

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

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 President, CourseShare, LLC  
 cjbonk@indiana.edu  
<http://php.indiana.edu/~cjbonk>

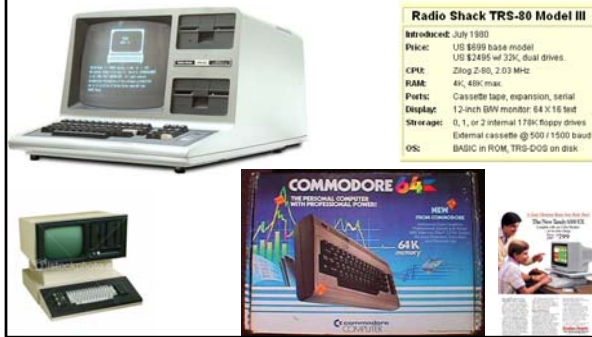


## September 15, 2010 Timeline of Technology for Teaching, NY Times

<http://www.nytimes.com/interactive/2010/09/19/magazine/classroom-technology.html?ref=magazine>



## Technology of the 1980s



**Radio Shack TRS-80 Model III**  
 Introduced: July 1980  
 Price: US \$699 base model  
 US \$2495 w/ 32K, dual drives.  
 CPU: Zilog Z-80, 2.03 MHz  
 RAM: 4K, 48K max  
 Ports: Cassette tape, expansion, serial  
 Display: 12-inch IBM monitor 64 X 16 text  
 Storage: 0, 1, or 2 internal 1.78K floppy drives  
 External cassette @ 500 / 1500 baud  
 OS: BASIC in ROM, TRS-DOS on disk

## Mark Weiser, Scientific American, 1991, The Computer for the 21st Century

<http://sandbox.xerox.com/want/papers/ubi-sciam-sep91.pdf>

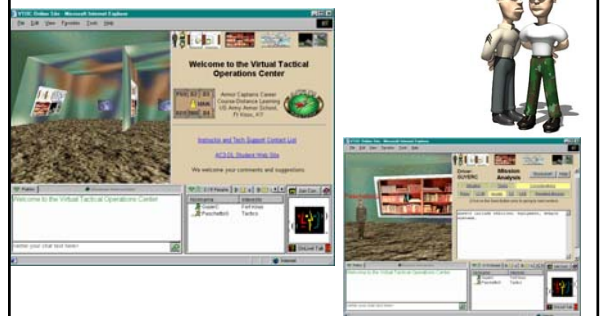


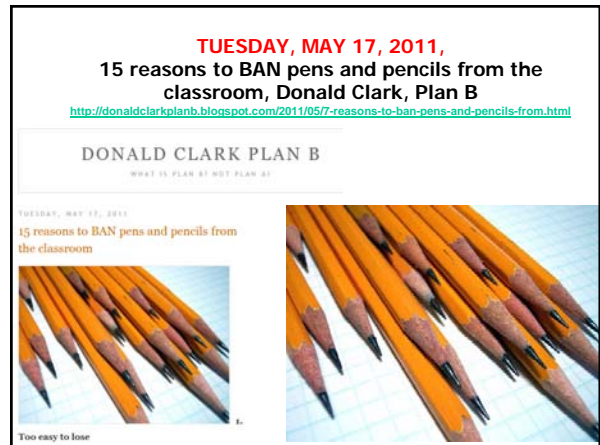
COMPUTER SCRATCHPADS augment the conventional screen type pads are wired to conventional computers; thus far only a handful of wireless models have been built.

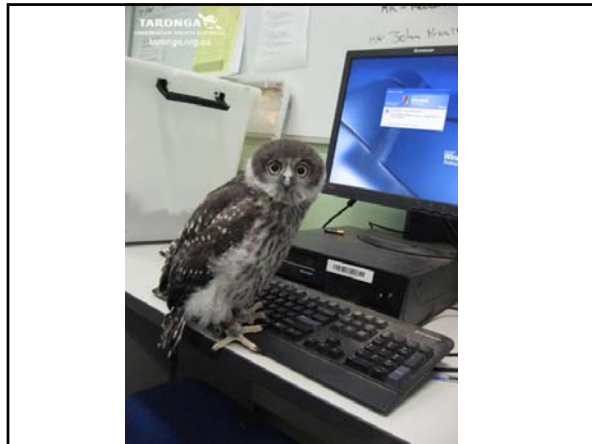
## Let's Reflect Back 10 Years...



## Virtual Tactical Operations Center (VTOC)









## Open in the Philippines! (February 21, 2012)



## Question: What is the Web?

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

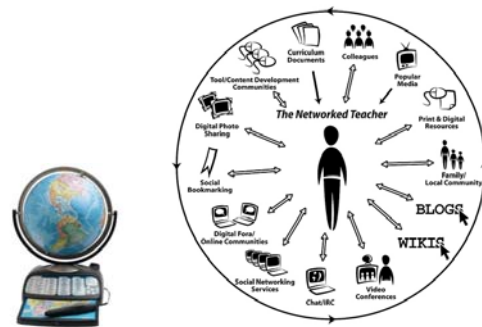


=====  
No, it is a learning tool!

## Answer: The Web of Learning



## The Web of Learning



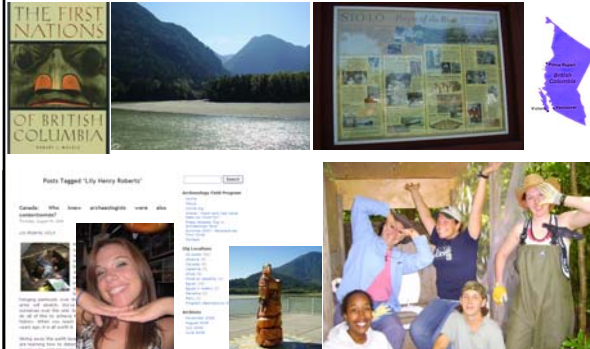
## Today we have the Web 2.0



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

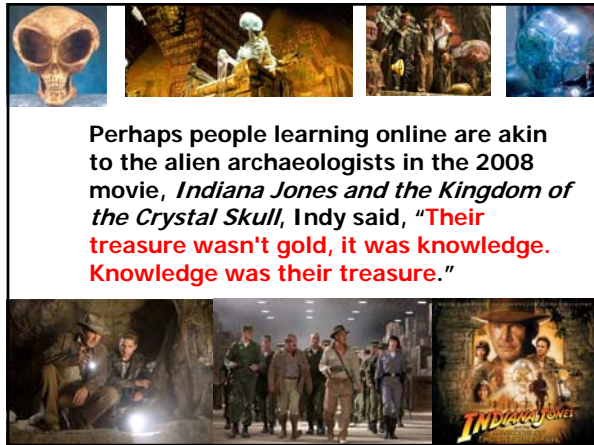


## I'm an Armchair Indiana Jones...



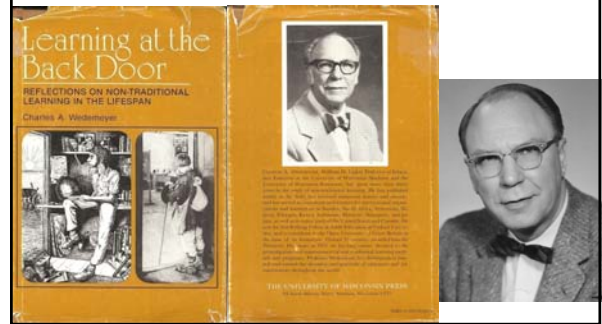
## Summer 2009

Michael Perham & Zac Sunderland,  
(each age 17, youngest person to sail solo around the world...and blog on it, use Skype, YouTube, take videos, post pictures, Minoru Saito, age 75, oldest solo sailor)



