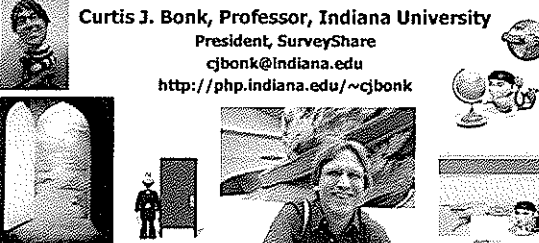
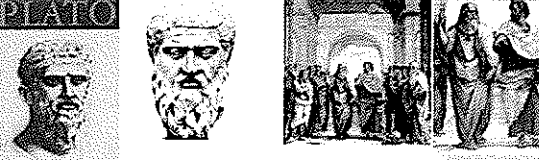





Technology Trends Opening Up Access to Education Worldwide: Now, we all can learn!

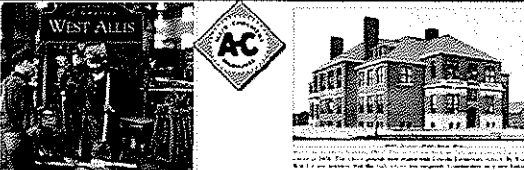
Curtis J. Bonk, Professor, Indiana University
 President, SurveyShare
 cjbonk@indiana.edu
 http://php.indiana.edu/~cjbonk




PLATO








Plato's academy: 387 BC - 529 AD




AC

ALLIS-CHALMERS MFG. CO.


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

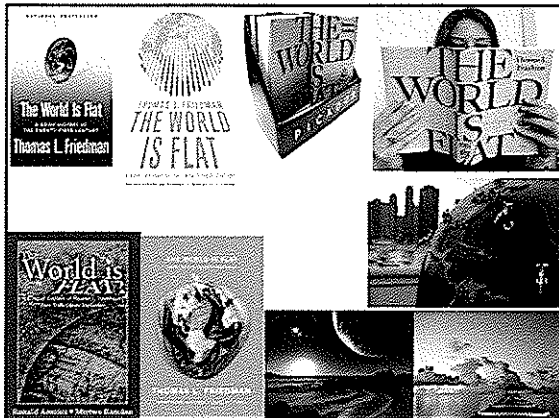


The Ten Forces that Flattened the World

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 collab communities; Mosaic, Apache, Wikipedia, Linux, Mozilla)
- Outsourcing (Y2K)
- Offshoring (e.g., China, Mexico, Thailand)
- Supply-Chaining (e.g., Walmart)
- In-sourcing (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)





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)
- Learner 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!!!

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.

What if our minds were on fire for learning?

A Code of knowledge building and sharing

Create
Support the ongoing development of philosophical knowledge

Use
Encourage teachers to engage students and share their own knowledge with their students

Exchange
Promote these organically & sustainably

Share
Encourage teachers to engage students and share their own knowledge with their students

Learn
Encourage teachers to engage students and share their own knowledge with their students

From the World of Learning 2.0

John Seely Brown and Richard P. Adler. "Minds on Fire: Open Education, the Long Tail, and Learning 2.0," *EDUCAUSE Review* 43, no. 1 (January/February 2008): 16-32.

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!!!**

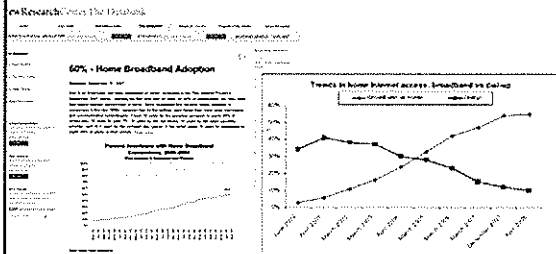
Scientists develop fastest computer
June 9, 2008

By H. JOSEF HEBERT, Associated Press Writer

- To put the computer's speed in perspective, it has roughly the computing power of 100,000 of today's most powerful laptops stacked 1.5 miles high, according to IBM. Or, if each of the world's 6 billion people worked on hand-held computers for 24 hours a day, it would take them 46 years to do what the Roadrunner computer can do in a single day.



