

Living in Tech City: 50+ Technology Trends and Innovations Transforming Workplace Learning, Education, and Our Lives"

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



Winky Dink and ... Bill Gates?, Bob Greene, March 31, 2013, CNN

http://www.cnn.com/2013/03/31/opinion/greene-winky-dink-bill-gates/index.html?hpt=hp_13



A girls uses her "Winky Dink" drawing kit to draw on a TV screen as they watch the 1950s kids program.

Technology of the 1980s



Radio Shack TRS-80 Model III
Introduced: July 1983
Prices: US\$ 899.95 base model; US\$ 1249.95 w/ 512K, dual drives.
CPU: Z80 2.00, 2.03 MHz
RAM: 4K, 48K max.
Ports: Cassette tape, expansion, serial
Display: 12-inch B&W monitor, 64 x 16 text
Storage: 0, 1, or 2 internal 178K floppy drives; External cassette @ 500 / 1500 baud; BASIC in ROM; TRS-DOS on disk
OS:



Technologies of Today...



Tech #1. Tablet Computing



March 13, 2011

iPad Apps for Calculus, Math, Biology, etc. Chronicle of HE, Ben Wieder

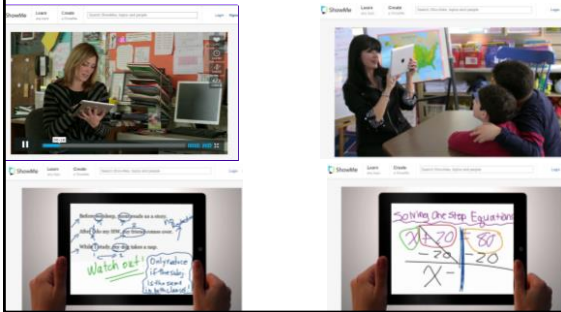
http://chronicle.com/article/iPads-for-College-Classrooms-/126681/?id=at&utm_source=at&utm_medium=en



At Pepperdine U. Timothy Lucas, an assistant professor of mathematics, shows a class how to use iPads for calculus. Linda Johnson, an assistant professor of biology at Chatham U., for her plant-physiology

Lessons on iPad

(e.g., ShowMe: <http://www.showme.com/>)



10 Terrific iPad Apps for Toddlers, August 2, 2012, Mashable, Allegra Tepper

<http://mashable.com/2012/08/03/ipad-apps-toddlers/>

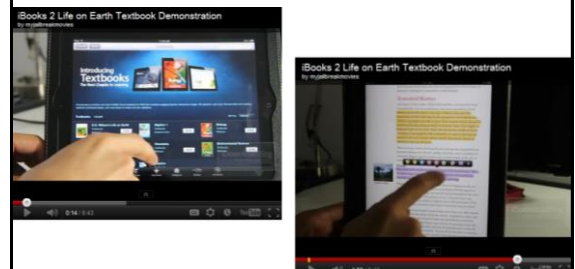


10 Terrific iPad Apps for Toddlers, August 2, 2012, Mashable, Allegra Tepper

<http://mashable.com/2012/08/03/ipad-apps-toddlers/>



Tech #2. Digital Books



Tech #3. User-Designed E-Books.

How to turn Wikipedia into an e-book,

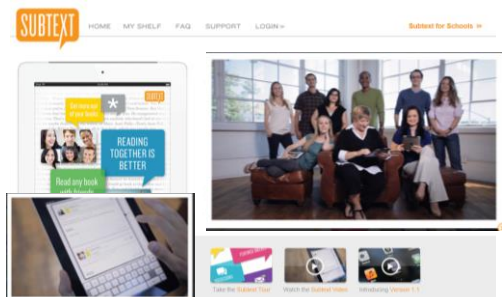
John D. Sutter

http://www.cnn.com/2012/09/18/tech/mobile/wikipedia-e-book/index.html?hpt=hp_13



Tech #4. Social Books

(e.g., Subtext; <http://subtext.com/>)