Perhaps people learning online are akin to the alien archaeologists in the 2008 movie, *Indiana Jones and the Kingdom of the Crystal Skull*, Indy said, **"Their treasure wasn't gold, it was knowledge. Knowledge was their treasure."**

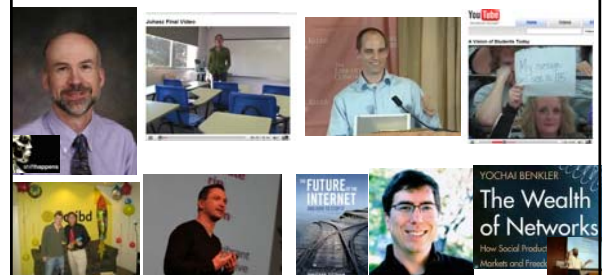
## Charles Wedemeyer, University of Wisconsin



## Some Educational and Psychological Heroes: John Dewey, Seymour Papert, John Seely Brown, Ivan Illich, Stephen Heppell, Henry Jenkins



## Our New Heroes are not Theoretical or Psychological



**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)




# Audience Participation!

**1. WE**

**2. ALL**

**3. LEARN!!!**




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

1. **Pipes:** The availability of tools and infrastructure for learning.
2. **Pages:** The availability of free educational content and resources (OER—Open Educational Resources).
3. **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

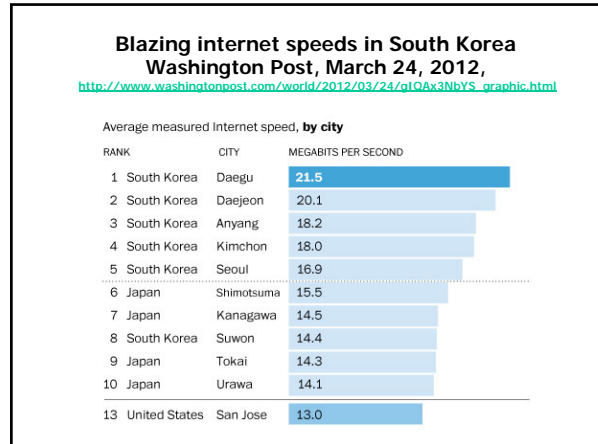
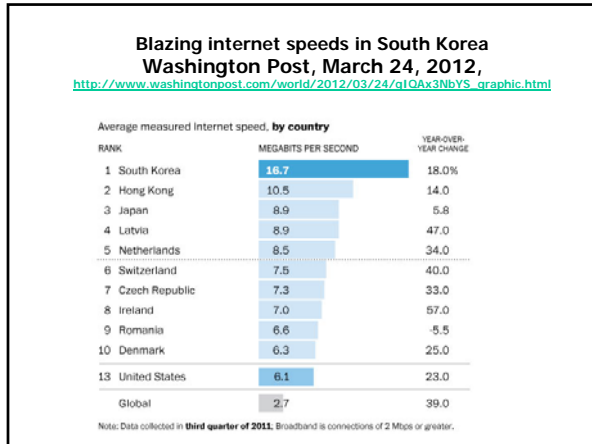
**March 2, 2011:** Why Amazon would be smart to give away the Kindle, March 4, 2011, CNN Tech, Amy Gahrn

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



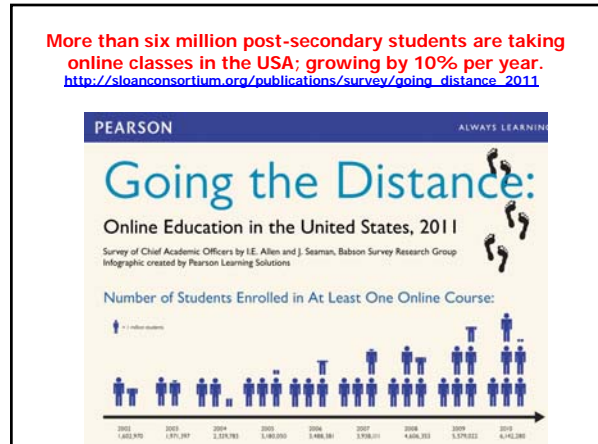
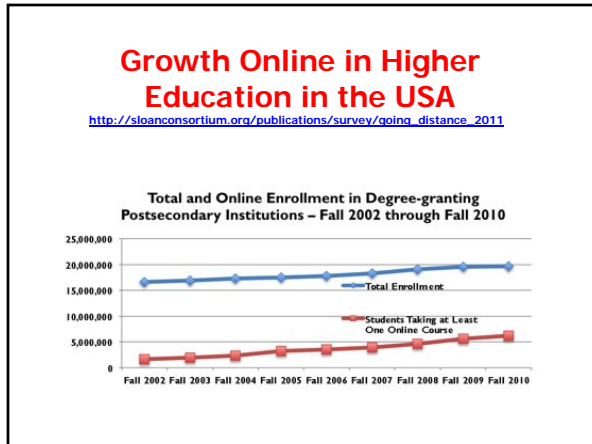




### January 29, 2012

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](http://www.heraldtimesonline.com/stories/2012/01/29/news_apples_new_electronic_textbook_initiative_just_another_chapter_in_story.sto?print=1)

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



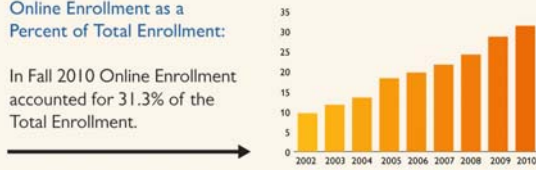


## Online Enrollment Growth in USA

[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)  
<http://sloanconsortium.org/sites/default/files/pages/OnlineLearningSurvey-Infographic-1.png>

Online Enrollment as a Percent of Total Enrollment:

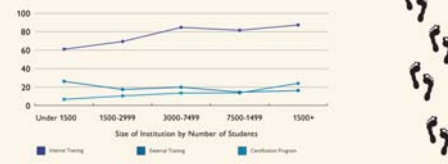
In Fall 2010 Online Enrollment accounted for 31.3% of the Total Enrollment.



