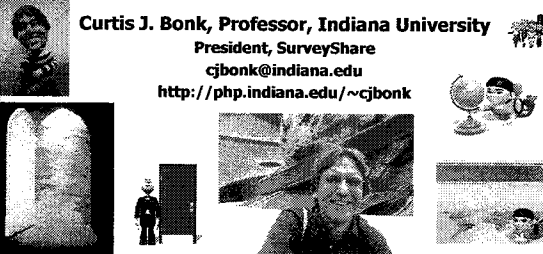
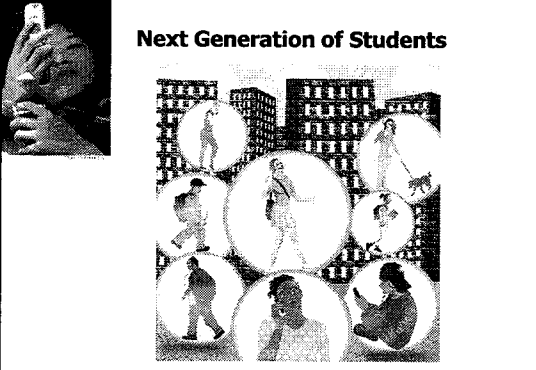



How the Learning World Became Flat (Open): Ten Knowledge Sharing and Technology Trends Equalizing Access to Learning

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




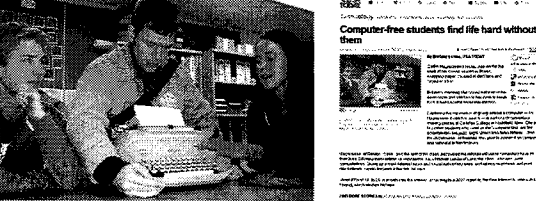
"STUDENT 2.0"



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?

Computer-free students find life hard without them

Mitchell Lundin, left, Andrew Tatge and Caitlin Magnusson tackle the typewriter as part of an experiment at Carleton College.
 Dec 17, 2007, Brittany Levine, USA Today

■ 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)

What if the learning world was flat? (e.g., Shakespeare's Global Globe)

What if the World was Beyond our World? NASA's Hubble Space: Google Sky

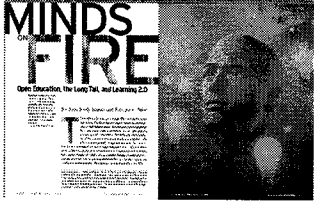
USA Today, August 22, 2007
<http://earth.google.com/sky/index.html>

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)

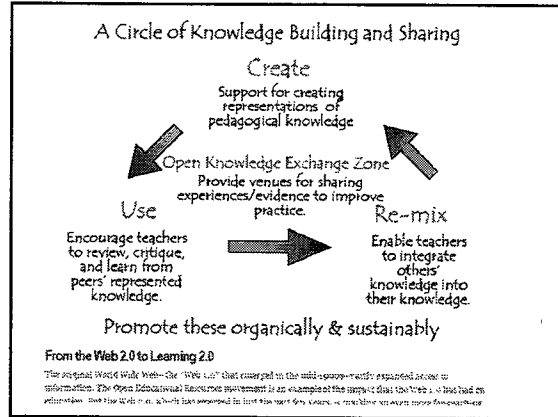
What if a laptop was as light as air?

The world's thinnest notebook.
 Introducing MacBook Air.

What if our minds were on fire for learning?



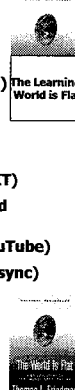
MINDS ON FIRE: OPEN EDUCATION, THE LONG TAIL, AND LEARNING 2.0. JOHN SEELY BROWN AND RICHARD ADLER, EDUCAUSE REVIEW, JANUARY-FEBRUARY, 2008.
<http://connect.educause.edu/Library/EDUCAUSE+Review/MindsonFireOpenEducation/45823>



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

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



First we need the pipes!

A Blueprint for Big Broadband. An EDUCAUSE White Paper, by John Windhausen Jr., President, Telepoly Consulting, January 2008

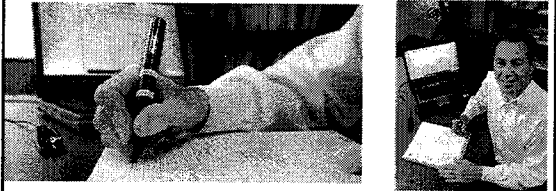
A. ITU Broadband Rankings

The International Telecommunications Union (ITU) recently opened a new website portal, the ICT “Eye,” containing extensive information on each country’s telecommunications capabilities each year since 1999.²⁴ In comparing the international rankings according to the number of broadband subscribers per 100 people, this information shows that the United States rank dropped every year since 1999:

Year	U.S. International Rank—Broadband Subscribers per 100 People
1999	3 rd
2000	5 th
2001	7 th
2002	11 th
2003	15 th
2004	18 th
2005	19 th
2006	20 th

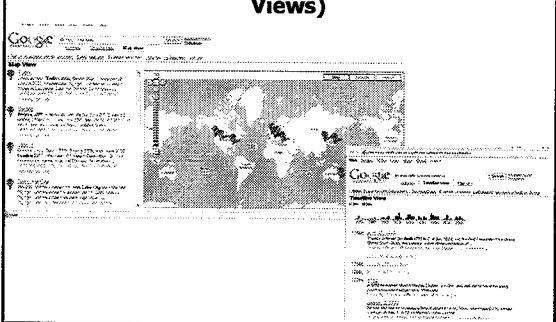
²⁴ See <http://www.itu.int/ITU-D/ICTE/indicators/indicators.shtml>.

