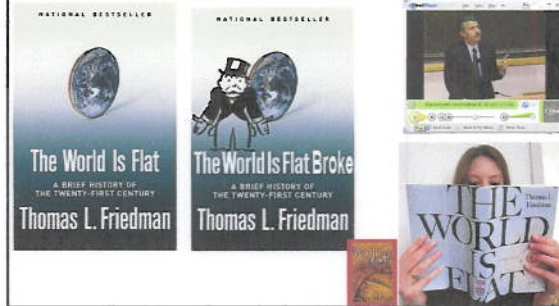


The Flat World Swung Open: How Web Technology Is Revolutionizing Education

Curtis J. Bonk, Professor, Indiana University
 President, SurveyShare
 cjbonk@indiana.edu
<http://php.indiana.edu/~cjbbonk>



Is the World Flat?



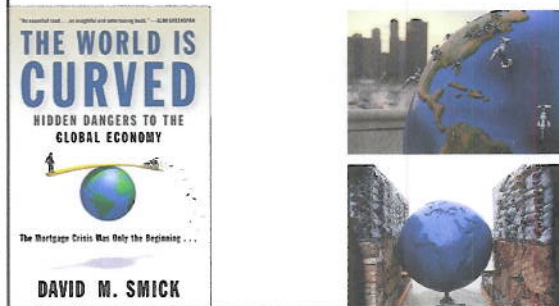
The Ten Forces that Flattened the World

Triple Convergence: (1) new economic players, (2) playing fields, and (3) processes.

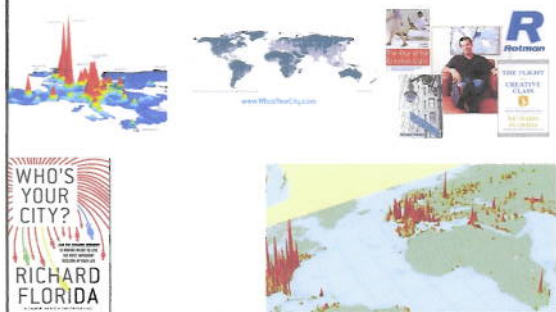
- 11/9/89: Berlin Wall came down
- 8/9/95: Netscape went public
- Work Flow Software (e.g., PayPal and eBay)
- Open-Sourcing (Self organ colliab communities; Mosiac, Apache, Wikipedia, Linux, Mozilla)
- Outsourcing (Y2K)
- Offshoring (e.g., China, Mexico, Thailand)
- Supply-Chaining (e.g., Walmart)
- Insourcing (UPS fixing Toshiba laptops)
- In-forming (e.g., Google, Yahoo!, MSN Web Search)
- The Steroids: Digital, Mobile, Personal, and Virtual (wireless, file sharing, VoIP, video camera in phone)



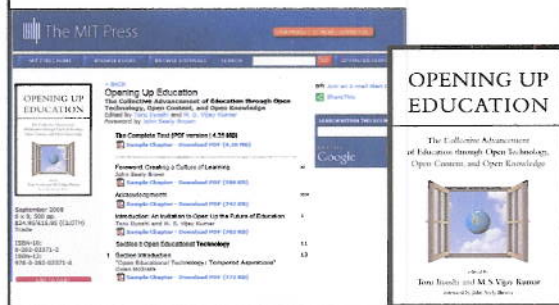
Is the World Curved?



Is it spiky?



Or is it Open?



UCLA Summer Digs Program

Dig in, archaeology fans! UCLA blogs to offer front-row seat at archaeology digs, Meg Sullivan, 6/25/2008

Part 1: Super "My Henry's History"

Labels: [Home](#) [About](#) [Archaeology](#) [UCLA](#) [History](#)

Labels: [Home](#) [About](#) [Archaeology](#) [UCLA](#) [History](#)

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)

David Thomas, Archeologist, La Trobe University, Australia (Discovery News)

Discovery News

Labels: [Home](#) [About](#) [Archaeology](#) [UCLA](#) [History](#)

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

- **W**eb Searching in the World of e-Books (i.e., Darwin)
- **E**-Learning and Blended Learning
- **A**vailability of Open Source and Free Software (e.g., Moodle)
- **L**everaged Resources and OpenCourseWare (e.g., MIT)
- **L**earning Object Repositories and Portals (i.e., shared content)
- **L**earner Participation in Open Info Communities (YouTube)
- **E**lectronic Collaboration and Interaction (sync and async)
- **A**lternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- **R**ead-Time Mobility and Portability (e.g., iPhone)
- **N**etworks 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.



