# Integration and Disintegration of Electronic Library Services





Daniel Forsman IGeLU 2008, Madrid



Presentation
http://bibl.hj.se/dfn/presentations/igelu2008.pdf

Code examples on request



Jonkoping University 9556 registred students in 2007 700 staff

Jonkoping University Library
200 000 volumes
25 staff
Aleph 18, MetaLib & SFX [Samsok consortia]



Branding & graphical integration of library services

Using webservices to integrate library services

Identify key library services and making them available to users outside of their container































ProQuest CSA





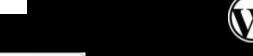






**EBSCOhost** 

























Graphical integration of library website, OPAC, SFX A-Z and MetaLib

Users can navigate resources within a structure they recognize

Strong branding of library services

Ithaka's 2006 Studies of Key Stakeholders in the Digital Transformation in Higher Education



New University Library website in April 2007

A good time to think about our services and how we present them

Tools for those who know what they want

Help for those who don't

Video and images

Integrate and organize services where and when we can

Identify what we can offer outside the box



Shortcuts



Search the website

Search

#### Home

#### Search tools

Databases, Books, Journals, Newspapers, Articles, Encyclopedias, Theses, Publications

## Search help

HHJ, HLK, JIBS, JTH, Guides for all schools, Video

#### Services

Loans, Interlibrary loans, Acquisitions, Booking, Courses, External users, Hours

## About the library

Contact, Staff A-Ö, Collections, The building, Quality work



ASK THE LIBRARY - chat or e-mail

# FREQUENTLY ASKED QUESTIONS

#### **VIDEO**



Loans and library cards

Time: 01:10

See all



#### Often used services

- JULIA library catalog
- Find journal
- Find database
- Group room/computer booking
- My pages renewals, changes of address etc.
- Library card registration

#### Quick search

Choose database/category



> About quick search Coogle





Library Lab - Tip about tools

## New semester! Welcome to the library

Movies and photos from the library.

- All movies
- Photo gallery



#### News



#### Try out the Library Lab

Library Blog

In Library Lab you will find tools and tips on other useful features that will make your information searching more fun and efficient.

#### 6.000 e-books in Safari Books Online

Books in full text from such publishers as Addison Wesley, O'Reilly, Prentice Hall and Cisco Press are now available via the database Safari Books Online, and are also searchable in the library catalog JULIA.

#### Even more information in JULIA

Rearch in the library catalog JULIA and get several simultaneous hits in several other databases! A number of functions that have been integrated with JULIA make it possible to search in several places at once, view book covers and see table of contents and reviews. See example.

Shortcuts



Search the website

Search



- > Home
- > Search tools
- > Search help
- > Services
- > About the library



## See also

- > Svenska
- > JULIA Help
- > Register for a library card
- > Journals at Jönköping University Library
- > New books
- > e-JULIA
- > LIBRIS
- > Google Book Search

#### ▼ Video tutorial

Searching for a book in JULIA - the library catalog Time: 01:33





Back

Administered by Daniel Forsman



ASK THE LIBRARY - chat or e-mail





Home

See also

FREQUENTLY ASKED QUESTIONS

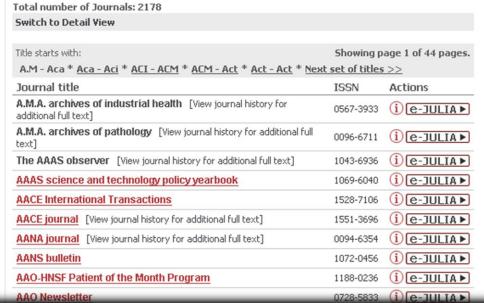


Table View Brief View Full View

Search the website

Search



- Search tools
- > Search help
- Services
- > About the library



#### 

- > Introduction to search and use
- > How can I find ...
- > How do I ...
- > What does that mean?
- > Personal help

#### See also

- > Access to databases for non-students
- > Creating links to articles and books
- Evaluation of research using citation analysis
- > Grants
- > Information searching using citations
- > Patents
- Statistics

#### ➢ Did you know..?

The library toolbar lets you search databases directly from your browser. Read more and download.



