



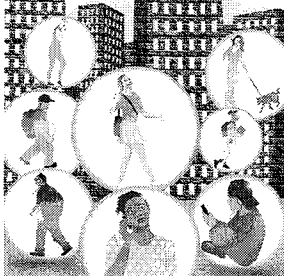


## How the Learning World Became Flat: Ten Knowledge Sharing and Technology Trends Equalizing Access to Learning


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

## Next Generation of Students

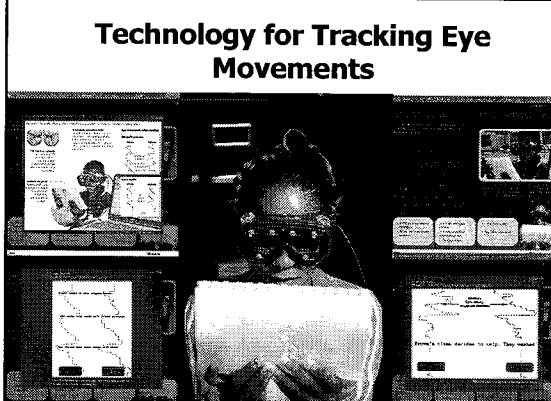


Tech Creates Bubble for Kids  
Alejandro Gonzalez, USA TODAY, Updated 6/20/2006 10:34 AM ET




"STUDENT 2.0"

## Technology for Tracking Eye Movements




INFORMATION TECHNOLOGY






## 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



- 11/9/89: Berlin Wall came down
- 8/9/95: Netscape went public
- Work Flow Software (e.g., PayPal and eBay)
- Open-Sourcing (Self organizing collaborative communities; Mosaic, Apache, Wikipedia, Linux, Mozilla/Firefox, )
- 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 (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.)




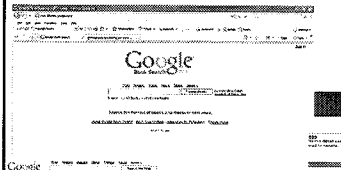






## The Search is on!



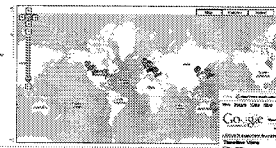
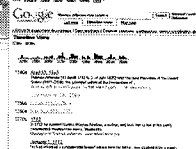

## Google and Other Search Engines (Sergey Brin, Co-Founder) Google to Impact Chip in Brain!

Google founder dreams of Google implant in your brain

Book and software that will help you understand the brain and how it works. Includes a book and software that will help you understand the brain and how it works.

## Google Working on Timeline and Map Views

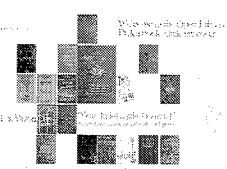



Google is working on a new feature that will allow users to view their location history in a timeline format. This feature will be available to users who have location history turned on in their Google account settings.


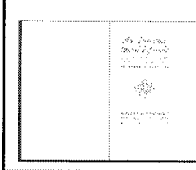
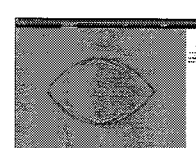
## OPEN Content Alliance

Build a digital archive of open content for your library

The University of Illinois Chicago announces the availability of a newly digitized collection of 19th-century books and scrolls through the Open Content Alliance. This initiative is a key part of the university's commitment to open access and digital preservation.



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


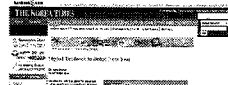
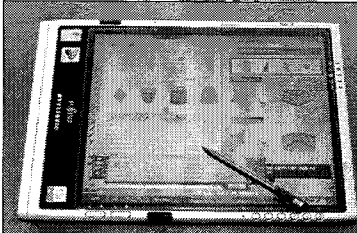
## All of Darwin's and Shakespeare's Works are Online




Google expands book project

The Darwin Project has added all of Charles Darwin's works to its online collection. This includes his major scientific papers, letters, and other documents. The project is a collaboration between Google and the Darwin Correspondence Project.

## eBooks: Thinner, Crisper, and Cheaper

Electronic books are becoming more popular as they offer a convenient and portable way to read. They are also often cheaper than their printed counterparts.

### Digital History Project (University of Houston)

The screenshot shows a website interface with a map of the United States, a sidebar with navigation links, and a main content area with text and images. The title "Digital History Project (University of Houston)" is prominently displayed at the top.

### The Carlyle Letters Online: Exploring Victorian World Through Letters

The screenshot displays a website with a header, a main text area containing historical letters, and a sidebar with a portrait of a man. The title "The Carlyle Letters Online: Exploring Victorian World Through Letters" is at the top.

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

The screenshot shows a website with a line graph on the left, a central image of a person using a laptop, and text on the right. The title "New Forms of Digital Literacy (new tests from ETS)" is at the top.

