# LIBRARY

# Search, Report, Wherever You Are: A Novel Approach to Assessing User Satisfaction with a Library Discovery Interface

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# Purpose and Goals

# Our Discovery Environment

- In Summer 2018, the U-M Library launched a new discovery interface, Library Search: https://search.lib.umich.edu
  - Facilitates the discovery of the Library's resources, collections, spaces, and expertise
  - Uses a custom user interface
- It was iteratively assessed over the course of its design and development through numerous user research methods and usability testing

For a technical overview of Library Search, see https://search.lib.umich.edu/technical-overview.

# Survey on Catalog Search Satisfaction

However, Library Search still wasn't quite meeting user needs.

So we created a tool that we could use to:

- Get a baseline measure of overall user satisfaction with catalog searching
- Use again over time to assess whether improvements to Library Search correspond to increases in satisfaction

# Methods

# Focus on one area of interface

U-M Library's discovery interface has 6 categories:



Our focus: **Library Catalog**

- Critical area of interest from the library staff and faculty
- U-M Library currently migrating from Aleph to Alma

**Key goal:** Solicit feedback based on respondents' areas of expertise, not based on canned searches generated by assessment team

# Our Approach

**Our choice of methodology was informed by:**

- The need to obtain feedback in a timely manner
- Did not have staff time for methods such as 1:1 interviews
- The need to facilitate some interaction with the catalog search interface

**Participants' interactions with the catalog were mediated by Qualtrics**

- Allowed us to guide many more people through searching and reporting in a short period of time

# Participants

**Survey invitation sent to 96 U-M library employees whose work involves using search interface** (survey open from December 6-19, 2019)

- 40 provided usable data; 36 completed whole survey
  - 42% response rate; 90% completion rate
- Participants represented 5 library divisions
  - Most in Research and Learning & Teaching
- Time working in library
  - < 2 years: 8%
  - 2 to 5 years: 22%
  - 5 to 10 years: 8%
  - > 10 years: 58%
  - Prefer not to say: 3%

# Questions about Three Search Types

- **Known item search**: user wants an item that is known to be in the catalog
  - Specific title, author, ISBN

- **Known set search**: user wants one of a known group of things
  - A piano concerto by Beethoven, an introduction to chemistry

- **Exploratory search**: user wants item(s) on a general topic
  - Video games, botany

- Item(s) appear as expected in results?
  - If not, explain
- Satisfaction with:
  - **Position/relevance** of desired item(s)
  - **Speed** of returned results
  - **Sufficiency of info** in item record (known item only)
  - **Ability to determine availability** (known item only)
  - **Clarity regarding item location** (known item only)

# Example of search and report question

**IMPORTANT**

In the first three sections of this survey you will be asked to open other tabs in your browser. For your convenience, always keep the tab with the survey open.

(Note: you can return your most recent spot in the survey if you close the survey tab by mistake.)

Back       Next

## Section 1 of 4: Searching for a Known Item

**STEP 1: INSTRUCTIONS**

**Below is a link to the Catalog. Once in the Catalog:**

- Please enter the title of an item that you know to be in the Catalog.
- Look at no more than the first two pages of results.
- Then click 'Next' in the survey.

Click here to open Catalog Search in a new tab.

Back       Next

# Example of search and report question

# Additional Questions

- **Current satisfaction**
  - For participants who used interface in previous two weeks
    - Speed of current version
    - Relevance of results in current version
    - Overall satisfaction with current version

- **Relative satisfaction**
  - For participants who recalled using the interface in its early form (one year prior)
    - Speed compared to a year ago
    - Relevance of results compared to a year ago
    - Overall satisfaction compared to a year ago

# Findings

# Known Item Searches



**Known Item in Search Results**

| | |
|---|---|
| 75% | Saw item as expected |
| 18% | Saw item but not as expected |
| 3% | Didn't see item |
| 5% | Other |