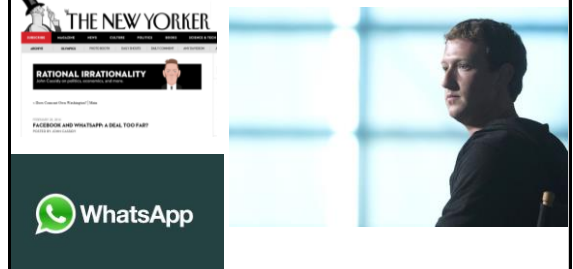


Tech #5. Smartphones and Mobile Learning



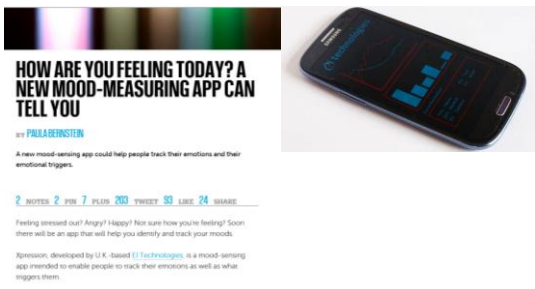
Facebook and WhatsApp: A Deal Too Far?, February 20, 2014, The New Yorker, John Cassidy

<http://www.newyorker.com/online/blogs/johncassidy/2014/02/facebook-and-whatsapp-a-deal-too-far.html>



How Are You Feeling Today? A New Mood-Measuring App Can Tell You, Paula Bernstein, Fast Company, December 2013

<http://www.fastcofuture.com/1862514/how-are-you-feeling-today-a-new-mood-measuring-app-can-tell-you>



Tech #6. Learning Portals Google Art Project, NBC Nightly News

<http://www.msnbc.msn.com/id/3032619/vp/46945508#46945508>



Announcing MERLOT II: Multimedia Educational Resource for Learning and Online Teaching

<http://www.merlot.org/merlot/index.htm?action=find>



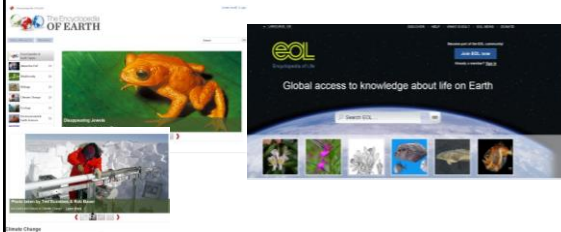
Tech #7. Media Tools: Timelines, Maps, Pics, Videos, etc. (e.g., USA Today, August 26, 2011)

<http://www.usatoday.com/story/2011-08-25/Martin-Luther-King-Jr-Memorial-in-Washington-A-closer-look/5015270.1?age=34news>

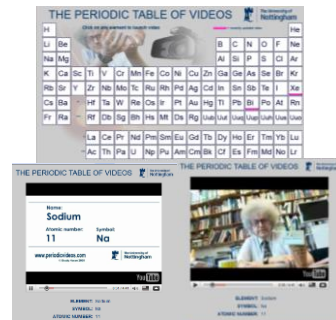


Tech #8. Online Referenceware (e.g. the (Encyclopedias, Dictionaries, etc.) Encyclopedia of Life, Encyclopedia of Earth, etc.)

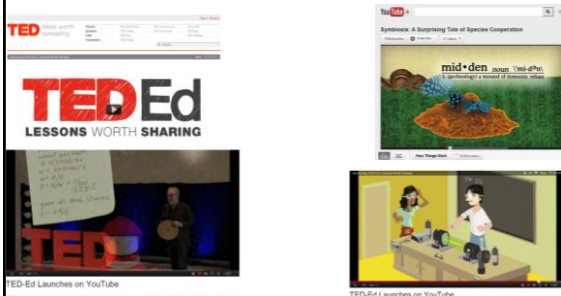
<http://www.eoearth.org/> <http://eol.org/>



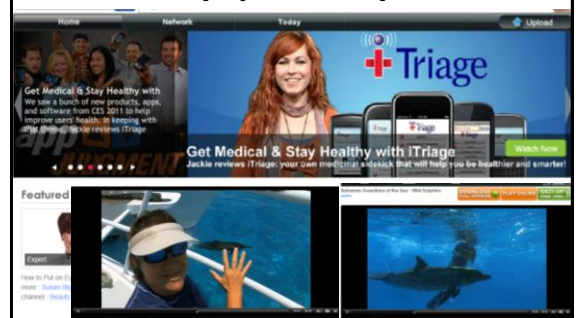
Tech #9. Shared Online Video. (Videos of the Periodic Table, Univ of Nottingham)



