Linking NSDL and OpenCourseWare Repositories

Simple Services and Tools to Extend the Reach of NSDL Collections and Pathways at oerrecommender.org

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The Need & Assumptions

- NSDL Collections and Pathways have a wealth of resources, OpenCourseWares also have a wealth of resources
  - OpenCourseWares can provide context to NSDL resources
  - NSDL resources can enrich OpenCourseWare course materials

Assumptions:
- Design and implementation should be simple and clean
- NSDL Collections and Pathways and OpenCourseWares should be able to easily to integrate the service into their site
- End users should be able to access recommendations even if the collection does not directly participate

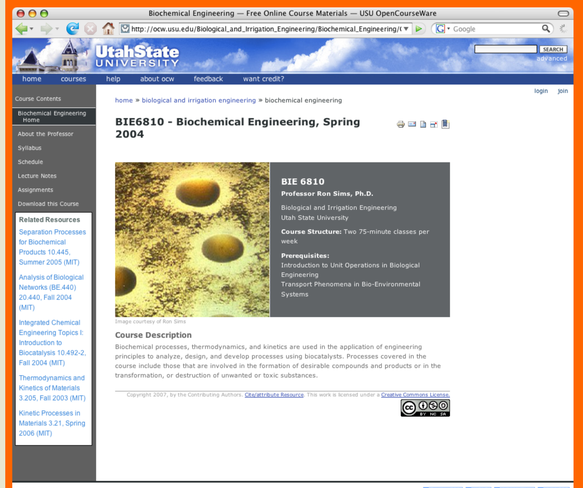
The Solution

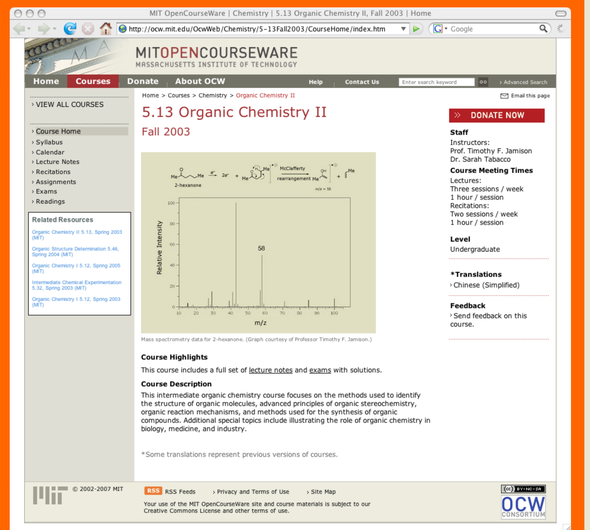
- "Harvest" metadata from NSDL Collections & Pathways (via NSDL Data Repository) and OpenCourseWares (via RSS)
- Create a simple recommender system and process metadata (titles, descriptions, tags) to link resources based on URL
- Display recommendations via Greasemonkey script (Firefox browser plug-in) or XML

Future Work

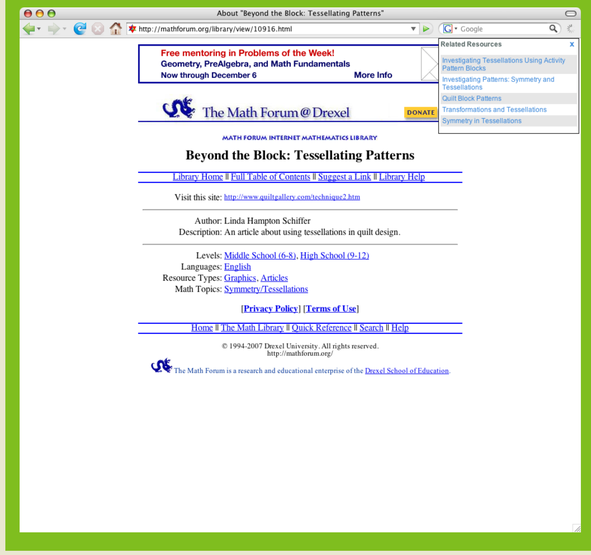
- Extend prototype to relevant NSDL Collections and Pathways and OpenCourseWares
  - Collaborate with projects for direct integration
  - Integrate into eduCommons as Plone Product (infrastructure for many OpenCourseWares)
- Improve recommendations (e.g., use full resource for recommendation, account for user behavior and feedback loops)
- Improve automation for including new NSDL and OpenCourseWare data sources and optimize operations

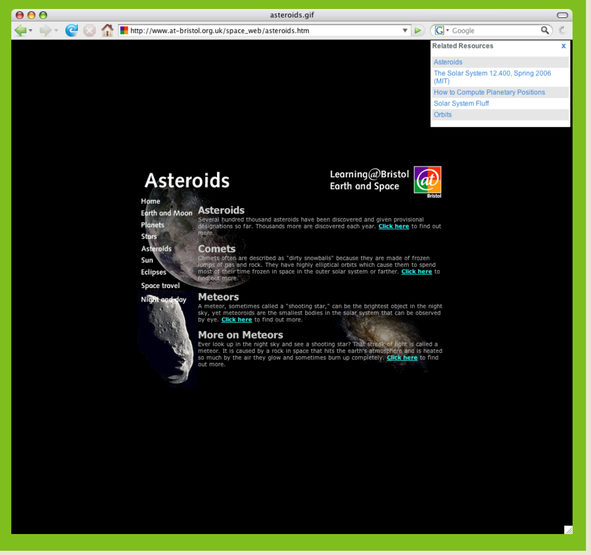
Sample: OpenCourseWares





Sample: NSDL Collections & Pathways





Prototype recommender services available for: Ariadne, comPadre, Gender and Science Digital Library, Applied Math and Science Education Repository, Journal of Chemical Education Digital Library, Johns Hopkins School of Public Health OpenCourseWare, Open University OpenLearn, Materials Sciences Digital Library, Math Forum Internet Mathematics Library, Microbial Life Educational Resources, MIT OpenCourseWare, NEEDS, Notre Dame OpenCourseWare, TeachEngineering Digital Collection, Teachers Domain, Computational Science Education Reference Desk, Utah State University OpenCourseWare

For additional details see: http://oerrecommender.org/ and http://www.joelduffin.com/blog/2007/08/23/oer-recommender-released/

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