ASK THE LIBRARY - chat or e-mail

FREQUENTLY ASKED QUESTIONS

#### QuickSearch | Find Database | Find e-Journal | MetaSearch | My Space







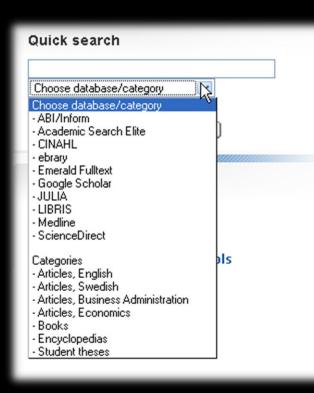
eShelf | My Databases | My e-Journals | History | Preferences

Daniel Forsman test env.

#### e-Shelf

		Folder	: Basket (9)	*	
					Advanced
1-9 o	f 9 Records	5	elected	<previ< th=""><th>ous Next&gt;</th></previ<>	ous Next>
	all   Clear all o. Author	Title	Database	Actions	
<b>V</b> 1.	David de la Croix	Education and growth with endogenous debt constraints	ABI/Inform		JULIA ►
<b>v</b> 2.		CIA - The World Factbook Norway.	Academic Search Elite	<b>⊗</b> e-	JULIA ►
□ з.		The brain business.	Academic Search Elite	<b>⊗</b> e-	JULIA >
<u> </u>	Bjornberg, Ulla	The Roles of the Family and the Welfare State: The Relationship between Public and Private Financial Support in Sweden.	Academic Search Elite	<b>∞</b> e-	JULIA ►
5.	Samuelsson, Emma	The size and distribution of the economic impacts of Namibian hunting tourism.	Academic Search Elite	<b>⊗</b> [e-	JULIA ►
6.		eHealth recruitment challenges	ScienceDirect	<b>⊗</b> [e-	JULIA ▶
7.	Westerlund, Joakim	Class size and student evaluations in Sweden.	Academic Search Elite	<b>※</b> e-	JULIA ►
8.	Saarinen, Taina 1	Whose quality? Social actors in the interface of transnational and national higher education policy.	Academic Search Elite	⊗ e-	JULIA 🕨
<u> </u>	Hasselberg, Ylva 1967-	Industrisamhällets förkunnare Eli Heckscher, Arthur Montgomery, Bertil Boëthius och svensk ekonomisk historia 1920-1950 Ylva Hasselhern	JULIA - bibliotekets katalog	<b>⊗</b> e-	JULIA ►

