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

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

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. 8/9/89: 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. Outourcing (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 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?
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)

SAVE THE DATE:
December 9-11, 2009
San Francisco Convention Center

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

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.)

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

WE ALL LEARN!!!

Free Online Books
(Terry Anderson and Fathi Elhouni, eds. Theory and Practice of Online Learning: Canadian Athabasca University, 2004),
http://ode.athabascau.ca/online_books/55,000 downloads in first year

This Could Be the Year of e-Textbooks
Many titles are available, but students are wary.
Jeffrey Young, September 7, 2009

Sign of the times: At the San Diego State U. bookstore, a poster exhorts students to "Buy This Textbook as an eTextbook."

Blio: Kurzweil Reinvents the Book
Charlie Sorrel, Dec 29, 2009, Wired
http://www.wired.com/gadgetlab/2009/12/blio-
kurzweil-reinvents-the-book/

- 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?

First iPad buyers excited, curious
By Brandon Griggs and John D. Sutter, CNN, April 3, 2010

Patel: "We're not ready..."
Seton Hill University, 2,100 students. All full-time 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)

http://www.gatesfoundation.org/annual-letter/2010/Pages/education-learning-online.aspx

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"

ISGANT: Integration of Science, Mathematics, and Reflective Teaching (ISGANT) is a FREE 2-year online graduate program for middle school science and mathematics teachers in Texas, University of Houston
http://www.uco.edu/ntSTRU/ISGANT/ISGANT.pdf

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)

OpenCourseWare (OCW)
Cute Kitten or Transformation?

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

Sample OpenCourseWare Projects
(Tufts, Johns Hopkins)

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!)

Neera 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 New Generation is Triggering an Online Publishing Revolution

Open Journal Systems
http://chronicle.com/chronicle/open-access-journals/article/45468/

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.

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. Forn TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. LinkTV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Explo.TV, NASA TV, ClipChef, TV Lesson, BookTV, EduTopia videos, HonkeyToo, daFlick, the Research Channel, Videosong
Link TV: 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? (wwwOwow, May 20, 2009)

The Complete Works of Charles Darwin
The Carlyle Letters: Exploring Victorian World Through Letters and The Diary of Samuel Pepys
(Charles Dickens, Elizabeth Barrett Browning, John Stuart Mill, Ralph Waldo Emerson, and Alfred Tennyson)

The Royal Society 350th anniversary celebrations put historic papers online (Captain Cook, Sir Isaac Newton and Benjamin Franklin). BBC, Nov 30, 2009
http://news.bbc.co.uk/2/hi/science/nature/8301425.stm

Human Brain Dissected Today in a Live Webcast, Chronicle of Higher Education, December 10, 2009, 01:02 PM ET
http://chronicle.com/blogPost/Human-Brain-Dissected-Today-
Dec-10-2009/600406?irgroot=chronicle.mysite:chronicle.readon

Sharing Repositories and Referatories
MERLOT.org: 75,472 members, 21,690 lmg materials, Jan 3, 2010
Connextions: Dec 2009, 1.6m unique users, 4 million page views,
72 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
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/items/77146682_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.

Adventure Learning, GeoThentic,
GoNorth (National Geographic)
(Aaron Doering, Univ of Minnesota)

Ice Stories Project from Antarctica

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)

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

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/~pkkim/cart/India.pdf
We Are Going Mobile!

40,000 new mobile subscribers a week in Rwanda; Rwanda Times report, January 2009
Africa is the continent with the fastest growth, International Telecommunications Union (ITU), March 2009

India: In January, 2009, the number rocketed to 15.4M
Globally: 60,000 new mobile subscriptions every hour!!

(per Paul Kim, Stanford, 2009); Nokia Research Lab
Teaching With Twitter
Chronicles of HE, Jeffrey Young, November 22, 2009

Dr. Ashraf Chetan, a professor of computer science, recently used Twitter in his lecture hall, even though the service had 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!

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!

Predictions
1. Five Billion "Have-Nots" Have at It!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Gigantic 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 Alchemists
15. Alexandrian Aristocrats

Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/

The World is Open.
What happens then?

WE
ALL
LEARN!!!