

2018-05-30

# Custom Discovery Interface at the University of Michigan Library

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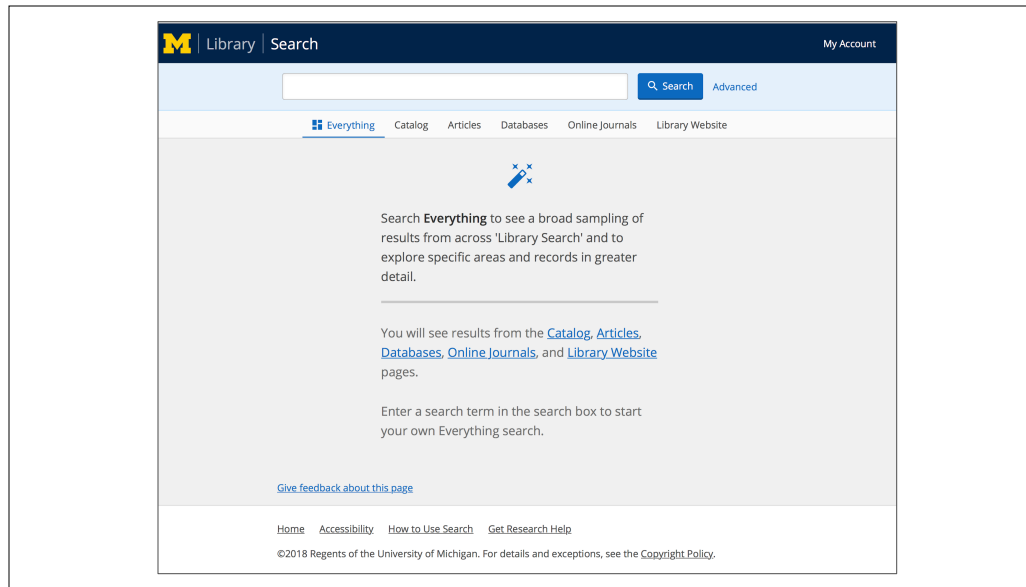
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*Downloaded from Deep Blue, University of Michigan's institutional repository*

# Custom Discovery Interface University of Michigan

New Developments in Discovery  
BTAA Library Conference  
30 May 2018

Ken Varnum  
@varnum



I'm going to spend a few minutes this afternoon talking about the U-M library's search interface; and by talking in a bit of detail about the underpinnings, I hope to illustrate the direction that we think discovery is taking. The interface is "in the wild" and you're welcome to try it out yourself. The URL is at the end of the presentation.

As Roger and Bill both highlighted this morning, we Big Ten libraries suffer from an embarrassment of riches. We are fortunate to have a lot of resources to share with our faculty, staff, students, and the world. And that makes the starting points more complicated. It is not enough to send people to the catalog, or to a LibGuide, or to the one relevant subject database. Most of us have all of these aplenty, and more — with different breadths and depths depending on our institutions strengths and focuses.

For Michigan, we focused on a finite, but challenging, set of goals, as we thought about updating our aging discovery environments.

## Goals

Improve user experience for ALL users

Reduce instruction complexities

Modernize infrastructure / reduce technical debt

Focus on the interface, not the underlying data

I'm going to focus on the technology and project management parts. Ben has talked some about our user experience process.

Ben has already covered our user experience work; we started with user needs, validated our designs along the way as we built out the site, and have exhaustively tested the site.

## Teaching the Interface

Coordinating with library instruction staff

It matters much less where you start; you get all the options all the time

Reducing the cognitive load throughout the redesign

## Technical Debt

A balloon payment was due

Pay-down old technical debt (retire multiple discovery layers built ca 2010)

Setting ourselves up for the next big project

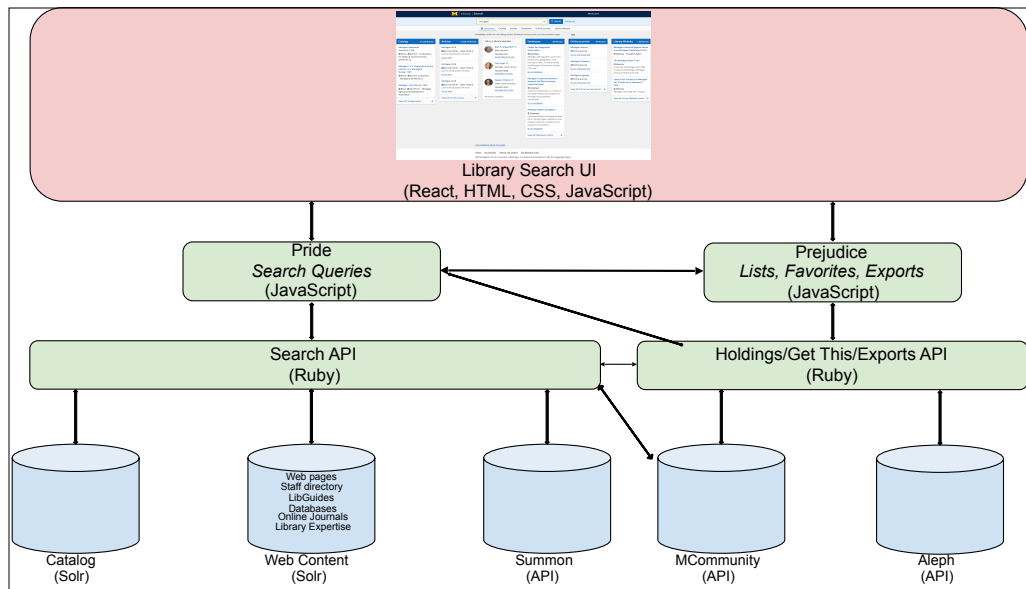
Reducing the complexity of what we maintain

Catalog based on what was VuFind when it was born, and morphed into our own thing, far from the trunk from which it sprang

Article search, database/journal finder, and bento box discovery based on Drupal 6 (and updated w/out significant change) to Drupal 7.

