

**Learning World Is Open:
Now E-ALL-LEARN with Web Technology**

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

**Dig in, archaeology fans!
UCLA blogs to offer front-row seat at archaeology digs**
By Meg Sullivan, 6/25/2008
<http://newsroom.ucla.edu/portal/ucla/dig-in-archaeology-fans-52202.aspx>

UCLA Newsroom

Skeleton (Lofkend, Albania)
June 25, 2008

UCLA undergraduates participating in the Cotsen Institute's field study program will learn to conserve and classify the contents of ancient tombs discovered in Albania.

PLATO

Plato's academy: 387 BC - 529 AD

ALLIS-CHALMERS, MEG. CO.

ALLIS-CHALMERS

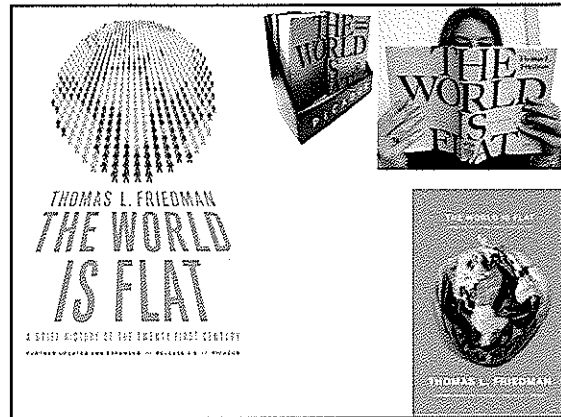
**Conference to Conference
(You Ustreamed my Ustream:
Now that's a Twitter of an Idea)**

■ Thomas Friedman, author of "The World is Flat":
■ Tools for collaboration are changing the world
<http://mitworld.mit.edu/video/266/>

The World is Flat
Thomas L. Friedman

The Ten Forces that Flattened the World

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 organizing collaborative communities; Mosaic, Apache, Wikipedia, Linux, Mozilla/Firefox,)
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 (e.g., 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)
- Enormous 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)

Three Larger Trends of WE-ALL-LEARN

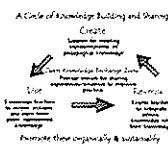
- The availability of tools and infrastructure for learning.
- The availability of free educational content and resources (OER—Open Educational Resources).
- A move towards a culture of open access to information, international collaboration, and global sharing.

The Ten Forces that Flattened the World

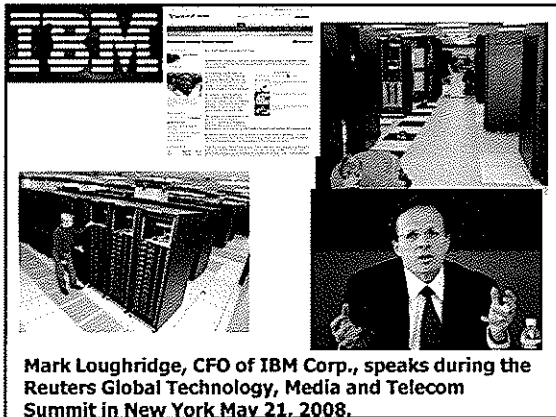
1. Web Searching (e.g., Google, MSN, Yahoo!) in the World of e-Books (i.e., Darwin, Shakespeare, etc.)



What if our minds were on fire for learning?



MINDS ON FIRE: OPEN EDUCATION, THE LONG TAIL, AND LEARNING 2.0. JOHN SEELY BROWN AND RICHARD ADLER, EDUCAUSE REVIEW, JANUARY-FEBRUARY, 2008.
<http://connect.educase.edu/Library/EDUCAUSE+Review/MindsonFireOpenEducation/45823>



Mark Loughridge, CFO of IBM Corp., speaks during the Reuters Global Technology, Media and Telecom Summit in New York May 21, 2008.

**Scientists develop fastest computer
June 9, 2008**

By H. JOSEF HEBERT, Associated Press Writer

- This undated handout photo provided by IBM and the Feature Photo Service shows lead engineer Don Grice of IBM inspecting the world's fastest computer, nicknamed 'Roadrunner', in the company's Poughkeepsie, N.Y. plant. Scientists unveiled the world's fastest supercomputer on Monday, June 9, 2008, a \$100 million machine that for the first time has performed 1,000 trillion calculations per second in a sustained exercise. The technology breakthrough was accomplished by engineers from the Los Alamos National Laboratory and the IBM Corp. on a computer to be used primarily on nuclear weapons work, including simulating nuclear explosions.
- (AP Photo/IBM, Feature Photo Service)

**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)

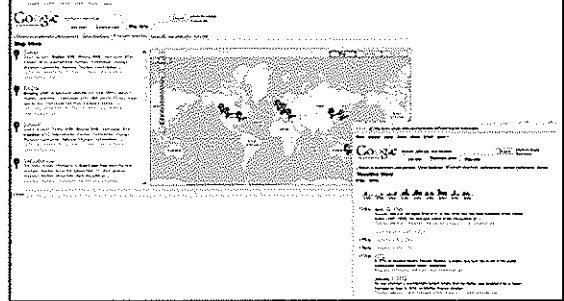
Next, we need new ways to search for that info in those pipes!

