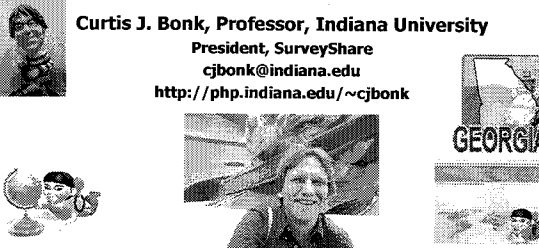



## Wandering Through the Wonders of the Web 2.0: Emerging Technologies and Innovative Activities of for the 21<sup>st</sup> Century

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





## Schools, Teachers, and Students of the 1880s



## I'm a librarian




## Technology of the 1980s



Radio Shack TRS-80 Model III	
Introduced:	July 1980
Price:	US \$699 base model US \$2495 w/ 32K, dual drives.
CPU:	Zilog Z-80, 2.03 MHz
RAM:	4K, 48K max.
Ports:	Cassette tape, expansion, serial
Display:	12-inch BW monitor: 84 X 16 text
Storage:	0, 1, or 2 internal 170K floppy drives External cassette @ 500 / 1500 baud
OS:	BASIC in ROM, TRS-DOS on disk

## Technologies of the 2000's



**Monday April 30, 2007, USA Today  
Top 25 Things that Shaped the Internet**

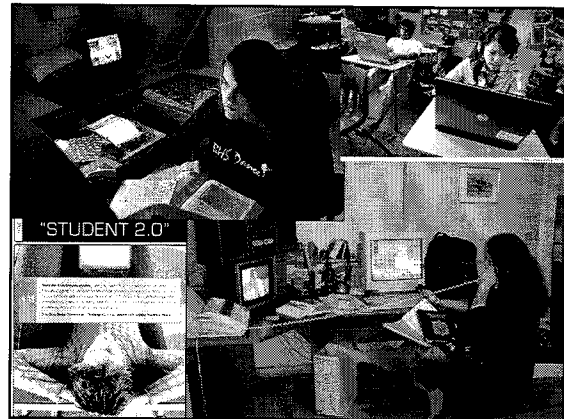
- 747 Million adults logged on in Jan, 2007
- 97 billion e-mails are sent each day
- Google had 500 million visitors in Dec, 2006
- USA: 1% broadband in 1998; 78% in 2007
- YouTube bought by Google for \$1.7 billion
- Adobe's Flash player on 98% of machines
- There are 75 million blogs!!!
- 19 million people play MMOG!
- 173 million personalized pages in MySpace

**Poll #1:  
Raise your hands if you are a digital native  
(grew up with a computer at home).**



**Next Generation of Students**

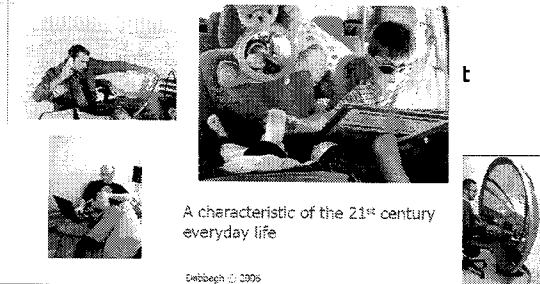
Tech Creates Bubble for Kids  
Alejandro Gonzalez, USA TODAY, Updated 6/20/2006 10:34 AM ET

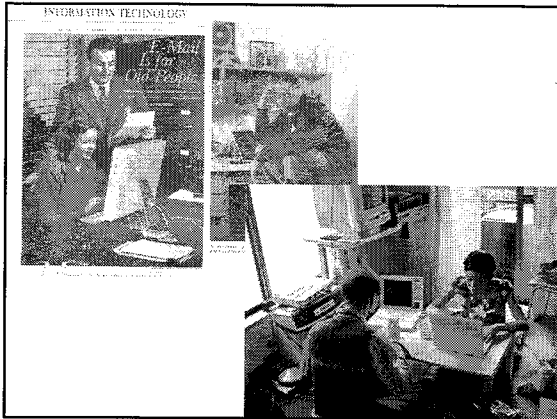


**Neomillennial Learning Styles**  
Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty  
Chris Dede, Harvard University, Educause, 2005

- Fluency in multiple media--value all types of communication, activities, experiences, not a single best medium
- Actively seek, collect, and synthesize experiences, rather than absorb a single best source
- Active learning and collective reflection
- Non-linear and associated webs of learning
- Co-design of learning experiences for individual needs and preferences not pre-customized

**Simulation: Xer**  
Multitasking





## Bonk's Addiction Q'er

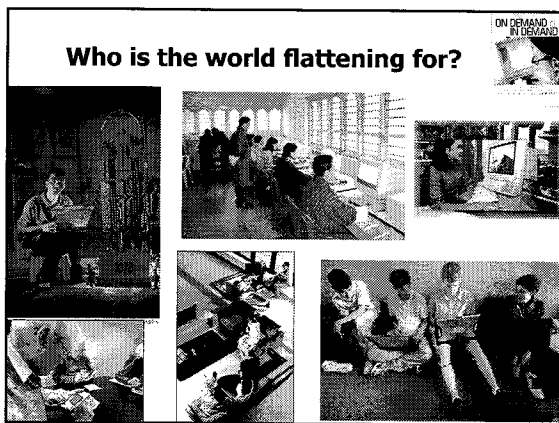
1. Who has 2 or more cell phones with Internet access?
2. Who has 2 or more laptop computers with wireless connections?
3. Who is on email in the morning? At noon? Who does it at night?
4. Who suffers from nervous tension when you cannot get on email?
5. Who is on the Web right now?



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

## 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)



## Telegraph: Flattening the world in 1860

**Blogging now begins young**

**Eighth-grade students Tayler Bernholtz, left, Amy Lostro and Kelsey Cardiff check out a weblog discussion related to the Civil War historical-fiction book 'Guerrilla Season' At South Valley Junior High School in Liberty, Mo. (Blogging now begins young USA Today, By Ashley Bleimes, USA TODAY, November 15, 2006, 12D). [http://www.usatoday.com/life/2006-11-14-blogs-education\\_x.htm](http://www.usatoday.com/life/2006-11-14-blogs-education_x.htm)**

### 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.)**

### The Search is on!

New programs teach undergraduates how to use the Internet and the online card catalog in search of the best sources  
 Chronicle of Higher Education, Andrea Foster, March 9, 2007  
<http://chronicle.com/free/v53/i27/27a03801.htm>

- The explosion of electronic information is fueling students' confusion, librarians say. In 1996 there were 10,000 scholarly databases online; now they exceed 18,000. The Web is teeming with more than 100 million sites, up from 18,000 in 1995. Google and Microsoft recently began archiving books and scholarly journals and making them available via their search engines. And two online, academic-oriented encyclopedias, Citizendium and Scholarpedia, are starting up...

### Google and Other Search Engines (Sergey Brin, Co-Founder) Google to Impact Chip in Brain!



The screenshot shows a Google search interface with a map of a city area. A news article snippet is visible on the right side of the page, titled "Google founder dreams of Google implant in your brain".

### Google Working on Timeline and Map Views

The screenshot displays a search result for a location, with a map view on the right and a timeline view on the left showing historical data points.

