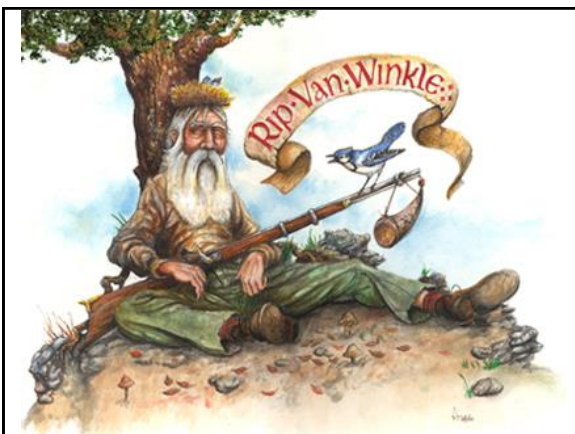


Learning is Changing Part 1: Blended Learning A to Z: Myths, Models, and Moments of Magic

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



Academos Plato Circa 428–347 BCE



The Problem with Learning Technology

Karen Wilcox, November 7, 2014, Chronicle of Higher Education

https://chroniclevitae.com/news/792-the-problem-with-learning-technology?cid=rat&utm_source=nl&utm_medium=en



May 10, 2013 10 ed-tech tools of the 70s, 80s, and 90s eSchool News, Meris Stansbury

<http://www.eschoolnews.com/2013/05/10/10-ed-tech-tools-of-the-70s-80s-and-90s/print/>



Life as an accountant/CPA in a high tech company in the 1980s...



Fast Forward 30+ Years...

"Anyone can now learn anything from anyone at any time."

SKILLSHARE LEARN TEACH

Learn anything from anyone, anywhere.



Join us! Start learning and discover unique classes in your city.

Thirty Ways (actually 18) Learning is Changing...

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



I. Learning is More Mobile

(e.g., mobile courses on smartphone)

April 2, 2015

Review: Samsung rises to challenge with Galaxy S6 and S6 Edge



II. Learning is More Flipped



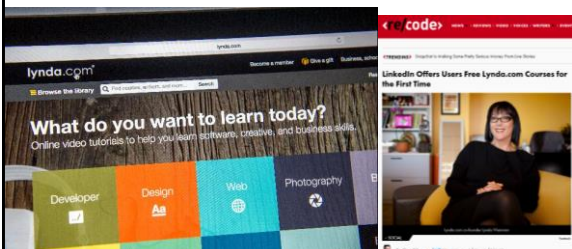
III. Learning is More Video-Based

June 16, 2015

Lynda.com Excel Training, IU

Acquired for \$1.5 Billion, April 23, 2015

<http://www.lynda.com/Excel-tutorials/Excel-2010-Essential-Training/61219-2.html>



IV. Learning is More Visual

September 22, 2014

110 Foot Engagement,

Elliott Masie's Learning 2014

<http://www.learning2014.com/index.php/item/110-foot-screen-engagement.html>



V. Learning is More Direct from Experts February 2, 2015

Here Comes Professor Everybody: The 'sharing economy' meets higher education,
Chronicle of Higher Education, Jeffrey R. Young
<http://chronicle.com/article/Here-Comes-Professor-Everybody/151445?cid=at>



VI. Learning is More Informal June 29, 2015

Is Facebook the next frontier for online learning?
Christine Greenhow; greenhow@msu.edu, Andy Henion
<http://msutoday.msu.edu/news/2015/is-facebook-the-next-frontier-for-online-learning/>



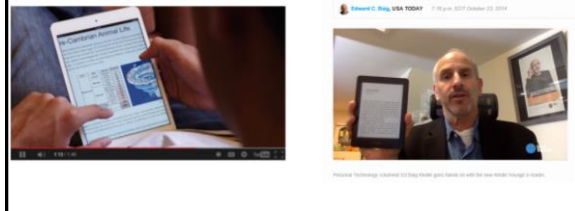
VII. Learning is More Adventurous May 7, 2015

Aaron Doering, Chasing Seals, TEDx
<http://chasingseals.com/>
<https://twitter.com/chasingseals>



XIII. Learning is More Digital October 23, 2014

New Amazon Kindle is a Voyage into eReader luxury, USA Today, Edward C. Baig
<http://www.usatoday.com/story/tech/columnists/edward-baig/2014/10/23/amazon-kindle-voyage-into-e-reader-luxury/16940000/>



