

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

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Do you know the shape of the world?

Is the World Flat?

Is the World Curved?

Is it spiky?

Or is it Open?



Question: What is the Web?

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



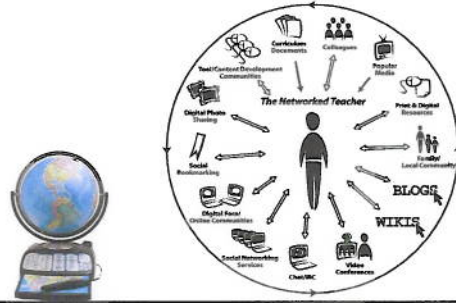
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No, it is a learning tool!

Answer: The Web of Learning



The Web of Learning



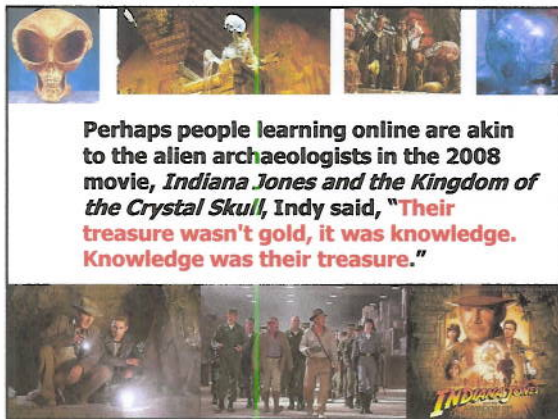
Today we have the Web 2.0

We are entering a jumping off point...

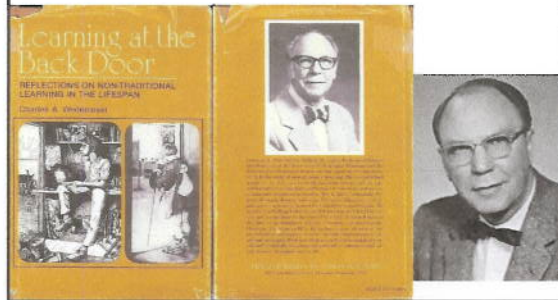
I'm an Armchair Indiana Jones...



Michael Perham & Zac Sunderland,
 Summer 2009 (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)



Charles Wedemeyer, University of Wisconsin




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



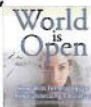
**Our New Heroes are not
 Theoretical or Psychological**



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**eal-Time Mobility and Portability (e.g., iPhone)
- **N**etworks of Personalized Learning (Blogs, RSS)



Audience Participation!

1. WE

2. ALL

3. LEARN!!!


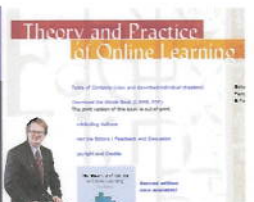





Triple Learning Technology
Convergence of
"WE-ALL-LEARN"

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!!!






April 10, 2010: Seton Hill University, 2,100 students
an iPad and freshmen a 13-inch MacBook laptop.
August 10, 2010, Can college students learn as well
on iPads, e-books?, USA Today, Beth Marklein



USA TODAY, June 7, 2010

Does iPad have the magic to bring people together?

Week after holidays, e-book sales outdo print, USA Today, January 5, 2011, Bob Minzesheimer and Carol Memmott
http://www.usatoday.com/life/books/news/2011-01-05-1Aebooksales09_ST_N.htm

The image shows a screenshot of a USA Today article titled "Volume of Kindle book sales outpaces Amazon's Jeff Bezos". Below the article is a photograph of Jeff Bezos holding a Kindle e-reader. The Amazon logo is visible in the bottom right corner of the image.

Pocket Dictionaries and Digital Textbook Projects (Korea), July 6, 2011:
Husna Haq, In South Korea, all textbooks will be e-books by 2015, Speeding past the US, South Korea will be digitizing reading material in all public schools by 2015. Christian Science Monitor.

The image is a collage. On the left, there are photos of students in a classroom using laptops and tablets. On the right, there is a snippet from the Christian Science Monitor article titled "In South Korea, all textbooks will be e-books by 2015".