The page is titled "UPPER Content Alliance" and contains text about building a digital content ecosystem. It features a grid of small images or thumbnails on the right side.

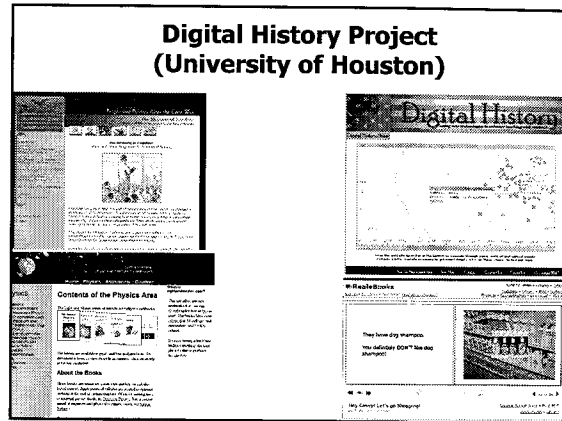
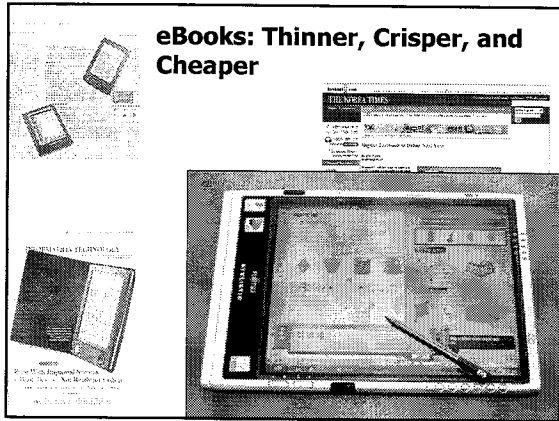
### Read, Listen, etc. to "An International Episode" by William James

The screenshot shows a digital library interface for the book "An International Episode" by William James. It offers options to read, listen, or watch the content.

### All of Darwin's and Shakespeare's Works are Online

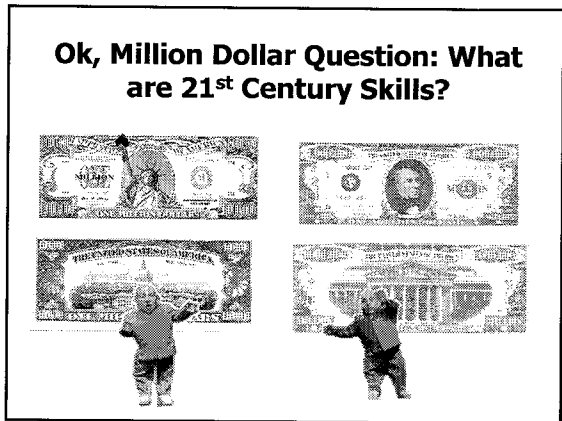
The screenshot is a news article from the Chicago Tribune titled "All of Darwin's and Shakespeare's Works are Online". It discusses Google's efforts to digitize public domain books.

5




**Connecting the Digital Dots: Literacy of the 21st Century**  
 Barbara R. Jones-Kavalier and Suzanne L. Flannigan  
 Educause Quarterly (2006), 29(2)

**"These days, new media literacy technical skills catapult traditional learning methods into orbit—traditional chalkboards and overheads with pens do not occupy the same realm as current capabilities. As an example, now teachers can do a PowerPoint presentation with streaming video, instant Internet access, and real-time audio-video interaction, and they can do it with relative speed and ease."**



**If you had to give a word or phrase to describe "21st Century Skills," what would that word be?**


- Locate info, synthesize it,
- Decision making,
- Use effectively and ethically,
- Communicate effectively,
- Evaluate products,
- Producers and consumers of visual info,
- Informed critics,
- Sensitive to bias and cultural differences,
- Sets own goals,
- Willing to make mistakes,
- Comparison and contrast skills, inferencing skills,
- Participate in a team, exercise leadership,
- Manage technology for public good



**What Students Need to Know: 21st Century Skills and ICT literacy;**  
 Susan D. Patrick, President and CEO  
 North American Council for Online Learning

The future will demand people who can express themselves effectively with images, animation, sound, and video, solve real world problems that require processing and analysis of thousands of numbers, evaluate information for accuracy, reliability, and validity; and organize information into valuable knowledge, yet students are not learning these skills in school.

From: The Partnership for 21st Century;  
[www.21stcenturyskills.org](http://www.21stcenturyskills.org). Report: are they really ready to work (2006).  
[http://www.21stcenturyskills.org/documents/FINAL\\_REPORT\\_PD\\_F9-29-06.pdf](http://www.21stcenturyskills.org/documents/FINAL_REPORT_PD_F9-29-06.pdf)





**What Students Need to Know:  
21<sup>st</sup> Century Skills and ICT literacy;**  
Susan D. Patrick, President and CEO  
North American Council for Online Learning

- Information and communication skills;
- Thinking and problem-solving skills;
- Interpersonal and self-direction skills;
- Global awareness;
- Financial, economic, and business skills; and
- Civic literacy.

From: The Partnership for 21st Century;  
[www.21stCenturySkills.org](http://www.21stCenturySkills.org)  
Report: are they really ready to work (2006).  
[http://www.21stcenturyskills.org/documents/FINAL\\_REPORT\\_PDF9-29-06.pdf](http://www.21stcenturyskills.org/documents/FINAL_REPORT_PDF9-29-06.pdf)

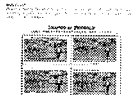
**Digital Literacy**  
(Bonk, June 2, 2007)



- Digital literacy is the ability to browse, locate, filter, synthesize across, and eventually use information appearing in multiple formats and in a wide range of sources that can lead to communication of what one discovered as well as the production of still additional information. (Paul Gilster (1997), Digital Literacy.)

**Digital Literacy**  
(Bonk, June 2, 2007)

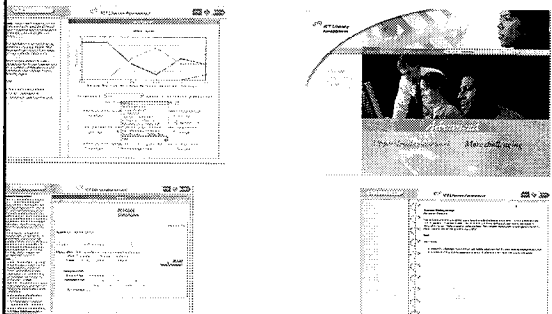
- Digital literacy is not only technology related knowledge, skills, and competencies, but also the critical and creative thinking skills as well as ability to engage in collaborative teams to find and solve problems in a technologically reliant society or environment.



