

Current Strategic Initiative: Discovery Platform

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How we got to where we are (brief history)

This question begs for a more existential discussion around the nature of libraries in general and the way in which libraries have been forced to evolve as the most widely used library content has shifted outside of the organization's immediate collections. Or the way in which libraries have attempted to adapt to these changes through the creation of data silos. In many ways, everything we do from the creation of LibGuides, to the library's website, to instruction, to discovery is based around this notion of making the silos that we put data easier for our users to navigate. Or maybe a larger discussion around the way we describe content, the languages that we use, coupled with the vast number of libraryism that we utilized to make content easier for Library professionals, but generally more difficult for real users, to locate. I guess if we wanted to start at the beginning, we'd need to start here...but I'll digress.

This project was conceived around a simple idea – it should be easier to find stuff in the libraries. Broad statement, easy to conceptualize – harder to do. For nearly a year prior to the start of this project, the libraries had a number of working groups evaluating the current needs. And often, these came down to:

1. Better Discovery would mean reducing the number of decisions a user has to make before doing a search
2. Better Discovery would mean providing access to a greater diversity of library content, and in context so the connections between resources became more transparent
3. Better Discovery would mean fewer dead ends for the user
4. Better Discovery would mean tailoring search to work for users and not forcing users to learn how to search

In addition to these 4 identified needs, there was also the need to imagine discovery more as an integrative platform, and not as a standalone product to enable the Libraries, researchers, and campus data consumers, like the OSU Mobile team, the ability to easily access, analyze, and repurpose library data for consumptive purposes.

With these goals in mind, the Libraries started dedicated development of a discovery platform in early 2018 with a goal of having the tool out of beta and in-front of users in early 2019. However, it is important to note that the work on this project was made possible by the significant investments the Libraries has made in developing new and innovative infrastructure since 2015ish.

To develop the tool, we broke the development of the tool into multiple workstreams. These included the actual information architecture and platform development work (Feb. – April 2018), library requirements gathering and discussions (Feb. – Dec. 2018), and consistent check-

ins with student groups around campus. In fact, in some ways, I'd argue that the development of this project (and the Libraries' website) has been somewhat different from other work that we've done in the Libraries because so much of the work done was driven by feedback directly from our undergraduate population.

Where we are now?

In Jan. 2019, the Libraries officially made the Discovery application the default search for Libraries' content. At this point, this move is an additive one as the Libraries is still providing access to its legacy discovery tools as well. As we get closer to summer, this will change as the Libraries will need to complete the transition away from WorldCat Local (as OCLC retires this toolⁱ) and focus on the ways to better leverage Discovery to provide more advanced tooling for Graduate and Faculty.

Additionally – to continue to help the tool evolve, Michelle Henley, in Digital Initiatives, is leading a comprehensive UX programⁱⁱ – inviting those in the Libraries to provide feedback and user testing as the Libraries to works to improve the core parts of the discovery application, while also prioritizing new features from the list of items left in the parking lot. I'd like to highlight this process, because it is unique here at the Libraries and comprehensive in the partners Michelle has enlisted to ensure that a broad swath of users provide feedback. As of today, the Libraries is working directly with the Undergraduate student government, who provide a steady stream of students to test and provide feedback; and the Libraries is working with the University of Michigan I-School...having a group of MLIS students focusing in UX design provide and outside assessment and feedback on the service.

Finally, the Libraries has begun having conversations with OSU Mobile to discuss ways in which the campus could potentially leverage the discovery platform to provide the ability to search library resources directly within the mobile application.

Core Services and the Parking lot

When the Libraries envisioned the discovery application, it was always conceived to be something more than just a finding tool. One of the challenges users face...particularly users new to the OSU community...is drawing connections between the wide range of resources that the Libraries may have on any particular topic. A user may know that they need to find an article, but not know about the diverse primary resources in our Special Collections that would enhance their research. Or, a user may not realize that the Libraries has subject expertise and be unsure how to find or connect to these experts. This large believe that discovery could go beyond finding, and help to surface unseen connections, subject expertise, or more comprehensive discovery are at the core of this project. And throughout the development – the Libraries tested many of these concepts and got a lot of good feedback from users. However, when the Libraries released the tool in Jan. 2019, the tool was purposefully constrained to focus on improving the ability to find content and potentially surface

connections to a wider variety of resources. This was done specifically to ensure that the core parts of the discovery application could be refined – specifically in relationship to certain types of known title searching.