Inking opens textbooks on the iPad
USA Today, Jefferson Graham, August 3, 2011
<http://www.usatoday.com/story/2011-08-03/inking-jack-textbooks/48181>
 Some \$4.5 billion worth of textbooks were sold in 2010, according to the Association of American Publishers. Expects digital textbooks to represent 3% of sales in 2011, growing to 44% by 2017.

Inking opens textbooks on the iPad
 By Jefferson Graham, USA TODAY

The image shows a screenshot of a USA Today article titled "Inking opens textbooks on the iPad". Below the article is a photograph of a hand holding an iPad, displaying a digital textbook interface. The USA Today logo is visible in the top right corner.

Opener #2. E-Learning and Blended Learning

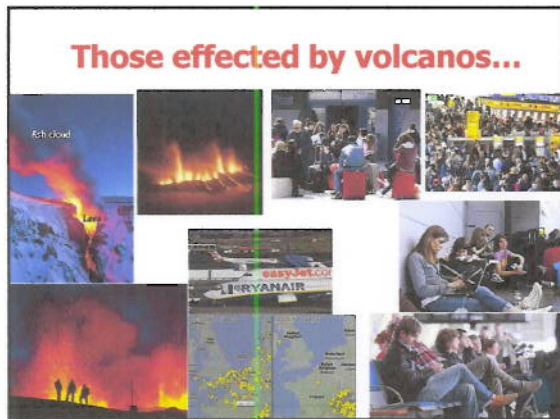
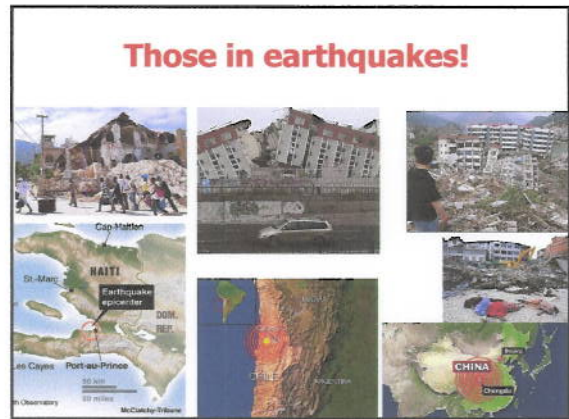
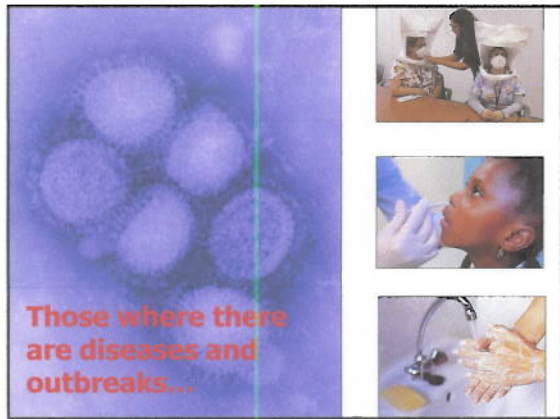
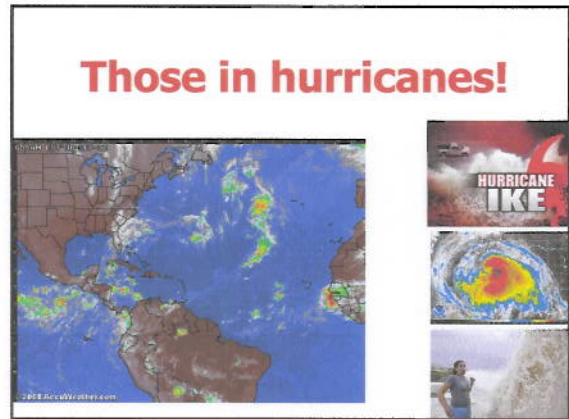
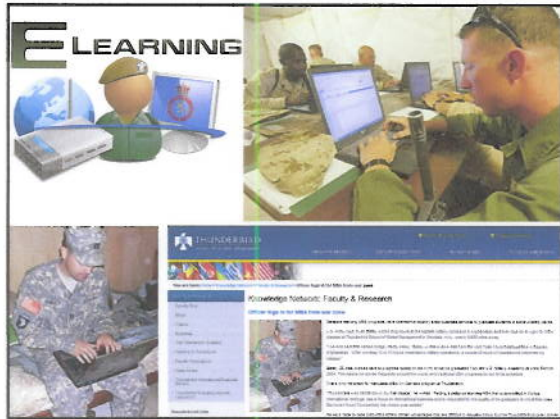
The image is a collage related to e-learning. It includes the logo for ARMYU.COM, a laptop displaying a website, a photo of a woman (likely Oprah Winfrey) in a video call window, and the AKO ARMY ONLINE logo. A small box in the top right corner says "The Learning World is Open".

