

## A Web of Learning: Highlighting the Learning Opportunities for Today and Tomorrow

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 http://php.indiana.edu/~cjbonk



## Where are you headed?



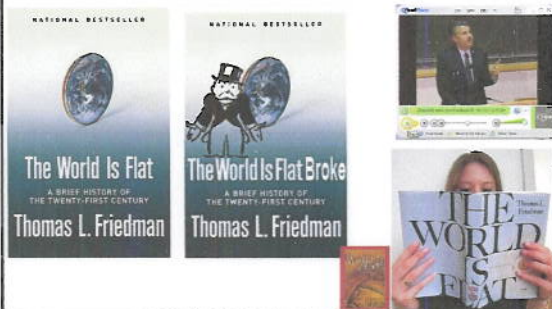
## Do you have a compass?



## Do you know the shape of the world?



## Is the World Flat?

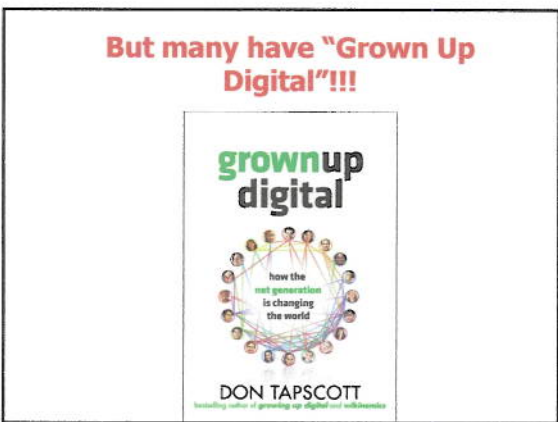
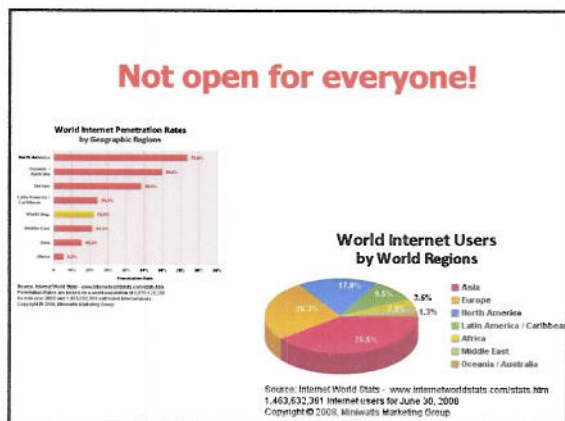
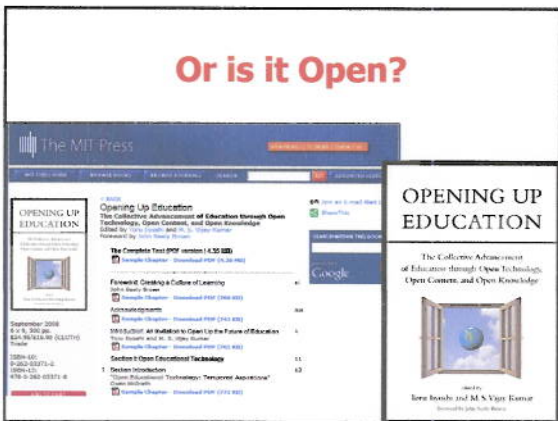
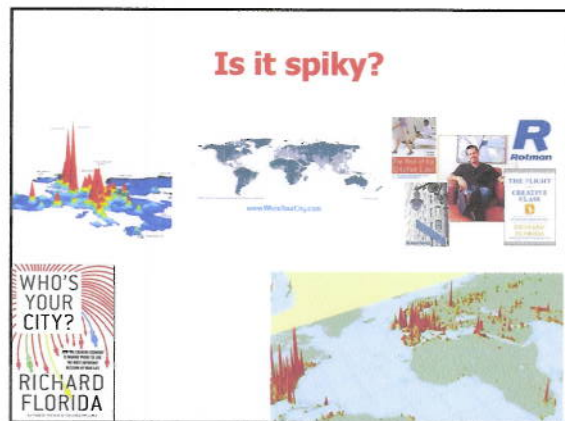
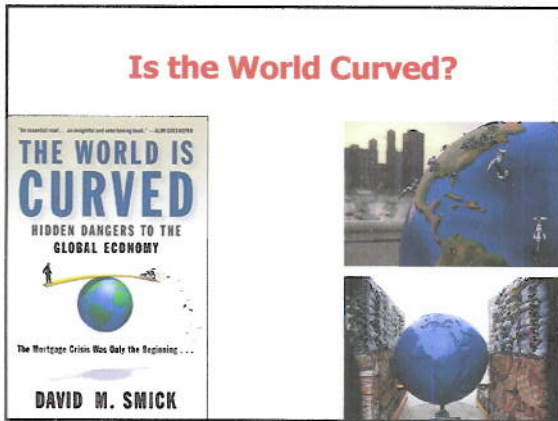


