05/04/what-i-learned-at-the-asu-gsv-summit>
July 18, 2016 (Access)
Survey: Video Usage in Ed Continues Ramp-up,
Dian Schaffhauser, THE Journal

ASU GSV Summit




33 Interactive Thought Leader Interviews from the ASU GSV Innovation Summit



Learn Anything Using the World's Best Resources

May 14, 2016 (Access)
Learning is More Immediate...
Mastodon bones offer clues of earliest humans in North America, Faith Karimi, CNN
Abstract: <http://advances.sciencemag.org/content/2/5/e1600375>
Full Article: <http://advances.sciencemag.org/content/2/5/e1600375.full>
Supplemental materials (PDF): <http://advances.sciencemag.org/content/suppl/2016/05/10/10.1126/sciadv.1600375.DC1>
PDF: http://advances.sciencemag.org/content/suppl/2016/05/10/10.1126/sciadv.1600375.DC1/1600375_S01.pdf

Mastodon bones offer clues of earliest humans in North America



Science Advances

NEW THIS MORNING
 DISCOVERY COULD CHANGE AMERICAN HISTORY
 CNN

NEW THIS MORNING
 OLDEST SITE OF HUMAN LIFE FOUND IN SOUTHEAST U.S.
 CNN

May 9, 2017 (Access)
Learning is More Immediate...
Meet Zuul, the new dinosaur species named after 'Ghostbusters' demon
Traci Watson, USA Today
<https://www.usatoday.com/story/news/2017/05/09/ghostbusters-dinosaur-ghostbusters/101475468/>
 15 second: <http://curtbonk.com/ghostbusters15.html>
 27 second: <http://curtbonk.com/ghostbusters27.html>

Meet Zuul, the new dinosaur species named after 'Ghostbusters' demon

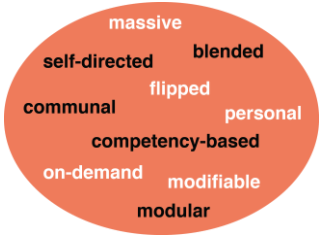


ZUUL CRIVIRASTATOR

June 20, 2016 (Access)
Learning is More Direct from Experts
(e.g., The Expert Café)
<http://expertsafe.com/>



How Learning is Changing:
Mega Trend #3. Customization



massive

self-directed blended

communal flipped personal

competency-based

on-demand modifiable

modular

May 12, 2017 (Customization)
Learning is More Modifiable
The Future of Collaboration Spaces Encompasses Video Interactive, Mobile, Julie Johnston, IU, Campus Technology
<https://www.campustechnology.com/news/2017/05/12/iu-campustech-expands-its-active-learning-mission/>



October 14, 2011
Learning is On Demand
Siri (co-founder Tom Gruber)
<http://www.imore.com/siri>



May 9, 2017 (Customization)
Amazon Echo Show brings chatty Alexa to a two-way, video touchscreen
Edward C. Baig and Elizabeth Weise, USA Today
<https://www.usatoday.com/story/tech/columns/2017/05/09/amazon-echo-show-alexa-101448844/>
 24 seconds: <http://curtbonk.com/jetsons24.html>
 44 Seconds: <http://curtbonk.com/jetsons44.html>



January 20, 2016 (Customization)
Learning is More Blended
Universities tap growth of craft beer, offer classes, Chicago Tribune
<http://www.chicagotribune.com/business/ct-college-craft-beer-offer-classes-20160120-story.html>



The screenshot shows a news article with a headline 'Universities tap growth of craft beer, offer classes'. It features several images: a group of people in a brewery, a person working at a bar, and several bottles of craft beer from brands like Ballast Point and Bruery.

March 23, 2017 (Customization)
Learning is More Personal
Arizona State U Launches Open, Adaptive Lessons on Space Exploration
Rhea Kelly, Campus Technology
<https://www.campus-technology.com/articles/2017/03/23/arizona-state-u-launches-open-adaptive-lessons-on-space-exploration.html>




The screenshot shows a person sitting at a desk in a computer lab, looking at a monitor displaying a space exploration simulation. The simulation includes a 3D view of a planet and various data panels.