Our website is also in debt. But we're simplifying the loan — refinancing, in a way — to make that project easier. Cleaning up a lot of functions that were shoehorned into the “website” but that maybe shouldn't have been, with hindsight.

Building with a single architecture — all our searches work the same way (both for users, and behind the scenes). We can add functionality to all at once, while preserving the distinctions our users have told us they value.



Solr (5.5) on the back end

Our own code in the middle — “Pride” & “Prejudice” — that act as brokers:

- User queries from the front end passed on to Blacklight
- User information to show appropriate content & offerings
  - “Get This” (page, copy, deliver) for catalog items
  - Correct scope for Summon-delivered content
- Everything is returned to the front end as JSON objects

Extensible -- could add more indexes, or more services

## Our New Infrastructure

Solr (5.5) on the back end

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## Front End

- Responsive
- Accessible
- Keyboard
- Screen-reader

The screenshot displays a library search interface with a dark blue header. The search bar contains the word 'library' and a search button. Below the search bar, there are navigation tabs for 'Everything', 'Catalog', 'Articles', 'Databases', 'Online Journals', and 'Library Website'. A message indicates that the catalog results include both physical and online materials. The main content area shows search results for 'Library' and 'The library', each with a table of links, descriptions, and sources. The interface is designed to be responsive and accessible, with clear navigation and filtering options.

Library Search

library

Everything Catalog Articles Databases Online Journals Library Website

Catalog: results from everything in our physical collection (books, audio, video, maps, musical scores, archival materials, and more), as well as materials available online such as electronic books, streaming audio and video, and online journals.

Library

1 to 10 of 1,683,431 Catalog results

Sort by Relevance

Library

Format: Serial, Journal

Main Author: Eastern Illinois State Normal School (Charleston, Ill.)

Published: 1800 - Charleston, Ill.; Eastern Illinois State Normal School, Library.

HathiTrust Digital Library

Link	Description	Source
Full text	1907 1912 1916	University of Illinois at Urbana-Champaign

The library.

Format: Serial, Journal

Main Author: Newark Public Library.

Published: 1918 - (Newark, N.J.)

HathiTrust Digital Library

Link	Description	Source
Search only (no full text)	v.1 1918-1925	University of Michigan

Show All 3 HathiTrust Sources

Ask a Librarian Open

German 47,687

Show all 20 Language Filters

Availability

Date of Publication

Place of Publication

Region

Location

Author

1 to 10 of 1,683,431 Catalog results

Sort by Relevance

Library

Format: Serial, Journal

Main Author: Eastern Illinois State Normal School (Charleston, Ill.)

Published: 1800 - Charleston, Ill.; Eastern Illinois State Normal School, Library.

+ Add to list

HathiTrust Digital Library

Full text	1907 1912 1916	University of Illinois at Urbana-Champaign
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The library.

Format: Serial, Journal

## Delivery Options

- Options organized by generally fastest to slowest
- Options are sensitive to the kind of item (circulating or not, available or not) and the user's status.
- Options are presented from the holdings list; when there's a physical item that could be obtained, the link is present.

Description	Status	Call Number
v.1	On shelf	PQ 2631 .R63 A72 1934

How would you like to get this item?

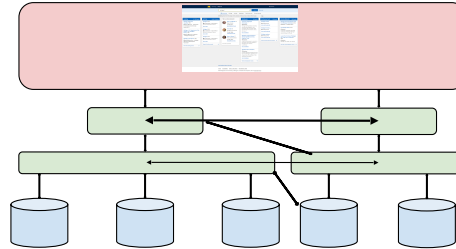
- ▶ [Find it in the library](#)  
Self Service (Immediate access to a physical copy when the library is open)
- ▶ [Pick it up at the library](#)  
Library-to-Library (Expected availability 1-3 days)
- ▶ [Have it Delivered](#)  
Document Delivery (Expected availability 2-4 days)
- ▶ [Request to have a small portion scanned](#)  
Document Delivery (Expected availability 1-3 days)

Frequently asked questions

## Building for the Long Term

We are trying to future-proof, or at least future-insure, our architecture

In fact, we already talk to three Solr indices: catalog data (data is managed by Aleph ILS), all the other locally-managed content (data is managed largely in Drupal, but also LibGuides), and Articles (data is managed by Summon)



If we should change ILS systems, as long as we can get data out of it, we should be OK for the UI. If we were to change article discovery platforms, we could do the same. And if our CMS changed, as long as we can get the data into d, we're happy.

AND... If we change the front end to something else, the back end wouldn't care.

## Thank You

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<https://search.lib.umich.edu/>

Code Available at <https://github.com/mlibrary>