## The Ten Forces that Flattened the World

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)





## What is the Web?

- An entertainment system?
- A writing aid?
- A communications system?
- A means to handle commercial transaction?
- A social networking device?

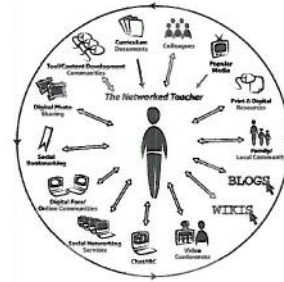
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**No, it is a learning tool!**

## The Web of Learning



## The Web of Learning

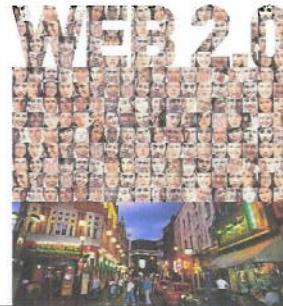


## The Explosion of the Web 2.0

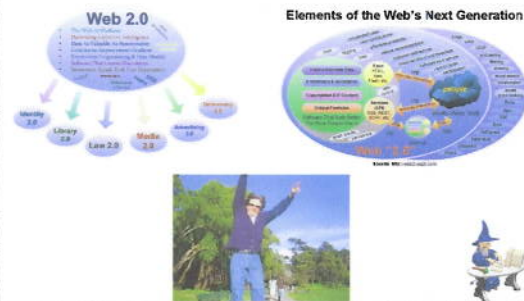
Periodic Table of the Internet



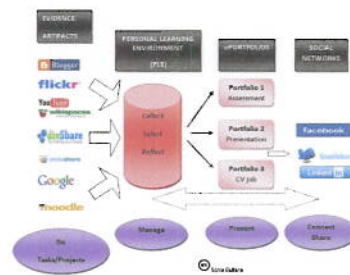
## The Web Connects for Interactive Learning



## We are entering a jumping off point...



## Personalized Learning Environments (Stephen Downes and others)

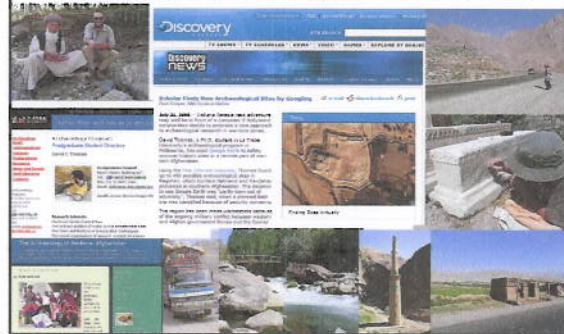




**Michael Perham & Zac Sunderland,  
Summer 2009** (each age 17, youngest person to sail  
solo around the world...and blog on it, use Skype, YouTube,  
take videos, post pictures)



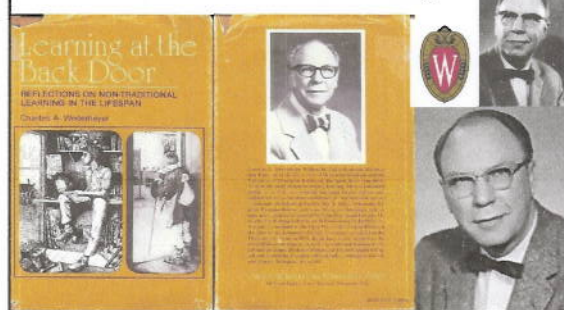
**David Thomas, Archeologist, La Trobe  
University, Australia (Discovery News)**



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



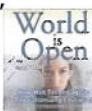
**Charles Wedemeyer  
Learning at the Back Door (1981)  
Nontraditional Learning**



**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"

- Pipes:** The availability of tools and infrastructure for learning.
- Pages:** The availability of free educational content and resources (OER—Open Educational Resources).
- 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!!!**



### This Could Be the Year of e-Textbooks

Many titles are available, but students are wary.  
Jeffrey Young, September 7, 2009


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



Sign of the times: At the San Diego State U. bookstore, a poster exhorts students to "Buy This Textbook as an eTextbook."

