Chapter 17
Usability Testing Summon on the USC Libraries Home Page

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ABSTRACT

This chapter describes the situational context and strategic goals at the University of Southern California (USC) Libraries that led to implementation of a discovery layer interface on the home page. User testing of the library website pointed to the need for unified and intuitive access to library holdings. Summon™ was introduced as a single access point, and usability testing was conducted on the website both pre- and post-Summon™ implementation. Results indicated that success rates for basic tasks improved after Summon™ became the default search box on the library home page. The objectives of the testing, methodology, demographics of test subjects, findings, and test instruments are described and shared.

INTRODUCTION

By the end of the first decade of the twenty-first century, user testing of academic library Websites was becoming common practice. At the Libraries of the University of Southern California, the Web developer and a few strong-willed librarians were part of the growing movement. The USC Libraries gathered together to conduct usability testing of their Website beginning in early 2008. The first usability test spawned an agenda of redesign and iterative user testing. Happily, the multiple tests resulted in a much-improved Website, where research tools took priority on the home page, (over news, announcements, and other miscellany), and access to electronic journals was easier than ever before. This was made possible by the inclusion of a discovery layer interface. This chapter will outline the methods of usability testing and the process of decision-making that led to the Summon™ implementation.

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BACKGROUND

Literature Review

Usability testing evolved as a subset of the field of Human-Computer Interaction. It gained traction in the late 1980s-early 1990s as a key element of product design focusing on the "work context in creating usable and functional products to improve productivity" (Dumas, 2007, p. 55). Following the growth of the World Wide Web, in 1999 one of the pre-eminent texts on Website usability, *Designing Web Usability*, was published by Jakob Nielsen, whose credentials are well documented (see his Website, useit.com). As Nielsen points out, "If a Website is difficult to use, people leave. If the homepage fails to clearly state what a company offers and what users can do on the site, people leave. If users get lost on a Website, they leave" (Nielsen, 2000, Why Usability is Important). Academic libraries were quick to adopt the practice of conducting usability tests on their Websites. Detailed case studies began to appear (see for example, Battleson et al., 2001; Cockrell & Jayne, 2002; Dickstein & Mills, 2000). Battleson et al. (2001), noted what is unique to usability testing a library Website: although it could potentially serve multiple functions, ranging from reference to materials renewal, "to ensure a user-centered approach, site functionality was defined in terms of what the *user* needed to do, rather than all of the possible tasks the site could support" (p. 190).

Libraries wanting to engage in usability testing faced several limitations. The typical library Web search may involve one or more systems, products and interfaces. VandeCreek (2005) noted that "the [usability] Committee was careful to include tasks that tested only Website content and structure that were within its control and could be modified in response" (p. 184). Within five years of the initial ramp-up of user-centric testing, libraries were beginning to find themselves in competition with Google and the phenomenon of its single search box. A large scale study by De Rosa et al. (2006) revealed that only 2% of students used the library Website as a starting point for search. As well, 87% found Web search engines easier to use than the library. Sadeh (2007) concisely summarized the conditions necessitating major changes in library Web interfaces, specifically, changes in users' information seeking behavior and the search environments they are accustomed to. Summing up the problem, Sadeh writes, "One of the main challenges in offering any kind of scholarly search interface is to make it as familiar and intuitive as the one used by Web search engines and other internet tools but to guarantee that it yields better results" (p. 311).

After this point libraries began to examine the potential for discovery-layer interfaces, products that would streamline the user experience on their Website and provide access to the catalog as well as article indexes. Also known as "next-generation catalogs," these products began to gain popular standing around 2007; some early reviews were documented by Marshall Breeding in *Library Technology Reports*.

