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Search Me: Eastern Michigan University's journey through the highs and lows of implementing the Summon Discovery Tool

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Abstract

In early 2011, Eastern Michigan University (EMU) began implementation of the Summon web-scale discovery service from Serials Solutions. This case study will explore the challenges and successes of the implementation and launch process. Topics covered will include project management overview; integration of Summon with our ILS, link resolver, and Automated Retrieval Collection (ARC); mapping of the library's print collection to the Summon interface; issues that arose with the ingest of our titles; incorporation into the library's daily workflow; maintenance of eresource holdings in two separate knowledge bases; and integration into public services reference and teaching.

Keywords: Discovery tools, Summon, Serials Solutions, case study, implementation process, academic libraries

Introduction

In the fall of 2010, the library at Eastern Michigan University (EMU), a university with over 23,000 students and more than 200 majors and minors in five colleges, received one-time funding to buy either back files of the Thomson Web of Knowledge database or an eighteen-month subscription to the web-scale discovery search tool, Summon. After much deliberation, the library faculty and administration chose Summon, a Serials Solutions product. Like other discovery tools, Summon allows users to search the library's collection of books, articles, ebooks, dissertations, videos, music, and more, all from a single interface. It features a single search box as well as dynamic facets that can be used to further refine

results. Not only does Summon include records from the library catalog, it also indexes most of the library's online subscriptions to journal, magazine, and newspaper articles.

Background

Federated searching or metasearching was predicted to be a solution to the user frustration resulting from having to search across many databases which have been set up as information content silos (Luther 2003; Stone 2010; Tennant 2003). However, users continue to desire a more streamlined and robust searching experience. Like other commercial discovery tools, Summon was developed to search in ways similar to Google Scholar. Fronted by a single library-branded search box, users are able to search a centralized index and quickly retrieve results ranked by relevancy. The "Google-like" experience offers library users a familiar way to search. The true beauty of discovery tools is the discovery. Jason Vaughn, Director of library technologies at the University of Nevada, Las Vegas (UNLV), sums it up best, "If something is not discovered, it has no chance of being used" (Vaughn 2011, 7) .

The decision to subscribe to the Summon discovery tool was not the EMU Library's first attempt to offer this kind of search service. In 2004, the library purchased and later implemented the MetaLib federated searching tool from ExLibris. Because of performance issues related to the real-time searching of multiple databases and inconsistencies in de-duping and ranking of results, EMU librarians and end users never embraced this product. In 2007, the library canceled its subscription. Analysis of the federated search and discovery tool market at that point did not reveal any better options.

With the recent adoption of Summon, the library has found a discovery tool that addresses its primary problems with previous federated search products. The Summon combined index relieves the performance problems related to searching multiple databases in real-time, and it provides a better ranking of results. De-duping can still be an issue, but because of an overall better user experience, it is now more tolerable.

Initial Steps

A team consisting of eight faculty librarians and a library science student intern gathered in mid-January 2011 to begin implementation of the Summon product. The members represented all library units including Technical Services, Systems, and Public Services. Selection of the team members was deliberate, reflecting the realization that all perspectives needed to be represented from day one. At the first meeting responsibilities for different parts of the project were naturally selected by the appropriate team members. The Electronic Resources and Serials Librarian served as the project manager. In this role, she was responsible for convening on-site team meetings, scheduling teleconferences, acting as the liaison with Summons's implementation manager, creating a timeline, tracking milestones, gathering questions and concerns the team discovered during the beta testing phase, and reviewing the Summon database once the EMU instance was activated.

While the vendor predicted a timeline of less than six weeks, this seemed unrealistic to the team, which developed its own timeline to chronicle tasks and milestones (See Table 1). As noted in the table, implementation, from the kickoff meeting to final configuration, technically lasted for thirty-two weeks.

Insert Table 1 here.

Configuration of Electronic Resources

After a kickoff meeting with Serials Solutions' implementation manager, the team was trained to set up the client center profile for EMU in 360 Core, the Serial Solutions e-resource management system. 360 Core training was crucial because this is where all library subscriptions to electronic resources are configured. It is the foundation on which Summon determines if library users can access specific content. The Serials Solutions implementation manager explained it in the following manner: "The fact that you subscribe to content in 360 Core tells Summon that you have access to that content—it acts as a rights management layer." 360 Core is also the foundation of other Serials Solutions products, but because the library did not subscribe to any other Serials Solutions products, all electronic holdings required configuration. Upon reading the description of the implementation process, the team hoped that there would be a straightforward way to export all full-text holdings from our link resolver, SFX, to 360 Core. Unfortunately this was not the case. In fact, it proved the most time-consuming of all processes. Differences in data management tools, interfaces, labeling of functions, and how titles are identified in the two systems made synchronization very difficult.

