

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

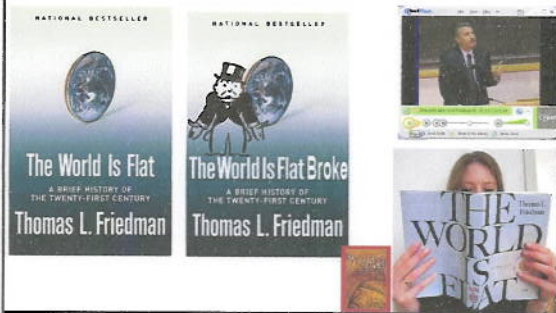
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President, SurveyShare
cjbonk@indiana.edu
<http://php.indiana.edu/~cjbonk>



Do you know the shape of the world?



Is the World Flat?

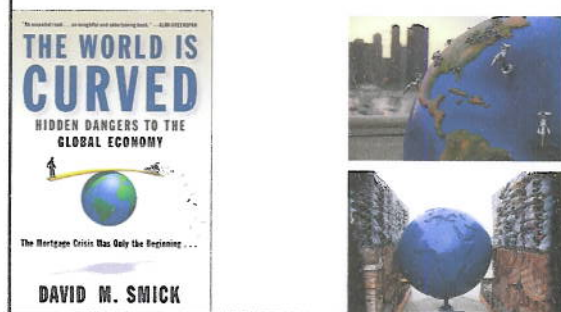


The Ten Forces that Flattened the World

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 for the book **OPENING UP EDUCATION** by Tony Bates and M.S. Vign. The page features a navigation bar, a book cover image, and a list of related titles such as 'The Complete Text (PDF version) (L26100)', 'Consistent Creating a Culture of Learning', and 'Education: An Introduction to the Open Education'. The authors' names, Tony Bates and M.S. Vign, are listed at the bottom.



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

The book cover for **Learning at the Back Door: Reflections on Nontraditional Learning in the Open Era** by Charles Wedemeyer. It features a portrait of the author, a small illustration of a person at a desk, and the title in a stylized font.

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

A collage of images related to archaeology. It includes a snippet of a blog post titled 'Pete Tappin / My Henry Adams!', a photograph of a human skull, a person working at an archaeological site, and a photograph of a classical building.

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)

A collage of photos and maps related to solo sailing. It shows people on a boat, a world map with a sailing route, and various scenes from the voyage.

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


A collage of images related to archaeology. It includes a snippet of a Discovery News article titled 'Scholar Finds More Archaeological Sites by Digging', a photograph of a person at an archaeological site, and a photograph of a classical building.



Indiana Jones




- Perhaps those learning online are akin to the alien archaeologists in the 2008 movie, *Indiana Jones and the Kingdom of the Crystal Skull*. We are seeking the knowledge nuggets of our planetary past and present. As Indy said, "Their treasure wasn't gold, it was knowledge. Knowledge was their treasure." If that is true for us as well, then today pretty much all the world's known treasures can be found online.

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**eal-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

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

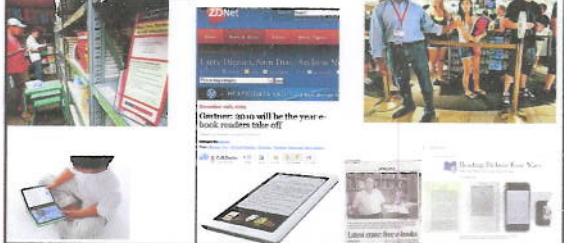
ALL

LEARN!!!



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



Blio: Kurzweil Reinvents the Book

Charlie Sorrel, Dec 29, 2009, Wired
<http://www.wired.com/gaduetlab/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?



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)

The collage features several elements: a man in a suit speaking, a laptop displaying a website, a book cover titled 'Theory and Practice of Online Learning', and a screenshot of a news article from 'eSCHOOL NEWS' with the headline 'Catherine considers open digital textbooks'.

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

The screenshot shows the Open Content Alliance website with a grid of various book covers. Text on the page includes 'Welcome to the Open Library. Pick a book, click any cover.' and the Open Content Alliance logo with the tagline 'Building a digital archive of global content. For universal access.'

Opener #2. E-Learning and Blended Learning

The Learning World is Open

The screenshot shows the DPRAN.COM website for a 'NEW EARTH WEB EVENT'. It features a video player with a woman speaking, a 'More in the Classroom' section, and logos for 'DPRAN'S Book Club', 'DIEVY', 'Pookit', and 'Wiper'.

