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

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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-Sourcing (Self-organizing 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 installing Toshiba laptops)
9. In-forming (e.g., Google, Yahoo, MSN Web Search)
10. The Snowden: Digital, Mobile, Personal, and Virtual (wireless, file sharing, VoIP, video camera in phone)

Is the World Curved?

Is it spiky?

Or is it Open?
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, Minoru Saito, age 75,
oldest solo sailor)

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

Indiana Jones

Perhaps those learning online are akin to
the alien archaeologists in the 2008
movie, Indiana Jones and the Kingdom of
the Crystal Skull. We are seeking the
knowledge nuggets of our planetary past
and present. As Indy said, "Their treasure
wasn't gold, it was knowledge.
Knowledge was their treasure." If that is
true for us as well, then today pretty
much all the world's known treasures can
be found online.

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 (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.

**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!!!**

**2010 Could Be the Year of the E-book!**

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?
Guests play with Apple's new iPad at an event announcing its debut in San Francisco. At least one college is considering giving iPads to new students, but the jury on whether the device will revolutionize learning will be out for a while.

Read, Listen, etc. to online books (e.g., "An International Episode" by Henry James)

Opener #2. E-Learning and Blended Learning

Letter from Bill Gates about online learning (January, 2010)


Indiana University High School
(4,000 students and 1,400 enrolled in diploma programs)
Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from MIT, Utah State, CORE, OOPS)

Open Teaching
(Tom Reeves, Evaluation Course at Georgia; David Wiley's Web 2.0 courses at BYU; Connectivism from George Siemens and Stephen Downes, 24 enrolled, 2,000+ sitting in)

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

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)

Cape Town Open Education Declaration, Dec 2007
http://www.capetowndeclaration.org/
Peer2Peer University and University of the People (free!)  
Naeem Paharia is behind Peer2Peer University, Fast Company, September 2009, How Web-Savvy Edupunks Are Transforming American Higher Education

Opener #5. Online Learning Object Repositories and Portals (shared content)  
A Small Group of Great Writers and Public Relations Technicians The Public Library. Library is a digital public space with digital repositories and portals. Librarians are in charge of selecting materials for the portals. There are also interfaces to connect with live events.

The Complete Works of Charles Darwin  
The Complete Works of Charles Darwin online edition (including Darwin's notebooks and letters)  

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://www.bbc.co.uk/history/events/350th_anniversary

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.
Khan Academy
http://www.khanacademy.org/

Link TV (and Global Link of World Educators (GLOWE))

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."

Link TV, Academic Earth, TV Lesson, and Fora TV

Tracking Live Internet Thawing: A Colossal of an Idea

Ida (a transitional species)
47-Million-Year-Old Darwinius Masillae Fossil the Missing Link? (wowOwow, May 20, 2009)
Individual Produced Videos
(e.g., African School Dream in Current TV)
http://current.com/3eoms/77146663_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
Adventure Learning, GeoThentic, GoNorth (National Geographic) (Aaron Doering, Univ of Minnesota)

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)

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
http://www.stanford.edu/~phkim/curt/India.pdf

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 skyrocketed to 15.4M
Globally: 60,000 new mobile subscriptions every hour!!!
[per Paul Kim, Stanford, 2009]; Nokia Research Lab
http://www.phkim.com/~/sky/2008WBS/01sky/India 순간을 공유하는

Terabyte thumb Drives and Magic Pens!
(The Pulse from Livescribe, $129-$169)

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

Opener #10. Networks of Personalized Learning
(Blogs, Podcasts, MySpace, Flickr, and RSS)
September 30, 2009
the Samsung DualView TL225

Facebook: The New Classroom Commons?, Chronicle of HE, Harriet L. Schwartz, Sept. 28, 2009
Teaching With Twitter
Chronicle of HE, Jeffrey Young, November 22, 2009
Sagaris 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 Twitter
for the professor and guest speakers are projected for all the students to see.

Livemocha (29 languages, 160 hours of
lessons, over 2 million users, FREE!)

Predictions
1. Five Billion "Have-Not" 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 Anomalies
15. Alexandrian Aristotles

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!