historia 1920-1950 Ylva Hasselberg

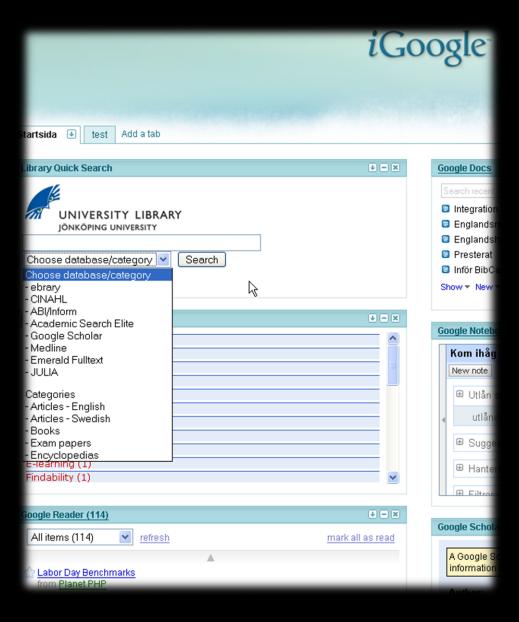


Quick search – databases supporting URL syntax

PHP script that re-directs to the database

Most used databases

1 jan – 1 sep : 32165 queries



Quick search iGoogle Widget

Widget Portal | Startpage

iGoogle

Netvibes

Pageflakes

# iGoogle gadget

http://www.bibl.hj.se/cm\_webb/directsearch/hj\_directsearch.xml

```
<?xml version="1.0" encoding="UTF-8" ?>
<Module>
<ModulePrefs height="140" category="tools" title="Library Quick Search"</p>
author="Daniel Forsman" author_affiliation="Jonkoping University Library" />
<Content type="html">
<![CDATA]
<img src="http://www.bibl.hj.se/img/2007/gfx/bibl/bibl_head_logo_eng.png" /><br />
<form target="_parent" action='http://www.bibl.hj.se/cm_webb/directsearch/eforward.php'
method="post"> <input name="sw" type="text" size="48" maxlength="40" /> <br/>br />
<select name="sb" type="select-one" value="1" length="16" options="[object]">
<option value="1" selected="true"> Choose database/category
<option value="EB"> - ebrary
<option value="CIN"> - CINAHL
</select> &nbsp;<input type="submit" value="Search" />
</form> ]]>
</Content>
</Module>
```

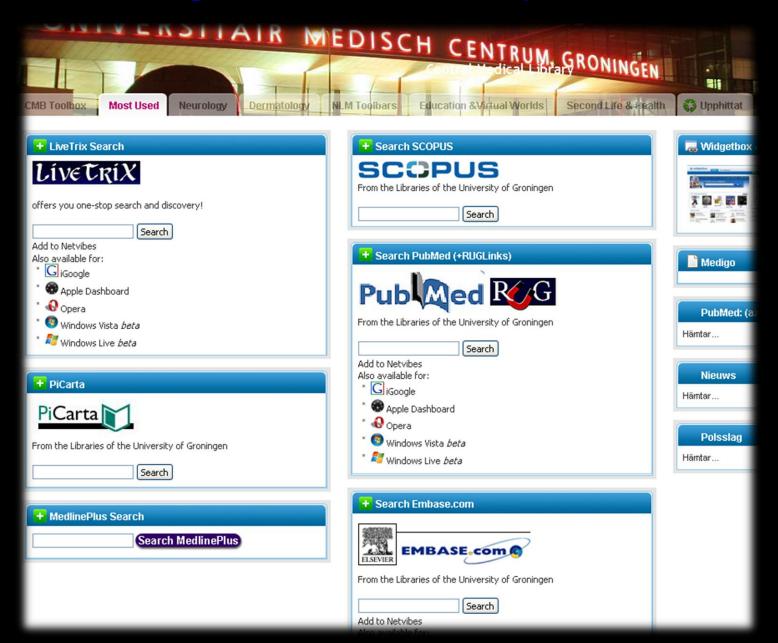
Fill out form and select your datbases ——							
Type of widget  iGoogle  HTML templat	е						
	example: mywidget Only for iGoogle avoid space, å, ä, ö in filenames.						
Supported databases							
☐ ABI/Inform	Academic Search Elite						
☐ Business Source Premier	☐ CINAHL						
Communication & mass media complete	☐ Ebrary						
☐ Emerald Fulltext	☐ ERIC						
☐ Medline	Science Direct						
Encyclopedias & dictionaries							
☐ Encyclopedia Brittanica Online ☐ Nationalencyclopedin							
☐ Tyda.se ☐ Wikip	pedia						
L   _ Library catalogs							
☐ JULIA ☐ LIBRIS Union catalog							
Internet Search Engines							
☐ A9 ☐ Ask ☐ Exalead							
☐ Google ☐ Live Search ☐ Yahoo!							
Academic Internet Search Engines							
Google Scholar Live Search Academic							
OAIster Scirus							
Samsök Quicksets							
Articles English Articles Swedish Books							
☐ Encyclopedias ☐ Student theses							
Create your widget							

Templates and widgets lets the user include the search form where they want to

All searches go through the same PHP script

If a database changes you only have to update one file.

# Groningen Central Medical Library @ Netvibes



# Webservices and Application Programming Interfaces

SOAP

REST

SRU/W

X-server ...

