OCLC Grid Services

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OCLC Research

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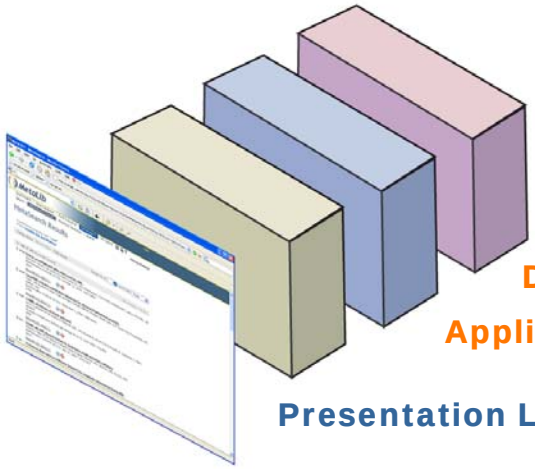
Outline

- **Brief Introduction to APIs and Web Services**
- **OCLC Grid Services**
- **WorldCat Search API**
- **OCLC Developers' Network**

Typical Application

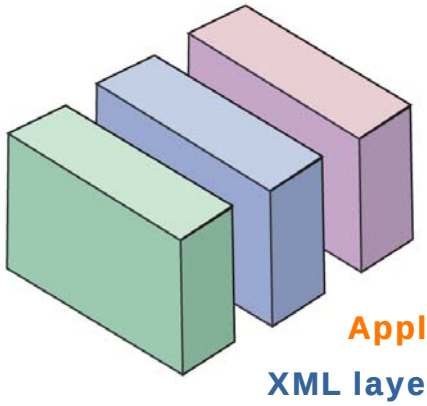


Data Layer

Application Layer

Presentation Layer

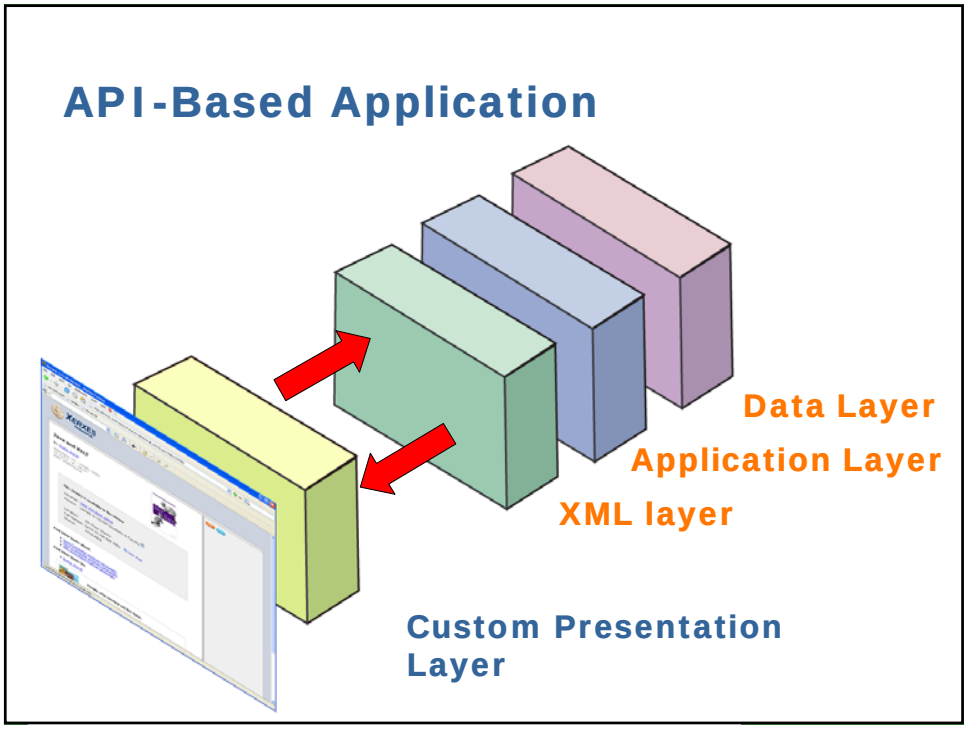
API-based Application

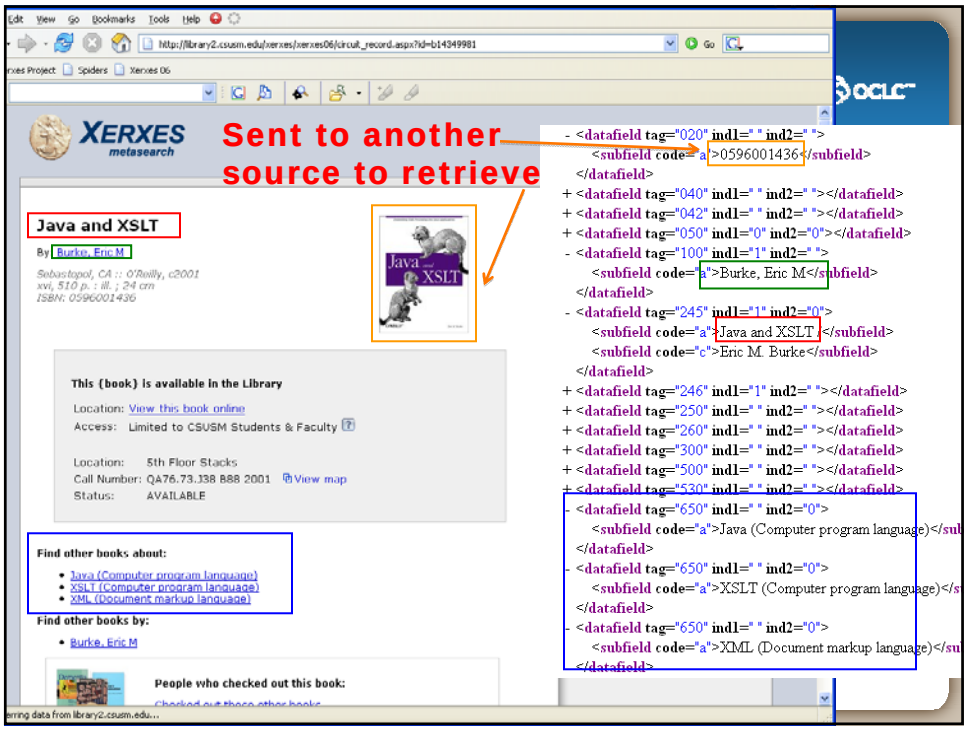


Data Layer

Application Layer

XML layer


API-Based Application
Data Layer
Application Layer
XML layer
Custom Presentation Layer


XERXES metasearch
Sent to another source to retrieve
Java and XSLT
By Burke, Eric M
Sebastopol, CA :: O'Reilly, c2001
xvi, 510 p. : ill. ; 24 cm
ISBN: 0596001436
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Web Services

- Machine-to-machine protocol for sharing data and services
- Officially, a somewhat standards-heavy framework that includes aspects not commonly used (e.g., WSDL, UDDI, etc.)
- In a nutshell:
  1. Send a request as a set of parameters in a URL: http://worldcat.org/webservices/catalog/search/opensearch?q=civil%20war&wskey=[key]
  2. Get back an XML document

OCLC Grid Services

- Not grid *computing*, grid *services*
- Web Services based
- Exposes data (e.g., MARC records) and services (e.g., find related works) in machine-readable form

Why OCLC Grid Services?

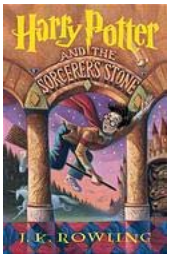
- Gain internal operational efficiencies
- Provide added value to member libraries
- Develop community to advise us on external needs and priorities

OCLC Grid Services

- Examples of Grid Services:
  - Identifier Services (e.g., xISBN, xISSN)
  - Registry Services (e.g., Institution Registry)
  - Authentication Services (i.e., EZProxy)
  - WorldCat Search API
  - Experimental Services (e.g., Terminologies, often coming out of OCLC Research)
- Support Service: Developers' Network

xISBN

- Find all related editions of a book or serial
- Easily incorporated into library catalogs, Web sites, and other library applications