March 13, 2012 Educational Videos: TED-Ed <http://education.ted.com/>



TV Lesson (expert videos)



Tech #10. Simulations



Tech #11. Vlogs (Blogs with video)



Tech #12. Podcasts and Audio Files (e.g., author book and research interviews)

Tech #13. Case-Based Learning: Online Cases and Scenarios (e.g., Mark Braun, IU)

Tech #14. Concept Mapping and Timeline Tools (Bubbl.us, Cmap, Gliffy, Mindmeister, or Mindomo)

Tech #15. Web Conferencing Using Google Hangouts for Class (January 2013)

Google

<https://mail.google.com/mail/en/mail/help/about.html#inbox/14450742954a12b3f?compose=1448080180b3250>

Google Hangouts Web Conferencing (Jay Cross, 10 MOOC experts; February 27, 2013)

<http://www.jaycross.com/wp/2013/02/businessmoocs-the-hangout-recording/>

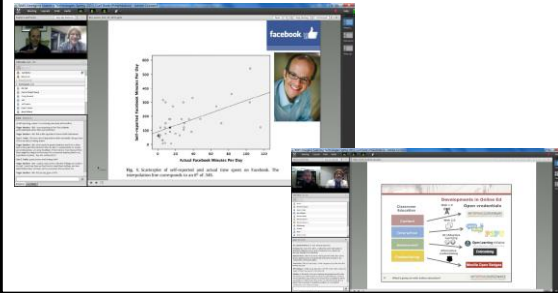
Business+MOOCs: the Hangout recording

Blog



Twitter: jaycross

Adobe Connect (Rey Junco, February 25, 2013)



Jabber Web Conferencing December 2013



Guest Speakers Designing a New Learning Environment Professor Paul Kim, Stanford University <http://venture-lab.org/education/lectures/45>



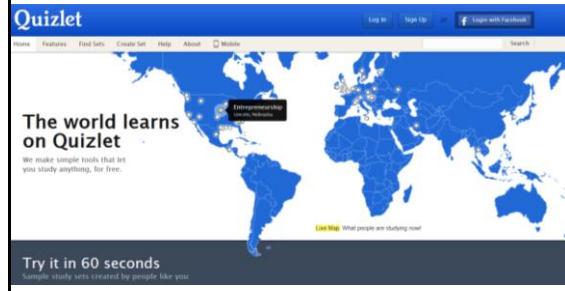
Tech #16. Videoconferencing (first demo in 1964 at the World's Fair; use increased in 2003)



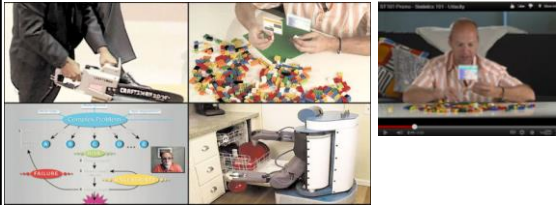
Tech #17. Virtual Mentoring and Tutoring



Tech #18. Online Testing (Quizlet; <http://quizlet.com/>)



Tech #19. Massive Open Online Courses (MOOCs). (Courses from Statistics to Physics to Biology to ???)



August 19, 2013 Entrepreneurship Curriculum NovoEd, Amin Saberi



September 4, 2013 MOOC Course from Canvas "The Walking Dead" (UC Irvine)

<https://www.canvas.net/courses/the-walking-dead>



MOOCs Meet the Zombie Apocalypse

September 4, 2013, 4:58 am

By Steve Kolowich

How do you get thousands of people excited about an online course in math, physics, and public health that will not earn them formal credit or any kind of certificate?

Master's Degree Is New Frontier of Study Online, August 17, 2013, The New York Times By Tamar Lewin

<http://chronicle.com/article/MOOCs-May-Not-Be-So-Disruptive/140965/>



Zur Gatt, the dean of the College of Computing at the Georgia Institute of Technology, is the first to offer a master's degree in computer science through massive open online courses, or MOOCs.