## Types of Training by Size of Institution

[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)  
<http://sloanconsortium.org/sites/default/files/pages/OnlineLearningSurvey-Infographic-1.png>

Types of Training Provided for Faculty Teaching Online by Size of Institution:

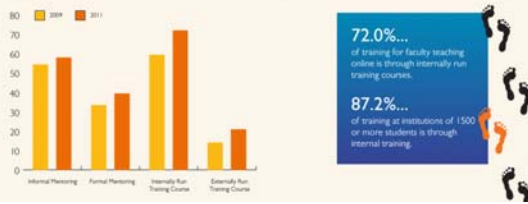


Going the Distance: Online Education in the United States, 2011 Survey by I.E. Allen and J. Seaman  
 Copyright © Babson Survey Research Group, 2011. All rights reserved.  
 Going the Distance Infographic Copyright © Pearson Learning Solutions, 2011. All rights reserved.

## Types of Training for Online Faculty

[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)  
<http://sloanconsortium.org/sites/default/files/pages/OnlineLearningSurvey-Infographic-1.png>

Types of Training Provided for Faculty Teaching Online:



72.0%...  
of training for faculty teaching online is through internally run training courses.

87.2%...  
of training at institutions of 1500 or more students is through internal training.

## Satisfaction with Online Outcomes

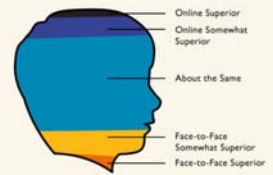
[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)  
<http://sloanconsortium.org/sites/default/files/pages/OnlineLearningSurvey-Infographic-1.png>

CAO Assessment of Learning Outcomes: Online vs. Face-to-Face

CAO Satisfaction with Online Education:



CAO Perceived Student Satisfaction of Online Education:



## Long-Term Strategy

[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)  
<http://sloanconsortium.org/sites/default/files/pages/OnlineLearningSurvey-Infographic-1.png>

Which types of institutions believe Online Education is critical to the long-term strategy?

Public Institutions...

are largely in agreement of online education's crucial role to their long-term strategy.

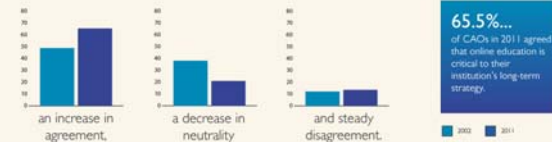


## Online—Long-Term Strategy

[http://sloanconsortium.org/publications/survey/going\\_distance\\_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)  
<http://sloanconsortium.org/sites/default/files/pages/OnlineLearningSurvey-Infographic-1.png>

Online Education Critical to Long-Term Institution Strategy:

Since 2002, the number of CAOs who believe Online Education is critical to the long-term strategy of their institution has shown:



65.5%...  
of CAOs in 2011 agreed that online education is critical to their institution's long-term strategy.

## Who is demanding fully online and blended learning?



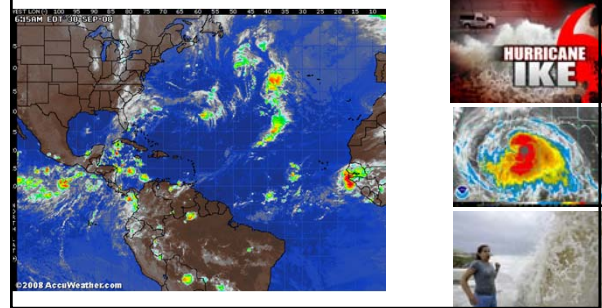
**March 11, 2011**

Those Preparing for Exams and Needing Remediation,  
Bill Gates, Salmon Khan, NBC Special

<http://www.msnbc.msn.com/id/21134540/vp=42018991&#42018991>



## Those in hurricanes!



Those where there  
are diseases and  
outbreaks...

## Those in earthquakes!





**Those effected by volcanos...**



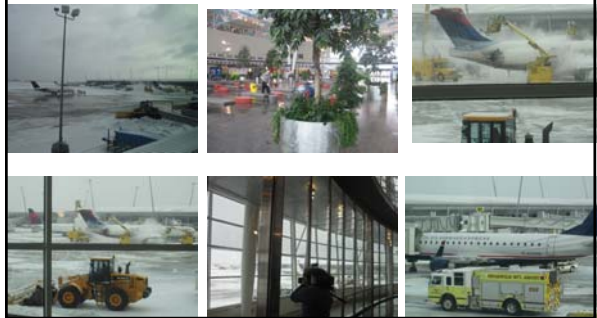
**Those in blizzards and ice storms...**



**Snowmegeddon, DC winter of 2010**



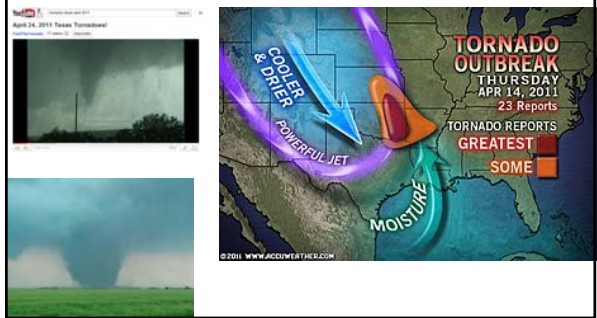
**Groundhog Day Blizzard of 2011**



**Those in tsunamis?  
(Japan, March 11, 2011)**



**Those in tornados...!  
(April 24, 2011)**

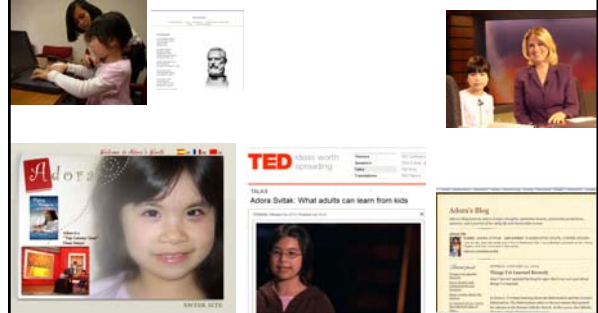




## Why should we be content?



## Adora Svitak, age 13, World's Youngest Teacher



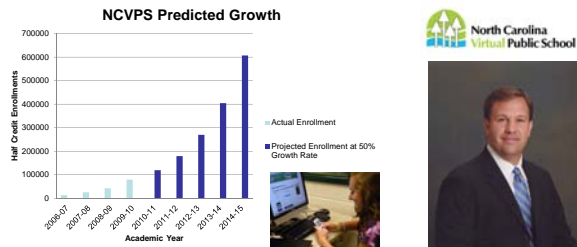
## Indiana University High School (4,000 students and 1,400 enrolled in diploma programs)



