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 World Is Flat
Thomas L. Friedman

The World Is Flat Broke
Thomas L. Friedman

Is the World Curved?

Is it spiky?

THE WORLD IS CURVED
HIDDEN DANGERS TO THE GLOBAL ECONOMY
David M. Smick

WHO'S YOUR CITY?
Richard Florida

R R
Or is it Open?

OPENING UP EDUCATION

The Web of Learning

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
Today we have the Web 2.0

We are entering a jumping off point...

Life in the Cloud...?

I'm an Armchair Indiana Jones...

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)

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."
Some Educational and Psychological Heroes:
John Dewey, Seymour Papert, John Seely Brown, Ivan Illich, Stephen Heppell, Henry Jenkins

Our New Heroes are not Theoretical or Psychological

WE-ALL-LEARN:
Ten Forces that Opened the Learning World
- Web Searching in the World of e-Books (e.g., 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 (e.g., shared content)
- Learner Participation in Open Info Communities (e.g., 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"

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.

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**Opener #1. Web Searching** (e.g., Google, MSN, Yahoo!) in the World of e-Books (i.e., Darwin, Shakespeare, etc.)

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**Trend #1. Web Searching in the World of e-Books.**

What happens then?

WE

ALL

LEARN!!!

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**Brewster Kahle, and Aaron Swartz,**
**Open Library**
**the Internet Archive**

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

Barnes & Noble, Color Nook

Week after holidays, e-book sales outdo print, USA Today, January 5, 2011, Bob Minzesheimer and Carol Memmott

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

iPad 2 Is even better than the original, USA Today, March 10, 2011, Edward C. Baig

Opener #2. E-Learning and Blended Learning
Who is demanding fully online and blended learning?

Adora Svitak, age 13, World's Youngest Teacher

Those Preparing for Exams
(e.g., A Free Grain of Rice site, John Breen)

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

Those in hurricanes!

Those in earthquakes!
Those affected by volcanos...

Those in blizzards and ice storms...

Snowmageddon, DC winter of 2010

Those where there are diseases and outbreaks...
Those in tsunamis? (Japan, March 11, 2011)

Letter from Bill Gates about online learning (January, 2010)
http://www.gatesfoundation.org/annual-letter/2010/Pages/education-learning-online.aspx

Salman Khan (Khan Academy) (videos on math, bio, trig, chemistry, money and banking, economics, statistics, etc.; http://www.khanacademy.org/)

NBC Special, March 11, 2011
http://www.msnbc.msn.com/id/21134540/vp=42018991/#42018991

Salman Khan: Let's use video to reinvent education, TED, March 2011
http://www.ted.com/talks/salman_khan_lets_use_video_to_reinvent_education.html
North Carolina Virtual Public School

February 4, 2011
New Enrollment History Chart: Florida Virtual School (Julie Young, President & CEO)

Capella Tower
225 South Sixth Street, Minneapolis
Formerly, the “Halo”

Departments Stay Afloat with new Online Ventures
(e.g., http://iuconnected.iu.edu/, April 2011)

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.”

April 12, 2011
NCTM Conference Session, Free Online Degrees; iSMART: Integration of Science, Mathematics, and Reflective Teaching (iSMART), University of Houston

Jan Chauvet and Mimi Lee, Univ of Houston
OpenSource OpenCourseware Prototype System (OOPS) created by the Foundation of Fantasy, Lucifer Che, Chairman and Janitor of OOPS, Taipei)

National Repository for Online Courses (NROC) Commons

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

Opener #5. Online Learning Object Repositories and Portals (shared content)
A Single Group Helps Yancey at Chronicle Publishing Embrace the Net Nodding Project; a nationally known assertion that the online publishing of archived college newspapers contains more than 100% of information. Edupunks and the Yancey are slowly trying to compile and digitize content. Edupunks, a group of individuals who are sharing their knowledge and making it available for free.

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. Pera TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Late! Pulse
11. Howcast, Big Think, WonderHowTo, ExploTV, NASA TV, ClipChef, TV Lesson, BookTV, Eduopedia videos, MonkeySee, dotRick, the Research Channel, Videosong
Sharing Repositories and Referatories
MERLOT.org: 40,000 members, 78,040 learning materials, April 2011
Connexions: 2.2m unique users, 17,500 modules, 4 million page views, 100 million hits, >1m users, 200 countries, Jan 2011
Curriculum: Free K-12 content.
National Repository of Online Course, Jorum, OER Commons, etc.

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)

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), October 2010
http://www.youtube.com/user/TraveleinEdMan
Individual Produced Videos
(e.g., African School Dream in Current TV)
http://current.com/items/77146881_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)
Synchronous Conferencing Presentations

Cross-Institutional Wikibook Project (e.g., TU and the University of Houston)

April 6, 2011: Eric Whitacre: A virtual choir 2,000 voices strong
http://www.youtube.com/watch?v=6WhwDcwe3Mg

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

Global Collaborations in Virtual Worlds (e.g., Air University in 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 earthlings/hour
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!!!

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

“A” is for App, Anya Kamenetz, Fast Company, April 2010

June 9, 2010

TwitterPeek:
Restricted to Twitter.

Wikireader:
Updating can be a pain.

Opener #10. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)
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 SocialBlue, 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.
Zite (Personalized Online News and Magazine on iPad)
http://www.zite.com/ (March 9, 2011, USA Today)

Teaching With Twitter
Chronicle of HE, Jeffrey Young, November 22, 2000
I have been using Twitter as a teaching tool, and I find that it is an effective way to engage students in classroom discussions. I often use Twitter to share links to interesting articles, videos, and other resources that I think my students might find interesting. Students can also use Twitter to ask questions or to share their own thoughts and ideas. This way, I can have a more interactive and dynamic teaching experience.

The Language Learning Expansion
(e.g., Livemocha, ChinesePod, Babbel, Mictor, English Central, Kastals, etc.)

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?

Predictions
1. Five Billion "Have-Nots" Have at It!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Quarter-Century Learning Clubs
4. Twinkle 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 Arrangements
15. Alexandrian Aristotics
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!