

**Part 1 (Macro View).  
The Flat World Swung Open: How Web  
Technology Is Revolutionizing Education**

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**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)



**Oregon Scientific Smartglobe 2008**



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



**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)

The image shows a screenshot of a Discovery News website article. The article title is "Newly Discovered Archeological Sites by Digging". The text discusses the discovery of ancient sites through digging. There are several small images showing archaeological excavations and artifacts.

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

The image is a collage of images related to Grandpa George's tractor business. It includes a sign for "ALLIS-CHALMERS, MFG. CO.", a photograph of a red tractor, a diamond-shaped logo with "AC" inside, and other images of tractors and buildings.

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

The image shows the cover of the book "Learning at the Back Door: Reflections on Nontraditional Learning in the Lifespan" by Charles Wedemeyer. The cover features a portrait of Charles Wedemeyer and several small images of people in various learning environments.

### WE-ALL-LEARN: Ten Forces that Opened the Learning World

- **Web Searching** in the World of e-Books (i.e., 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** (i.e., shared content)
- **Lerner Participation in Open Info Communities** (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**

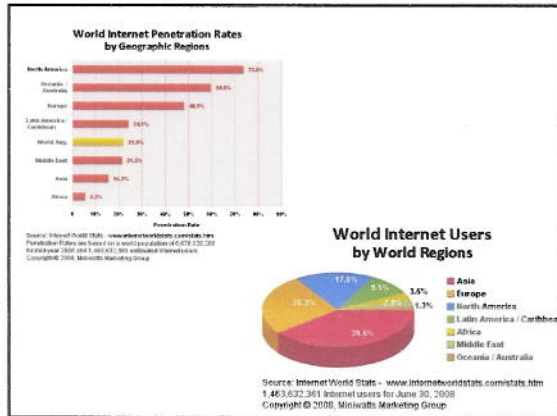
**3. LEARN!!!**

The image contains the text "Audience Participation!" followed by three numbered points: "1. WE", "2. ALL", and "3. LEARN!!!". There is a small illustration of a man in a suit and hat, and a small image of a woman's face.

### 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.)

The Learning World is Open

## 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!!!**

### Capella Tower

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

### Indiana University High School

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



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

### 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 Postsecondary Institutions Fall 2002 through Fall 2006

*For Degree-Granting Institutions*

	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	15.6	1.7%	1,532,970	NA	9.7%
Fall 2003	15,900,470	1.7%	1,271,287	22.0%	11.7%
Fall 2004	17,272,043	2.3%	2,329,783	16.2%	13.5%
Fall 2005	17,428,500	0.9%	3,182,050	36.3%	18.2%
Fall 2006	17,647,700	1.3%	3,480,267	9.7%	19.8%

SOURCE: Online Status For Years of Growth in Degree Learners (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)

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

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

The Learning World is Open

**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)**

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

The Learning World is Open

Fac 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 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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)**

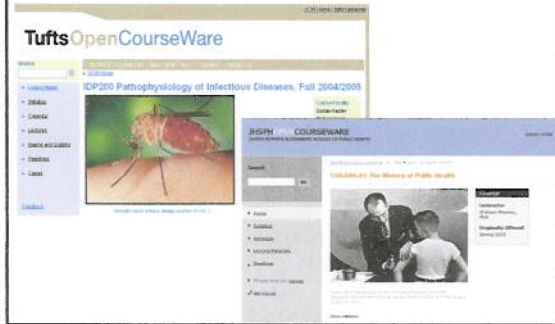
The Biggest OCW Localization Volunteer Group in the World

OOPS! OpenSource Opencourseware Prototype System The Foundation of Fantasy Culture and Arts

開放式課程計劃



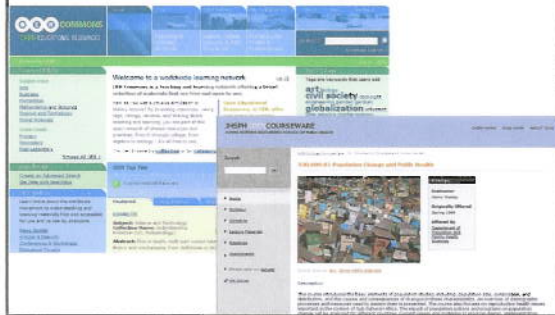
## Sample OpenCourseWare Projects (Tufts, Johns Hopkins)