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

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

The screenshot shows the Bill & Melinda Gates Foundation website with a page titled '2010 Annual Letter from Bill Gates: Online Learning'. It includes a photo of two students looking at a laptop and a list of links for 'Download Bill Gates' 2010 Annual Letter'.

Indiana University High School

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

The collage includes photos of students in various settings, a map of Indiana, and several school-related documents or brochures, including one titled 'roam' and another for 'High School'.

Capella Tower

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

The collage features multiple views of the Minneapolis skyline, with a prominent focus on the Capella Tower building, which is a tall, cylindrical skyscraper.

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%

UHS Online & Blended Enrollment

Learning on Demand: Online Education in the United States, 2009 (Jan, 2010, Sloan-C)
http://www.sloan-c.org/learning_on_demand_sr2010

IMPACT OF THE ECONOMIC DOWNTURN ON THE DEMAND FOR COURSES AND PROGRAMS - FALL 2009

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)

The Learning World is Open

Open Yale

Exc Traditional Textbooks

We Rent Open Textbooks!

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)

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 OpenSource 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

IDP200 Pathophysiology of Infectious Diseases, Fall 2004/2005

Cape Town Open Education Declaration, Dec 2007

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

THE CAPE TOWN OPEN EDUCATION DECLARATION

Declaration, July 4th 1776

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

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 grown into more than 5,000 open access academic journals around the world. Below is their geographic distribution, by continent, as of last month.

Open Journal Systems

New Journals, Free Online, Let Scholars Speak Out, Chronicle of Higher Education, By Peter Schmidt, February 14, 2010
<http://chronicle.com/article/Open-Access-Journals-Break/641437aid-at>

John Willinsky, an education professor at Stanford U. (shown here visiting the U. of Oxford), offers free journal-publishing software to academics around the world. The program is being used to produce more than 5,000 online journals, he estimates, about half of them in developing countries.

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/>

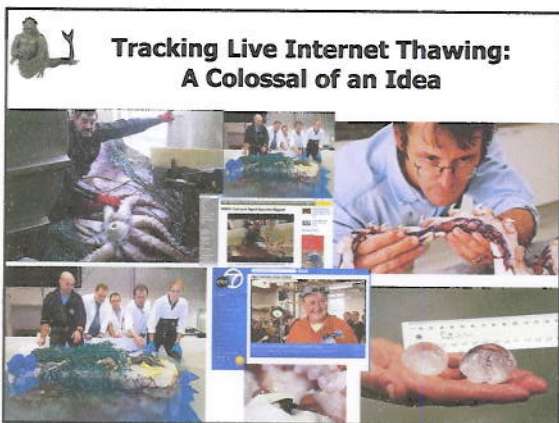
Link TV (and Global Link of World Educators (GLOWE))

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



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."

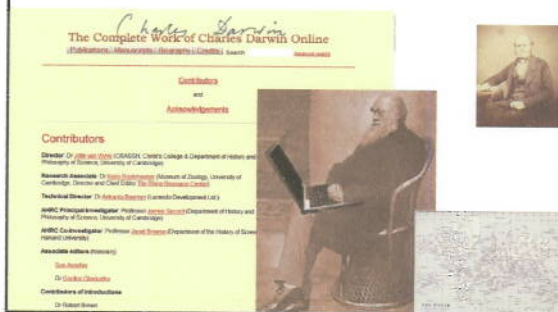


Tracking Live Internet Thawing: A Colossal of an Idea

Ida (a transitional species) 47-Million-Year-Old Darwinius Masillae Fossil the Missing Link? (wowOwow, May 20, 2009)



The Complete Works of Charles Darwin



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 science academy, The Royal Society in London, is offering its 350th anniversary celebrations by putting the quality texts and manuscripts online for access by the world's scholars.

Original manuscript by Robert Boyle on 'An Account of the Properties and Uses of the Air' (1662) available online. This is one of a range of the most famous papers - with the complete range of articles online.

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

Tweet
 Human Brain Dissected Today in a Live Webcast
 Dr. Roger M. Milner agreed to undergo experimental brain surgery in hopes of curing the epilepsy seizures and Parkinson's that had plagued him since age six. The neurosurgeon William Bushnell Gray, at Marshall Hospital in Cincinnati, removed part of Milner's hippocampus.