Methods to interact with and connect services

A way to interact outside of the box



Textsize: S | M | L Shortcuts ✓ Go Search Search

- Home
- Education
- Research
- Internationalisation
- About Us



Research » Research profiles

Researchers

PhD Students

#### Presentation in Swedish

#### OPUS - Jönköping University Publications by Tomas Kroksmark

"Det blir skillnader, det kan det, men vi kan inte göra något åt det. Eller?" Kroksmark Tomas, Hirsh Å, Wiberg M.

Chapter in book 2007

## Betygsättning av projektarbete på

Kroksmark Tomas, Fredriksson S. Article in journal 2007

#### All hits in OPUS (116) »

#### Samsok Number of hits in databases

Artikelsök	57
Google Scholar	259
JULIA - library catalog	23
LIBRIS	52

Google Scholar

#### Fenomenografisk didaktik [BOOK]

T Kroksmark - Acta Universitatis Gothoburgensis, 1987 Related Articles - Web Search

#### Den tidlöse pedagogikken

T Kroksmark - diva-portal.org, Related Articles - Web Search

#### Tomas Kroksmark

- Professor of Pedagogic Work

Pedagogic Work has been a research and education field in Sweden since the middle of the the 1990's. The field has clear connections to teacher education and to the different areas of pedagogic research within the education system.

#### Different perspectives

Research in Pedagogic Work shall be historical, systematic or empirical and developed in relation to scientific innovation and social change - fromnational and international perspectives.

A fundamental part of the research is developing scientific theories andresearch methods that generate action in practical pedagogic work. Over andabove the basic research this means the applied inductive research that allows those involved in pedagogic work themselves define, critically investigate, review and problematise aspects of the pedagogic work processes of which theyare part.

#### Increased knowledge about learning

Research in pedagogic work shall further contribute to increased scientific knowledge and theories about learning societies, learningorganisations and learning individuals.

Pedagogic work shall as research and educational fields be developed from the pedagogy and didactics with clear focus on

## MetaLib X-server

Staff presentation queries the local institutional repository and the MetaLib X-server

Google Scholar has no API but MetaLib does so we can do a search for the person in Google Scholar through MetaLib and present the results on presentation page.

We also use the X-server to perform a small federated search in the OPAC.



Search the website Search



- > Home
- Search tools
- Search help
- > Services
- > About the library



## 

- Svenska
- > JULIA Help
- > Register for a library card
- > Journals at Jönköping University Library
- New books
- > e-JULIA
- > LIBRIS
- > Google Book Search

### Metasearch



#### Results from metasearch via Samsök

- Academic Search Elite: 3066
- · Google Scholar: 3620000
- ScienceDirect: 7029

## **LIBRIS Results** National union catalog

- 1. PHP essentials Meloni, Julie C.
- 2. Beginning PHP4
- 3. PHP 4 programmering Ek, Jesper
- 4. Core PHP programming Atkinson, Leon

Expanded Search Index Sub-collections History My shelf My pages Search

## JULIA - Results

#### Hint!

There are more e-books on PHP in the database Books 24x7!

Free text= php

Showing 1 - 20 of 127

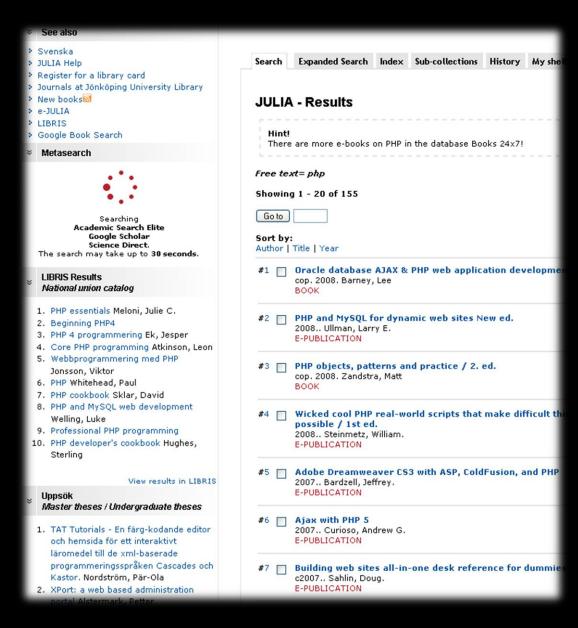
Goto

#### Sort by:

Author | Title | Year

Oracle database AJAX & PHP web application development / cop. 2008. Barney, Lee BOOK

PHP and MySQL for dynamic web sites New ed.

