

## The Flat World Swung Open: How Web Technology Is Revolutionizing Education

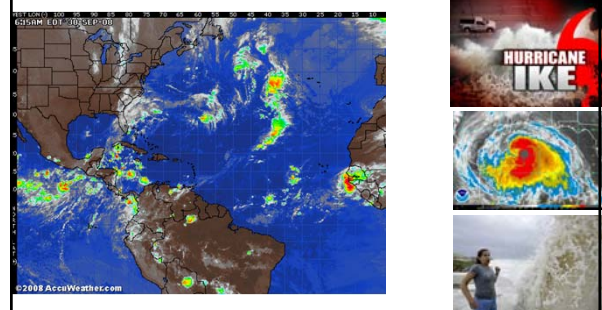
Curtis J. Bonk, Professor, Indiana University  
President, CourseShare, LLC  
cjbonk@indiana.edu  
<http://php.indiana.edu/~cjbonk>

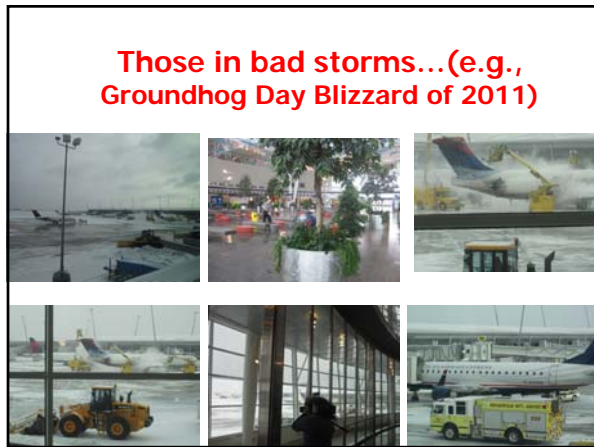


## Who does e-learning benefit besides dogs and cats?



## Those in a hurricane...







**February 21, 2012**  
**Rethinking Learning with Salman Khan**  
 Stanford Graduate School of Business


<http://www.youtube.com/watch?v=Wvj68nQa5w>  
 Khan Academy Founder Finds Simplicity Appeals in Online Education Experimentation  
<http://www.gsb.stanford.edu/news/headlines/sal-khan-academy.html>  
 Let's use video to reinvent education, TED, March 2011  
[http://www.ted.com/talks/salman\\_khan\\_let\\_s\\_use\\_video\\_to\\_reinvent\\_education.html](http://www.ted.com/talks/salman_khan_let_s_use_video_to_reinvent_education.html)



**February 19, 2012**  
**Flipped Classrooms? Chronicle of HE**

[http://chronicle.com/article/How-Flipping-the-Classroom/130857?cid=pm&utm\\_source=pm&utm\\_medium=en](http://chronicle.com/article/How-Flipping-the-Classroom/130857?cid=pm&utm_source=pm&utm_medium=en)

February 19, 2012  
**How 'Flipping' the Classroom Can Improve the Traditional Lecture**



Benjamin Krasnowski for The Chronicle

Andrew Martin's teaching techniques get students out of their seats during his class on evolutionary biology at the U. of Colorado at Boulder. Some students enjoy the "flipped" lectures that require them to help one another understand the material. Others resent being forced to work in groups.  
 By Dan Barrett


**April 12, 2011**  
**NCTM Conference, Free Online Degrees; Integration of Science, Mathematics, and Reflective Teaching (ISMART)**  
 University of Houston

You see the big picture. You find the connections.  
 Make it official - become ISMART.




Jen Chauvot and Mimi Lee, Univ of Houston

**May 2, 2012**  
**MIT and Harvard announce edX**  
<http://www.edxonline.org/about.html>  
**EdX: The Future of Online Education is Now**  
<http://www.youtube.com/watch?v=SA6ELdIRkRU>



MIT and Harvard announce edX  
 Joint venture builds on MIT's and Harvard's distance learning, aims to benefit campus-based as well




**I am not Content!!!**



**May 24, 2010**  
**Author Nicholas Carr, The Web Shatters Focus, Rewires Brains, Wired**  
[http://www.wired.com/magazine/2010/05/ff\\_nicholas\\_carr/](http://www.wired.com/magazine/2010/05/ff_nicholas_carr/)



**TUESDAY, MAY 17, 2011**  
**15 reasons to BAN pens and pencils from the classroom, Donald Clark, Plan B**  
<http://donaldclarkplanb.blogspot.com/2011/05/7-reasons-to-ban-pens-and-pencils-from.html>

DONALD CLARK PLAN B  
WHAT IS PLAN B NOT PLAN A?