USC Libraries: Strategic Goals and the Need for Unified Access

The University of Southern California (USC) is a research-intensive, doctoral-granting university. During the period described in this chapter (2008-2010), the approximate number of full time enrolled undergraduates was 17,000 and the approximate number of graduate students was 18,000. USC's Graduate School offers about 300 graduate programs and seventeen professional schools. Accordingly, the university has a large and complex library system with a very diverse patron population that ranges from the traditional-age eighteen-year-old freshman to the middle-aged re-entry graduate student enrolled in an online program. The USC Libraries, as they are collectively known, comprise twenty-three libraries and information centers as well as the USC Digital Library. In the fall of 2008, the Dean

of the Libraries implemented a strategic plan with directives in three categories: collections, public services, and technology-and-access. Committees were tasked with developing and delivering the improvements outlined in each area of the strategic plan. For the purposes of this chapter, the focus will be on two of the technology-and-access committees, for shorthand hereafter referred to as "T1" and "T2". The T1 committee was charged to "Create an intuitive, unified, electronic interface to library holdings" and the T2 committee was charged to "Improve accessibility and usability of e-resources in all languages and scripts."

As the underlying issues were identified, it became clear that the T1 charge had mostly to do with improving the Website architecture and T2 with the lack of Unicode functionality in the Libraries' ILS. The T2 committee addressed problems users encountered searching the library catalog in some foreign languages and non-Latin scripts (such as Chinese, Japanese and Korean – with a large East Asian Library this was a high priority). This group found a simple solution by upgrading the version of SirsiDynix®[1] ILS that was in place at that time, to provide Unicode functionality. That was simply a cost issue for the upgrade, and did not necessitate a move to an entirely new system.

Therefore the T1 goal presented the larger challenge. There were multiple search tools in place (as of early 2008), including the main library catalog, two additional catalogs (for the law and medical schools), the electronic resources management system (ERMS), a federated search tool on a dedicated e-resources Web page, and especially confusing to patrons, a legacy home-grown database of electronic holdings that was still being used to provide subject-based access to e-resources. The T1 goal of creating a unified interface was written largely in response to the results of an initial round of usability testing that had been done on the e-resources page in early 2008. Students were unable to locate information needed using the existing search tools, in particular, the federated search.

Comments by participants in the usability test of federated search were blunt and revealing. One aspect of the user experience with federated search was particularly enlightening: patrons strongly disliked the categorization of results according to database, rather than relevance. One user commented, "If I could turn off Engineering, I would." Another said she chose the first result with false expectations: "It was number one so I thought it would be the most relevant but I'm not sure what the order has to do with anything." Several participants felt the list of results was "way too long," "too numerous," or there was "too much to scroll through." Additionally, it was revealed that users desired customization features; search limiters were underutilized (because they were buried behind a link to advanced search); delays in the load time for results created impatience. All of these factors informed the process of redesigning the Website and choosing new search tools.

The first decision was to remove the separate, dedicated e-resources page (which was dedicated mostly to an ill-performing federated search). It was decided to re-design the Website so the home page would provide access to all the library holdings and allow users to search the catalog, the Digital Library, and e-resources from the front page. The second decision that needed to be made was whether to provide a single search box. The committee conducted an environmental scan of available discovery-layer products currently on the market. A list of desired features was compiled after interviewing various parties on campus on an informal basis, and used this preliminary list as an evaluative tool to compare discovery-layer products. The products reviewed in 2008 included well-known products from large entities, such as Innovative Interfaces' Encore and SirsiDynix's® Enterprise, as well as lesser-known or open-source alternatives such as VTLS'®[2] Virtualizer. At that time, the Summon™ product was not yet available. The USC Libraries were collectively dissatisfied with the options, concluding that the best tools were cost-prohibitive. The Libraries temporarily

