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Emerging Services Librarian
Memorial University Libraries

The Future of the OPAC
Newfoundland & Labrador Library Association
May 2nd, 2008
State of the OPAC

- Old technology, proprietary architecture
- Not easy to customize or integrate with other services
- Weds an inventory control tool with a discovery tool
- Functions reasonably well for locating known physical items cataloged within the library's collection.
- Marketplace provides a disincentive for vendors to re-write their ILS “code monolith”
## State of the OPAC: ILS Vendors

<table>
<thead>
<tr>
<th>Company</th>
<th>ILS Product</th>
<th>Market</th>
<th>Open Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative Interfaces</td>
<td>Millenium</td>
<td>Academic</td>
<td>N</td>
</tr>
<tr>
<td>SirsiDynix</td>
<td>Symphony</td>
<td>Public, Academic, K-12</td>
<td>N</td>
</tr>
<tr>
<td>Ex Libris</td>
<td>Aleph, Voyageur</td>
<td>Academic</td>
<td>N</td>
</tr>
<tr>
<td>Follett</td>
<td>Destiny</td>
<td>K-12</td>
<td>N</td>
</tr>
<tr>
<td>Auto Graphics</td>
<td>A Gent VERSO</td>
<td>Small libraries</td>
<td>N</td>
</tr>
<tr>
<td>Polaris</td>
<td>Polaris ILS</td>
<td>Public</td>
<td>N</td>
</tr>
<tr>
<td>TLC</td>
<td>CARLX</td>
<td>Public</td>
<td>N</td>
</tr>
<tr>
<td>LibLime</td>
<td>Koha</td>
<td>Small libraries</td>
<td>Y</td>
</tr>
<tr>
<td>Equinox</td>
<td>Evergreen</td>
<td>Public</td>
<td>Y</td>
</tr>
</tbody>
</table>
Missing OPAC Functionality

- Spell checking
- RSS Feeds
- De-duping (FRBR)
- Relevancy Ranking
- Faceted search results
- User-generated reviews
- End-user tagging, bookmarking, alerting services
- Support for non-MARC formats
- Integrated searching with other sources
## OPAC Add-Ons

<table>
<thead>
<tr>
<th>Company</th>
<th>Add-On Product</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative Interfaces</td>
<td>Encore</td>
<td>Relevancy, Facets, Tagging, Ratings, Federated Search</td>
</tr>
<tr>
<td>SirsiDynix</td>
<td>Enterprise, Single Search</td>
<td>Relevancy, Facets, Federated Search</td>
</tr>
<tr>
<td>Ex Libris</td>
<td>Primo, Metalib</td>
<td>Relevancy, Facets, Federated Search</td>
</tr>
<tr>
<td>LibLime</td>
<td>Koha Zoom</td>
<td>Integrated Federated Search</td>
</tr>
<tr>
<td>TLC</td>
<td>Endeca, Aquabrowser</td>
<td>Relevancy, Facets, Visual Search</td>
</tr>
<tr>
<td>Serials Solutions</td>
<td>360, Webfeat, Vivisimo</td>
<td>SaaS, Facets, Federated Search</td>
</tr>
<tr>
<td>OCLC</td>
<td>Worldcat Local</td>
<td>SaaS, Facets</td>
</tr>
<tr>
<td>Homegrown/Open Source</td>
<td>Scriblio, VuFind, Drupal, Fac-Back-OPAC (Solr)</td>
<td>OPAC Replacements, Relevancy, Facets, Tagging, Reviews</td>
</tr>
</tbody>
</table>
The Big Issues

- Maintenance
- Search
- User-generated content
- Integration
Maintenance
Maintenance: Solutions

- High overhead for maintaining MARC records
- Authorities processing services (e.g. Marcive)
- TOC services (e.g. Blackwell’s North America)
- Content Enrichment (e.g. book covers, reviews, author bios)
- Serials Solutions MARC record service
- OCLC delivery of MARC records that match the materials you order through vendors, library holdings automatically updated in WorldCat.
- Software as a Service: Remote hosting of ILS/OPAC
Maintenance: WorldCat Local

- Uses bibliographic records from Worldcat.org
- Relevancy ranking
- Multiple versions of a work together under one record
- Faceted browse
- Citation formatting/exporting
- Cover art and additional evaluative content.
Search
Usability studies show that mis-spelled words cause up to 10% of user failure. Some vendors have added this functionality to OPAC (e.g. Koha Zoom).