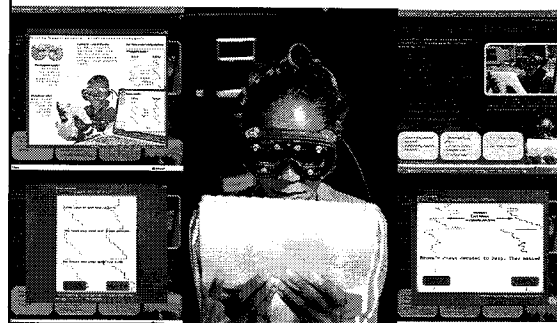
New programs teach undergraduates how to use the Internet and the online card catalog in search of the best sources  
Chronicle of Higher Education, Andrea Foster, March 9, 2007  
<http://chronicle.com/free/v53/i27/27a03801.htm>

- Among the most well known is the ICT Literacy Assessment, which was developed and is administered by the Educational Testing Service, a nonprofit group based in Princeton, N.J. "ICT" stands for "information and communication technology." The 75-minute test, offered at two levels, measures students' ability in seven areas, including organizing, evaluating, and communicating with electronic data.

**New Forms of Digital Literacy**  
(new tests from ETS)



**Technology for Tracking Eye Movements**



## The Ten Forces that Flattened the World

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

**EDUCATION with Student Edge**  
Students prefer online courses

Classes popular with on-campus students

Feb. 1, 2006, 1:15 a.m. EST 06 06 07

APU — Andy Steele lives just a few blocks from the campus of Black Hills State University in Spearfish, South Dakota, so combining to class took the problem. But he doesn't like lectures, wants to work at his own pace, and wants time during the day to fix his motorcycles.

So Steele, a 26-year-old student, took a class online. He says he likes it better than the on-campus classes. He says he likes the flexibility of online learning.

## Technology in K-12

STATE LAPTOP PROGRAMS | INTERNET ACCESS IN SCHOOLS

ONLINE COURSE OFFERINGS

Education Week, March 27, 2007

## Growth of Online Learning in Secondary Schools

**canada.com**

Free online course will aid Michigan students

Education board teaches tech to teachers

Online courses coming to all Michigan high schools

## Julie Young, FLVS

FLORIDA'S ONLINE BOOM

TOTAL HALF-CREDIT ENROLLMENTS AT FLVS

Year	Enrollments
2001	77
2002	327
2003	625
2004	2,077
2005	6,185
2006	9,655
2007	25,818
2008	37,016

## University of Central Florida

Access, Quality, and Efficiency through Online Learning  
Academic Year 2006-2007

Fully Online (W) Registrations

Academic Year (summer-fall-spring)	Registrations
96-97	645
97-98	1,838
98-99	3,096
99-00	5,658
00-01	8,710
01-02	12,778
02-03	15,828
03-04	21,950
04-05	29,187
05-06	38,148
06-07	42,398

## The Open Univ Malaysia

(Abtar Kaur, 2005, Ed Media)

- Started August 2001 : approx. 800 students
- Total students (2005): approx. 33,000
- Total full-time academic staff : 60
- Total part-time academic staff (tutors) : approx 3,000
- 33 Learning Centres (7 Regional Centres)
- Pedagogical approach : Blended Learning



Enrollment Growth at the UCM

Year	Enrollment
2001	800
2002	1,500
2003	2,500
2004	10,000
2005	33,000




## The Ten Forces that Flattened the World

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

## 1. eduCommons

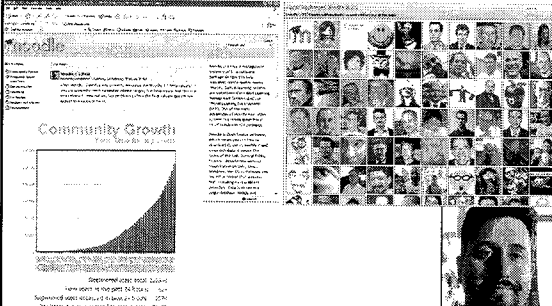


[Search Commons in Action](#) | [Download the Source Code](#) | [Join the Implementation Network](#)

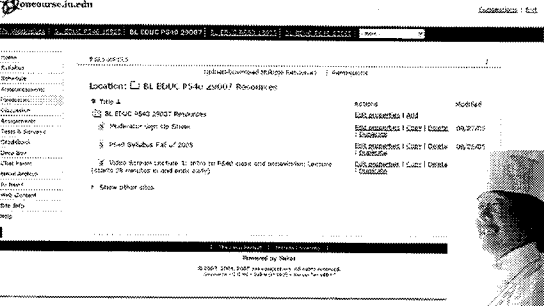
eduCommons is an OpenCourseWare Management System designed specifically to support OpenCourseWare projects like MIT OCW and UConn's OCW. eduCommons allows the community flexibility to successfully develop and manage an OpenCourseWare collection, including a workflow process that starts with creating individual units with a repository, tracking copyright clearance, reassembly of resources into courses, a quality assurance process, and final publication of the materials. At the core of eduCommons is designed to visually align with other OCW's, the look and architecture is equally close to something like ConnXions - all resources are stored as individual learning objects or links to facilitate easy reuse elsewhere. eduCommons is open source software developed by Scott Brinker.

eduCommons is generously funded by The William and Flora Hewlett Foundation and the National Science Foundation.