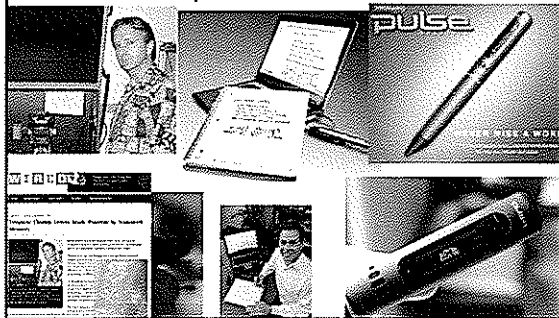
Home Broadband 2008: Adoption Stalls for low-income Americans even as many broadband users opt for premium services that give them more speed (Pew Internet & American Life Project, 2008, July 2008)



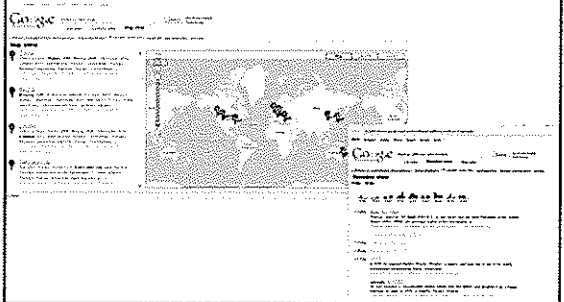
Next, we need new ways to search for that info in those pipes!

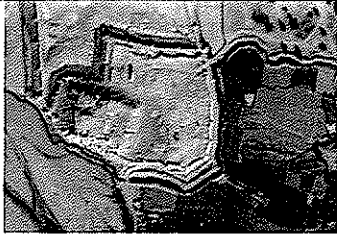


**Terabyte thumb Drives and Magic Pens!
(The Pulse from Livescribe)
Second, we need new ways to record info:
Smartpens: "Never Miss a Word"**

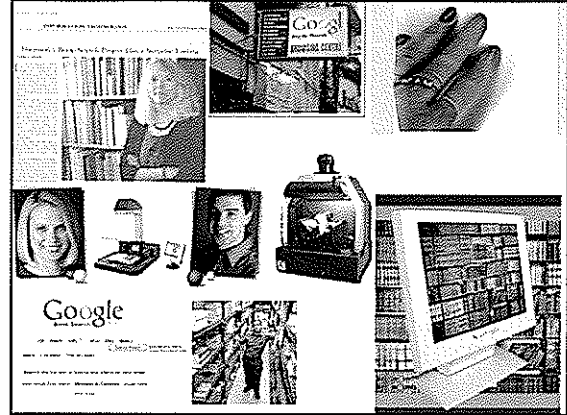


**Need new ways of representing & accessing info
(e.g., Google is working on Timeline and Map Views)**





**Dani Cooper, ABC Science Online,
Scholar Finds New Archaeological Sites
by Googling, July 21, 2008**
<http://dsc.discovery.com/news/2008/07/21/archaeology-google.html>



**New ways to read information
(e.g., Thinner, Crisper, and Cheaper
eBooks; Kindle = \$400-500)**

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

**Global Text Project (free textbooks for
those in less developed countries)**
<http://globaltext.org/>

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

**Trend #2. E-Learning and Blended Learning.
What happens then?**

**WE
ALL
LEARN!!!**

Growth of Online Learning in Secondary Schools (Florida Virtual School; AP American History)

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	16,611,710	NA	1,602,970	NA	9.7%
Fall 2003	16,800,479	1.1%	1,971,297	23.0%	11.7%
Fall 2004	17,272,043	2.8%	2,329,783	16.2%	13.5%
Fall 2005	17,428,500	0.9%	3,160,050	36.5%	18.2%
Fall 2006	17,647,720	1.3%	3,463,261	9.7%	19.6%

SOURCE: Drake Nelson, Five Years of Growth in Online Learning (October 2007).

Sara Cordell, professor of English at the University of Illinois-Springfield, says she feels online students become better writers because they get so much practice. NPR Special, Nov 29, 2007, Larry Abramson.
(67% of US Colleges and universities offer online courses; 35% offer fully online programs.)