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

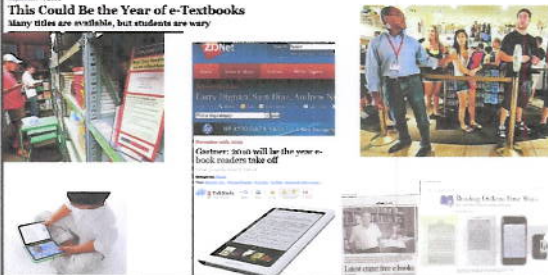
LEARN!!!

2010 Could Be the Year of the E-book!


September 7, 2009
This Could Be the Year of e-Textbooks
Many titles are available, but students are wary

December 2009
October: 50,000 will be the year e-books readers take off



Tablet May Help E-Textbook Market, Publishers Hope


Chronicle of HE, Jeffrey Young
January 31, 2010



Guests play with Apple's new iPad at an event announcing its debut in San Francisco. At least one college is considering giving iPads to new students, but the jury on whether the device will revolutionize learning will be out for a while.

Free Online Books

(Terry Anderson and Fathi Elloumi, eds. *Theory and Practice of Online Learning*; Canada: Athabasca University, 2004; 55,000 downloads in the first year alone)



Opener #2. E-Learning and Blended Learning

The Learning World is Open

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

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

Indiana University High School

(4,000 students and 1,400 enrolled in diploma programs)

Capella Tower

225 South Sixth Street, Minneapolis
Formerly, the "Halo"

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.uh.edu/mycoe/CUIN/math/iSMART%20flyer4.pdf>
<http://www.coe.uh.edu/mycoe/CUIN/math/iSMART.cfm>

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

TOTAL AND ONLINE ENROLLMENT IN DEGREE-GRANTING POSTSECONDARY INSTITUTIONS -- FALL 2002 THROUGH FALL 2008

Year	Total Enrollment	Annual Growth Rate Total Enrollment	Students Taking at Least One Online Course	Annual Growth Rate Online Enrollment	Online Enrollment as a Percent of Total Enrollment
Fall 2002	16,611,710	NA	1,602,970	NA	9.6%
Fall 2003	16,911,481	1.8%	1,971,397	23.0%	11.7%
Fall 2004	17,272,043	2.1%	2,329,783	18.2%	13.5%
Fall 2005	17,487,481	1.2%	3,180,050	36.5%	18.2%
Fall 2006	17,758,872	1.6%	3,488,381	9.7%	19.6%
Fall 2007	17,975,830	1.2%	3,938,111	12.9%	21.9%
Fall 2008	18,199,920	1.2%	4,606,353	16.9%	25.3%

Source: Total and Online Enrollment in Degree-Granting Postsecondary Institutions - Fall 2002

Year 2001: 783
Year 2002: 17622
Year 2003: 18998
Year 2004: 20666
Year 2005: 35596
Year 2006: 62249
Year 2007: 75425
Year 2008: 89409
Year 2009: 89409
Year 2010: 91223

Open U of Malaysia, March 25, 2010

U.S. DEPARTMENT OF EDUCATION

Evaluation of Evidence-Based Practices in Online Learning
A Meta-Analysis and Review of Online Learning Studies

Research Institute for Teaching Effectiveness

Opener #3. Availability of Open Source and Free Software (e.g., Linux, Apache, Moodle, Sakai)

The Learning World is Open

INFORMATION TECHNOLOGY
Crisis-Fear Blackboard Will Put the Devs in Apath Learning

Blackboard
Reveals its Role

Moodle (32+ million registered users in 208 countries, 3+ million courses, 2/6/2010)

Moodle sites

Moodle downloads

Number of Moodle sites

Number of Moodle downloads

Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from MIT, Utah State, CORE, OOPS)

The Learning World is Open

MIT OPEN COURSEWARE

Open Yale

Exc. Traditional Textbooks

We Revise Open Textbooks!

