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

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Technology of the 1980s

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

Where are we headed?

Do you know the shape of the world?
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 organ collab communities; Mozilla, 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?

Is it spiky?

Or is it Open?

Mercedes-Benz SLS AMG TV (June 17, 2010)
http://www.youtube.com/watch?v=EGt_LXg0TY
Traveled across the street to the Venetian...

Oregon Scientific Smartglobe

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

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

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

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)
May 2010, Jessica Watson became the youngest person ever to sail solo, non-stop and unassisted around the world. [http://www.jessicawatson.com.au]


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

1. Web Searching in the World of e-Books (i.e., Darwin)
2. E-Learning and Blended Learning
3. Availability of Open Source and Free Software (e.g., Moodle)
4. Leveraged Resources and OpenCourseWare (e.g., MIT)
5. Learning Object Repositories and Portals (i.e., shared content)
6. Learner Participation in Open Info Communities (YouTube)
7. Electronic Collaboration and Interconnection (sync and async)
8. Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
9. Real-Time Mobility and Portability (e.g., iPhone)
10. Networks of Personalized Learning (Blogs, RSS)

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.
May 24, 2010
Author Nicholas Carr, The Web Shatters Focus, Rewires Brains, Wired
http://www.wired.com/magazine/2010/03/ft-nicholas-carr/

Clay Shirky, NYU: How cognitive surplus will change the world, TED, June 2010,
http://www.ted.com/talks/clay_shirky_how_cognitive_surplus_will_change_the_world.html

August 9, 2010, Jaron Lanier (USC and Microsoft researcher), The First Church of Robotics, NY Times
August 29, 2010, Jaron Lanier, The End of Human Specialness, Chronicle of Higher Education

Audience Participation!
1. WE
2. ALL
3. LEARN!!!

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

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

August 5, 2010
Remaking the College Campus,
Bridget McCrea, Campus Technology

Remaking the College Library, Bridget McCrea,
09/01/10, Campus Technology
Virtual Tour of New GVSU Library—USA and Bedford Library—UK
http://www.youtube.com/watch?v=584DPhn3ex0

Yonsei University, Seoul, Korea
Marissa Mayer leads the company's product management efforts on search products, web search, search UX, maps, books, products, maps, Google Docs, Google Talk, Google Reader, YouTube, and Google's ad business. She also focuses on the user interface and user experience of search, Maps, and YouTube. Her efforts have been widely recognized and she has been named one of the top 100 innovators in the world, and Google and http://marissamayer.com, and launching more than 100 national and products on Facebook.

Free Online Books and now the Blob (a free e-book platform to run on any device; Bright Spots: Canada, Korea, and California)

Cory Doctorow

July 29, 2010
Amazon unveils 3rd-generation Kindle e-book reader, USA Today, Edward C. Baig

Steve Jobs, Apple
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

Samsung: Galaxy Tab has leg up on Apple iPad, By Stephen Shankland, CNET, September 3, 2010

Opener #2. E-Learning and Blended Learning

Bill Gates

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 Setser, 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)
U. Of California System Proposing Online Ed Chronicle of HE, May 14, 2010, Josh Keller and Herb 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.coe.unt.edu/programs/interdisciplinary/ISMART/ISMART.html
http://www.coe.unt.edu/programs/interdisciplinary/ISMART/ISMART.htm

Mexico's Monterrey 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."
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)

Linus Benedict Torvaids

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)

Professor Richard Yue, MIT

Lucifer Chu from OOPS

Walter Lewin, MIT

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

Open Educational Resources (OER)
Post Courses in YouTube and iTunes (e.g., Berkeley)
**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 "disruptive." 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. HSNBC.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, ExploTV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, iVideosong

**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"

**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)  
47-Million-Year-Old Darwinius Masillae Fossil the Missing Link? (wowOwow, May 20, 2009)

