

A "lofiAPI": Using open source applications and simple XML to build a library web service

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A quick look ahead...

- Discussion of the benefits of web services for libraries
- Demo and walkthrough of the code that makes it happen



Photo by [Phil Gyford](#)

Provide Web Services?

- You have a service that benefits your users best if they can get to their data from outside the application
- You want others to use your data store in their applications

Demos and Downloads

Demo: A "lofiAPI" for Library Data

<http://www.lib.montana.edu/%7Ejason/files/api/lofi/>

Download: A "lofiAPI" for Library Data

<http://www.lib.montana.edu/%7Ejason/files/api-lofi.zip>

Available Web Services

- Google
- Yahoo!
- Amazon
- eBay
- Flickr
- del.icio.us
- Google App Engine <http://code.google.com/appengine/>
- Amazon s3
- Many more...

Web Services in Libraries

- Plymouth State: Scriblio
- Repository66: mash-up of OpenDOAR data with Google Maps and repository growth charts from ROAR, developed by Stuart Lewis of the University of Aberystwyth, Wales
<http://maps.repository66.org/>
- LibraryThing
- IofiAPI: MSU Libraries (ETD, RMT)
- MSU Library Lifestream: RSS services (Twitter, del.icio.us, last.fm, MSU Library Blog)
- TERRApod Youtube admin
- Google Booksearch
- Samples from the crowd...

How to...

- Components
 1. Database Engine
 2. Scripting Language
- Specifics
 1. Apache
 2. MySQL
 3. PHP

Why?

- Single Source, Multiple Endpoints
 1. Feed Readers
 2. Google Sitemap
 3. Remixed HTML
 4. A9 OpenSearch
- Allow for the Remix
 1. Share data
 2. Repurpose for new applications
 3. Make library data part of info flow

Last thoughts...

- This stuff is just beginning...
- Worldcat API
- Digital Library Federation API recommendation
- Library mashups are coming - there's just too much good data out there

Questions?

Getting Started

Play in the sandbox – pick a service, study it

Yahoo Developer Central

<http://developer.yahoo.com/>

Amazon Web Services Developer Connection [http:](http://developer.amazonwebservices.com/connect/)

[//developer.amazonwebservices.com/connect/](http://developer.amazonwebservices.com/connect/)

Google Code

<http://code.google.com/>

Web Services - Sources

- AllCDCovers.com <http://www.allcdcovers.com/api>
- ISBNdb.com <http://isbndb.com/docs/api/index.html>
- OpenDOAR <http://www.opendoar.org/tools/api.html>
- arXiv.org http://export.arxiv.org/api_help/

* See ProgrammableWeb

<http://www.programmableweb.com/apis/directory>

Terms: API

What is an API?

An application programming interface (or API) is a way for developers to access parts of a remote web site and integrate it with their own site.

MSU Libraries Resources Example

<http://www.lib.montana.edu/resources/read.php?form=json&limit=25>

Terms: Web Service

What is a Web Service?

- Broader term
- Public interface (API)
- Provides access to data and/or procedures
- On a remote/external system (usually)
- Use structured data for data exchange (often XML)

Terms: Structured Data

Structured data = XML and JSON

- Extensible Mark-up Language and Javascript Object Notation
- Flexible mark-up languages
- Lightweight and easy to parse
- Allow communication between disparate systems

Contact Information

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