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Yale Library IT Staff

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How Users Search Orbis
By Katie Bauer on Apr 30, 2015 10:25 am

The most used online resource the Yale University Library offers is Orbis, the search and display interface for its catalog. As the library develops a new discovery tool for the Orbis (and Morris) catalog, it's an appropriate time to review how people search in Orbis.

In Orbis, users are presented with a Basic Search page by default, where they may enter a string of words and execute a Keyword search. They may elect to change Keyword to a specific field, such as Title, Journal Title or Author, In addition they may select a Quick Limit, so that the search only returns a specific format (e.g. books), or recent material (published after 2007).

Research has shown that in general most users stick with a default search and do not often add limits or select a specific field to search. The data for Orbis searches confirm this finding. In searches run in March and April, 2015, users overwhelmingly (97%) ran basic searches with no limits or specific fields selected.
Implications for Discovery

The search interface approach taken by most Web-scale discovery systems such as Quicksearch, is to present a simple search box with little to no advanced search functionality. The expectation is that the user will execute a simple, broad search. The search results will be presented with facets, which represent subsets of results. The hope is that the user will see facets and use them to more narrowly focus her search. In contrast, a traditional library catalog search presents the user with options to set limits before the search is executed. As seen in the Orbis use data, this traditional approach does not seem to resonate with many users. We know that the majority of our users, when presented with search options from a search page, will execute a basic search with no limits or specific fields selected. The question remains if users will find facets as presented in Quicksearch to be a useful way to manipulate search results.

How Search Activity Was Measured

These search statistics were gathered using Google Analytics. Every time someone goes to the Basic search page, a pageview is recorded. Another pageview is recorded when a search is executed, and again if the user clicks on the next page of results. One search can result in many pageviews. However, unique pageviews, the metric used here, are recorded only once during a search session. Any executed search will contain some variation on the term searchArg in the URL. Here is an example from Basic Search:

http://orbis.library.yale.edu/vwebv/search?
searchArg=dogs&searchCode=GKEY%5E*&limitTo=none&recCount=50&searchType=1&page.search.search.button=Search

In the search above a search was executed for dog as a keyword (denoted by searchCode=GKEY). No limits were applied.

More complex searches can be run from Basic Search by selecting a field to search or applying one of the Quick Limits, such as

http://orbis.library.yale.edu/vwebv/search?searchArg=dog&searchCode=TALL&limitTo=Date%3D2007-
In this case the Title field was selected (searchCode=TALL) and a limit was set to look for publications from 2007 to the present (limitTo=Date). Search terms can be combined using Advanced Search. Advanced searches can be found in Google Analytics because they contain numbered search terms searchArg1, searchArg2 and searchArg3.

Library IT and LSF Complete GFA LAS Overhaul
By Raymond Frohlich on Apr 17, 2015 02:29 pm

Since the inception of the Library Shelving Facility (LSF), staff rely on GFA’s Library Archival System (LAS) for inventory and storage management of both local and in transit items. Staff from Library IT and the LSF, in conjunction with GFA, have successfully completed both an upgrade and migration of the LAS application. Thanks to Mike DiMassa, Gary Burcheski, and staff at LSF for their participation in the planning and testing phases of the project.

For the original project announcement see here.

Quicksearch Update April 2015
By Kalee Sprague on Apr 13, 2015 10:52 am

Several new features and bug fixes were rolled out in the first two weeks of April.

We did a full extract and re-load of all Orbis and Morris records, in order to take advantage of several changes we made in response to user Feedback.

To highlight a few of the changes made possible by the re-load:

- All records will now have an Acquisitions Date, so sorting by Acquisitions Date will make more sense when sorting by ‘Acquired earliest’
- URL Links stored in the MFHD are now extracted and will appear in the holdings section of the item view.
- We updated the format mappings and labels for two formats - “Archives or Manuscripts” and “Dissertations & Theses”. For more information about format mapping changes, see: How Quicksearch Assigns Format Facet Terms
- We updated language mapping to add ISO 693-2 codes
- We added 69x local subject fields to the Subject Index
- We fixed the Google Books bug that sometimes caused the incorrect book cover to display

The total number of records extracted and re-loaded was:

Morris records: 459,491
Orbis records: 9,787,510

For a full list of bugs fixed in the April update, see the Quicksearch 4.0 Release Notes.

DPLA joins the Hydra Partners
By Michael Friscia on Apr 10, 2015 07:37 am

We are delighted to announce that the Digital Public Library of America (DPLA) has become the latest formal Hydra Partner. In their Letter of Intent Mark Matienzo, DPLA’s Director of Technology, writes of their “upcoming major Hydra project, generously
funded by the IMLS, and in partnership with Stanford University and Duraspace, [which] focuses on developing an improved set of tools for content management, publishing, and aggregation for the network of DPLA Hubs. This, and other projects, will allow us to make contributions to other core components of the Hydra stack, including but not limited to Blacklight, ActiveTriples, and support for protocols like IIIF and ResourceSync. We are also interested in continuing to contribute our metadata expertise to the Hydra community to ensure interoperability across our communities.”