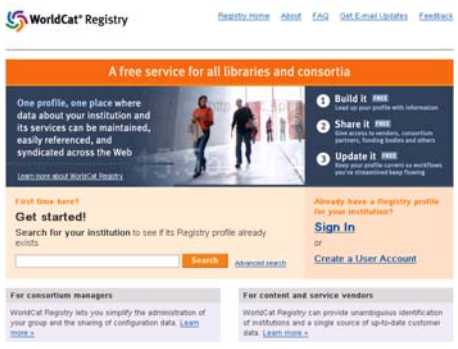


100+ ISBNs for *Sorcerers Stone*

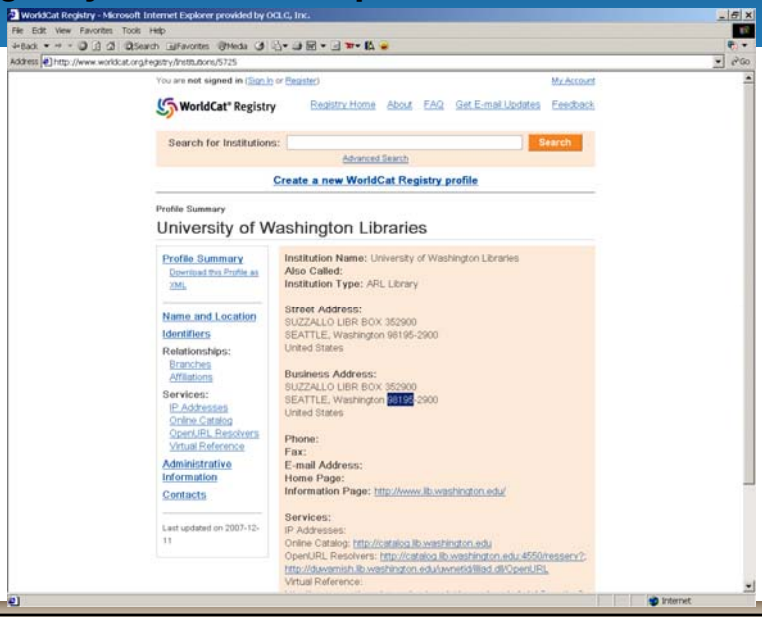
32 English (US and UK)
9 Spanish
3 Russian, German, Finnish , Latin
2 Chinese, Czech, French, Korean, Norwegian, Persian, Polish, Portuguese, Romanian, Turkish, Welsh,
1 Afrikaans, Albanian, Armenian, Basque, Bengali, Georgian, Galician, Gaelic, Ancient Greek, Greek, Gujarati, Hindi, Hungarian, Icelandic, Italian, Japanese, Latvian, Lithuanian, Malayalam, Sherpa, Slovenian, Swedish, Thai, Ukranian, Urdu
16 Audio
59 Book

WorldCat Registry
www.worldcat.org/registry/institutions

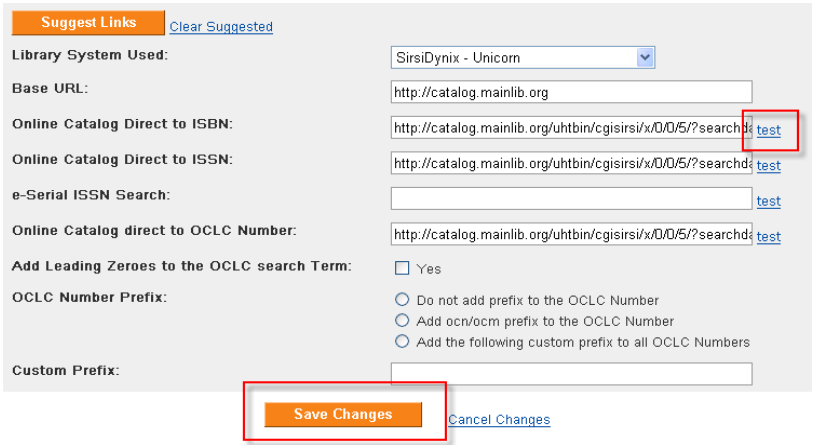
- A global directory of libraries, their locations, contacts, and the services they provide
- Free for all libraries to maintain and share with partners
- Pre-populated with data we already have, augmented by libraries and partners
- Centralized data essential for delivering content and services more efficiently on the Web