Figure 1. Tabbed interface on the USC homepage without Summon™ tab

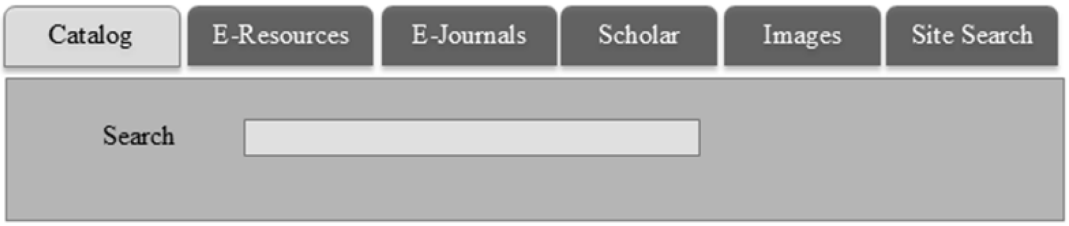


Figure 2. Tabbed interface on the USC homepage with Summon™ tab

opted to achieve a unified interface by providing a tabbed search box on the home page. It took several months to complete the redesign, and by the time it was completed, Summon™ was available, which seemed like a perfect solution, pending user testing.

USABILITY TESTING BEFORE AND AFTER INCLUSION OF SUMMON™

Test Objectives

It's important to note that the Library was testing the usability of the home page. The objectives were designed to test core tasks that users wanted to be able to complete on the Website. It was not, strictly speaking, testing the interface of the Summon™ product, although many interesting things were learned. The Libraries were more interested in how successfully users completed tasks on the home page, and comparing their success "before" implementing Summon™ with "after." The Libraries wanted to know whether adding Summon™ as a "Quick Search" as the default tab (open upon initial page load) would create problems for users and/or what benefits it would provide to have it in the default position. In order to meet these objectives and compare user success rates on a version that included Summon™ to a version that did not, the existing page was tested and then a beta page was tested with "Quick Search" as the default tab. The beta page was live, and fully functional, but on a private URL (i.e. nothing linked to it), so it was not yet public, and only available in the testing room. Figures 1 and 2 depict the tabbed interface on the home page without and with Summon™, respectively (author's rendering).

The primary goal of user-centered design is to bring results to the user in as few clicks as possible, using the most convenient tools possible. For a general review of usability principles, The Libraries referred frequently to well-known authorities (see for instance Krug, 2006; Nielsen, 2000, March 19th; Nielsen, 2001; Rubin & Chisnell, 2008; Shneiderman, 2001). It was decided to use the scenario-based observation method. In this method, participants are given the opportu-

nity to interact with a live Website, and asked to complete a series of tasks, mirroring as closely as possible a real-life scenario. The list of core tasks that users should be able to complete was as follows:

Users should be able (easily, quickly) to find:

- a book
- articles on a topic
- a (named) database
- a (named) e-journal
- the research guide for a named discipline

This task list was, with minor changes, the same one that had been inuse for the past two years of user testing. (Note: At one point the visibility of links to the catalogs for medical and law schools was tested. For the actual instrument used in the Summon™ testing, see Appendix A.)

Methodology

The USC Libraries wanted to recruit approximately seven students for each round of usability testing. Their experience had proven that this was an adequate number. In usability testing, the difficulties that users encounter become obvious almost immediately. Also, Jakob Nielsen's research has shown that the probability of discovering new, unique problems on your Website decreases with increasing numbers of users. He states, "As you add more and more users, you learn less and less because you will keep seeing the same things again and again" (Why You Only Need to Test with Five Users, 2000). Another of the lessons learned from previous attempts at user testing was not to recruit from known groups. In 2008, participants were primarily recruited from a freshman writing course where there was plenty of interaction with students due to regularly scheduled library instruction sessions. That choice proved to be too narrow a demographic (and they were also familiar with library jargon, having received library instruction). In order to increase randomness further recruiting using flyers on campus was employed and a feasible incentive was established (this hadn't been an option previously when recruiting from the freshman instruction sessions). Participants were offered a copy/print card in the amount of $10.00. It was assumed that this would be popular because of the extensive use of printers in the library. It was also an expenditure that, for the most part, would be returned to us. The goal was to recruit about ten students initially for each round, in the hopes that seven of the ten would be error-free. (Note: it is essential to recruit more people than you really need in terms of analyzing the results, partly due to the possibility of errors and partly the possibility of participants failing to appear, dropping out, or not completing the tests.) Then flyers advertising the usability test and the incentive were posted in various locations throughout campus, including the two main libraries' circulation desks, bulletin boards near large and/or popular classrooms, dining locations, and a few other highly-frequented venues.