Update: Service Disruption Notification

*By Raymond Frohlich on Apr 09, 2015 03:53 pm*

Library IT trialled a fully automated disruption notification service from December 2014 through February 2015. Shortly thereafter we asked staff to participate in a short survey to evaluate the trial and found that the majority of survey respondents indicated a desire to see the service continue as an opt-in offering.

For those that provided feedback we thank you very much for your participation and helpful comments. We are pleased to announce that the disruption notification opt-in service is now available to all. **Please take a moment and join the new opt-in mailing list at the following address:** [http://web.library.yale.edu/lit/email-alerts](http://web.library.yale.edu/lit/email-alerts)

If you are a supervisor or department head interested in registering your entire group, or you would like to recommend the monitoring of other public services, please coordinate with Cindy Greenspun ([cindy.greenspun@yale.edu](mailto:cindy.greenspun@yale.edu)) in Library IT. Please route all other questions or comments to Raymond Frohlich ([raymond.frohlich@yale.edu](mailto:raymond.frohlich@yale.edu)).

Two Buildings, One Workflow - Multi-Site Delivery for Beinecke Materials

*By Steelsen Smith on Apr 07, 2015 09:48 am*

The Beinecke library’s major renovation will impact all areas of service as the historic building is shuttered between May 2015 and September 2016. Both patrons and staff depend on reliable access to the unparalleled rare materials collection, and therefore need a reliable requesting mechanism to get offsite materials delivered to either the temporary public reading room (located in SML) or the new Beinecke Technical Services space at Science Park.

Special collections stored at the LSF have historically only been deliverable to the owning collection - further movement is handled by the collection's staff. Changing this to allow for two formal delivery locations required a change to Aeon, the software used by special collections to manage requesting, and to the scripts used by the LSF to process incoming requests. Working with Beinecke and LSF Staff, Enterprise Systems and Services personnel were able to identify an unused field in the Aeon application and use it to store the desired pickup location. The Aeon and GFA applications responsible for integration were then modified to recognize this field and use it to represent a new "drop code" for Beinecke materials. Staff can now populate this field from a radio button in the web request form or through direct entry in the staff client - no other changes to the request are necessary.

Patron requests are automatically designated for the public reading room without staff intervention. With the first test requests processed successfully, Beinecke's staff at the new technical services headquarters will be ready to continue work uninterrupted after their move. This solution also opens the door to requesting across special collections - allowing readers to view materials at the reading room most convenient for them. While there are many policy, safety, and preservation concerns to be addressed, this project has helped to ensure continuity of service for Beinecke patrons while opening the discussion for more convenient material access for special collection patrons in general.

Library IT Tech Talks, April 9, 11-12 in Bass L01

*By Jenn Nolte on Apr 02, 2015 09:19 am*

Yale Library IT invites you to our April Tech Talk Lightning Round. We will give a brief five-minute update on the topics below, followed by a ten-minute question and answer period. These talks are meant to be an informal way for IT staff to share
information about initiatives and projects, while giving library staff the majority of the time for their questions and feedback. You are free to ask about any aspect of the initiative or project and not just what we elect to highlight.

The details:

Tech Talk Lightning Round

When: April 9, 11:00am to 12:00pm

Where: Bass L01

Agenda:

**Request fulfillment with Aeon**, Steelsen Smith

As part of the Aeon expansion we are revisiting the way that requests are made for special collections. After gathering requirements from public services and technical services staff, as well as the requirements of the Fortunoff and Kissinger projects, we will be readying to debut forms that are able to aggregate requests from multiple sources and route them to the appropriate fulfillment tool. New features will include single form multi-item requesting, enhanced restrictions, and an exciting new format.

**Kissinger Discovery Project**, Lakeisha Robinson and Tracy MacMath

We will discuss the efforts of Library IT to bring the Kissinger Collection into Findit via the Hydra stack. We will give a brief overview of current functionality and what is new for this implementation (the context tree, a new image viewer, authentication and access control, full-text search), and also discuss how our digital collections will be standardized in Findit.

**Dashboard for LibGuides**, Katie Bauer

The User Experience Group, working with Sarah Tudesco, has created a dashboard for all library subject guides. The dashboard, created using Tableau, presents a small set of key metrics from Google Analytics in a brief visual display designed to convey how people use individual subject guides. We will work with guide owners to help them take action based on the data. We have now joined the central ITS effort to use Tableau dashboards, and over the next year will create similar dashboards for all library digital interfaces. Katie Bauer will show the dashboard, briefly describe the metrics and actions that might affect use, and discuss next steps in the project to create other dashboards. Yale Libguides Usage Dashboard - [http://j.mp/yale_libguides](http://j.mp/yale_libguides)

**Legacy Digital Collection Migration**, George Ouellette

As a part of a library wide initiative, Library IT and Metadata Services and Catalog Management are collaborating to migrate digital content from a variety of legacy systems into our Hydra/Fedora/Backlight infrastructure. We will discuss the process and workflow, the current status of collection migration and our schedule for future migrations.

We look forward to seeing you next week!