   Small differences between 360 Core and SFX are easily exposed to end users. For example, if a title is activated in SFX but not in 360 Core, Summon will not reveal the item as "Full-Text Available." Conversely, if a title is activated in 360 Core but not in SFX, an end user will expect full-text to be available, but SFX will not provide the linking information necessary to connect them to the item. It has been a challenge for the electronic resources and serials unit to keep the two configurations identical and this has added significant time to managing electronic resources. The unpredictability of publisher and aggregator title

lists in databases is particularly demanding and requires diligent work on the part of staff to keep both knowledge bases up-to-date as resources change.

Synchronization with the Library Catalog

Not only is it necessary to add all electronic journal holdings to 360 Core, you must also tell Serials Solutions what your library physically owns. Each title in the library's catalog must be fully indexed in Summon so that students and researchers can locate these items.

A large part of the initial Summon setup consisted of uploading all bibliographic and holding MARC records to Serials Solutions. Once these records were indexed, updates that reflected new, changed, and deleted records had to be provided. The library sends these updates to Serials Solutions daily. Both the initial extract and daily updates are built using a series of shell scripts, perl scripts and Voyager-provided batch jobs. The library decided to use simple criteria to determine which records to send in updates. Any record, bibliographic or holding, that has a "create" or "update" date within a specified range and is not suppressed from the public view will be included in an update.

Identifying both recently deleted and suppressed records presented unique issues. In the library's Voyager ILS, deleted records are completely removed from the catalog and archived into a file on the server. By rotating these archived files daily, we can identify which records need to be sent for a specified date range. Suppressed records, on the other hand, are still in the Voyager database but not viewable by the public. To identify these, we use a script that returns suppressed records from a specified date range. These records are then sent to Serial Solutions as "deleted" records. If they are ever unsuppressed, they will

meet the criteria for new and updated records and then be re-sent and re-added at that time.

Item information displayed on the user interface, including real-time status, location and call number was another issue for us. By default, location information was displaying by using a screen-scraping method that normally worked, but did not provide call number or status. The call number information was retrieved from the LC class number (MARC 050) in the bibliographic record. While this method worked for the bulk of our items, the library maintains large children's literature and government documents collections that use Dewey Decimal and SuDoc schemes, respectively. Although the bibliographic record for each title in these collections may have an LC class number, it is not shelved by that number.

The first solution attempted was to not display any call numbers within Summon. We agreed that it was better to refer our patrons to the catalog rather than deal with the possible frustration of looking in a location with an incorrect call number. Upon further investigation, we switched to using the Voyager application programming interface (API) to retrieve item information. Through this method, Summon obtains real-time location, call number, and status for each item.

Another problem with retrieving the item information in real-time through either the screen-scraping method or Voyager API was our antiquated ILS server, which could not handle the additional load. By default, each search of Summon displays twenty-five results at a time. For each result representing an item in our catalog, the ILS server was receiving a request for item data. If all results reflected catalog holdings, the ILS server received twenty-five simultaneous requests for item information. Results in Summon were slow to

display, if they displayed at all. Response time for the native version of our catalog was also negatively affected. Fortunately, we were already in the process of replacing the in-house ILS server; the replacement can easily handle all requests from both Summon and our native catalog interface.

In order to reflect temporary item locations, the library uses a special feature in Voyager that allows us to alter the display of item information by charging the item to a specific patron. For example, we charge items on our New Book Shelf to a New Book Shelf patron. In the native catalog, this displays a status of "New Book Shelf - 1st Level" but in Summon this displayed as "Charged." Although some changes have occurred since implementation, currently no status at all displays for these types of items. If users click-through to our native interface, they will have access to all of the library location and check-out information.

The final problem we encountered during integration with our catalog was associated with the requesting of items that are stored in our Automated Retrieval Collection (ARC). The ARC requires our library users to choose a book or other item for retrieval and then login to our catalog to place the request. While it would be more efficient for Summon users to go directly into the "login and place request" screen, because of the rigid nature of the interface there is no way to alter the link to our catalog for ARC items or to place another link to the requesting system.

