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

Nature AND Nurture:
Pedagogy

Technology
Pedagogy

People,
Society, Culture,

Nature and Nurture

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 MMOGI
- 173 million personalized pages in MySpace

Next Generation of Students

Tech Creation Bubble for Kids
Alejandro Gonzalez, USA TODAY, Updated 5/29/2006 10:34 AM ET
Yahoo News
Love me, love my blog," as Netorati couple-surf
BY SARA LEDWITH Thu Aug 3, 8:30 AM ET

- Nick Currie and his girlfriend Shizu Yuasa (R) surf the internet over breakfast in Tokyo in this handout photo. As the Internet evolves -- with its webcams, iPods, Instant Messaging, broadband, wi-fi and weblogs -- its image as a relationship-wrecker is changing. Now a sociable habit is emerging among the Netorati: couple-surfing. (Nick Currie/Handout/Reuters)

- "For my birthday, he upgraded my RAM and I thought it was incredibly romantic," writes Jess.

Are you addicted???

Effects of interactive multimedia in distance learning

"The advancement in technology is shaping every aspect of our life, including education. One decade ago, the Internet was not critical to education. However, now, it has become an integral part of learning process. Internet technology is having a dramatic effect on colleges and universities, producing what may be the most challenging period in the history of higher education."

2
Do You Share?
1. Who has shared music in an iPod or MP3?
2. Who has used collabor 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!!!

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-Source (Self-organizing collaborative communities; Mozilla, Apache, Wikipedia, Linux, Mozilla/Firefox)
5. Outsourcing (Y2K)
6. Offshoring (e.g., China, Mexico, Thailand)
7. Supply-Chaining (e.g., Walmart)
8. Insourcing (UPS using Toshiba laptops)
9. In-the-middle (e.g., Google, Yahoo, MSN Web Search)
10. The Steroids: Digital, Mobile, Personal, and Virtual (e.g., wireless, file sharing, VoIP, video camera in phones)

Creative Commons

The Learning World has become Flat!
Telegraph:
Flattening the world in 1860

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 (Onsite Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- Real-Time Mobility and Portability (e.g., iPhone)
- Networks of Personalized Learning (Blogs, RSS)

Eighth-grade students Tyler Bernholz, left, Amy Lostroh 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, Md. (Blogging now begins young USA Today, By Ashley Blincoe, USA TODAY, November 15, 2006, 12D). http://www.usatoday.com/life/2006-11-14-blogs-education_x.htm

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

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

The Scanning Process is Not Perfect! (includes someone's fingers!)

Digital Books
By Kim Rahn, March 7, 2007, Digital Textbook to Debut Next Year, The Korea Times

- Students will be able to interact with teachers regardless of time and space and study according to their ability through computers as the nation plans to adopt the digital textbook.
- Provides the multi-functionality of textbook, workbook, exercise book and dictionary.
- The digital textbook...can go beyond conventional paper textbooks by using such features as video clips, animation and virtual reality.

eBooks: Thinner, Crisper, and Cheaper
The Open Univ Malaysia
(Anon Kou, 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

Open University of Malaysia
Enrollment Growth!

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<tr>
<th>Year (2001 to 2005)</th>
<th>Enrollment Growth at the UOM</th>
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<td>2001</td>
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Blended Delivery: Mixing Modalities
Susan Lee, CLO, July 2007

Figure 3: Growth Index

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<th>Asynchronous e-learning</th>
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<tr>
<td>Synchronous e-learning</td>
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<td>Portal training</td>
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<td>Web-based training</td>
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<td>Classroom-based training</td>
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<tr>
<td>Other</td>
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</tbody>
</table>

1. eduCommons

2. Moodle

The Ten Forces that Flattened the World

3. Availability of Open Source and Free Software (e.g., Linux, Apache, Moodle)
The Ten Forces that Flattened the World

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

OOPS Open-source Opencourseware Prototype System
The Foundation of Fantasy office and Info

The Biggest OCW Localization Volunteer Group in the World
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

Lucifer Chu, Chairman and Janitor of OOPS, Taiwan

The Ten Forces that Flattened the World
5. Online Learning Object Repositories and Portals (shared content)

Free Government Resources!

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 550 a pop. So it is quite a success story.”
  http://ode.athabasca.ca/online_book/

Public Library of Science
Museum of Online Museums

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 12th 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 Ten Forces that Flattened the World
6. Learner Participation in Open Information Communities (e.g., Slashdot, Digg, Wikipedia, YouTube)

Slashdot (News for nerds, stuff that matters) http://slashdot.org/

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/

News in Digg
Make Videos Available for World (see dotSUB)


TECHNOLOGY

WIKIS

Wikis: Wikipedia and Wikibooks

Canada in Wikipedia

Wiktionary
Wiki Questions

1. Who regularly reads Wikipedia articles just for fun?
2. Who regularly reads Wikibooks?
3. Who seeks Wikipedia for content?
4. Who has edited or written new articles on Wikipedia or Wikibooks?
5. Who thinks it is ok for college students to cite from Wikipedia?

