ISSN 2324-7878 (online)
palrap.org

PaLA College & Research Division (CRD)

Pennsylvania Libraries: Research & Practice

Practice

Customizing Summon for a Specific User Population

A Health Sciences Library's Experience

Marie Cirelli

Marie Cirelli is the Collection Access & Support Services Librarian, Harrell Health Sciences Library, Penn State College of Medicine, mcirelli@pennstatehealth.psu.edu

The Harrell Health Sciences Library: Research and Learning Commons (HHSL) tailored their discovery solution, Ex Libris Summon, to better meet the needs of its health sciences users. The customizations encourage more sophisticated searching behaviors and improves usability of the library website for browsing and finding known items. HHSL worked with Penn State University Libraries and their Ex Libris Customer Success Manager to create customized search panels as well as turn on features available in Summon. While these customizations are specific to a health sciences library, any library can use these practices to customize their instance of Summon for their user group(s).

Background

The Harrell Health Sciences Library: Research and Learning Commons (HHSL) is the health sciences library for the Pennsylvania State University (Penn State University). It supports the College of Medicine and the university's academic medical center (Milton S. Hershey Medical Center, Cancer Institute, and Children's Hospital). HHSL serves faculty, staff, and students at the main campus in Hershey, Pennsylvania and the regional campus in University Park, Pennsylvania. HHSL is organizationally connected to Penn State University Libraries and most of electronic resources are shared across all campuses of Penn State University. However, there are a handful of resources that are unique to HHSL. Access to electronic resources is managed using Ex Libris Serials Solutions Consortium Edition as the knowledgebase. The consortium edition includes a parent and child profile, and resources can be shared from the parent to the child. The consortium edition includes the ability for HHSL to have its own instance of Summon discovery that can be tailored to its specific user population.

Literature Review

Web-scale discovery services arrived to the library scene in an attempt to compete with Google Scholar in 2009 (Shahid, 2019). By creating a centralized index, web-scale discovery services allow rapid searching across multiple library resources in a single easy to use search box (Miranda & Miah, 2019). Because of the ability to easily search across many siloed collections, they have been embraced in academia, but their application has been slower at medical institutions (Miranda & Miah, 2019).

This slow adoption could be due to several reasons, including lack of relevant search results on health sciences topics, exclusion of key databases in the health sciences (Long, 2017), or librarians' personal attitudes towards discovery searching (Foster, 2018). Some U.S. medical schools have access to discovery systems through their parent institution, but do not find them satisfactory, and have made attempts to improve the system or find a replacement. For example, Long (2017) supplemented Ex Libris Primo, his university's discovery system, with a federated search engine specific to the health sciences. Miranda & Miah (2019) created "frames" of search filters with EBSCO Discovery Services' (EDS)' API that were specific to different health sciences professions. Based on evaluations of EDS, Thompson et al. (2018) implemented changes including adding widgets to highlight medical content for their user population.

A large fraction of the literature on web-scale discovery in the health sciences focuses on comparing discovery searches to searching the index Medline, available on the PubMed platform. PubMed, provided by the National Library of Medicine, is considered a gold standard in health sciences, because it contains one of the largest biomedical indexes in the world and has powerful searching capabilities with its controlled vocabulary and term mapping. Ketterman & Inman (2014) compared the number of citations in PubMed to their discovery platform Summon, which they shared with all of East Carolina University. They concluded that Summon was a good supplement but not a replacement to searching PubMed. Similarly, Hanneke & O'Brien (2016) compared EDS, Ex Libris's Primo, and ProQuest's Summon with PubMed in terms of relevance of results. They also noted that discovery served as a good supplement to PubMed searching, because of its retrieval of literature beyond what was available in PubMed.

Literature on web-scale discovery and the health sciences has not been robust, but other writings have focused on the selection, implementation, and evaluation of discovery platforms. Pinkas et al. (2014) shares their experience at the University of Maryland Health Sciences and Human Services Library, including their user testing. Librarians at the Mercer University School of Medicine partnered with EBSCO to complete user testing of medical students using EDS (Meirose & Lian, 2019). Both studies further demonstrate the need for customizations for specific user populations and not relying on the "out of the box" model of their discovery platform.