## 2. Moodle

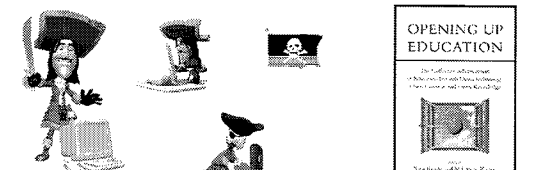



## The Sakai Project



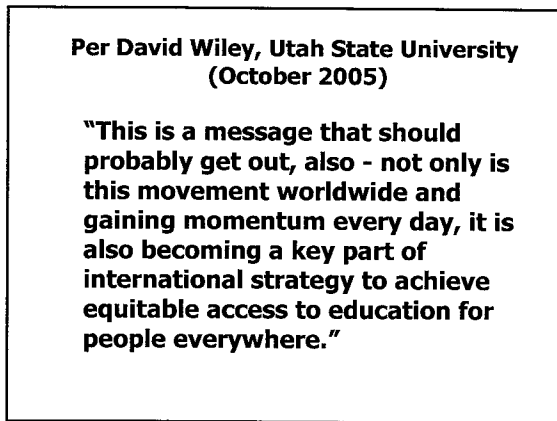
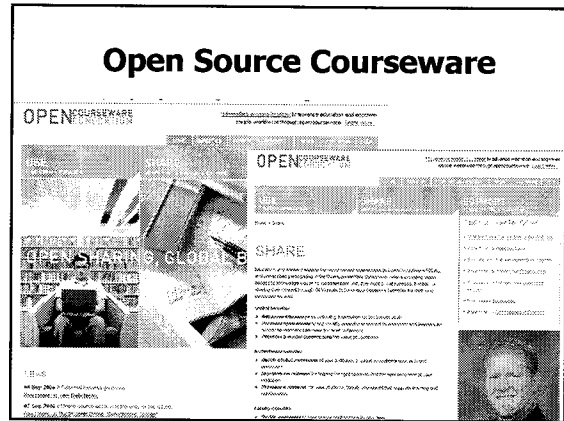
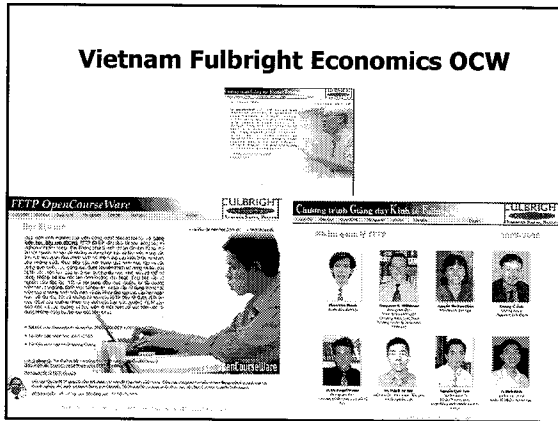
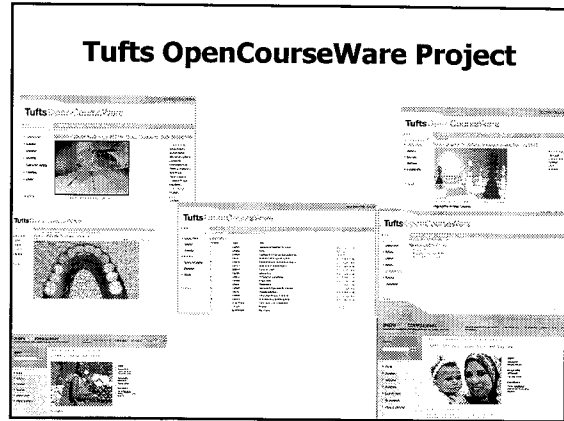
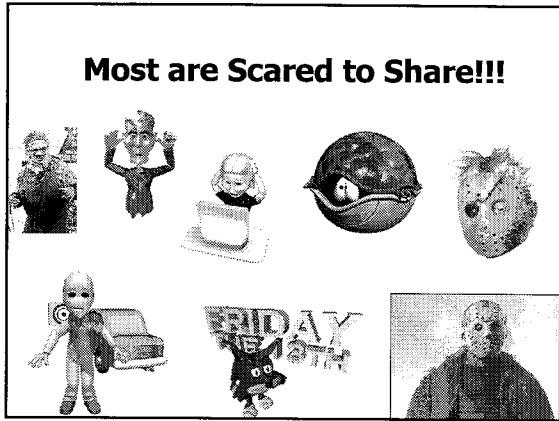
## The Ten Forces that Flattened the World

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

## Do You Share?


- Who has shared music in an iPod or MP3?
- Who has used collab software? (Google Groups, Yahoo Groups, Sharepoint)
- Who has used online phone services such as Skype or Google Talk?
- Who has assigned teams online?
- Who has embedded international exchanges or expert guests?
- Who has used MERLOT, Connexions, or the MIT open courses?
- Who has used Wikipedia?



### What's their Beliefs? (Chu, Jan 1, 2007)

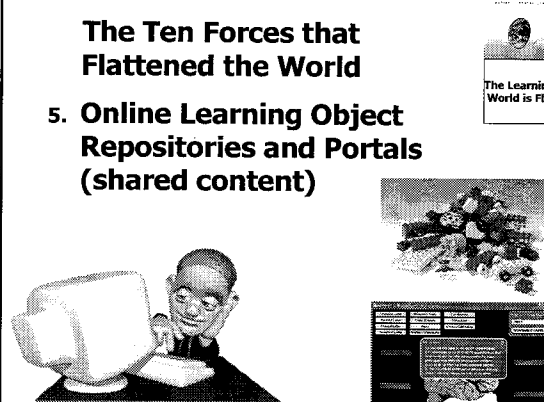
- Collective Minds is better than a single genius translator.
- Perfect Translation doesn't exist.
- 2,012 Volunteer translators  
1,125 courses adopted  
639 courses near completion (level 1)
- 126 courses already finished

The Biggest OCW Localization Volunteer Group in the World

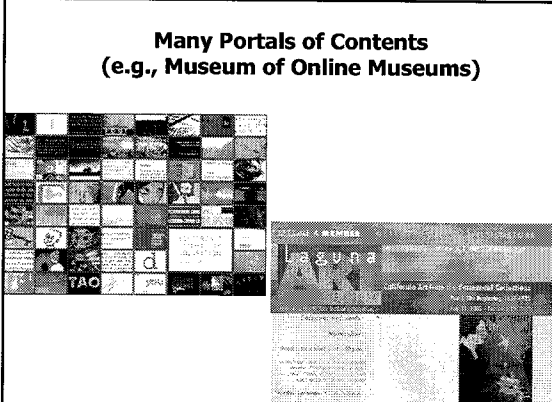


### The Ten Forces that Flattened the World

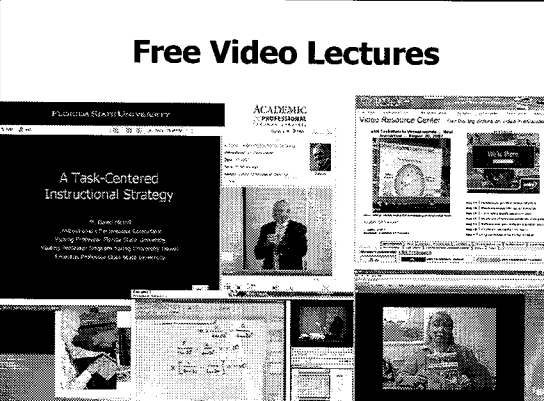
5. Online Learning Object Repositories and Portals (shared content)



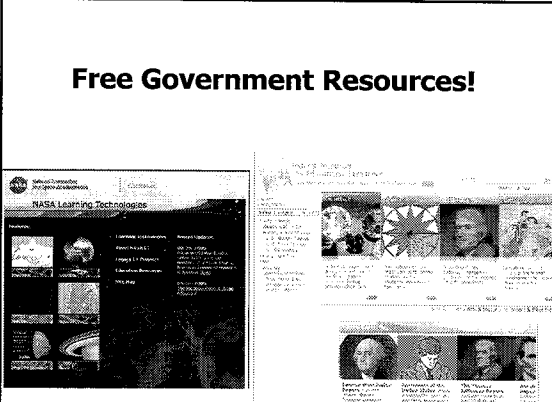
### Many Portals of Contents (e.g., Museum of Online Museums)



### Free Video Lectures



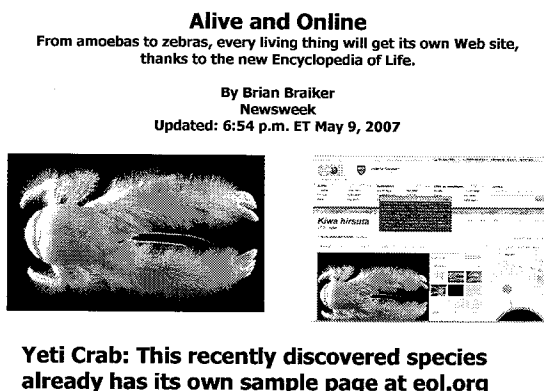
### Free Government Resources!



### Alive and Online


From amoebas to zebras, every living thing will get its own Web site, thanks to the new Encyclopedia of Life.