TUESDAY, MAY 17, 2011  
 15 reasons to BAN pens and pencils from the classroom

Too easy to lose

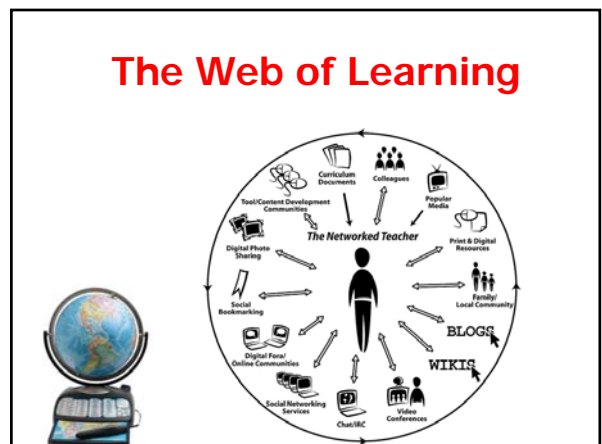
**It is very open!**  
 (May 2011, Norway & June 2011 the Philippines)

**Question:**  
**What is the Web?**

- An entertainment system?
- A writing aid?
- A communications system?
- A means to handle commercial transaction?
- A social networking device?

=====

**No, it is a learning tool!**



**April 29, 2012**

**Open Education's Wide World of Possibilities,**  
 Chronicle of Higher Education, Katherine Mangan

[http://chronicle.com/article/Open-Education-Wide-World-of-131672?cid=ai&utm\\_source=ai&utm\\_medium=en](http://chronicle.com/article/Open-Education-Wide-World-of-131672?cid=ai&utm_source=ai&utm_medium=en)



**April 29, 2012**

**'Supersizing' the College Classroom:**  
 How One Instructor Teaches 2,670 Students

Chronicle of Higher Education, Marc Parry  
<http://chronicle.com/article/Slide-Show-Technology-for/131711/>

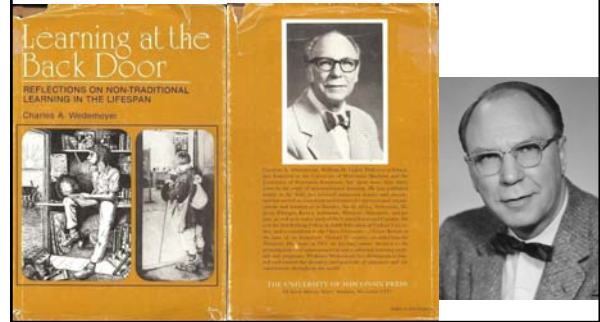


John Boyer teaches a megaclass in current events at Virginia Tech in person—and holds online office hours using Ustream.

**We are entering a jumping  
 off point...**



**Charles Wedemeyer,**  
 University of Wisconsin

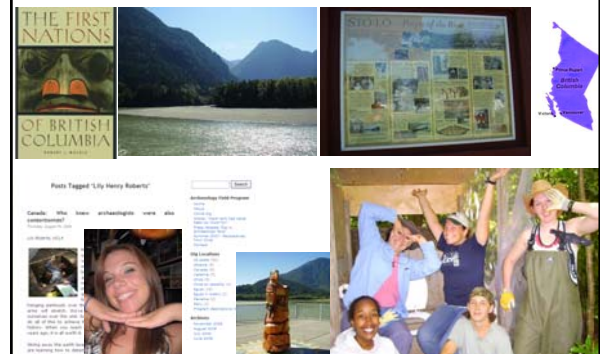


**Framework #1: WE-ALL-LEARN:**  
 Ten Forces that Opened the Learning World

- **W**eb Searching in the World of e-Books (i.e., Darwin)
- **E**-Learning and Blended Learning
- **A**vailability of Open Source and Free Software (e.g., Moodle)
- **L**everaged Resources and OpenCourseWare (e.g., MIT)
- **L**earning Object Repositories and Portals (i.e., shared content)
- **L**earner Participation in Open Info Communities (YouTube)
- **E**lectronic Collaboration and Interaction (sync and async)
- **A**lternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- **R**ead-Time Mobility and Portability (e.g., iPhone)
- **N**etworks of Personalized Learning (Blogs, RSS)



