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

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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. 8/9/99: Netscape went public
3. Work Flow Software (e.g., PayPal and eBay)
4. Open-Sourcing (Self organ 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 bring Toshiba laptops)
9. In-forming (e.g., Google, Yahoo!, NSF Web Search)
10. The Steroids: Digital, Mobile, Personal, and Virtual (wireless, file sharing, VoIP, video camera in phone)

Oregon Scientific Smartglobe 2008

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)
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 OpenCourseWares (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)
- Augmented Reality Learning (i.e., Massive Online Simulation, and Virtual Worlds; e.g., Second Life)
- Real-Time Mobility and Portability (e.g., IPhone)
- Networks of Personalized Learning (e.g., Blogs, RSS)

Triple Learning Technology
Convergence of “WE-ALL-LEARN”

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.
Trend #1. Web Searching in the World of e-Books. What happens then? WE ALL LEARN!!!

E-books: 4 choices (Paperback, Kindle, iPhone, or iPod listening)

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?
Free Online Books
(Terry Anderson and Fathi Elloumi, eds. Theory and Practice of Online Learning; Canada: Athabasca University, 2004),
http://ceo.athabascau.ca/online_books/, 55,000 downloads in first year

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

Opener #2. E-Learning and Blended Learning

Trend #2. E-Learning and Blended Learning.
What happens then?

WE
ALL
LEARN!!!

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

Indiana University High School
(4,000 students and 1,400 enrolled in diploma programs)
Adora Svitak, age 11, World’s Youngest Teacher

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
http://www.cox.su.edu/mst/pdfs/curriculum/ismart/ismart5.pdf
http://www.cox.su.edu/mst/pdfs/curriculum/ismart/ismartLtm.pdf

You see the big picture. You find the connections. Make it official: become isMART.

Total and Online Enrollment in Postsecondary Institutions
Fall 2002 through Fall 2006
http://www.tinyurl.com/ismart

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+ stilling in)

A Grain of Rice: A Bloomington man’s computer vocab game feeding the world

Opener #3. Availability of Open Source and Free Software (e.g., Linux, Apache, Moodle, Sakai)
Trend #3. Availability of Open Source and Free Software. What happens then? WE ALL LEARN!!!

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

OpenCourseWare (OCW) Cute Kitten or Transformation?

Moodle (620,000 registered users in 204 countries speaking 78 languages, 2/10/2009)

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 Chou, Chairman and Janitor of OOPS, Taipai)
Sample OpenCourseWare Projects
(Tufts, Johns Hopkins)

Indian Institutes of Technology (IIT)

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!)

Opener #5. Online Learning Object Repositories and Portals (shared content)
Shared Online Video
(e.g., YouTube and the Royal Channel)

Individual Produced Videos
(e.g., African School Dream in Current TV)
http://www.tvlesson.com/

TV Lesson (How-to lessons from experts:
1,000's of instructional videos and articles;
http://www.tvlesson.com/)

Link TV and Fora TV

dotSUB (subtitling video)

Participatory E-Books
Adventure Learning, GeoThentic, GoNorth (National Geographic) (Aaron Doering, Univ of Minnesota)

Global SchoolNet
http://www.globalschoolnet.org/index.cfm?section=Programs

Ice Stories Project from Antarctica

1kg More Project for Rural China (http://www.1kg.org/)

Mongolia teachers addressing H1N1 (Ottgo Okhidel, Nov 10, 2009)

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

University of Texas:
50 Islands In Second Life, Nov 2009
http://archive.ised.ry/melamnos-campo-life

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

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

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

TwitterPeek: Restricted to Twitter. WikiReader: Updating can be a pain.
Mobile Learning in India with Paul Kim
http://www.stanford.edu/~pjkim/curt/India.pdf

Mobile Learning
(April 11, 2009, USA Today)

-One Laptop Per Child' program collides with reality
GEOFFREY YORK, Toronto Globe and Mail, Oct 15, 2009
Bhutan, Khendum 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

Teaching With Twitter
Chronicle on HE, Jeffrey Young, November 22, 2009
Sugata Mitra, a professor of educational sciences and technology at the University of Washington, has introduced Twitter into the lecture hall, even though the service is limited to those who are willing to participate in face-to-face discussions. The questions asked via Twitter for the professor and guest speakers are projected for all the students to see.

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

Social Networking Sites
Growth of social networking sites

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Predictions

1. Five Billion "Have-Nots" Have ATM!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Quarterly Learning Centers
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, Trainers
11. The Rise of the Super Blends
12. Self-Determined Humans
13. Free Learning Zones
14. Authentic Learning Assemblages
15. Alexandrian Aristocrats