Discovery at the HHSL

Professionals and graduate student library users are increasingly familiar with using discovery. By August 2017, 87% of academic and research libraries had discovery prominently featured on their website (Foster, 2018). Therefore, despite lack of promotion of HHSL's discovery search Summon, its library users were still using it heavily. In fact, from March 2018 through 2020, there were 193,506 Summon searches compared to 140,976 eJournal List searches. This difference is significant, considering that its homepage includes a main search bar, but Summon is not the default search—the eJournal list is (Figure 1). In addition, Summon has seen a significant and steady increase in usage at HHSL over the past five years (Figure 2). Discovery searching in Summon is not heavily promoted by HHSL librarians, because of the pervasive belief that using the professional tools of the field is the preferred method for finding information for the level of student and professional that is the main audience.

Figure 1

Main Search Bar on the HHSL Homepage

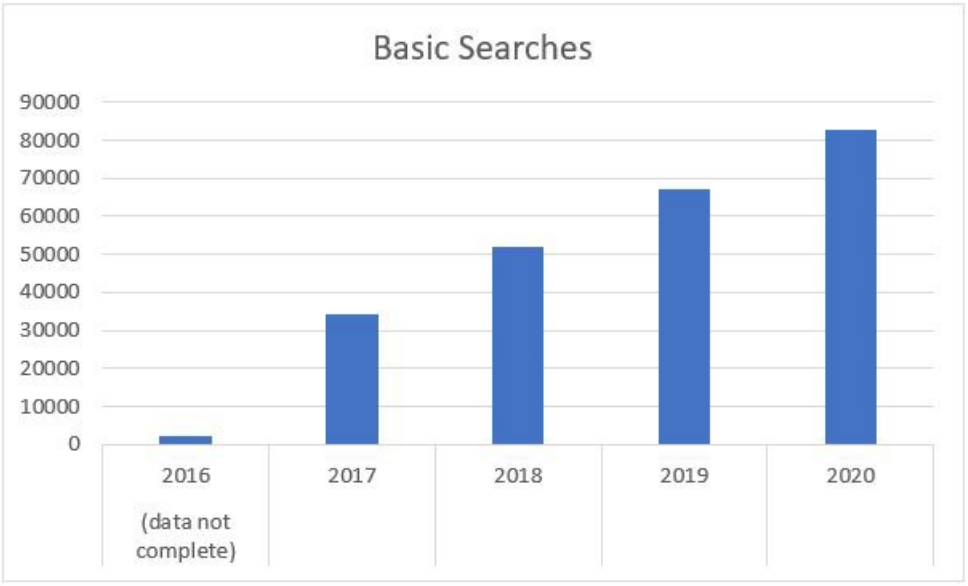

Figure 2

Basic Searches of Summon 2016-2020

Because of this belief, it would seem reasonable that HHSL simply not use their instance of Summon and remove it from their website. However, HHSL should determine how to make Summon work for their users for many reasons:

First, Summon is still a good place to start a search of library resources, depending on the need. For example, HHSL librarians anecdotally know that patrons often have a difficult time finding known articles, because using an eJournal list is not intuitive. Instead, users rely on Google Scholar or PubMed to find a known item. However, Summon makes locating a known article easy and significantly reduces the learning curve for using the library website to find an item.

Second, Summon is very useful for browsing books or other items on a topic. Long (2017) pointed out that "If health sciences library services only rely on end users directly searching publisher databases one at a time, then it is unlikely their patrons will take full advantage of the benefits of integrated digital library collections (p. 103)."

Third, and most importantly, users are already using Summon and are familiar with it. Therefore, if the goal is to point them to more professional resources in the field, then, it is imperative to meet users where they are. A

common theme in the literature to explain low use of library resources is the lack of familiarity with available resources and the need for convenience. Judd and Kennedy (2011) found that undergraduate medical students primarily rely on searching places like Wikipedia or Google and miss all of the available biomedical resources. Therefore, why shouldn't HHSL harness the power of a tool that users are already familiar with?

Due to these reasons, in the second half of 2019 into 2020, HHSL decided to work collaboratively with the HHSL IT Generalist, Cataloging Systems and Linked Data Strategist Librarian at Penn State University Libraries, and their Customer Success Manager from Ex Libris to create a discovery experience tailored to their specific user population.

Before deciding to tailor Summon, HHSL librarians had explored discovery solutions that were specifically tailored to the health sciences but ran into two main problems. First, it would be an additional, not easy, step to send eResource holdings information to another discovery system that wasn't connected to Serials Solutions. Second, based on extensive use cases comparing Summon to a full trial of another discovery system, Summon retrieved the best search results. HHSL Librarians were, then, put in contact with the Ex Libris Customer Success Manager to discuss what the desired features were and if they were possible in Summon. Based on the feedback from the Customer Success Manager, a list of priorities was created and implemented accordingly.

