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. Work Flow Software (e.g., PayPal and eBay)
4. Open-Sourcing (Self-organizing collaborative communities; Mosaic, Apache, Wikipedia, Linux, Mozilla)
5. Outsourcing (e.g., India, Mexico, Thailand)
6. Offshoring (e.g., China, Mexico, Thailand)
7. Supply-Chaining (e.g., Walmart)
8. Insourcing (UPS hiring Toshiba laptops)
9. In-forming (e.g., Google, Yahoo, MSN Web Search)
10. The Stereoids: Digital, Mobile, Personal, and Virtual (wireless, file sharing, VoIP, video camera in phone)

Is the World Curved?

1

DAVID M. SMITH
August 9, 2010, Bill Gates Predicts Technology Will Make 'Place-Based' Colleges Less Important in 5 Years
By Jeff Young, Chronicle of HE

July 25, 2010,
Professors' Use of Technology in Teaching,
Jeffrey Young, Chronicle of Higher Education

May 24, 2010
Author Nicholas Carr, The Web Shatters Focus, Rewires Brains, Wired
http://www.wired.com/magazine/2010/05/t/author_nicholas_carr/

Question:
What is the Web?
- An entertainment system?
- A writing aid?
- A communications system?
- A means to handle commercial transactions?
- 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

August 2, 2010
Time spent on Facebook, Twitter, YouTube grows, USA Today, Jon Swartz.
http://www.usatoday.com/tech/news/2010-08-02-networking02_ST_N.htm

Time spent online

<table>
<thead>
<tr>
<th>Social networking</th>
<th>Email</th>
<th>IM</th>
<th>Social networking</th>
<th>Email</th>
<th>IM</th>
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</thead>
<tbody>
<tr>
<td>90 minutes</td>
<td>30 minutes</td>
<td>15 minutes</td>
<td>60 minutes</td>
<td>20 minutes</td>
<td>10 minutes</td>
</tr>
</tbody>
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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, Minna Saarlo, age 75, oldest solo sailor)

Fox Sports News, August 21, 2010, 14-year-old Dutch female sailor
https://www.foxsports.com/sports/video/video/id/273504
Dutch teen wins sail on solo round-the-world trip

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 (i.e., 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)

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.)

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

April 10, 2010: Seton Hill University, 2,100 students an iPad and freshmen a 13-inch MacBook laptop.
August 19, 2010, Can college students learn as well on iPads, e-books?, USA Today, Beth Marklein
July 23, 2010
India unveils $35 computer for students, CNN World, Harmeet Shah Singh

Opener #2. E-Learning and Blended Learning

Letter from Bill Gates about online learning (January, 2010)

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)

North Carolina, The enrollment figures are based on half-credit enrollments, and assumes an average growth of 50% per year (actual has been 79%). (per Dr. Bryan Soto, Executive Director, North Carolina Virtual Public School Learn and Earn Online, July 6, 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 HE, 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.uh.edu/colleges/csb/iSMART/flyer.pdf
http://www.uh.edu/colleges/csb/iSMART/htm

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

Jen Chauvat 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, 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.” 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, 00PS)
Open Educational Resources (OER)
Post Courses in YouTube and iTunes (e.g., Berkeley)

Sample OpenCourseWare Projects
(Tufts, Johns Hopkins)

Peer2Peer University and
University of the People (free!)
Neeru Paharia is behind Peer2Peer University, Fast Company, September 2009, How Web-Savvy Edspunks Are Transforming American Higher Education

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) Commons

July 23, 2010
Online Course Construction Gets a 'Do-It-Yourself' Web Site, Sophia Li, Chronicle of HE, Nixty (http://nixty.com/)
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, Explo.TV, NASA TV, ClipChick, TV Lesson, BookTV, EduTube videos, MonkeySee, deFlick, the Research Channel, iVideoSong

Link TV: Global Link of World Educators (GLOWE)

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

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

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

Human Brain Dissected Today in a Live Webcast, Chronicle of Higher Education,
December 02, 2009, 15:00 PT

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
Sharing Repositories and Referatories
MERLOT.org: 76,472 members, 21,690 lang 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 Course, OER Commons

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

Wikis: Wikipedia and Wikibooks

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)

TravelinEdMan (YouTube)
http://www.youtube.com/user/TravelinEdMan

Individual Produced Videos (e.g., African School Dream in Current TV)
http://current.com/item/77346683_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)
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)

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

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

("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

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

Status update: Facebook logs 500 million members, USA TODAY, Kristin McGrath

TwitterPeek: Restricted to Twitter.
WikiReader: Updating can be a pain.

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

Lori Whitenant, 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 HE, Jeffrey Young, November 22, 2009
Sugata Mitra (left), a professor of computer science and technology at IIT Kanpur, India, has welcomed Twitter into the lecture hall, even though the service is still in beta. 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-Note" Have at It!
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 Perpetuations
10. Teachers, Teachers
11. The Rise of the Super Blends
12. Self-Determined Humans
13. Free Learning Zones
14. Authentic Learning Assemblages
15. Alexandrian Aristotes

Decisions for this Open Ed World?
- Technology and Admin Folks:
  - What do to about OER, open sources, E-books, mobile, etc.?
- Instructors decisions:
  - Act as Concierge, Counselor, Course facilitator, Credit manager?
- Students decisions:
  - Should I attend a 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/
The World is Open.
What happens then?

WE

ALL

LEARN!!!