**Satisfaction with Position of Known Item**

| | |
|---|---|
| 49% | Very satisfied |
| 43% | Moderately satisfied |
| 5% | Moderately dissatisfied |
| 3% | Very dissatisfied |
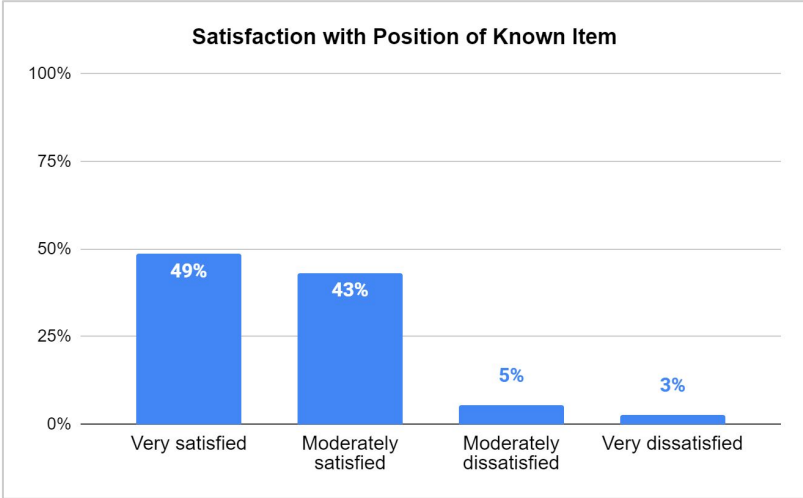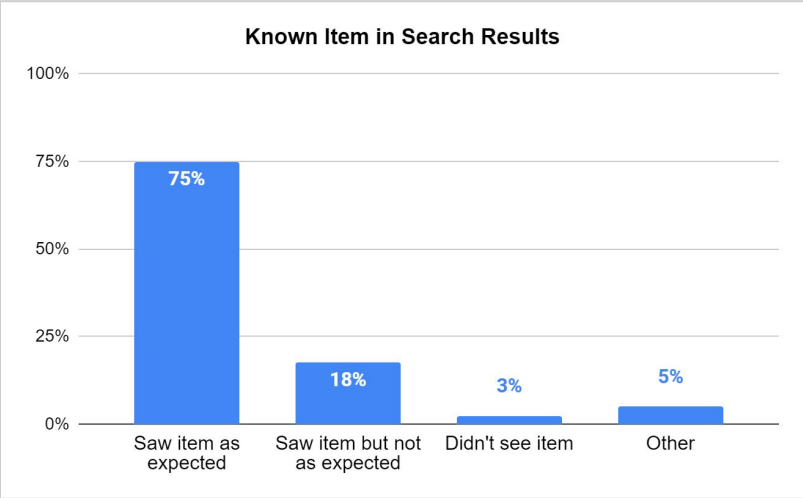
# Known Item Searches

We learned a good deal from searches with unexpected results

Methodology allowed developers to recreate results and see comments. E.g....

- Faceless+killers&library=All+libraries
  - "I see separate records for different formats (i.e., physical copy and ebook) of the same edition, but I would expect to see one record with different holdings."

- Teaching+translation+%3A+programs%2C+courses%2C+pedagogies&library=U-M+Ann+Arbor+Libraries
  - "Since the title is long, I did not expect to see so many results. My title is on top but it is disconcerting to see so many irrelevant hits."

- new+york+times&library=U-M+Ann+Arbor+Libraries
  - "The actual NYT should be first and then the index. The Special Collections stuff is confusing to patrons. And why do the Proquest versions have their own entry?"