**I'm an Armchair Indiana Jones...**





# Audience Participation!

**1. WE**

**2. ALL**

**3. LEARN!!!**




## Triple Learning Technology Convergence of "WE-ALL-LEARN"



- Pipes:** The availability of tools and infrastructure for learning.
- Pages:** The availability of free educational content and resources (OER—Open Educational Resources).
- Participatory Learning Culture:** A move towards a culture of open access to information, international collaboration, and global sharing.

## Opener #1. Web Searching (e.g., Google, MSN, Yahoo!) in the World of e-Books (i.e., Darwin, Shakespeare, etc.)






## Trend #1. Web Searching in the World of e-Books. What happens then?

**WE**

**ALL**




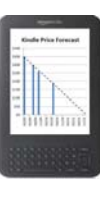
**LEARN!!!**




## E-Book Readers

**January 28, 2011:** Amazon: Kindle Books Finally Eclipse Paperbacks, Doug Aamoth

**March 2, 2011:** Why Amazon would be smart to give away the Kindle, March 4, 2011, CNN Tech, Amy Gahrn

Whether a surge in e-book sales can be sustained and what effect it could have on traditional bookstores remains to be seen.



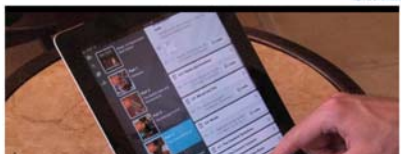

## August 3, 2011 Inkling opens textbooks on the iPad

USA Today, Jefferson Graham

Some \$4.5 billion worth of textbooks were sold in 2010, (Assoc. of American Pub). Digital textbooks = 3% of sales in 2011 and growing to 44% by 2017.

### Inkling opens textbooks on the iPad

By Jefferson Graham, USA TODAY

**Worldreader, August 22, 2011**  
**What Makes Ed Tech Successful in the Developing World?, ReadWriteWeb, David Risher**

[http://www.readwriteweb.com/archives/what\\_makes\\_educational\\_technology\\_successful\\_in\\_th.php](http://www.readwriteweb.com/archives/what_makes_educational_technology_successful_in_th.php)  
<http://www.worldreader.org/>



**January 29, 2012**  
**Apple's new electronic textbook initiative just another chapter in a developing story, Herald Times, Mike Leonard**

<http://www.heraldtimesonline.com/stories/2012/01/29/news.apples-new-electronic-textbook-initiative-just-another-chapter-in-story.sto?print=1>



**March 24, 2012**  
**In South Korean classrooms, digital textbook revolution meets some resistance, Washington Post**

[http://www.washingtonpost.com/world/asia\\_pacific/in-south-korean-classrooms-digital-textbook-revolution-meets-some-resistance/2012/03/21/GOAxINGYS\\_story.html?wpisrc=emailtoafriend](http://www.washingtonpost.com/world/asia_pacific/in-south-korean-classrooms-digital-textbook-revolution-meets-some-resistance/2012/03/21/GOAxINGYS_story.html?wpisrc=emailtoafriend)

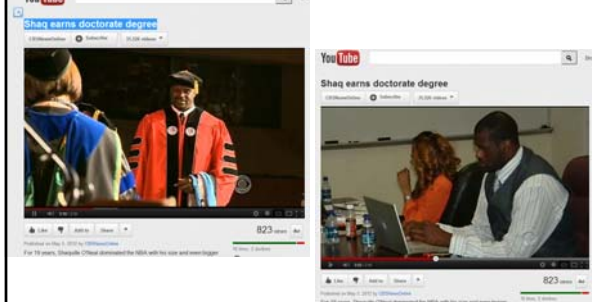


**Opener #2. E-Learning and Blended Learning**



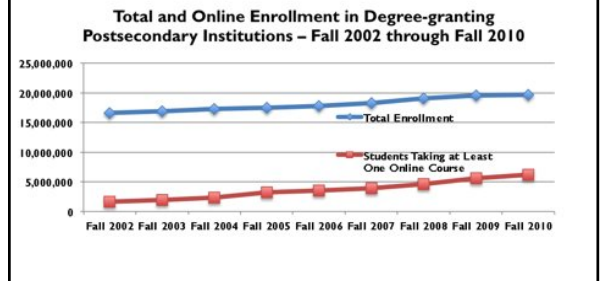
**May 5, 2012**  
**Shaq earns doctorate degree**