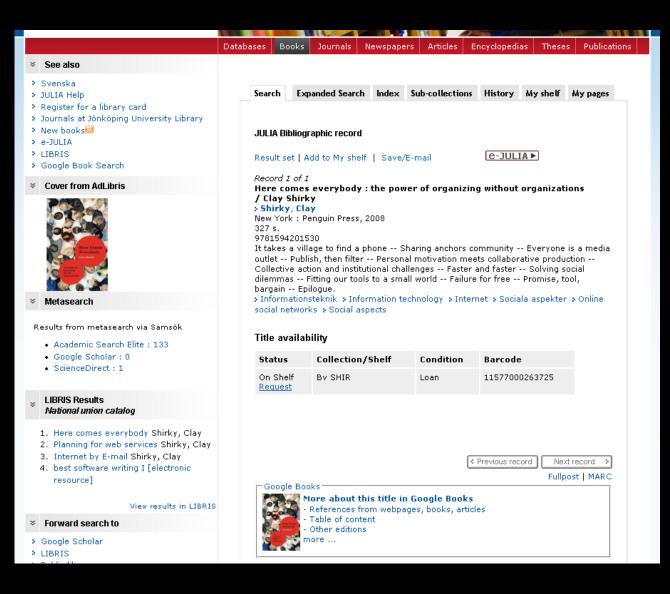


When you do a keyword search in our OPAC we pass the query along to three webservices

MetaLib X-server

LIBRIS Light API – National Union Catalog

Uppsok SRU – National repository for Master and undergraduate theses



Google Books integration provided by Ex Libris

Covers from Swedish bookstore AdLibris

#### Google Books



#### More about this title in Google Books

- References from webpages, books, articles
- Table of content
- Other editions

more ..

#### Boktips.net

Ny teknik skapar nya förutsättningar för hur vi lever våra liv. Clay Shirky, adjunct professor vid NYU's graduate Interactive Telecommunications Program, beskriver hur de senaste årens teknikutveckling har skapat nya kommunikationsmönster och sociala organisationer.

Med underhållande exempel på hur Internet i grunden kommit att förändra vårt samhälle och media beskrivs ett nätverkssamhälle där alla är nära alla, amatören får miljonpublik och det privata blir publikt (oavsiktligt eller ej).

Daniel Forsman Högskolebiblioteket i Jönköping Description brought via Öppna Bibliotek



#### Information from Amazon.com



A revelatory examination of how the wildfirelike spread of new forms of social interaction enabled by technology is changing the way humans form groups and exist within them, with profound long-term economic and social effects-for good and for ill

A handful of kite hobbyists scattered around the world find each other online and collaborate on the most radical improvement in kite design in decades. A midwestern professor of Middle Eastern history starts a blog after 9/11 that becomes essential reading for journalists covering the Iraq war. Activists use the Internet and e-mail to bring offensive comments made by Trent

Lott and Don Imus to a wide public and hound them from their positions. A few people find that a world-class online encyclopedia created entirely by volunteers and open for editing by anyone, a wiki, is not an impractical idea. Jihadi groups trade inspiration and instruction and showcase terrorist atrocities to the world, entirely online. A wide group of unrelated people swarms to a Web site about the theft of a cell phone and ultimately goads the New York City police to take action, leading to the culprit's arrest.

With accelerating velocity, our age's new technologies of social networking are evolving, and evolving us, into new groups doing new things in new ways, and old and new groups alike doing the old things better and more easily. You don't have to have a MySpace page to know that the times they are a changin'. Hierarchical structures that exist to manage the work of groups are seeing their raisons d'tre swiftly eroded by the rising technological tide. Business models are being destroyed transformed horn at dizzying speeds, and the larger social impact.