May 20, 2016 (Customization)
Learning is More Massive
agMOOCs (India)
<http://www.agmoocs.in/>



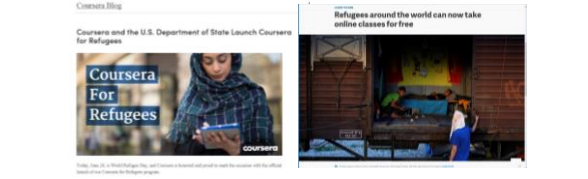
The screenshot shows the agMOOCs website interface on the left, which includes a logo and navigation menu. On the right is a photograph of a person working in a lush green agricultural field.

April 20, 2015 (Customization)
Learning is More Massive
250 MOOCs and Counting: One Man's Educational Journey, Chronicle of Higher Education
<http://chronicle.com/article/250-MOOCsCounting-One/229397?cid=at>
 If the MOOC movement has faded, nobody told Jima Ngei. Mr. Ngei, who lives in Port Harcourt, Nigeria, has completed and passed 250.



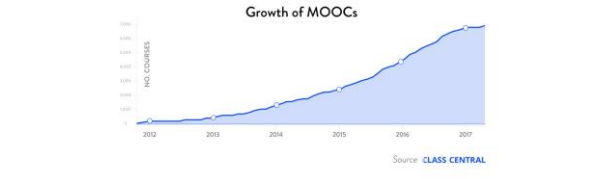
Jima Ngei: "I had this unrelenting fear that this miracle of free access might evaporate soon."

June 20, 2016
Coursera on a Mission to Help Refugees
Lauren Camera, US News and World Report
<http://www.usnews.com/news/articles/2016-06-20/coursera-on-a-mission-to-help-refugees>



The screenshot shows a news article with a headline 'Coursera on a Mission to Help Refugees'. It includes a sub-headline 'Courses and the U.S. Department of State Launch Courses for Refugees' and a photograph of a woman looking at a laptop.

December 25, 2016
By The Numbers: MOOCs in 2016
Dhawa Shah, Class Central
<https://www.class-central.com/report/mooc-stats-2016/>



The graph is titled 'Growth of MOOCs' and shows the number of MOOCs over time. The y-axis is labeled 'NO. COURSES' and ranges from 0 to 1000. The x-axis shows years from 2012 to 2017. The data shows a steady upward trend, starting near zero in 2012 and reaching approximately 1000 courses by 2017.

Year	Approximate Number of Courses
2012	50
2013	100
2014	200
2015	400
2016	700
2017	1000

Source: CLASS CENTRAL

December 25, 2016 Class Central

<https://www.class-central.com/course/mooc-date-2016/>

58M Students **700+** Universities **6850** Courses

MOOCs in 2016. Analysis by Class Central

June 15, 2017 MOOCs for Credit Class Central

<https://www.class-central.com/course/moocs-for-credit/>

August 12, 2016 (Customization) A Life of Happiness and Fulfillment Indian School of Business, Rajagopal Raghunathan

<https://www.class-central.com/course/2860/course-a-life-of-happiness-and-fulfillment>

March 3, 2017 (Customization) edX Expands MicroMasters Programs With Data Science ("nanodegrees") Digital Leadership and More, Sri Ravipati, Campus Technology

<https://edx.mit.edu/news/2017/03/03/edx-expands-micromasters-programs-with-data-science-digital-leadership-and-more>

MOOCs and Open Education Around the World

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

July 1, 2015 (Customization) Chapter 14: Creating a Temporary Spontaneous Mini-Ecosystem through a MOOC Paul Kim and Charlie Chung, Stanford University Figure 2. Twitter thread announcing the MOOC

June 14, 2016 (Customization)

Chapter 15: Learning About MOOCs by Talking to Students
Charles Severance, Univ. of Michigan
Anuar Lequerica, Class Central
<https://www.class-central.com/report/06-check-graduate-ceremony-python-specialization/>

30+ Ways Learning is Changing: Recapping the Three Mega Trends: Engagement, Access, and Customization

Needed: New Models of Motivation and Engagement

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

1. **Tone/Climate:** Psych Safety, Comfort, Belonging
2. **Encouragement, Feedback:** Responsive, Supports
3. **Curiosity:** Fun, Fantasy, Control
- ...
4. **Variety:** Novelty, Intrigue, Unknowns
5. **Autonomy:** Choice: Flexibility, Opportunities
6. **Relevance:** Meaningful, Authentic, Interesting
7. **Interactive:** Collaborative, Team-Based, Community
8. **Engagement:** Effort, Involvement, Excitement
9. **Tension:** Challenge, Dissonance, Controversy
10. **Yields Products:** Goal Driven, Products, Success, Ownership

Introducing the free "TEC-VARIETY" Framework...