Who is demanding fully online and blended learning?

The image is a collage of several photographs showing students in different learning environments. Some are sitting at desks with computers, others are in a classroom setting, and some are working on laptops in a more casual setting.

Those Preparing for Exams and Needing Remediation
NBC Special, March 11, 2011
<http://www.msnbc.msn.com/id/21134540/vp=42018991�>

The image is a collage of images from an NBC special. It includes a screenshot of a news broadcast with a male anchor, a photo of two men talking, and a photo of students in a classroom setting.



Snowmegeddon, DC winter of 2010



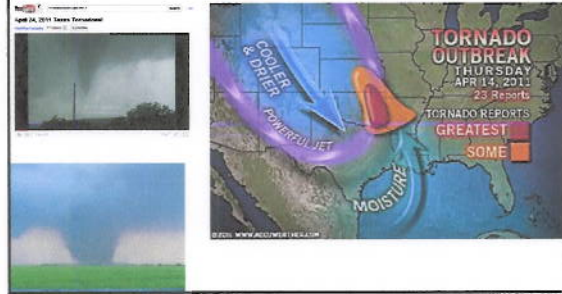
Groundhog Day Blizzard of 2011



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



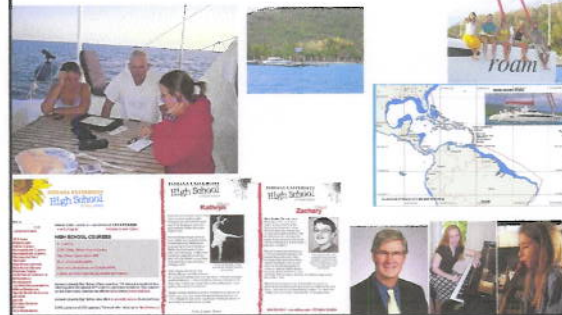
Those in tornados...! (April 24, 2011)