Amazon cover and editorial review

Boktips.net - reviews from swedish libraries. Next step is the formation of a national folksonomy and tag database for all swedish libraries.

ISBN is the hook, by using a javascript to manipulate the DOM you can read the ISBN and pass it on to a back end script. We put the description tag in a ID in full-body-999 making the ISBN easier to read.

<span id="\$0100">\$0200</span>

Javascript - GetElementById

Prototype Framwork handles the AJAX Call, problem with ALEPH placeholders

World cat API

# Query enhancements

There are several ways of enhancing a query

Spellchecking – Did you mean ...?

Catchword – matching search terms with a list of common or problematic search terms and help the user to better results. Get to know your users by looking at the data you have in logs | database. A good example is z\_69 OPAC events

select count(\*) as count, z69\_search\_query from z69 group by z69\_search\_query having count(\*) > '100'

SQL developer from Oracle a great tool for looking at database structure, data, tables and doing SQL queries.

Forwarding of queries – lets the user search other databases or services without having to re-type the query

```
Forwardquery.js
//Retreive and store webpage URL
var TITLE = document.URL;
if (TITLE.search("request") > -1){
//Find position of request in URL
var where is start=TITLE.indexOf('request');
//Find the position of &find_code
var where_is_end=TITLE.indexOf('&find_code');
//Define a the position where search words start - at the end of request
var new_start=where_is_start+8;
//Put the search words in a string, defined by start and end position
searchword = TITLE.slice(new_start, where_is_end);
//Define variable with base urls for forward search
google = "http://bibl.proxy.hj.se/login?url=http://scholar.google.com/scholar?q=";
LIBRIS = "http://libris.kb.se/hitlist?p=1&q=";
LIBRISend = "&t=v&d=libris&s=r&t=v&m=10&f=simp&spell=true";
JKPG = "http://85.188.187.31/hb/opac/search_result.aspx?TextFritext=";
//Echo link to external search enginges with concatenated variables
target=' blank' title='Search Google Scholar, opens in new window'>Google Scholar</a>
<a href="+ LIBRIS.concat(searchword).concat(LIBRISend)+" target='_blank'
title='Search LIBRIS, opens in new window'>LIBRIS</a>
<a href="+ JKPG.concat(searchword)+" target='_blank' title='Forward your search to the Public library OPAC,
opens in new window'>Public library</a>")
```

# Forward search to ...

for a music company Youssefi, Masoud 10. MyMusic – e-shop för musik i Flash

Wejsflog, Mikael

View results in Uppsök

- ▼ Forward search to
- Google Scholar
- LIBRIS
- Public library.
- Video tutorial
- Searching for a book in JULIA the library catalog