## Indian Institutes of Technology (IIT)



## National Repository for Online Courses (NROC) Commons



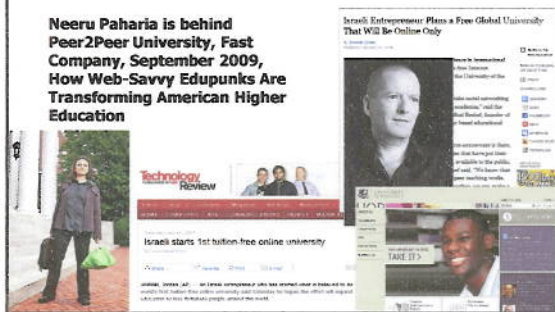
## Cape Town Open Education Declaration, Dec 2007

<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/>

ACADEMIC EARTH    Subjects    Theorists    Lists    Search

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



The History of Christianity



Philosophy of Life and Death



Mind Project


FEATURED COURSES

**Mission Statement**

Academic Earth is a non-profit organization dedicated to providing free access to high-quality educational content.



## 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 scientific society, the Royal Society in London, is marking its 350th anniversary celebrations by putting the public access to a vast archive of its most influential papers.

These manuscripts by figures such as Captain Cook, Sir Isaac Newton and Benjamin Franklin, are being made available online. Take a look at some of the most precious items held by the Society's vast archive, with more.



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

**THE CHRONICLE**  
of Higher Education

December 2, 2009

Home News Opinion & Ideas Facts & Figures Topics

Fields Administration Technology Community College International Special Reports

**Tweed**  
Name: Search: Tweet

December 02, 2009 01:00 PM ET

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

In 1953, Roger Sperry, M.D., spent six college experimental hours on a brain of stripping the epileptic nucleus and blastocysts that played his nerve on. The neurosurgeon William Swisher, M.D., at Hartford Hospital in Connecticut, sectioned and most of his brain's hippocampus.

"The nucleus largely stopped," writes Scott Loken in the *Los Angeles Times* (Dustin T. Hahn). "But he had the laboratory's ability to focus him, something that he would recall parts of the life before the surgery, a condition called *severe amnesia*." [Read more...](#)

### Referatory: MERLOT.org (78,472 members, 21,690 learning materials, January 3, 2010)

**MERLOT**  
Member-Reviewed Open-Source Learning

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Communities

MERLOT has created a variety of **Communities** (organized by discipline) and programs aimed to provide users with "on-demand" content for a broad spectrum of resources related to online teaching and learning. Community Partners provide MERLOT members with differentiated information about emerging teaching designs, professional development, journals, conferences, and other resources for continued professional development. MERLOT categorizes Community Partners as:

- DISCIPLINE COMMUNITIES**  
Explore disciplines and find related courses and materials.
- WORKFORCE DEVELOPMENT COMMUNITIES**  
Receive technical expertise, professional and apprenticeships.
- PARTNER COMMUNITIES**  
Receive resources supporting MERLOT's Partner Communities and groups.

Bridge File Safety Call Home User-Feedback

### 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)

**flatworld**  
KNOWLEDGE

the Learning World is Open

A bit of me...  
this is me...

### Wikis: Wikipedia and Wikibooks

**WIKIPEDIA**

English The Free Encyclopedia  
Deutsch Die freie Enzyklopädie  
Français L'encyclopédie libre  
Español La enciclopedia libre  
Nederlands De vrije encyclopedie  
Português A enciclopédia livre  
Polski Wolna encyklopedia  
Italiano L'Enciclopedia libera  
Pycckий Общероссийская энциклопедия  
日本語 フリー百科事典

Projects of the Wikimedia Foundation

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

**USTREAM**

LESON MADRELL PRESENTATION

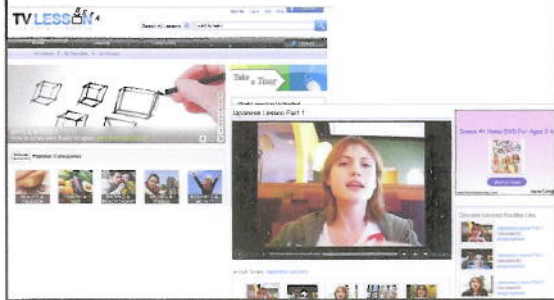
**Shared Online Video  
(e.g., YouTube and the Royal Channel)**



