Open Source ILS Add-ons



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Traditional ILS

- manages acquisitions, cataloging, circulation, and reporting
- provides a discovery interface (commonly known as the Online Public Access Catalog or "OPAC") which enables library users to search for resources



User Expectations



- expect to see resources available beyond traditional library holdings. Want books, CDs, DVDs, plus
- journals
- newspapers
- magazines
- other libraries' holdings
- want search options beyond traditional author/title/ subject searching or generic keyword searches.
- when they find something, they want to easily obtain it

The ILS needs to become a platform that supports appropriate interfaces for discovery and metasearch applications living on top of it instead of trying to do everything on its own.



The Decoupling of the ILS

The public interfaces provided by many ILS's cannot by themselves meet the demands of users in a world where the availability and sophistication of digital resources and web applications has increased significantly.



Current Options for Accessing ILS Data Are Limited

- Application Programming Interface (API) provided by vendor
- 2. Inconsistently implemented library-centric protocols
 - Z39.50
 - SIP/SIP2
 - NCIP/NCIP2
- 3. Screen-scraping
- Direct SQL queries against the ILS's database tables

DLF ILS Discovery API

An API For Effective Interoperation Between Integrated Library Systems And External Discovery Applications

(DLF ILS Discovery Interface Task Group Technical Recommendation)

Available from:

http://www.diglib.org/architectures/ilsdi/DLF_ILS_Discovery_1.1.pdf

Key Web Technologies: OAI, SOA, and Web Services

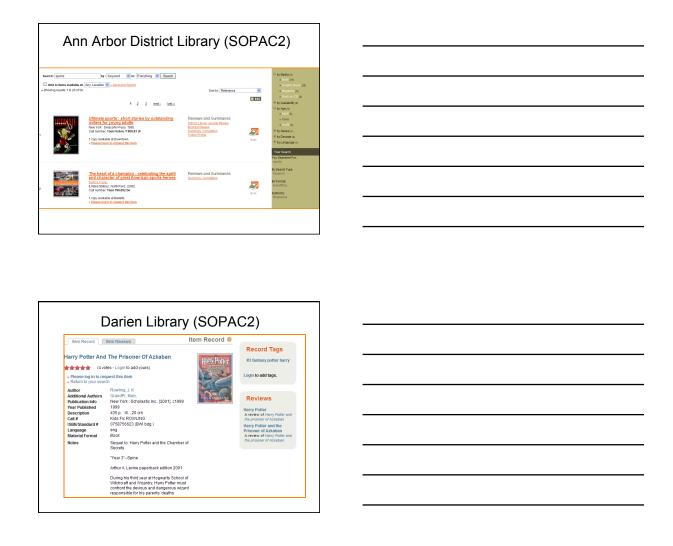


- OAI: Open Archives Initiative
- develops and promotes interoperability standards
 - OAI-PMH: protocol for exposing data for harvesting
- · SOA: Service Oriented Architecture
 - modular programs that perform a single task
- Web Services
 - applications talking directly to applications over the Web
 - use standards such as XML, SOAP, and/or WSDL

Metasearch

- Definition: a technology that sends a user's query off to multiple databases and catalogs and then collects and presents the results in a single interface
- Issues:
 - user interface seems sluggish because work happens after user initiates query
 - connections to the databases and catalogs can break, leading to inconsistent and incomplete result sets.
 - sometimes arbitrary decisions are made about how to aggregate and order search results.

Libraries are beginning to develop their own tools	
for searching multiple data	
repositories	
with a single search box	
and to present understandable search results to their users	
SOPAC2	
Developed by John Blyberg. Currently supported by the	
John Blyberg and Darien Library Goal: Enhances ILS by adding social functionalities including: tags, reviews, ratings, RSS.	
Using it: Darien Library	
 Ann Arbor District Library Palos Verdes (CA) Running on Innovative and Koha 	
More info: http://www.thesocialopac.net	
SOPAC2 Modules	
Support for shared/no email address RSS everything Wish lists	
Twitter broadcasting Saved searches as a separate module Summer Reading module Chapter History The control of	
Checkout History Recommendation engine Search statistics	
SMS notifications / support "Recommend to a friend" Auto-renew items	



Allowing Customers to Add Reviews Can Be Dangerous

"This book was very thrilling and the ending took me by surprise when I've learned that Sirius Black was actually innocent and Ron Weasley's rat, Scabbers, was actually a servant of He-Who-Must-Not-Be-Name.

Voldmort dies in the 7th book."

