

MERLOT

Federated Search



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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.

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.