By Brian Braiker  
Newsweek  
Updated: 6:54 p.m. ET May 9, 2007




**Yeti Crab: This recently discovered species already has its own sample page at eol.org**

**Terry Anderson, Athabasca University  
(October 2005)**




**"Our Creative Commons licensed book Theory and Practice of Online Learning has been downloaded over 55,000 times (full text) and more by individual chapters. Parts have been translated into 6 languages and we are nearly sold out the 500 copies we printed at \$50 a pop. So it is quite a success story."**

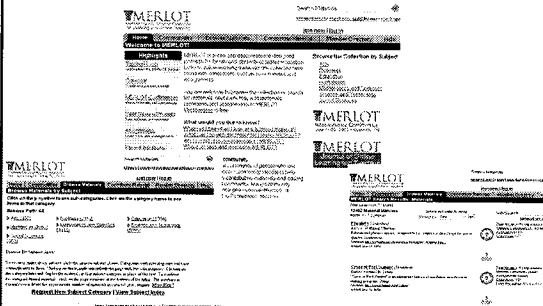
- Anderson, Terry & Fathi Elloumi (Eds). (2004). Theory and practice of online learning. Canada: Athabasca University. [http://cde.athabascau.ca/online\\_book/](http://cde.athabascau.ca/online_book/)



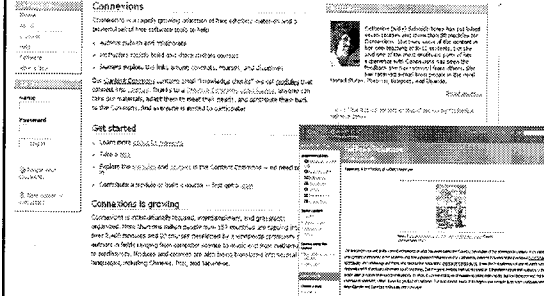
**Pubcasts!**  
NSF, the Public Library of Science, and the San Diego Supercomputing Center created a YouTube for scientists to help demystify important research papers. See SciVee <http://www.scivee.tv/>



**A. MERLOT.org**




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



**C. 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 12<sup>th</sup> grade in every major subject. Any educator/researcher can contribute and it will be in any language.




**D. Google School Resources**  
such as Google Docs and Spreadsheets, an open alternative to Microsoft's Word and Excel

**Google enrolls teachers in online software crusade**

Dec 3, 2006, USA Today  
Michael Liedtke, Associated Press  
Google enrolls teachers to spread work online software crusade

Palo Alto High School journalism teacher Esther Wojcicki helps student Allison Wyndham at a computer during journalism class in Palo Alto, Calif. Wojcicki is helping Google bring its online suite of software applications to classrooms across the country



### E. National Repository for Online Courses (NROC) Commons

The screenshot shows the NROC Commons interface. At the top, there's a navigation menu with 'Home', 'About', 'Search', and 'Help'. Below the menu, there's a large banner area with a grid of course thumbnails. A search bar is visible on the right side. The main content area displays a list of courses with titles, descriptions, and thumbnail images.

### The Ten Forces that Flattened the World

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

This block features a collage of images illustrating online communities. On the left, a person is seen from behind wearing a wide-brimmed hat. In the center, a group of people is gathered around a table. On the right, a person is holding a sign that says 'The Learning World is Flat'. The background is a dark, textured surface.

### Slashdot and Digg (all about user powered content. Everything is submitted and voted on by the Digg community. Share, discover, bookmark, and promote stuff ) <http://digg.com/>

**USA TODAY, Oct 24, 2007, Traffic rose about 330% to 5.6 million visitors in Sept, from 1.3 prior Sept,**

The screenshot shows the Digg website interface. It features a prominent article at the top with a large image and a headline. Below the article, there's a list of related items or a sidebar with various links and images. The layout is clean and focused on the content.

This block shows a screenshot of a YouTube page. The main focus is a video player with a large thumbnail image. To the right of the player, there's a list of related videos with their respective thumbnails and titles. The page layout is typical of a video-sharing platform.

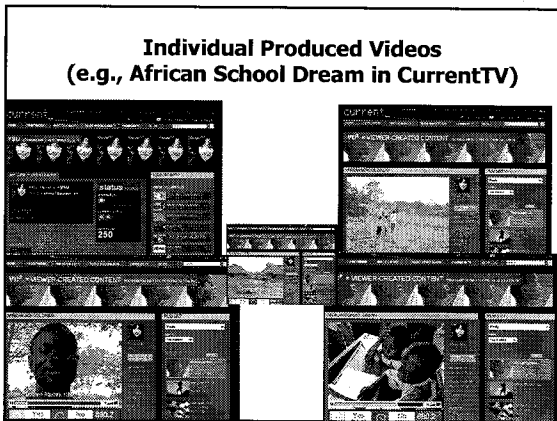
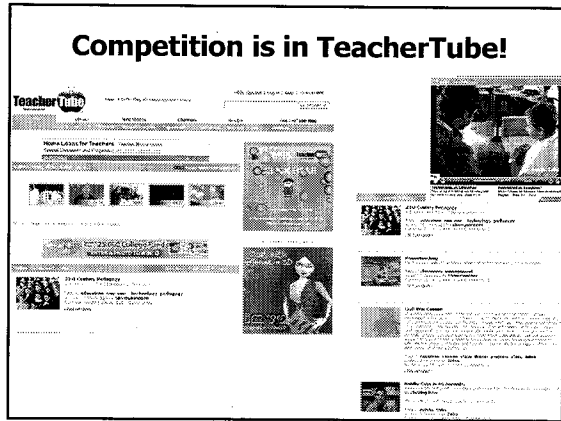
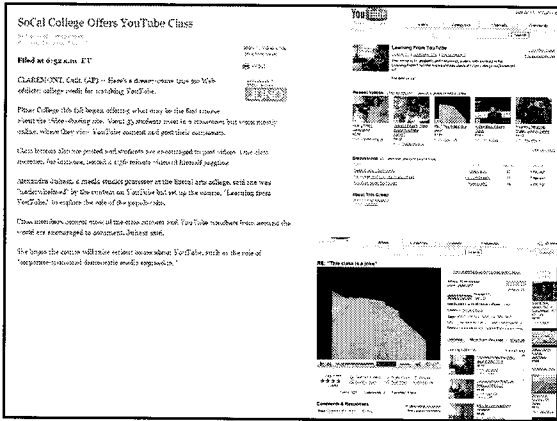
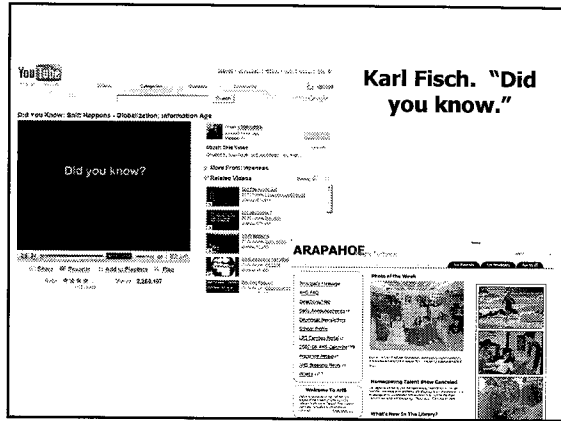
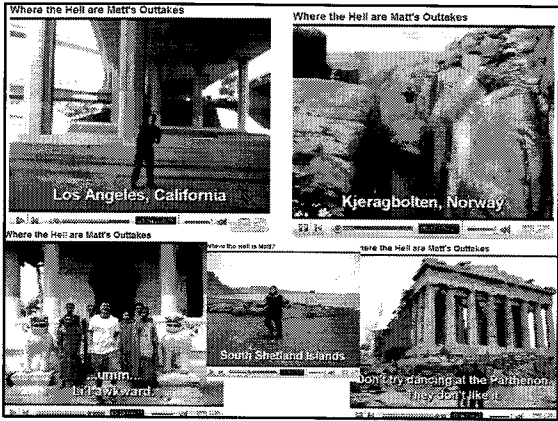
### Chobse '08