### E-books: 4 choices (Paperback, Kindle, iPhone, or iPod listening)


Reading Dickens Four Ways



### Blio: Kurzweil Reinvents the Book

Charlie Sorrel, Dec 29, 2009, Wired  
<http://www.wired.com/gadqetab/2009/12/blio-kurzweil-reinvents-the-book/>

- Blio is a free platform...run on any device.
- Blio is in color.
- Blio lays pages seen on paper, with typography and illustrations; uses video.
- More than a million library of titles.
- The end of the book?



### Free Online Books

(Terry Anderson and Fathi Elloumi. eds. *Theory and Practice of Online Learning*; Canada: Athabasca University. 2004),  
[http://cde.athabascau.ca/online\\_book/](http://cde.athabascau.ca/online_book/), 55,000 downloads in first year)

### Read, Listen, etc. to online books (e.g., "An International Episode" by Henry James)

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

The Learning World is Open

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

What happens then?

**WE**  
**ALL**  
**LEARN!!!**

### Indiana University High School

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

### Adora Svitak, age 11, World's Youngest Teacher

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

**Rice** For each answer you get right, we donate 10 grains of rice through the UN World Food Program to help end hunger.

The country was Cote d'Ivoire

This country is:  
Thailand  
Malaysia  
Indonesia  
Vietnam

Correct! Cote d'Ivoire

### 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%20 flyer4.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.

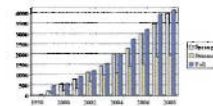
### Total and Online Enrollment in Postsecondary Institutions Fall 2002 through Fall 2006

(For degree-seeking students)

	Total Enrollment	Annual Growth Rate Total Enrollment	Students Taking at Least One Online Course	Annual Growth Rate Online Enrollment	Online Enrollment as Percent of Total Enrollment
Fall 2002	16,611,710	NA	1,622,970	NA	9.7%
Fall 2003	16,902,479	1.7%	1,671,397	23.9%	11.7%
Fall 2004	17,272,643	2.2%	2,220,783	18.2%	12.8%
Fall 2005	17,428,500	2.9%	3,780,050	36.5%	18.2%
Fall 2006	17,647,720	1.3%	3,408,381	9.7%	19.3%

SOURCE: Online Rates - Five Years of Growth in Online Learning (October 2007)

#### UIS Online & Blended Enrollment



### Open Teaching

(Tom Reeves Evaluation Course at Georgia; David Wiley's Web 2.0 courses at BYU; Connectivism from George Siemens and Stephen Downes, 24 enrolled, 2,000+ sitting in)



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



**Trend #3. Availability of Open Source and Free Software.**  
**What happens then?**

**WE**

**ALL**

**LEARN!!!**

**Moodle (620,000 registered users in 204 countries speaking 78 languages, 2/10/2009)**

Moodle sites: Total amount of sites

Moodle downloads: Downloads in 2009

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

The Learning World is Open

Esc. Traditional Textbooks

Remix Open Textbook

We Remix Open Textbooks!

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

**OpenCourseWare (OCW)**  
**Cute Kitten or Transformation?**

MIT OPEN COURSEWARE

Open Yale

Open Educational Resources

Open University Nederland

OPEN COURSEWARE CONSORTIUM

**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 Games and Arts

開放式課程計劃

## Sample OpenCourseWare Projects (Tufts, Johns Hopkins)



## Indian Institutes of Technology (IIT)



## National Repository for Online Courses (NROC) Commons



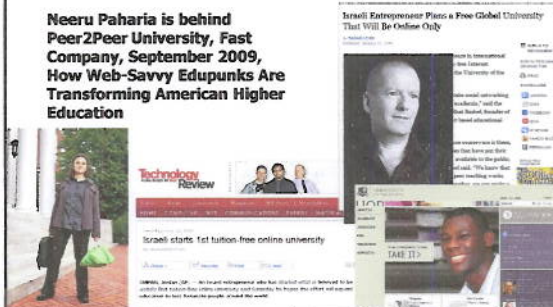
## Cape Town Open Education Declaration, Dec 2007

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



## 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



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



## Academic Earth

<http://academicearth.org/>

Thousands of video lectures from the world's top scholars.

## 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)

## The Complete Works of Charles Darwin

The Complete Works of Charles Darwin Online

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and  
Acknowledgements

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## 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

<http://news.bbc.co.uk/2/hi/science/nature/8381425.stm>

**Audio slideshow: 350 years of discovery**

The world's oldest national academy, The Royal Society is marking its 350th anniversary celebrations by making 500 of its most important scientific papers (in Latin and French) available online.