What if every early elementary kid could have a terabyte (1,000 gigabytes or 1 trillion bytes) of data on a thumb drive? (Wired Magazine, October 26, 2007 says it will be possible in a few years; research from Arizona State)

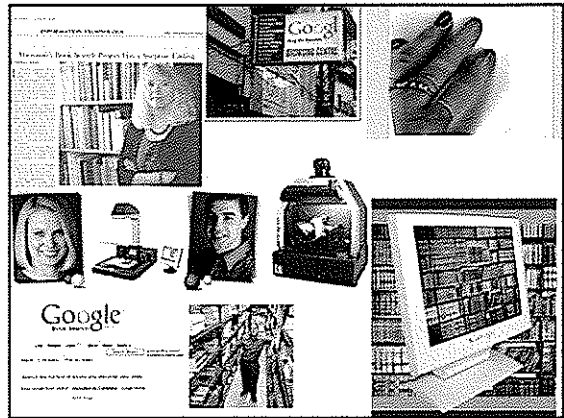
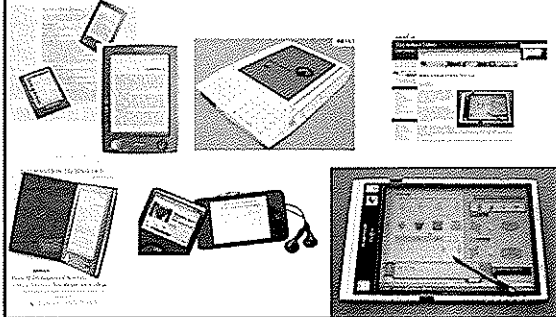
**Magic Pens! (The Pulse from Livescribe)
Second, we need new ways to record info:
Smartpens: "Never Miss a Word"**



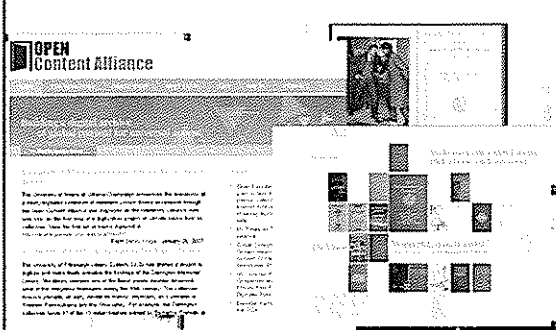
**Need new ways of representing & accessing info
(e.g., Google is working on Timeline and Map Views)**



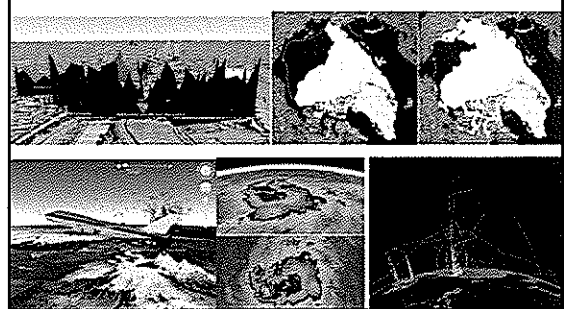
**New ways to read information
(e.g., Thinner, Crisper, and Cheaper
eBooks; Kindle = \$400-500)**



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



**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).)**



Global Text Project (free textbooks for those in less developed countries)

<http://globaltext.org/>

The screenshot shows the homepage of the Global Text Project. It features a header with the project's name and a list of available textbooks under the heading "Available Textbooks". The list includes titles like "Introduction to Psychology" and "Introduction to Sociology". There are also images of people using computers and a sidebar with navigation links.

The Ten Forces that Flattened the World

2. Enormous E-Learning and Blended Learning

The screenshot shows a page from 'The Learning World is Flat' magazine. The main article is titled "The Ten Forces that Flattened the World" and the second force is "Enormous E-Learning and Blended Learning". There are several sub-articles and images, including one titled "Students prefer online courses" and another "Class is popular with non-campus students".