# Known Set Searches

**Expected Results in Known Set Search**
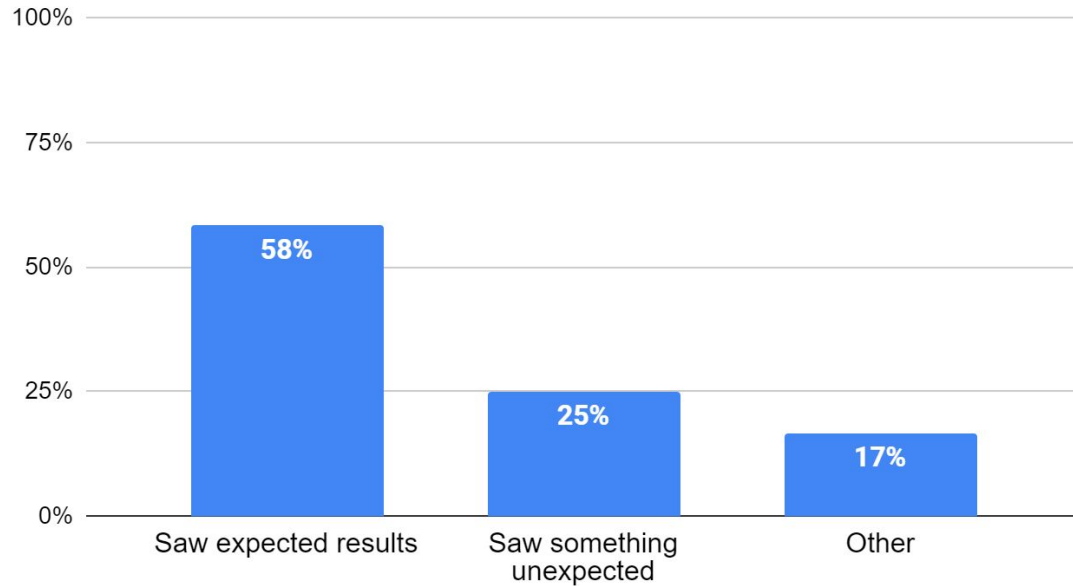


Similar results with satisfaction about **position** (90% satisfied) and **amount of information presented** (83% satisfied)

# Known Set Searches

Examples of comments about unexpected results:

- harry+potter&library=U-M+Ann+Arbor+Libraries
  - "I expected to see 'Harry Potter and … [rest of titles of 8 books and movies]', and NOT 'Field Guide to Harry Potter,' or '60 minutes. Harry Potter produced by Rome Hartman' three times!"

- Hamlet&Library=All+libraries
  - "The first three items listed are special collection items. I would rather see circulating copies in the top slots. None of the items on the first page were by Shakespeare (or about the play by Shakespeare)."