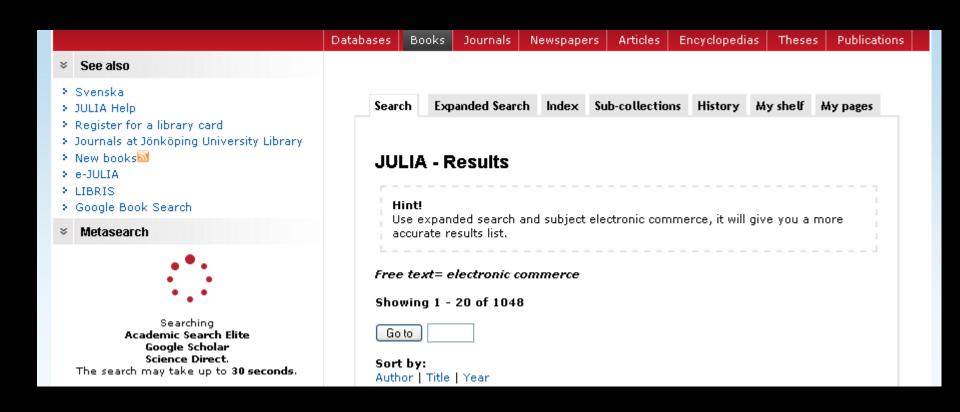


ASK THE LIBRARY - chat or e-mail

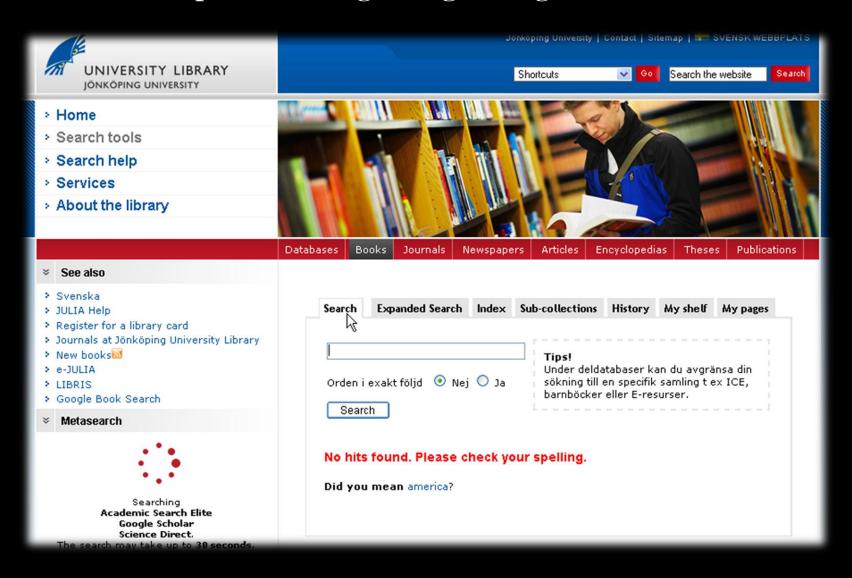
PREQUENTLY ASKED QUESTIONS

#10 m PHP & MySQL for dummies 3rd ed. 2007.. Valade, Janet. E-PUBLICATION #11 PHP advanced 2nd ed. 2007.. Ullman, Larry E. E-PUBLICATION PHP and Smarty on large scale web development 2007, Pedro, Bruno. E-PUBLICATION #13 | The PHP anthology 101 essential tips, tricks & hacks / 2nd ed. 2007... E-PUBLICATION PHP in Action objects, design, agility / 2007.. Reiersl, Dagfinn. E-PUBLICATION PHP Web 2.0 mashup projects create practical mashups in PHP, #15 grabbing and mixing data from Google maps, Flickr, Amazon, YouTube, MSN Search, Yahoo!, Last.fm, and 411Sync.com / 2007.. Chow, Shu-Wai. E-PUBLICATION #16 Web publishing with PHP and FileMaker 9 2007.. Stark, Jonathan. E-PUBLICATION Webbots, spiders, and screen scrapers a guide to developing #17 | Internet agents with PHP/CURL / 2007.. Schrenk, Michael. E-PUBLICATION

# Catchword – Hints in your OPAC



# Spellchecking using Google SOAP



# Resources and more to read on spelling

<u>Orangoo</u>

Spellchecking in PHP

Ockham Spell Web Service

Google SOAP API

Google Toolbar Spell Check API

Google Spell API Ruby

Yahoo! REST spellchecker

**GNU** Aspell

PHP function Pspell

Example of spellchecking using the Yahoo! Spelling Suggestion Service

```
<?php
$term = 'ammerica';
$base = 'http://search.yahooapis.com/WebSearchService/V1/spellingSuggestion';
$request = ".$base. '?appid=YOURID&query='.$term.";
$xml = simplexml_load_file($request);
$description = $xml->Result;
if (empty($xml->Result)) {
           echo "No suggestion available <br>";
}else{
     foreach ($xml->Result as $suggestion) {
     $suggest = $xml->Result;
     echo "Did you mean $suggest?";
<br/>br /><br/>
<a href="http://developer.yahoo.com/">
<img src="http://l.yimg.com/us.yimg.com/i/us/nt/bdg/websrv_120_1.gif" border="0">
</a>
```