Growth of Online Learning in Secondary Schools

(Florida Virtual School; AP American History)

The bar chart shows the total half-credit enrollments at FLVS from 2002 to 2006. The y-axis represents the number of enrollments, ranging from 0 to 70,000. The x-axis shows the years: 2002-2003, 2003-2004, 2004-2005, and 2005-2006. The enrollment shows a steady increase over the four-year period.

Year	Enrollments
2002-2003	~10,000
2003-2004	~15,000
2004-2005	~25,000
2005-2006	~45,000

Logos for Florida Virtual School and GlobalSchoolNet.org are visible at the bottom.

Total and Online Enrollment in Postsecondary Institutions

Fall 2002 through Fall 2006

(for Degree-Granting Institutions)

Year	Total Enrollment	Annual Growth Rate (%)	Students Taking at Least one Online Course	Annual Growth Rate (%)	Online Enrollment as Percent of Total Enrollment
Fall 2002	16,611,710	NA	1,602,070	NA	9.7%
Fall 2003	16,630,479	1.7%	1,971,577	23.0%	11.7%
Fall 2004	17,272,043	2.2%	2,329,733	16.2%	13.5%
Fall 2005	17,428,500	0.9%	3,180,030	36.5%	18.2%
Fall 2006	17,647,720	1.3%	3,456,231	0.7%	19.6%

SOURCE: Online Nation: 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.)

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

Herald Times, Wednesday
February 6, 2008
Mike Leonard

The screenshot shows a newspaper article from the Herald Times. The article is titled "A Grain of Rice: A Bloomington man's computer vocab game feeding the world" and is dated February 6, 2008, by Mike Leonard. The article features a photo of a man and a screenshot of the Office Depot website, which is advertising a computer vocab game.

'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.

Enabling Blends
National University
 Department of Teacher Education
 (Reynolds & Greiner, 2006)

- 12,000 Enrolled Students
- Since 2004 More than 50% of Candidates Enrolling as Online rather than On-site
 - They will take a majority of classes online
- Each Candidate Takes 7 Credential Classes
- Each Class Contains 2 Field-based Exp.
- 500 Classes/Yr. & 20 Students/Class =
- 20,000 Field-based Experiences/Year

Year/ Students Enrolled In Online Classes	FY 2000		FY 2002		FY 2003		FY 2005		FY 2006	
	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
In At Least One Online	4,692	18%	8,574	31%	11,033	41%	13,768	53%	15,774	60%
In A Majority Online	763	3%	5,713	21%	7,012	26%	9,107	35%	11,203	43%
In All Online	332	1%	1,747	6%	2,602	10%	4,217	16%	5,645	22%
None	21,661	80%	19,015	59%	16,044	59%	12,225	47%	10,394	40%
Total Active Students	25,436		27,589		27,077		25,993		26,138	

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

**The Ten Forces that
 Flattened the World**

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

Moodle

The Sakai Project

The screenshot shows the Sakai Project website with a top navigation bar and a main content area listing various resources and projects. A small portrait of a man is visible on the right side of the page.

The Ten Forces that Flattened the World

The Learning World is Flat

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

The illustration depicts a woman sitting at a desk with a laptop, and a man standing next to a large book. To the right is a logo for 'OPENING UP EDUCATION' with a circular emblem.

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

We are on the cusp of a global revolution in teaching and learning. Education worldwide has benefited from a vast array of educational resources that are now freely available for all to use. These resources are opening a whole new path and every person on earth can access and contribute to the common global knowledge. They are now putting the hands of the world's open university educators and learners closer together and enabling them to develop their own and understandings as they go.

This emerging open education movement promises the establishment of a global sharing pool of open educational resources and the creation of a vibrant culture of knowledge that is built on the belief that everyone should have the freedom to use, distribute, improve and redistribute all digital learning resources without restriction. Educators, learners and others in a global field are gathering together as part of a worldwide effort to make education both more accessible and more effective.

The expanding global collection of open educational resources has laid the foundation for this effort. These resources include texts, images, audio, video, interactive resources, wikis, games, software, e-books, materials, tools, support systems.

OpenCourseWare Projects

A collage of several OpenCourseWare project websites, including 'Tutor' and 'OpenCourseWare' pages, showing course listings and user profiles.

A collage of various educational technology websites and interfaces, including video player controls, course listings, and user profiles.

New Ways to Find Lectures

Technology in Education

Don't miss

Searching Video Lectures
A new team of researchers say that students can efficiently access lecture content.

