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

Curtis J. Bonk, Professor, Indiana University
President, SurveyShare
cjbonk@indiana.edu
http://php.indiana.edu/~cjbonk

Do you know the shape of the world?

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 (e.g., China, Mexico, Thailand)
6. Offshoring (e.g., China, Mexico, Thailand)
7. Supply-Chaining (e.g., Walmart)
8. Inourcing (UPS fixing Toshiba laptops)
9. In-Foming (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 Flat?

Is the World Curved?

Is it spiky?
Or is it Open?

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 18, youngest person to sail solo around the world...and blog on it, use Skype, YouTube, take videos, post pictures, now Abby Sunderland age 15, Minoru Saito, age 75, oldest solo sailor)

David Thomas, Archeologist, La Trobe University, Australia (Discovery News)
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:**
- Web Searching in the World of e-Books (e.g., 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 Game, 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"**
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 13, 2009, Silicon Alley Insider*
What happens then?

WE
ALL
LEARN!!!

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?

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

2010 Could Be the Year of the E-book!

Tablet May Help E-Textbook Market, Publishers Hope Chronicle of HE, Jeffrey Young
January 31, 2010

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 is out on whether the device will revolutionize learning.
Free Online Books
(Terry Anderson and Fathi Eloffini, eds. Theory and Practice of Online Learning; Canada: Athabasca University, 2004; 55,000 downloads in the first year alone)

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)

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

Sample OpenCourseWare Projects (Tufts, Johns Hopkins)

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)

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

Cape Town Open Education Declaration, Dec 2007
http://www.capetowndeclaration.org/
Peer2Peer University and University of the People (feeless)

Neeru Paharia is behind Peer2Peer University, Fast Company, September 2009, How Web-Savvy Educators Are Transforming American Higher Education

Open Journal Systems

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.

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

Link TV (and Global Link of World Educators (GLOWE))
Link TV, Academic Earth, TV Lesson, and Fora TV

Track Live Internet Thawing: A Colossal of an Idea

The Complete Works of Charles Darwin

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, Erasmous Darwin, Mary Wollstonecraft Shelley, Robert Browning, John Stuart Mill, Ralph Waldo Emerson, Elizabeth Barrett Browning, and Alfred Tennyson)
Shared Online Video (e.g., YouTube and the Royal Channel)

Programmers become Filmographers (e.g., African School Dream in Current TV)
http://current.com/items/77166882_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/~shkim/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 sky rocketed to 15.4M
Globally: 60,000 new mobile subscriptions every hour!!!

(per Paul Kim, Stanford, 2009); Nokia Research Lab
https://www.pulse.com/cvcl/10999800_ku_a_b cloves1901video.css

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

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

SOCIAL NETWORKING
Top social networking sites
Facebook remains in the top
POSSIBILITY
323.2 million
202.9 million
17.5 million
15.1 million
10.4 million
5.4 million
3.9 million
2.9 million
2.4 million
1.9 million
1.7 million
1.6 million
1.5 million
1.4 million
1.0 million
0.9 million
0.4 million
0.3 million
0.1 million

Growth of social networking sites

1.4 million
1.3 million
1.2 million
1.1 million
1.0 million
0.9 million
0.8 million
0.7 million
0.6 million
0.5 million
0.4 million
0.3 million
0.2 million
0.1 million

Teaching With Twitter
Chronicle of HE, Jeffrey Young, November 22, 2009

Raquel Chanmugam, a professor of computer sciences and retailing at Purdue University, has used Twitter in the lecture hall, even though the service lets
students engage in face-to-face 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-Neats” Have at It!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Development of Comprehensive Learning Clubs
4. Terabyte Learning Access Points
5. The Evolution of Learning
6. Personalization + Portfolios
7. The Selection of Global Learning Partners
8. The Shared Learning Era
9. Teaching, Learning, Perpetuities
10. Teachers, Churches
11. The Rise of the Super Bions
12. Self-Determined Humans
13. Free Learning Zones
14. Authentic Learning Amalgamations
15. Alexandria Aristotles

This (talk) 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!

Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/
The World is Open.
What happens then?

WE
ALL
LEARN!!!