Participants responded to the flyers by email and set up an appointment time. The test room was located in an empty office, in a quieter part of the library, and to prevent distraction the setup in the office included one Windows computer with a microphone, and nothing else. In a typical scenario-based observation test, the participant's clicks, mouse movements and interaction with the Website are observed, scored and when possible, recorded. We'd decided to use the Morae®[3] software by TechSmith®[4] so that participants could be observed and recorded remotely from another location. This method allowed participants much more freedom to "think aloud" while attempting to complete the tasks. Each participant was provided with an entrance interview and an instruction sheet (see Appendix B). When s/he arrived, the test administrator reviewed the instructions, encouraged the person to "think aloud" and not to hold anything back. This methodology was based in part by exemplary models of tests done at the libraries of North Carolina State University,

Table 1. Demographic data for usability test "after Summon™" (beta website)

	Q1: Class Level	Q2: Frequency of use (website)	Q3: Ever employed by a library?
Summon_user1	Undergraduate	A lot	No
Summon_user2	Undergraduate	Sometimes	No
Summon_user3	Graduate	A lot	No
Summon_user4	Graduate	Sometimes	No
Summon_user5	Graduate	Sometimes	No
Summon_user7*	Graduate	A lot	No

*User 7 was effectively User 6; due to error the data for User 6 had to be discarded.

University of Texas at Austin, and University of Washington (see complete references below). The test was completely anonymous, because the software did not record anything but the screen, mouse movements, clicks, and the recording of the user speaking aloud into the microphone. The test administrators demonstrated to each participant the guarantee of anonymity by pointing to the titled entry for his or her recording, designated "User 1" or "User 2," for example, and noted that the Webcam was disabled. It was also explained that although the participant was alone in the office, the test administrator would be sitting right outside the door in case anything was needed, or a computer error occurred. (See the Instruction Sheet, Appendix B.)

The participants completed the series of tasks without intervention, and with complete anonymity, and this resulted in a successful scenario for "thinking aloud." All but one of the students spoke out loud freely, providing helpful information that could be used to complement interpretation of the data. The software includes a built-in tool to direct the user from one task to the next. Meanwhile, it was possible to observe from another computer in the adjacent room, either during or subsequent to the actual student appointment.