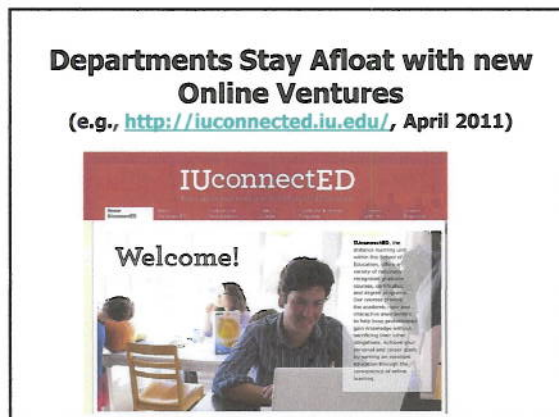
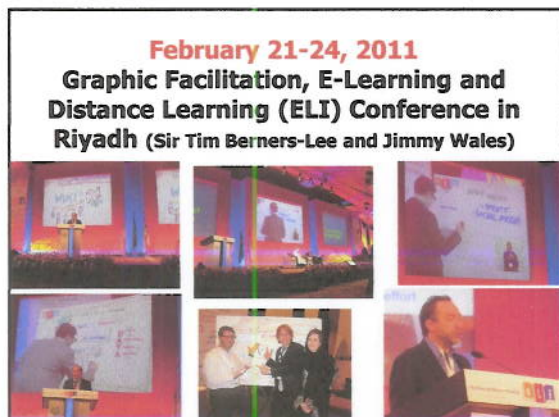
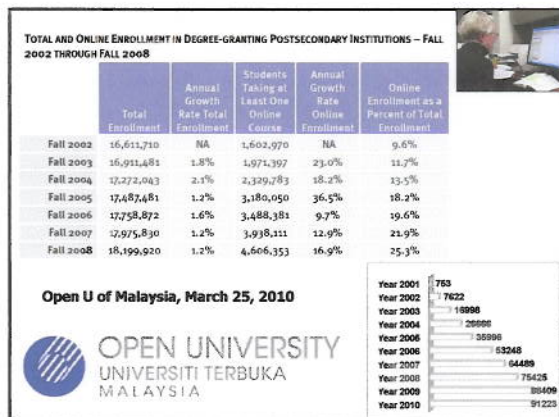
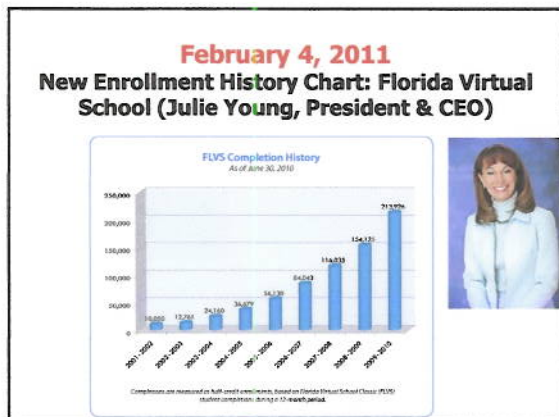


Adora Svitak, age 13, World's Youngest Teacher



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



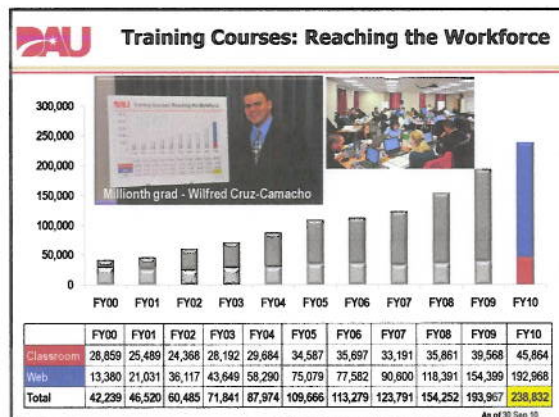


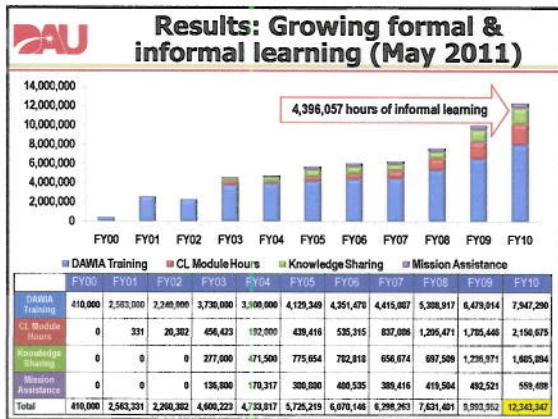
April 12, 2011

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





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

The Learning World is Open

INFORMATION TECHNOLOGY
Cities For Blackboard Will Put the 'D' in Rapid Learning

Blackboard
Presence in SCW

Moodle (41+ million users (1,060,000 registered) in 211 countries, 54,000 sites, 4.4+ million courses, April 27, 2011)

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

The Learning World is Open

MITOPENCOURSEWARE
MIT OPENCOURSEWARE

Open Yale
Eac Traditional Textbooks

August 2, 2011 Stanford U. Offers Free Online Course in Artificial Intelligence, By Jie Jenny Zou, Chronicle of Higher Ed, <http://www.ai-class.com/>

SEPTEMBER 14, 2011

Artificial Intelligence

You can join Stanford's AI class online, worldwide, this fall. Will it contribute to making your skills in the workplace more relevant?

Wired Campus
The latest news on tech and education

Stanford U. Offers Free Online Course in Artificial Intelligence

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

National Repository for Online Courses (NROC) Commons

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.