**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)



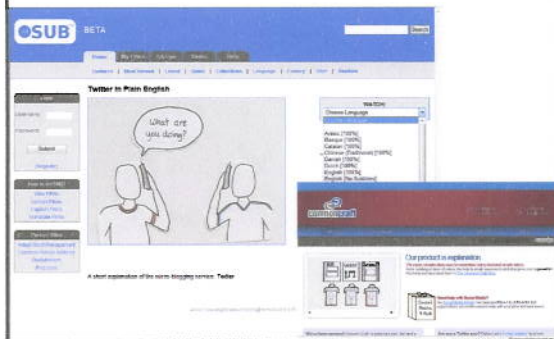
**TV Lesson (How-to lessons from experts:  
1,000's of instructional videos and articles;  
<http://www.tvlesson.com/>)**



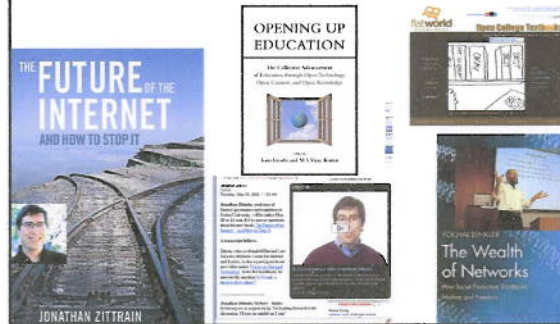
**Link TV and Fora TV**



**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 soon let people attend videoconferences 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**

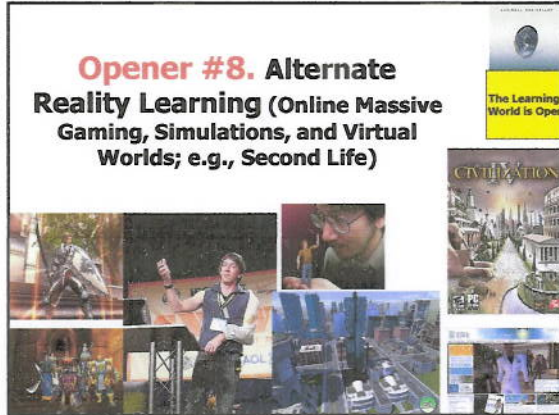
<http://www.1kg.org/>



**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, 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/bs\\_afp/indiaeconomytelecom](http://news.yahoo.com/s/afp/20090308/bs_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>

Aravindha Akshay School for Learning and Leadership, Mysore, India

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### Mobile Learning

(April 21, 2009, USA Today)

Deep and Cultural

### '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

The Learning World is Open

### 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 Hotsheet 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**

Top social networking sites  
The unique visitors in August (in tens, with colleges)

Facebook.com	92.2 million
MySpace sites	84.2 million
Twitter.com	20.8 million
Digg.com	17.4 million
Classmates.com sites	13.9 million
Bebo.com (partial list)	12.1 million
IMVU.com sites	11.4 million
Wowza Live Profile	10.3 million

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

August '08	69.6%
August '09	77%



## Podcast Shows (subscribe to ShakespeareCast.com)

The image shows two overlapping windows. On the left is the ShakespeareCast.com website, which features a search bar, a navigation menu, and a list of plays. On the right is a 'Big Contact Feed Player' window displaying a list of plays and scenes, including 'HH3 - Your Father Lost a Father', 'HH2 - A Documentary In Misness', 'Hamlet's Head #001', 'Intermission', and several scenes from 'R&J' and 'MSND'.

## Learning Towns are Popping up!

The image displays a virtual world interface for Learning Towns. It features a grid of avatars representing users in a virtual space. Below the grid, there is a video feed showing a woman speaking into a microphone. To the right, there is a sidebar with various icons and a 'LEARNING TOWNS!' logo.

The image shows a collage of screenshots from the Livemocha website. It highlights various language learning options, including 'Learn Spanish on Your Terms!' and 'Learn Italian on Your Terms!'. It also displays user statistics, such as '243 free lessons & 7287 conversations' and '38 free lessons & 476 conversations'. The interface includes navigation menus, search bars, and promotional banners.

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

The image shows the Livemocha website homepage. It features a prominent headline: 'Livemocha (29 languages, 160 hours of lessons, over 2 million users, FREE!)'. Below the headline, there is a quote: 'A powerful opportunity for people around the world to connect with language partners' attributed to 'The New York Times'. The page also includes a 'Social Language Learning - Online!' section and a 'Livemocha Challenge' section.

## 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**

The image includes a sign that says 'The Future' with an arrow pointing right, located at the bottom right of the list.

**Slides at: TrainingShare.com**  
**Papers: PublicationShare.com**  
**Book: <http://worldisopen.com/>**

## The World is Open. What happens then?

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

The image features a collage of various images, including a tractor, a globe, a person, and a building, arranged around the central text.