Original material by James Cook, Sir Isaac Newton and Benjamin Franklin are being made available online, taken from a copy of the open access book, with the Society's kind of online, digital archive.

### 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/909317?id=pm&utm\\_source=pm&utm\\_medium=en](http://chronicle.com/blogPost/Human-Brain-Dissected-Today-in/909317?id=pm&utm_source=pm&utm_medium=en)

**THE CHRONICLE**  
of Higher Education

December 2, 2009

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Faculty | Administration | Technology | Community Colleges | International | Special Reports

**Tweet**

December 02, 2009 1:00 PM ET

**Human Brain Dissected Today in a Live Webcast**

In 1953, Henry Gustav Molaison agreed to undergo experimental brain surgery in hopes of stopping the epileptic seizures and madness that had plagued him since age six. The neurosurgeon William B. Scott, Sr. at Hartford Hospital in Connecticut, removed part of Molaison's hippocampus.

"The release 'truly stopped,'" writes Scott Lefkowitz in the *New York Times Magazine*, "but so too did Molaison's ability to focus on memories, though he could recall parts of his life before the surgery, a condition called *anterograde amnesia*."

### Referatory: MERLOT.org

(78,472 members, 21,690 learning materials, January 3, 2010)

**MERLOT**  
Member Center

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**Communities**

MERLOT has created a variety of Communities (also referred to as groups) which will "take after shopping" centers for a broad selection of resources related to online teaching and learning. Community Pages provide MERLOT members with different information about various teaching strategies, professional associations, journals, publications, and other resources for continuous professional development. MERLOT categorizes Communities Pages as:

- DISCIPLINE COMMUNITIES**  
Explore discipline-specific content in each subject and discipline.
- WORKFORCE DEVELOPMENT COMMUNITIES**  
Browse resources supporting professional and applied programs.
- PARTNER COMMUNITIES**  
Explore resources associated with the Partner Communities and groups.

### Connexions Growth

January 2009

>8,000 modules (3-5 pages)  
>425 collections (books and courses)  
*multiple languages*  
engineering, computer science, nanotech, physics, statistics, math, history, music, bio-diversity, botany, bio-info, IP, BRIT, UNESCO, UN, Sigma Xi, ...  
from authors *worldwide*

Usage October 2008  
45 million hits  
2m page views  
1m unique users  
from 200 countries

### Opener #6. Learner Participation in Open Information Communities (e.g., Slashdot, Digg, Wikipedia, YouTube)

A bit of me...

flatworld KNOWLEDGE

The Learning World is Open

### Wikis: Wikipedia and Wikibooks

**WIKIPEDIA**

English: The Free Encyclopedia (1,447,000 articles)  
Deutsch: Die freie Enzyklopädie (77,100 Artikel)  
Français: L'encyclopédie libre (100,000 articles)  
日本語: 自由百科事典 (40,000 記事)  
Nederlands: De vrije encyclopedie (40,000 artikelen)  
Español: La enciclopedia libre (177,000 artículos)  
Português: A enciclopédia livre (41,000 artigos)  
Polski: Własciwa Encyklopedia Wolna (100,000 artykułów)

Projects of the Wikimedia Foundation (total items: 2)

- Wikisource
- Wikispecies
- Wikiversity
- Wikivoyage
- Wikiquote
- Wikinews
- Wikispecies
- Wikisource
- Wikiversity
- Wikivoyage
- Wikiquote
- Wikinews

### Conference to Conference

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

**USTREAM**

LIBSON-MADDELL PRESENTATION

LIBSON-MADDELL PRESENTATION

## 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](http://current.com/items/77146082_african_school_dream)



## TV Lesson (How-to lessons from experts: 1,000's of instructional videos and articles; <http://www.tvlesson.com/>)



## Link TV and Fora TV



## dotSUB (subtitling video)



## 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)

The Learning World is Open

**Synchronous Conferencing Presentations**

**Iran after the June Election**  
<http://www.cnn.com/video/#/video/world/2009/06/17/amanpour.uk.covering.iran.cnn>

**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

Researchers at the University of Southern California and the University of North Carolina at Chapel Hill are creating new tools that may open for people around videoconferencing as