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, Explo.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, iVideosong

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

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

A collage of four screenshots from different online video platforms. The top left shows a TED talk titled '2008 Hunter on the World Peace Game'. The top right shows a Fora TV video titled 'Transforming the System: An Interview with Michelle Rhee'. The bottom left shows a TV Lesson interface with a video player and a list of related videos. The bottom right shows a collection of video thumbnails from Academic Earth.

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

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

A screenshot of a YouTube channel page. The main video player shows a man speaking. To the right, there is a grid of video thumbnails. The channel name 'GETideas' is visible at the top.

July 10, 2011 The Virtual Zooarchaeology of the Arctic Project (VZAP) is a virtual, interactive, osteological reference collection for the study of northern vertebrates. VZAP is a dynamic natural history archive which allows students and researchers to examine the complete skeletal anatomies of multiple bird, mammal, and fish species in both 2D and 3D. (Anthropologist Puts an Idaho Museum's Many Bones Within Virtual Reach, Peter Monaghan, July 10, 2011, Chronicle of HE)

<http://vzap.iri.isu.edu/ViewPage.aspx?id=230>

A screenshot of the VZAP website. It features a dark background with 3D models of skeletal parts and a photograph of a man standing next to a large animal skeleton. The text describes the project as a virtual, interactive osteological reference collection.

February 8, 2011, Chronicle of HE Google Art Project (new Google project that allows visitors to explore museums around the world and view hundreds of artworks)

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

A screenshot of the Google Art Project interface. It shows a grid of museum thumbnails and a large, detailed image of a horse's eye. The text explains that the project allows visitors to explore museums around the world.

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)

A screenshot of a website titled 'The Complete Works of Charles Darwin Online'. It features a yellow header, a list of contributors, and several portrait images of historical figures. The text lists various authors and historical events associated with the project.

Sharing Repositories and Referatories

MERLOT.org: 94,000 members, 28,040 learning materials, April, 2011
Connexions: 2.2m unique users, 17,500 modules, 4 million page views, 100 million hits, >1m users, 200 countries, Jan, 2011
Curriki: Free K-12 contents.
National Repository of Online Course, Jorum, OER Commons, etc.

A screenshot of the MERLOT website showing a grid of course thumbnails. To the right, there is a photograph of a man speaking at a podium, likely at a conference or presentation.

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

The Learning World is Open

WIKIPEDIA

English The Free Encyclopedia 2,842,000 articles
 Deutsch Die freie Enzyklopädie 177,000 Artikel
 Français L'Encyclopédie Libre 266,000 articles
 Italiano L'Enciclopedia libera 197,000 voci
 Nederlands De vrije encyclopedie 487,000 artikelen
 Español La Enciclopedia Libre 277,000 artículos
 Português A enciclopédia livre 171,000 artigos
 Pycckий Свободная энциклопедия 207,000 статей

Cross-Institutional Wikibook Project (e.g., IU and the University of Houston)

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

<http://www.youtube.com/watch?v=historyteachers7blend&ob=5&list=PL128JULC9jagpA>

"Video Primers in an Online Repository for e-Teaching and Learning" V-PORTAL, TravelinEdMan (27 free/open YouTube videos), October 2010

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

Individual Produced Videos (e.g., African School Dream in Current TV)

http://current.com/items/77146082_african_school_dream

News for Thursday May 12, 2011
Chronicle of Higher Education

http://chronicle.com/article/Across-More-Classrooms-Videos-127422?title=pb&utm_source=cal&utm_medium=ref