In addition to our backlog of UX enhancements derived from user testing, the Libraries also has a parking lot of a wide range of potentially useful feature enhancements. These are things like:

1. Surfacing Expertise (though, the way we are thinking about this is shifting based on user feedback throughout the last year)
2. More advanced searching
 - a. Index searching
 - b. Exact searching
 - c. Additional Facets
3. Surfacing E-Book collections (both content we pay for and content from resources like HathiTrust)
4. Providing a workflow that seamlessly moves users away from the Libraries to resources like OhioLINK and WorldCat when content isn't available locally
5. Seamless integration of information about collections

We've heard from users that all of these items are important – especially as we provide more resources and tools specifically geared towards later undergraduate, graduate and faculty users and are working to incorporate these items into the short and long-term development roadmap.

Is the project/initiative succeeding in meeting its intended objectives? How is success being measured against strategic priorities (measures of success)?

This project's success is going to have a wide range of measures.

1. Has this project provided a more integrative platform?
Yes. And today, the discover platform is becoming a more important part of how we develop new services going forward. The platform's ability to provide a comprehensive, yet, targeted, search is allowing the Libraries to think differently about how we provide access to special collections and area studies content.
2. Has this project made Libraries data more accessible?
Yes. A year ago, OSU Mobile simply had no interest in working with the Libraries to provide a method to search our content. In large part, this is because each library silo had to be addressed individually, and they all utilized some arcane (but makes sense to Libraries) search/transfer standard. The discovery platform is changing that – making integration and partnership a real possibility.
3. Have we made discovery better?
Yes and No, though I would argue for the target user community... yes. Does this tool

provide the same functionality as WorldCat Local? No. In fact, in some places – there have been regressions. WorldCat Local provided access to OhioLINK, most OSUL, and Worldwide library print holdings through a single interface. That’s pretty powerful. But the search wasn’t close to comprehensive for the Libraries. It lacked most article content, nearly all digital collections content, information about special collections, etc. Today, discovery provides a much more comprehensive search across the Libraries resources and provides a much broader set of access to a wider range of peer reviewed content (Articles, music, video, etc.) than WorldCat Local ever did. And based on user feedback, this will get better as the next update will include options to limit content just to OSUL accessible resources, peer reviewed resources, and an initial indexing update to address some of the known title searching issues.

4. Have we expanded beyond discovery, bringing those value adds (like expertise searching)?

In production, no. This is work that is still to be done but work that we are committed to doing. Through the beta period, the Libraries developed a number of different modelsⁱⁱⁱ and tested with users a number of different methods for expressing these kinds of value adds within the tool, and in general, these didn’t resonate. And they didn’t resonate because they weren’t options that users were looking for; rather, users were looking for an experience that felt more integrated and additive to the tool. Based on this feedback, we simplified the initial production offering to “core” services – but are actively working with users (through surveys, interviews, and A/B testing) to better understand the kind of integrative model best suited for this content.

5. Has it changed the way we catalog or describe content?

Not yet...though I think we will as we see how this tool enables a different type of discovery through relationships to different types of content.

6. Are users generally having success using it?

Generally yes, with some warts. A challenge of developing any large service like this is: scaling for production and getting a critical mass of eyes providing feedback. Over this first month, we have seen a significant amount of usage of the tool through our analytics...usage that continues to increase. Additionally, we’ve gotten feedback from faculty and students that the tool could be faster. As we’ve received these reports, we’ve been able to make marked improvements in the underlying infrastructure and have implemented a new tool (New Relic) to give use the ability to see where bottle necks are occurring. But the first iterative update of discovery will focus on addressing many of these performance issues.

With that said, analytics show that the new tool has a large number of repeat users and feedback from users during testing and surveys have been largely positive. Additionally, we are seeing users being driven to our digital collections from discovery. Finally, we’ve heard from faculty that the tool is helping users in discovering long-tail items....those

difficult, hidden items that have in the past relied heavily on curator engagement.

7. How comprehensive is the Discovery Application?

To answer that question, you have to go back to this mental picture of the Library as a set of information silos. We have silos that are local to the Libraries (the catalog, digital collections, the website), silos that are adjacent to the Libraries (OhioLINK, LibGuides, article content, Hathitrust), and silos outside of the Libraries (WorldCat, etc.). If you keep this model in mind....

- a. Local Silos: very comprehensive. In developing discovery and the discovery platform, one of the core focus areas was ensuring that much of the Libraries local hidden collections would be able to be found. By and large, this means that we index and search nearly all public content local to the libraries. Some of this information we are suppressing (in the case of expertise information) while we find the best methods to integrate this content into the tool, but by and large – content local to the libraries is available. The work in this space is ensuring that the algorithms that we are using to both index and then determine relevance work well – and this is an area where we will be consistently updating and tuning.
- b. Adjacent silos: varies: As we move outside of the Libraries, our ability to integrate with these silos is largely dependent on these resources having either harvestable data or usable Application Programming Interfaces, i.e., mechanisms to allow our application to communicate, query, and retrieve data. For many of our adjacent silos, we have access to this content via Ebscos Discovery Platform. This is a service that includes article, print, ebook, video, music, both open and subscription based, to the Libraries. We utilize this service when querying for Articles and this particular platform was chosen because the vendor, Ebsco, provided the ability to query the largest number of our subscription-based resources.