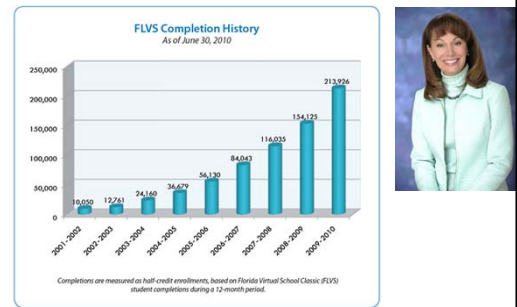
## April 2011 Departments Stay Afloat with new Online Ventures (new Ed.D. in IST/Ed Tech) (e.g., <http://iuconnected.iu.edu/>)



## July 2010 North Carolina Virtual Public Schools (growing 79% per year) (per Dr. Bryan Setser, Executive Director, North Carolina Virtual Public School Learn and Earn Online)



## February 4, 2011 New Enrollment History Chart: Florida Virtual School (Julie Young, President & CEO)





### April 12, 2011

## NCTM Conference Session, Free Online Degrees; iSMART: 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.

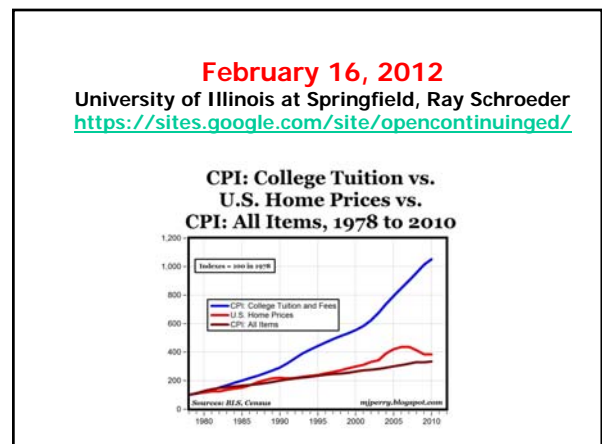
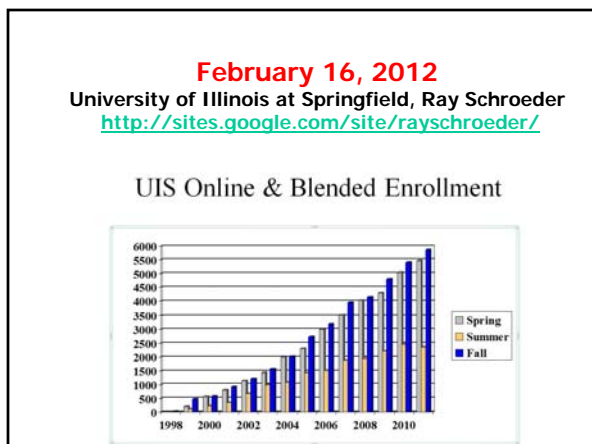
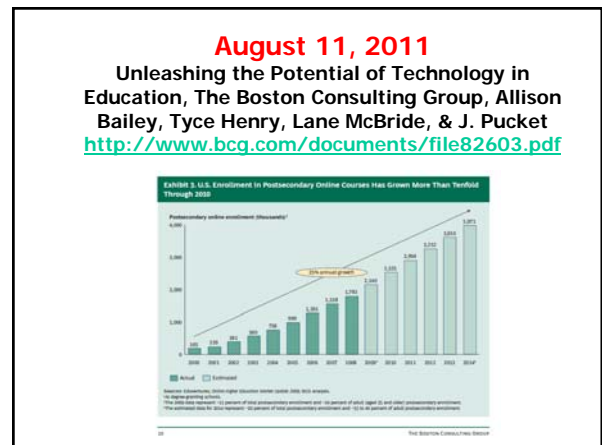
**Jen Chauvot and Mimi Lee, Univ of Houston**

### TOTAL AND ONLINE ENROLLMENT IN DEGREE-GRANTING POSTSECONDARY INSTITUTIONS – FALL 2002 THROUGH FALL 2008

Year	Total Enrollment	Annual Growth Rate Total Enrollment	Students Taking at Least One Online Course	Annual Growth Rate Online Enrollment	Online Enrollment as a Percent of Total Enrollment
Fall 2002	16,611,710	NA	1,602,970	NA	9.6%
Fall 2003	16,911,481	1.8%	1,971,397	23.0%	11.7%
Fall 2004	17,272,043	2.1%	2,329,783	18.2%	13.5%
Fall 2005	17,487,481	1.2%	3,180,050	36.5%	18.2%
Fall 2006	17,758,872	1.6%	3,488,381	9.7%	19.6%
Fall 2007	17,975,830	1.2%	3,938,111	12.9%	21.9%
Fall 2008	18,199,920	1.2%	4,606,353	16.9%	25.3%

Open U of Malaysia, March 25, 2010

Year	Enrollment
year 2001	753
year 2002	7622
year 2003	16998
year 2004	26666
year 2005	35996
year 2006	53248
year 2007	64489
year 2008	75425
year 2009	88409
year 2010	91223





### September 15, 2010

#### Study: Online learning might be less effective for some, eSchool News, Dennis Carter

**Classroom students scored 84.5 percent on the first exam in the economics course, and online students scored 83.3 percent.**

### September 2010

#### Meta-Analysis Update: Blended and Fully Online Still Best!

**Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies**

U.S. Department of Education  
Office of Planning, Evaluation, and Policy Development  
Policy and Program Studies Service

Prepared by  
Barbara Means  
Yukie Toyama  
Robert Murphy  
Marianne Bakia  
Karla Jones

Center for Technology in Learning

Revised September 2010

### Opener #3. Availability of Open Source and Free Software (e.g., Linux, Apache, Moodle, Sakai)

The Learning World is Open

### January 8, 2012

#### Moodle (58 million users in 223 countries, 73,696 sites, 5.9 million courses)

### Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from MIT, Utah State, CORE, OOPS)

The Learning World is Open



## Sample OpenCourseWare Projects (Tufts, Johns Hopkins)

## OpenSource OpenCourseWare Prototype System (OOPS) funded by, the Foundation of Fantasy, Lucifer Chu, Chairman and Janitor of OOPS, Taipei)

### The Biggest OCW Localization Volunteer Group in the World

## 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/>

## 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.

## October 2, 2011 The University of Wherever, NY Times, Bill Keller, <http://www.nytimes.com/2011/10/03/opinion/the-university-of-wherever.html>

## November 2, 2011, Take a Test, Get a Job, or Your Money Back, Forbes, James Marshall Crotty <http://www.forbes.com/sites/jamesmarshallcrotty/2011/11/02/take-a-test-get-a-job-or-your-money-back/>

**January 23, 2012**  
**University 2.0 - Sebastian Thrun (Livestream)**  
<http://new.livestream.com/accounts/50648/events/698/videos/112950/>  
<http://www.youtube.com/watch?v=SkneoNrfadk>

The screenshot shows a Livestream interface. On the left, a video player shows Sebastian Thrun speaking. On the right, a whiteboard displays a diagram titled "D-SEPARATION" with a hand pointing to it. Below the whiteboard, there is a smaller video player showing a DLD event.