# Exploratory Searches



**Expected Results in Exploratory Search**

- Saw expected results: **56%**
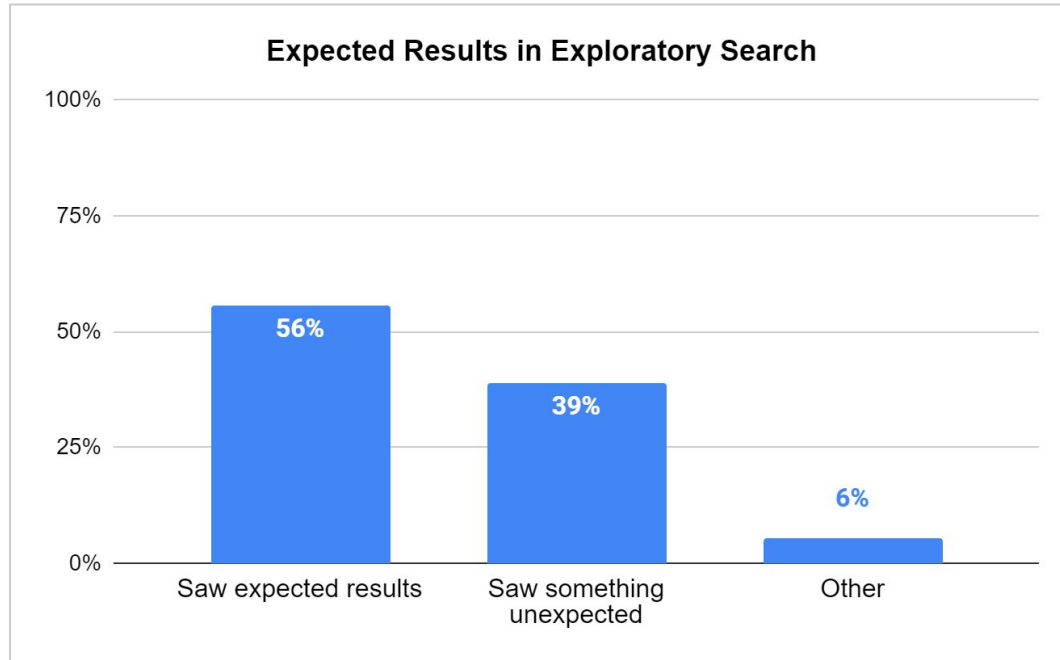- Saw something unexpected: **39%**
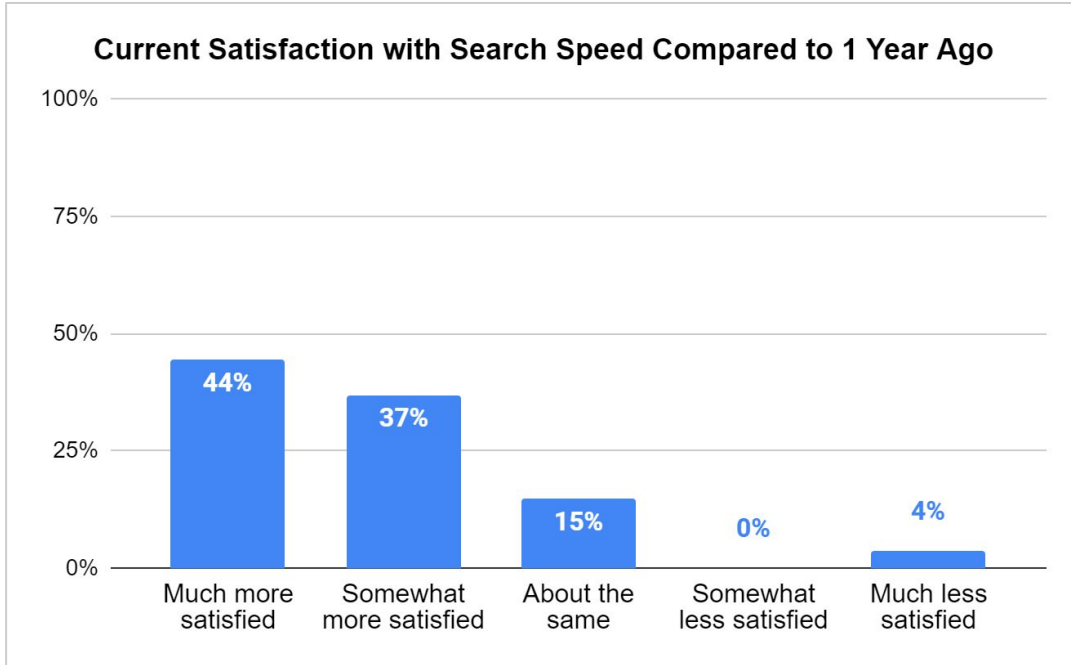- Other: **6%**

Similar results with satisfaction about **position** (85% satisfied) and **amount of information presented** (80% satisfied)

# Exploratory Searches

Examples of comments about unexpected results:

- critical+race+theory&library=U-M+Ann+Arbor+Libraries
  - "The very first entry is not as relevant as the rest on the first page. I was looking for info about critical race theory in general. I was surprised that something about sports came up before introductory items about this topic."

- linguistics+encyclopedias&library=U-M+Ann+Arbor+Libraries
  - "What is driving the relevance ranking? Four of the top seven results are very old. Two are a specialized sub-area. The most important item is #7, Elsevier's Encyclopedia of Language & Linguistics, 2nd ed."

- bell+birds&library=U-M+Ann+Arbor+Libraries&page=2
  - "I was expecting to see scientific works related to birds, but instead I saw only works of literature and music that mentioned birds in their titles."

# Relative Satisfaction

**Current Satisfaction with Search Speed Compared to 1 Year Ago**



| Category | Percentage |
|---|---|
| Much more satisfied | 44% |
| Somewhat more satisfied | 37% |
| About the same | 15% |
| Somewhat less satisfied | 0% |
| Much less satisfied | 4% |

Compared to 1 year ago (for those who said they recalled their earlier experience), **72% were more satisfied with search relevance**.