<http://www.youtube.com/watch?v=Szj6UqBdjo>

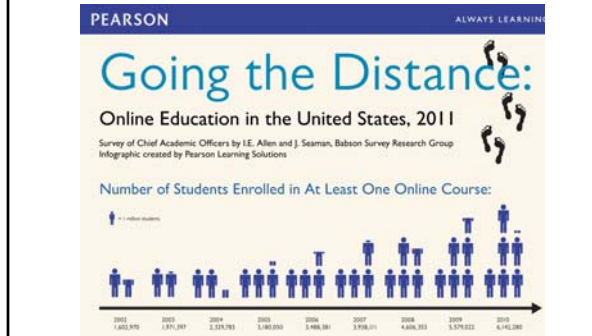


**Growth Online in Higher Education in the USA**

[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)

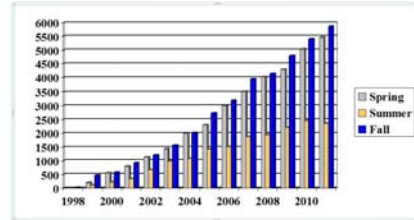


More than six million post-secondary students are taking online classes in the USA; growing by 10% per year.  
[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)



**February 16, 2012**  
 University of Illinois at Springfield, Ray Schroeder  
<http://sites.google.com/site/rayschroeder/>

### UIS Online & Blended Enrollment



**Opener #3. Availability of Open Source and Free Software Moodle** (June 3, 2012: 58 million users in 216 countries, 67,162 sites, 6.2 million courses)



**Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from Harvard Edx, MITx, CORE, OOPS)**

**OOPS** OpenSource OpenCourseware Prototype System  
 The Foundation of FairPlay Culture and Arts

**MIT OPENCOURSEWARE** MASSACHUSETTS INSTITUTE OF TECHNOLOGY

**Open Educational Resources**

**August 2, 2011**  
**Massive Open Online Courses (MOOC) and Graded Free OCW,**  
 Stanford U. Offers Free Online Course in Artificial Intelligence, Jie Jenny Zou, Chronicle of Higher Education (over 135,000 sign up as of August 27)  
<http://www.ai-class.com/>

**Wired Campus** The latest news on tech and education

Stanford U. Offers Free Online Course in Artificial Intelligence

**September 15, 2011, Graded Free OCW**  
**Welcome to Stanford Engineering Everywhere (SEE)** <http://see.stanford.edu/>  
 A computer and an Internet connection are all you need. View lecture videos, access reading lists and other course handouts, take quizzes and tests, and communicate with other SEE students, all at your convenience.

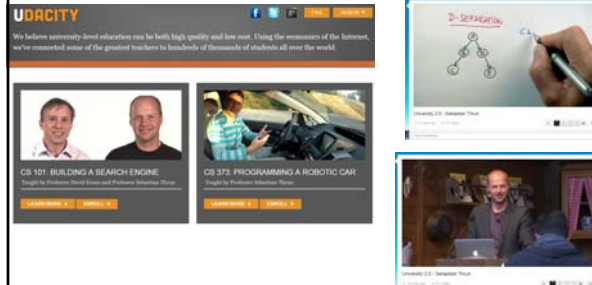
**STANFORD ENGINEERING EVERYWHERE**

what is stanford engineering everywhere?

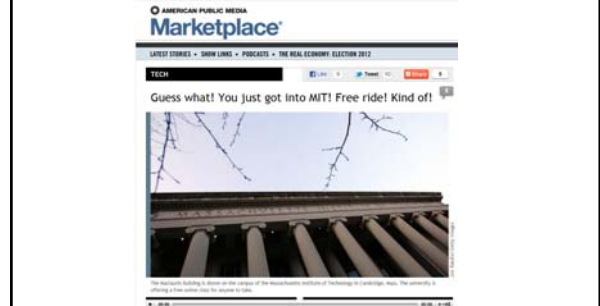
SEE offers course content available to Stanford students including lecture notes, reading lists, and other course handouts, take quizzes and tests, and communicate with other SEE students, all at your convenience.