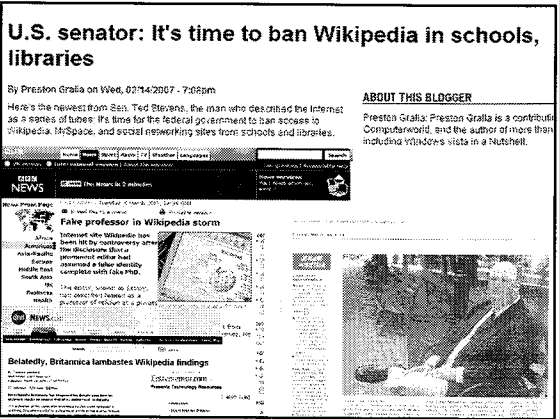
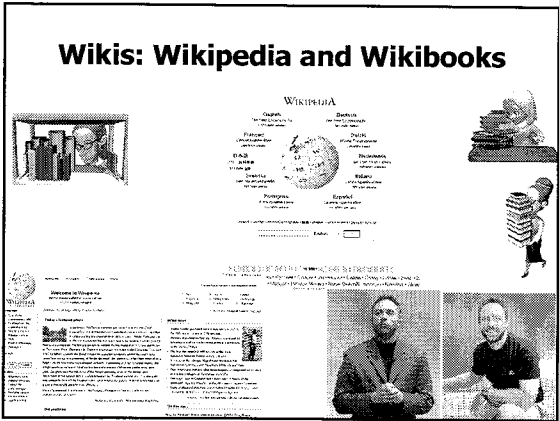
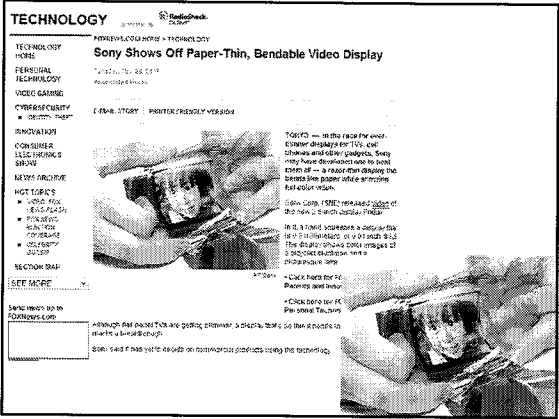
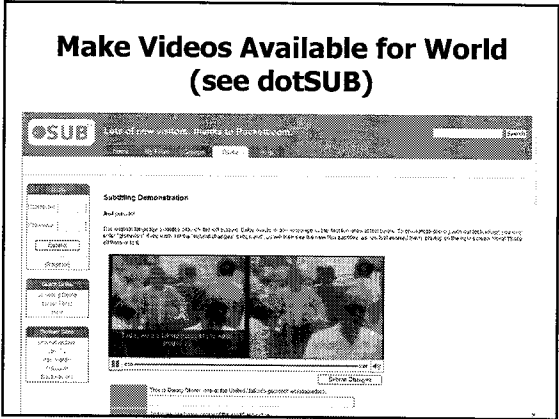
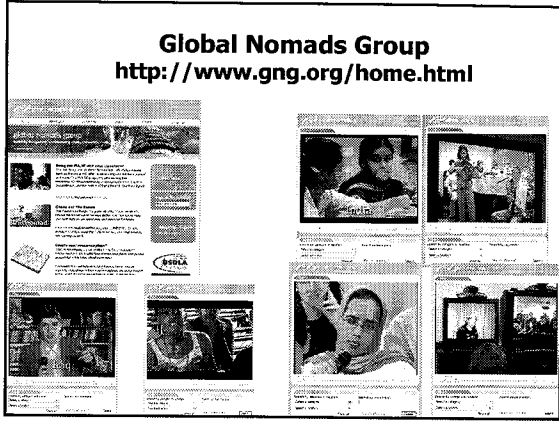
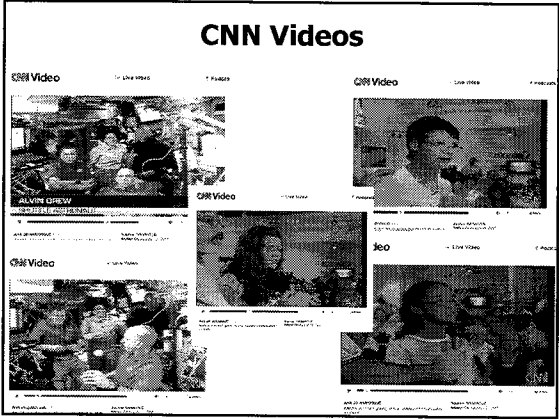
#### California Governor Arnold Schwarzenegger Speak

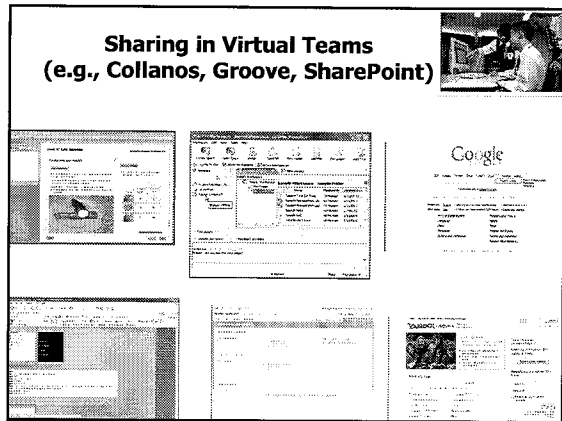
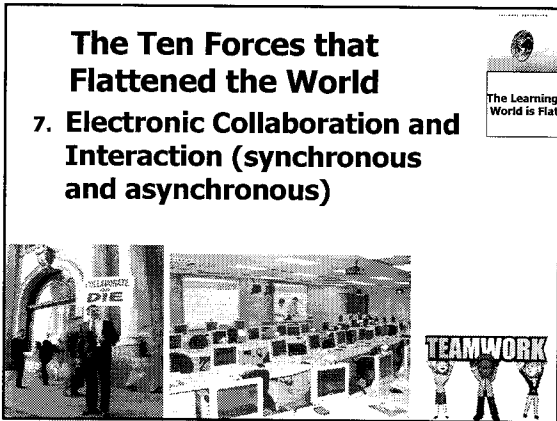
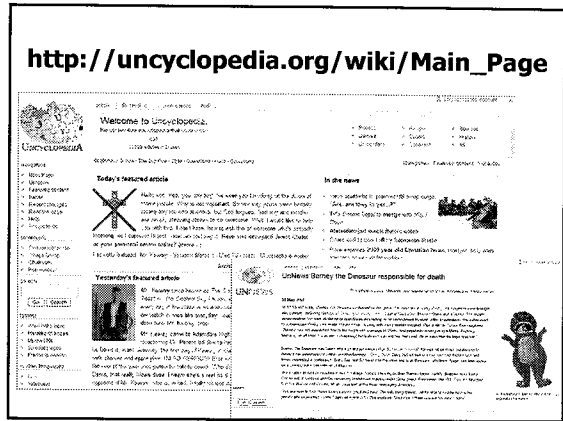
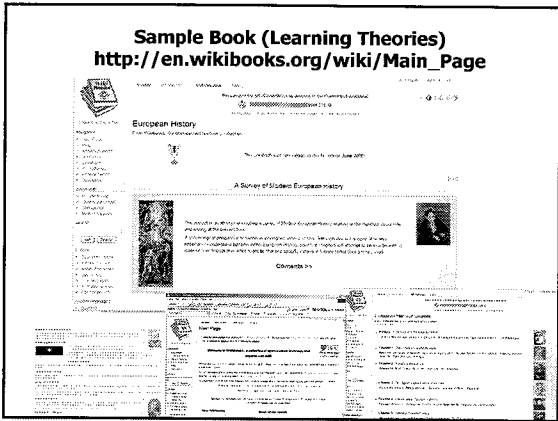
The screenshot shows a Chobse '08 website. The main content is a video player showing Governor Arnold Schwarzenegger speaking at a podium. The website has a dark theme with white text. There are navigation buttons and a search bar visible.

