OER Interoperability Sprint Outcomes: Linking OER Providers

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Outline

• Introduction
  – Background, challenges, definitions
  – Goals, philosophy

• OER Interoperability Sprint
  – Participants, activities

• Projects

• Outcomes
Center for Open and Sustainable Learning (COSL)

• Center for Open and Sustainable Learning
  – Supported by the William and Flora Hewlett Foundation
    • Andrew W. Mellon Foundation (Folksemantic)
    • U.S. National Science Foundation (OER Recommender)
  – “Center” with capacity to develop tools and services to support open educational resources
  – Established at Utah State University in December 2005
  – Founder Dr. David Wiley (learning objects, open content)
Challenges

• Good intentions, life interrupts
  – Meet colleagues at conferences, meetings
  – Discuss interesting projects
  – Go home, hard to keep momentum
  – What’s the business case?

• Individual projects
  – Individual goals, activities
  – Many people working on similar projects/activities, but not interconnected
Challenges (cont.)

• Technology is easy, social stuff is more challenging
  – Technology and standards/specifications are the easy part, getting people to work together and collaborate is more challenging
Challenges (cont.)

• Standards and specifications
  – Can be good
  – Sometimes large, overly ambitious, overwhelming
  – Sometimes difficult to implement
  – Sometimes unclear why an organization should implement them
  – Unclear return on investment, long payoffs versus short term investment
Definitions

• Open Educational Resources
  – What are they?: “Open educational resources are educational materials and resources offered freely and openly for anyone to use and under some licenses to re-mix, improve and redistribute.” (Wikipedia)
  – Term developed by UNESCO in 2002
  – “Movement”: Individuals and organizations worldwide working alone and together to further the concept of open access to education (teaching, learning, materials)
Definitions (cont.)

• Sprint
  – Concept/process from open source community
  – Focused development by programmers who don’t normally work together, or work on the same projects
  – Typically informal and little structure (usually lots of background organization)
  – Various shapes, sizes, activities
Goals

• Improve interoperability between open educational resources projects
• Prototype implementations between projects

“Working code trumps all theory”
– Philip Dodds
Ultimate Goal—What are we really trying to do?

• Improve end-user experience
  – Educators, students, world-at-large
  – Increase access and opportunity afforded by education
  – Prevent “Unsatisfied User Syndrome” as described by Fabrizio Cardinali—it’s not ok!

• …by…
  – Getting projects to work together to extend access to OERs/content
  – Interlinking content, projects, services
Philosophy

• Working code is better than talk
• Simple, simple, simple
• Small focused projects
• Meet immediate needs/interest of developers and users
December 2007 OER Interoperability Meeting

• Goals:
  – Set stage to enable collaboration
  – Get “buy-in”/agreement on important issues
  – Help leadership understand value

• Participants
  – Senior leadership from OER and related repositories/collections
  – Primarily Hewlett Foundation OER Grantees
OER Interoperability Sprint :: February 2008

- Held in February 2008, at COSL
  - Operations staff & programmers from 9 organizations
  - 22 participants
- Built on meeting in December 2007
  - Executive directors and directors of technology
  - Discussed bigger “issues” regarding interoperability
- Step in journey, capacity-building
## OER Interoperability Sprint Participants

<table>
<thead>
<tr>
<th>Organization</th>
<th>Product/Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSL</td>
<td>OER Recommender, MakeAPath</td>
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<tr>
<td>Connexions</td>
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<tr>
<td>Creative Commons</td>
<td>ccLearn Search</td>
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<tr>
<td>enPraxis</td>
<td>eduCommons OCW software</td>
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<tr>
<td>ISKME</td>
<td>OER Commons</td>
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<tr>
<td>MIT OEIT*</td>
<td>OKI</td>
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<tr>
<td>Open University UK</td>
<td>OpenLearn</td>
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<tr>
<td>OpenCourseWare Consortium</td>
<td>Blog aggregator and Search</td>
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<tr>
<td>Open Learning Exchange*</td>
<td>Software for OLPC</td>
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</tbody>
</table>
OER Recommender

• Content-based recommender service
  – www.oerrecommender.org
• Web service to interlink content repositories
• Links learning objects and courses
• Easy to use
  – 1-line Javascript (or XML)
  – Greasemonkey script
OER Recommender Contents

- **90,000 Resources**
  - OER and NSDL Collections

- **Multilingual**
  - Deutsch (293 records)
  - English (71175 records)
  - Español (14890 records)
  - Français (1824 records)
  - Nederlands (629 records)
  - Русский язык (34 records)
  - 中文 (34 records)
  - 日本語 (44 records)
OER Interoperability Sprint @ OpeniWorld Europe 2008

OER Recommender

Makes it easy for open education resource providers to provide links to related resources

Search

Deutsch | English | Español | Français | Nederlands | Русский язык | 中文 | 日本語

OCW Resource 1

OCW Resource 2

NSDL Resource 1

NSDL Resource 2

OER Resource

Demo | Collections | Developers

C( )SL Learning is expanding.