'Distance learning' gets its close-up
By G. Jeffrey MacDonald, Special for USA TODAY
November 2007

- More than two-thirds of all U.S. colleges and universities offer online courses, and 35% of schools offer programs that are entirely online, according to the Sloan survey, and 20% of the USA's 17 million college students say they have taken at least one course online.

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

Herald Times, Wednesday
February 6, 2008
Mike Leonard

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

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 (400,000 registered users in 193 countries speaking 73 languages)

Community Growth

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

The Learning World is Open

Trend #4. Leveraged Resources and OpenCourseWare. What happens then?

WE

ALL

LEARN!!!

Cape Town Open Education Declaration December 2007

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



THE CAPE TOWN OPEN EDUCATION DECLARATION

Read the Declaration

**Cape Town Open Education Declaration:
Unlocking the promise of open educational resources**

It is on the basis of a global recognition that learning and teaching is a shared endeavour and that open educational resources are based on the shared spirit and love for education. These resources are created with a view to providing an open and accessible environment for all to contribute to the global commons knowledge. They are also created in the spirit of a new pedagogy where educators and learners create and share knowledge together, deepening their understanding and learning.

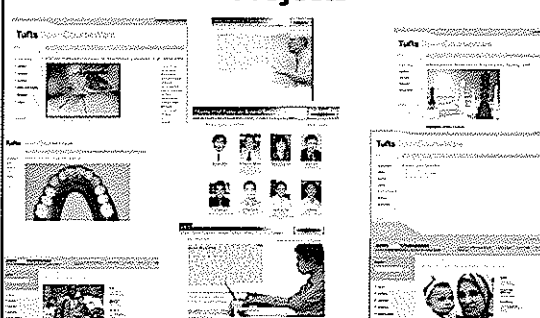
This international open education movement comprises the respective national or regional open education movements and the independent online culture of the internet. It is built on the shared spirit and love for education that supports the learning and teaching and redistributes educational content without constraint. It is based on sharing and others who create this content, learning together and building a worldwide effort to make education more accessible and more effective.

The respective open education and open educational resource has created a force for good in the world. These resources include open educational content, materials, resources, services, content, software and other elements of education technology.

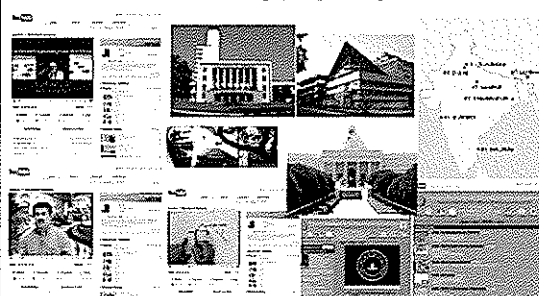
Index

- Read the Declaration
- Sign the Declaration
- Make a Declaration
- Translations
- FAQ
- Press
- Related Material
- Contact Us

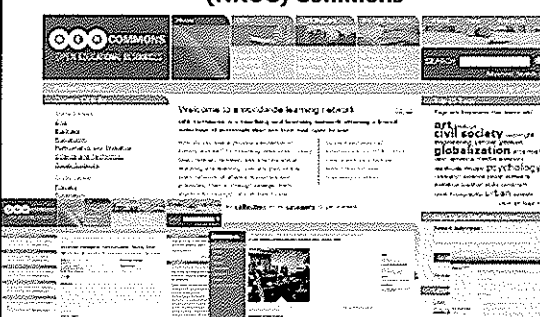
Sample OpenCourseWare Projects




Indian Institutes of Technology (IIT)