**January 23, 2012**  
**University 2.0 - Sebastian Thrun (Livestream)**  
<http://new.livestream.com/accounts/50648/events/698/videos/112950/>  
<http://www.youtube.com/watch?v=SkneoNrfadk>

The screenshot shows a Livestream interface. On the left, a text overlay contains a personal anecdote about a chaotic week. On the right, a video player shows Sebastian Thrun speaking. Below the text, there is a smaller video player showing a DLD event.

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

The screenshot shows the Udacity website. At the top, there is a navigation bar with social media icons and a "SIGN UP" button. Below, there are two course listings: "CS 101: BUILDING A SEARCH ENGINE" and "CS 373: PROGRAMMING A ROBOTIC CAR". Each listing includes a "LEARN MORE" and "ENROLL" button.

**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>

The screenshot shows the Marketplace Tech Report website. The headline reads "Guess what! You just got into MIT! Free ride! Kind of!". Below the headline is a video player showing a scene with classical architecture.

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

The screenshot shows a web browser window. On the left, there is a video player showing Ray Schroeder. On the right, there is a news article from MITnews titled "What is MITX?".

**February 16, 2011**  
**Khan Academy (over 2,700 videos)**  
<http://www.khanacademy.org/>

The screenshot shows the Khan Academy website. At the top, there is a navigation bar with "WATCH", "PRACTICE", "COACH", "VOLUNTEER", and "ABOUT" buttons. Below, there is a video player showing a math lesson. To the right, there is a "Watch a video" button and a "Practice with an exercise" button. At the bottom, there is a photo of a student using a laptop.

## February 16, 2012

### Online Badges and Certifications from OER University of Illinois at Springfield, Ray Schroeder

<https://sites.google.com/site/opencontinuinged/>

Badges and other alternative certifications

Some sample badges:



How Will Mozilla's Open Badges Project Affect Higher Ed? by Audrey Watters, Hack [Higher] Education - Inside Higher Ed

The Open Badges Project is a recognition that "learning looks very different today than traditionally imagined. Legitimate and interest-driven learning is occurring through a multitude of channels outside of formal education, and yet much of that learning does not "count" in today's world. There is no doubt to demonstrate that learning and transfer it across contexts or use it for real results," Mozilla's Eric Knight told me in an interview for [OER Commons](#).

## Badges for Online Learning

(e.g., Khan Academy,  
<http://www.khanacademy.org/badges/view>)



MacArthur Press Releases

Digital Media & Learning Competition Provides \$2 Million for Innovations in Digital Badges

Badges for Lifelong Learning

Badge Content and Programs

Badge Design and Tools

Matchmaking and Fizzle

## National Repository for Online Courses (NROC) Commons



Welcome to a worldwide learning network

100+ COURSES

100+ COURSES


100+ COURSES

## 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 online-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.



Continent	Count
North America	1,343
Asia	878
South America	1,077
Africa	423
Oceania	98

## The Complete Works of Charles Darwin

(Great Plague, Great Fire, Charles Dickens, Erasmus Darwin, Mary Wollstonecraft Shelley, Robert Browning, John Stuart Mill, Ralph Waldo Emerson, Elizabeth Barrett Browning, and Alfred Tennyson)



The Complete Works of Charles Darwin Online

Contributors and Acknowledgements

Contributors

The Diary of Samuel Pepys

## February 8, 2011

### Online Portals and Open Educational Resources (OER) Google Art Project, Chronicle of HE (new Google project that allows visitors to explore museums around the world and view hundreds of artworks) <http://www.googleartproject.com/>



Art Project

Explore museums from across the world, discover and view hundreds of artworks at incredible zoom levels, and even create and share your own collection of masterpieces.

Learn More

Also Multilingual Sites

- Freer Gallery of Art, Smithsonian - Washington, DC
- The Metropolitan Museum of Art - New York City
- Uffizi Gallery - Florence
- Corning Museum of Glass - Corning, NY
- The State Hermitage Museum - St. Petersburg
- National Gallery - London
- MoMA, The Museum of Modern Art - New York City
- Museum Tinguely - Bernemuseeum, Basel
- Museum Kamp - Paderborn
- Van Gogh Museum - Amsterdam



**February 18, 2011**  
**Ten great sites with free teacher resources**  
**eSchool News, Jenna Zwang,**  
<http://www.eschoolnews.com/2011/02/18/ten-great-sources-of-free-teacher-resources/print/>

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

1. BBC News Video and Audio
2. CNN.com Video
3. MSNBC.com
4. Google Video, Yahoo Video
5. Current TV
6. Fora TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Expto.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, iVideosong

**Videostreamed Conference Talks**  
**Videos: Unleashing Technology to Personalize Learning, Education Week, October 5, 2010**  
<http://www.edweek.org/ew/section/video-galleries/october05-event-edtech.html>

**October 20, 2011**  
**e-Learning Conference, Skype Connection, Hawaii and Indiana**

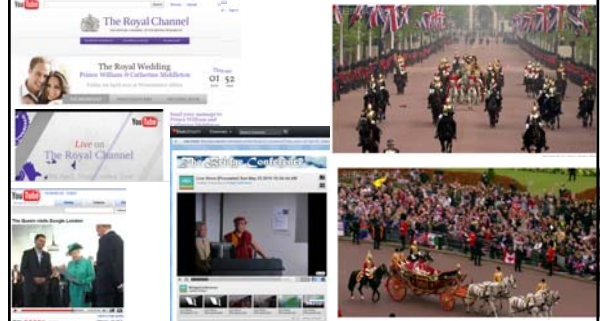
**July 22, 2011**  
**GETideas Channel, Cisco (Education Thought Leader Series uploaded to YouTube)**  
<http://www.youtube.com/user/GETideas#g/u>