### Where the Hell is Matt?

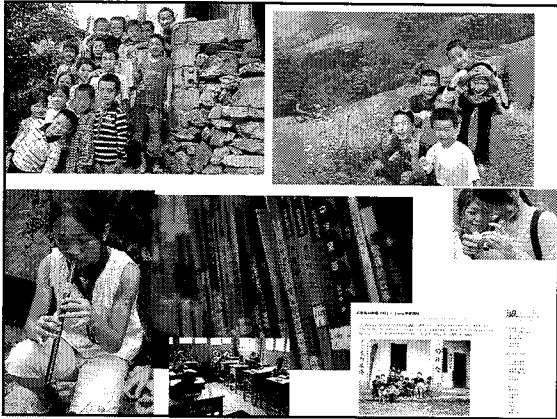
This block features a collage of images related to the 'Where the Hell is Matt?' series. The images show various locations: San Francisco, California; Paia, Hawaii; Botswana; and Easter Island, Chile. Each image is accompanied by a small text box with the location name.











## Why not donate books online? Room to Read (John Wood)

Worlds Change Starts with Educated Children

Our core belief is that every child should have access to quality education. We believe that education is the key to a better future. We believe that every child should have access to quality education. We believe that education is the key to a better future.

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## 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

## Teaching English, History, Law, Business, Science, Accounting, etc.

SURFING SECOND LIFE

The Virtual Campus

## 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

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

The Learning World is Flat

Audacity

The Free, Cross-Platform Sound Editor



**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.**

**Nakaseke community radio station**

**Nakaseke village telecenter**

**Nigerian school OLPC XO usage**

**The Age of Wireless**

**MOST (UN)WIRED SCHOOLS?**  
 CNET 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.  
 CLICK HERE TO VIEW

**Totally wireless on campus**

**The Ten Forces that Flattened the World**

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

The Learning World is Flat

**Poll #2:**  
**Should kids be allowed to bring mobile phones, MP3 players (iPods) to school?**

MiamiHerald.com

**Board OK's flip-flops, but iPods are out**  
 Flip-flops are in for high school kids, out for everyone else, also out for phone, skippers, unattended clothes, iPods and laptops.

**iPod's More Popular than Beer?**

**iPods knock over beer mugs**

**iPod saves Soldier's Life**

**Entice Students with Technology Giveaways**

By 2010, 80% of students will have an iPod or similar device. The iPod is a popular choice for students because it is easy to use and has a large selection of music. Schools equipped with iPods can take advantage of this technology to enhance their curriculum.

**One of Michelle Tanner's deaf students at Gerald Wright Elementary holds an iPod and watches a video of her signing the week's vocabulary words. The iPods were purchased with a grant from Qwest. Classrooms go high-tech. By Erin Stewart, Deseret Morning News, March 6, 2007**

**World Bridges and EdTechTalk**

**EdTechTalk #79 - A Discussion with Curtis Bank & Steve Kozlowski**  
 April 12, 2007  
 Length: 46:23 - Minutes (14:34:16)  
 Format: MP3 audio, MP4 video, 6,391  
 Authors: Curtis Bank, Steve Kozlowski

**Language Learning (ChinesePod—learn Mandarin)**

**Jenny Zhu**


**JapanesePod, Arabic online, etc.**

**Online Photo Albums, e.g., FLICKR (Inc. Magazine, December 2006)**

**The Flickr Founders**

## Social Networking Software

- Classmates: <http://www.classmates.com/>
- Facebook: <http://www.facebook.com/>
- Friendster: <http://www.friendster.com/>
- Friendzy: <http://www.friendzy.com/>
- MySpace: <http://www.myspace.com/>
- Orkut: <https://www.orkut.com/>
- Tribes: <http://www.tribe.net/>
- YouTube: <http://www.youtube.com/>



**Tech giants poke around Facebook**

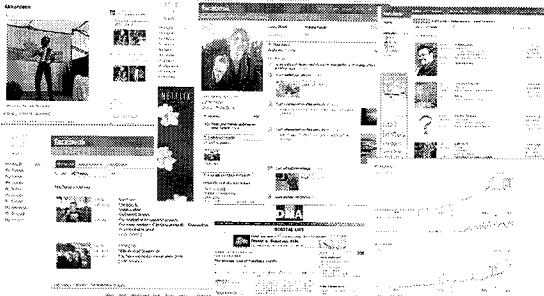
Facebook's Mark Zuckerberg, at his office in Palo Alto, Calif., is in no hurry to sell the popular social networking site. (23 years old)

Facebook could be worth as much as \$6 billion today...He expects privately held Facebook to post a profit of about \$30 million on revenue of \$140 million this year, and register a \$70 million profit on revenue of \$358 million in 2008. He predicts \$6 billion in revenue by 2016.