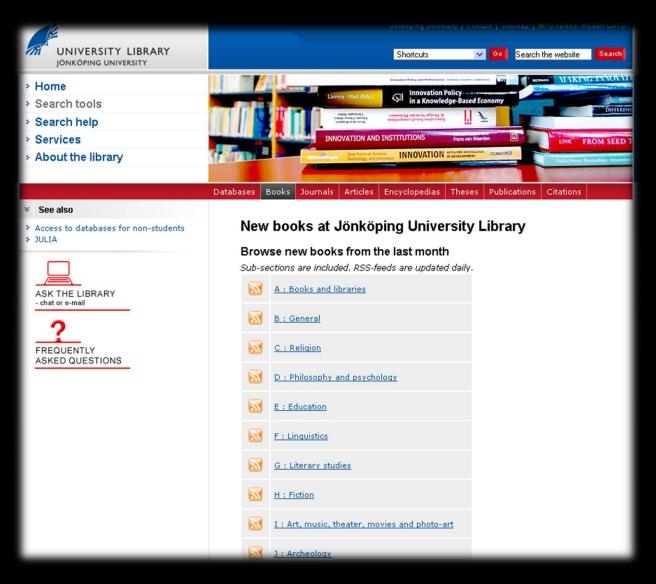
Looks like this

```
Meta-tags-jul01
<script type="text/javascript" src="prototype.js"></script>

Find-b-list-head-jul01
<div id="Suggestion"></div>
<script language="javascript" type="text/javascript" src="spellit.js"></script>
```

```
spellit.js
//Retreive and store webpage URL
var TITLE = document.URL;
//Find position of request in URL
var where_is_start=TITLE.indexOf('request');
//Find the position of &find_code
var where_is_end=TITLE.indexOf('&find_code');
//Define a the position where search words start - at the end of request
var new_start=where_is_start+8;
//Put the search words in a string, defined by start and end position
var searchword = TITLE.slice(new_start, where_is_end);
//Make the AJAX call using prototype
new Ajax. Updater ('Suggestion', 'spellitout.php', {method: 'get', success: 'Suggestion',
failure: 'errors', parameters: {URL: searchword} });
```

# New books list – browse & RSS



User can browse for new books on subject (SAB classification) or subscribe to a subject RSS feed.

RSS feeds are updated daily PHP script queries the database and creates the feeds.

Hardest part is to define what a new book is in the system.

## Bookmarklets

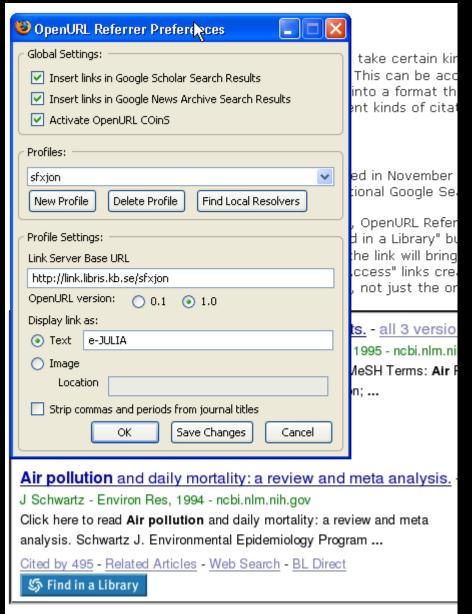
- a small computer application stored as the URL of a bookmark in a web browser or as a hyperlink on a webpage.

## Search the OPAC bookmarklet

```
\label{eq:proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_proposed_
```



javascript:void(location.href='http://www.bibl.hj.se/databas/proxy.php?url='+location.href)



ContextObjects in Spans [COinS]

A way to embedd bibliographic metadata in HTML and with client software pass it on to a OpenURL resolver

Used in WorldCat, Wikipedia, Citebase, Google Scholar ...

OpenURL Referer from OCLC







# Contact

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daniel.forsman@bibl.hj.se