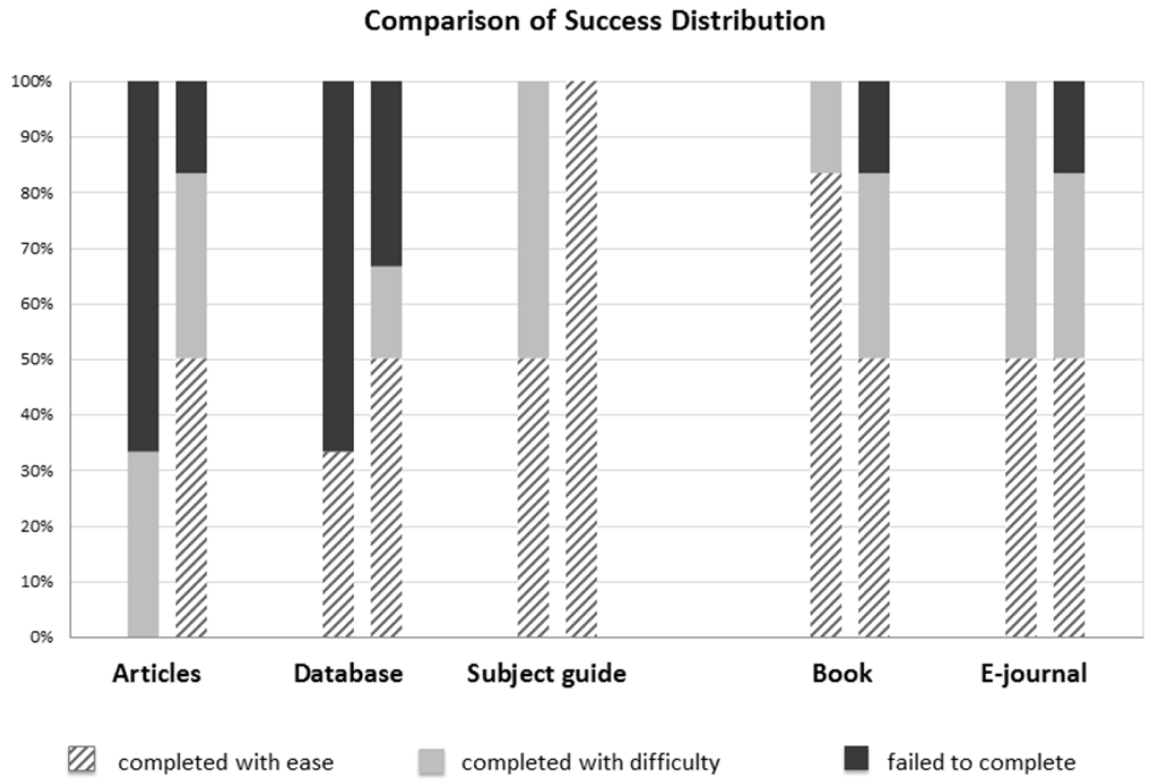
Demographics

We inserted a short demographic survey at the very beginning of the test (see Appendix C). Predictably, faculty members were not recruited. In fact only students were recruited, though the possibility that staff or alumni might have responded to the flyer was taken into consideration. The first group of students, who took the "Before Summon™" test, was made up only of undergraduates. The second group of students, who took the "After Summon™" test, was made up mostly of graduate students (see Table 1). This represented one of the biggest challenges in interpreting the results. In an effort to broaden the participant demographic, the earlier practice of targeted recruitment was abandoned. However, attracting parallel demographics for the parallel usability test iterations was not accomplished (see more on this topic in the conclusions, below). Unfortunately, due to an error in data collection, a part of the survey data in the first round of testing that indicated frequency of use with the Website and knowledge of library operations was lost. This information was available only for the second round of participants.

Results and Analysis

Looking at the overall success rate (see Figure 3), participants performed much better with the new interface using Summon™, aka "Quick Search,"

Figure 3. Comparison of success distribution. Note: For each task, the first column is the "Before Summon™" test and the second column represents the test including Summon™ in the default tab position.



especially in the top "problem areas" of finding articles and finding a named database. Ironically, in finding a database, the e-resources tab was used more successfully. The same was true with finding an e-journal. This may be due to the sophistication of this particular group of participants. All participants showed advanced search skills and familiarity with the Website (see Table 1). Also, four out of six were graduate students. While this fact was taken into consideration, it was ultimately unclear to what degree their sophistication influenced the results, because in some areas they performed less successfully than the undergraduate group.

In finding articles, the overall success rate went from 34% to 83%. This was the biggest problem area when "Catalog" was the default tab (see Figures 1 and 2). Notably the inclusion of "Quick Search" as a default made it much easier for users to locate articles just as quickly as they could locate books. Also, the 34% who succeeded before Summon™ did so with some difficulty. In finding a named database, the overall rate of success went from 34% to 67%. These were the biggest gains and these were the biggest problem areas in four previous usability tests over two years. Although the success rate in finding a book dropped a little, this was not a surprise given that the catalog had previously been the default tab.

In the first round of testing, all users tried to find articles in the catalog. Most users (five out of six) believed they could find articles in the catalog by clicking a radio button for "magazines, journals, and newspapers" (which was in fact a limiter intended for a periodical search in

the catalog). Significantly, all participants used whatever search tab was open by default. It was observed that is not instinctive to users to scan through the whole screen and choose the best option before beginning search. This theme recurred across users, across questions. Whatever search tab was already open was the one they used. This had also been a consistent pattern in previous usability tests. Therefore it was a concern that, in implementing Summon™ as the default tab, users might experience greater difficulty in other areas, such as finding books or journals, which appeared to be easy using the catalog. In fact, only one user failed to locate a book in the Summon™ test. More significantly, only two out of six users in the Summon™ test actually limited themselves to the default tab. The others had no hesitations about exploring other tabs' search functions.

