

# Services to Link OpenCourseWare Repositories and the NSDL

Brandon Muramatsu

# Outline

- OpenCourseWare Repositories
- Proposed Work (NSDL)
- MOCSL Tools
- Future Steps

Or something completely different...

# Open Enables Quite A Bit!

# OpenCourseWare (OCW) Repositories

- OpenCourseWare started by MIT in 2002
- “Publication” of MIT providing access to course materials
- Key Aspects
  - Does not grant degrees
  - Does not provide access to faculty\*
  - Course materials (content varies in depth and breadth)
  - **Licensed “openly”** (aka “open content”), using a Creative Commons Attribution-NonCommercial-ShareAlike\* license
- 1550 courses published (of 1800 anticipated)
- MIT OCW, ~640,000 monthly visits (09/2006)

# OCW Movement

- Movement expands outside of MIT
  - Tufts, Johns Hopkins School of Public Health, Utah State University
  - MIT OCW Translation Partners in Taiwan, China, Universia (in Latin America and Europe)
  - Notre Dame, British Open University, Open University of the Netherlands
- OCW Consortium (launched 2006)
  - Over 100 members
  - Over 3,000 courses published
  - [www.ocwconsortium.org](http://www.ocwconsortium.org)
- Consortium-wide, ~810,000 monthly visits (est., 09/ 2006)

# eduCommons

- OpenCourseWare Management System developed at Utah State
  - Content management and publication
  - Platform for services
- Adopters
  - In production: Notre Dame, OUNL, Utah State, Wheelock
  - Pilots underway: 10-20\*
  - Planned adoptions: Kyoto University (and Japan OCW Consortium), CORE (China), Universia
- Funded by the Hewlett Foundation

<http://cosl.usu.edu/projects/educommons/>

# Relevant Challenges and Opportunities

- Wide range of content
    - Few courses media rich
    - Fewer interactivity rich
  - A number of universities are adopting eduCommons
  - Most universities focused on content publication
- NSDL, Pathways and Learning Object Repositories have both
  - Common platform for shared solutions
  - Utah State is the “tools” and services provider to the OCW Consortium

## Proposed Work (NSDL)

- Improve discoverability of courses in OCW repositories
  - Federated search of OCW repositories
  - Portal to OCW repositories
  - Harvest metadata of OCW repositories
- Improve user experience by providing a combination of rich content and context
  - Find NSDL resources from OCW repositories
  - Use OCW courses to provide context for NSDL content



# OCW Metadata, Search and Portal

- “Web 2.0” approach
- Metadata
  - RSS feeds of Dublin Core metadata forthcoming for all OCW Consortium members (MIT OCW, all eduCommons adopters already doing this)
  - Richer metadata for eduCommons adopters
  - Low barrier to entry
  - Enables Utah State to build tools to enable federated search and OAI-PMH for consortium members

# OCW Metadata, Search and Portal (cont.)

Select **OR** Type →

**Tag Browser**

management (110)	cmu (1)	video (3)
materials (37)	foothill (1)	
<b>mathematics (72)</b>	<b>mit (70)</b>	
mechanical (68)	video (4)	
media (38)		
medicine (7)		
mit (1447)		
music (14)		
nuclear (30)		
nutrition (1)		
ocean (22)		
philosophy (39)		
physics (52)		

**OpenCourseWare Courses**

Description	Tags
<a href="#">Wavelets, Filter Banks and Applications, Spring 2003</a>	mit mathematics
<a href="#">Wave Propagation, Fall 2004</a>	mit mathematics
<a href="#">Topics in Theoretical Computer Science : Internet Research Problems, Spring 2002</a>	mit mathematics
<a href="#">Topics in Combinatorial Optimization, Spring 2004</a>	mit mathematics
<a href="#">Theory of Numbers, Spring 2003</a>	mit mathematics

<http://www.opencontent.org/ocwfinder/>

**And then we took a slight detour...**

# MOCSL Tools

- Learner support for open content
- Based on folksonomies and relational data
- “Web 2.0”
- Funded by the Mellon Foundation

<http://cosl.usu.edu/projects/mocsl/>

MOCSL...

...the underlying infrastructure  
for our NSDL work

## MOCSL Tools (cont.)

- RelStore – store
- OER Finder- find
- Ozmozr.com – find, aggregate and share
- Send2Wiki.com – create derivative works
- Annorate – annotate and rate
- MakeaPath.com – sequence
- Scrumdidilyumptio.us – relate

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# Brief Demo

- Didily – relate
  - Describes relations between websites, uses folksonomic descriptions, stored in RelStore  
<http://scrumdidilyumptio.us/>
- OzmoZR – find, aggregate, share
  - Build online identity, share information, social filtering  
<http://ozmoZR.com/>
- Send2Wiki – create, share  
<http://send2wiki.com/>



## Future Steps: Metadata, Search and Portals

- Update OCW Finder→OER Finder
- Develop federated search across eduCommons repositories and RSS-harvested metadata
- Build and expose web services
- Setup OAI Provider for OCW Metadata (probably)

## Future Steps: Content and Context

- Collect metadata on courses and learning objects
- Sequence and store data in MOCSL Tools
- Build recommender system (LO→Course and Course→LO)
- Build and expose web services
- Test at eduCommons sites
- Plan to test at MERLOT, NSDL

# Pedagogical Services

- Data feed and relationships (RSS)
  - Input and output
- Recommender Services to enable OCW $\leftrightarrow$ NSDL relationships
  - Work to begin in April

# Questions?

Brandon Muramatsu

[Brandon.Muramatsu@usu.edu](mailto:Brandon.Muramatsu@usu.edu)

# Something Completely Different

- How do you get scale?
- How do you get relevant content/context at the right place at the right time?
- How do you expose current content/context/relationships outside of initial deployment?

MOCSL