IX. Learning is More On Demand May 5, 2014

Mobile MOOCs: New platform challenges conventional MOOCs
eCampus News (<https://coursmos.com/>)
<http://www.ecampusnews.com/top-moocs/new-platform-challenges-conventional-moocs/print/>



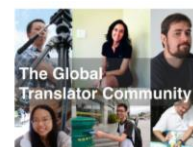
X. Learning is More Personal Localization and Translation of Open Content

Coursera, Global Translator Community, Chronicle of Higher Education
<https://www.coursera.org/about/translate>

Coursera Seeks to Create a 'Global Translator Community'

Bring us great education to the world.
Join the Global Translator Community

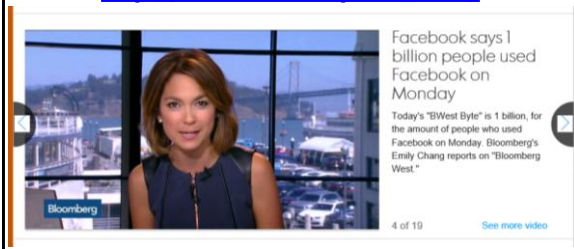
The Global Translator Community (GTC) is a community of volunteers and partner organizations working to make great educational content accessible across GTC is increasing on...



September 1, 2015 XI. Learning is More Social

Facebook says 1 billion people used Facebook on Monday, USA Today

<http://www.usatoday.com/tech/>



January 19, 2015 XII. Learning is More Synchronous

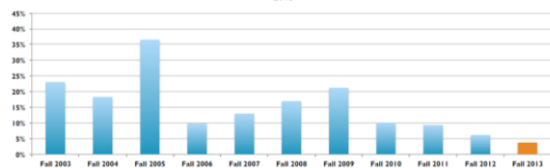
(International Open Badges Extravaganza)
European Meeting in Zoom, November 2015)



February 5, 2015 XIII. Learning is More Online

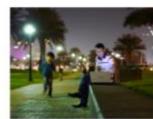
2014 Survey of Online Learning
Grade Level: Tracking Online Education in the United States, 2014, Online Learning Consortium (formerly Sloan-C), by I. Elaine Allen and Jeff Seaman
<http://www.onlinelearningconsortium.com/reports/gradelevel.pdf>
<http://edition.cnn.com/videos/business/2015/03/11/yale-offers-online-degree-2u-ceo.cnn>

GROWTH RATE OF NUMBER OF STUDENTS TAKING AT LEAST ONE ONLINE/DISTANCE COURSE - 2003 TO 2013



Learning is More Online 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?hpid=hp_12
<http://www.nytimes.com/2014/06/16/us/starbucks-to-provide-free-college-education-to-thousands-of-workers.html>



XIV. Learning is More Free August 5, 2014

OpenStax Aims To Bring Free Digital Textbooks to High Schools, David Nagel, THE Journal

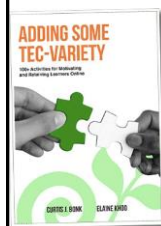
<http://thejournal.com/articles/2014/08/05/openstax-aims-to-bring-free-digital-textbooks-to-high-schools.aspx>

New mobile app helps a Cambridge press offer free digital monographs even to those without computers



Want something FREE? 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

XV. Learning is More Open (December 2, 2014)

Nature, Openwords, etc.

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

<https://www.facebook.com/Openwords>



XVI. Learning is More Massive

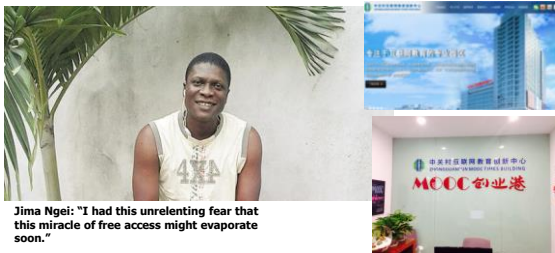
**Sample Course: Open Knowledge:
Changing the Global Course of Learning**
September 2, 2014 to December 12, 2014, Stanford