The other problem area was finding a named database. In the first round of testing, only two out of six participants were successful. Intriguingly, in the Summon™ test the success rate went up substantially. This was because more users were inclined to use the e-resources tab. The primary reason for difficulty with finding a database in the "Quick Search" iteration was that at that time, it was impossible to find a database using Summon™. Indeed, two users attempted to use facets to narrow by content type/database. One user commented, while scrolling through the "content type" options, "What are we looking for… we're looking for a *database*…" After she didn't find it listed as a content type, she said to herself, "This is wrong. Let's go back." (Note: Since the time this testing occurred, Summon™ has implemented a database recommendation tool that probably would have an impact on the usability with regard to locating a named database).

We were curious to analyze what problems occurred, in the cases where users had difficulty or failed to complete a task. One common problem was that a user would misspell a word and the systems did not have any kind of correction. In the case of the Library ERMS, participants would often encounter a blank screen, rather than suggestions such as "Did you mean?" or "Were you searching for…." Summon™ handled these kinds of issues much more effectively, offering suggestions for almost all the misspellings that were attempted (or witnessed). For an example of an analysis completed for each task in the task list, see Table 2, which discusses e-journals.

Another point of interest, in comparing the results before and after inclusion of Summon™ on the home page, was the use of facets. The USC Libraries were very interested in learning how faceted search results improved the user experience. Several participants commented on them, indicating generally that they liked having the facets, and that this made searching easier. One participant asked, "Why didn't you guys have this on the Website before?" (referring to the facets, specifically). Three out of the six participants used the facets specifically to achieve success in the designated tasks.

CONCLUSIONS ABOUT SUMMON™

The Summon™ product aligned nicely with the USC Libraries goals. In addition to supporting Unicode and working with the existing ILS, it also provided aggregated as opposed to federated search functionality. The use of an underlying index was significant to us, given the problems with federated search. The load time was much faster, and relevance ranking was crucial to meeting users' concerns. Faceted search results, as discussed, were a vast improvement and user comments indicated an overwhelmingly positive response. In addition to usability concerns, it was discovered that there were other benefits to choosing Summon™. For instance, The Libraries were able to implement Summon™ right "out of the box," with minimal customization needed. Also, Summon™ worked well with the mobile version of the Website. Most important, however, user testing indicated that the interface was less

Table 2. Methods of locating a named e-journal

Before Summon™	**With Summon™**
How did they find it? • E-resources/E-journals: 3 • Catalog: 2 • Site search: 1	How did they find it? • E-journals: 4 • Catalog: 1 • One never found it, though she came close, but could not read the E-journals page
Why did 3 out of 6 have difficulty? • Misspelling/typos (E-journals portal has no *"did you mean?"* feature) • System errors (e.g. Biography database not linked to individual journals)	Why did 3 out of 6 have difficulty? • Misspelling/typos (E-journals portal has no *"did you mean?"* feature) • System errors (e.g. One database does not work well with our link resolver – cookies error) • Inability to read the E-journals portal page (journal is there, but user does not see it) • Inability to interpret results in Summon interface

confusing, more intuitive, and provided the ability to use limiters up front to make finding relevant results extremely efficient.

Unfortunately, the reception by library faculty and staff was not immediately positive. Once user testing was complete and the home page was ready for launch, the Libraries began a program to train faculty and staff throughout the USC Libraries. One of the greatest difficulties of implementation was not technical, but a communication issue. The Libraries learned that, generally speaking, internal users were more attached to the catalog than external users. The goal of a unified access point to library holdings had been achieved. However, the idea of an aggregated search based on an underlying index of holdings was not altogether clear to many people. Librarians wanted to know "where the search results are coming from," an oft-repeated question that was not entirely easy to answer, given that it's not possible to provide a list of exactly which holdings were in the Summon™ index and which were not. It was not possible to claim that 100% were indexed, due to obstacles with mapping and metadata. It was estimated that it was about 75% of holdings (at that time). When asked "which ones make up the 75%" or "which resources are missing" it was only possible to reiterate that Summon™ functions via aggregation and uses its own index. This created a great deal of confusion. In order to address many of the recurring questions, an FAQ document was created that was posted in various places on the Website and distributed during trainings. For an excerpt of this document, see Appendix D.