Creating Facets

A powerful feature of the Summon interface is the dynamic facets that allow users to further refine their results. Although similar to limits in other database search interfaces,

the facets offered depend on what items are in the results set that is currently displayed. When one facet is selected, those displayed will update and only those that are in the current result set appear.

To determine how to map our library records to the Summon facets, we completed an extensive mapping of the MARC records. Serials Solutions provided a worksheet that guided the library through the various content types that are indexed in the Summon interface. This worksheet also set typical MARC configurations so that the team only needed to identify where our ideas deviated from those of the worksheet. For example, Serials Solutions correctly mapped out that the Leader Code 06-07 *am* to the Content Type *book*. Since other content types, such as ejournals or ebooks, had no mapping listed, the library needed to formulate its own definition of which records corresponded to these categories.

Some of the mapping is fairly straightforward, for instance, the personal name field (MARC tags 100 and 700) is mapped to the author limiting facet of the Summon interface; the language code in the Leader maps directly to the Language facet; subject access entries and terms (MARC tags 6XX) are indexed in the Subject Terms facet, etc. The majority of the work in the mapping comes from evaluating the Leader, 006, 007, and 008 fields which are used to describe the material type of each item (specific codes are used for video recordings, sound recordings, manuscripts, etc.). This level of detail allows MARC records to fit into the Content Type facet of Summon.

EMU uses multiple versions cataloging for its serial records (MULVER). This means that instead of having individual bibliographic records for each type of material, e.g., print, microform and electronic, EMU has all the formats listed under a single print record. This

helps our patrons find periodical materials in our catalog more easily; however, it can sometimes be an issue to reconcile these different records into one. There is no consistent way to distinguish a journal's format for the Content Type facet. This will be an issue if a patron uses Summon as a substitute for the library's catalog or journal A-Z list.

Using AACR2r, there is no specific code or field in the MARC record that will differentiate an ebook from any other electronic resource. As such, finding a way to delineate our ebooks has been particularly troublesome. In the library's catalog, we use data contained in our holdings to show when an item is an ebook. Initially, the library's understanding was that we could use holdings data for indexing, but, unfortunately, when work began, this was not possible. Recent enhancements to the Summon interface do compensate for this problem since the facet under content type is now called *book / ebook*.

Another interesting problem to note is the way in which the library's government documents are limited as a content type. The catalog mapping worksheet supplied by Serials Solutions includes a number of ways in which an item may be considered a government document, such as by listing possibilities in the 008(28) field, including autonomous or semi-autonomous (a), multilocal (c), federal (f), international (i), local (l), multistate (m), undetermined (o), state (s), and other (z). Such a wide array of codes leads to a broad interpretation of what constitutes a government document. For example, if a title from a university press is listed as a state (s) publication, it would be considered a government document. To resolve this we removed that facet from the list of content types.

Integration with the Library Web Presence

As a web-based tool, the success of the integration and customization effort hinged primarily upon proper placement on the library's website. Rather than reinventing the wheel, it was decided to begin by gathering examples of how other libraries had incorporated Summon into their websites and analyze this information in terms of what worked well and what did not. Members were assigned to locate between three and five examples of Summon website integration. The team then met to discuss the findings. In addition to giving insight into the initial visions that team members had for EMU's Summon discovery layer, this process raised questions that required discussion before further action could be taken.

The first question concerned whether or not Summon was to be the default search on the library's homepage. While the results showed that the majority of academic libraries did default to a Summon search, there were some notable outliers, namely, the University of Michigan (www.lib.umich.edu/) and Claremont Colleges (libraries.claremont.edu/). The second question to be addressed was whether to integrate Summon within the library's existing website framework which consisted of a tabular structure guiding users to various library resources based upon the material type they sought (See Appendix A),, or to institute a redesign of the website. Based upon the sites analyzed, it was determined that two main models of Summon integration existed. The first involved incorporating Summon into a tab on the library website, as evidenced by the University of Southern California's implementation [(www.usc.edu/libraries/](www.usc.edu/libraries/)). The second consisted of opting for a single, Google-like search box that marked Summon as the visually prominent element on the homepage, as is evidenced by the University of Adelaide Library at [(www.adelaide.edu.au/library/](www.adelaide.edu.au/library/)). In this method, Summon holds a position that may make

it seem to some users that it is the only search, a notion that struck a negative chord with some team members who did not approve of options that displayed Summon as the only obvious search. For this reason, along with the fact that the tab implementation meshed well with EMU's existing website design and could be incorporated with the least extra effort, the team opted for tabs.