<https://class.stanford.edu/courses/Education/OpenKnowledge/Fall2014/about#Software> (\$30): http://www.palgrave.com/invasion_of_the_mooocs
Free (PDF): http://www.palgrave.com/pdf/invasion_of_the_mooocs.pdf



April 20, 2015

**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."

MOOCs and Open Education Around the World

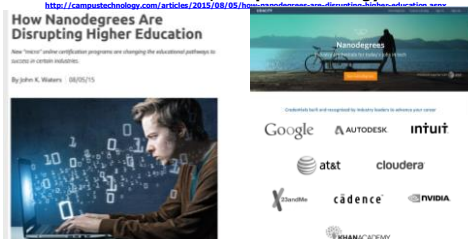
<http://routledge-ny.com/books/details/9781138807419/>



August 4, 2015 XVII. Learning is More Modular How Nanodegrees Are Disrupting Higher Education

John Waters, Campus Technology

<http://campustechology.com/articles/2015/08/05/how-nanodegrees-are-disrupting-higher-education>



January 20, 2016

**Universities tap growth of craft beer,
offer classes, Chicago Tribune**

<http://www.chicagotribune.com/business/ct-college-craft-beer-offer-classes-20160120-story.html>



January 20, 2016

Universities tap growth of craft beer, offer classes, Chicago Tribune

<http://www.chicagotribune.com/business/ct-college-craft-beer-offer-classes-20160120-story.html>

Portland State University in Oregon started an online Business of Craft Brewing program in 2013. It has become one of the school's most successful professional certificate programs, drawing people from around the world, said Scott Gallagher, the university's director of communications.



January 20, 2016

Universities tap growth of craft beer, offer classes, Chicago Tribune

<http://www.chicagotribune.com/business/ct-college-craft-beer-offer-classes-20160120-story.html>

"We discovered that there's a huge need for people who wanted to get a certificate," Gallagher said. "They didn't necessarily want to go to college or already had a college degree and wanted to open up a brew pub."



XVIII. Learning is More Blended March 22, 2015

Madagascar marvel:

Divers find fossils of extinct giant lemurs

Daisy Carrington, for CNN, March 22, 2015

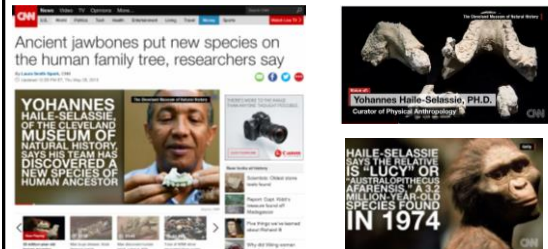
<http://www.cnn.com/2015/03/19/africa/underwater-fossil-lemur-graveyard-madagascar/index.html>



May 28, 2015 (Immediate, Digital, and Resource Rich)

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>



May 28, 2015

New species from Ethiopia further expands Middle Pliocene hominin diversity, Nature

<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>

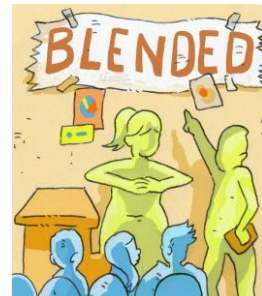


October 15, 2015

An EdTech Buzzword Bingo Card

NPR Ed, Anya Kamenetz

<http://www.npr.org/sections/ed/2015/10/15/436984129/an-edtech-buzzword-bingo-card>



Learning is More Blended...

1. Definitions of blended learning
2. Myths of blended learning
3. Models of blended learning
4. Examples of blended learning



Who Needs Blended and Online Learning?



Winter Weather Alerts
Alerts issued by the National Weather Service, in association with Winter Storm Kayla.

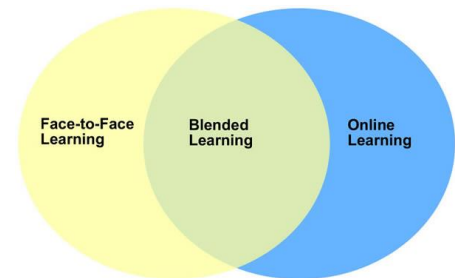
May 31, 2015 MERS, South China Morning Post

<http://www.scmp.com/news/hong-kong/health-environment/article/213259/mer-cases-south-china-morning-post>

