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

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Where are you headed?

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. 11/9/89: Berlin Wall came down
2. 8/9/95: Netscape went public
3. Workflow Software (e.g., PayPal and eBay)
4. Open-Sourcing (Self-organize 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 Steroids: Digital, Mobile, Personal, and Virtual (wireless, file sharing, VoIP, video camera in phone)

Is the World Curved?
21 Things That Became Obsolete This Decade
December 11, 2009, Silicon Alley Insider

15 Gadgets that Changed Everything This Decade
December 9, 2009, Jay Yarow, Silicon Alley Insider

College technology 'catching up' with students
By Kathleen Gray and Robin Erb, USA TODAY, October 6, 2009

Old companies teach new tricks

Some 'Notable Moments in Recorded Life'

Charles Wedemeyer, University of Wisconsin

Learning at the Back Door

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

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)

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

Abby Sunderland, 16, reportedly in trouble.
ESPN, June 10, 2010

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 Hasbro Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- Real-Time Mobility and Portability (e.g., iPhone)
- Networks of Personalized Learning (Blogs, RSS)

Grandpa George (Goronja)
(West Allis, Wisconsin, built tractors 40+ years)
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?

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

Salmon 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 “Halq”

U. Of California System Proposing Online Ed
Chronicle of HE, May 14, 2010, Josh Keller and Mark 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.”

Mexico’s Monterey Tech Pushes E-Learning, as Some Worry It Won’t Solve Region’s Bourgeoning Need
June 16, 2010, Chronicle of Higher Ed, Marion 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. Monterey 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
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)

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., Elliot 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. FJPA TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Expio.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, Monkeystart, doFlick, the Research Channel, Videosong
Link TV: Global Link of World Educators (GLOWE)

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

Tracking Live Internet Thawing: A Colossal of an Idea

Ida (a transitional species)

Human Brain Dissected Today in a Live Webcast, Chronicle of Higher Education, December 02, 2009, 02:23 PM PT

The Complete Works of Charles Darwin
Seymour Papert, MIT Media Lab

Stephen Heppell, Notschool.net, the ULTRALAB

John Seely Brown

Henry Jenkins, USC
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.

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/video/77146682_african_school_dream

Participatory E-Books

Scribd: Documents on Web
(http://www.scribd.com; 50 million unique visitors per month, 10's of millions of documents, April 2010)

Opener #7. Electronic Collaboration and Interaction (synchronous & asynchronous)

Flat Classrooms Project and Global Nomads Group

Synchronous Conferencing Presentations
7 Tips for Building Collaborative Learning Spaces, Campus Technology, Matt Villano, June 2010

7 TIPS FOR BUILDING COLLABORATIVE LEARNING SPACES

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)

We Are Going Mobile!

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

(per Paul Klee, Stanford, 2009); Nokia Research Lab
"A" is for App, Anya Kamenetz, 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

Museum of London's Streetmuseum App Puts Historic Photos In Perspective
Written by Chris Cameron, June 2, 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"
Some Papers Are Uploaded to Bangalore to Be Graded, Chronicle of Higher Education, April 4, 2010, Audrey Williams June

Lori Whisenant, 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

Teaching With Twitter
Chronicle of HE, Jeffrey Young, November 22, 2009
Supriya Chakravorty, a professor of consumer sciences and retailing at Purdue University, has integrated Twitter into the lecture hall, even though the students and 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-Nots” Have a Future
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Quarter Century 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 Anomalies
15. Alexandrian Aristocrats

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?
- Students 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!