**LIT Newsletter is up!**

*By Jenn Nolte on Mar 31, 2015 02:48 pm*

The LIT Newsletter for Tuesday March 31st 2015 is up! The LIT Newsletter will be published every 2 weeks and emailed to Yulib. You can find this week’s newsletter [here](http://j.mp/yale_libguides).

The next issue of the LIT Newsletter will be published Tuesday April 14th 2015.

**IMLS funds collaborative development of "Hydra-in-a-Box"**
The Digital Public Library of America (DPLA), Stanford University, and DuraSpace will foster a greatly expanded network of open-access, content-hosting "hubs" that will enable discovery and interoperability, as well as the reuse of digital resources by people from this country and around the world. At the core of this transformative network are advanced digital repositories that not only empower local institutions with new asset management capabilities, but also connect their data and collections. Currently, DPLA’s hubs, libraries, archives, and museums more broadly use aging, legacy software that was never intended or designed for use in an interconnected way, or for contemporary web needs. The three partners will engage in a major development of the community-driven open source Hydra project to provide these hubs with a new all-in-one solution, which will also allow countless other institutions to easily join the national digital platform.


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**Security and Sharing**

*By Steelsen Smith on Mar 30, 2015 11:04 pm*

Over the past month Steelsen Smith from the Enterprise Systems and Services group had the opportunity to attend two events related to work we do in Library IT a NERCOMP sponsored security conference and the ILLiad international resource sharing conference.

The first was Boston College's annual "Security Camp" - a free one day event for IT professionals. The 2015 agenda included lots of timely material, including presentations on identity and access management, docker (a software packaging and containing system), security scanning, DDOS attacks and more. The full agenda is here.

For anyone who manages the deployment of information systems, it has been impossible to avoid docker. In a nutshell, this technology allows users to bundle all of the interrelated parts of an application into a "container" that can then be run on a physical or virtual server. The advantage is that many code packages can share the same server without the overhead of a full virtual machine per application. The platform has proven to be robust, and the presenter (from MIT) made a great case for docker having applications in the classroom or enterprise. The greatest strength of the solution is that applications dependencies, e.g., Java version, can be updated individually without affecting their co-hosted peers. The software can also run on a hardened read-only OS (CoreOS as an example). Docker should not be trusted as fully secure for hosting potentially hostile containers, however. The main vulnerability of the platform comes from its strength - allowing direct hardware sharing. This means that if an application is carefully written to monitor hardware activity it can learn something about the containers it resides with. Also, if an application is able to successfully compromise the kernel it will have access to all other containers on the machine whereas in a dedicated VM it would require a few extra steps.

Another interesting talk focused on handling distributed denial of service attacks (DDoS) effectively. A DDoS is a very basic attack - it drowns out legitimate website requests by triggering an overwhelming number of invalid requests (like shouting in a room where people are speaking) and has become surprisingly easy - there are sites that will let you control their "botnets" of slave machines for a small fee. These attacks are also effective because they rely on the internal operation of fundamental internet protocols (e.g., SNMP or exploiting the TCP handshake) making them hard to protect against. In fact, the two best
defenses (note that firewalls are not at all helpful in a DDoS attack) involve using outside providers to manipulate the internet to deflect traffic away from you. For web requests a CDN (content distribution network) can host your website and split it among datacenters around the world which are collectively able to withstand an attack. For attacks based on amplification (requesting a long answer with a short question) a provider like Incapsula or NeuStar can actually intercept internet traffic for you and scrub it - for a sizable fee. While universities generally do not need to worry as much as banks, if the blogosphere takes issue with something done by your institution then a DDoS attack becomes a real possibility.

A few weeks later came the ILLiad International conference in Virginia Beach, VA. Mostly attended by librarians with presentations focused on resource sharing there were a number of interesting talks that applied directly to work in IT both with our support for interlibrary loan software and discovery.

Linked data was one of the unexpected highlights of the conference with the vendor Zepheira giving talks on how relationships between assets as exposed by linked data can drive use. The theory is that discovery necessarily leads to increased use - therefore the easier it is for search engines and link aggregators to discover your content the easier it will be for users to discover it. The natural extension is that, once discovered, your resources should also be easy to request. Consolidated requesting - having your users register once and search and request through a single interface - is one of the ideal outcomes of a library's analysis and enhancement of its web presence.

Another useful presentation topic addressed how medical libraries handle requests from independent medical researchers and physicians. A service, loansome doc, allows physicians to affiliate themselves with a library to request medical articles. The library then procures those materials on their behalf. There are more differences than similarities, however, when it comes to how these materials are filled. Some libraries have a nearly automated process while others still provide highly individualized service. Some libraries allow electronic delivery to be automatic while others require approval and payment. While it was fascinating to learn about what different medical libraries are doing it was also interesting to think about how article requesting might work as a general service to the public - allowing the "visitor privilege" to be extended to folks elsewhere on the internet. There are no doubt serious legal considerations, but how this could be safely done is a topic of considerable interest.

In both securing information and sharing information IT systems can help the university and the library within it meet institutional goals (or even just comply with regulations). These two events provided great insight into what our peers are doing (or not doing) and the results in their institutions. Although there was far too much covered for a single blog post, please feel free to email me if you're interested in notes or to talk about any of the agenda topics.