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

Berkeley University of California

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

The Biggest OCW Localization Volunteer Group in the World

OOPS Opencourseware Prototype System
The Foundation of Fantasy Culture and Arts

開放式課程計劃

Sample OpenCourseWare Projects (Tufts, Johns Hopkins)

Tufts OpenCourseWare

Course: IDP300 Pathophysiology of Infectious Diseases, Fall 2004/2005

Search:

Navigation: Home, About, Contact, Links, Search, Help, Feedback, Privacy Policy, Terms of Use

Cape Town Open Education Declaration, Dec 2007

<http://www.capetowndeclaration.org/>

THE CAPE TOWN OPEN EDUCATION DECLARATION

Open Education is a global movement that seeks to ensure that all people have access to quality education. It is a commitment to the belief that education should be open to all, and that it should be a public good, not a commodity.

Open Education is a global movement that seeks to ensure that all people have access to quality education. It is a commitment to the belief that education should be open to all, and that it should be a public good, not a commodity.

Peer2Peer University and University of the People (free!)

Neeru Paharia is behind Peer2Peer University, Fast Company, September 2009, How Web-Savvy Edupunks Are Transforming American Higher Education

Israeli Entrepreneur Plans a Free Global University That Will Be Online Only

Technology Review

Israel starts 1st tuition-free online university

Opener #5. Online Learning Object Repositories and Portals (shared content)

The Learning World is Open

A Single Group Helps Trigger an Online-Publishing Explosion

The Public Knowledge Project, a nonprofit group, estimates that the online-publishing software it offers free has given rise to more than 5,000 open-access academic journals around the world. Below is their geographic distribution, by continent, as of last month.

North America: 2,000
Europe: 1,500
Asia: 1,000
South America: 500
Africa: 200
Oceania: 100

The Complete Works of Charles Darwin

Charles Darwin
The Complete Works of Charles Darwin Online
(Public Domain - International Copyrights - Creative Commons)

Contributors and Acknowledgements

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Dr. David (Dave) Atkinson
Contributors of Illustrations:
Dr. David (Dave) Atkinson

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 Diary of Samuel Pepys

The Carlyle Letters

The Royal Society 350th anniversary celebrations puts historic papers online (Captain Cook, Sir Isaac Newton and Benjamin Franklin), BBC, Nov 30, 2009
<http://news.bbc.co.uk/2/hi/science/nature/8381425.stm>

Audio slideshow: 350 years of discovery

The world's oldest science academy, The Royal Society in London, is celebrating its 350th anniversary by making the public have experimental access to some of its most influential papers. Images courtesy of Royal Society. Sir Isaac Newton and Benjamin Franklin are among those whose papers have a link to some of the most significant ideas in the history of science and technology.



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.

Khan Academy
<http://www.khanacademy.org/>

Link TV (and Global Link of World Educators (GLOWE))

Link TV, Academic Earth, TV Lesson, and Fora TV

Transforming the System: An interview with Michelle Rhee

College 2.0: More Professors Could Share Lectures Online. But Should They?, Chronicle of HE, Jeffrey R. Young, March 7, 2010

"The latest Campus Computing Survey, which gathers data on classroom technology nationwide, found that 28 percent of colleges have a strategic plan to provide coursecasting equipment, and 35 percent more are working on a plan now."

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, 01:00 PM ET

http://chronicle.com/blogPost/Human-Brain-Dissected-Today-in/9053/?id=pm&utm_source=pm&utm_medium=en

Sharing Repositories and Referatories

MERLOT.org: 78,472 members, 21,690 Inrg materials, Jan 3, 2010
Connexions: 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)

The Learning World is Open

Wikis: Wikipedia and Wikibooks

Conference to Conference
(You Ustreamed my Ustream: Now that's a Twitter of an Idea)



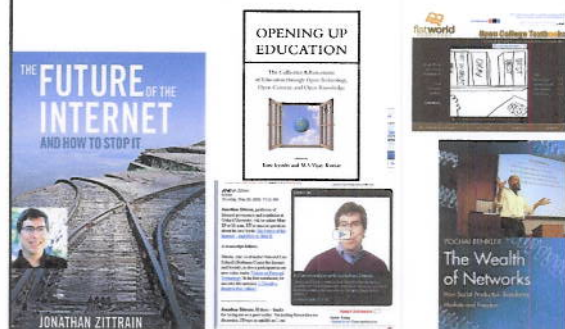
Shared Online Video
(e.g., YouTube and the Royal Channel)