Brazil's Home-Grown MOOC, Holly Else for the Times Higher Education, Inside HE, January 16, 2014 <http://www.timeshighereducation.co.uk/news/brazils-home-grown-mooc-veduca-has-high-hopes/2010440.article>



Home-grown experts: importing talent 'doesn't make sense', argues Veduca chief

Tech #20. Mobile MOOCs

Coursera Blog, December 8, 2013

<http://blog.coursera.org/post/69518553384/this-holiday-season-learn-on-the-go-with-the-new>



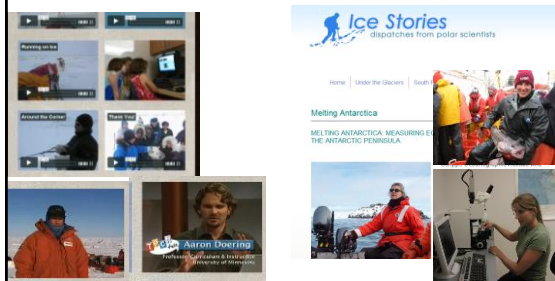
Tech #21. Wikis: Collaborate and Crowdsource Content



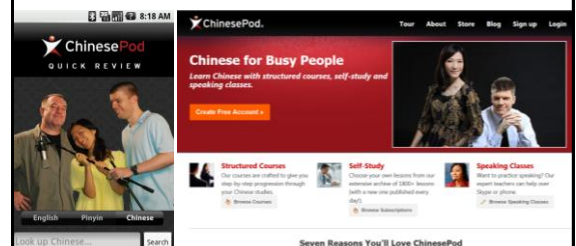
Tech #22. Twitter (microblogging)



Tech #23. Adventure Learning



Tech #24. Online Language Learning (e.g., 300,000 people per month listening to ChinesePod, co-hosted by Jenny Zhu, John Pasden, and Ken Carroll)



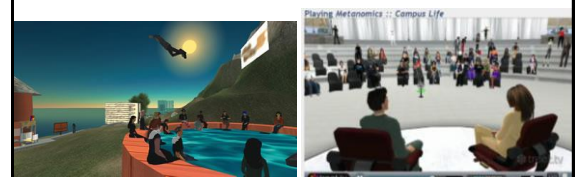
Adventures of a Teenage Polyglot, New York Times, March 9, 2012, John Leland

http://www.nytimes.com/2012/03/11/nyregion/teenage-master-of-languages-finds-online-fellowship.html?_r=1&page=2&_r=1

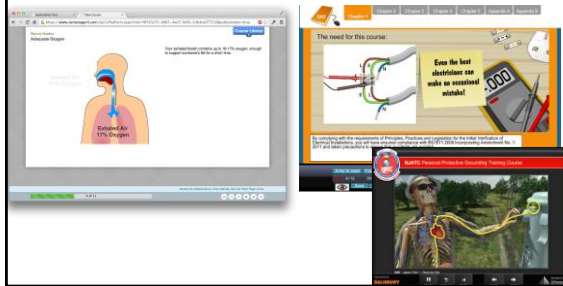


Timothy posts videos of himself speaking several languages on YouTube.

Tech #25. Virtual Worlds and Augmented Reality (Class Meetings with Experts in Virtual Worlds)

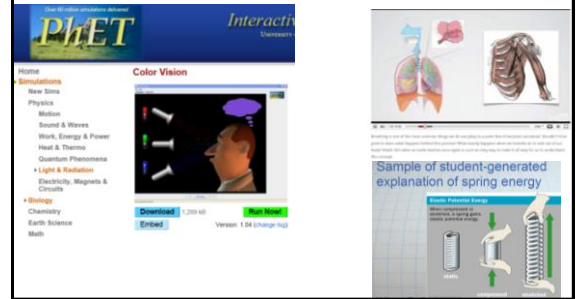


Tech #30. Concept Animations

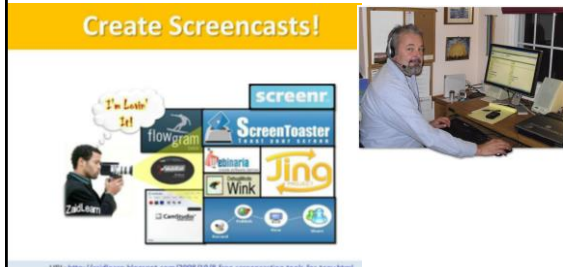


Tech #31. Interactive Simulations

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

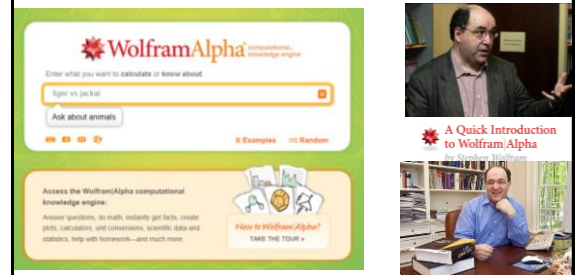


Tech #32. Screencasts and Tutorials (Jing, GoView, Screener)