Mers case brings back memories of Hong Kong's Sars outbreak



Answer: Blended Learning



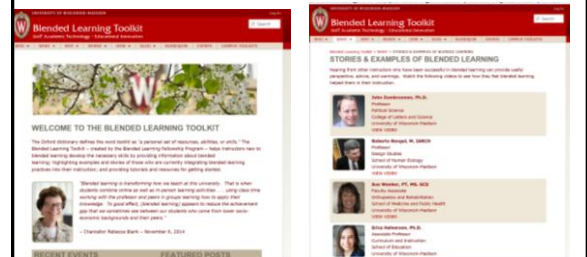
January 31, 2016 Hybrid Courses University of Wisconsin Milwaukee

<http://www4.uwm.edu/hybrid/>



January 30, 2016 Welcome to the Blended Learning Toolkit, University of Wisconsin

<https://blendedtoolkit.wisc.edu/blended-learning-modules-offer-dvm-students-more-complete-education/>



January 30, 2016 The Blended Learning Toolkit University of Wisconsin Madison

<https://blendedtoolkit.wisc.edu/blended-learning-modules-offer-dvm-students-more-complete-education/>



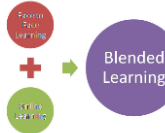
Myth #1: If you read the enough research you will be able to know the impact of blended learning.

1. Improved Pedagogy
 - More interactive instead of transmissive
 - Authentic, real world, etc.
2. Increased Access/Flexibility
3. Increased Cost Effectiveness



Myths #2: Blended learning is easy to define. Myth #3: Blended learning is hard to define. Blending Online and F2F Instruction

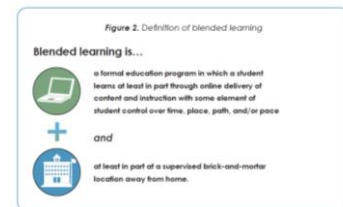
"Blended learning refers to events that combine aspects of online and face-to-face instruction" (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)



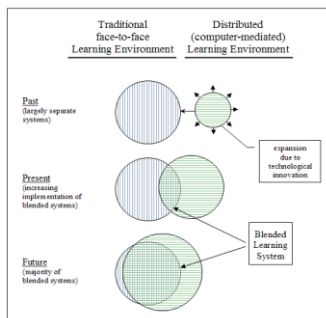
Classifying K-12 Blended Learning Heather Staker and Michael B. Horn, May 2012

<http://www.projectred.org/uploads/The-Rise-of-K-12-Blended-Learning.pdf>

"Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home *and at least in part* through online delivery with some element of student control over time, place, path, and/or pace."



Historical Emergence of Blended (Graham, 2006)



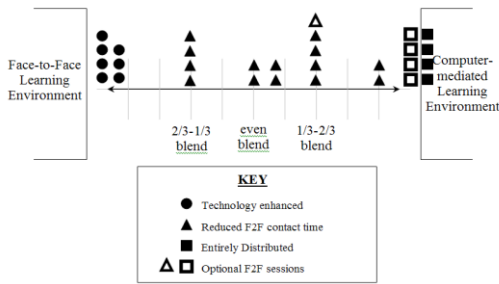
Myth #4: People will know what I am saying when I say "blended learning." Myth #5: Blended is the same as "hybrid."

The Sloan Consortium

Proportion of content delivered online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used - content is delivered in writing or orally.
1 to 29%	Web facilitated	Course which uses web-based technology to facilitate what is essentially a face-to-face course. Might use Blackboard or WebCT to post the syllabus and assignments, for example.
30 to 79%	Blended/Hybrid	Course that is a blend of the online and face-to-face course. Substantial proportion of the content is delivered online, typically uses online discussions, typically has some face-to-face meetings.
80+%	Online	A course where the vast bulk of the content is delivered online. Typically has no face-to-face meetings.



Myth #6: Knowing "how much" to blend is vital. Range of Blends in Pew Cases



Source: Graham, C. R., & Allen, S. (2005). Blended learning: An emerging trend in education. In C. Howard & J. V. Boettcher & L. Justice & K. D. Schenk & P. L. Rogers & G. A. Berg (Eds.), *Encyclopedia of Distance Learning* (pp. 172-179). Hershey, PA: Idea Group Inc.

Myth #7: Blended learning works everywhere. Where is Blended Beneficial?