Compared to 1 year ago (for those who said they recalled their earlier experience), **82% were more satisfied with search overall**.

# Current Satisfaction

## Satisfaction with Recent Speed of Search
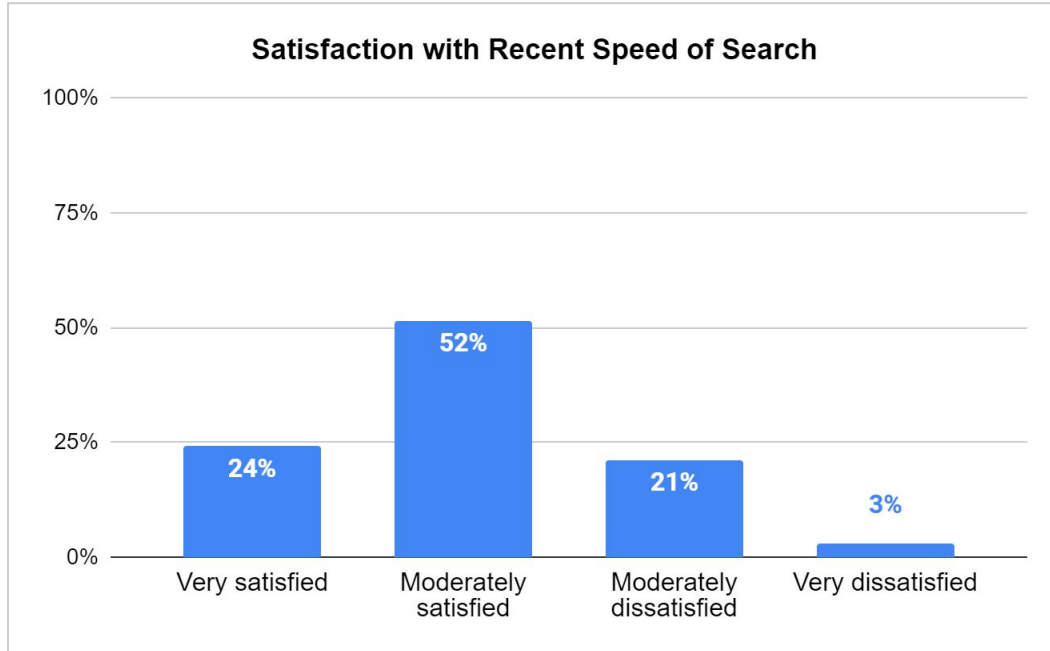


Current satisfaction with recent (December 2019) relevance was 70% satisfied.

Overall satisfaction with recent (December 2019) search experiences was also 70%.

# Implications and Next Steps

# Pilot a Success

Running a pilot with Librarians was helpful!

- Allowed development to focus on specific areas and gave us solid, actionable data
  - Metadata display improvements
  - Added information on where items are located
  - Currently working on improving how we translate user queries into back-end searches
- Highlighted features we needed to migrate from Aleph OPAC into Catalog Search

# Follow-Up Surveys

- Two identical follow-up surveys were run simultaneously in Fall 2020
  - One to campus faculty, staff, students
  - One to librarians and partner libraries
- Surveys were slightly different than the original pilot
  - Focus on all the Search options, not just Catalog Search
  - Asked about satisfaction with speed, position of items in search results, etc.
  - Didn't ask about overall satisfaction with Library Search, or about relative satisfaction compared to 1 year ago
- Surveys closed mid-October 2020
  - Response: 99 campus users and 54 library staff, including partner libraries

# Concluding Thoughts

**Successes:**

- Being in a remote setting didn't have an impact on ability to conduct research (though being in a pandemic probably lowered the response rate)
- Great way to reach lots of people with relatively low interaction cost
- Using this method provided us with solid actionable data
- Expanded our ability to observe and see how we've succeeded

**Challenges:**

- Lack of trust in Library Search because our legacy catalog (Mirlyn Classic) is precision-focused and returns smaller, more narrowly focused results

# Thanks!

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