**Voxopop (audio threaded conversations)**  
<http://www.voxopop.com/>

**Adventure Learning, GeoThentic, GoNorth (National Geographic)**  
(Aaron Doering, Univ of Minnesota)



**Global SchoolNet**

<http://www.globalschoolnet.org/index.cfm?section=Programs>



**Ice Stories Project from Antarctica**



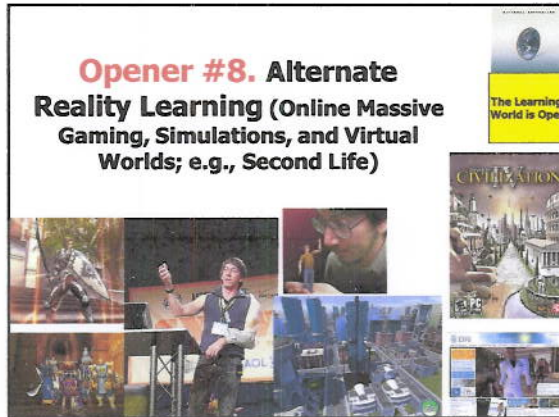
**1kg More Project for Rural China**  
(<http://www.1kg.org/>)



**Mongolia teachers addressing H1N1**  
(Otgo Okhidoi, Nov 10, 2009)



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



## Second Life

(business, law, education, English, medicine)

## University of Texas: 50 Islands in Second Life, Nov 2009

<http://archive.treet.tv/metanomics-campus-life>

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

The Learning  
World is Open

## 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/bx\\_afp/Indiaeconomytelecom](http://news.yahoo.com/s/afp/20090308/bx_afp/Indiaeconomytelecom)

## Terabyte thumb Drives and Magic Pens!

(The Pulse from Livescribe, \$129-\$169)

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

**TwitterPeek:**  
Restricted to Twitter.

**WikiReader:**  
Updating can be a pain.



### Mobile Learning in India with Paul Kim

<http://www.stanford.edu/~phkim/curt/India.pdf>

### Mobile Learning

(April 21, 2009, USA Today)

### 'One Laptop Per Child' program collides with reality

GEOFFREY YORK, Toronto Globe and Mail, Oct 15, 2009  
 Bhutan, Khendum Gyabak (Univ. of Texas at El Paso)

### Opener #10. Networks of Personalized Learning

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

September 30, 2009  
 the Samsung DualView TL225

### 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.

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

Social networking site	Users (in millions)
Facebook.com	32.2 million
MySpace sites	44.2 million
Twitter.com	20.8 million
Orkut.com	17.4 million
Classmates.com site	12.8 million
Bebo.com (partial)	12.1 million
LinkedIn.com site	11.4 million
Windows Live Profile	10.2 million

## Podcast Shows (subscribe to ShakespeareCast.com)

Big Contact Feed Player - Window  
http://www.bigcontact.com/play

Shakespeare

Podcasts by Shakespeare Film Creations Co.

- HH2 - Your Father Lost a Pathar
- HH2 - A Documentary In Madness
- Hamlet's Head #001
- Intermission
- R&J Act 3 Scene 1
- Romeo and Juliet - Act 2
- MSND Act 1 Scene 1
- R&J Act 2 Scene 6
- R&J Act 2 Scene 3
- R&J Act 2 Scene 4
- R&J Act 2 Scene 3
- R&J Act 2 Scene 2

## Learning Towns are Popping up!

Learning Towns interface showing a grid of user avatars and a video player.

Video player: Jenny Zhu, Chinese Teacher

Learning Towns logo and navigation buttons.

Livemocha website showing various language learning options.

Learn Spanish on Your Terms! Sign Up Now!

Learn Italian on Your Terms! Sign Up Now!

243 free lessons & 7387 conversations. Take the test >

39 free lessons & 476 conversations. Take the test >

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

Livemocha website with a testimonial and a "Sign Up Now!" button.

"A powerful opportunity for people around the world to connect with language partners" - The New York Times

Social Language Learning - Online!

Learn 29 languages with fun, interactive lessons. Practice with fun, interactive lessons.

117% FREE!

Sign Up Now!

Language Learning on Livemocha

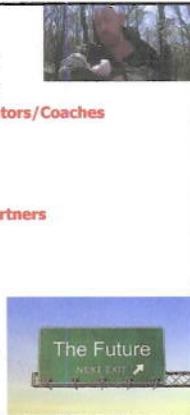
Livemocha Challenge

Livemocha is the world's largest language learning community with over 2 million members. Dedicated for all language goals and skill levels, Livemocha offers free lessons.

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



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!!!

Collage of images related to learning, including a tractor, a globe, and a person holding a globe.