**January 23, 2012**  
**Udacity- Sebastian Thrun**  
<http://www.udacity.com/>



**February 15, 2012**  
 Guess what! You just got into MIT! Free ride! Kind of!  
 Marketplace Tech Report, John Moe,  
<http://www.marketplace.org/shows/marketplace-tech-report>



**February 16, 2012**  
 Ray Schroeder, U of Illinois at Springfield Guest  
 Speaker on Open Education Movement  
<http://breeze.iu.edu/p94lec5su62/>



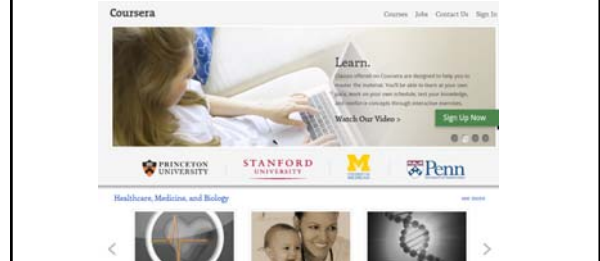
**February 16, 2012**  
 Online Badges and Certifications from OER  
 University of Illinois at Springfield, Ray Schroeder  
<https://sites.google.com/site/opencontinuinged/>



**Badges for Online Learning**  
 e.g., Khan Academy  
<http://www.khanacademy.org/badges/view>



**April 18, 2012**  
**Coursera**  
 Online-Education Start-Up Teams With Top-  
 Ranked Universities to Offer Free Courses,  
[\(https://www.coursera.org/\)](https://www.coursera.org/)



**April 25, 2012**  
**MIT+K-12**  
**Making Video to Make a Difference**  
<http://k12videos.mit.edu/>

**Opener #5. Online Learning**  
**Object Repositories and**  
**Portals (shared content)**

The Learning World is Open

A Single Group Helps Trigger an Online-Publishing Explosion

The Public Knowledge Project, a nonprofit group, estimates that the open-access publishing software it offers free has given rise to more than 5,000 open-access academic journals around the world. Below is their geographic distribution, by continent, as of last month.

**April 3, 2012**  
**Google Art Project, NBC Nightly News**  
<http://www.msnbc.msn.com/id/3032619/vp/46945508#46945508>

**September 2011**  
**Online Encyclopedias**  
(e.g, the Encyclopedia of Life, Encyclopedia of Earth, etc.)  
<http://www.eoearth.org/> <http://eol.org/>

**How about rich video portals?**  
**Most of the Websites below did not exist 5 or 10 years ago.**

- BBC News Video and Audio
- CNN.com Video
- MSNBC.com
- Google Video, Yahoo Video
- Current TV
- Fora TV
- MIT World
- YouTube, YouTube Edu
- TeacherTube
- Link TV, Explore, Global Pulse, Latin Pulse
- Howcast, Big Think, WonderHowTo, Explo.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, iVideosong

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

## TV Lesson (expert videos)

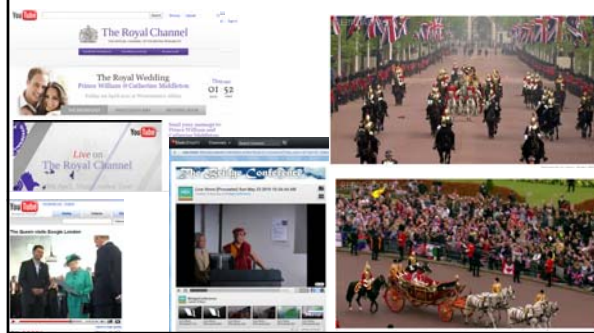


## July 22, 2011 GETideas Channel, Cisco (Education Thought Leader Series uploaded to YouTube)

<http://www.youtube.com/user/GETideas#q/u>



## April 29, 2011 (e.g., YouTube and the Royal Channel)



## October 2010, The V-PORTAL (Bonk, IU) "Video Primers in an Online Repository for e-Teaching and Learning"

TravelinEdMan (27 free/open YouTube videos)

