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 (Suse Open community; Mozilla, Apache, Wikimedia, Linux, Mozilla)
5. Outsourcing (T3K)
6. Outsourcing (e.g., China, Mexico, Thailand)
7. Supply-Chaining (e.g., Walmart)
8. Insourcing (UPS using Toshiba laptops)
9. In-mono (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?

Davide M. Smick

Is it spiky?

Or is it Open?

Who's Your City? Richard Florida
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, Minora Saito, age 79, oldest solo sailor)

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

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 (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.

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

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

WE ALL LEARN!!!
Opener #2. E-Learning and Blended Learning

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

Capella Tower
225 South Sixth Street, Minneapolis
Formerly, the "Halo"

iSMART: Integration of Science, Mathematics, and Reflective Teaching (iSMART) is a FREE 2-year online graduate program for middle school science and mathematics teachers in Texas, University of Houston

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

Total and Online Enrollments in Degree-Granting Postsecondary Institutions: Fall 2000 through Fall 2005

Open U of Malaysia, March 25, 2010
**Opener #3. Availability of Open Source and Free Software (e.g., Linux, Apache, Moodle, Sakai)**

**Moodle** (32+ million registered users in 208 countries, 3+ million courses, 2/6/2010)

**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)

**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)

Peer2Peer University and University of the People (free!)

The Complete Works of Charles Darwin

Cape Town Open Education Declaration, Dec 2007
http://www.capetowndeclaration.org/

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

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)
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))

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

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."
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)

Human Brain Dissected Today in a Live Webcast, Chronicle of Higher Education, December 02, 2009, 03:50 PM CT
http://chronicle.com/blogs/collective/Human-Brain-Dissected-Today-
Dec-2009/7494_graduate_source=chronicle_readnow=true

THE CHRONICLE
of Higher Education

Sharing Repositories and Referatories
MERLOT.org: 78,472 members, 21,690 lnrg materials, Jan 3, 2010
Connections: Dec 2009, 1.5m unique users, 4 million page views, 73 million hits, More than 1m users, 200 countries
National Repository of Online Course, OER Commons

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

Wikis: Wikipedia and Wikibooks

WIKIPEDIA

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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/item/77196582_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

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/~pkim/cirt/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 sky rocketed to 15.4M
Globally: 60,000 new mobile subscriptions every hour!!
(per Paul Kim, Stanford, 2009); Nokia Research Lab

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

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

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

Taguchi Chaitanya, 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 presenter and guest speakers are projected for all the students to see.

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

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!