### The Ten Forces that Flattened the World

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

The screenshot shows a news article layout with a main title, a sub-heading, and several columns of text. A small inset image shows a person at a computer. The title "The Ten Forces that Flattened the World" is at the top.

### FLORIDA'S ONLINE BOOM

The screenshot shows a presentation slide with a bar chart titled "FLORIDA'S ONLINE BOOM". The chart shows a significant increase in online registrations over time. The title "FLORIDA'S ONLINE BOOM" is at the top.

Year	Registrations
1996-97	77
1997-98	277
1998-99	630
1999-00	2,677
2000-01	6,756
2001-02	9,928
2002-03	12,823
2003-04	25,616
2004-05	37,914
2005-06	65,860

### University of Central Florida Access, Quality, and Efficiency through Online Learning

#### Academic Year 2006-2007

The screenshot shows a line graph titled "Fully Online (W) Registrations" for the University of Central Florida. The graph shows a steady upward trend in online registrations from 1996-97 to 2006-07. The title "University of Central Florida Access, Quality, and Efficiency through Online Learning Academic Year 2006-2007" is at the top.

Academic Year (summer-fall-spring)	Registrations
96-97	645
97-98	1530
98-99	3096
99-00	5568
00-01	8710
01-02	12778
02-03	15828
03-04	21950
04-05	29187
05-06	35148
06-07	42398

## 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

Year	Enrollment
2001	800
2002	1500
2003	2500
2004	30000
2005	33000

## The Ten Forces that Flattened the World

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

## 1. eduCommons

eduCommons is an OpenCourseWare Management System designed specifically to support OpenCourseWare projects like MIT OCW and JPL OCW. eduCommons provides the functionality necessary to successfully develop and manage an open access coalition including a workflow process that steps users through uploading materials into a repository, tracking copyright clearance, availability of materials into courses, a quality assurance process, and final publication of the materials. While the front end of eduCommons is designed to visually align with other OCW's, the back end architecture is uniquely closer to something like CourseShare - all resources are stored on individual learning objects in order to facilitate easy reuse down-stream. eduCommons is open source software available from SourceForge.

eduCommons is generously funded by the National Science Foundation and the National Science Foundation.

## 2. Moodle

## The Sakai Project

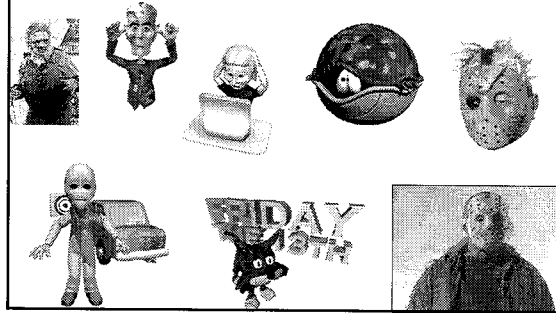
## The Ten Forces that Flattened the World

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

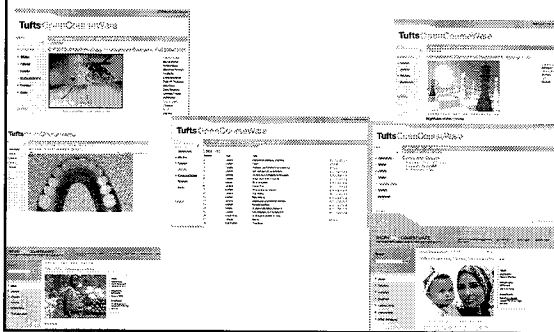
## Do You Share?

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

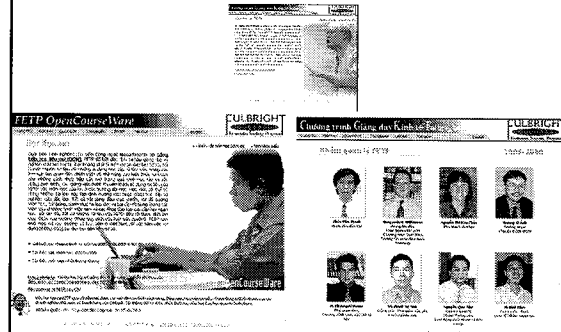
## Most are Scared to Share!!!