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

作者: Curtis J Bank & Elaine Khoo II

April 3, 2017

1. Tone/Climate: A. Sli.do

<https://www.sli.do/>

2. Encouragement, Feedback:

A. Demonstrations and Tutorials

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

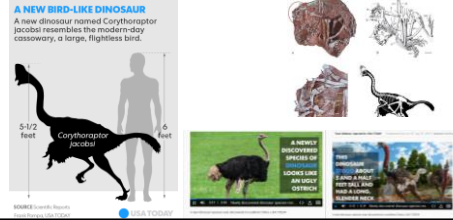


July 27, 2017

3. Curiosity, Intrigue, Unknowns:

A. Meet Corythoraptor: Newly found dinosaur resembles ostrich gone bad

Traci Watson, USA Today



April 3, 2017

4. Variety, Novelty, Fun, Fantasy:

A. Kahoot!

<https://getkahoot.com/>

July 31, 2017

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



December 8, 2015

5. Autonomy, Choice:

A. Design Multimedia Glossaries

P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary
<http://natwvymt1982.wix.com/p540courseglossary>
 Ozgur Ozdemir, December 2012
<http://r68sglossary.shutterfly.com/>
 Umida Khikmatillaeva, Dec. 2011, P540
<http://learningplanet.shutterfly.com/>



6. Relevance, Meaningfulness:

A. MOOC Class Meet-Ups

Beer Matters: Free Online Class With Meetups
 (September 6, 2017-October 21, 2017),
 Karl Brown, Assistant Professor of History

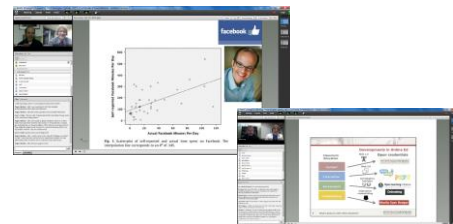
http://www.gasethetra.com/2015/09/21/new_withwrite_teacher_analyses_links_between_german_beer_politics_and_culture/
 Video: <http://curtbonk.com/beer.html> (1:11)



7. Interactive, Collaborative:

A. Guest Speaker Quotes

(Rey Junco, February 25, 2013)




July 17, 2017


8. Engagement, Involvement:
A. Learning Chemistry in Virtual Reality,
Sarah Hardman, New Learning Times

<https://newlearningtimes.com/cms/article/4519/learning-chemistry-in-virtual-reality>
 1:38 video: <https://vialogues.com/vialogues/play/38337/>
 All: <http://curtbank.com/chemistry-vr.html>
 01-41: <http://curtbank.com/chemistry-vr-1.html>
 41-1:16: <http://curtbank.com/chemistry-vr-2.html>
 1:16-1:36: <http://curtbank.com/chemistry-vr-3.html>

Learning Chemistry in Virtual Reality



Learning Chemistry in Virtual Reality



December 13, 2016

9. Tension, Challenge, Controversy, etc.:
A. Controversial Issue Debates
Librarians for Instructional Technology, Latrice Booker, R511, Fall 2016

<http://bookerlr2000.wisc.edu/librariansfor/cognitivism>
ASST Librarian, Vista Hills to Central Wisconsin Association, 1101 East Drive, Ashland, WI 54806, USA



July 28, 2017


9. Tension, Challenge, Controversy, etc.:
A. Modern medicine breathes new life into virtual training

<https://www.sasidra.com/videos/tech/2817/97/modern-medicine-breathes-new-life-into-virtual-training/164972696/>

Videos

2:34 (entire video): <http://curtbank.com/vr-medicine4b.html>
 .01-.21: <http://curtbank.com/vr-medicine2.html>
 .37-.56: <http://curtbank.com/vr-medicine3.html>
 .57-1:29: <http://curtbank.com/vr-medicine3.html>
 1:30-2:27: <http://curtbank.com/vr-medicine4.html>

Modern medicine breathes new life into virtual training





10. Yields Products, Goals:
A. Database Collection Tools
Design Article Database in Pinterest,
Meina Zhu and Jennifer Weebeck


<https://www.pinterest.com/zhu-meina0000/1-678-emerging-learning-technology/>
<https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/>



