

# SING A SONG OF SIXPENCE: THE BIRDS WE FOUND IN THE WEB-SCALE DISCOVERY PIE

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## INTRODUCTION

More information is readily available to researchers today than at any time in the past. This proliferation of resources and the tools for finding them has created a complex research environment (Gross & Sheridan, 2011). Many academic libraries are making the decision to invest in one of a handful of available web-scale discovery products to address this complexity. Web-scale discovery tools offer a new approach to finding information through a combined index of library catalogs, e-books, the full-text of library periodical subscriptions, as well as scholarly resources from outside a local library's collection. Discovery tools are also meant to simplify the research process by offering access to this diverse content through a single, simplified search interface (Breeding, 2010). These tools are still new and developing, with several major discovery tools launched very recently, in 2009 and 2010 (Vaughn, 2011).

Initial research on the effectiveness and use of discovery tools shows that they can have a major impact on use of library collections. A study of the use of the Grand Valley State University Library's collection after implementation of the web-scale discovery tool Summon showed a dramatic increase in use of full-text journal articles. Half of the journal collections showed a full-text usage increase of at least 40%, with the JSTOR collection full-text usage increasing 146%. At the same time, direct searching in the library's subject

databases decreased (Way, 2010). These changes indicate that introducing a web-scale discovery tool had a noticeable impact on the search habits of the university community. Gross and Sheridan (2011) conducted a small usability study of Summon at Edith Cowan University in Australia in order to examine student behaviors and identify successes and failures of the tool. Though this study determined that students did find the tool easy to use, it also found that students had some difficulty interpreting search results.

Most academic libraries that invest in a web-scale discovery product do so because the simple interfaces and ease of use are so appealing to library users. However, these products have also dramatically changed the ways in which librarians provide research instruction. In Winter 2011, the Eastern Michigan University (EMU) Library received one-time funding from the Provost's office to try Summon, Proquest's web-scale discovery product, for 16 months. A team of librarians implemented Summon – branded locally as “Esearch” – on a trial basis. After this implementation, a small taskforce of librarians began assessing the impact of Summon on library users and collections. In addition to discussing some of these assessment findings, this paper will specifically focus on the ways in which Summon has had a tangible and, in some ways, surprising impact on the manner in which librarians deliver course-related research instruction to students in many different disciplines, and at a variety of levels.

## IMPACT OF SUMMON ON RESEARCH INSTRUCTION: UNDERGRADUATE

The use of Summon as a primary search tool in introductory courses has allowed instruction librarians to spend less time helping students navigate a variety of tools, and more time focusing on the importance of evaluating sources. It has

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also helped to expose beginning researchers to a wider range of disciplinary sources, without having to learn disciplinary tools. The primary course that has benefited from the library's acquisition of Summon is ENGL 121, the university's general education composition course. All students must take this course or an equivalent before graduating, and most take the course in their first year at EMU.

Students in ENGL 121 engage in one major research project that is staged throughout the entire semester. The project is multimodal in nature, meaning that students must conduct research in a variety of different manners. They do site observations of a specific "community" of choice, conduct interviews, and also gather traditional and nontraditional sources of information (books, articles, videos, etc.) to support them in answering a question or questions related to their topic and/or community. For example, a student might choose to do observations at a local animal shelter. While observing, the student develops questions related to that community. If the shelter receives an influx of animals from a puppy mill or animal hoarder, the student might choose to focus on this an area of interest. Traditional research instruction in the library would then revolve around assisting students in finding information related to those more specific questions/interests.

Because students in ENGL 121 are truly able to conduct research on any issue of their choice, in the past there has been no one-size-fits-all research instruction method to help them. Students were directed to the library's general research databases (Gale PowerSearch and OmniFile Full Text), but often had to move beyond these tools into more specialized sources. For beginning researchers, this process was often incredibly confusing and cumbersome, as many first-year students have little experience navigating the plethora of tools available to them. Many students would lose patience with this process, either relying on resources that were not really that suitable for their needs, using Google, or giving up entirely. Additionally, much of the time that a librarian had with students was spent helping them choose a tool and make sense of how it worked, rather than evaluating sources of information for their quality and relevance.

