Working with web services and sharing ideas

Daniel Forsman
From code to community
IGeLU 2009, Helsinki
OPAC
We asked for
Open System
Open Data
Open Access
Open Platform
What now?
The web is rapidly becoming a platform consisting of services and API:s

Machine 2 machine communication stands in the centre

Worldcat API, XISBN, Library Thing for Libraries, LIBRIS Xsearch, MetaLib | Aleph X-server, SFX API, Ebsco Host Integration Toolkit, ISI Web Services, Amazon, SRU/W, RDF | Linked Data, Google Code, Flickr API, Yahoo! Developer Network ... ... ...
By exploring web services and new technology we gain first hand experience making us stronger customers and development partners.

By introducing other services into our OPAC the local collection is displayed in a broader context.

The OPAC turns into a small federated search service, rich in functionality and content, seamlessly integrated with the library webpages.

Strategy is to present library resources in a single thought through structure and presentation BUT ALSO to identify key services and make them available outside the library website.
What is a Web service?

“A Web service is a software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP-messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards. “

// W3C definition

Web services are frequently just Internet Application Programming Interfaces (API) that can be accessed over a network, such as the Internet, and executed on a remote system hosting the requested services.

// Wikipedia – Web service
Journal services in JULIA

SFX API
- JCR Impact factor
- Fulltext availability
- Abstract availability
- Table of Content

U.K JISC : ticTOCs RSS service
- Txt file converted into XML
- Bundled with SFX API query
- If a feed is found it is parsed and results are presented as sample of latest articles

Prototype Javascript DOM parser and AJAX PHP backend for XML parsing and format
SFX API

&sfx.response_type=simplexml
//Make the call to SFX and load results
$xml = simplexml_load_file($openurl);

//Targets base
$Base = $xml->targets;

//Loop through results and present selected targets
foreach ($Base->target as $target) {
    if($target->service_type == 'getCitedJournal' ){
    }if($target->service_type == 'getFullTxt'){
    }if($target->service_type == 'getAbstract'){
    }if($target->service_type == 'getTOC'){
        echo "<li><a href=" . $proxy.$target->target_url . ">Table of content available from " . $target->target_public_name . "></a></li> ";
    }
}
The story behind this implementation, so far…

I hear things about an SFX API from friends [network],

I go to the Systems seminar in Tel Aviv and learn more [conference],

I get back home and code up the Embedded SFX lookup in ALEPH OPAC plugin

I upload it to EL Commons after some tests [open platform]

At the same time, somewhere else ...
Bill Dueber, systems librarian at Michigan University Libraries, asks for a tab delimited text file for ticTOCs in his [blog], Robot Librarian.

Terry Bucknell announces on Code4Lib [email listserv] that they are working on an API but that a tab delimited file is now available for use, he references the Robot Librarian.
Peter van Boheemen at Wageningen UR Library loads the data from ticTOCs into their XML based CMS. Creating an API by accident... He writes about this in his blog WebQuery@Wageningen UR. I read it and get intrigued. I knew Peter from the Ex Libris Developers meeting in Jerusalem. I ask him if I can use their ticTOCs API, he says yes and I create a test service. Works fine. Peter can’t guarantee long term usage. I decide to create my own API, download txt file, convert, set up and implement. After testing it for a couple of months in production my code is uploaded to EL Commons.
Did you mean …?

Search

Expanded Search

Index

Sub-collections

History

My shelf

My pages

Hint!

You can limit your search to a specific collection under the Sub-collection tab. Search just for children's books, ICE books or e-resources.

As a phrase?  No  Yes

Search

Your search returned zero hits.

Did you mean …?

You searched for drugs

LIBRIS suggests you try drugs

Yahoo! suggests you try drugs
OPAC spellchecker using Yahoo! webservice

**Description:**
There are several ways to provide your OPAC with a spellchecker. This is one way using the Yahoo! webservice. You could hook it up.

*Created by Daniel Forsman, H?gskolan i J?nk?ping, 10 Sep, 2008*
*Last updated by Daniel Forsman, H?gskolan i J?nk?ping, 10 Sep, 2008*

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local spell checker

**Description:**
A couple of scripts to put a spell check facility into the OPAC to suggest new searches when users misspell search terms.

*Created by Patrick H Pollard, University of Bristol, 16 Oct, 2008*

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OPAC spelling suggestions using Yahoo! webservice

*JSON*

**Description:**
We can't use PHP, so I've developed this code to read the JSON return from Yahoo! Spelling suggestion service. Suggestions are returned.

*Modified: 4/14/09 11:21 AM*
*By: Mark Watmough, Institution: Napier University*

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Spell Check Dictionary

**Description:**
Script to generate a local spellcheck dictionary from Voyager

*Created by Michael Doran, University of Texas at Arlington Library, 15 May, 2009*
*Last updated by Michael Doran, University of Texas at Arlington Library, 15 May, 2009*
$bibspell = simplexml_load_file($request);
$sugcheck = $bibspell->suggestion->term;

if($sugcheck){
    foreach($bibspell->suggestion->term as $suggestion){
        $suggest .= " $suggestion";
        $suggest2 .= "$suggestion+";
    }
}

echo "You searched for <i><font color=red>$clean_terms</font></i><br/><br/>LIBRIS suggests you try <a href=http://julia.hj.se/F/?func=findb&request=$suggest2&find_code=WRD&adjacent=N&amp;x=53&amp;y=1&amp;con_lng=eng>$suggest</a><br/><br/>";
} else{
    echo "LIBRIS has no suggestions for you.<br/><br/>";
}
xml = simplexml_load_file($request);
$description = $xml->Result;

if (empty($xml->Result)){
    echo "<p>Yahoo! has no suggestion for you"
} else{

    foreach ($xml->Result as $suggestion) {
        $suggest = $xml->Result;
        $suggest2 = http_build_query($suggest);
        $suggest3 = str_replace('0=','',$suggest2);
        echo "<p>Yahoo! suggests you try <a href=http://julia.hj.se/F/?func=findb&request=$suggest3&find_code=WRD&adjacent=N&x=53&y=1&con_lng=eng>$suggest</a>";
    }
}
EL Commons provides a platform for sharing, developing, co-laboration, documentation, alerting and discussing thus creating an unique community

We have open access, data, systems and a open platform

it is time to start sharing and see what happens
Ex Libris Commons is not about sharing code
It’s about sharing and developing ideas
Daniel Forsman
Jonkoping University Library
daniel.forsman@bibl.hj.se

Web http://www.bibl.hj.se/eng
OPAC http://julia.hj.se
Labs http://www.bibl.hj.se/doc/6433