## Tufts OpenCourseWare Project



## Vietnam Fulbright Economics OCW



## Open Source Courseware



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."**

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

OOPS Opensource Opencourseware Prototype System  
The Foundation of Fantasy Culture and Arts

**OOPS**  
Opensource Opencourseware Prototype System  
開放式課程計劃  
www.oops.net  
www.oops.org

### 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

**OOPS**  
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### The Ten Forces that Flattened the World

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

The Learning World is Flat

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

### Free Video Lectures

ACADEMIC PROFESSIONAL  
Video Resources Center

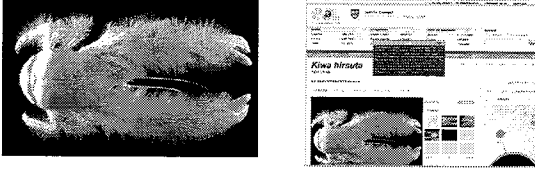
A Task-Centered Instructional Strategy

### Free Government Resources!

NASA Learning Technology

**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

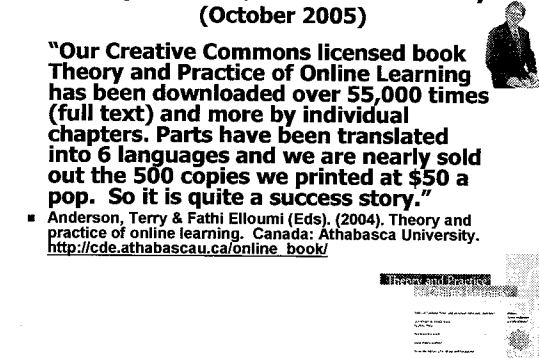


**Yeti Crab: This recently discovered species already has its own sample page at eol.org**

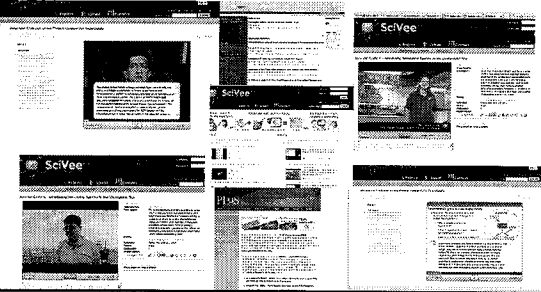
**Terry Anderson, Athabasca University (October 2005)**

**"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."**

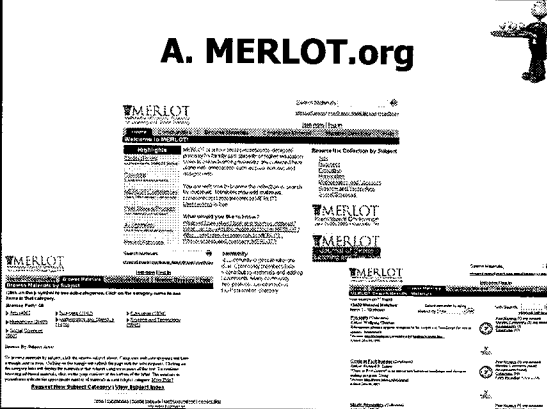
- Anderson, Terry & Fathi Elloumi (Eds). (2004). Theory and practice of online learning. Canada: Athabasca University. [http://cde.athabascau.ca/online\\_book/](http://cde.athabascau.ca/online_book/)



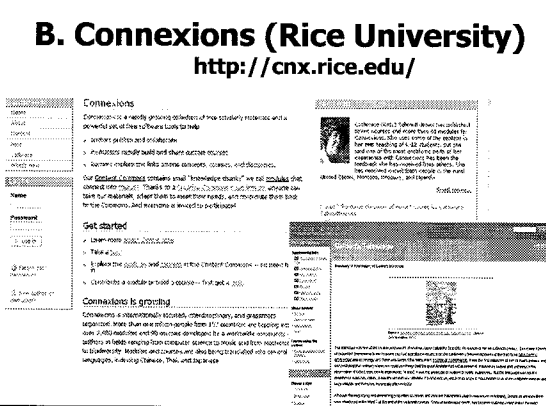
**Pubcasts!**  
 NSF, the Public Library of Science, and the San Diego Supercomputing Center created a YouTube for scientists to help demystify important research papers. See SciVee <http://www.scivee.tv/>



**A. MERLOT.org**

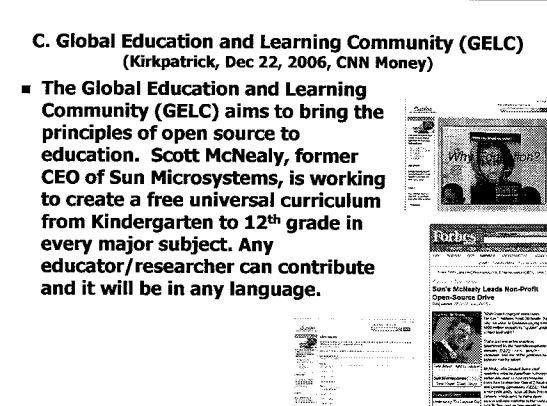


**B. Connexions (Rice University)**  
<http://cnx.rice.edu/>



**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**

Welcome to a worldwide learning network with courses in a teaching and learning network offering a broad selection of materials that are now available to you.

**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

**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,**

**VIDEO AWARDS THE 2006 WINNERS!**

**YouTubers to get ad money share**

**California Governor Arnold Schwarzenegger Speaks at UCLA**

**ch8se '08**