<http://www.youtube.com/user/TravelinEdMan>

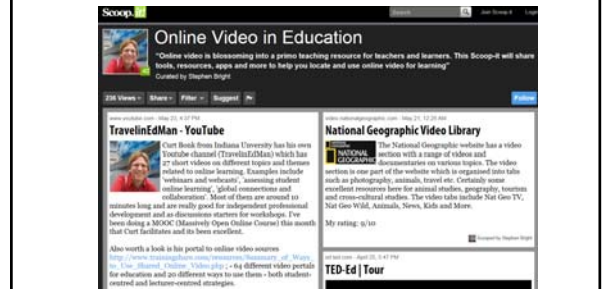


## Opener #6. Learner Participation in Open Information Communities (e.g., Slashdot, Digg, Wikipedia, YouTube)



## May 23, 2012 Scoop It!; Online Video in Education Stephen Bright, eLearning Designer, Waikato Centre for Learning

<http://www.scoop.it/online-video-in-education>





## Grovo (short technology videos)

<http://www.grovo.com/social-media>

The screenshot shows the Grovo website interface. At the top, there's a navigation bar with the Grovo logo and a 'Login' button. Below that, the main heading is 'How to Use Social Media Effectively' with a subtitle 'Video Tutorials for Social Media'. A central graphic features two cartoon figures holding signs that say 'FOLLOW' and 'FOLLOW', with a play button icon between them. To the right of this graphic is a short paragraph of text explaining social media's benefits. Below the text is a 'Get Free Access to Social Media Education' button with a Facebook 'Continue' button. At the bottom, there are three small profile cards for George Easton, Samit Sumari, and Chris Yeoh, each with a short bio.

## October 2011 (E-learn Conference)

History for Music Lovers, Washington Post  
The French Revolution ("Bad Romance" by Lady Gaga)  
Trojan Way ("Tainted Love" by Soft Cell)  
Charlemagne ("Call Me" by Blondie)

<http://www.youtube.com/user/historyteachers?blend=6&ob=5#p/f/12/kJULC0jsgdA>

The screenshot shows a YouTube channel page for 'History for Music Lovers'. The channel banner features a woman playing a guitar. Below the banner, there are several video thumbnails, including one for 'Bad Romance' by Lady Gaga. The page layout includes a search bar, navigation tabs, and a list of videos.

## April 1, 2012

Dinosaurs and Origins of Humans, Brian J. Ford,  
Microbiologist, Cambridge, UK

<http://www.youtube.com/user/tellymonitor#p/u/1/LhG6ApsKjar>

Origin of Humans: <http://www.youtube.com/user/tellymonitor#p/u/2/sWVnVEI8cU>

Tellymonitor's Channel: <http://www.youtube.com/user/tellymonitor>

BBC programs omit living cells: <http://www.youtube.com/watch?v=rDnTh6Cx6Y>

Secret Weapons: <http://www.youtube.com/user/tellymonitor#p/u>

Dinosaurs (Laboratory News, April 1, 2012): <http://www.labnews.co.uk/news/prehistoric-revolution/>

The screenshot shows a YouTube channel page for 'tellymonitor'. The channel banner features a man in a suit. Below the banner, there are several video thumbnails, including one for 'Origins of Humans with Brian J. Ford'. The page layout includes a search bar, navigation tabs, and a list of videos.

## April 6, 2011

Eric Whitacre: A virtual choir 2,000 voices strong

<http://www.youtube.com/watch?v=6WhWDCw3Mng>

The screenshot shows a TED Talk video player for 'Eric Whitacre: A virtual choir 2,000 voices strong'. The video player is the central focus, showing a man speaking. To the right, there are several smaller video thumbnails, including one for 'ERIC WHITACRE "VIRTUAL CHOIR"'. The page layout includes a search bar, navigation tabs, and a list of videos.

**Opener #7. Electronic  
Collaboration and Interaction  
(synchronous & asynchronous;  
Leonardo Tosi, project manager in the  
ICT and education area of the INDIRE**

The Learning  
World is Open

The screenshot shows a video conference interface. At the top, there's a navigation bar with the 'indire' logo and several menu items. Below that, there are several video thumbnails showing participants in a video conference. The interface includes a search bar, navigation tabs, and a list of videos.