In addition to subscription-based content, this service was also chosen because it includes a number of other desirable resources like many of our ebook platforms, the HathiTrust, and OhioLINK. This information is currently being suppressed from search based on user feedback. Initially, Articles+ was more broad, but these resources tended to drown out article-based content. To make this contextual bucket more applicable to users, we split the bucket so that we have an Article/multimedia bucket and an ebooks bucket to allow the Libraries to think about better ways to facilitate workflows that move users from our local resources to those content elements that live beyond the Libraries. This is ongoing work.

- c. Outside the Libraries: Not searched: At this point, it is the lack of usable programming interfaces that are making the ability to integrate these resources into the Libraries. For as many things OCLC does well, their API servers have

generally, almost universally, been underwhelming and this lack of good support is currently limiting our ability to find ways to work these into the workflows.^{iv}

Were the resources allocated for the project/initiative adequate? If not, why?

All of IT allocated significant development resources to the project to ensure the platform and UX work could be completed. Additionally, members of Content and Access have played significant roles in helping the team better understand available metadata schemas, and the many of our faculty have been a part of the UX work and continue to provide feedback and suggestions for continuous improvement.

Are there successes/highlights to share?

See: section -- Is the project/initiative succeeding in meeting its intended objectives? How is success being measured against strategic priorities (measures of success)? for more detail, but yes. Presently, we are averaging ~1100 user sessions per day (approximation based on a review of available analytics) and a review of those analytics show that users are finding more diverse content. Additionally, this is the first time the Libraries has provided something close to a near comprehensive search of library materials, and as a result, it is allowing us to rethink how we provide access to resources in other projects.

Is the project/initiative encountering any barriers to success? If so, what?

The biggest barrier to any large project like this is simply getting enough feedback. This is why we have been so proactive in soliciting feedback from the student communities. My expectation is that over this first semester – we will learn more (simply due to the number of users interacting with the resource) then we did throughout the entire beta period.

Is the project/initiative on time? Have you had to alter timelines? If so, why?

Yes. The project had hoped to deliver a public beta by start of Fall semester, and we did. The goal was to create a production version to replace the default search by the start of Winter Semester, and we did. The next major milestone we control, will be the start of Fall 2019, when WorldCat Local is officially retired by OCLC. Additionally, the Libraries has an aspirational milestone...to see the Libraries' discovery application represented in OSU mobile, but these timelines are not in our control.

Should the Libraries continue investments in this project/initiative? Why or why not?

Yes. Discovery services is quickly becoming a core part of every R1 institution – and the notion of turning these services completely over to a vended solution is becoming much rarer as libraries seek to expose more of their unique content to the user. In fact, Libraries have traditionally been incubators for

new and innovative research related to information discovery. At OSUL, Libraries IT has become a vital partner in not only supporting technology – but a research partner in developing new services, investigating new methods of information access, and pioneering new architecture. While the discovery project is very quickly becoming a core research service, it also underscores the way in which all of Library IT contributes to OSUL as both a learning and research organization. Additionally, as the Libraries has worked through this project, we are continuing to build up new skills in UX design, investigating new infrastructure models using Amazon Web Services and developing new methods to make OSUL data easier to be found and consumed.

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- ⁱ OCLC has notified WorldCat Local users that service will be terminated Aug. 9th, 2019 (<https://www.oclc.org/support/services/worldcat-local.en.html>) and replaced with a different discovery platform. The Libraries is working with OCLC around the feasibility of continuing to maintain a lite-weight [branded] version of WorldCat for the OSU community, but as of this time, it is unclear if that type of access is in OCLC's plans.
- ⁱⁱ This work builds off recommendations from a Management Committee led working group on user experience. You can find that report here: <https://library.osu.edu/portal/confluence/display/libraries/User+Experience+Report>
- ⁱⁱⁱ Various beta iterations of experimented with an Expertise bento box, a box for libguides, and for local results. Users indicated that these resources were immensely valuable, but in the cases of these resources, results needed to be more targeted and integrated. Over the beta period, general feedback showed the lions share of users were more confused by these resources (i.e., what is a libguide) than helped. As a result, these were removed in the first production instance of the tool while a more integrative model, based on user feedback, could be put in place.
- ^{iv} Question: Does this change with WorldCat Discovery? No, WorldCat discovery APIs suffer from many of the same issues as previous versions.