**Origins of Humans, Brian J. Ford, Microbiologist, Cambridge, UK**  
<http://www.youtube.com/user/tellymonitor#p/u/1/LHGeApsKjAsr>  
 Origin of Humans: <http://www.youtube.com/user/tellymonitor#p/u/2/sWWnVEd18ciU>  
 Tellymonitor's Channel: <http://www.youtube.com/user/tellymonitor>  
 BBC programs omit living cells: <http://www.youtube.com/watch?v=rdNpTh6Cx6Y>  
 Secret Weapons: <http://www.youtube.com/user/tellymonitor#p/u>  
 Dinosaurs (Laboratory News, April 1, 2012): <http://www.labnews.co.uk/news/prehistoric-revolution/>

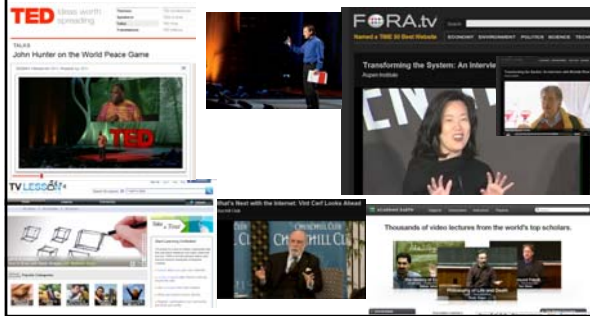
**October 2010, The V-PORTAL (Bonk, IU)**  
 "Video Primers in an Online Repository for e-Teaching and Learning" V-PORTAL, TravelinEdMan (27 free/open YouTube videos)  
<http://www.youtube.com/user/TravelinEdMan>



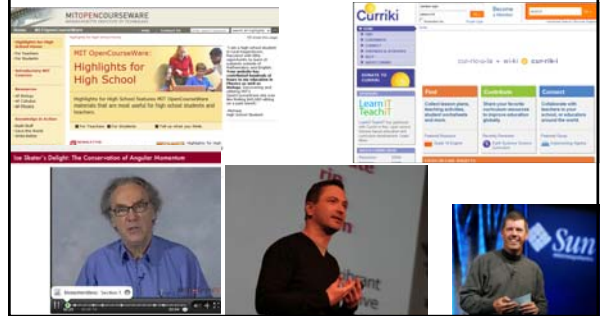
**April 29, 2011**  
 (e.g., YouTube and the Royal Channel)



**More Shared Online Video: TED, Academic Earth, TV Lesson, and Fora TV**



**Curriki, Connexions, OpenCourseWare**  
 (e.g., MIT OCW Highlights for High School)



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



**June 2010**  
 Clay Shirky, NYU: How cognitive surplus will change the world, TED



**December 30, 2010**  
**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=5tp/f/12/k/JULC0isgdA>

**April 6, 2011**  
**Eric Whitacre: A virtual choir 2,000 voices strong**  
<http://www.youtube.com/watch?v=6WhWDCw3Mng>

**May 12, 2011**  
**Across More Classes, Videos Make the Grade, Chronicle of HE**  
[http://chronicle.com/article/Across-More-Classes-Videos/127422?cid=at&utm\\_source=at&utm\\_medium=en](http://chronicle.com/article/Across-More-Classes-Videos/127422?cid=at&utm_source=at&utm_medium=en)

**Across More Classes, Videos Make the Grade**  
 In some science and writing courses, final papers are giving way to multimedia

**Susan Metros, associate vice provost at Southern Cal: Multimedia "means you have to be able to actually make" graphics and images.**

**Participatory E-Books**

**Scribd: Documents on Web**  
 (<http://www.scribd.com/>; 50 million unique visitors per month, 10's of millions of documents, April 2010)

**Opener #7. Electronic Collaboration and Interaction**  
 (synchronous & asynchronous)





Yonsei University Library, Seoul, Korea

### 7 Tips for Building Collaborative Learning Spaces, Campus Technology, Matt Villano, June 2010

FACILITIES

**7 TIPS FOR BUILDING COLLABORATIVE LEARNING SPACES**

Technology and design can work together to maximize the effectiveness of new learning environments. By Matt Villano

### Aces of Spaces, Campus Technology, June 2011, Jennifer Demski

CAMPUS TECHNOLOGY  
LIGHTS! CAMERA! ACTION!

The digital @Yonsei at Yonsei University has students like "spatial analysis" performers," allowing them to use their own resources to control digital students in the room.

CAMPUS TECHNOLOGY | June 2011

### 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>

### Synchronous Conferencing Presentations

**June 29, 2011**  
**Google+ Hangouts**

[http://www.youtube.com/watch?v=KL9JFvKTA&annotation\\_id=annotation\\_389852&feature=youtu.be](http://www.youtube.com/watch?v=KL9JFvKTA&annotation_id=annotation_389852&feature=youtu.be)

The screenshot shows a YouTube video player for a Google+ Hangout. The video title is "First Look at Google+ Hangouts" and it has 434 views. The video shows two participants in a video call. The video has 36,714 likes.

**July 6, 2011**  
**Facebook introduces video calling**  
**Eric Stoller, Inside Higher Ed**

[http://www.insidehighered.com/blogs/student\\_affairs\\_and\\_technology/facebook\\_introduces\\_video\\_calling](http://www.insidehighered.com/blogs/student_affairs_and_technology/facebook_introduces_video_calling)

The screenshot shows a YouTube video player for a video titled "Facebook introduces video calling" by Eric Stoller. The video shows three participants in a video call. The video has 48,538 views.

**February 8, 2012**  
**Peter Smith, VP, Kaplan University**

The screenshot shows a Zoom meeting window. The main content is a slide for Peter Smith, VP of Kaplan University. The slide includes his name, a link to his blogspot.com, and a graphic titled "HARNESSING AMERICA'S WASTED TALENT: A New Strategy of Learning".

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

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

The screenshot shows a website for "Soliya Connect" under the heading "LEARNING INITIATIVES". The website features a navigation menu, a main content area with a video player, and a sidebar with additional resources.

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

**The Learning World is Open**

The screenshot shows a virtual world environment. On the left, a character in a futuristic, metallic suit stands in a landscape. On the right, a screenshot from a YouTube video shows a virtual building labeled "Heart Murmur Sim" in a virtual world.

**April/May 2011**  
**Dr. Monica Rankin's class, UT Dallas, Cuban Revolution**

<http://www.youtube.com/watch?v=ocQMf1kPo98>

The screenshot shows a YouTube video player for a video titled "No Country for Old Castro". The video shows a virtual classroom simulation with two characters in suits sitting at a desk in a virtual office setting.



**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"

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

**August 18, 2011**  
**Eco Mania and Face the Waste (iPhone/iPod), Green games gain in popularity, USA Today, Mike Snider**

**Augmented Reality, May 17, 2011: USA Today, Edward Baig, May 17, 2011, 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/>

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

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

The Learning World is Open

**(Paul Kim, 2010)**  
**We Are Going Global Mobile!**

Gain Mobile



**April 2010**  
**"A" is for App, Anya Kamenetz, Fast Company**

**February 14, 2012**  
**Alex Bonk in Dar es Salaam**

**February 14, 2012**

Per Paul Kim, Director, Seeds for Empowerment: "Children in Newala, Tanzania learning English with mobile videos and writing stories. (Mobile Task Based Learning Workshop - Seeds of Empowerment). No electricity for 3 straight days, but we keep going!!"