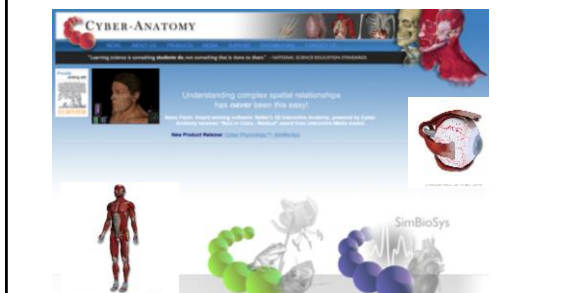


Tech #33. Comprehensive Online Databases (e.g., WolframAlpha)

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



Tech #34. Online Anatomy and Biology <http://www.cyber-anatomy.com/>



Tech #35. Human Embryology Animations (Valerie O'Loughlin, Indiana University)



Tech #36.**Survey Research and Market Analysis**
(e.g., SurveyShare, Zoomerang, SurveyMonkey)

The screenshot shows the SurveyMonkey homepage. On the left, there's a navigation menu with options like 'Home', 'New & Works', 'Examples', 'Survey Services', and 'Plans & Pricing'. The main content area features a 'Create Surveys. Get Answers.' section with a 'Start Today' button. Below this, there are sections for 'Need to Reach a Targeted Audience?' and 'Surveys Made Easy'. On the right, there's a map of the United States titled 'Electrician Median Wage by State' with data points for each state.

Tech #37.**Student Collaborative Knowledge Building and Sharing**
(e.g., Popplet: <http://popplet.com/>)

The screenshot shows the Popplet website. The header includes the Popplet logo and a tagline 'See what you think together'. Below the header, there's a 'What is Popplet?' section explaining that Popplet is a platform for your ideas. To the right, there's a 'Check out these Popplets!' section with several example popplets. At the bottom, there's a 'Check out our preview video' section with a video player.

Tech #38.**Short Video Animations and Reflections**
(e.g., Ohm's Law)

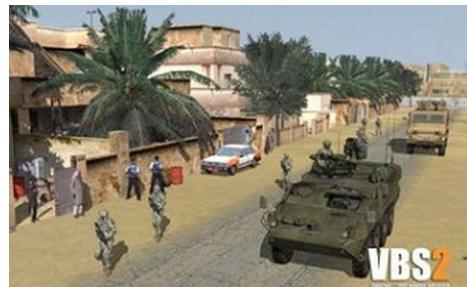
The diagram illustrates Ohm's Law. It starts with a text box stating 'Ohm's law states the relationship between voltage (E), current (I), and resistance (R)'. This leads to a circular diagram with 'E' at the top, 'I' at the bottom left, and 'R' at the bottom right. Below this, there's a rectangular diagram with 'VOLTAGE' at the top, 'CURRENT' at the bottom left, and 'RESISTANCE' at the bottom right. Arrows indicate the flow of information from the text box to the circular diagram, and then to the rectangular diagram.

Tech #39.**Online Quizzes with Videos**
(e.g., Want to be an activist? Start with your toys - McKenna Pope, TEDed)
<http://ed.ted.com/lessons/want-to-be-an-activist-start-with-your-toys-mckenna-pope#watch>

The screenshot shows the TEDed website. The header includes the TEDed logo and a tagline 'Create a Lesson'. Below the header, there's a section titled 'Want to be an activist? Start with your toys - McKenna Pope' with a video player. To the right of the video player, there's a 'Watch' section with options like 'Think', 'Dig Deeper', and 'Discuss'. At the bottom, there's a 'Create a Lesson' button.

Tech #40.**I Done This, Milestone Planner, and 43 Things**

The screenshot shows the 43Things website. The header includes the 43Things logo and a tagline 'Changing your life is hard. Doing it by yourself is harder.' Below the header, there's a section titled 'Start listing your goals now...' with a form for entering goals. To the right of the form, there's a video player showing a man in a suit with the text 'BARNEY STINSON' below it. At the bottom, there's a 'Sign up' button.