National Repository for Online Courses (NROC) Commons

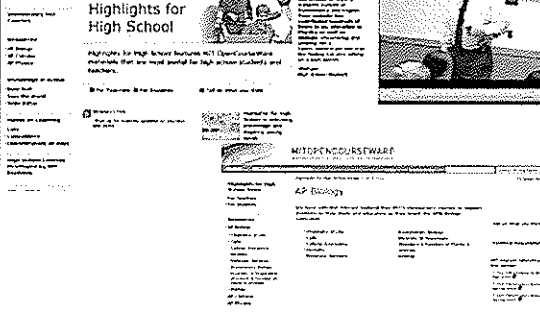


Opensource Opencourseware Prototype System (OOPS) funded by, the Foundation of Fantasy, Lucifer Chu, Chairman and Janitor of OOPS, Taipei)



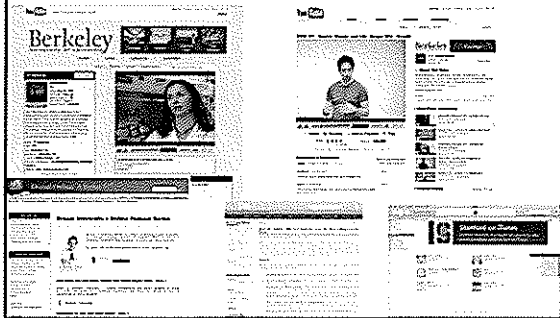
OOPS
Opensource Opencourseware Prototype System
開放式課程計劃

MIT OpenCourseWare: Highlights for High School

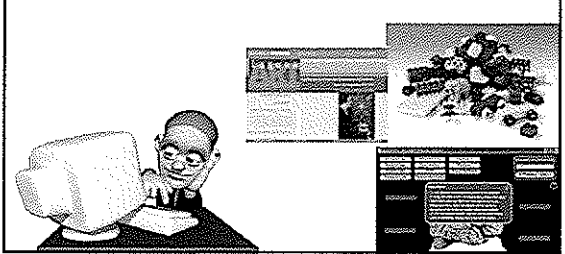


MIT OpenCourseWare
AP Biology

**Post Courses in YouTube and iTunes
(e.g., Berkeley)**



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



**Trend #5. Learning Object
Repositories and Portals.
What happens then?**

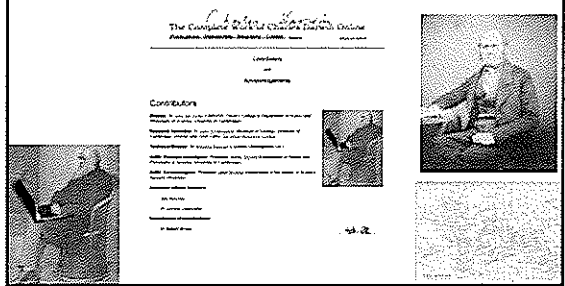
**WE
ALL
LEARN!!!**

**Tracking Live Internet Thawing:
A Colossal of an Idea**



Deep-Sea Behemoths
 Captain John Bennett examines the world's first intact adult male colossal squid on board his New Zealand fishing boat in February, 2007, in the Ross Sea near Antarctica. The gigantic sea creature weighs a world record 1,089 pounds. After being frozen whole for over a year, scientists at New Zealand's national museum will thaw the squid for further study.

**The Complete Works of
Charles Darwin**



**Reflection on Online Contents: The Carlyle
Letters Exploring Victorian World Through
Letters and The Diary of Samuel Pepys, John
Evelyn**



What if the World was Beyond our World?
NASA's Hubble Space: Google Sky USA Today, August 22, 2007
<http://earth.google.com/sky/index.html>