## Facebook used to be just for the young (e.g., my son's Facebook account)

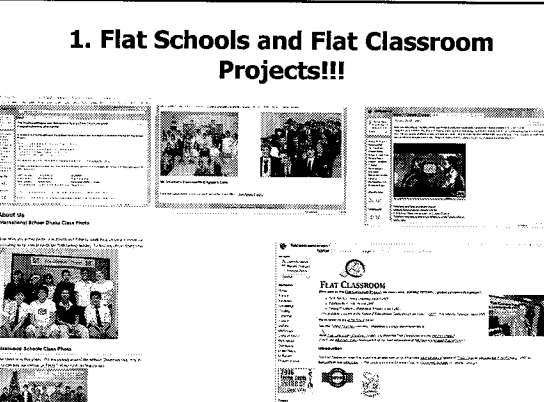


## Facebook (from 2 friends to 50 seemingly overnight)

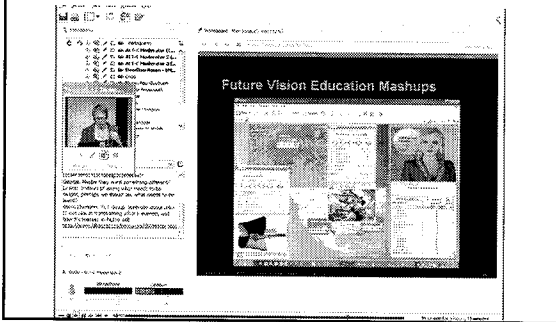


## Combining Web 2.0 and Technology Trends (Ten Examples)

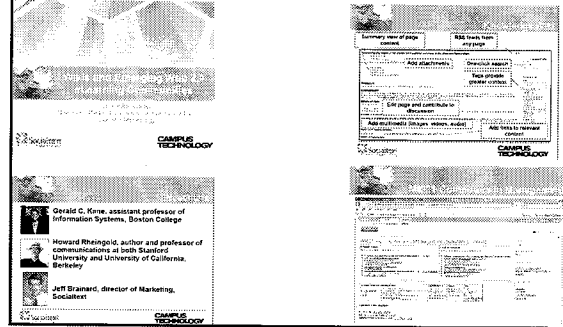
### 1. Flat Schools and Flat Classroom Projects!!!



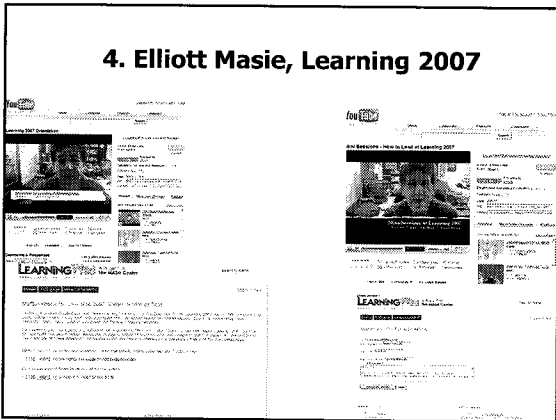
**2. Michelle Selinger, ALT-C Keynote, September 2007, Univ of Nottingham**



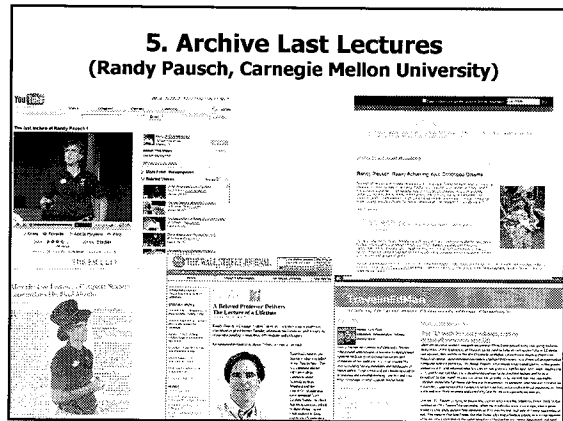
**3. Wikis in Higher Education**



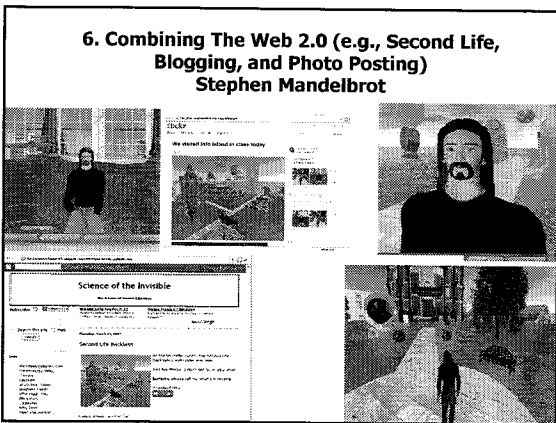
**4. Elliott Masie, Learning 2007**



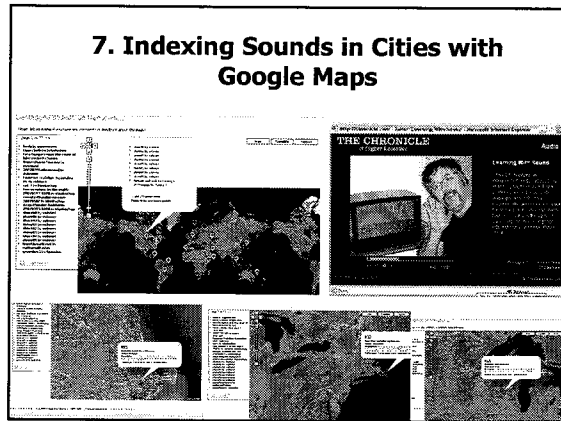
**5. Archive Last Lectures (Randy Pausch, Carnegie Mellon University)**



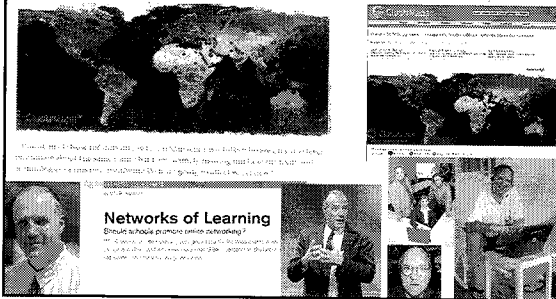
**6. Combining The Web 2.0 (e.g., Second Life, Blogging, and Photo Posting) Stephen Mandelbrot**



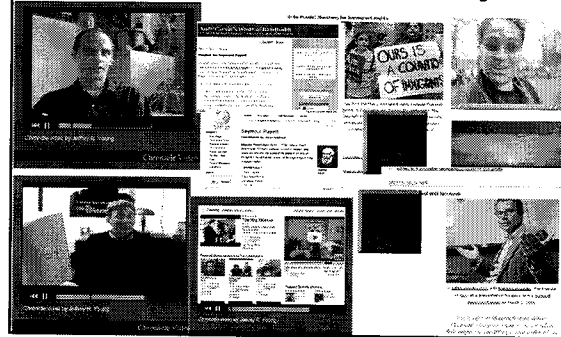
**7. Indexing Sounds in Cities with Google Maps**



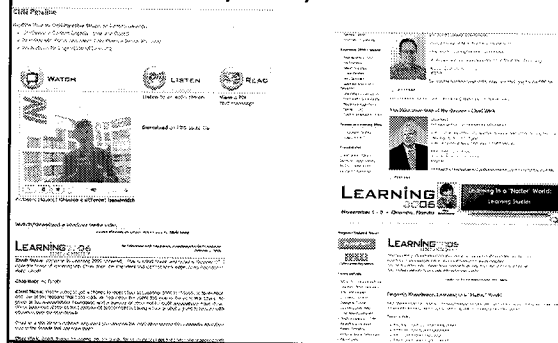
**8. Cluster Maps (who is reading your blog or using your product); Blog of Will Richardson, famous K-12 blogger (left) and Learning Theories Book of Michael Orey, Univ of Georgia (right)**



**9. Vlogging (Video Blogging) e.g., Andy Calvin's Waste of Bandwidth Michael L. Wesch, Kansas State, The Machine is Using Us**



**10. Video, Transcript, and Audio File: Watch, Listen, and Read**



**Sharing Questions (today)**

- 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?