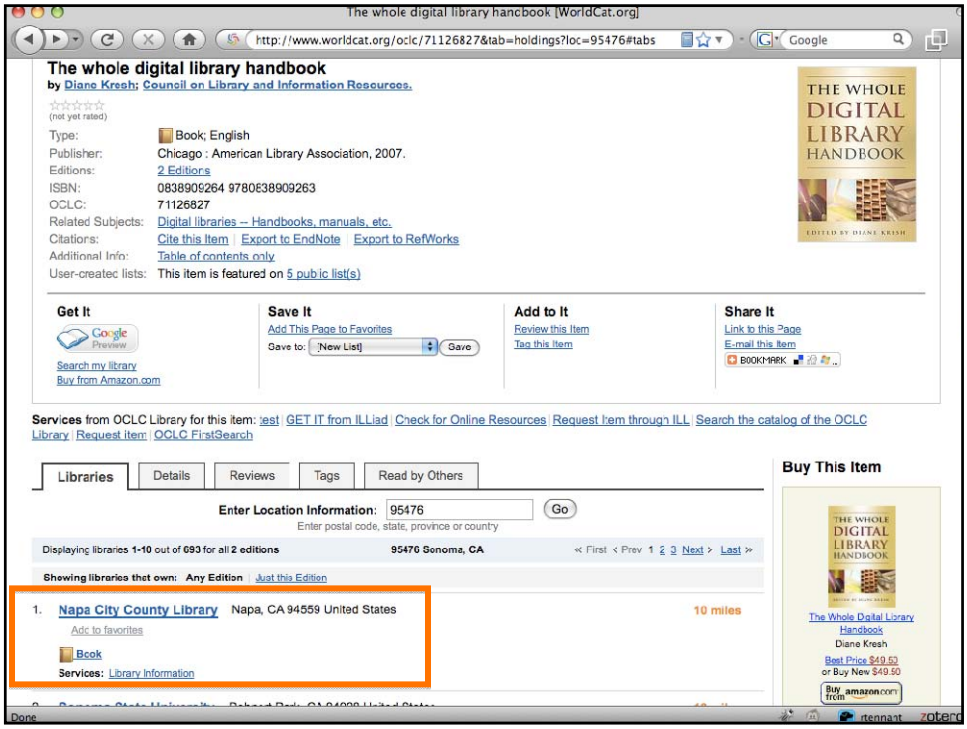


Registry Profile Example



Registry Deep Links

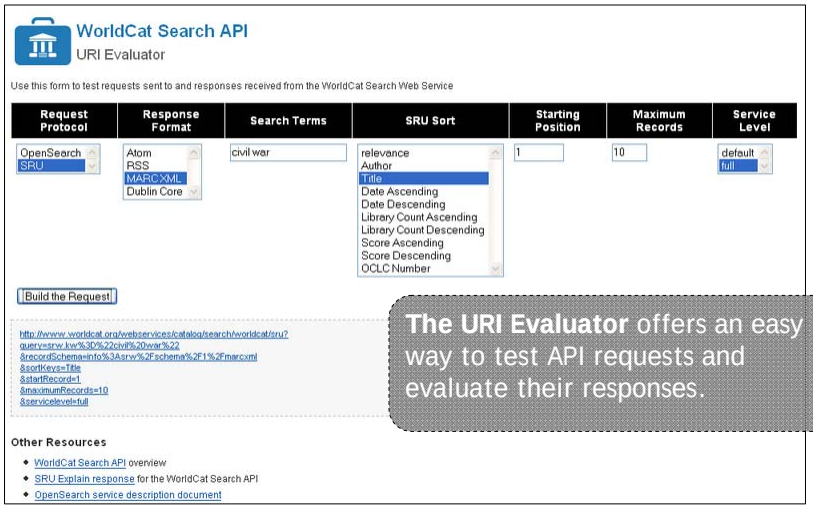




The WorldCat Search API

- Searches with familiar protocols: OpenSearch and SRU
- Returns results in XML: RSS, Atom, MARC21 XML, Dublin Core
- Sorts library locations geographically (using a zip code, an IP address that is associated with a location, or a country)
- Can reformat records as standard citations … APA, Chicago, Harvard, MLA, and Turabian

