

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

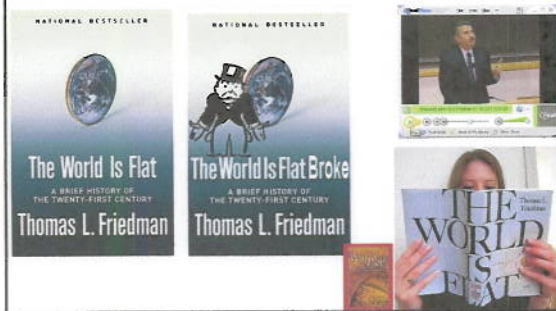
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 President, SurveyShare  
 cjbonk@indiana.edu  
<http://php.indiana.edu/~cjbonk>



## Do you know the shape of the world?



## Is the World Flat?

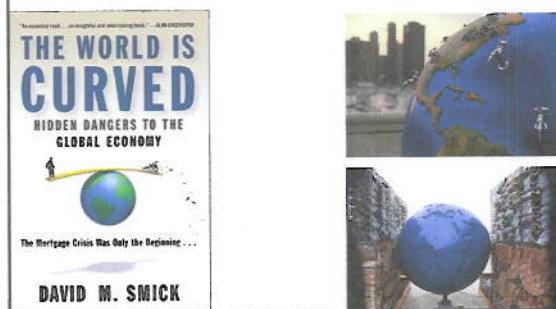


## The Ten Forces that Flattened the World

**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 organ collab 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?



## Is it spiky?



## Or is it Open?

The MIT Press website displays the book "Opening Up Education: The Collective Advancement of Education Through Open Technology, Open Content, and Open Knowledge" by Tony Bates and G. S. Barua. The page includes a table of contents with chapters such as "Foreword: Credibility & Culture of Learning" and "Section 1: Open Educational Technology".



### Charles Wedemeyer Learning at the Back Door (1981) Nontraditional Learning

The book cover features a portrait of Charles A. Wedemeyer and a photograph of a classroom. The title is "Learning at the Back Door: REFLECTIONS ON NON-TRADITIONAL LEARNING IN THE U.S." by Charles A. Wedemeyer.

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

The collage includes a screenshot of a blog post titled "Post: Tagged 'UCLA Summer Digs Program'" and several photographs of people working at archaeological sites, including one showing a skull being examined.

### 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)

The collage features a world map with sailing routes, photos of Michael Perham and Zac Sunderland, and screenshots of their respective blogs and social media posts.

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

The screenshot shows a blog page for Abby Sunderland, featuring a large photo of her and various social media links and navigation buttons.



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

The collage features a central screenshot of the Discovery News website with the headline "Sublime South West archaeological sites by Kingfisher". Surrounding this are several smaller images: a skull, an excavation site with workers, a stone structure, and a landscape with a river.

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.

### 21 Things That Became Obsolete This Decade

December 11, 2009, Silicon Alley Insider

The collage illustrates various obsolete items and practices, including a typewriter, a person using a laptop, a person holding a mobile phone, a baby with a pacifier, a person with a computer monitor, and a person with a stack of CDs.

### 15 Gadgets that Changed Everything This Decade

December 9, 2009, Jay Yarow, Silicon Alley Insider

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

The Learning World is Open

### 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)

### 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.

An iPad for Everyone

Seton Hill University will give a new Apple iPad to every full-time student in fall 2010.

More than 200,000 iPads have been sold, making it the fastest-selling tablet computer in history.

Seton Hill University is a member of the iPad Consortium, a group of over 100 higher education institutions that have committed to providing iPads to their students.

www.setonhill.edu

### Opener #2. E-Learning and Blended Learning

The Learning World is Open

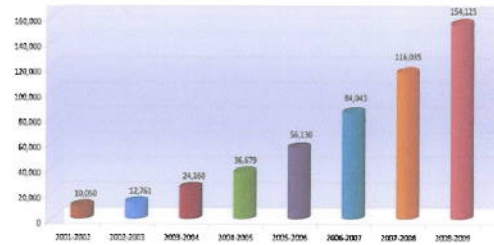


**Letter from Bill Gates about online learning (January, 2010)**

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



**Florida Virtual School, 71,000 unique students  
This is half credit completions, which means all included have successfully completed a half credit enrollment (June 2, 2010)**



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



**Adora Svitak, age 12, World's Youngest Teacher**



**A Grain of Rice: A Bloomington man's computer vocab game feeding the world**



**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."**

**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	16,611,730	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%

**Open U of Malaysia, March 25, 2010**

Year	Enrollment
Year 2001	7822
Year 2002	16988
Year 2003	28868
Year 2004	53240
Year 2005	76425
Year 2006	116449
Year 2007	176425
Year 2008	288409
Year 2009	412223
Year 2010	512223

**U.S. DEPARTMENT OF EDUCATION**

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

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

The Learning World is Open

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

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

MIT OPEN COURSEWARE  
 THE UNIVERSITY OF UTAH  
 CORE  
 OOPS

Open Yale  
 Esc Traditional Textbooks

We Remain Open Textbooks!