Blacklight

- · Developed by University of Virginia Library
- Goal: can index, search, and provide faceted browsing for MARC records and EAD XML files, and support is planned for Dublin Core and MODS as well
- Using it:
 - University of Virginia
- · Running on Unicorn
- · Other libraries involved in development:
- More info: http://www2.lib.virginia.edu/press/virgobeta/

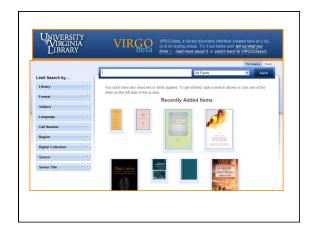
VirgoBETA (Blacklight) Features

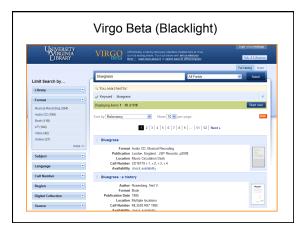
- search items the Library has catalogued, including books, journal titles, DVDs, CDs, sheet music, websites, and microfilm, and also, in the same search for the first time, digital collections of images and texts;
- filter your results by format, dates, and keywords;
- · sort your results by relevancy ranking, date received, author, title or call number;
- save and share your searches and results in Delicious, and, in a future release of VIRGObeta, RefWorks and
- generate an RSS feed for your search, so you can be notified when the Library acquires materials in your subject

Virgo: Classic VIRGO: UVa Libraries Catalog logy & Psychology (Bio-Psych wn Science & Engineering How to find a book in Alderman: Watch the Video | Check Call Number Keywords: knights and time travel Begins with: connecticut yankee in king (Omit beginn Exact: connecticut yankee in king arthurs court Author: twain mark

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Per Bess Sadler...



The idea is that libraries, which know their local needs, should control the technology that patrons use to gain access to their collections. That's a change from the one-size-isgood-enough-for-everybody, commercially managed model that has prevailed in the industry.

(Source: Library Hi Tech article by Bess Sadler, chief architect of the online library environment at the University of Virginia)

Also from U-V: Collex • Developed by Dr. Bethany Nowviskie Goal: collect, tag, analyze, and annotate trusted objects (digital texts and images vetted for scholarly integrity); produce interlinked online exhibits Search NINES: Search

INII	nes (Collex
19: Interdisciplinary Studies in the Long Nineteenth Century #	British Women Romantic Poets
Charles Chesnutt Archive d	Collective Biographies of Women
Dickinson Virtual Reference Shelf #	Emily Dickinson's Correspondences @
From Goslar to Grasmere 🗗	Heman Melville's "Typee": A
The County of Co	Fluid-Text Edition #
rish Women Poets of the Romantic Period #	Journal of Emily Shore: Revised and
	Expanded #
STOR: American Literary History d	JSTOR: American Literature at
STOR: Nineteenth Century Literature #	JSTOR: Nineteenth-Century Fiction @
JSTOR: NOVEL: A Forum on Fiction #	JSTOR: Studies in English Literature.
	1500-1900 at Leigh Hunt Online: The Letters at
ISTOR: Trollopian # Lettere A Colori: Descrizioni di dipinti nella comispondenza di	Leigh Hunt Online: The Letters w
Lettere A Coson: Descrinom in dipinti nella comspondenza di Dante Gabriel Rossetti 🗗	Letters of Christina Rossetti
Letters of Matthew Arnold &	Morris Online Edition @
Project MUSE: American Literary History #	Project Muse: American Literature
Project AUSE: Callalon @	Project MUSE: ELH #
-	Project MUSE: Journal of American
Project MUSE: English Literature in Transition 1880-1920 at	Folklore #
Project MUSE: Journal of Victorian Culture #	Project MUSE: Legacy #
Project MUSE: New Literary History @	Project MUSE: Romanticism
	Project MUSE: The Emily Dickinson
Project MUSE: SEL Studies in English Literature 1500-1900 at	Journal @
	Project MUSE: Victorian Periodicals
Project MUSE: The Henry James Review 🗗	Review 6
Project MUSE: Victorian Poetry 🗗	Project MUSE: Victorian Studies #
ProQuest: Early American Fiction @	ProQuest: Nineteenth-Century Fiction #
Romantic Circles Editions 🗗	Romantic Circles Praxis #
Romantic Circles Scholarly Resources #	Romanticism and Victorianism on the
Romanic Circles Scholing Resources	Net all
Romanticism on the Net 🗗	Scottish Women Poets of the Romantic
	Period #
The Ambrose Bierce Project 🗗	The Bancroft Library #
The Collected Letters of Tennyson @	The Collected Letters of the
	Wordsworths #
The Journals of the Lewis and Clark Expedition Online 🗗	The Lay of the Last Minstrel: A Poem at

Aggregates 412,747 peerreviewed digital objects from 63 federated sites

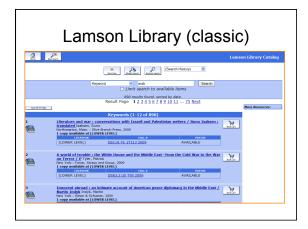
More info: http://nines.org

Scriblio

- Developed by Casey Bisson.
- · Currently supported by Casey Bisson and Plymouth
- Goal: merge the concept of a "blog entry" and "catalog record" using WordPress
- · Also involved in development: Cook Memorial Library
- Running on Innovative (at least)
- · Libraries currently using it
 - Lamson Library, Plymouth State University
 - Cook Memorial Library (NH) and others