12/29/13 :: 17
5.13 Organic Chemistry II

Fall 2003

Course Highlights
This course includes a full set of lecture notes and exams with solutions.

Course Description
This intermediate organic chemistry course focuses on the methods used to identify the structure of organic molecules, advanced principles of organic stereochemistry, organic reaction mechanisms, and methods used for the synthesis of organic compounds. Additional special topics include illustrating the role of organic chemistry in biology, medicine, and industry.
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OER Recommender - Related Resources

Solar System Fluff (comPADRE) (03 Dec 2007) relevance: 0.23
Astronomy notes is an educational resource for introductory astronomy classes for undergraduates. This section discusses smaller planetary objects, such as asteroids, meteorites, and comets, as well as the formation of...
http://www.astronomynotes.com/solfluff/s1.htm - Related resources

Explore and Discover Observing (HOU) (05 Nov 2006) relevance: 0.09 - Metadata
Find an Asteroid, Comet or Other Moving Solar System Object. Follow the motions of known solar system objects. Search to discover new ones. There are countless asteroids and comets orbiting...
http://sunra.bl.gov/%7Evhvhoette/Explorations/edo - Related resources

Ask an Astronomer for Kids (free.ed.gov) (18 Oct 2007) relevance: 0.09 - Metadata
provides answers and photos for 200 common questions about astronomy and objects in space. Topics include planets, stars, the solar system, comets, asteroids, galaxies, and the night sky.
http://coolcosmos.ipac.caltech.edu/cosmic_kids/AskKids/ - Related resources

Solar System (free.ed.gov) (18 Oct 2007) relevance: 0.07 - Metadata
examines the solar system and NASA explorations in it. Learn about how the solar system formed, what we know about Mars, and the likelihood of earth colliding with an asteroid...
http://science.hq.nasa.gov/solar_system/ - Related resources

NASA Planetary Photojournal (SERC) (14 Nov 2006) relevance: 0.06 - Metadata
At this site, NASA’s Jet Propulsion Laboratory provides images of the Sun. Each image contains a description and press release and some contain animations. Images include Earth, the solar system...
http://photojournal.jpl.nasa.gov/ - Related resources

The Astronomy Center (free.ed.gov) (18 Oct 2007) relevance: 0.06 - Metadata
is a collection of Astronomy 101 reviewed digital resources for teachers and students. Topics include asteroids and comets, astrobiology, big bang theory, black holes and pulsars, cosmology, dark energy, dark...
http://www.astronomycenter.com/ - Related resources
Integrating OER Recommender at OER Commons

- OER Commons is a portal to OERs
- www.oercommons.org
- OER Recommender
  - Enables interlinking (via 3rd party provided service)
  - Extends OER Commons to other materials not in its catalog
  - First deployed instance of integration from Sprint
Integrating OER Recommender at OpenLearn

- Work still progressing
- Works similarly to OER Commons
- COSL adding features requested by OpenLearn
  - Excludes OpenLearn resources from recommendations (they already cross-link their resources)
OER Interoperability Sprint @ OpeniWorld Europe 2008

Find Open Educational Resources on other sites

Home ➤ Local ➤ E500_11 ➤ Find OERs

Search other Open CourseWare sites

Keyword: Go

Recommendations from other Open CourseWare sites

Global Warming Kid's Site
Global Warming Facts and Our Future
Climate Models & Predictions - T. A. Friel

Learning is expanding.
Why does this work? -> What can my work do for others?

• Service builds upon work of others
• Aggregate metadata from collection providers
  – RSS and OAI-PMH
  – Dublin Core and IEEE LOM Metadata
  – Capacity provided by NSDL and individual collections
  – Sharing is good, and enables good things
• Designed to be integrated/used by others
  – Service is significantly improved with more use
Make-A-Path

- Bookmarking service to create a pathway (sequence) between resources
- Begins to expose tacit knowledge (Kumar Keynote)
- www.makeapath.com
Integrating MakeAPath at OpenLearn

Related Units
If you are interested in this unit you may also be interested in:

- **Open University links**
- An OU course on this topic
- Study this topic at the OU
- **User contributed pathways**
- Make a pathway
- View pathways
- View my pathways
- View all OpenLearn pathways
- **Other Open CourseWare sites**
- Search
- **Other Openlearners studied**
- these units...
Outcomes

• Working code
  – Successful prototypes of interoperability

• Commitment to deploy prototypes to production websites

• Developer community
  – Increasingly more comfortable working together

• Small steps…
Future OER Interoperability Sprints

- August 2008? and January/February 2009
- We welcome your participation
- You provide travel support, we provide lodging and meals during the event
- Come with projects in mind, specific work with other participants
OER Interoperability Sprint @ OpeniWorld Europe 2008

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