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



Participatory E-Books

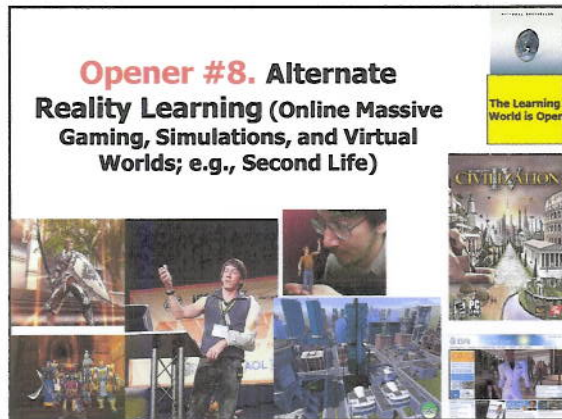
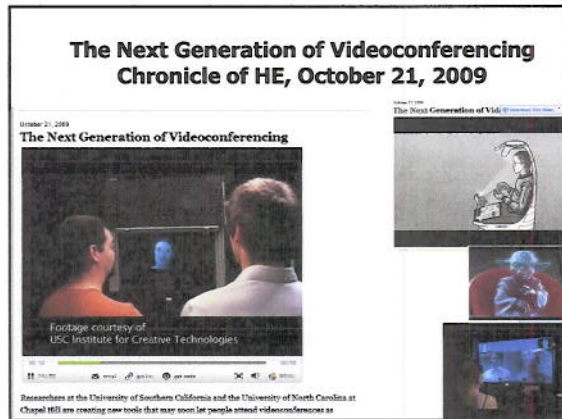
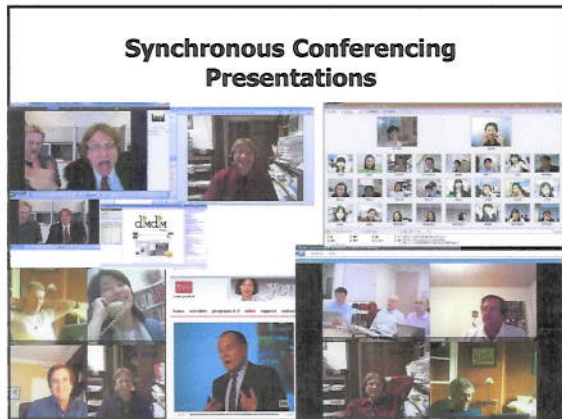


Scribd: Documents on Web
<http://www.scribd.com/>; 21 million unique visitors per month, May 2008



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





Mobile Learning

(April 21, 2009, USA Today)

Simple and colorful

Mobile Learning in India with Paul Kim

<http://www.stanford.edu/~phkim/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 sky rocketed to 15.4M
 Globally: 60,000 new mobile subscriptions every hour!!!

(per Paul Kim, Stanford, 2009); Nokia Research Lab
http://news.yahoo.com/s/afp/20090308/bs_afp/Indiaeconomytelecom

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

TwitterPeek:
Restricted to Twitter.

WikiReader:
Updating can be a pain.

Opener #10. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)

The Learning World is Open

September 30, 2009
 the Samsung DualView TL225

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

SOCIAL NETWORKING

Top social networking sites
 Total unique visitors in August (from home, work, college)

Facebook.com	22.2 million
MySpace sites	14.2 million
Twitter.com	20.8 million
Diigo.com	17.4 million
Chatterbox.com sites	13.9 million
Distance Patterns (part of it)	12.1 million
MyBevo sites	11.4 million
Windows Live Profile	10.3 million

Growth of social networking sites
 Social networking site users (as a percentage of total Internet users)
 August '08: 48.6% August '09: 77%

Teaching With Twitter

Chronicle of HE, Jeffrey Young, November 22, 2009
 Sugato Chakravarty, a professor of consumer sciences and retailing at Purdue University, has welcomed Twitter into the lecture hall, even though the service lets 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.

Livemocha (29 languages, 160 hours of lessons, over 2 million users, FREE!)

Social Language Learning - Online

Learn a new language online. All levels. All paces. All times. All for FREE!

Language Learning on Livemocha
 Livemocha is the world's largest language learning community, with over 2 million members! Designed for all language goals and skill levels, Livemocha offers free

Livemocha Challenge
 Learning a new language? Take the Livemocha Challenge and test your foreign language skills!

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 Perpetuities**
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**

■ **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!!!