Oops, Did You Mean to Share that?
Opensource, OpenCourseware, and the Learning Objects of Tomorrow
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Phases of Technology in Education
1. Technology to enhance learning/knowledge
2. Technology to extend learning/knowledge
3. Technology to transform learning/knowledge
4. Technology to share learning/knowledge

http://ella.slis.indiana.edu/~aenkim/iconping.html

Knowledge Sharing
(Fuji Xerox, p. 9)
"Knowledge sharing is the way (social) and means (technical) by which an individual, team, organization and/or community connects and communicates, to continually create, innovate, learn and act."

Poll #1: Should e-learning courses and material be shared?
- Yes
- No
- Not sure

Most are Scared to Share!!!
Why Share?


Figure 11. Reasons Why Respondents Posted to the WLH or MERLOT*

Technology for Sharing in 1980

Radio Shack TRS-80 Model III

- Introduced: July 1982
- Price: US $399 base model
- US $459 with 256, dual disk.
- CPU: 256 K x 8, 1.12 MHz
- Battery: 4V, 150 mah
- Ports: Cassette tape, expansion, serial
- Storage: 12 in disk, 16 x 10 text
- Dimensions: 5 1/4 internal 7 1/2 in floppy, 17 cm cassette @ 45.5 K baud
- Weight: 11 lb
- Price: $299

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: 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-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)

The Learning World has become Flat!

New World ORDER

The Learning World is Flat

The Ten Forces that Flattened the Learning World

1. Tools for Searching and Finding Information (e.g., Google, Yahoo!)
2. Rise in Demand for Online Learning
3. Open-Sourcing Learning: Sakai, Moodle, eduCommons
4. Collaboration (e.g., SharePoint, Groove, Word, Interwise, Breeze, Google Google Talk, Skype)
5. Learning Portability (Podcasting, Mobile technology)
6. Learner Empowerment and Individualization of Learning (blogs, Wikis, etc.)
7. Online Portals of Information
8. Online Learning Object Repositories (MERLOT, Connects, Caros, Juronz)
9. Open CourseWare (MIT OCW, Utah State, Johns Hopkins, Japan, CORE, OOPS)
10. Knowledge Brokers and Collectors
The Ten Forces that Flattened the World

1. Tools for Searching and Finding Information: (e.g., Google, Yahoo!)

Google and Other Search Engines
(Sergey Brin, Co-Founder)

Google Print Project

- Search the full text of books (and discover new ones).
- About Google Print - Information for Publishers - Google Home

The Ten Forces that Flattened the World

2. Rise in Demand for Online Learning

Peak Consulting, an educational consulting group, estimates:
- 1 million American high school students are currently taking Internet courses in 2004-05
- 571,000 in 2003
- 378,000 in 2002
- More students log on to learn, Boston.com, Peter Schworm, September 16, 2004.

Growth in Student Enrollments at KD
Even Shaq is taking courses online

2005 NBA Playoffs

Shaq joins University of Phoenix gr...
The Success of Open Source: A Subject for UC Berkeley Researcher
By Paula Murphy, TICE Assoc. Director, Dec 2004

"If you are going to try to scale production systems to non-friend, non-kinship groups, you have to have some sort of governance," explains Weber. "For example, I would not put my lecture notes on the web because I feel strangely about people I don’t know benefiting from my work without them giving anything in return.

Steven Weber, Professor of Political Science at UC Berkeley and author of The Success of Open Source (published by Harvard University Press),

"The trick for the open source projects is to find a way to create that reverse flow such that if I donate a piece of intellectual product to something that other people are going to use and modify, I want to somehow benefit from what they’re learning — that’s the key exchange. The trick, and what people are experimenting with, are different ways to structure that exchange so it works."

1. eduCommons

2. Sakai Project

3. Nicenet (http://nicenet.org/)

4. Nicenet
The Ten Forces that Flattened the World

4. Collaboration (e.g., SharePoint, Groove, Word, Interwise, Breeze)

Sharing in Virtual Teams (e.g., Groove, SharePoint)

Online Groups...