FUTURE RESEARCH DIRECTIONS

The Summon™ product has been tested and developed in accordance with usability principles. The USC Libraries local tests proved that it was a success with users. However, the usability testing process began in 2008 and it was apparent from the start that patrons did not understand many aspects of the library Website, beyond those encountered in a flawed federated search product. The USC Libraries faced challenges in the effort to consolidate access and streamline search tools.

It took a few years to accomplish the task, a strategic planning process, various committees and projects including a major Website redesign, and then, even after an appropriate search tool was implemented in response to users' needs, there was still resistance from librarians and library staff.

Further research must be done on the overall design of library Websites, including the use of tabbed pages. This was an area of testing that could have been explored with additional user interviews. Also, there remains the question of multiple search tools. The necessity for tabs arises from the variety of tools and electronic resources. There is an area as yet largely unexplored: what are librarians' real attitudes about multiple search tools? Does library instruction in a variety of databases take the user experience into account? Much has been written about the feeling by librarians that they are in competition with Google, and that students need to be compelled to use a myriad of other search tools with more sophisticated features. While there are benefits to library search tools, the primary challenge faced is integrating these multiple access points on a single library Website. It is unclear from the USC Libraries results whether the tabbed interface helped to resolve this conflict, since usage of the tabs was not a primary point of attention.

There is also room for research on recruitment methods, and in particular what constitutes an "ideal" demographic in usability testing. WHielt he USC Libraries attempted to run parallel tests based on a highly randomized recruitment method, the results indicated that the pre-Summon™ test demographic was undergraduate while the post-Summon™ test demographic was predominantly graduates. Was this affected by the timing of recruitment, or was this coincidental? More importantly, to what extent did it impact the results? As stated above, the graduates showed sophistication in some tasks, but not consistently. Because of the lack of an apparent consistent performance, the Libraries were inclined to conclude that the age or class level of the student participants did not impact the results. However, an entire study could be performed on this topic alone.

Finally, it is an open question how graduate programs in library science and professional library educators are integrating the concepts of usability, user experience, and user-centered design into the curriculum.

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KEY TERMS AND DEFINITIONS

Aggregated Search: The search query is performed on a pre-existing index of compiled (aggregated) resources. The time it takes to load and display the results is faster because the possible results have been aggregated ahead of the search being performed. (Summon™ works this way, and so does Google.)

Federated Search: The search query is performed in multiple databases at the time the user sends the command. The time it takes to load and display the results depends upon the speed of retrieval from the various databases that are being searched.

Scenario-Based Observation (also known as Task-Based): A type of usability test where the participant is observed while attempting to complete specific tasks. It attempts to mimic as closely as possible a real-life scenario the user might find herself in (such as, trying to locate a book on the library Website). Instructions are presented in natural language.

Unicode: An international standard for metadata that is inclusive of all languages and scripts.

Usability: The quality of being easy to use.

Usability Test: An inquiry to determine the usability of a Website or piece of software. There are many different methods and kinds of usability tests.

User Experience (often shortened to UX): A speciality area within graphical or Web design, similar to the field of human-computer interaction (HCI), that asks questions about the human experience with software, equipment, or Website. Usability is one core value of UX design.