"The internet largely ignored," writes Scott Law in the New York Times. "But an iron did Milner's ability to form new memories, though he could spend years of his life before the surgery, a condition called severe amnesia." —

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

The image shows several screenshots of educational repositories. On the left, there's a screenshot of MERLOT.org with its logo and navigation. In the center, there's a screenshot of Connexions. On the right, there's a photo of a man with a beard, likely related to the OER Commons project.

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 2,443,000 articles
 Deutsch Die freie Enzyklopädie 177,000 Artikel
 Français Encyclopédie libre 997,000 articles
 日本語 自由百科事典 200,000 記事
 Nederlands De vrije encyclopedie 497,000 artikelen
 Español La enciclopedia libre 277,000 artículos
 Polski Encyklopedia wolna 107,000 artykułów

Projects of the Wikimedia Foundation (found more...)

- Wikimedia Commons
- Wikimedia Foundation
- Wikimedia Incubator
- Wikimedia Labs
- Wikimedia Listserv
- Wikimedia Meta-Wiki
- Wikimedia News
- Wikimedia Outreach
- Wikimedia Planet
- Wikimedia Source
- Wikimedia Statistics
- Wikimedia Wiki
- Wikimedia Wikiquote
- Wikimedia Wikisource
- Wikimedia Wikispecies
- Wikimedia Wikiversity
- Wikimedia Wikivoyage
- Wikimedia Wikiwand
- Wikimedia Wikisearch
- Wikimedia Wikisite
- Wikimedia Wikispeakers
- Wikimedia Wikispan
- Wikimedia Wikispeech
- Wikimedia Wikisource
- Wikimedia Wikispecies
- Wikimedia Wikiversity
- Wikimedia Wikivoyage
- Wikimedia Wikiwand
- Wikimedia Wikisearch
- Wikimedia Wikisite
- Wikimedia Wikispeakers
- Wikimedia Wikispan
- Wikimedia Wikispeech

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

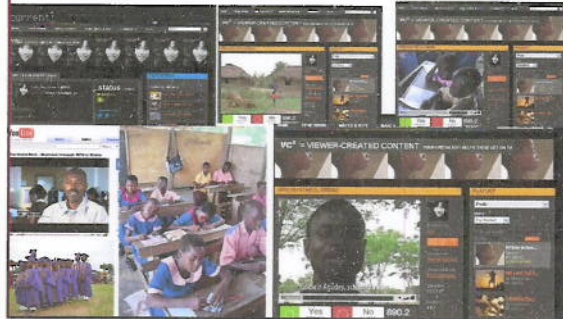
The image shows a screenshot of a Ustream live stream interface. It features a grid of video feeds, some of which are paused or muted. The interface includes navigation buttons like 'Next', 'Previous', and 'Stop'. The text 'LIVE' is visible in the top right corner.

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



**Programmers become Filmographers
(e.g., African School Dream in Current TV)**

http://current.com/items/77146082_african_school_dream



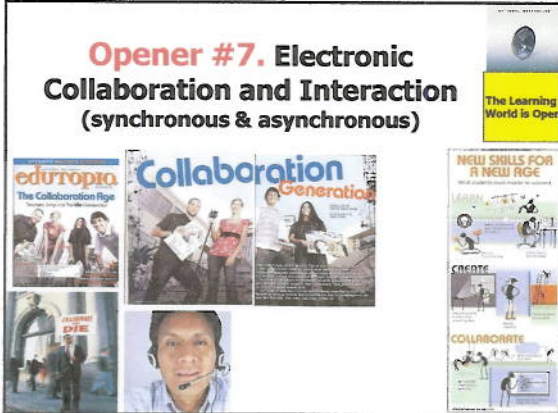
Participatory E-Books



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



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




Synchronous Conferencing Presentations



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


October 21, 2009
The Next Generation of Videoconferencing



For more stories 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 soon let people attend videoconferences as

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



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

The Learning World is Open



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



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



Mobile Learning

(April 21, 2009, USA Today)

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

Terabyte thumb Drives and Magic Pens!

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

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	52.2 million
MySpace.com	41.2 million
Twitter.com	20.8 million
Diigo.com	17.4 million
OpenSocial.com	13.2 million
Behavior Pattern (partial list)	12.1 million
LinkedIn.com	11.6 million
Windows Live Profile	10.3 million

Growth of social networking sites
 Social networking site users (as a percentage of total internet audience)

August '08	69.6%
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!

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 (talk) 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!!!