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

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

UCLA Newsroom
Skeleton (Loftand, Albania)
June 15, 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

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 Ten Forces that Flattened the World

1. 11/9/89: Berlin Wall came down
2. 8/9/95: Netscape went public
3. Workflow Software (e.g., PayPal and eBay)
4. Open-Sourcing (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 fixing Toshiba laptops)
9. In-ourcing (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?
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 25, 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)

Map Mash-ups
(e.g., Shakespeare's Global Globe; Hepsted, June 13, 2008, Michael Bahr: GOOGLE EARTH ENVIRONMENT GUIDE TO THE BIG SOFTWARE FROM GOOGLE GIVES SCIENTISTS A NEW WORLD VIEW (ASIAN FLU, MOTIONS IN CITIES, VOLCANIC FLUSHES ICE MELTING)).

Read, Listen, etc. to online books (e.g., "An International Episode" by Henry James)
Global Text Project (free textbooks for those in less developed countries)
http://globaltext.org/

The Ten Forces that Flattened the World
2. Enormous E-Learning and Blended Learning

Growth of Online Learning in Secondary Schools
(Florida Virtual School; AP American History)

Total and Online Enrollment in Postsecondary Institutions
Fall 2002 through Fall 2006

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

'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

<table>
<thead>
<tr>
<th>Year</th>
<th>Students Enrolled In Online Classes</th>
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<tbody>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>% of Total</td>
</tr>
<tr>
<td>In At Least One Online</td>
<td>4,692</td>
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<tr>
<td>In A Majority Online</td>
<td>799</td>
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<tr>
<td>In All Online</td>
<td>207</td>
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<tr>
<td>None</td>
<td>21,641</td>
</tr>
<tr>
<td>Total Active Students</td>
<td>25,496</td>
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</tbody>
</table>

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

Community Growth
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)

Cape Town Open Education Declaration
December 2007
http://www.capetowndeclaration.org/

THE CAPE TOWN OPEN EDUCATION DECLARATION

OpenCourseWare Projects

New Ways to Find Lectures
National Repository for Online Courses (NROC) Commons

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

Post Courses in YouTube and iTunes (e.g., Berkeley)

The Ten Forces that Flattened the World
5. Online Learning Object Repositories and Portals (shared content)
Tracking Live Internet Thawing: A Colossal of an Idea

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 1,289 pounds. After being frozen whole for over 6 years, scientists at New Zealand's national museum will thaw the squid for further study.

The Kracken! A Sea Serpent! A Gigantic Squid!
(California Coast June 27, 2008)

The Complete Works of Charles Darwin


Referatory: MERLOT.org
Repository: Connexions (Rice University) http://cnx.rice.edu/

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


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)

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/item/77144692_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
**LibraryThing**

**The Ten Forces that Flattened the World**

7. Electronic Collaboration and Interaction (synchronous and asynchronous)

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**1kg More Project for Rural China**
(http://www.1kg.org/)

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**EPals has for-profit and nonprofit arms.**

Candace Pauchnick, standing, uses its tools in her class.
By STEVE LIND
Published: February 24, 2008
New York Times

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**Room to Read**
http://www.roomtoread.org/programs/schools.html

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**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)

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

Wireless in Africa

http://www.receiver.vodafone.com/mobile-learning-in-developing-countries


Pocket School (Latin America)

About Deep

Introduction
The age of the smartphone and the present at the Millennium School

The Age of Wireless

MOST UNWIRED SCHOOLS?
CNET and U.S. News and World Report gets the top 10 universities from 50 and around them which sponsors them to students and faculty

The Ten Forces that Flattened the World

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

Learning Towns are Popping up!
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!