A Summon tab that supplied access to simple and advanced searches as well as more information on the product was added to the right side of the website (SEE APPENDIX B); the position of the tab did not reflect the actual positioning or branding that would eventually be incorporated into the hard launch, but merely provided a functional product suitable for further testing.

Review and Testing

EMU's Summon discovery layer was delivered in week four of the implementation process. The team then needed to review search results to determine if the indexing of catalog records was satisfactory and if the access to electronic resources was working properly. During the testing phase, members of the team from the library's public services unit tested Summon, and, in doing so, they discovered some specific issues with searching and results. A table was created to track questions and concerns (See Table 2.), which included issues such as Summon content types and search refinements as well as the schedule for library catalog record updates and deletions. We hoped to resolve these issues before the official launch in fall of 2011.

Insert Table 2 here.

In week eight of the implementation process, the beta testing phase began. A link on the library's web page allowed any user to submit feedback. During this time, the team was in the process of adding collections, adjusting settings, customizing the Summon interface, and determining how to integrate Summon into the library website and library instruction. An email sent to library faculty, staff, and student workers announced the start of beta testing. Since the team considered the launch soft, they wanted to gather user feedback to provide further insight into EMU's unique user base.

A limited, informal user test of undergraduates, graduate students, and faculty members was conducted in order to give insight into user expectations and assumptions as well as determine if any interface adjustments were necessary. This testing also helped guide the team in the activities leading up to the hard launch, namely, how to present and describe Summon on the web page and promotional materials, as well as how to incorporate Summon into library instruction. Teams of two librarians interviewed subjects, who were asked to use Summon to complete a number of tasks. The subjects were asked to: 1) search on a topic of their choice; 2) limit or expand their search; and 3) identify material for which full-text was available online. Subjects were then asked to evaluate Summon in terms of its perceived usefulness. They were asked what material types they would be inclined to search through its interface and also asked how Summon compares with their traditional means of searching. Suggestions were taken for naming the Summon discovery layer and users were asked to choose their preference from a list of names that were supplied by the library faculty.

Results were tied mainly to categories and identified some potential problems. Undergraduate students all thought that it was easier to use than the traditional library

databases, but showed disappointment when they realized that the full-text linking took them to the library's link resolver. Graduate students and faculty participants raised questions about the efficacy of the relevance ranking, as well as the tool's increased recall capabilities, noticing that there was an increase in non-relevant material over the traditional databases. While all participants would use Summon to search for articles, the group was split regarding whether it would be used to search for books and other materials. Undergraduate students supplied the most concrete answer regarding reasoning, admitting that they would use any search box that appeared in the default position.

In light of the user testing, it was decided that Summon would be placed on a tab named "Articles & More." To highlight the metasearch capabilities of the tool, the tab would be in the first position and act as the default search (See Appendix C.). The other tabs, giving options to access the library catalog or traditional databases, would not be affected. In week eleven, a new revised website went live and was available for users for the summer of 2011.

Marketing and Publicity

In week twelve of the implementation, members formed a marketing and publicity team tasked with developing marketing, branding, and promotional plans for the university community. From the beginning, the team decided to drop the name Summon and pursue something more EMU-specific. The main reasoning behind this decision was the fact that, while the team was fairly certain that the concept of a discovery tool had lasting power, rapid technology change and increased competition in the discovery tool market raised the question of whether Summon would always be the tool of choice. Corporate branding

might confuse users in the event that the library ever decided to switch vendors. "Esearch" was eventually recognized as the official name of Summon at EMU with the tagline "Search Me" to be used in publicity.

A graphic artist developed a logo and basic advertising that could be used in multiple venues (See Appendix D.). This simple ad was circulated throughout campus in a variety of formats. Fliers were sent to all academic departments and distributed among scholarly student groups. They were made available at all library service points as well as student resource offices located in the library. Posters, which were larger versions of the fliers, were placed in a number of high-traffic areas, including the student center and dorms. Finally, the ad was set as the default screensaver in all library-controlled computer labs and placed on a number of video monitors located throughout the library and student center.

Active marketing in the form of outreach events was held in the fall of 2011. ESearch was presented and demonstrated at the Graduate Student Orientation, Library Advisory Committee, and the Library Liaison Meeting, an event that brings together library liaisons from all academic departments across campus. Finally, ProQuest, the parent company of Serials Solutions, and the EMU Library partnered to present an Esearch promotion at the Student Center, which demonstrated the product to over 200 students, gathering additional feedback that could be used to assist the implementation team.