THE CHRONICLE of Higher Education

Thursday, May 12, 2011

HOME NEWS OPINION & IDEAS FACTS & FIGURES TOPICS JOBS ADVICE

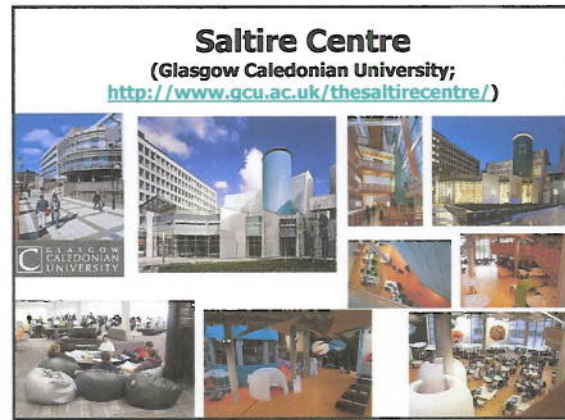
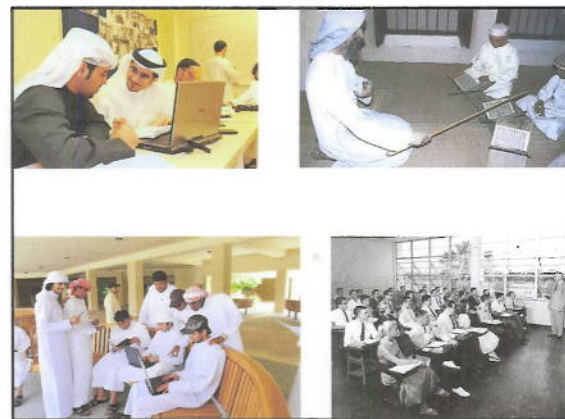
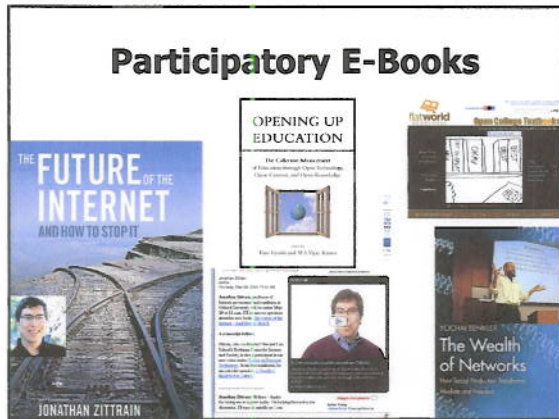
Faculty Administration Technology Community Colleges Global Special Reports People The Tower Current

Technology
 News: Sloan Technology

May 6, 2011

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: Multi-media "means you have to be able to actually make" graphics and images.



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

Synchronous Conferencing Presentations

Video Conferencing/Webcamming
December 20, 2010: Skype for iPhone adds two-way video calling, CNet Reviews

WATCHING VIDEO ONLINE

Google's YouTube dominates online video viewing. Here's how competitors compare and more.

Platform	Viewers
Google (YouTube)	14.3 billion
Hulu	737 million
Yahoo	558 million
iVista	544 million
Vevo	497 million
YouTube	402 million
AOL	348 million
BNA	247 million
Fox Interactive (MySpace)	208 million
CBS	187 million

* Includes Comedy Central and MTV Source: ComScore Video Metrics, November

Free music video site Vevo eyes iPad, other mobile possibilities

Skype for iPhone adds two-way video calling

Google+ Hangouts
June 29, 2011
<http://www.youtube.com/watch?v=8L7Pzr5tA8w&feature=share&list=PL9528f6a8e0c7>

First Look at Google+ Hangouts

Facebook introduces video calling
Eric Stoller, July 6, 2011, Inside Higher Ed
https://www.insidehighered.com/higher_education_news_and_technology/facebook-introduces-video-calling

Facebook introduces video calling

Facebook introduces video calling

Facebook introduces video calling

Facebook introduces video calling

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

South African teens get virtual mentoring from all over the world

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

The Learning World is Open

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

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

The Learning World is Open

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

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

Gain Mobile

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

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

eCAMPUS NEWS

July 20th, 2011

Smart phones driving lecture capture growth

A leading lecture capture company says use of the technology has skyrocketed in recent months.

By Dennis Carter, Assistant Editor
 Read more by Dennis Carter

Viewing replays of a professor's lecture anytime anywhere on a smart phone has ballooned. Lecture capture use in higher education, as surveys show the technology remains popular on campus.

Watching and re-watching lectures online has long been among college students' favorite educational technology, and making it easy

Social Networking Gaming

December 24, 2010: *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. On the left is FarmVille, a farming simulation game. On the right is CityVille, a city-building simulation game. Both screenshots show colorful, cartoonish graphics and game interfaces.

iPad Apps for Calculus, Math, Biology, etc.