**March 20, 2012  
Georgetown Learning Initiatives  
Soliya Connect**

<http://qli.georgetown.edu/#soliya>

The screenshot shows the Georgetown Learning Initiatives website. The main heading is 'Soliya Connect'. Below that, there are several video thumbnails, including one for 'Soliya at Georgetown (CNN video)'. The page layout includes a search bar, navigation tabs, and a list of videos.

**January 14, 2011**  
**South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN**  
<http://www.cnn.com/2011/LIVING/01/13/cnnheroes.stokes/index.html?hpt=T2>

The image shows a screenshot of a CNN Living article titled "South African teens get virtual mentoring from all over the world" by Danielle Berger. To the right of the article is a video conference grid showing multiple participants in a virtual meeting. The grid includes several young people and one adult, all appearing to be in a virtual environment.

**February 8, 2012**  
**On-Demand Videoconferencing with Experts (e.g., Peter Smith, VP, Kaplan University)**

The image shows a screenshot of a video conference window. The main window displays the profile of Peter Smith, VP of Kaplan University, with a link to his blogspot. Below the profile is a grid of participants in a virtual meeting. The interface includes a chat window and a list of participants.

**June 29, 2011 and July 6, 2012**  
**Google+ Hangouts and Facebook Video calling**  
[http://www.youtube.com/watch?v=Kl19jzVvTA&annotation\\_id=annotation\\_389852&feature=youtu.be](http://www.youtube.com/watch?v=Kl19jzVvTA&annotation_id=annotation_389852&feature=youtu.be)

The image shows two screenshots from YouTube. The left screenshot is titled "First Look at Google+ Hangouts" and shows a video of a man in a headset. The right screenshot is titled "Facebook introduces video calling" and shows a video of a woman smiling. Both videos are part of a collection related to social media video calling.

**Opener #8. Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)**

The Learning World is Open

The image shows a screenshot of a virtual world scene on the left, featuring a character in a futuristic, metallic suit standing in a virtual environment. On the right is a screenshot of a Facebook video player showing a virtual world scene with a building and a sign that says "Heart Murmur Sim".

**April/May 2011**  
**Dr. Monica Rankin's class UT Dallas, Cuban Revolution**  
<http://www.youtube.com/watch?v=ocQMf1kPo98>

The image shows a screenshot of a YouTube video titled "No Country for Old Castro" by the channel "No Country for Old Castro". The video shows a virtual classroom scene with a man in a suit sitting at a desk, likely representing Dr. Monica Rankin's class at UT Dallas.

**December 24, 2010:**  
**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"

The image shows two screenshots of social networking games. The left screenshot is for "FrontierVille" and "FarmVille", showing a virtual farm scene with various animals and buildings. The right screenshot is for "CityVille", showing a virtual city scene with a "PLAY NOW" button and a character in a hard hat.

**Augmented Reality, May 17, 2011:**  
 USA Today, Edward Baig, Augmented reality has potential to reshape our lives.  
 (e.g., ZooBurst, Craig Kapp, NYU, pop-up books)  
 Verity Tan, Recollections from R685, Fall 2011, <http://vimeo.com/33090590/>

Augmented reality has potential to reshape our lives

Recollections from R685, Fall 2011

ZooBurst

ZooBurst is a digital storytelling tool that lets anyone easily create live or hard copy 3D pop-up books.

**Opener #9. Real-Time Mobility and Portability (e.g., iPhone, low cost wireless devices)**

15m people/month mobile in India  
 40,000/week Rwanda  
 60,000 earthlings/hour

The Learning World is Open

**February 2012**  
**SMILE: Stanford Mobile Inquiry-based Learning Environment**

**October 5, 2011**  
**Apple co-founder Steve Jobs dies, USA Today**  
<http://www.usatoday.com/tech/news/story/2011-09-22/steve-jobs-dies/50672498/1>  
[http://www.cnn.com/2011/10/05/us/obit-steve-jobs/index.html?ref=BN1&hpt=hp\\_t1](http://www.cnn.com/2011/10/05/us/obit-steve-jobs/index.html?ref=BN1&hpt=hp_t1)

**March 13, 2011**  
**iPad Apps for Calculus, Math, Biology, etc.**  
 Chronicle of HE, Ben Wieder  
[http://chronicle.com/article/iPads-for-College-Classrooms-/1266817aid=at&utm\\_source=at&utm\\_medium=en](http://chronicle.com/article/iPads-for-College-Classrooms-/1266817aid=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

**August 18, 2011**  
**HowStuffWorks, iPhone App, USA Today, Marc Saltzman**

Why is the world's biggest landfill in the Pacific Ocean?  
 In the broad equator of the northern Pacific Ocean, there exists the North Pacific Subtropical Gyre, a slowly moving, clockwise spiral of currents created by a high-pressure system of air currents. The area is an oceanic desert. It is filled with tiny phytoplankton but few big fish or mammals. Due to its lack of large fish and gentle breezes, fishermen and...