More info at http://about.scriblio.net			
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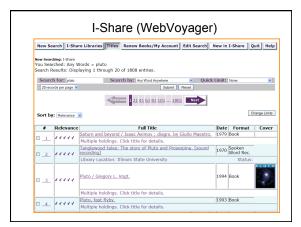
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VuFind	
eloped at Villanova University.	
I: enable library users to search and browse through f the library's resources by replacing the traditional IC to include	
atalog Records, Digital Library Items	
stitutional Repository, Institutional Bibliography	
ther Library Collections and Resources	
ning on Innovative, Voyager, Aleph, VTLS Virtua	
er libraries involved in development:	
ARLI "I-Share"	
SU Libraries "Discovery"	
e info at http://www.vufind.org/	
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VuFind Features

- · A single simple search box
- Ability to refine search by subject, title, topic, language, format, and more
- Ability to either search the UIUC library catalog or all I-Share libraries at once, including item status and location information
- Ability to request UIUC and I-Share items
- · Patron-created usernames and passwords
- Links to patron's library account with the ability to save, organize and retrieve records from any computer (using log-in information the patron creates).
- Zotero compliant for saving and tagging records and uses a feature like Delicious to bookmark and tag records.
- One-click link to reviews, including author reviews (through Wikinedia)
- · Social networking tools, such as leaving comments and tagging
- Previews in Google Book Search





XC – eXtensible Catalog

- Hosted at the University of Rochester, supported by the Andrew W. Mellon Foundation
- Goal: provide easy access to all resources (both digital and physical collections) across a variety of databases, metadata schemas and standards, and enable library content to be revealed through search engines and other services that libraries may be using (e.g. CMS)
- Has connectors for Innovative, Voyager, Aleph, Koha, Evergreen, Scriblio
- · Other organizations involved in development:
 - Notre Dame, Oregon State, University of Buffalo
 - Georgia PINES , LibLime, Casey Bisson,
 - Rochester Institute of Technology, CARLI
- More info: http://www.extensiblecatalog.org/

XC Modules

Released

- OAl Toolkit synchronization of digital repositories (DSpace, ContentDM)
- NCIP Toolkit –ILS integration with bibliographic, holding, item and authority data. Supports live access to circulation status, authentication mechanisms, and native ILS circulation requests

In Development

- Metadata Services Toolkit normalization, transformation, authority control, FRBRization, aggregation, user-generated metadata distribution, and terminology services.
- Drupal Toolkit user interface embedded into Drupal CMS
- · LMS Toolkit user interface embedded in Blackboard

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LibraryFind

- Developed by: Oregon State University Libraries with funding from State Library
- Goal: contribute to the support of scholarly workflow, remove barriers between the library and web information, and establish the digital library as platform.
- Guiding Principles: two clicks—one to find, one to get; a goal of getting results in four seconds; and known and adjustable results ranking
- Development Partners: Ross Singer (Georgia Tech), Ed Summers (LC)
- Two current releases: 0.8.5.2 and 0.90

More info: http://libraryfind.org

LibraryFind Features

- 2-click user workflow (one click to find, one click to get)
- facets for browsing / limiting
- ability to sort by relevance or date
- ability to harvest OAI and MARC data repositories
- integrated OpenURL resolver (with support for OpenURL tools that return XML)
- Web-based administration
- 3-tiered caching system to improve search response time
- customizable user interface
- · ability to locally index collections
- "Look-ahead" OpenURL resolution
- smart ILL link display
- dynamic, on-the-fly facet creation
- extensible, customizable XML backend

Cosul Library Find Demo http://search2.library.oregonstate.edu | Cosul Libraries | Librar

Paspar2

- · Developed by: Index Data
- Goal: high-performance, user interface-independent, data model-independent metasearching middleware web service featuring merging, relevance ranking, record sorting, and faceted results.
- Released under GPL license and commerically released as part of MasterKey platform
- - performs record merging, relevance-ranking and sorting by arbitrary data content, and facet analysis for browsing purposes
 - $-\,$ works with MARC, DublinCore, or any other $\underline{\mathsf{XML}}\text{-}\mathsf{structured}$ data
 - can be used against servers supporting $\underline{\text{Z39.50}}$ and $\underline{\text{SRU/SRW}}$ protocols
 - user interface independent (uses web-service API)
- · More info: http://www.indexdata.com/pazpar2

dbWiz → PKP S

- Developed by Simon Frazer University suite of software tools called reSear search engine that allows users to s starting point for research
- · ReSearcher suite has morphed into
 - Open Journal Systems
 - Open Conference Systems
 - PKP Open Archives Harvester
- Public Knowledge Project partners: of British Columbia, and Stanford
- · Information available from: http://pk

Open Source so belongs in libra



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Additional References

- Code4lib
 - http://code4lib.org/
- Oss4lib
 - http://oss4lib.org/
- Library Best Practices Wiki: OS Software http://www.libsuccess.org/index.php?title=Open_Source_Software
- Parry, Marc, "After Losing Users in Catalogs, Libraries Find Better Search Software"

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- My Delicious tags on this topic http://delicious.com/lbayre/ils_addon