The library's acquisition of Summon has completely transformed research instruction for first-year writing students. Because the tool brings items together from a wide variety of disciplines, and because students are able to very easily limit to scholarly resources, the focus of instruction sessions is now on understanding and evaluating the types of sources they will find through the library. Additionally, because part of the goal of the students' research project is to understand how various disciplines would approach or study a particular question or topic, students are quickly and easily led to a very wide range of disciplinary journals, illustrating the richness and complexity of the academic research environment. For example, a quick search in Summon on animal hoarding, narrowed by date, retrieve results (on the first page) from journals in the fields of psychiatry, law, agriculture, and veterinary medicine. This is not to say that Summon has solved all issues for beginning researchers, but it has definitely allowed these students to spend

less time figuring out interfaces and more time evaluating and selecting appropriate sources of information.

## **IMPACT OF SUMMON ON RESEARCH INSTRUCTION: GRADUATE**

Because of the interdisciplinary nature of research, upper and graduate level students in the past have also had to rely on searching multiple silos of information to consider the contributions to the topic in each discipline. Starting with Summon allows these students to first focus refining a topic and analyzing the relevance of resources, enabling them to later move on to learning about the complexities of disciplinary databases if needed. Summon has also worked very well as a quick tool to use for teaching students how to search for known items.

SPHI 591 is a Special Education Hearing Impairments class that looks specifically at how a medical condition affects the educational setting, psychological needs and specific teaching instruction techniques necessary for the student. When researching a specific medical condition called Usher's Syndrome, a searcher could find 20 peer-reviewed articles in ERIC and 46 in PsycINFO. In Summon, there are over 3,500 search results, and most importantly, the results cover multiple disciplines. Another example of a graduate course in which Summon has had an impact is with History 592. Students in this class research topics on the Middle Ages. In the past, the history librarian would demonstrate Humanities Abstracts, Historical Abstracts, and JSTOR, as well as Google Scholar. Search results were limited in each individual database. For example, searching for Scotland witch trials resulted in 11 articles found in Historical Abstracts and 7 in Humanities Abstracts. Summon brings together 565 results that represent a variety of academic perspectives.

Searching Summon helps students take a comprehensive view of their topic and refine their thesis in a timely manner. Librarians have incorporated peer coaching into classes such as SPHI 591 when teaching with Summon. Students conduct a quick search in Summon, and then use the Think-Pair-Share technique to discuss the results, issues, concerns and provide suggestions to the other students. Prior to Summon, students in these classes spent much of their time searching the numerous databases just trying to find *any* articles on their topic. Now they are able to quickly identify on-topic articles rather than the "good enough" articles they were settling for before.

## **SUMMON ASSESSMENT: STUDENT FEEDBACK**

Student feedback related to Summon was gathered through two different venues. At the beginning of Fall 2011, two questions were added to the library's web-based instruction evaluation form, a tool that is used to survey students after they've participated in a librarian-led research instruction session. The two questions incorporated into the instruction evaluation form were designed to assess whether students a.) had used Summon during the session and b.) thought that Summon had led them to relevant resources. A total of 859 participants,

reflecting both undergraduate and graduate students, responded. The majority of responses (51%) came from ENGL 121 classes. The remainder of the sample reflected classes from a variety of departments, with all colleges represented at least once.

Overall perception of Summon's ability to return quality resources was overwhelmingly positive, with 82% of total respondents who had used Summon in their class either strongly agreeing or agreeing with the statement that Summon had led them to relevant resources. As can be expected, graduate students were more skeptical, with only 63% strongly agreeing or agreeing and 20% disagreeing or strongly disagreeing with the statement. Returning students tended to be slightly more neutral in their perceptions than their first-time peers. Finally, there was no noticeable difference between ENGL 121 and other undergraduate courses, with 86% of both sets either strongly agreeing or agreeing with the statement.

While feedback gathered from instruction evaluation forms was useful, the team questioned whether this data would accurately portray student perceptions of Summon. It is one thing to use a tool in a classroom environment with the safety net of a trained librarian closely watching; it is quite another to use the product later in the semester to perform research. For this reason, a four-question voluntary student survey was developed and made available for two weeks in the middle of the winter semester.