Athens County Public Libraries

“salmon rushdie” returned 12 results. Limit to currently available items.

East, west by Rushdie, Salman.
- Random House, ; New York, NY : - 2 sound cassettes (3 hrs.) : : Unabridged..
Copies available at: Athens (1),
Place Reserve

Copies available at: Wells (Albany) (1), Athens (1),
Place Reserve

The Moor's last sigh / by Rushdie, Salman.
Copies available at: Wells (Albany) (1), Athens (1),
Place Reserve
Search: Spelling

- Third party add-on: Lucien spell check
Search: Relevancy ranking

- Traditional Boolean, Last-in First-out sorting is not very good for large result sets or full-text indexes.

- Relevancy ranking algorithms are based on:
  - Term frequency
  - Inverse document frequency (the fewer times the term shows up in the entire database, the more important, or unique, it is.)
  - Field weighting (allows a word to be considered more relevant if it appears in certain fields e.g. 245)
  - Proximity of query words
  - Stemming: variant word forms
Several vendors offer relevancy ranking (e.g., Endeavor's WebVoyage has offered it for about 9 years now) but libraries have often not turned it on. Many relevancy ranking algorithms are designed for full-text documents; they don't always work well against citation data.
Facets are clusters of related terms that appear within a results set. Facets allow you to limit your searches, drill down, or browse areas that interest you. Facets are useful for manipulating large sets of results.
Some institutions have chosen to build this on top of their existing catalogues e.g. Endeca, Solr/Lucene, VuFind. Most vendors are developing add-on products for their OPACS that include faceted search. Innovative Interfaces Encore (multi-ILS support), Ex Libris Primo, SirsiDynix Enterprise, VTLS Visualizer.
Search: Visualization

• Translations, spelling variations, related terms are presented as a clickable map beside the search results.

• Clicking on a term helps to refine your original search.

• Aquabrowser, Grokker
Search: feminism

Results 1 – 10 of about 4,000 for feminism, sorted by: relevance

1. **The coming of Lilith**
   essays on feminism, Judaism, and sexual ethics, 1972–2003
   **Judith Plaskow, Donna Berman**
   Call number: 296.082 P
   Year: 2005
   Found: Feminism (4); Judaism (5); feminist (7)
   Subject: women in judaism, feminism, ...

2. **Standing again at Sinai**
   Judaism from a feminist perspective
   **Judith Plaskow**
   Year: 1990
   Found: Feminism (1); Judaism (2); feminist (1)
   Subject: women in judaism, feminism

3. **The voice of Sarah**
   feminine spirituality and traditional Judaism
   **Tamar Frankiel**
   Call number: 296.082 F
   Year: 1995
   Found: Feminism (1); Judaism (3); feminine (1)
   Subject: women in judaism, Jewish women, ...

4. **God, sex, and women of the Bible**
   discovering our sensual, spiritual selves
   **Shoni Labowitz**
   Call number: 221.922 L
   Year: 1998
   Found: Feminism (2); Judaism (1); feminist (1)
   Subject: women in the bible, bible and feminism, ...
User Generated Content
User Generated Content: Tagging

- Allows end users to bookmark items
- Allows professors to tag books for their classes
- Allows instruction and reference librarians to tag books for specific assignments
- Allows collection librarians to tag gifts with donor name
User Generated Content: Tagging