Tech #41.**Simulation Games**

Gamification: Separating Fact From Fiction, Chief Learning Officer, Karl Kapp, March 2014

<http://read.dcm.edu/publication/frame.php?i=197905&p=44&pn=&ver=flex>



Tech #42. Video Animations and Simulations



Tech #43.

Social Networking Gaming

CityVille 16.8 million daily users, *FarmVille*'s 16.4 million. *CityVille* 61.7 million monthly users, *FarmVille* 56.8 million users. Mashable.

"CityVille" Is Now Bigger than "FarmVille"

December 24, 2010 by Dan Schneider

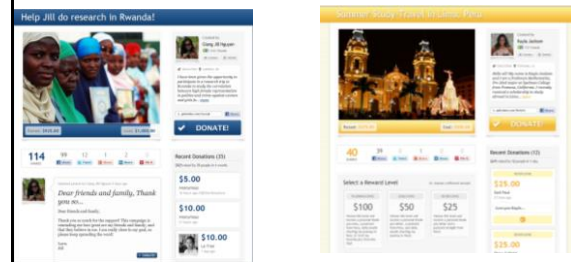
12 29



Tech #44.

Crowdsourced Website Donations

(e.g., Scholar Match, Zero Bound, Pave, GoFundMe; <http://www.gofundme.com/>)



Tech #45.

Collaborative Video Analysis

(Intergalactic Mobile Learning Center (IMLC), a joint University of Michigan (ES)/University of North Texas (CN) endeavor)
<http://www.intergalacticmlc.org/>



Tech #46.

Competition Technology

(e.g., In-ter-stel-lar (math competitions)
<http://in-ter-stel-lar.com/learn>)



Tech #47.**Mobile Health (bio sensors)**

7 new smartphone features that will help define your future

February 23, 2014, Stewart Wolpin, CNNhttp://www.cnn.com/2014/02/23/business/future-smartphone-mobile-world-congress/index.html?hpt=hp_13

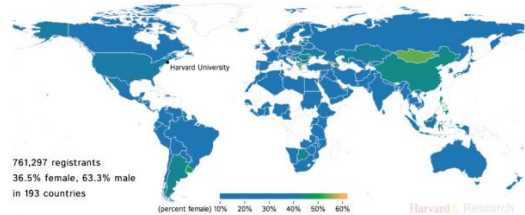
7 new smartphone features that will help define your future

By Stewart Wolpin, February 23, 2014
Updated 12:00 PM EST Sun February 23, 2014

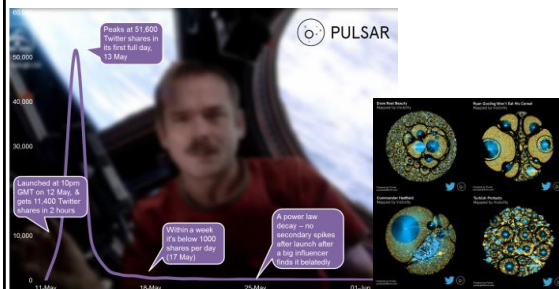
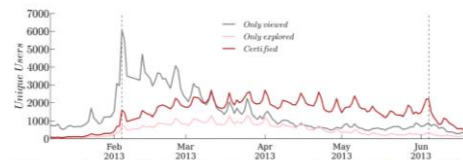
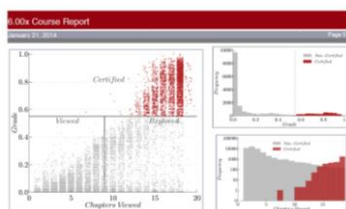
7 new smartphone features that will help define your future

By Stewart Wolpin, February 23, 2014
Updated 12:00 PM EST Sun February 23, 2014**Tech #48.****Big Data Visualization Tools (Harvardx and MITx)**<http://harvardx.harvard.edu/harvardx-insights>

4. World map of gender composition

**How Stuff Spreads:**

How Videos Go Viral Part 1, November 11, 2013, Jess

<http://www.facegroup.com/how-videos-go-viral.html>**January 20, 2014****6.00x Introduction to Computer Science and Programming MITx on EdX Course Report - 2013 Spring**http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2382322**January 20, 2014****6.00x Introduction to Computer Science and Programming MITx on EdX Course Report - 2013 Spring**http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2382322**Tech #49.****Personal Interest Portals (e.g., Pinterest)**<http://www.pinterest.com/pin/80713018296184706/>