March 12, 2016

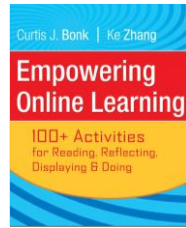
10. Yields Products, Goals:
B. Student Generated Timelines, Taxonomies, and Concept Maps


R678 John Falchi, Timeglider, An Abbreviated History of Distance Education
<http://timeglider.com/2016/03/26/86097868/06097868-06097868-06097868/>



- ▶ Emergence of MOOCs in Canada
- ▶ Three Views on Propelling Educational Innovation
- ▶ Connectionism - George Siemens
- ▶ Emergence of the Theory of Transactional Distance
- ▶ 1990 - Operant Conditioning - Response and Stimulus
- ▶ 1928 - U.S. DOE Establishes Distance Learning
- ▶ 1960s - Instructional Media (AIM) Project
- ▶ 1960s - First Fully Online University
- ▶ 1960s - Million Americans Studying via Correspondence
- ▶ 1980s - Constructivism - Jean Piaget (1896 - 1980)
- ▶ 1990s - Online Learning Enabled via WWW and LMS
- ▶ 2000s - Open Universities Emerge Around the World
- ▶ Emergence of MOOCs in United States

Model #2: The R2D2 Model:
Read, Reflect, Display, Do...





May 28, 2015

Read. Immediate Science and Open Access Science

Ancient jawbones put new species on the human family tree, researchers say, Laura Smith-Spark, CNN

<http://www.cnn.com/2015/05/28/africa/ethiopia-fossil-hominin-ancestor/index.html>
<http://www.cnn.com/2015/05/28/africa/ethiopia-fossil-hominin-ancestor/index.html>
<http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html>

Reflect. Big Issue Reflections

(Big Questions Online (BQO)), Feb 3, 2015

(e.g., [Can a Living Creature Be as Big as a Galaxy?](http://www.bigquestionsonline.com/))

July 21, 2017

Display. A total solar eclipse is happening Aug. 21 and here's what you need to know

Sarah Kaplan, The New York Times

<https://www.nytimes.com/2017/07/21/science/aug-21-solar-eclipse-8-questions-answered.html>
<https://www.nytimes.com/2017/07/21/science/aug-21-solar-eclipse-8-questions-answered.html>
<https://www.nytimes.com/2017/07/21/science/aug-21-solar-eclipse-8-questions-answered.html>

(next one is August 21, 2017)

Do 4. Student Website Development

R511 Final Projects, April 2016

IT and IPT Comparison (Website), Doug Hsu
<http://dougandindra.wix.com/r511finalproject>
 IST Construction, Co.,
 Rob Elliot, Patrick Walsh, Erin Milano, R511, December 2016
<http://relliott.net/istconstruction/index.php>
 "Cousins but Not Twins: Instructional Technology and Human Performance Technology,"
 Merve Basdogan and Brett Gary, R511, December 2016
<http://educbasdogan.wixsite.com/r511final>

Poll #2: Which Model or Framework do you Prefer?

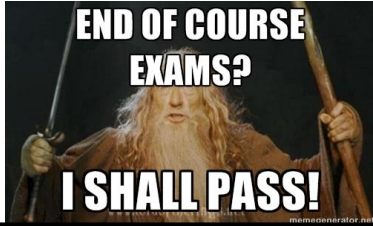
<http://tec-variety.com/>

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: Challenges, Dissonance, Controversy
10. Yielding Products: Goal Driven, Purposeful Vision, Ownership

WHAT'S NEXT

Poll #3:
Who is now interested in Education 20/20...?



We are entering a jumping off point...

(South University of Science and Technology of China, Wednesday June 10, 2015)



Things are heating up...

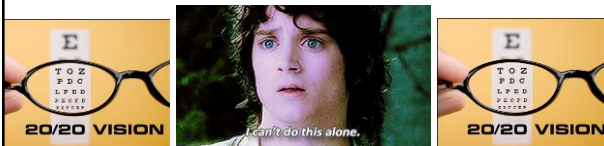


Education 20/20 is coming within reach!



Remember for Education 20/20 to make an impact:
"I cannot do this alone."

"I cannot do this alone."
 "I cannot do this alone."
 "I cannot do this alone."



Any Questions or Comments?

Slides at: TrainingShare.com
 Papers: PublicationShare.com
 Free book: <http://tec-variety.com/>
 Email: curt@worldisopen.com