View: Cloud | Alphabetic List

- african-american_studies (28)
- alice_walker (9)
- ambrose_bierce (15)
- august_wilson (9)
- autism (9)
- baseball (9)
- basketball (16)
- bobbie_ann_mason (9)
- capps (8)
- dorothy_parker (9)
- edgar_allan_poe (29)
- eng102 (24)
- ernest_hemingway (7)
- family_violence (15)
- flannery_o'connor (27)
- flannery_o'connor_criticism (38)
- gay_and_lesbian_studies (36)
- gregory (9)
- html (17)
- information_literacy (8)
- james_baldwin (13)
- jewish_studies (40)
- john_cheever (11)
- john_steinbeck (12)
- john_updike (17)
- john_updike_criticism (13)
- joyce_carol_oates (16)
- langston_hughes (13)
- linux (10)
- literary_journals (21)
- michelangelo (8)
- nathaniel_hawthorne (16)
- native_american_studies (8)
- opposing_viewpoints (29)
- php (10)
- procrastination (19)
- raymond_carver_criticism (9)
- real_estate (15)
- richard_wright (14)
- sat (8)
- shirley_jackson (8)
- smith (10)
- southern_culture (13)
- tag (8)
- weight_loss (82)
- william_faulkner (23)
- william_faulkner_criticism (82)
- women's_studies (14)
- zora_hurston (15)
- zora_neale_hurston_criticism (10)
The Semantic Web: crafting infrastructure for agency
Leuf, Bo.
AVAILABLE - Storage - TK5105.88815 .L48 2006
Request this title

Information sharing on the semantic Web
Stuckenschmidt, Heiner.
AVAILABLE - Storage - TK5105.88815 .S84 2005
Request this title

A semantic Web primer
Antoniou, G. (Grigoris)
AVAILABLE - Storage - TK5105.88815 .A58 2004
Request this title

Intelligent information integration for the Semantic Web
Visser, Ubbu.
AVAILABLE - Storage - TK5105.88815 .V58 2004
Request this title

Spinning the semantic Web : bringing

Other Sources:
LINK+
(Show 245 results)

Refine by Tag:
apprentissage par action artificial intelligence business enterprises cataloging of computer network resources content area reading ethnicity fresno faculty publications california state university information visualization internet knowledge management
The good, the bad, and the ugly
Detroit Tigers: heart-pounding, jaw-dropping, and gut-wrenching moments from Detroit Tigers history
by George Cantor
Cantor, George, 1941-
Chicago : Triumph Books, c2008
178 p
ISBN 1600780520

View without comments
Add a note to the card:
Use the following graphic to select which position you want to add your note:

Position 1:

Position 2:

Position 3:

Add your marginalia!
Search

Your search found 33 items with all of the following terms:

- Keyword: american psycho [x]

Click [x] to remove a term, or use the facets in the sidebar to narrow your search.

What are facets? Results sorted by keyword relevance.

---

American Psycho: A Novel

by Bret Easton Ellis
Book 1991

Description
Now a major motion picture from Lion's Gate Films starring Christian Bale (Metroland), Chloe Sevigny (The Last Days of Disco), Jared Leto (My So Called Life), and Reese Witherspoon (Crue Intentions), and directed by Mary Harron (I Shot Andy Warhol).

Summary from Amazon.com

Tags
Ellis, Bret Easton

Availability

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>CALL #</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(UPPER LEVEL)</td>
<td>PS3555.L5937 A8 1991</td>
<td>AVAILABLE</td>
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<tr>
<td>(UPPER LEVEL)</td>
<td>PS3555.L5937 A8 1991</td>
<td>c.2 AVAILABLE</td>
</tr>
</tbody>
</table>

Comments (0) | Click for location and availability
The kite runner
by Khaled Hosseini

Members | Reviews | Popularity | Average rating | Conversations
--- | --- | --- | --- | ---
13,536 | 380 | 45 | ★★★★★½ (4.3) | 125

Recently added by: selddine, darlingmisty, pioneercynthia, BurlingtonNorthern, clind07, jadfair, kgsimms (see more)

Member reviews

Showing 1-3 of 380 (next | show all)

date ▼ | votes

A gripping story of friendship, betrayal and forgiveness/redemption. When I finished this book I told everyone I knew about it. [★★★★★]

kims-embroidery | Apr 27, 2008 | ☞

I agree with everyone who wrote that this is a wonderful book and a must read... I must say that it was just too depressing and it seemed to become more and more depressing as it went on. I just didn't love the way the book made me feel. (★★★)

quiebus | Apr 27, 2008 | ☞

Winner of the Penguin/Orange Reader's Group Prize 2006 and 2007 this book was a compellling read. Ranging from the cold Afghanistan winter of 1975 with friends Amir and Hassan in Kabul flying kites to the plight of refugees fleeing to Pakistan in the most appalling of circumstances we follow Amir to America and finally his return to his homeland in 2001.