Implementation

Search statistics were pulled from Summon to determine if users were attempting to do more than find a known item or browse. Thousands of searches were pulled and spot-checked to get a sense of user searching behavior. Users were clearly trying to do more than find a known item or browse: They were attempting complex literature searches or to answer clinical questions (Table 1). Therefore, librarians had to find a way to nudge users in Summon to the more appropriate tools to answer these types of queries. PubMed is the most used biomedical bibliographic database at HHSL. Therefore, a static PubMed search box should appear for all searches. The search in Summon is automatically generated here. When users search for their query in this box, they are taken to PubMed, where their search is carried over. This search box was placed on a right-side panel titled *Continue Your Search* (Figure 3).

Table 1

Literature Searches or Clinical Questions in Summon 2018-2019

Examples of search strings that appear to be literature searches or clinical questions 2018-2019
"case management" + bipolar disorder
"learned helplessness" + personality disorder
"recreation therapy" "child life"
"respiratory therapy" and "occupational therapy"
"team effectiveness" and "graduate medical education"
("business continuity") and (audit) and (healthcare)
(non-elective cesarean delivery) and (ethics)
(rotator cuff) and (surgery) and (complications)
(subjectterms:(skin conductance)) and (subjectterms:(trier))
(treatment) and (ocd)

adolescent therapy and parent
art therapy depression
audit feedback residents
basal cell carcinoma adenoid type
baseball sports medicine
borderline personality disorder treatment
burnout covid-19
capacity and readmissions
carbon monoxide poisoning
cardiac arrest statistics
cavernous sinus thrombosis
chest compression
chloride preterm infant
clinical examples of evidence-based practice
clinical manifestations of meningeal carcinomatosis
co-morbidities in heart failure
cognitive impairment elderly anesthesia
colchicine and pituitary
common wart vaccine
concussions in sports

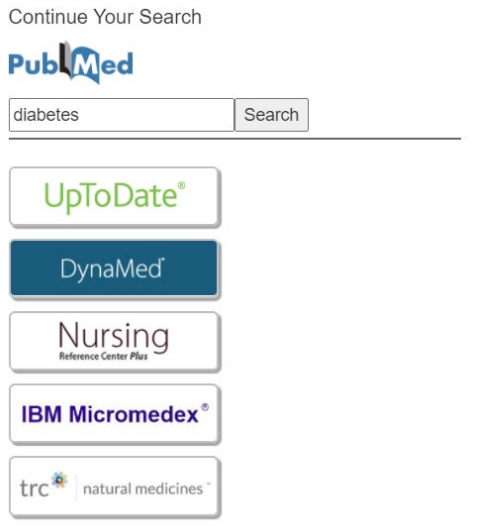

Figure 3

Search Widgets in Summon in the "Continue Your Search" Section

Additionally, a feature called *Database Recommendations* was turned on. Although PubMed would suit many research needs, there are many other science or interdisciplinary databases available that could be a better fit. Based on the users' search query, it recommends a professional research database to explore (Figure 4).

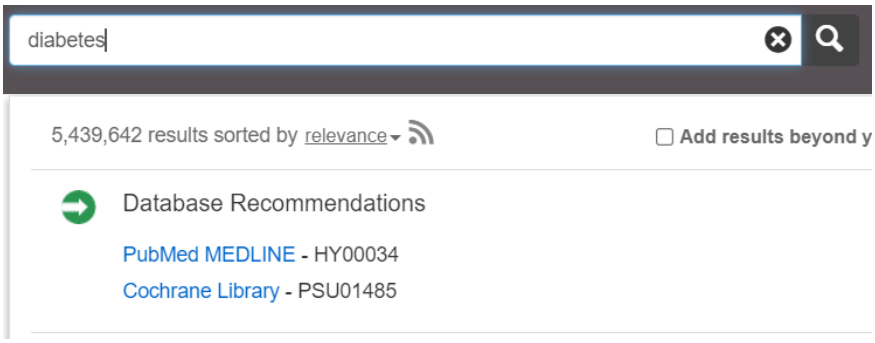

Figure 4

Database Recommendations in Summon

Many search queries can best be answered using a clinical reference resource meant to be used at the point of care. However, these are not indexed for discovery. Therefore, search widgets were created for these resources in the *Continue Your Search* side panel. These also carry over the search query to the database similar to the PubMed search box (Figure 3). The *Continue Your Search* side panel was also optimized for mobile devices and becomes a header at the top of the page on a minimized screen (Figure 5).

