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

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Do you know the shape of the world?

Is the World Flat?

The Ten Forces that Flattened the World
Triple Convergence: (1) new economic players, (2) playing fields, and (3) processes.
1. 11/9/09: Berlin Wall came down
2. 8/9/95: Netscape went public
3. Work Flow Software (e.g., PayFlow and ellay)
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 folding 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 Curved?

Is it spiky?
Or is it Open?

Opening Up Education

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

The Explosion of the Web 2.0
We are entering a jumping off point...

Elements of the Web's Next Generation

Oregon Scientific Smartglobe 2008

Charles Wedemeyer
Learning at the Back Door (1981)
Nontraditional Learning

Yonsei University, Seoul, Korea

UCLA Summer Digs Program
Dig in, archaeology fans! UCLA blogs to offer front-row seat at archaeology digs, Meg Sullivan, 8/25/2008

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, Minoru Saito, 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)
- Leveled 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.
**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?

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

**Digital Textbook in Korea**
dictionary, email and forums, games, simulations, hyperlinks, multimedia, authoring, data search, study aids, evaluation, etc. (112 schools as of 2009; free for all schools by 2013)
http://www.dtbook.kr/eng/index.jsp

**In a Digital Future, Textbooks Are History, NY Times, August 9, 2009**


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


Figure 1: Students Speak Up about Reasons for Taking Online Classes

THE May 2010

How would you like your school or district to use technology to create professional learning communities? (Multiple responses allowed)


Indiana University High School (4,000 students and 1,400 enrolled in diploma programs)
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)

MIT OCW Highlights for High School

Open Educational Resources (OER)
Post Courses in YouTube and iTunes (e.g., Berkeley)

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

National Repository for Online Courses (NROC) Commons
Free Degrees and Universities

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

Link TV: Global Link of World Educators (GLOWE)

Link TV, Academic Earth, TV Lesson, and Fora TV
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://www.bbc.co.uk/hi/science/museum/791426.shtm

Online Referenceware
Online Reading Programs
(See free-Reading.net)

Curriki (free K-12 curriculum resources)

Sharing Repositories and Referitories
MERLOT.org: 76,473 members, 21,690 lang materials, Jan 3, 2010
Connexions: Dec 2009, 1.8m 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

Conference to Conference
(You Ustreamed my Ustream: Now that's a Twitter of an Idea)
Flat Classroom Projects!!! (combine blogs, videoconferencing, chat, async discussion, etc.)

Survey reveals gaps in school technology perceptions
District administrators more likely to support certain technologies than teachers; pre-service teacher education lagging in 21st-century instructional methods
By Dennis Pierce, Editor, eSchool News, May 5, 2010

“majority of aspiring teachers (82 percent) said collaborative tools such as blogs and wikis are important instructional tools, only one in four are learning how to use these technologies in their courses on teaching methods”...Instead taught productivity tools such as word processing, spreadsheet, and database software, the survey revealed.

67 percent of admin ideal school of the future includes online cab tools, just 27 percent of teachers agreed.

Synchronous Conferencing Presentations

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

Ice Stories Project from Antarctica

Room to Read and 1kg
http://www.roomtoread.org/programs/schools.html
http://www.1kg.org/
The Next Generation of Videoconferencing
Chronicle of HE, October 21, 2009

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

TwitterPeek, WikiReader not worth the loot, USA Today, Edward Baig, November 5, 2009

TwitterPeek: Restricted to Twitter.
WikiReader: Updating can be a pain.
“A” is for App, Anya Kamenetz, Fast Company, April 2010

Mobile Learning
(April 21, 2009, USA Today)

Mobile Learning in India with Paul Kim
http://www.stanford.edu/~pbkim/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 skyrocketed to 1.54M
Globally: 60,000 new mobile subscriptions every hour!
(per Paul Kim, Stanford, 2009); Nokia Research Lab

Handschooling, Judy Breck
http://handschooling.com/

How would you prefer to use your mobile device for schoolwork?

- Email: 32%
- Web search: 22%
- Chat: 19%
- Email: 17%
- Other: 10%
- More research tools: 8%
- Video/audio: 7%
- More research tools: 6%
- Texting: 5%
- Play educational games: 4%

11/21 current usage view
Opener #10. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)

September 30, 2009
the Samsung DualView TL225

TutorVista has 600 tutors in India and 10,000 subscribers in the United States, including Kenneth Tham in Arcadia, Calif.

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

Lori Whilinda, who teaches business law and ethics at the U. of Houston, has outsourced the grading of students' papers to a private company.

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

Sociable Professors First-of-Its-Kind Survey Finds College Faculty Increasingly Using Social Media
Boston, MA (PRWeb) May 4, 2010
http://www.prweb.com/releases/2010/05/prweb3998644.htm
"More than 80 percent of college faculty are using social media, with more than half using these tools as part of their teaching," Pearson Social Media Survey 2010

Social Networks Are Not Equally Popular

Social Networking Awareness and Use

- Awareness
- Use
- Other

Facebook
- 85%
- 41%
- 82%
- 58%
- 37%
- 56%
- 43%
- 36%
- 20%
- 17%
- 15%
- 13%
- 11%
- 9%
- 7%
- 5%
- 3%
- 1%

Twitter
- 78%
- 31%
- 74%
- 48%
- 33%
- 30%
- 26%
- 21%
- 16%
- 13%
- 11%
- 9%
- 7%
- 5%
- 3%
- 1%

LinkedIn
- 75%
- 29%
- 71%
- 44%
- 37%
- 33%
- 28%
- 24%
- 18%
- 15%
- 13%
- 11%
- 9%
- 7%
- 5%
- 3%
- 1%

Social Networking Age

- 25-34
- 35-44
- 45-54
- 55-64
- 65+

- Aware
- Use
- Other

- Aware
- Use
- Other

- Aware
- Use
- Other

- Aware
- Use
- Other

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- Other
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. Quarter-Century Learning Clubs
4. Terabyte Learning Access Points
5. The Vanishing of Learning
6. Personalization + Portfolios
7. The Selection of Global Learning Partners
8. The Shared Learning Ecos
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 Amaigations
15. Alexandrian Aristotles

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

The World is Open.
What happens then?

WE
ALL
LEARN!!!