MERLOT
Federated Search

Martin Koning Bastiaan, Sam Shamseldin, and Alyssa Lalanne
Why do it?

- Original Problem: Hard to find and evaluate learning materials
- Emergent Problem: Number of collections/repositories/communities
- Various ways of addressing the emergent problem, we choose federated search over harvesting
What is Federated Search?

- Search a number of collections at once
- two parts: services and clients
- services expose partner resources
- clients connect to partner resources
- federated search: cross collection client
- http://fedsearch.merlot.org
Federated Search Collections

- Current Partners: MERLOT, EdNA, SMETE
- Additional Partners Needed
  - General Collections
  - Discipline Specific Collections
What is a Web Service?

- A web service is defined by the W3C as: a software application identified by a URI (IETF RFC 2396), whose interfaces and binding are capable of being defined, described and discovered by XML artifacts and supports direct interactions with other software applications using XML based messages via Internet based protocols.

- SOAP XML message format for service request and response

- WSDL XML format of service discovery
How did we Implement?

• Model View Controller
  • Model data
  • View presentation
  • Controller arbitrates between the model and view

• Federated Search Architecture three parts: initiate searching, collect results, transform data into uniform format.

MERLOT
Federated Search Architecture

- Proxies
- Service dispatch mechanism
- Result handlers
- User interface customization
- Future requirements
Federated Search Community

• Issues that we cannot or should not try to solve individually:
  • search syntax, results requirements
  • sharing knowledge and solutions

• Community charter: develop simple standards for searching multiple collections and a federated search framework as an implementation of those standards.