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

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Where are you headed?

Do you know the shape of the world?

Is the World Flat?

The Ten Forces that Flattened the World

Triple Convergence: (1) new economic players, (2) playing fields, and (3) processes.

1. 11/9/89: Berlin Wall came down
2. 8/9/95: Netscape went public
3. Work Flow Software (e.g., PayPal and eBay)
4. Open-Source (Self organi collab communities; Mozilla, Apache, Wikipedia, Linux, Mozilla)
5. Outsourcing (Y2K)
6. Offshoring (e.g., China, Mexico, Thailand)
7. Supply-Chaining (e.g., Walmart)
8. Insourcing (UPS fixing Toshiba laptops)
9. In-forming (e.g., Google, Yahoo!, MSN Web Search)
10. The Steroids: Digital, Mobile, Personal, and Virtual (wireless, file sharing, VoIP, video camera in phone)

Is the World Curved?
Is it spiky?

Or is it Open?

Not open for everyone!

World Internet Users by World Regions

Yonsei University, Seoul, Korea
Oregon Scientific Smartglobe 2008

Charles Wedemeyer
Learning at the Back Door (1981)
Nontraditional Learning

UCLA Summer Digs Program
Dig in, archaeology fans! UCLA blogs to offer front-row seat at archaeology digs, Meg Sullivan, 6/25/2008

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, now Abby Sunderland age 16, Mira Sato, age 75, oldest solo sailor)

David Thomas, Archeologist, La Trobe University, Australia (Discovery News)

Grandpa George (Goronja)
(West Allis, Wisconsin, built tractors 40+ years)
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."

**WE-ALL-LEARN:**
- Ten Forces that Opened the Learning World
  - Web Searching in the World of e-Books (i.e., Darwin)
  - E-Learning and Blended Learning
  - Availability of Open Source and Free Software (e.g., Moodle)
  - Leveraged Resources and OpenCourseWare (e.g., MIT)
  - Learning Object Repositories and Portals (i.e., shared content)
  - Learner Participation in Open Info Communities (e.g., YouTube)
  - Electronic Collaboration and Interaction (sync and async)
  - Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
  - Real-Time Mobility and Portability (e.g., iPhone)
  - Networks 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.

**21 Things That Became Obsolete This Decade**
December 11, 2009, Silicon Alley Insider

**15 Gadgets that Changed Everything This Decade**
December 9, 2009, Jay Yarow, Silicon Alley Insider
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!!!

This Could Be the Year of e-Textbooks
Many titles are available, but students are wary.
Jeffrey Young, September 7, 2008

Blio: Kurzweil Reinvents the Book
Charlie Sorrel, Dec 29, 2009, Wired

- Blio is a free platform...run on any device.
- Blio is in color.
- Blio lays pages seen on paper, with typography and illustrations; uses video.
- More than a million library of titles.
- The end of the book?

First iPad buyers excited, curious
By Brandon Griggs and John D. Sutter, CNN, April 3, 2010

Seton Hill University, 2,100 students. All fulltime students get an iPad and incoming freshmen will also receive a 13-inch MacBook laptop, April 2010.
Free Online Books
(Terry Anderson and Fathi Elloumi, eds. Theory and Practice of Online Learning: Canada: Athabasca University, 2004),
http://ode.athabascau.ca/online_books/, 55,000 downloads in first year

Opener #2. E-Learning and Blended Learning

Letter from Bill Gates about online learning (January, 2010)
http://www.gatesfoundation.org/annual-letter/2010/Pages/education-learning- online.aspx

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

Adora Svitak, age 12, World’s Youngest Teacher

A Grain of Rice: A Bloomington man’s computer vocab game feeding the world
Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from MIT, Utah State, CORE, OOPS)

Open Educational Resources (OER)
Post Courses in YouTube and iTunes (e.g., Berkeley)

OpenCourseWare (OCW)
Cute Kitten or Transformation?

Opensource OpenCourseware Prototype System (OOPS) funded by the Foundation of Fantasy, Lucifer Chu, Chairman and Janitor of OOPS, Taipei

Sample OpenCourseWare Projects (Tufts, Johns Hopkins)

National Repository for Online Courses (NROC) Commons
Cape Town Open Education Declaration, Dec 2007
http://www.capetowndeclaration.org/

Peer2Peer University and University of the People (free)
Neeru Paharia is behind Peer2Peer University, Past Company, September 2009, How Web-Savvy Edupunks Are Transforming American Higher Education

Opener #5. Online Learning Object Repositories and Portals (shared content)
A Single Source for Tigger on Online Publishing Explores
The Pake Kalamazoo Project: a concept to pursue

Open Journal Systems
http://chronicle.com/article/New-Journals-Free-Online-/251460

John Willinsky, an education professor at Stanford U. (shown here visiting the U. of Oxford), offers free journal-publishing software to academics around the world. The program is being used to produce more than 5,000 online journals, he estimates, about half of them in developing countries.