Oceanographer touts deep sea web surfing (e.g., Nautilus Live allows people to not only learn about the expeditions but watch them live and listen to the scientists in the control rooms as discoveries are made, eSchool News, June 2010)

The Carlyle Letters Exploring Victorian World Through Letters and The Diary of Samuel Pepys  
(Great Fire, Charles Dickens, Erasmus Darwin, Mary Wollstonecraft Shelley, Robert Browning, John Stuart Mill, Ralph Waldo Emerson, Elizabeth Barrett Browning, and Alfred Tennyson)


Deep-sea images reveal colorful life on ocean's floor, Featured Site of the Week, eSchool News, Sep 1, 2010 (for school grant and internship program)

The Complete Works of Charles Darwin
The Wikipedia police: Encyclopedia site recruits 20,000 editors to stop malicious tampering with entries

Don Tapscott, Wikinomics, Grown Up Digital

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

Did you know?
shifthappens
Karl Fisch, Did You Know?
Shift Happens—Globalization, Information Age

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

Alexandra Juhasz,
Pfitzer College
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)

Ray Ozzie, PLATO, VisiCalc, Lotus Symphony, Lotus Notes, Groove, Chief Tech Officer at Microsoft, etc.

Flat Classrooms Project and Global Nomads Group

Cassandra Brooks, Ice Stories
Adventure Learning, GeoThentic, GoNorth (National Geographic)
(Aaron Doering, Univ of Minnesota)

On Wisconsin, Fall 2010
Dissolving Borders
Course puts distances aside to explore the dairy industries in Wisconsin and Mexico.

Synchronous Conferencing Presentations

Sugata Mitra, Hole in the Wall

Deb Hutton, Indiana University
Mimi Miyyoung Lee, Univ of Houston

Paul Kim, Rwanda, August 2010, Kigali Institute of Education linking up with universities in India and Cameron through Satellite Internet video conferencing system. They were discussing Java programming.
The Next Generation of Videoconferencing
Chronicle of HE, October 21, 2009

Philip Rosendale,
Founder of Second Life

Charles Nesson, Harvard Law School, Berkman Center for Internet & Society

Second Life
(business, law, education, English, medicine)

Opener #8. Alternate
Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)

Sarah Robbins, Intellagirl
Opener #9. Real-Time Mobility and Portability (e.g., iPhone, low cost wireless devices)

Mobile Internet
(source: Dr. Paul Kim, Stanford)

Museum of London's Streetmuseum App Puts Historic Photos in Perspective

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 sky rocketed to 15.4M
Globally:  60,000 new mobile subscriptions every hour!!!

(see Paul Kim, Stanford, 2009); Nokia Research Lab

June 9, 2010

TwitterPeek

WikiReader: Updating can be a pain.

Elliot Soloway
Univ. of Michigan
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
Mark Zuckerberg

Evan Williams and Biz Stone

Flickr Co-Founders, Caterina Fake and Stewart Butterfield

Marc Andreessen and Gina Bianchini

August 10, 2010
Flipboard pretties up social-media updates
Facebook status and tweets feed into
magazines-like 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 Whisenant, who teaches business law and ethics at the U. 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 HE, Jeffrey Young, November 22, 2009
Selena Chudnovsky, a professor of consumer sciences and retailing at Purdue University, has welcomed Twitter into the lecture hall, even though the service is still students engage in back-channel discussions. The questions submitted via Hotseat for the professor and guest speakers are projected for all the students to see.

The next brilliant idea could come from anywhere!

Shirish Nadkarni, Livemocha
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 Veneration of Learning
6. Personalization+ Portfolios
7. The Selection of Global Learning Partners
8. The Shared Learning Era
9. Teaching-Learning Paradoxes
10. Teachers, Teachers
11. The Rise of the Super Blends
12. Self-Determined Humans
13. Free Learning Zones
14. Authentic Learning Amalgamations
15. Alexandrian Aristotles

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!

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

The World is Open.
What happens then?

WE
ALL
LEARN!!!