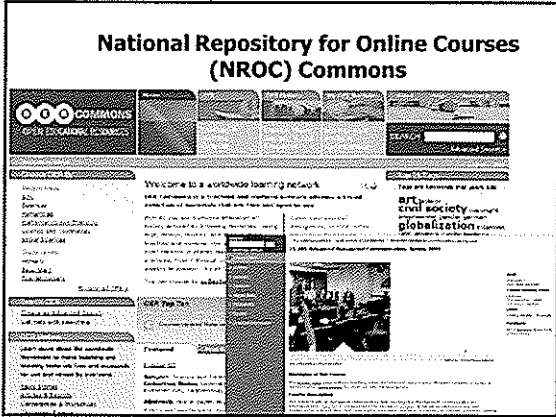
MIT Lecture Browser

1. The Revolution of Electronic and Computer

2. Project of Computer

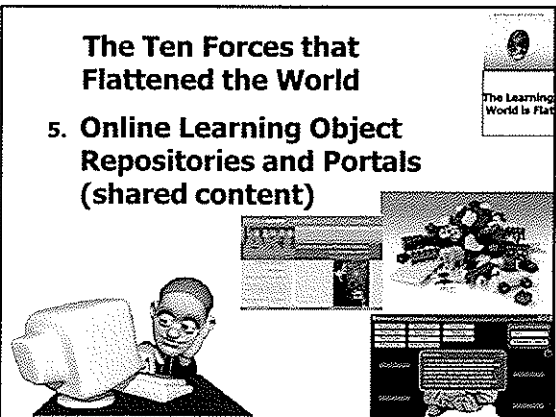
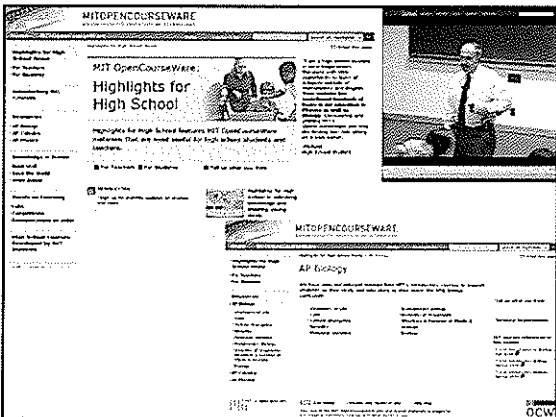
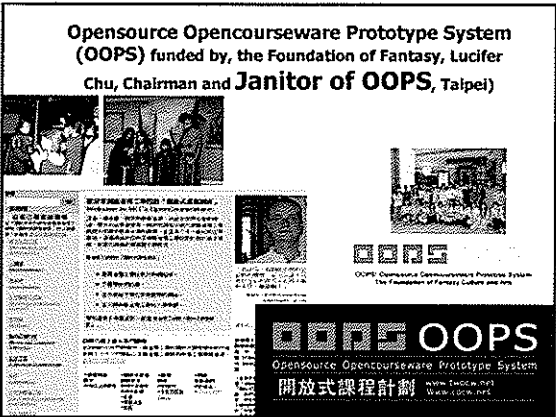
3. Software Development: Making the Digital Revolution in Computer Science

The page includes an illustration of a person sitting at a desk with a computer monitor, looking at a screen displaying a lecture or presentation.

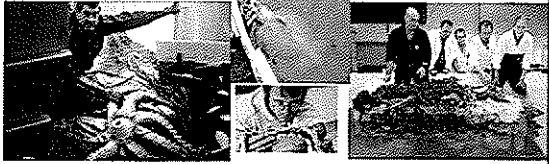


Per David Wiley, Utah State University
(October 2005)

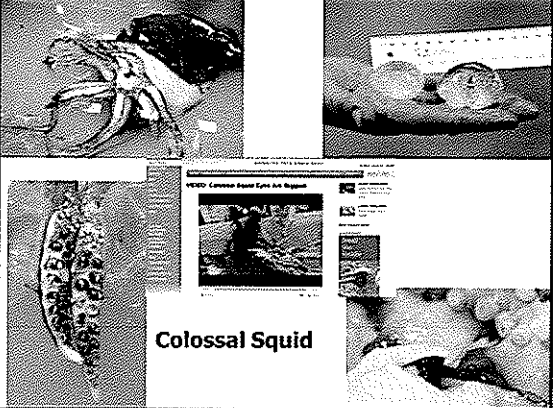
“This is a message that should probably get out, also - not only is this movement worldwide and gaining momentum every day, it is also becoming a key part of international strategy to achieve equitable access to education for people everywhere.”