Chronicle of HE, Ben Wieder, March 13, 2011
http://chronicle.com/article/iPad-for-College-Classroom/126681?cid=at&utm_source=at&utm_medium=em



The image shows a woman in a white lab coat using an iPad in a classroom setting. She is pointing at the screen while a student looks on. The background shows a projection screen with mathematical diagrams.

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

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

The Learning World is Open




The image features a Samsung DualView TL225 camera on the left and a student sitting at a desk using a laptop on the right. The student is wearing a uniform and appears to be in a library or classroom setting.

The Samsung DualView TL225

Zite (Personalized Online News and Magazine on iPad)

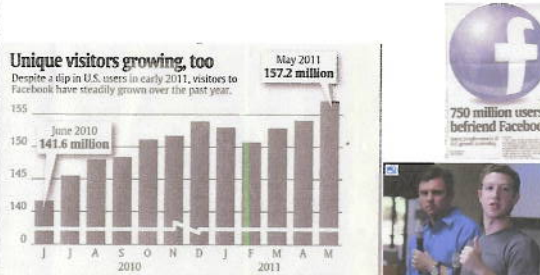
<http://www.zite.com/> (March 9, 2011, USA Today)



The image shows two screenshots of the Zite app on an iPad. The top screenshot shows the app's main interface with the text "Building your magazine." and "personalized iPad magazine gets smarter as you use it." The bottom screenshot shows a hand interacting with the app's interface.

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



The image features the Facebook logo on the right and a bar chart on the left. The bar chart shows the number of unique visitors to Facebook from June 2010 to May 2011. The y-axis represents the number of unique visitors in millions, ranging from 140 to 155. The x-axis shows the months from June 2010 to May 2011. The chart shows a steady increase in unique visitors over the period.


Unique visitors growing, too
 Despite a dip in U.S. users in early 2011, visitors to Facebook have steadily grown over the past year.

June 2010 - 141.6 million
 May 2011 - 157.2 million

750 million users befriend Facebook

Teaching With Twitter

Chronicle of HE, Jeffrey Young, November 22, 2009
 Sugato Chakravarty, a professor of consumer sciences and retailing at Purdue University, has welcomed Twitter into the lecture hall, even though the service lets students engage in back-channel discussions. The questions submitted via **Hotseat** for the professor and guest speakers are projected for all the students to see.



The image shows a lecture hall with a professor standing at the front. A large screen displays a Twitter feed. In the foreground, students are sitting at desks, some using laptops. The professor is pointing at the screen.

The Language Learning Explosion

(e.g., Livemocha, ChinesePod, Babbel, Mixxer, English Central, Kantalk, etc.)

The image shows several screenshots of language learning websites. On the left, there's a website for SpanishPod with a banner that says "Learn Spanish on Your Terms!" and a "Sign Up Now!" button. On the right, there's a website for Livemocha with a banner that says "Learn Italian on Your Terms!". There are also smaller images of people talking and learning.

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

The image shows a list of 15 predictions for the future of learning. At the bottom right, there is a small image of a person looking at a screen with the text "The Future" and "NEXT" below it.

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!

The image contains three small photographs at the top: a man with a long white beard, a person in a dark, possibly underground setting, and a man and a woman in a brightly lit room.

Poll: Is your brain mush?

1. Yes.
2. No.
3. Not sure yet...

The image features a cartoon of a person's head with a ladder on top. A small figure is climbing the ladder. The words "HELLO HELLO" are written above the ladder. To the left, there is a green apple with a thought bubble that says "My brain is feeling a bit mushy. Gotta take some time off".

Slides at: TrainingShare.com
 Papers: PublicationShare.com
 Book: <http://worldisopen.com/>

The World is Open.
 What happens then?

WE

ALL

LEARN!!!

The image is a collage of various images related to learning and technology. It includes a person holding a globe, a person holding a book, a person with a plane, and several small icons and logos. At the bottom left, there is a logo that says "OOPS" and "BROCKED".