- Intro Classes (Spanish, psych, algebra, biology)
- AP Classes
- Classes with low success rates
- Classes with students working part-time
- Required classes
- Students are rural or spread over a distance
- Classes with certification or standardization
- Classes with new requirements or standards
- Writing intensive classes, theory classes, etc.
- Lab classes?

Examples of Blended Learning

- Put assessments/reviews online
- Online discussions
- Online labs
- Put reference materials on Web
- Deliver pre-work online
- Provide office hours online
- Use mentoring/coaching tool
- Access experts live online



January 30, 2016 Welcome to the Blended Learning Toolkit, University of Wisconsin

<https://blendedtoolkit.wisc.edu/blended-learning-modules-offer-dvm-students-more-complete-education/>



Myth #8: People learn more in face-to-face settings than blended or fully online ones.

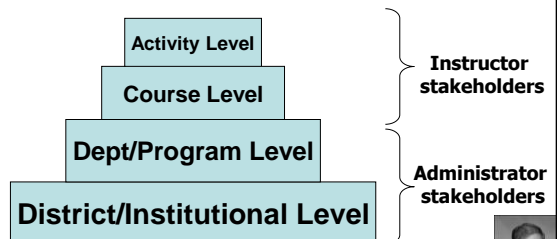
Fully Online and Blended Learning Advantages

1. Increased Learning (better papers, higher scores)
2. More effective pedagogy and interaction
3. Course access at one's convenience and flexible completion (e.g., multiple ways to meet course objectives)
4. Reduction in physical class or space needs, commuting, parking, etc.
5. Increased opportunities for human interaction, communication, & contact among students
6. Introverts participate more

Myth #9: Instructors can have a logical discussion with administrators about blended learning.

Models of Blending

Blending occurs at the following four levels:

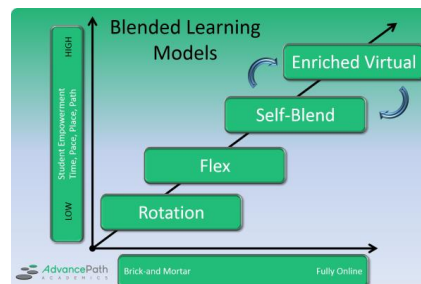


Myth #10: There is a best model of blended.
**AMA Special Report, Effectively
 Implementing a Blended Learning Approach**
 (Steven Shaw & Nicholas Ignieri, 2006)

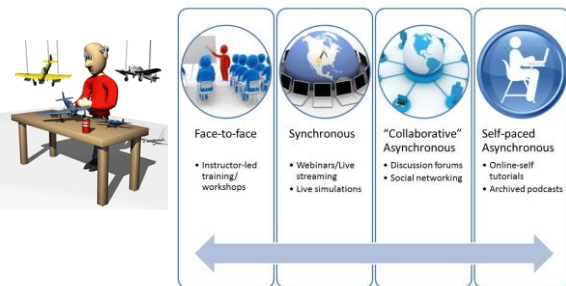


Source: American Management Association, AMA at Work

**Myth #10:
 There is a best model of blended.**



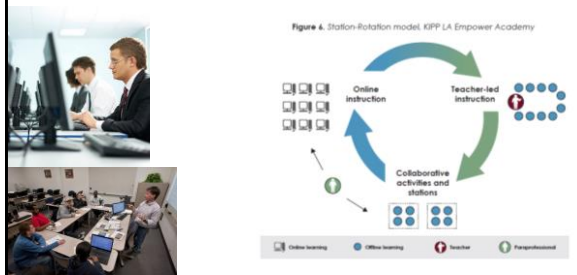
Seven Example Blended Learning Models



**Blended Model #1.
 Face-to-Face Primary
 (online is for remediation of supplement)**



**Blended Model #2. Rotation
 (students alternate FTF and Online instruction)**



**Blended Model #3. Flex
 (curriculum primarily online with instructors available FTF)**



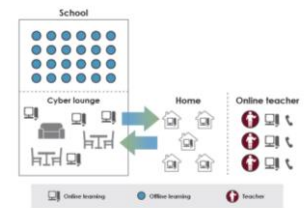
Blended Model #3. Online Lab (lab or field experience component of course is online)



Blended Model #4. Self-Blend (students decide on which courses they take online or which portion of the course is online)