**Second, we need new ways to record info:
Smartpens: "Never Miss a Word"**




Livescribe puts a computer inside a plump ballpoint pen. NY Times, May 30, 2007, MIGUEL HELFT, Take Note: Computing Takes Up Pen, Again (February 6, 2008, Wired Campus, Online Chronicle of Higher education. Andrea Foster)

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

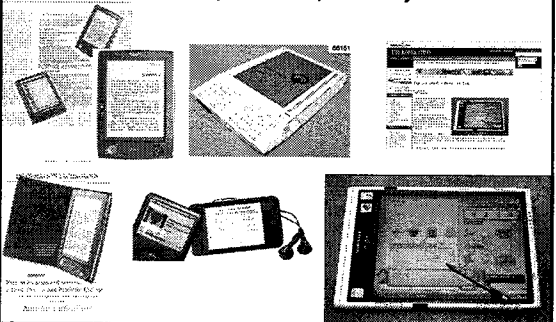


**Next, we need new ways to search
for that info in those pipes!**

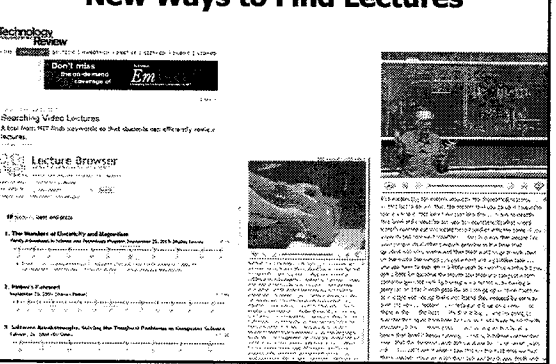


Jeff Han on TED Talks

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

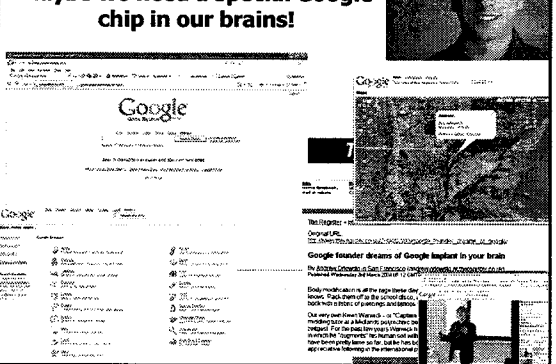


New Ways to Find Lectures



1. The Number of Elements and Structure
2. The Number of Elements and Structure
3. The Number of Elements and Structure
4. The Number of Elements and Structure

**Maybe we need a special Google
chip in our brains!**



Much New Content (e.g., books) is now Available for Free!

The Open Content Alliance (OCA) is a non-profit organization that provides free access to a wide range of digital content, including books, journals, and multimedia. The website features a grid of book covers and text describing the project's goals and the types of content available.

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

This digital archive interface for William James' "An International Episode" offers multiple ways to engage with the text. It includes a text viewer, an audio player, and a video player, all accessible from a central navigation menu.

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

A Google search result for Darwin and Shakespeare works, displaying various book covers and search filters. The results include titles like "The Origin of Species" and "The Complete Works of William Shakespeare".

Digital History Project (University of Houston)

The Digital History Project website from the University of Houston features a prominent map and various historical documents. It provides a platform for exploring digital history resources.

Free Books on Online Learning

Terry Anderson, Athabasca University

"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." (Oct 2005) Update: 10,700 downloads, of which 6,003 were full book downloads; January 2008.

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

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

<http://globaltext.org/>

The Global Text Project website displays various textbook covers and search options. It is designed to provide free access to educational materials for students in less developed countries.

The Carlyle Letters Online: Exploring Victorian World Through Letters and The Diary of Samuel Pepys

The Carlyle Letters Online is a digital archive of letters and diaries from the Victorian era. It features a search function and a list of documents. A sample document shows a letter from Samuel Pepys, dated 1711, discussing the state of the city and the impact of the Great Fire of London.

The Ten Forces that Flattened the World

2. Enormous E-Learning and Blended Learning

EDUCATION with Student Voice

Students prefer online courses

Classes popular with on-campus students

By G. Jeffrey MacDonald, Special for USA TODAY, November 2007

Left: Study sheds light on part of the problem. South Dakota, by comparing to class isn't the problem. Start the learning process, and wants more during the day to restore textbooks.

Right: Study sheds light on part of the problem. South Dakota, by comparing to class isn't the problem. Start the learning process, and wants more during the day to restore textbooks.

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	16,930,479	1.7%	1,971,397	23.0%	11.7%
Fall 2004	17,272,043	2.2%	2,329,733	18.2%	13.5%
Fall 2005	17,428,500	0.9%	3,180,050	38.5%	18.2%
Fall 2006	17,647,720	1.3%	3,486,551	9.7%	19.8%

SOURCE: Online Issues: 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.

FLORIDA'S ONLINE BOOM

Year	Enrollment
2002	77
2003	277
2004	639
2005	2,817
2006	6,785
2007	9,928
2008	12,823
2009	26,816
2010	37,914
2011	56,883

Global Campus

The Global Campus website features a search bar, navigation tabs for 'About Global Campus', 'Learning Experience', and 'Enroll Today'. It displays a grid of course listings with titles, descriptions, and images. A sidebar on the right contains 'Degrees & Certificates' and 'Enroll Today' sections.