A total of 35 responses were received; 29 of the respondents had used Summon. The majority noted that they were pleased with Summon results. Seventy-five percent of the respondents who used Summon said that they were either "extremely satisfied" or "satisfied" with the results. This is lower than the 87% who either strongly agreed or agreed on the parallel question asked on the instruction evaluation form, but still shows overall satisfaction. However, because the number of survey responses was small, librarians focused on students' responses to open-ended questions order to gain insight into how students used Summon and their perceptions of its strengths and weaknesses as a research tool. Students were asked to describe their experience using the product in terms of ease of use, search results, etc., and were asked to compare Summon to other library databases that they had used. Most students described positive experiences with Summon, mentioning that the tool was easy to use, well-designed, and retrieved relevant results. Other students noted that Summon was easy to use, but sometimes missed results that they expected to find, or that they preferred to use other tools instead. Representative student comments included:

- "This is the most user-friendly database I have ever used. It has made a huge difference in my academic success."
- "...how searching for academic sources should be...it doesn't make any sense that scholars need to know specific databases or journals in which to conduct searches, especially since we live in an interdisciplinary world"

- "It takes a little while but once I get the right terminology then I get lots of good results."
- "Other databases were harder to use -- but that is where I found good articles"

## SUMMON ASSESSMENT: FACULTY FEEDBACK

In an effort to gather the broadest possible input for analysis of Summon implementation at EMU, an online survey was disseminated to faculty in the middle of winter semester. While the response to this self-selecting survey was modest—only 32 non-library faculty—the feedback was still useful. The survey asked faculty a few questions about their own use/experiences with Summon as well as any observations they might have about their students' use of this discovery tool. When asked about what aspects of Summon they found useful for their research, 18 faculty responded positively, focusing on: breadth, filters, simplicity, speed and variety. Two respondents were unable to identify any redeeming qualities with Summon, expressing considerable disdain for the product. An additional two faculty responded in a neutral fashion. Faculty comments provided useful insight into their perceptions of Summon as a research tool for students. Representative comments included:

- "(Students) love it! All of the resources accessible in one place. Makes using the library easier and more likely."
- "(Students) have indicated that it is much easier to navigate and provides them with more results that are useful in their research. I have also noticed my students using stronger research since the implementation of Esearch"
- "(Students) like it. But the amount of data that comes back can take some work to sort through."
- "It is nice to have a simple interface like this, but...."

Library faculty responded to the same survey as other faculty, but due to differences between these groups in their perspectives on search tools and expertise in database use, library faculty responses were reviewed separately. When asked if they had recommended Summon to students, nine respondents answered in the affirmative. Eight library faculty provided comments regarding what they had heard about Summon from students. Four of the comments reported primarily positive feedback from using Summon with students, and four reported mixed or neutral feedback. Common themes reported by library faculty included:

- the value of ease of use and searching
- the advantage of not needing to select a database
- results are not always relevant for all topics, and students then need help figuring out what to do next

## SUMMON ASSESSMENT: IMPACT ON COLLECTIONS

Beyond the positive impact this tool has had on research instruction, Summon has also had a tangible impact on use of electronic collections. To assess if Summon would have an effect on the EMU Library's collections similar to that seen at Grand Valley State University, the number of full-text downloads in the Fall 2010 and Fall 2011 semesters was compared. Data from library online journal collections during the Fall 2011 semester show an overall increase from the same time period in the previous year—full-text downloads of journal articles increased from 291,778 in Fall 2010 to 324,424 in Fall 2011, or 11.2%. In comparison, data from the period prior to Summon's implementation (January 2011 to August 2011) shows that downloads of full-text journal articles increased just 3.3% when compared to the same time period in 2010. This suggests that the implementation of Summon drove a significant increase in use of the library's online collections during the Fall 2011 semester. Some journal collections showed a more dramatic increase; for example, article downloads from Emerald Full text increased 62%, and ProQuest increased 48%.

## CONCLUSION

Whether EMU will continue to subscribe to Summon is yet to be decided, as it is quite costly. However, the ways in which Summon has changed the nature of instruction, particularly for beginning researchers, is something that librarians at EMU are going to continue to embrace. Using Summon has helped librarians place a greater emphasis on student learning outcomes related to understanding the purpose and value of academic scholarship, as well as the importance of critically evaluating information. Librarians are able to spend less time showing students tips for navigating specific database interfaces, and more time discussing how to make sense of search results. This experience has renewed librarians' emphasis on evaluation of sources in all instruction sessions, regardless of whether they involve the use of Summon.

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