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

The image shows a collage of screenshots from the Berkeley Open Educational Resources website. It features the Berkeley University of California logo, navigation menus, and several video thumbnails from YouTube and iTunes. The content includes course descriptions and video player interfaces.

### 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

The image displays the OOPS website interface. It features the OOPS logo, a list of volunteers, and course listings. The text is primarily in Chinese, with some English text. The website is titled "OpenSource OpenCourseware Prototype System" and is funded by the Foundation of Fantasy.

### Sample OpenCourseWare Projects (Tufts, Johns Hopkins)

The image shows two screenshots of OpenCourseWare projects. The first is from Tufts University, titled "IDP205 Pathophysiology of Infectious Diseases, Fall 2004/2005", featuring a thumbnail of a red tick. The second is from Johns Hopkins University, titled "JH200.001 The History of Public Health", featuring a thumbnail of a group of people.

### National Repository for Online Courses (NROC) Commons

The image shows the NROC Commons website interface. It features a grid of course thumbnails, search bars, and navigation menus. The website is titled "National Repository for Online Courses (NROC) Commons" and includes a "Welcome to a worldwide learning network" message.

### 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

The image is a collage of news articles and website screenshots. It features a photo of Neeru Paharia, a "Technology Review" article, and a "Technology Review" article titled "Israel starts 1st tuition-free online university". The text discusses the founding of Peer2Peer University and the University of the People.

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

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 in their geographic distribution, by continent, as of last month.

The image shows a world map with color-coded regions representing the geographic distribution of open-access academic journals. The map includes labels for North America (2,342), South America (2,287), Africa (476), and Oceania (96). The text above the map discusses the Public Knowledge Project and its impact on online publishing.



### 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.

### 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, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, iVideosong

### Link TV: Global Link of World Educators (GLOWE)



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



### 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







## Wikis: Wikipedia and Wikibooks

The image shows the Wikipedia website's language selection interface. A globe is surrounded by various language options with their respective article counts. A man is shown in a separate inset image.

Language	Articles
English	2,443,261 articles
Deutsch	271,826 articles
Français	182,561 articles
Português	141,500 articles
Italiano	139,227 articles
Português	111,887 articles
Español	107,526 articles
Русский	107,526 articles

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

The image shows a Ustream live stream interface with multiple video feeds and a chat window. The interface includes a navigation bar and a list of streamers.

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

The image shows a YouTube video player displaying a video from 'THE ROYAL CHANNEL'. The video title is 'The Queen visits Google London'. The video player includes a progress bar and a view count.

## Individual Produced Videos (e.g., African School Dream in Current TV)

[http://current.com/items/77146082\\_african\\_school\\_dream](http://current.com/items/77146082_african_school_dream)

The image shows a Current TV live stream interface with multiple video feeds. The interface includes a navigation bar and a list of streamers.

## Participatory E-Books

The image shows a website displaying various e-books. The books shown include 'The Future of the Internet and How to Stop It' by Jonathan Zittrain, 'Opening Up Education: The Collection of Open Educational Resources', and 'The Wealth of Networks'.

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

The image shows the Scribd website interface. The interface includes a navigation bar, a search bar, and a list of documents. A photo of two men is also visible in the bottom right corner.



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

The Learning World is Open

Found from various sources including educational materials and digital learning environments.