Google Talk

Skype
MSN Messenger

The Ten Forces that Flattened the World
5. Learning Portability (Podcasting, Mobile technology)

Audacity

Wireless Technology
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

Mobile Technology
Next hot trend for cell phones: Reading?
Mobile technology meets the need to read.

Podcasting
http://itunes.stanford.edu/

Sharing Music: Pod Casting Broadcasts
(Adam Curry; www.dailysourcecode.com)
Vodcasting

In the Midst of Budget Cutbacks, there are Technology Giveaways

The Ten Forces that Flattened the World

6. Learner Empowerment and Individualization of Learning (Blogs, Wikis, etc.)

Sharing Encyclopedias
(Wikipedia; Jimmy Wales, Founder)

Wikibooks

MindMapping Software

Sharing Ideas (e.g., Blogging)

Book Blogging!!!

Learning is On Demand

The Ten Forces that Flattened the World

7. Online Portals of Information

Sharing Syllabi (e.g., The World Lecture Hall)
Digital Libraries (LibraryShare)

The Ten Forces that Flattened the World
- Online Learning Object Repositories (MERLOT, Connexions, CAREO, Jorum) and ADL's SCORM Project

Reusable Content Objects

- "Learning Objects are small or large resources that can be used to provide a learning experience. These assets can be lessons, video clips, images, or even people. The Learning Objects can represent tiny "chunks" of knowledge, or they can be whole courses."  
  Claude Ostyn, Click2Learn

Principles of Learning Objects

Access: access instructional components from one location and deliver them to many other locations
Interoperability: use instructional components developed in one location with a different platform in another location
Reusability: incorporate instructional components into multiple applications
Durability: operate instructional components when base technology changes, without redesign or recode
Affordability: increase learning effectiveness significantly while reducing time and costs

1. MERLOT

1. MERLOT.org

Search MERLOT | Collections of High-Quality Learning Resources | MERLOT User Groups | MERLOT User-Created Collections | MERLOT Quick Start Guide | About MERLOT | Meet MERLOT | MERLOT Blog

The MERLOT Community: MERLOT is a community of people who use MERLOT as a tool to support their teaching in higher education, K-12 education, and non-formal learning environments; MERLOT is an open source project.
2. CAREO (Alberta, Canada)
(http://www.careo.org/)

Terry Anderson, Athabasca University
(October, 2005)

"I am afraid that CAREO is on life support, not being developed or really very active. Problem is that no single institution will support a tool for the commons and no champion larger organization has arisen to take it on. Since all the development work was done at U. of Calgary, they also some proprietary interest in the product that somewhat slows down external interest. I had hoped the Alberta government would pick it up but nothing yet."

3. Connexions (Rice University)
(http://cnx.rice.edu/)

http://cnx.rice.edu:8080/state
Sept 2005 had "14.4 million hits representing about 1 million page views by about 430,000 folks from 157 countries," growing at a rate of about 1 million hits per month.

Content Commons

- 2650 modules
- 110 courses (September 2005)
- multiple languages
- engineering, computer science, nanotech
- physics, statistics, math, history, music
- bio-diversity, botany, bio-info, IP
- BRIT, UNESCO, UN, Sigma Xi, ...
- from authors worldwide

Usage September 2005
- 14 million hits
- 120k new users
- 20k returning users from 150 countries

The Ten Forces that Flattened the World

9. Open CourseWare (MIT OCW, Utah State, Japan, CORE, OOPS)
MIT OpenCourseWare (OCW) Initiative
(http://ocw.mit.edu/index.html)

Per David Wiley, Utah State University
(October 2005)

"The first thing you should know is that there are many more schools than just MIT doing OCW now, including Johns Hopkins (ocw.jhsp.edu), Tufts (ocw.tufts.edu), Utah State University (ocw.usu.edu), and Foothill-DeAnza in California (sophia.fhda.edu).

Per David Wiley, Utah State University
(October 2005)

"When you consider the schools participating in consortia in South America, China, Japan, France, Utah, and other regions, the number of universities involved with opencourseware in some manner reaches well into the hundreds. As of today there are currently 45 publicly accessible OCWs in the world in a number of languages."