Tracking Live Internet Thawing: A Colossal of an Idea



Deep-Sea Behemoth
 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.



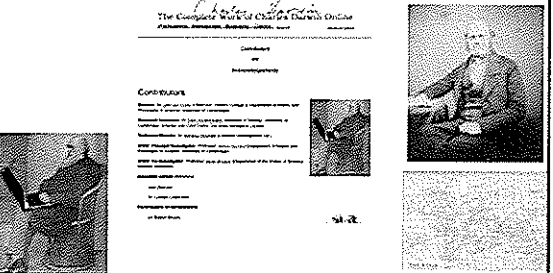
Colossal Squid

The Kracken! A Sea Serpent! A Gigantic Squid!

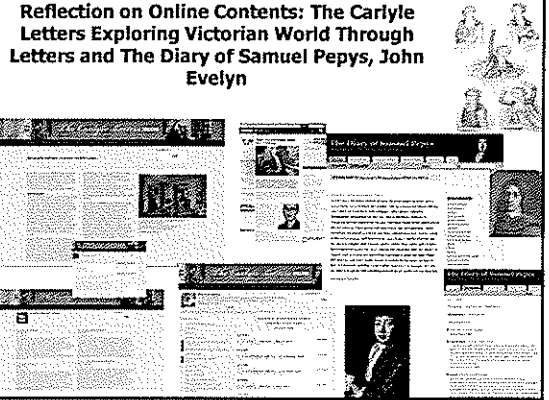
(California Coast June 27, 2008)



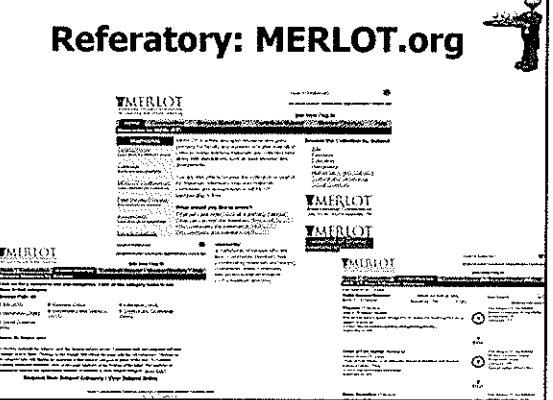
The Complete Works of Charles Darwin



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



Referatory: MERLOT.org

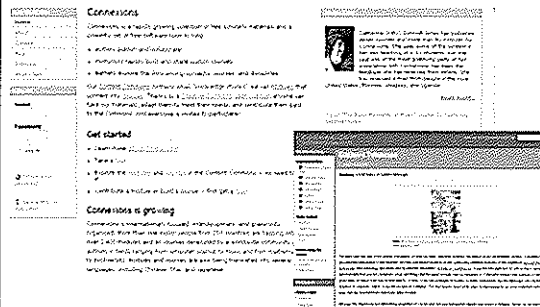


Repository: Connexions (Rice University) <http://cnx.rice.edu/>

Connexions
 Connexions is a multi-branch, open-source, free content repository and a community of people who are working to bring a better, better education to everyone. Connexions is a multi-branch, open-source, free content repository and a community of people who are working to bring a better, better education to everyone.

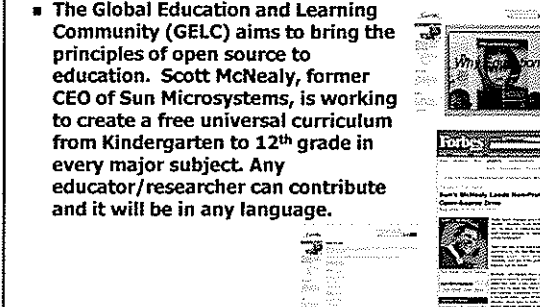
Get started
 • Create a new account
 • Log in to your account
 • Browse the repository and find the content you are looking for
 • Contribute a new piece of content to the repository

Connexions is growing
 Connexions is a multi-branch, open-source, free content repository and a community of people who are working to bring a better, better education to everyone.




K-12 Content: Global Education and Learning Community (GELC) (Kirkpatrick, Dec 22, 2006, CNN Money)


- The Global Education and Learning Community (GELC) aims to bring the principles of open source to education. Scott McNealy, former CEO of Sun Microsystems, is working to create a free universal curriculum from Kindergarten to 12th grade in every major subject. Any educator/researcher can contribute and it will be in any language.