## Synchronous Conferencing Presentations

## The Next Generation of Videoconferencing Chronicle of HE, October 21, 2009

October 21, 2009

The Next Generation of Videoconferencing

Footage courtesy of USC Institute for Creative Technologies

Research at the University of Southern California and the University of North Carolina are creating new tools that may soon let people attend videoconferencing

## 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.**

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

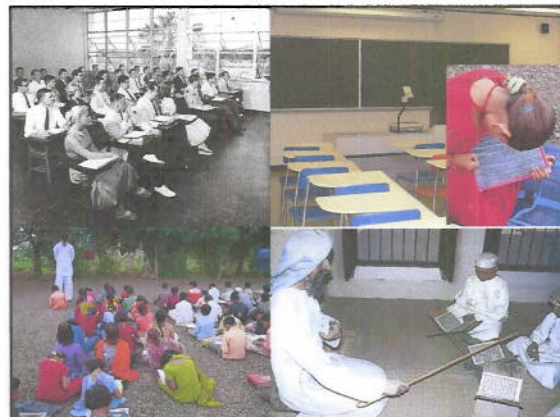
The Learning World is Open

Found from various sources including educational materials and digital learning environments.

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

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

The Learning World is Open



## Empathic Education: The Transformation of Learning in an Interconnected World

Jeremy Rifkin, Chronicle of HE, May 30, 2010

- The educational process emphasizes autonomous learning—sharing knowledge is considered cheating—and the mission is to produce efficient and productive workers for the market economy.
- New teaching models designed to transform education from a competitive contest to a collaborative and empathic learning experience are emerging as schools and colleges try to reach a generation that has grown up on the Internet and is used to interacting in open social networks where information is shared rather than hoarded. The traditional assumption that "knowledge is power," and is used for personal gain, is being subsumed by the notion that knowledge is an expression of the shared responsibilities for the collective well-being of humanity and the planet as a whole.



## "A" is for App, Anya Kamenetz, Fast Company, April 2010

## 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/indiaconomytelecom](http://news.yahoo.com/s/afp/20090308/bs_afp/indiaconomytelecom)



### Social Networking Gaming (e.g., Farmville)

For social networks, it's game on, USA Today, Jon Swartz, Thursday October 15, 2009

For social networks, it's game on

**FarmVILLE**

Click, drag, and harvest all day long, Michigan

Quick, single tap harvest all day long, Michigan

Gameplay

Gameplay

### Mobile Learning

(April 21, 2009, USA Today)

Simple and Colorful

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

Written by [Chris Cameron](#) / June 1, 2010 6:30 PM  
 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."

iPhone Screenshots

MUSEUM OF LONDON STREETMUSEUM

Carnaby Street

MUSEUM OF LONDON

### Opener #10. Networks of Personalized Learning

(Blogs, Podcasts, MySpace, Flickr, and RSS)

September 30, 2009  
 the Samsung DualView TL225

The Learning World is Open

### Some Papers Are Uploaded to Bangalore to Be Graded, Chronicle of Higher Education, April 4, 2010, Audrey Williams June

TAs emit elaborate feedback

Offer

Virtual

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

Social networking sites

Growth of social networking sites

Social networking sites (as a percentage of total internet revenues)

**SOCIAL NETWORKING**

Top social networking sites

\*Total unique visitors in August (from home, work, college)

Facebook.com	92.7 million
MySpace.com	64.9 million
Twitter.com	20.4 million
Orkut.com	17.4 million
Classmates.com	13.9 million
Bebo.com	12.5 million
LinkedIn.com	11.4 million
Windows Live Profile	10.3 million

August '08: 40.6%

August '09: 72%

**Sociable Professors**  
**First-of-its-Kind Survey Finds College Faculty Increasingly Using Social Media**  
 Boston, MA (PRWEB) May 4, 2010  
<http://www.prweb.com/releases/2010/05/prweb3960844.htm>  
 "More than 80 percent of college faculty are using social media, with more than half using these tools as part of their teaching." Pearson Social Media Survey 2010

**Social Networks Are Not Equally Popular**

Platform	Awareness (%)	Use (%)
Facebook	~95	~85
MySpace	~85	~75
LinkedIn	~80	~65
Twitter	~75	~55
MySpace	~70	~50
Google+ (Gmail)	~65	~45
Other	~60	~40

**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.

Learn Spanish on Your Terms! Sign Up Now!

Learn Italian on Your Terms! Sign Up Now!

243 Live Lessons & 7087 Conversations. Take the test >

30 Live Lessons & 476 Conversations. Take the test >

Learn Italian on Your Terms! Sign Up Now!

Learn Spanish on Your Terms! Sign Up Now!

**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](http://TrainingShare.com)  
 Papers: [PublicationShare.com](http://PublicationShare.com)  
 Book: <http://worldisopen.com/>  
 The World is Open.  
 What happens then?

**WE**

**ALL**

**LEARN!!!**