The Flat World Swung Open at “The Edge”: How Web Technology Is Revolutionizing Education

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

Where are you headed?

Do you know the shape of the world?

Is the World Flat?

Is the World Curved?

Is it spiky?
Question:
What is the Web?
- An entertainment system?
- A writing aid?
- A communications system?
- A means to handle commercial transaction?
- A social networking device?

No, it is a learning tool!

Answer:
The Web of Learning

The Web of Learning

Today we have the Web 2.0

We are entering a jumping off point...

UCLA Summer Digs Program
Dig in, archaeology fans! UCLA blogs to offer front-row seat at archaeology digs, Meg Sullivan, 6/25/2008
David Thomas, Archeologist, La Trobe University, Australia (Discovery News)

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... Minoru Saito, age 75, oldest solo sailor; August 21, 2010: 14 year-old Dutch girl)

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."

Old companies teach new tricks

But new technologies hit us now everyday!

Charles Wedemeyer, University of Wisconsin
**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 Safe Communitites (e.g., YouTube)
- Electronic Collaboration and Interaction (synchronous and asynchronous)
- 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.

**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 and now the Blio**
(a free e-book platform to run on any device; Bright Spots: Canada, Korea, and California)
July 29, 2010
Amazon unveils 3rd-generation Kindle e-book reader, USA Today, Edward C. Baig

July 23, 2010
India unveils $35 computer for students, CNN World, Harmeet Shah Singh

April 10, 2010: Seton Hill University, 2,100 students an iPad and freshmen a 13-inch MacBook laptop. August 10, 2010, Can college students learn as well on iPads, e-books? USA Today, Beth Marklein

Letter from Bill Gates about online learning (January, 2010)
http://www.gatesfoundation.org/Announcements/2010/Announcement.html

Opener #2. E-Learning and Blended Learning

Salman Khan (Khan Academy) (videos on math, bio, trig, chemistry, money and banking, economics, statistics, etc.: http://www.khanacademy.org/
A Grain of Rice: A Bloomington man’s computer vocab game feeding the world
(John Breen)

Adora Svitak, age 12, World’s Youngest Teacher

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

U. Of California System Proposing Online Ed
Chronicle of Ht, May 14, 2010, Josh Keller and Marc Perry
“...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.”
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.coee.uh.edu/iSmart/iSmart.html
http://www.coee.uh.edu/iSmart/iSmart.cfm

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

Jen Chauvot and Mimi Lee, Univ of Houston

Mexico's Monterrey Tech Pushes E-Learning, as Some Worry It Won't Solve Region's burgeoning Need
June 16, 2010, Chronicle of Higher Ed, Marlon Lloyd

"A decade ago, only one in 50 Mexicans had access to the Internet. Today that figure is one in four, a staggering cultural transformation that is fueling a boom in online degree programs in the country." Monterrey Institute of Technology and Higher Education...has allowed it to reach more than 35,000 new students

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

Moodle (35+ million users (930,000 registered) in 213 countries, nearly 50,000 sites, 3.5+ million courses, June 27, 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

National Repository for Online Courses (NROC) and OER Commons

Peer2Peer University and University of the People (free!)

Opener #5. Online Learning Object Repositories and Portals (shared content)
College 2.0: More Professors Could Share Lectures Online. But Should They?, Chronicle of HE, Jeffrey R. Young, March 7, 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, keynotes, etc., Elliott Masie, Learning Trends, March 2, 2010)

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. Fora TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Explore.TV, NASA TV, ClipChop, TV Lesson, Book.TV, Edutopia videos, MonkeySee, doFlickr, the Research Channel, iVideography

How TED Connects the Idea-Hungry Elite, Fast Company, Anya Kamenetz, September 1, 2010

Chris Anderson: The entrepreneur bought TED in 2001. "It felt like something you could devote your life to," he says

More Shared Online Video: Academic Earth, TV Lesson, and Fora TV

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 20, 2009 1:00 PM ET


Tweaked

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/8581425.stm

Sharing Repositories and Referatories
MERLOT.org: 78,477 members, 21,690 terabytes material, Jan 3, 2010
Connections: Dec 2009, 1.6m unique users, 4 million page views,
72 million hits, More than 1m users, 200 countries
Curricula: Free K-12 contents.
National Repository of Online Courses, Jorum, OER Commons, etc.

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

John Dewey, Seymour Papert, John Seely Brown, Ivan Illich, Stephen Heppell, Henry Jenkins

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)

“Video Primers in an Online Repository for e-Teaching and Learning” V-PORTAL,
TravelinEdMan (27 free/open YouTube videos), September 2010
http://www.youtube.com/user/TravelinEdMan

Individual Produced Videos
(e.g., African School Dream in Current TV)
http://current.com/items/77146082_african_school_dream

Participatory E-Books

Scribd: Documents on Web
(http://www.scribd.com/; 50 million unique visitors per month, 5B’s of millions of documents, April 2010)

Opener #7. Electronic Collaboration and Interaction
(synchronous & asynchronous)
Opener #8. Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)

Opener #9. Real-Time Mobility and Portability (e.g., iPhone, low cost wireless devices)
- 15m people/month India
- 40,000/week Rwanda
- 60,000 earthinglings/hour

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

Museum of London's Streetmuseum App Puts Historic Photos in Perspective
Written by Chris Caversen, June 1, 2010
"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"
Social Networking Gaming (e.g., Farmville)
For social networks, it's game on, USA Today, Jon Swartz, Thursday October 15, 2009

Opener #10. Networks of Personalized Learning
(Blogs, Podcasts, MySpace, Flickr, and RSS)
September 30, 2009
the Samsung DualView TL225

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.

August 10, 2010
Flipboard pretty up social-media updates
Facebook statuses and tweets feed into magazinelike format in free app for iPad
Jefferson Graham, USA TODAY

Some Papers Are Uploaded to Bangalore to Be Graded, Chronicle of Higher Education, April 4, 2010, Audrey Williams June

Lori Wilson, a teaching assistant at the University of Houston, has outsourced the grading of students' papers to a private company.

July 21, 2010 vs. Sept 28, 2009
Status update: Facebook logs 500 million members, USA TODAY, Kristin McGrath
Teaching With Twitter
Chronicle of Higher Education, November 22, 2009
Nagels (2009) has integrated Twitter into the lecture hall, even though the services are designed to support back-channel discussion. The questions submitted via the system for the professor and guest speakers are projected for all the students to see.

Predictions
1. Five Billion "Have-Nots" Have at It!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Quarter-Century Learning Clubs
4. Terabyte Learning Access Points
5. The Transformation 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 Amalgamations
15. Alexandrian Aristotelian

Decisions for this Open Ed World?
- Technology and Admin folks:
  - What do to about OER, open sources, E-books, mobile, etc.?
- Instructor decisions:
  - Act as Concierge, Counselor, Course facilitator, Credit manager?
- Student decisions:
  - Should I attend traditional university or create your own degree path?
  - How to report use of OER on resumes?

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!

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

WE ALL LEARN!!!