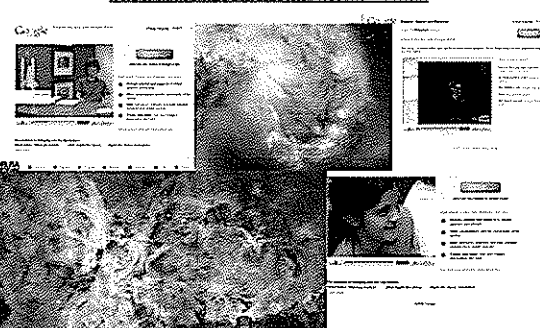
What if K-2 teachers could have free reading instruction at their fingertips? See free-Reading.net http://free-reading.net/index.php?title=Main_Page




Yahoo! Teachers



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>



3 Stop and Share: Top Three Things Learned so Far!



The Ten Forces that Flattened the World

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

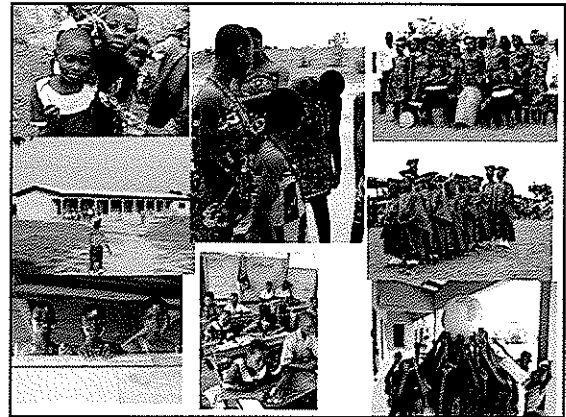
The Learning World is Flat

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

But now there is TeacherTube!

Assign Online Shared Video (SciVee, Research Channel, doFlick, UC)

Individual Produced Videos
 (e.g., African School Dream in CurrentTV)
http://current.com/items/77146092_african_school_dream

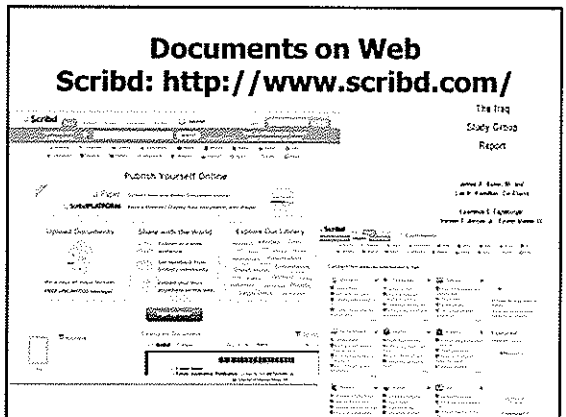
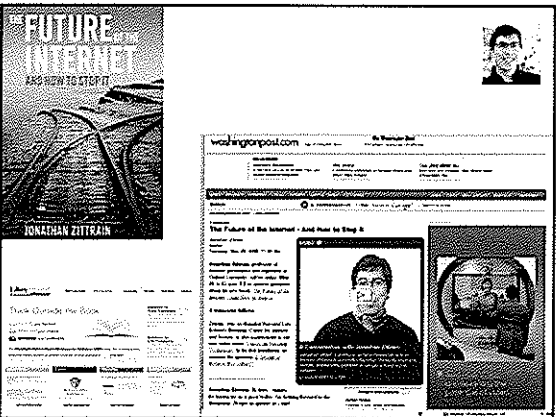
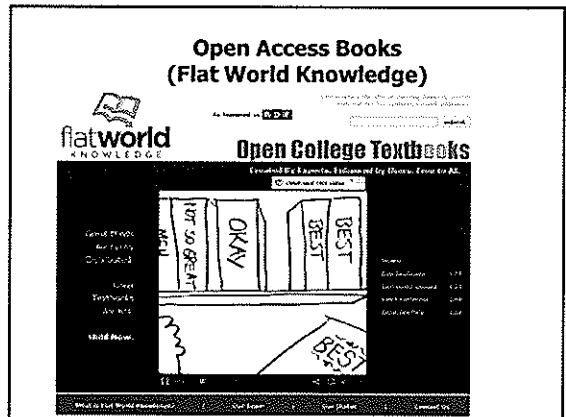
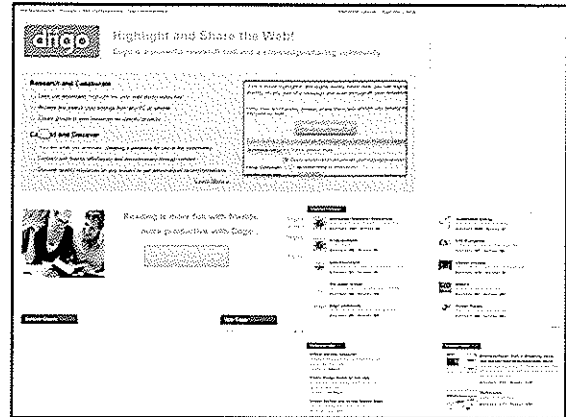
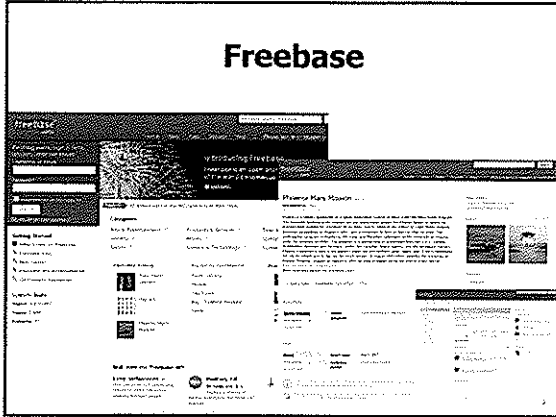