Figure 11. Self-Blend model, Quakertown Community School District



Blended Model #5. Bookend (first and last part of the course is online and middle portion is FTF; AMA Special Report, Blended Learning Opportunities, Alison Rossett (2006))



Blended Model #6. Anchor (start with FTF or what students are familiar with and then move to online; or the opposite and start online and move to F2F)

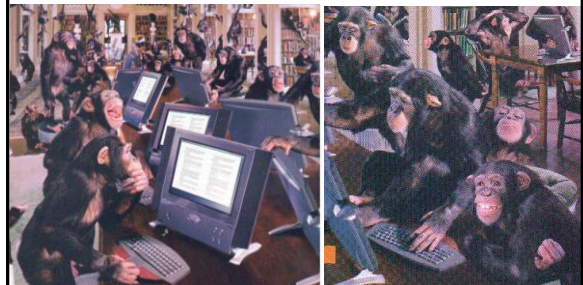


Blended Learning Model #7: Gradual Human (F2F) Approach

The IBM Four Tier Learning Model. Blending Learning for Business Impact
– IBM's case for learning success. *Nancy Lewis, VP, & Peter Orton, IBM*



Two Dozen + 2 More (26) Blended Learning Examples



August 19, 2015
Blended Solution #1.
Use the Media to Supplement Content
(e.g., CNN Money)

<https://www.cnn.com/2015/08/19/real-estate/2015/08/19/index.html>

<http://money.cnn.com/2015/08/19/retirement/retirement-savings-20s/index.htm>



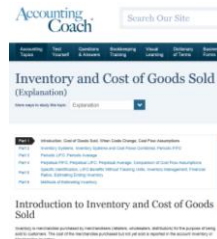
3 tips to getting retirement right in your 20s

3 tips to getting retirement right in your 20s



January 28, 2015
Blended Solution #2. Find
Quality Supplemental Text Resources
 (e.g., Accounting Coach; includes tests, Q&A, visuals, forms, definitions, etc.).

<http://www.accountingcoach.com/inventory-and-cost-of-goods-sold/explanation>



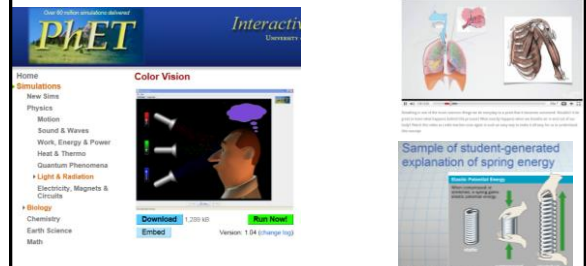
Blended Solution #3.

Workplace Internship, Practicum, and Field Experiences Online Reflections



Blended Solution #4.
Interactive Labs and Simulations
<http://phet.colorado.edu/en/simulation/energy-skate-park>

<http://phet.colorado.edu/en/simulation/energy-skate-park>



Blended Solution #5.
Online Role Play or Debate
(e.g., documentary production)



Blended Solution #6.

Reflect on Virtual Timelines

(Dipity, xtimeline, Simile, etc.)

<http://www.usatoday.com/news/destinations/story/2011-08-25/Martin-Luther-King-Jr-Memorial-in-Washington-A-closer-look/50136470/1?cp=34news>
<http://usatoday30.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>
<http://www.cnet.com/news/steve-jobs-a-timeline/>



Blended Solution #7. Online Database Activities (e.g., WolframAlpha)

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

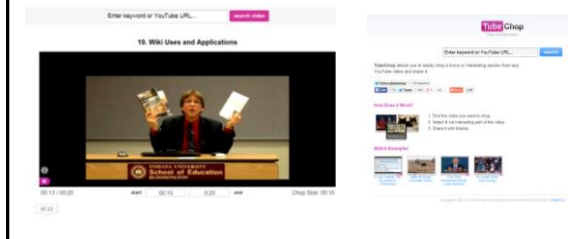


A Quick Introduction
to Wolfram Alpha
by Stephen Wolfram



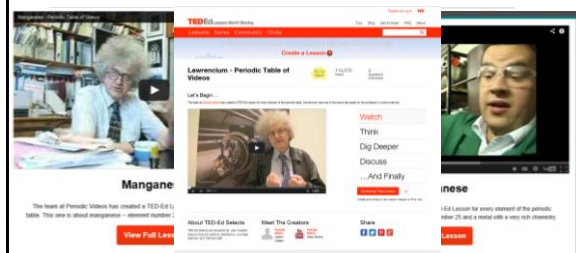
Blended Solution #8. Short Video Anchors (e.g., TubeChop of V-PORTAL: Video Primers in an Online Repository of e-Teaching and Learning)