**February 19, 2012**

Per Paul Kim, Director, Seeds for Empowerment: "Got a portable power generator! Working with 120 kids in a school with 600 kids."

**February 20, 2012**

Per Paul Kim, Director, Seeds for Empowerment: "SMILE (Stanford Mobile Inquiry-based Learning Environment) activity to promote critical thinking, creativity, problem solving, peer evaluation, and team collaboration. Here we have one device for each 3-student team. 20 devices are needed for a class with 60 kids.

We are working with 120 kids in a 600-student school. The school will be getting a total of 61 mobile devices (25 LGs + 36 TMs), 3 notebooks, 1 projector, and 1 router."

**February 2012**  
**Seeds for Empowerment, Tanzania**  
**Getting Juice for Technology (generator)**

**February 2012**

Seeds for Empowerment, Tanzania  
Paul Kim getting wiring working



**February 2012**

Seeds for Empowerment, Tanzania  
(Paul Kim turning it on!)



**February 2012**

SMILE: Stanford Mobile Inquiry-based  
Learning Environment



**February 2012**

SMILE: Stanford Mobile Inquiry-based  
Learning Environment



**February 2012**

SMILE: Stanford Mobile Inquiry-based  
Learning Environment



**February 2012**

Seeds for Empowerment, Tanzania  
(Alex Bonk and the kids...)



**March 20, 2012**

Seeds for Empowerment, Mexico City  
Paul Kim and Jeungah Kim



**March 20, 2012**

SMILE: Stanford Mobile Inquiry-based  
Learning Environment



**March 20, 2012**

Seeds for Empowerment, Mexico City  
Paul Kim and Jeungah Kim



**March 20, 2012**

Seeds for Empowerment, Mexico City  
Paul Kim and Jeungah Kim



**March 20, 2012**

SMILE: Stanford Mobile Inquiry-based  
Learning Environment



**March 20, 2012**

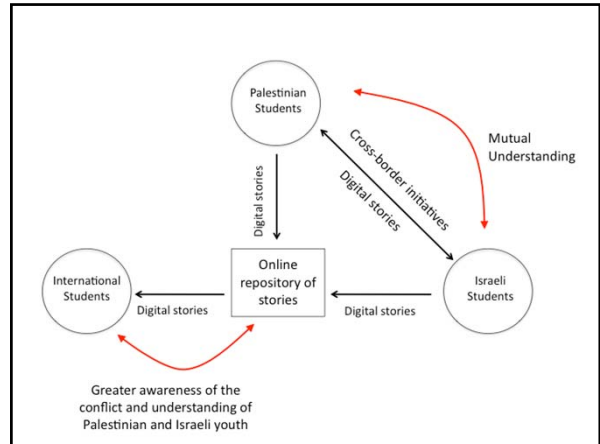
Seeds for Empowerment, Mexico City  
Paul Kim and Jeungah Kim





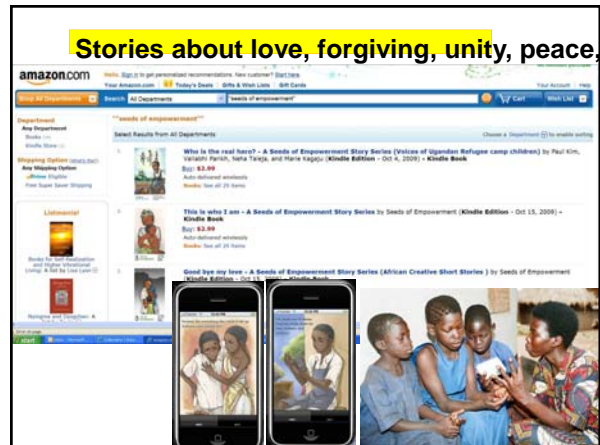


## West Bank, Palestine



## Powering the device on bicycle

PocketSchool on Two Wheels



## Stories about love, forgiving, unity, peace

**SEEDS OF EMPOWERMENT**  
Be a part of the story

**Kamakshi Duvvuru**  
Curriculum Designer for Science Workshop  
Kamakshi Duvvuru is continuing her senior year at Little Rock Central High School. Her interests lie in developing creative and engaging activities to improve conditions in underdeveloped areas, especially for education for underprivileged children and women's empowerment. She began working with Seeds of Empowerment in the summer of 2010 as she developed a design-based learning curriculum to teach rural children about scientific concepts like desiccation and wind power.

**Alvin Kibo Kim**  
Curriculum Designer  
Alvin Kim attends Palo Alto High School. He believes quality education, and he thinks that technology can help. He is interested in developing ideas that are currently unavailable to them.

**Alex Bank**  
Associate Director of Multimedia Design  
Alex Bank graduated from Indiana University in 2010 with a BA in Sociology and a Minor in Studio Art. He has worked for IU's Center for Evaluation and Education Policy (CEEP), the IU School of Education, and has recently moved to Chicago, Illinois to pursue a freelance career in film and video. Though his interests are far ranging, he has always maintained a particular passion for art, people, and helping those in underprivileged positions. Ultimately, he wishes to combine his passions to help make a positive difference in as many lives as possible.

**October 5, 2011**  
**Apple founder Steve Jobs dies, CNN**  
<http://www.cnn.com/2011/10/05/us/obit-steve-jobs/index.html?ref=BN1&hpt=hp.11>

**Apple founder Steve Jobs dies**  
Visionary built leading tech firm

Steve Jobs co-founded Apple in a Silicon Valley garage and led a mobile-computing revolution with his popular devices such as the iPhone. He died Wednesday at 58. FULL STORY

Live Blogging reaction: Steve mentions  
 • He says he changed the world  
 • Apple's financial engine continues  
 • The spiritual side of Steve Jobs  
 • Opinion: One thing we owe to Jobs

Steve Jobs, Apple founder, dies

**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>

The screenshot shows the USA Today website with a prominent headline: "Apple co-founder Steve Jobs dies". Below the headline is a photograph of Steve Jobs. The page layout includes a navigation bar, a main content area with the article title and image, and a sidebar with "Top picks" and "More top news" sections.

**Tablet Computers and Personalized News**  
**April 10, 2010: Seton Hill Univ, 2,100 students an iPad and freshmen a 13-inch MacBook laptop**  
**Feb 1, 2011: An Android Tablet Made Just for School, David Zax, Fast Company**  
**March 9, 2011: <http://www.zite.com/>; USA Today**

This collage features three distinct images. On the left, Steve Jobs is shown holding an iPad. On the right, a CNN World news article is displayed with the headline "India unveils \$35 computer for students" and a photo of a man holding a device. At the bottom, a person is seen using a tablet computer.