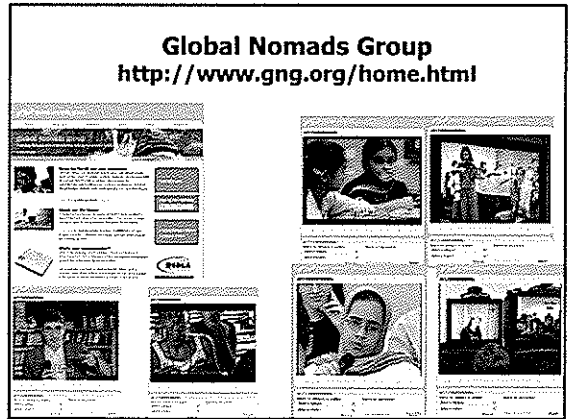
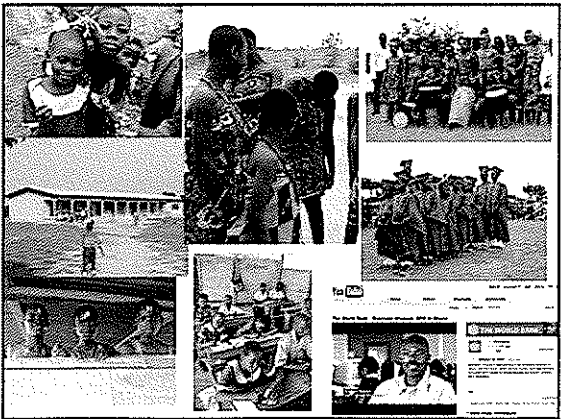
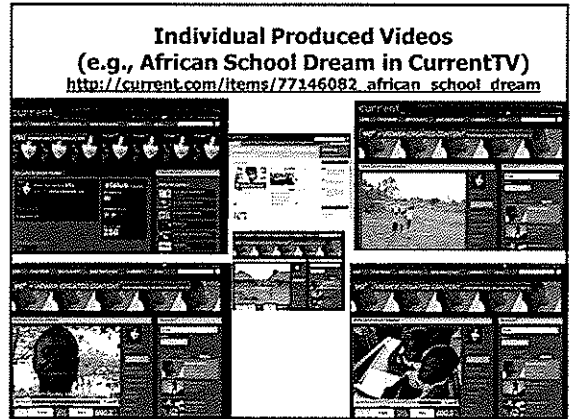
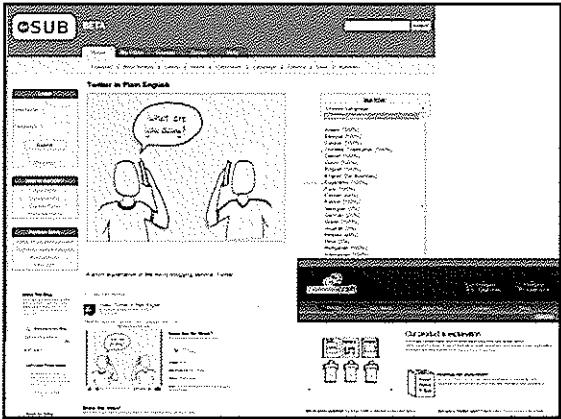
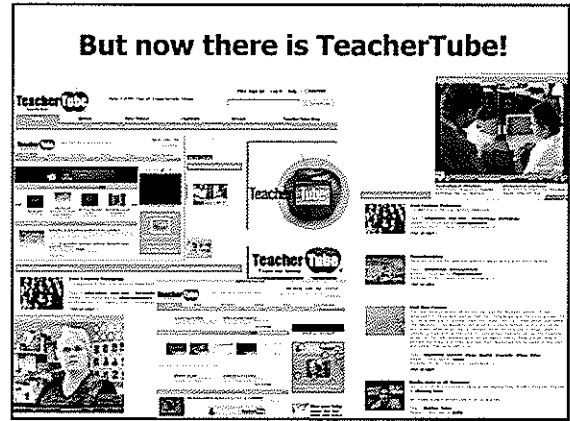
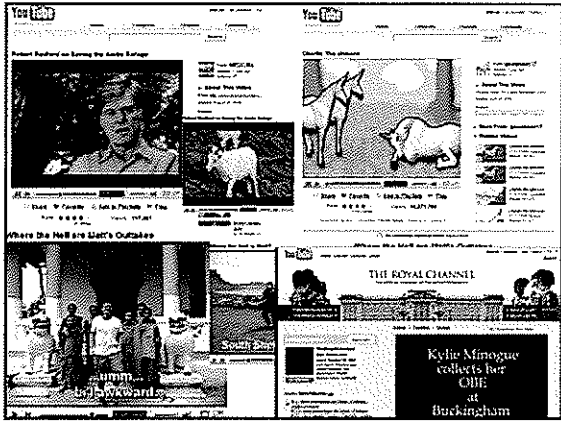
Referatory: MERLOT.org
(62,000 members, 20,000 learning materials)

Repository: Connexions (6,000+ modules, Rice Univ) & Curriki (K-12, Sun Micro)

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

Trend #6. Learner Participation on Open Information Communities. What happens then?
WE ALL LEARN!!!