**May 4, 2012**  
**"Top Gear presenter James May meets his virtual self", BBC**  
[http://news.bbc.co.uk/2/hi/programmes/click\\_online/9718563.stm](http://news.bbc.co.uk/2/hi/programmes/click_online/9718563.stm)

Top Gear presenter James May meets his virtual self

**Opener #10. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)**

The Samsung DualView TL225

**May 4, 2012**  
**Flexible displays bend what's possible for computers, Jon Swartz, USA Today**  
[http://mediagallery.usatoday.com/Flexible+screen+displays/G3657\\_A12064](http://mediagallery.usatoday.com/Flexible+screen+displays/G3657_A12064)

Components of the wrist-worn display prototype developed at HP Labs are shown in this illustration. When completed, the device will incorporate a working flexible display powered by solar cells.

**Online Language Learning**  
**January 27, 2010 and Feb 5, 2010: The Web Way to Learn a Language, NY Times, ERIC A. TAUB (e.g., EnglishCentral, iTalki, Palabea, Babbel)**

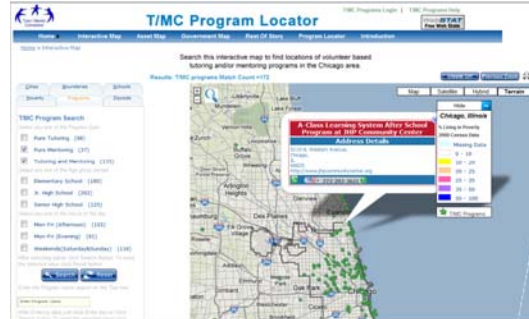
**December 16, 2010**  
**Introducing Word Lens**  
<http://www.youtube.com/watch?v=h2OfQdYrHRs>

**May 7, 2012**  
**Google+ Hangouts On Air: broadcast your conversation to the world**  
<http://peopleblog.blogspot.com/2012/05/google-hangouts-on-air-broadcast-your.html>

**June 3, 2012**  
**Webheads discussion about MOOC**



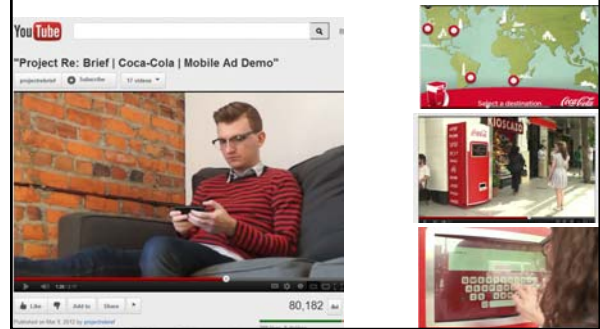
**June 3, 2012**  
**Tutor/Mentor Connection (Chicago)**  
<http://www.tutormentorprogramlocator.net/InteractiveMap.aspx>



**April 7, 2011**  
**Expert Tutors as Mobile Apps (e.g., Tutor.com)**



**May 8, 2012**  
**"Project Re: Brief | Coca-Cola | Mobile Ad Demo"**  
<http://www.youtube.com/watch?v=45Z-GevoYB8&feature=relmfu>



**Decisions for this Open Ed World...**

- **Technology & Administrator Decisions:**
  - What do to about OER, open sources, E-books, mobile, etc.?
- **Instructional Designer & Trainer decisions:**
  - Act as Concierge, Counselor, Course facilitator, Credit manager?
- **Formal Learner & Informal Lrnr decisions:**
  - Should I attend traditional university or create your own degree path?
  - How to report use of OER on resumes?

Slides at: [TrainingShare.com](http://TrainingShare.com)  
 Papers: [PublicationShare.com](http://PublicationShare.com)  
 Book: <http://worldisopen.com/>

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**ALL**  
**LEARN!!!**