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

Two photographs are included. The left photo shows a group of students in a classroom setting, some holding iPads. The right photo shows a woman, identified as Linda Johnson, pointing at a screen while holding an iPad.

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

**May 27, 2011**  
**Math and Spelling games on iPads**  
**eSchool News**

The image displays several screenshots from the "Miss Spell's Class" app. One screenshot shows a list of names for a spelling class: 1. Lorraine, 2. Bellan, 3. Candace, 4. Elspeth, 5. Arden, 6. Monopoly, 7. Cheryl, 8. Constance. Another screenshot shows a game interface with a "start game" button and a "Personal Best" score of 77.

**June 13, 2011**  
**Massachusetts School Issues iPads to Every Student in Grade 6**  
<http://thejournal.com/articles/2011/06/13/massachusetts-school-issues-ipads-to-every-student-in-grade-6.aspx>

The screenshot shows the "The Journal" website with the headline "Massachusetts School Issues iPads to Every Student in Grade 6". The article text mentions that the Cambridge Francis School in Massachusetts has issued iPads to each of its 400-grade six students. The page also features a photo of a classroom and an "App Store" logo.

**July 20, 2011**  
**Smart phones driving lecture capture growth**  
**eCampus News, Dennis Carter**  
<http://www.ecampusnews.com/technologies/smart-phones-driving-lecture-capture-growth/>

The image shows a screenshot of the eCampus News website with the headline "Smart phones driving lecture capture growth". The article text states that a leading lecture-capture company says use of the technology has skyrocketed in recent months. Below the text are two photographs: one showing students in a classroom using their smartphones, and another showing a large lecture hall.

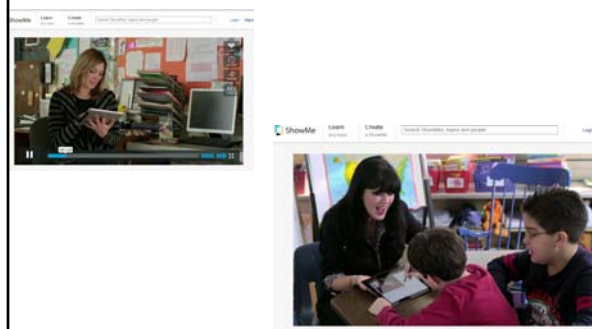
**November 12, 2011**  
**My Teacher Is an App, Stephanie Banchemo and**  
**Stephanie Simon, Wall Street Journal Online**  
<http://online.wsj.com/article/SB11000142405297020455000457703080006260144.html?printMode>



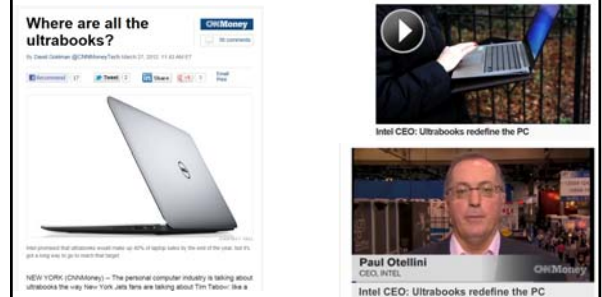
**Popplet**  
<http://popplet.com/>



**ShowMe**  
<http://www.showme.com/>



**March 27, 2012**  
**Where are all the ultrabooks?, David**  
**Goldman, CNN Money Tech**  
<http://money.cnn.com/2012/03/27/technology/ultrabooks/index.htm>



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



The Samsung DualView TL225

**December 16, 2010**  
**Introducing Word Lens**

<http://www.youtube.com/watch?v=h2OfQdYrHRS>





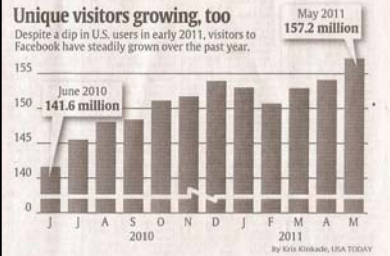
**August 19, 2011**

**Bing Translator** (a convenient way to translate between languages in Internet Explorer 8)  
<http://www.microsofttranslator.com/default.aspx>



**July 7, 2011**

**Facebook says membership has grown to 750 million, USA Today, Jon Swartz**  
[http://www.usatoday.com/tech/news/2011-07-06-facebook-skype-growth\\_n.htm](http://www.usatoday.com/tech/news/2011-07-06-facebook-skype-growth_n.htm)



**April 7, 2011**

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

**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)**

**February 9, 2012**

**A first-hand look inside a flipped classroom, eSchool News, Meris Stansbury**  
<http://www.eschoolnews.com/2012/02/09/a-first-hand-look-inside-a-flipped-classroom/>



**February 12, 2012: Mooresville's Shining Example (It's Not Just About the Laptops), ALAN SCHWARZ, NY Times**  
[http://www.nytimes.com/2012/02/12/education/mooresville-school-district-a-laptop-success-story.html?\\_r=1&age=related-all](http://www.nytimes.com/2012/02/12/education/mooresville-school-district-a-laptop-success-story.html?_r=1&age=related-all)

**April 8, 2011: North Carolina School Engages Tech Generation With Digital Learning Tools, PBS Newshour**  
[http://www.pbs.org/newshour/education/jan-june11/technology\\_04-08.html](http://www.pbs.org/newshour/education/jan-june11/technology_04-08.html)


**February 21, 2012**

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


<http://www.youtube.com/watch?v=W-j68hQa5w>  
 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\\_videos\\_to\\_reinvent\\_education.html](http://www.ted.com/talks/salman_khan_let_s_use_videos_to_reinvent_education.html)




## Predictions




1. Five Billion "Have-Nots" Have at It!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Quarter-Century Learning Clubs
4. Terabyte Learning Access Points
5. The Veneration of Learning
6. Personalization+ Portfolios
7. The Selection of Global Learning Partners
8. The Shared Learning Era
9. Teaching-Learning Perpetuities
10. Teachers, Teachers
11. The Rise of the Super Blends
12. Self-Determined Humans
13. Free Learning Zones
14. Authentic Learning Amalgamations
15. Alexandrian Aristotles



### 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?



- This book is an attempt to reveal a wide range of learning options in front of you while also offering you a framework to make sense of them. As the Grail Knight said in the 1989 movie, *Indiana Jones and the Last Crusade*, "choose wisely." If you do, WE-ALL-LEARN. The world is now open to you!

### Is this a revolution?



### How many ideas did you get from this talk?

1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.