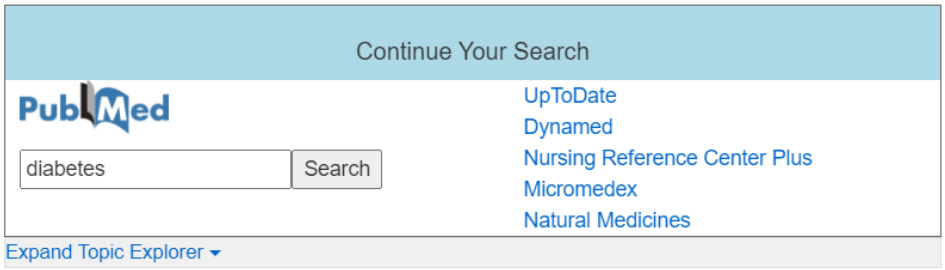

Figure 5

Continue Your Search in Mobile Device View

Additionally, HHSL Librarians spend a significant amount of time curating resources specific to academic disciplines or other topics with LibGuides, which can be indexed and made discoverable in Summon searches. These additions also include the Librarian Recommender, which is based on the creator profiles in LibGuides and points users to the subject expert of the topic they are searching for (Figure 6). If a user searches for a broad topic, they are pointed to a LibGuide or subject expert to help get them to the appropriate tool for their information need.

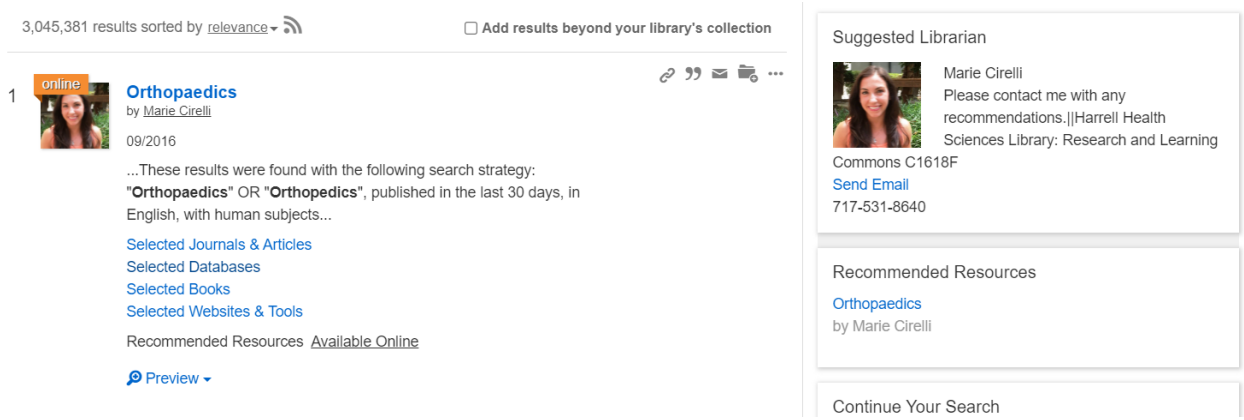

Figure 6

Summon Results Include Suggested Librarian, Recommended Resources, and Continue Your Search

Because Summon is a great place to start when looking for a known item or for browsing items, HHSL librarians wanted to improve the experience, hoping to encourage users to continue going to the library website as opposed to Google or Google Scholar. Therefore, several features were turned on that were believed would be beneficial to the specific user population. These features are all available in the backend of Summon and are not exhaustive of what is available.

In an attempt to optimize the browsing experience, *citation trails* and *related items* were turned on. *Citation trails* link, when available, to the article's citations and articles that have cited what the user is viewing. The *related items* feature allows users, when available, to easily browse and navigate to book chapters or reviews of the book they are viewing.

In an attempt to improve finding known items, some additional search facets were turned on, in particular, a facet for *Author*. The *search within* feature was also activated on the backend. If a user searches for a specific journal in Summon rather than the eJournal portal, they are presented with an option of searching within that journal directly from Summon (Figure 7).

Figure 7

Search Within Journal Option in Summon

Best Bets were also built. These are custom links to any resource that can be added to Summon. Tags are assigned, so that anyone who searches one of the tags will be able to easily get to the resource (Figure 8). The top site searches were pulled from the library website and added as Best Bets. Additionally, if a user's search returned no results, then they would be presented with a link to contact the HHSL Reference.