Curt Bonk: <http://www.tubechop.com/watch/378752>



Blended Solution #9. Videos with Test Questions (e.g., TEDEd) (Lessons about every single element on the periodic table)

<http://ed.ted.com/periodic-table/elements/1>



Blended Solution #10. Online Educational Videos: CNN, BBC, TED, TED-Ed, ForATV

CNN Hero Marilyn Price: Changing Tires & Changing Lives
<http://www.cnn.com/videos/tv/2015/05/21/cnnheroes-price-extra.cnn>
<http://www.cnn.com/specials/cnn-heroes>



Blended Solution #11. Collaborative Video Annotations and Discussions (Craig Howard, IU)

<http://scholarworks.iu.edu/journals/index.php/SJ/article/view/852/912>



Blended Solution #12. Video Tutorials, Demonstrations, and How-To's Investopedia (videos, tutorials, etc.)

<http://www.investopedia.com/video/play/deferred-revenue/>



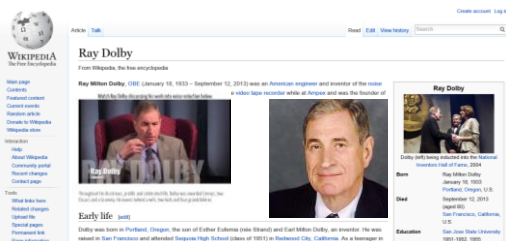
Blended Solution #13. Create Screencasted Tutorials (Jing, GoView, Screenr, Overstream, Screencast-o-Matic; see http://tec-variety.com/TEC-Variety_links-examples-resources.pdf)

Screencasting Toolkit



Blended Solution #14. Combining Media (Dual Coding Theory: Wikipedia + Video + Pictures)

Text: http://en.wikipedia.org/wiki/Ray_Dolby
Video (September 20, 2000): <http://www.gigwise.com/news/84155/audio-pioneer->



January 20 and 26, 2016 (Zoom) Blended Solution #15. Weekly Guest Expert Chats R511 Chat with Mike Molenda, IU R511 Chat Charles Graham, BYU

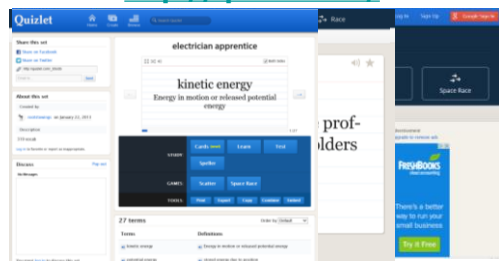


Blended Solution #16. Reading from Open Access Journals (e.g., PLOS, IRRODL, etc.)

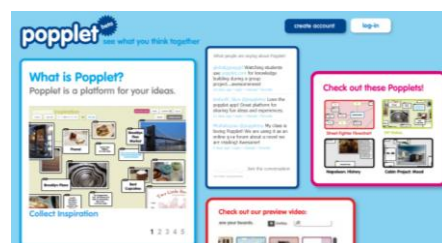
<http://www.plos.org/>; <http://www.plosbiology.org/>; <http://www.plosgenetics.org/>



Blended Solution #17. Online Practice Tests and Interactive Flash Cards <http://quizlet.com/>



Blended Solution #18. Student Collaborative Knowledge Building and Sharing (e.g., Popplet: <http://popplet.com/>)



Blended Solution #19. Flipping the Classroom

January 7, 2015

When a Flipped-Classroom Pioneer Hands Off His Video Lectures, This Is What Happens, Jeffrey R. Young, The Chronicle of Higher Education
<http://chronicle.com/article/When-a-Flipped-Classroom/151031/>



A student watches a video of Norman Nemrow's accounting class. Mr. Nemrow started the video lectures nearly 15 years ago at Brigham Young U. He is now retired, but students still watch him on the screen.