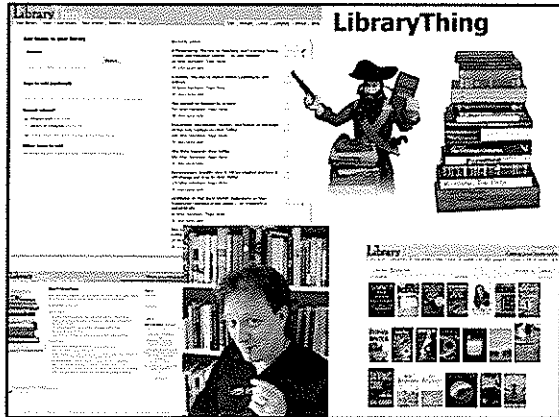
Global Nomads Group
<http://www.gng.org/home.html>

CueCards (NBC News)

Wikis: Wikipedia and Wikibooks




Sample Book (Learning Theories)
http://en.wikibooks.org/wiki/Main_Page





The Ten Forces that Flattened the World

7. Electronic Collaboration and Interaction (synchronous and asynchronous)

1kg More Project for Rural China

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

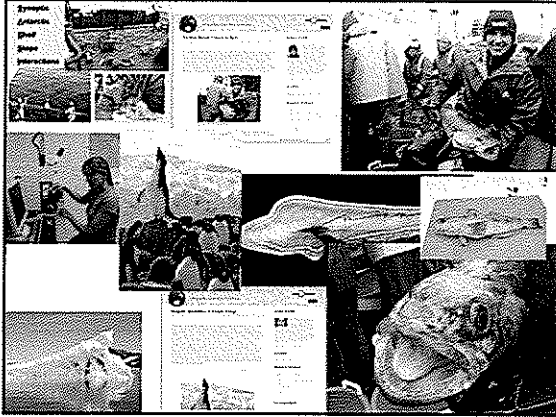
EPals has for-profit and nonprofit arms.

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>

What if your children could interact with explorers in Antarctica?



The Ten Forces that Flattened the World

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

The Learning World is Flat

Philippine President Now Resides In Second Life

PHILIPPINE President Gloria Macapagal Arroyo has moved to the virtual world of Second Life, where she has set up a virtual residence and office.