Tech #50. Mobile Apps for the other training and resources

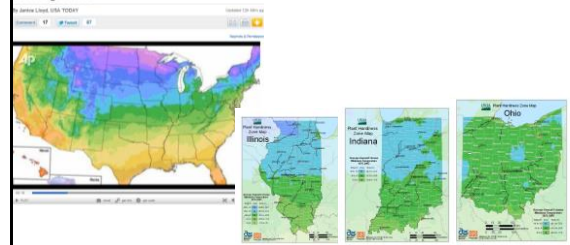


Tech #51. Interactive Maps

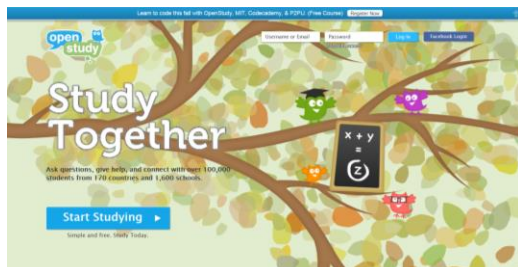
(e.g., New USDA climate zone map reflects northward warming trends,
By Janice Lloyd, USA TODAY, January 26, 2012)

<http://www.usatoday.com/news/nation/environment/story/2012-01-26/USDA-climate-zone-map/52787142/1>

New USDA climate zone map reflects northward warming trends



Tech #52. Online Study Groups (e.g., Open Study: <http://openstudy.com/>)



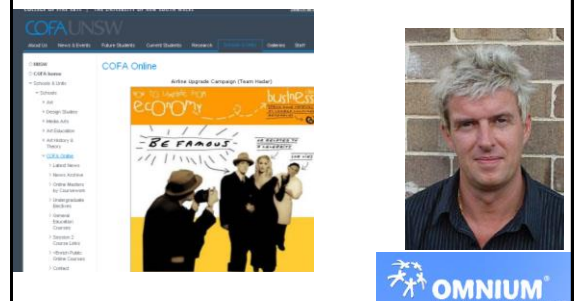
Tech #53. Mobile Dictionaries



Tech #54. Collaborate using Wikis: PBworks



Tech #55. Online Photomedia



Tech #56. Virtual or Augmented Reality Training Web-based Land Navigation Trainer Tutorial

<http://www.youtube.com/watch?v=8-WY9nazoGU>
See article: <http://www.defensesources.com/article/2013/06/19/75/30619002/LandNavMaines>



Tech #57. Virtual Choir (e.g., Eric Whitacre)

<http://vimeo.com/22960177>
<http://www.youtube.com/watch?v=D7o7BrlbaDs>



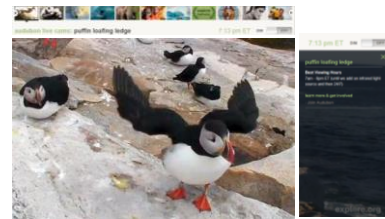
Tech 58. Talking Dictionaries Oral Online Dictionaries Help Preserve Languages, Cultures Muted by Modernity, The Wall Street Journal, February 18, 2002

<http://online.wsj.com/article/SB10051424052370304606464077238920150190029/LandNavMaines>



Tech #59. Remote Animal Streaming

Remote Maine puffin colony up close on HD web cam
Clarke Canfield, The Statesman, June 27, 2012
<http://www.statesman.com/business/technology/remote-maine-puffin-colony-up-close-on-hd-2405257.html>



This still frame from streaming online video, provided by explore.org, the Annenberg Foundation and the National Audubon Society, shows puffins on the shore of Seal Island, Maine, Wednesday, June 27, 2012. The island is the habitat for the largest puffin colony in the U.S.

Tech #60. Video games How Video Games and Social Media Fuel Students' Passion for Art, Katrina Schwartz Mind/Shift, August 8, 2013

<http://blogs.apsu.edu/mindshift/2013/08/08/how-video-games-and-social-media-fuel-students-passion-for-art/>



Any Questions?



Slides at: TrainingShare.com

Papers: PublicationShare.com

Book: <http://worldisopen.com/>

Email: curt@worldisopen.com