Skype, Google Talk, ChinesePod, LiveMocha, VoiceThread, YackPack, Dotsub, Chinswing, and many other Collaborative Language Learning



Wikis: Wikipedia and Wikibooks

WIKIMEDIA

Wikis are collaborative websites where anyone can edit content. They are used for creating and sharing information, such as Wikipedia and Wikibooks.

Key features include:

- Open editing: Anyone can edit content.
- Version history: Track changes and revert to previous versions.
- Discussion pages: Collaborate on content.
- Community: Join a community of users.

Wikis are used for:

- Education: Wikibooks.
- Reference: Wikipedia.
- Collaboration: Wikisource, Wikispecies.

Web 2.0 and Emerging Learning Technologies

diigo Highlight and Share the Web!

Diigo is a social bookmarking site that allows users to highlight and share web content. It features a powerful search engine and a community of users.

Key features include:

- Highlighting: Mark specific parts of a webpage.
- Sharing: Share highlights with other users.
- Search: Find relevant content using advanced search filters.
- Groups: Join or create groups to share interests.

Diigo is used for:

- Research: Find and share research papers.
- Learning: Share educational resources.
- Collaboration: Work together on projects.

ACU VIDEO

ACU Video is a platform for sharing and streaming video content. It features a user-friendly interface and a variety of video options.

Key features include:

- Video sharing: Upload and share your own videos.
- Streaming: Watch videos online.
- Search: Find videos by topic or user.
- Comments: Engage with other users.

ACU Video is used for:

- Education: Share educational videos.
- Marketing: Promote products or services.
- Entertainment: Share fun and interesting videos.

FUTURE INTERNET AND HOW TO STOP IT

Jonathan Zittrain's book 'The Future of the Internet, and How to Stop It' explores the challenges facing the open Internet and offers solutions.

Key themes include:

- Net Neutrality: Ensuring equal access to the Internet.
- Privacy: Protecting user data.
- Security: Safeguarding digital information.
- Openness: Maintaining the Internet's decentralized nature.

The book is used for:

- Education: Teaching about Internet policy.
- Research: Studying digital rights.
- Advocacy: Supporting Internet freedom.

Posting Documents on Web

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

Scribd is a platform for sharing and reading documents online. It offers a wide range of content, including books, articles, and research papers.

Key features include:

- Document sharing: Upload and share your documents.
- Reading: View documents online or download them.
- Search: Find documents by topic or author.
- Comments: Engage with other users.

Scribd is used for:

- Education: Access educational materials.
- Research: Find research papers and articles.
- Business: Share business documents.

World's Largest Online Book Club

LibraryThing (you can be a "thingamabrarian") 400,000 users and 26 million books)

LibraryThing is a social cataloging website where users can share their book collections and discover new titles. It is the largest online book club.

Key features include:

- Book sharing: Share your book collection.
- Discovery: Find new books to read.
- Reviews: Write and read reviews.
- Groups: Join or create book clubs.

LibraryThing is used for:

- Book discovery: Find new titles to read.
- Community: Connect with other book lovers.
- Reviews: Share your thoughts on books.

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

The Learning World is Open

Trend #7. Electronic Collaboration and Interaction. What happens then?

**WE
ALL
LEARN!!!**

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

EPals has for-profit and nonprofit arms.
Candace Pauchnick, standing, uses its tools in her class.
By **STEVE LOHR**
Published: February 24, 2008
New York Times
<http://www.nytimes.com/2008/02/24/business/24social.html>

Room to Read
<http://www.roomtoread.org/programs/schools.html>

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

Trend #8. Alternate Reality Learning.
What happens then?
WE
ALL
LEARN!!!

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

Trend #9. Real-Time Mobility and Portability.
What happens then?
WE
ALL
LEARN!!!

