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 organ collab communities; Mosaic, 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 Sectors: 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?

OPENING UP
EDUCATION

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, Minha Sello, age 75, oldest solo sailor)

May 2010, Jessica Watson became the
youngest person ever to sail solo, non-stop
and unassisted around the world.
http://www.jessicawatson.com.au

Abby Sunderland's blog
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"
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, 2005, 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.)

What happens then?
WE
ALL
LEARN!!!

Free Online Books and now the Blio (a free e-book platform to run on any device)

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.

Opener #2. E-Learning and Blended Learning
Letter from Bill Gates about online learning (January, 2010)

Florida Virtual School, 71,000 unique students
This is half credit completions, which means all included have successfully completed a half credit enrollment (June 2, 2010)

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

Capella Tower
225 South Sixth Street, Minneapolis
Formerly, the "Halo"
U. Of California System Proposing Online Ed
Chronicle of Ed, May 14, 2010, Josh Keller and Marc Pauly
"The university plans to spend about $250,000 on each course. It hopes to raise the money from external sources like foundations or major donors."

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

**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)

National Repository for Online Courses (NROC) Commons

Peer2Peer University and University of the People (free!)

Opener #5. Online Learning Object Repositories and Portals (shared content)
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. Fone TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WanderHowTo, Explor.TV, NASA TV, ClipChop, TV Lesson, BookTV, Kikuyu videos, MonkeySee, doFlick, the Research Channel, IVideosong

Link TV: Global Link of World Educators (GLOWE)

Link TV, Academic Earth, TV Lesson, and Fone 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)

The Complete Works of Charles Darwin

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/8084752.stm

Sharing Repositories and Referatories
MERLOT.org: 79,472 members, 21,650 ing materials, Jan 3, 2010
Connections: Dec 2009, 1.6m 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/teams/77146082 african school dream](http://current.com/teams/77146082 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

Social Learning Unleashed
Chief Learning Officer, April 2010

Driving greater collaboration: With 17,000 internal blogs and 53,000 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.

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)

Empathic Education: The Transformation of Learning in an Interconnected World

- The educational process emphasizes autonomous learning—sharing knowledge is considered cheating—and the mission is to produce efficient and productive workers for the market economy.
- New teaching models designed to transform education from a competitive context to a collaborative and empathic learning experience are emerging as schools and colleges try to reach a generation that can be best described as "digital natives" who are used to interacting in open social networks where information is shared rather than hoarded. The traditional assumption that "knowledge is power," and is used for personal gain, is being subsumed by the notion that knowledge is an expression of the shared responsibilities for the collective well-being of humanity and the planet as a whole.

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

We Are Going Mobile!

40,000 new mobile subscribers a week in Rwanda; Rwanda NewsInsure 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!!

[Source: Paul Kim, Stanford, 2009]; Nokia Research Lab
http://www.paulkim.com/paul/paper/0309/
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)

Museum of London's Streetmuseum App Puts Historic Photos In Perspective
Written by Chris Compeloe June 1, 2010 6:30 PM
Hundreds of images from the Museum of London's extensive collections showcase both everyday and momentous occasions in London's history, from the Great Fire of 1666 to the swinging sixties.

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.
Teaching With Twitter
Chronicle of HE, Jeffrey Young, November 22, 2009
Regents Chairperson, a professor of computer sciences and retailing at Purdue University, has welcomed Twitter into the lecture hall, even though the service is not 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.

Predictions
1. Five Billion "Have-Non-Have-It" Have at It!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Quarter-Century Learning Clubs
4. Terabyte Learning Access Points
5. The Venetian 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 Algalizations
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!