Blended Solution #20. Analyzing Financial Statements (e.g., Twitter)

<https://finance.yahoo.com/q/is?s=TWTR+Income+Statement&annual>
<http://www.marketwatch.com/investing/stock/twtr/financials>
<http://www.nasdaq.com/symbol/twtr/financials?query=income-statement>

TWTR Company Financials		TWTR \$27.745 +0.715 + 2.65%	
Annual Financials			
Unusual Expense			
EBIT after Unusual Expense			
Non-Operating Income/Expense			
Non-Operating Interest Income			
Equity in Affiliates (Profit/Loss)			
Interest Expense			
Gross Interest Expense			
Interest Capitalized			
Proton Income			
Income Tax			
Income Tax - Current Domestic			

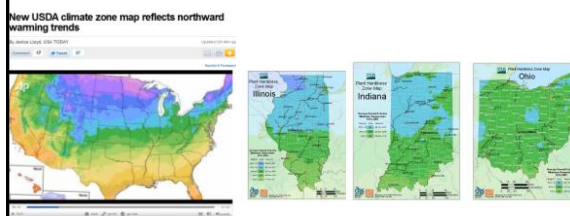
Blended Solution #21. Review and Reflect on Existing Expert Content

<https://www.youtube.com/watch?v=Sb0jR-C57f0>

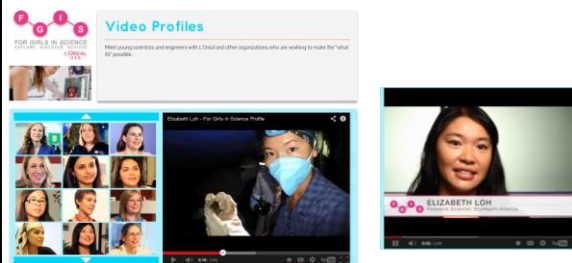


Blended Solution #22. Online Longitudinal Maps

(e.g., New USDA climate zone map reflects northward warming trends, By Janice Lloyd, USA TODAY, January 26, 2012)
<http://www.usatoday.com/news/nation/environment/story/2012-01-26/USDA-climate-zone-map/52787142/1>



Blended Solution #23. Video Profiles of successful female scientists, (e.g., For Girls in Science)



Blended Solution #24. Sample Student Work

e.g., Interactive Archive/Gallery of Student Exemplary Work
(University of Notre Dame, Freshman Writing September 24, 2014; <https://freshwriting.nd.edu/>)



Blended Solution #25. Language Lessons Online

BBC Learning English

<http://www.bbc.co.uk/learningenglish>

The screenshot shows the BBC Learning English website. It features a navigation bar with 'Learning English' and 'Shopping Language Learning Since 1940'. Below the navigation bar, there's a search bar and a list of idioms for breakfast. The idioms listed are: 'I'm in trouble and I need some extra cash', 'You have to be very friendly with the client to close the deal', 'Don't put all your resources in one place', 'You broke the law? You're in trouble!', and 'Pay attention to what's happening!'. There are also links to 'Start the course', 'Join us on YouTube', and '5 Minute Grammar'.

Blended Solution #26.

Goal Setting Tools

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

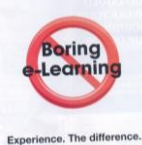
iDoneThis



The screenshot shows the 43Things website. It has a header with '43Things' and a navigation bar. The main content area has the text 'Changing your life is hard. Doing it by yourself is harder.' and a section titled 'Start living your goals now...' with a form for entering goals. Below the form, there's a link to 'Sign up'.

Again, this talk covered...

1. 30 (ok, 18) Ways Learning is changing
2. 1 Definition of blended learning
3. 10 Myths of blended learning
4. 7 Models of blended learning
5. 26 Examples of blended learning



Experience. The difference.

Let's Review: Learning is Changing...

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



Frank Basile, an aircraft technician, took an MITx course on circuits and electronics to increase his knowledge.



Joe Alfonso, a financial adviser from Oregon, is taking the online finance course as a "refresher."

We are entering a jumping off point...

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



Any Questions or Comments?

Slides at: TrainingShare.com

Papers: PublicationShare.com

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

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在线学习动机与激励:
TEC-VARIETY 模型

——美国印第安纳大学 Curt Bonk 博士 2006 年出版

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