Wireless in Africa and Pocket School in Latin America
<http://www.receiver.vodafone.com/mobile-learning-in-developing-countries>
 Traxler, John (in press). Mobile learning in "developing" countries—not to different. *Vodafone Receiver*. See <http://www.receiver.vodafone.com/>

The Age of Wireless

MOST (UN)WIRED SCHOOLS?
 CAJET and U.S. News and World Report got the top 50 universities' tech specs and asked them which computers they recommend to students and faculty.

Totally wireless on campus

CLICK HERE TO VIEW

OLPC in Nigeria: School Galadima
 One Laptop Per Child foundation (OLPC) provided School Galadima in March 2007 with an XO laptop for each child in Primary 4, 5 and 6 and also for each member of the staff.

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

The Learning World is Open

Trend #10. Networks of Personalized Learning . What happens then?

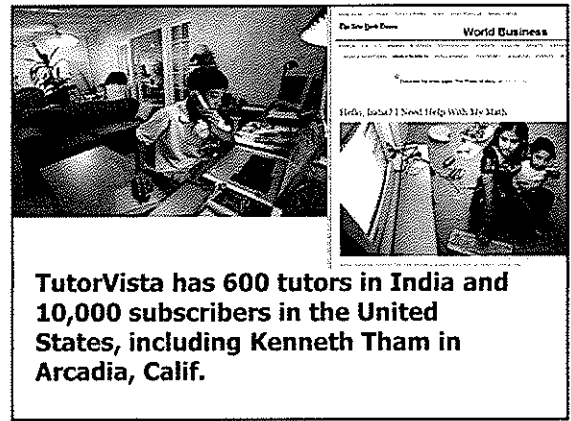
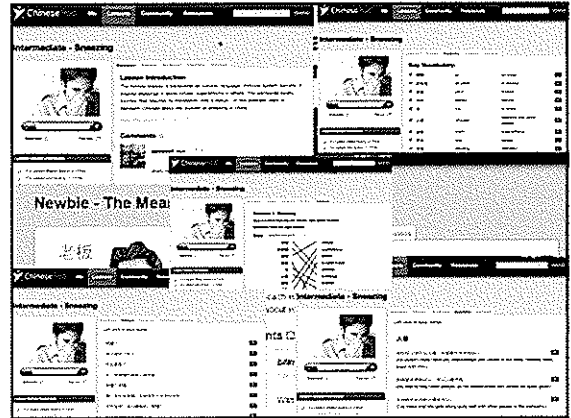
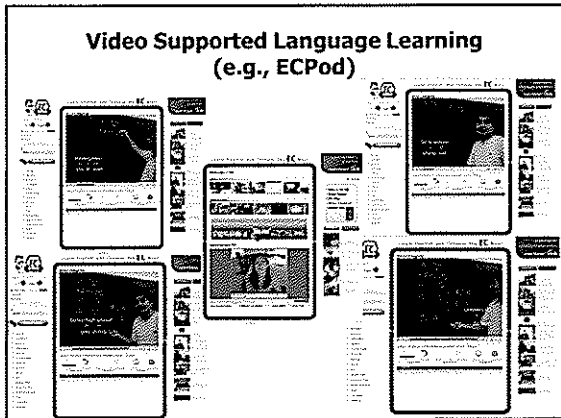
WE

ALL

LEARN!!!

Learning Towns are Popping up!

Map Mash-ups
 (e.g., Shakespeare's Global Globe; PopSci, June 13, 2008, Michael Behar GOOGLE EARTH ENVIRONMENT GUIDE THE FREE SOFTWARE FROM GOOGLE GIVES SCIENTISTS A NEW WORLD VIEW (ASIAN FLU, EMOTIONS IN CITIES, VOLCANIC PLUMES ICE MELTING)).



TutorVista has 600 tutors in India and 10,000 subscribers in the United States, including Kenneth Tham in Arcadia, Calif.

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

It is the End!!! Learning is Now Flat/Open... Remember that WE-ALL-LEARN!

Your student's maximum learning is double that of your brain. Fresh about...