Elliott Masie, Learning Trends, March 2, 2010

"The introduction of video into almost every aspect of our learning and work tasks is profound and "disrupting." As designers, we must experiment with these formats – looking for evidence and appropriate use cases and examples of when not to use video."

Video blogs, Webinars, Webcasts, capture conference keynotes, flipcams, etc.

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. Forn TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. LinkTV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Explo.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doctalk, the Research Channel, Visualsonic
College 2.0: More Professors Could Share Lectures Online. But Should They?, Chronicle of HE, Jeffrey R. Young, March 7, 2010

"The latest Campus Computing Survey, which gathers data on classroom technology nationwide, found that 28 percent of colleges have a strategic plan to provide coursecasting equipment, and 35 percent more are working on a plan now."

Ida (a transitional species)
47-Million-Year-Old Darwinius Masillae Fossil the Missing Link? (wowOwow, May 20, 2009)
The Carlyle Letters Exploring Victorian World Through Letters and The Diary of Samuel Pepys
(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 Royal Society 350th anniversary celebrations puts historic papers online (Captain Cook, Sir Isaac Newton and Benjamin Franklin), BBC, Nov 30, 2009
http://news.bbc.co.uk/2/hi/science/nature/881425.stm

Human Brain Dissected Today in a Live Webcast, Chronicle of Higher Education,
December 05, 2006, 01:00 PM ET
http://chronicle.com/DiskPoP/Human-Brain-Dissected-Today-
http://chronicle.com/DiskPoP/Human-Brain-Dissected-Today-
http://chronicle.com/DiskPoP/Human-Brain-Dissected-Today-

Sharing Repositories and Referatories
MERLOT.org: 78,472 members, 21,690 tbrg materials, Jan 3, 2010
Connectors: Dec 2009, 1.5m unique users, 4 million page views, 72 million hits. More than 1m users, 200 countries
National Repository of Online Courses, OER Commons

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

Wikis: Wikipedia and Wikibooks
Conference to Conference
(You Ustreamed my Ustream: Now that's a Twitter of an Idea)

Shared Online Video
(e.g., YouTube and the Royal Channel)

Individual Produced Videos
(e.g., African School Dream in Current TV)
http://current.com/tvms/77x5608/ african_school_dream

Participatory E-Books

Scribd: Documents on Web

Opener #7. Electronic Collaboration and Interaction
(synchronous & asynchronous)
Synchronous Conferencing Presentations

The Next Generation of Videoconferencing
Chronicle of HE, October 21, 2009

Chief Learning Officer in April, 2010, Social Learning Unleashed
Driving greater collaboration: With 17,000 internal blogs and 63,000 employees on Social Blue, IBM's version of Facebook, and 500,000 participants in the company crowdsourcing jams, IBM's social media usage has become big business. As of 2008, IBM's jams identified 10 incubator businesses with the potential of reaching $100 million.

Adventure Learning, GeoThentic, GoNorth (National Geographic)
(Aaron Doering, Univ of Minnesota)

Ice Stories Project from Antarctica

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

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

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

Social Networking Gaming (e.g., Farmville)
For social networks, it's game on, USA Today, Jon Swartz, Thursday October 15, 2009

Mobile Learning
(April 21, 2009, USA Today)

Mobile Learning in India with Paul Kim
We Are Going Mobile!

40,000 new mobile subscribers a week in Rwanda; Rwanda Newtimes report, January 2009
Africa is the continent with the fastest growth, International Telecommunications Union (ITU), March 2009

India: In January, 2009, the number sky rocketed to 15.4M
Globally: 60,000 new mobile subscriptions every hour!!

(per Paul Kim, Stanford, 2009); Nokia Research Lab
http://www.pol-con.org/HTML/20090326/Le_RADIO06-channel

TwitterPeek, WikiReader not worth the loot, USA Today, Edward Baig, November 5, 2009

TwitterPeek: Restricted to Twitter.
WikiReader: Updating can be a pain.

"One Laptop Per Child" program collides with reality
GEORGE YORKE, Toronto Globe and Mail, Oct 19, 2009
Bhutan, Khendrum Gyabak (Univ. of Texas at El Paso)

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

September 30, 2009
the Samsung DualView TL225

Some Papers Are Uploaded to Bangalore to Be Graded, Chronicle of Higher Education, April 4, 2010, Audrey Williams June

Facebook: The New Classroom Commons?, Chronicle of HE, Harriet L. Schwartz, Sept. 28, 2009

Lori Whisenant, who teaches business law and ethics at the U. of Houston, has outsourced the grading of students' papers to a private company.
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!