At times it is an almost unbearably sad and tragic tale. There are striking contrasts between terror and tenderness, love and the cowardice and vengefulness of bullying. The main theme is one of 'giving' in boundless amounts yet not asking for anything in return as exemplified in Hassan's...
Integration
Integration: Widgets

**Find Books**

Use the Library Catalogue to search for books.

Go

Here are some suggested subject searches in the Library Catalogue:

- Folklore - Newfoundland and Labrador
- Tales - Newfoundland and Labrador
- Newfoundland and Labrador - Social life and customs
- Folk music - Newfoundland and Labrador

**Find Reserves**

To find reserves for your Anthropology course, type in the four digit number of your course.

ANTH [ ] Go

Or, search by course instructor.
Integration: RSS Feeds

• Saved searches
• New Books

Subscribe to feeds:

Stay up to date

This Search.
Subscribe via Bloglines, Google, RSS:FWD Email.

All Posts.
Subscribe via Bloglines, Google, RSS:FWD Email.

All Comments.
Subscribe via Bloglines, Google, RSS:FWD Email.

Embedded feeds:

New Titles in Art

Featured Item - Malaysian Art...

Art
- Visual shock: a history of art controversies in American culture / Michael Kammen.
- Art as theology: from the postmodern to the medieval / Andreas Andreopoulos.
- Manhood, marriage, and mischief: Rembrandt's Night watch and other Dutch group portraits / Harry Berger, Jr.
- Think like an architect / Hal Box.
- Indian art in detail / A.L. Dallapiccola.
- Vision, reflection, and desire in western painting / David Summers.
Integration: Linking & Bookmarking

• From “Scriblio” at Plymouth State

Link or embed this

Permalink
http://library.plymouth.edu

Embed Small
<a href="http://library.plymouth.edu"

Embed Large
<a href="http://library.plymouth.edu"

Bookmark this at

del.icio.us Facebook Digg StumbleUpon reddit BlinkList
Newsvine Furl Tailrank Ma.gnolia Netscape Yahoo! My Web
Google Bookmarks Technorati Windows Live
Integration: Union Indexes

- BlackLight at University of Virginia
  - ~3.7M MARC records
  - ~500 text object subset from the Digital Collections Repository
  - 320 Tang Dynasty Chinese poems from the Chinese Text Initiative

- Records are harvested into Solr/Lucene, and a common XML structure is applied to allow for searching and sorting of several sources simultaneously

http://www.lib.virginia.edu/digital/resndev/blacklight.html
Integration: Union Indexes

- VuFind: OPAC Replacement
- 2.0 Features (e.g. tagging, comments, relevancy, facets)
- Free, Open source (Gnu Public License)
- Ability to search multiple targets:
  - Catalog Records
  - Locally Cached Journals
  - Digital Library Items
  - Institutional Repository
  - Institutional Bibliography
  - Other Library Collections and Resources
The catalogue is no longer the primary finding tool for research material. The role of the catalogue is a little unclear, but it still has a place of prominence in most libraries.
Trends

- Decoupling the front-end interface from the back-end ILS
- Relevancy ranking & facets
- User-generated content
- Portability, exposing metadata to mash-ups
- Open architecture & web standards
- Catalogue as one of many useful targets
Further Reading


  http://www.libraryjournal.com/article/CA516027.html

  http://www.techsource.ala.org/blog/2006/03/how-opacs-suck-part-1-relevance-rank-or-the-lack-of-it.html

  http://www.libraryjournal.com/blog/1090000309/post/220009022.html

Further Reading

  http://www.libraryjournal.com/blog/109000309/post/1950023995.html

- JISC & SCONUL. Library Management Systems Study: An Evaluation and horizon scan of the current library management systems … for UK higher education. March 2008
  http://www.jisc.ac.uk/media/documents/programmes/resourcediscovery/lmsstudy.pdf

- INGC4LIB listserv (Next Generation Catalogs for Libraries)
  http://listserv.nd.edu/archives/ngc4lib.html

- Web4LIB discussion list  http://lists.webjunction.org/web4lib/


  http://www.librarytechnology.org/
Thank You.