OCW Projects Around the World

The institutions below have publicly committed to the open publication of their materials in OpenCourseWare initiatives, and are devoting resources to support these projects.

United States
- MIT OpenCourseWare
- Carleton College Open Learning Initiative
- Utah State
- Johns Hopkins OpenCourseWare Project

Japan

Visit the portal page for the following Japanese universities: OCW projects:
- Keio University
- Kyoto University
- Tokyo Institute of Technology
- Osaka University
- University of Tokyo
- Waseda University

Johns Hopkins OpenCourseWare Project

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14
**JORUM Overview**

- "JORUM is a JISC-funded collaborative venture in UK Higher and Further Education to collect and share learning and teaching materials, allowing their reuse and repurposing, and standing as a national statement of the importance of creating interoperable, sustainable materials."

**Service in Development**

- **JORUM Contributor** - allows colleges and universities to share learning and teaching materials with one another. This will launch before JORUM User to build up content and will begin as soon as possible.
- **JORUM User** - provides access to the materials themselves.

Other areas of work: R&D - A new research and development strand will run in parallel with the JORUM service.

**Jurom Workflow**

- **Details of the JORUM Workflow**
  - Stages in workflow
  - Processes
  - Published after contribute stage

**Jurom Workflow in use**

- Resources at different stages
  - [Image of workflow stages]

**Jurom Metadata for discovery**

- Metadata editor - manual entries
  - Automatic entries

**USU OpenCourseWare Project**

- [Image of OpenCourseWare project]

- [Caption: Utah State University]

- Course: "Sprinklers & Trickle Irrigation: Principles & Practice"
John Dehlin
Utah State University

"If you think about the tangible, practical, human value some of these courses could have in the world, particularly the 3rd world...it can get quite exciting (to me at least)."

Shelley Henson, Center for Open and Sustainable Learning (COSL), Utah State University

CORE (China Open Resources for Education), OCW Mirror Site, China

What's their Beliefs?
(Chu, October 26, 2005)

- Collective Minds is better than a single genius translator.
- Perfect Translation doesn't exist.
- 857 Volunteer translators
  1,033 courses adopted
  320 courses near completion
  60 courses already finished
The Ten Forces that Flattened the World

10. Knowledge Brokers

What can you do in a flat learning world?

- Consider Copyright Options
- Publish in Open Source Journals
- Attend Open Source Conferences

Creative Commons
Sherpa--UK

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."


Open Source Journal

Conference at Utah State, Sept 2005
Summit in Arizona, December, 2004

UNESCO’s International Institute for Educational Planning hosted a forum on open content

Comparison of Sharing Sites:
MERLOT, Connexions, CAREO, OCW, CORE, OOPS
Grace Lin, Univ of Houston, 2005

- Goals: Link people, share knowledge, access resources, searchable database
- Funding: fully, partial, none
- Audience: higher education, students, teachers
- Content contributors: faculty, volunteers
Comparison of Sharing Sites:
MERLOT, Connexions, CAREO, OCW, CORE, OOPS
Grace Lin, Univ of Houston, 2005

- Role in knowledge sharing: producers, consumers
- Distinguishing features: creativity, structure, faculty community, rigorous review process
- (Different Affiliations, accomplishments, license, language(s), mission, etc.)

Sharing Questions (today)

- For what purpose will people share?
- Who will continue to maintain or update such sites?
- Will these "share" sites bridge the digital divide?
- 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?

Sharing Questions (future)

- How will such learning objects of today be viewed in 100 or 200 years?
- What new technologies will emerge and be used for knowledge sharing?
- Will online sharing become expected of all faculty members around the planet?
- If so, how will that change the face of higher education?

What about the corporate world?

- How can content objects be shared between corporate and universities?
- How can resources like OOPS, MERLOT, etc. better support on demand learning?
- What collaborations are possible between corporate world and OOPS, OCW, MERLOT, etc.?
- Are there better funding models?

Poll #2: So who is still too scared to share???

Ok... it is the end of part I!!!