Final Implementation Steps

In week eighteen, the major technical portions of the implementation were completed. These included backend configuration, indexing of records from the library catalog, and setting up content in 360 Core. The project manager requested that the assigned Serials Solutions implementation manager remain onboard through the summer because of the many questions the team still had about Summon indexing and the unexpected and perplexing way results were being displayed. EMU continued to have a problem with Summon displaying the "Citation Only" icon, instead of the "Full-text Online" icon that reflected the correct holdings.

It was also important to ensure that the library's online tutorials and LibGuides were updated for the hard launch. Online tutorials that would be affected by procedural changes brought about by Summon's implementation or that would have content adversely affected by the changes in the library's website were identified and modified during the summer term. A search box that subject librarians could use to incorporate Summon searching in their LibGuides was also developed and made available.

Implementation was completed in September 2011. At this point the team had already scheduled staff training, customized and branded the search box from Summon to Esearch on the web page, and initiated the marketing and publicity campaign. Serials Solutions offered hearty congratulations on a successful launch of Summon at EMU. To the team, this is when Summon was delivered.

Assessment and Evaluation Plans

Because the library's subscription to Summon is for eighteen months only, the assessment phase of the project is perhaps the most important. If the product adds enough

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value to the user experience, base budget funds will need to be identified in order to continue our subscription. This decision, especially in the current economic climate, is not a light matter. Supporting a web-scale discovery tool like Summon would almost inevitably affect some other line in the budget, and tough decisions will have to be made. The implementation team felt it best to approach this issue from a variety of angles. EMU's assessment process will gather information from both quantitative and qualitative standpoints.

An effective model for quantitative analysis was supplied by a Grand Valley State University study exploring the effect of Summon implementation on the use of the library's resources. This study compared pre- and post-implementation usage statistics for database searches and full-text downloads by analyzing COUNTER Database Report 1 (DR1), COUNTER Journal Report 1 (JR1), link resolver statistics, and Google Analytics data (Way 2010, 216). In the end, Way found that there was a notable decrease in the use of indexing and abstracting databases, but a marked increase in the downloading of full-text articles (218-219).

Using this study as a foundation, EMU decided to pursue a similar route. Usage statistics were gathered in order to compare database usage from the fall 2010 semester to the fall 2011 semester, as well as year-to-date usage between 2010 and 2011. Additionally, EMU will compare 2009-2010 database usage to 2010-2011 in order to establish a baseline. Through this study, the team hopes to determine whether EMU will experience results similar to Grand Valley State University, lending further credence to the hypothesis that discovery tools have an effect on user behavior, guiding them to actually use more of the library's content.

Qualitative assessment efforts target feedback from both students and faculty. For students, two basic questions were added to library instruction evaluation forms. These questions asked students : 1) if they had used Esearch during their session; and 2) if they believed that Esearch had led them to relevant material. Similarly, a survey was developed that was circulated to faculty members following the fall 2011 semester. Consisting of five simple questions, this survey was designed to elicit faculty opinion of Esearch with regard to both their own research and that of their students.

Conclusion

The Summon implementation team experienced many important challenges during the eight-month implementation process. These challenges included: a) configuring the library's electronic resources; b) synchronizing electronic resources with the SFX link resolver; and c) catalog integration of records and MARC mapping. The actual timeline proved to be much longer than the team had anticipated; however, it did result in a successful launch in September 2011.

Four months after EMU's hard launch of Esearch and six months before our subscription to Summon ends, the focus is now on assessing the impact of Summon. Assessment of Summon functionality and usefulness and will consider both user feedback and usage statistics. Perhaps the most important issue though is if our assessment recommends continuing our subscription, how will its permanent place in our collection be funded? Because our initial subscription was purchased with one-time funds, other library resources or services may need to be canceled to permanently add it to our collection.

At this time, many questions are outstanding. Will Summon live up to its potential as a single-search box gateway?   Will it seamlessly connect users to the libraries' large collection of information resources? Will it improve users' discovery of our content? Will it meet the research expectations of users in an academic setting? Time will tell. If it does all of these things, how will we fund its continued subscription? The feedback we receive from our users and library staff, along with usage statistics gathered, should demonstrate whether Summon adds enough value to continue funding our subscription.

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