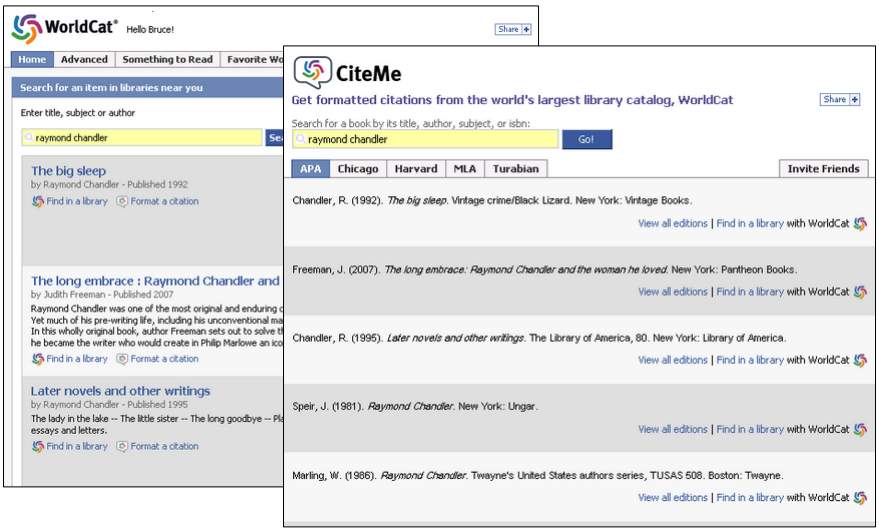
Test Requests and Responses



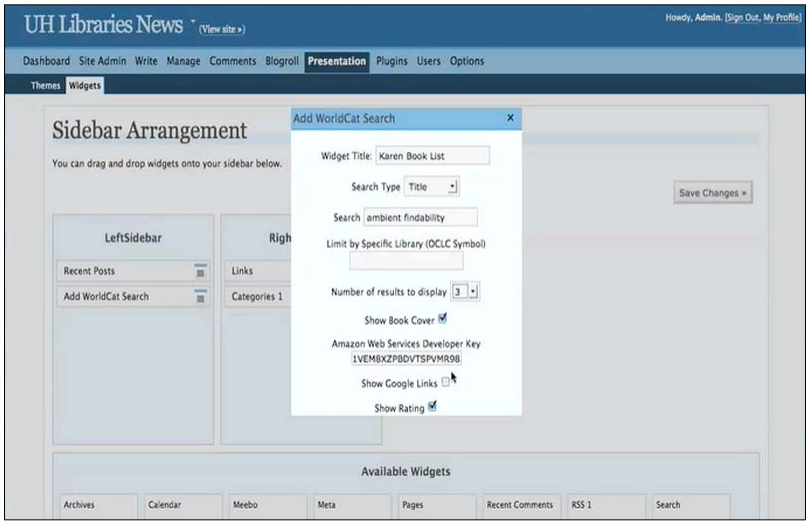
The URI Evaluator offers an easy way to test API requests and evaluate their responses.

Demo: include WorldCat.org book links in a web site sidebar

WorldCat Search API and Facebook



Karen Coombs' WordPress Widget



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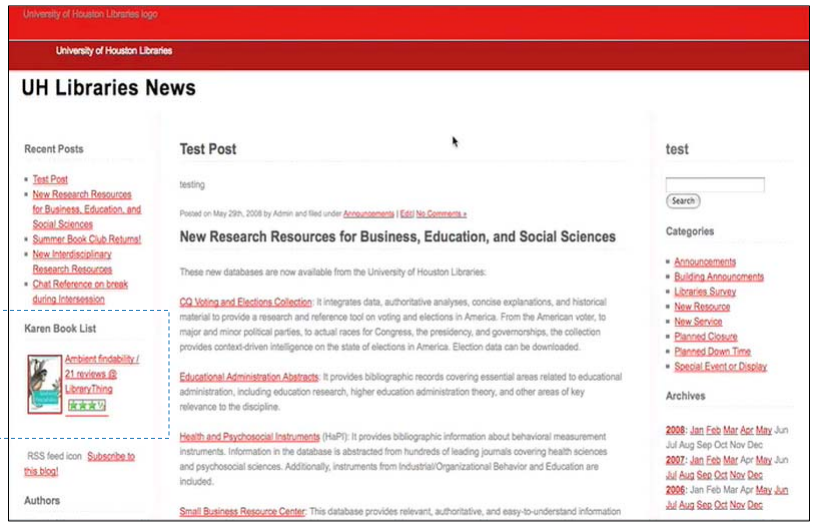

Developers' Network

- **Documentation (wiki)**
- **Communication (blog, discussion list)**
- **Infrastructure for collaboration (wiki, code repository)**
- **Web services pilots**
- **Sponsorship of events (e.g., Hackathon)**

http://worldcat.org/devnet

WorldCat Hackathon, New York Public Library

Main Page – WorldCat Developers' Network
http://worldcat.org/devnet/wiki/Main_Page
WorldCat Developer's Network
http://worldcat.org/devnet/
Learn more about OCLC Grid Services

Future Plans

- Hosted EZproxy Pilot
- Updates to WorldCat API & xID services
- Data Services Bundle (validation, terminologies, crosswalks)
- Additional Hackathons: Europe (Spring?), West Coast (Fall?)

Stay tuned to Developers' Network for details…

Essential Addresses

OCLC Grid Services and Developers' Network:

http://worldcat.org/devnet/

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