The Ten Forces that Flattened the World

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

The Learning World is Flat

<http://www.theflip.com/products.shtml>

Flip Ultra
100K 3.5mm

Flip Video
2MP 3.5mm

Simple and Colorful

The Original

Flip Video
2MP 3.5mm

Simple and Fun

YAHOO! NEWS

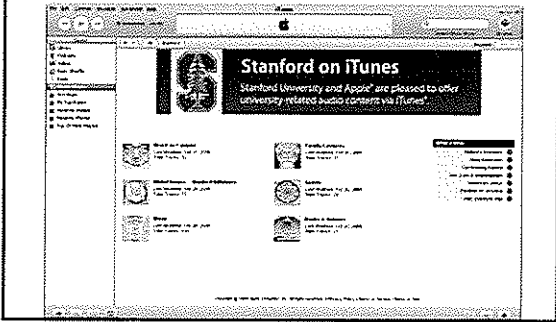
Third-generation iPhone picks up speed

iPhone 3G

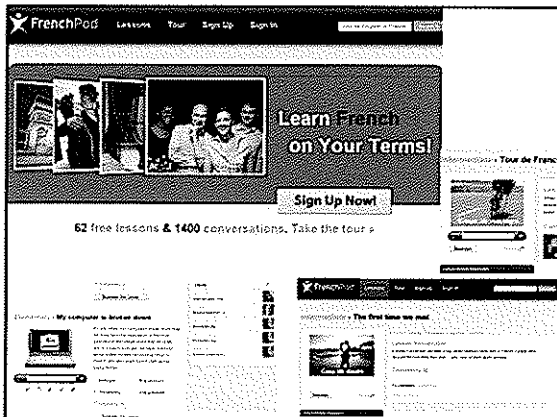
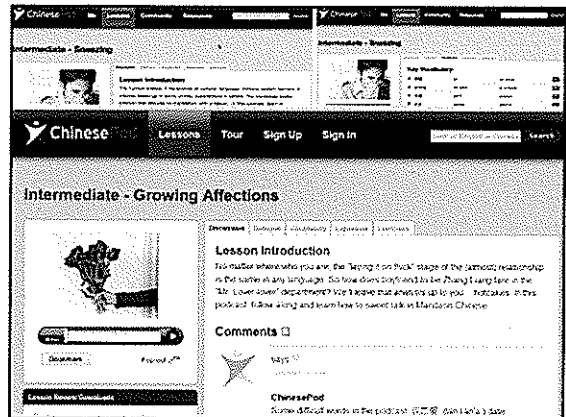
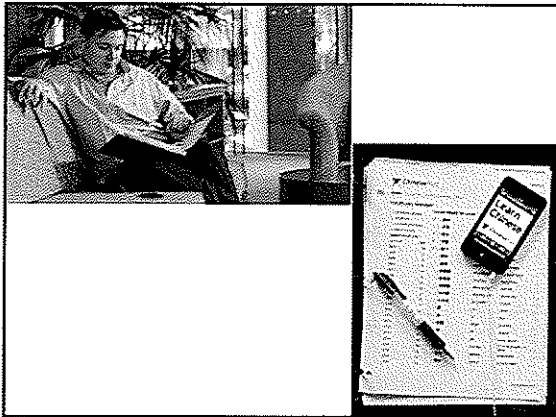
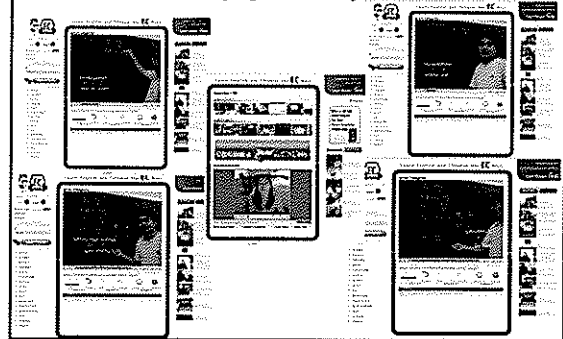
Still not perfect, but really close

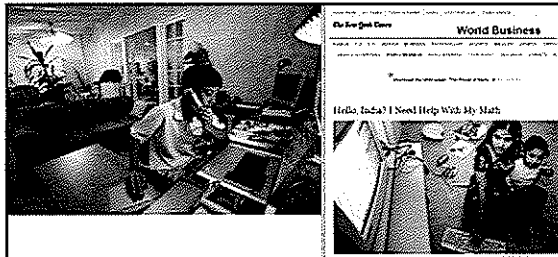
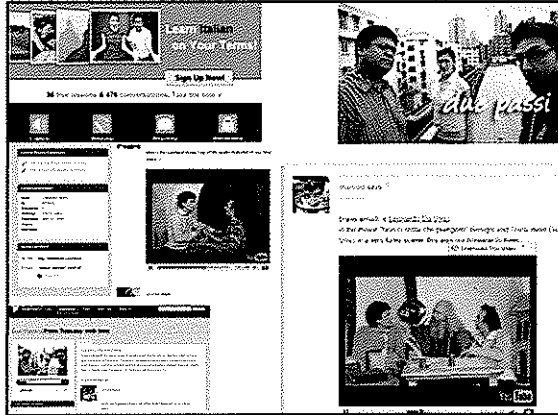
Apple's iPhone 3G is the top among all smartphones

Get Lectures from Stanford and Berkeley on iTunes



Video Supported Language Learning (e.g., ECPod)





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

Final Sharing Questions

- For what purpose will people share?
- Who will continue to maintain or update such sites?
- Will online sharing become expected of all faculty members around the planet?
- How will copyright issues be addressed?
- What happens when one did not mean to share his or her course contents or ideas, or, at least, not as widely?
- How will such learning objects of today be viewed in 100 or 200 years?

10 Predictions for Future

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