U.S. senator: It's time to ban Wikipedia in schools, libraries

By Preston Smith on Wed, 21/4/2007 - 7:09am

USA Today, June 7, 2007

http://uncyclopedia.org/wiki/Main_Page

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)
Skype says it is used by 136 million people worldwide

Skype for Language Learning

Online Mentoring
(1k More project in China; http://www.1kg.org/

- 1kg More (short for "1 kilogram more in your travel pack") is a non-official cause of charity crossing over travel.
- It runs behind the idea of travelers bringing 1kg of inexpensive educational materials in addition to their package to give away to someone that needs it along their journey, e.g. kids that cannot even afford a pencil rubber.
- 1. Passing - Prepare 1kg of books or stationaries for underprivileged kids you may meet in your journey;
2. Communicating - Talk to and play with kids and get to know them;
3. Sharing - Share your travels with people via 1kg forum and spread the words among friends and around.

1 KG Project (i.e., one kilogram more in your travel packet)
The Ten Forces that Flattened the World

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

Virtual Worlds/Virtual Reality/MMOG

9. Real-Time Mobility and Portability (e.g., iPhone, low cost wireless devices)
Singapore and Taipei (Intel Press Release, 2006)

- Singapore, the island city-state in Southeast Asia, is about to complete a major new public/private project that will see large chunks of the 270 square mile city provided with Wi-Fi access by the end of 2008. The entire city, indoors and out, is due to be covered by 2015.
- In the coldest capital in Canada, the city residents of Iqaluit (pop. 6,000) enjoy free wireless from one free hotspot (with two more due soon to cover the suburbs), while Taipei, Taiwan (pop. 2.6 million) has a few more—over 4,000 hotspots that provide coverage for 90 percent of the city.

Computers for Peace
By Grace Rubenstein
GLEF

$100 Laptop

The world needs a laptop: A revolution in a laptop
By Greg Norman
Sunday 13 August 2006, 18:49
Malaka Times 16:49:03 GMT

OLPC aims to turn the tide of urban poverty

OLPC in Nigerian 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.

Uruguay youngsters receive batch of OLPC XOs
Posted May 14th 2007 3:34PM by Darren Murphy
**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.

Teachers also do artistic work on their XO laptops, like this teacher's local scene.

Simple as it may seem, this graph is the result of a complex process: primary 6 together, made a census of themselves and of the whole school, and understood both population and mathematical graphing concepts.

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**The Age of Wireless**

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**Most Unwired Reports (not most wired)**

**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

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**The Ten Forces that Flattened the World**

1. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)
Podcast Questions
1. Who has listened to a podcast?
2. Who listens to a certain podcast on a regular basis?
3. Who has created a podcast?
4. Who has created a podcast?
5. Who thinks podcasting is simply more talking heads?

iPod's More Popular than Beer?

Entice Students with Technology Giveaways

Consumer's Guide to College Podcasts
(Daniel Coleman, Stanford, Chronicle of Higher Ed, June 4, 2007)
Student Podcast (in schools—kids have power!)

"Just the word 'podcast' scares a lot of teachers away," Ms. Schrock said. "There are a lot of misconceptions."

"All you need is a computer and a microphone that you can buy at Toys 'R' Us," Mr. Warnick said. "I listen to podcasts on my computer." (NY Times, Jan 25, 2006)

Podcast
Learning TRENDS by Elliott Masie - September 18, 2006.

Fingertip Knowledge Podcast & Transcript: One of my focus points these days is Fingertip Knowledge. You and I and most of our colleagues are increasingly using search engines, from Google to Corporate Intranets, to "walk" our way to the information or knowledge that we need.

Podcast (and Transcript) about the implications of Fingertip Knowledge and the Learning Field:
http://www.learning2006.com/university/
(Duration: 20 Minutes)
Learning with iPods
(Campus Technology, Dec, 2006)

Get Lectures from Stanford and Berkeley on iTunes

Language Learning
(ChinesePod—learn Mandarin)

JapanesePod, Arabic online, etc.

Jenny Zhu

Vlogging (Video Blogging)
e.g., Andy Calvin's Waste of Bandwidth

Developed by Dr. Tianwei Xie, Dept.of AAAS, California State University, Long Beach

Michael L. Wesch, Kansas State, The Machine is Using Us
Blogging Questions

1. Who has a blog? Any for a specific class?
2. Who regularly reads other people’s blogs?
3. Who assigns blogging tasks?
4. Who has created a video blog?
5. Who thinks it is an utter waste of time to blog?

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

Social Networking Software (Web 2.0)

Facebook (from 2 friends to 50 seemingly overnight)

Even a "Bonk" Group in Facebook

Recent Growth of Facebook and MySpace

Flat Schools and Flat Classroom Projects!!!
Combining The Web 2.0 (e.g., Second Life, Blogging, and Photo Posting)
Stephen Mandelbrot

Indexing Sounds in Cities with Google Maps

Sounds in Midwest

Cluster Maps (who is reading your blog or using your product); Blog of Will Richardson, famous K-12 blogger

Networks of Learning

Michael Orey's Learning Theories Book (who is reading it?)

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?
Computers for Peace; By Grace Rubenstein; GLEF, Interview with Nicholas Negroponte, MIT

- In an ideal world, what is your single greatest hope for this project?
- A three-step hope: World peace *through* the elimination of poverty *through* education *through* learning. Education is the goal; learning is the means. A lot of learning can happen without teaching. We're banking on that.

It's Over...

Poll: Ok, then, who wants more???
A. Yes
B. No
C. Not sure

The Learning is Flat!
The End (of Part I)!!!