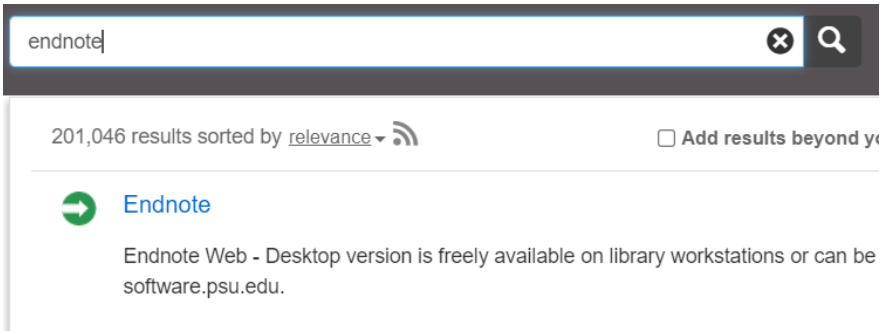

Figure 8

Best Bet Option in Summon

Moving forward

Many libraries with a special focus can take advantage of the features already built into Summon or create custom panels to tailor their user's experience. It is beneficial to pull search statistics from the backend of Summon to get a better idea of how users are interacting with it. Going forward, HHSL should continue to monitor search statistics as well as conduct usability testing. It is important for HHSL to evaluate whether the added features are encouraging the intended behaviors. Managing discovery is an iterative process that will evolve as more features become available and user needs change.

Acknowledgements

The author thanks Xioayu Sun for coding the search widgets and making her ideas possible. She would also like to thank Lori Cisney, Ruth Kitchin Tillman, and Heidi Thompson, who advised her throughout the project. Additionally, she would like to thank Alex Harrington and Esther Dell for their careful reviews of the manuscript.

References

Foster, A. K. (2018). Determining librarian research preferences: A comparison survey of web-scale discovery systems and subject databases. *The Journal of Academic Librarianship*, *44*(3), 330-336. doi.org/10.1016/j.acalib.2018.04.001

Hanneke, R., & O'Brien, K. K. (2016). Comparison of three web-scale discovery services for health sciences research. *Journal of the Medical Library Association: JMLA*, *104*(2), 109-117. doi.org/10.5195/jmla.2016.52

Judd, T., & Kennedy, G. (2011). Expediency-based practice? Medical students' reliance on Google and Wikipedia for biomedical inquiries. *British Journal of Educational Technology*, *42*(2), 351-360. doi.org/10.1111/j.1467-8535.2009.01019.x

Ketterman, E., & Inman, M. E. (2014). Discovery tool vs. PubMed: A health sciences literature comparison analysis. *Journal of Electronic Resources in Medical Libraries*, *11*(3), 115-123. doi.org/10.1080/15424065.2014.938999

Long, B. A. (2017). Addressing a discovery tool's shortcomings with a supplemental health sciences-specific federated search engine. *Journal of Electronic Resources in Medical Libraries*, *14*(3-4), 101-113. doi.org/10.1080/15424065.2017.1368425

Meirose, J., & Lian, B. (2019). User testing: Gathering data from first-year medical students as they interact with the EBSCO Discovery Service (EDS). *Journal of Electronic Resources in Medical Libraries*, *16*(1), 1-7. doi.org/10.1080/15424065.2019.1590171

Miranda, A., & Miah, S. J. (2019). Design and evaluation of a contextual model for information retrieval from web-scale discovery services to improve evidence-based practice by health care practitioners: Mixed methods study. *Journal of Medical Internet Research*, *21*(8), 1-18. doi.org/10.2196/12621

Pinkas, M. M., Baglivo, M. D., Klein, I. R., Brown, E., Harris, R., & Gerhart, B. (2014). Selecting and implementing a discovery tool: The University of Maryland Health Sciences and Human Services Library experience. *Journal of Electronic Resources in Medical Libraries*, *11*(1), 1-12. doi.org/10.1080/15424065.2013.876574

Shahid, S. (2019). Smart library services with discovery tool: A present-day context. *Pakistan Library & Information Science Journal*, *50*(4), 52-57. ecommons.aku.edu/libraries/37/

Thompson, J. L., Sullo, E., Abate, L. E., Heselden, M., & Lyons, K. M. (2018). Discovery assessment and improvement at an academic health sciences library: Health information@ Himmelfarb five years later. *Journal of Electronic Resources in Medical Libraries*, *15*(1), 7-25. doi.org/10.1080/15424065.2018.1433093