ENDNOTES

1 SirsiDynix is a registered trademark of SirsiDynix Corporation.

2 VTLS is a registered trademark of VTLS, Inc.

3 Morae is a registered trademark of Techsmith Corporation.

4 Techsmith is a registered trademark of Techsmith Corporation.

APPENDIX A

Final Usability Test Instrument for Summon™ on the Home Page

1. Please find a book about the Iraq war. Tell us any thoughts that come to your mind while you are looking. Make sure you can find the library location and call number for the book.
2. Imagine . . . your professor says you need to "find 3 articles on childhood obesity written in the last year." What steps would you take? Please try to find at least one relevant article now, and talk about your steps as you go.
3. Find the database called "America: History & Life." Again, talk about your steps as you do the search.
4. You want to read the American Economic Review online. Show us how you would do it.
5. Find the subject guide for Engineering. Please tell us any thoughts that come to your mind while you are looking.
6. Find Helix, the Health Sciences Library Catalog. Use Helix to search for information on childhood obesity.

APPENDIX B

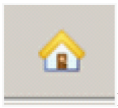
Participant Instruction Sheet

Welcome to the USC Libraries Website usability study!

Things to remember:

1. This is not a test of your abilities! We're testing out the Website, to see if it works. If it doesn't, that's something we need to know. There are no right or wrong answers.
2. Take your time. Read the instructions carefully and do your best. You will have approximately one hour to complete this usability test.
3. If you've tried and you still can't complete one of the questions, that's OK. You should spend no more than five minutes on each question. After that, it's time to move on.
4. Please read the questions out loud. We ask you to "think out loud" while you're using the Website. Reading the question to yourself is a good way to get comfortable thinking out loud. It may feel unnatural at first, but you'll get used to it. Your reactions to how the Website works (or doesn't!) will be the most helpful part of the whole study.
5. Thank you! We appreciate your help. When you have completed the 6 questions and answered the closing survey, we'll give you a $10.00 copy/print card.

IMPORTANT! Please start each new task by clicking the Home icon in the browser.

 in IE or  in Firefox

APPENDIX C

Demographic Survey Instrument for Summon™ on the Home Page

1. Which of the following best describes you?
   a. USC graduate
   b. USC undergraduate
   c. USC faculty
   d. USC staff
   e. USC alumnus
2. Before today, how often have you used the library Website?
   a. Never
   b. Sometimes
   c. I use the Website a lot
3. Have you ever worked as a library employee?
   a. Yes
   b. No

APPENDIX D

Excerpt of Document Created for Training Purposes at USC Libraries

Summon™ (Quick Search) FAQ

SECTION ONE (Copied from Summon™ Website FAQs)

Where do the records in Summon™ come from? We cannot report on where citations come from because of our de-duplication system. When duplicate records occur, we combine them together into a Summon™ record and lose the origination details. The only way to determine where the content comes from is from your link resolver. It will tell you which providers (to which your institution subscribes) provide the article or citation in question. Also, keep in mind that we may have acquired the content from a different source than where you subscribe to for access to the content.

Are there any stop words in Summon™ and, if so, can we get a list of them? We don't use a stop-word list in the traditional sense, which is a list of words that are dropped from the index and not used for searching. We index *all* words in Summon™, even "the." For example, if you do a search for "the office" (without the quotation marks), Summon™ finds appropriate documents, not just passing references to the term "office."

What is included in your index and what is searched? Does this depend on publisher? We gather metadata for article-level information from multiple sources, including full-text sources and abstracting and indexing (A&I) sources. If we have multiple sources of information for a single article, we de-duplicate the information and create a single record that included subject headings, abstracts, citation

information, unique identifiers, full-text, etc. Whatever we have for that article -- from any source -- is all indexed and searchable.

What is provided by full-text publishers versus those that include A&I services? A&I services provide specialized information that full-text publishers don't provide. We take advantage of both types of information in the Summon™ index. Publishers and A&I companies do not necessarily provide standard sets of data. So, it can really depend on the company/service. We take information from any source that will provide table of contents, subject headings, full text, etc.:

- Table-of-contents information comes primarily from publishers, but some might come from A&I or other sources.
- Subject headings can come from any source: A&I, full-text providers, etc.
- Full text comes from full-text providers, including Open Access databases.

Our list of both A&I and full-text providers is quite substantial. Because article information comes from multiple sources, which we de-duplicate, we find it more useful to provide lists of full-text eJournals covered in Summon™, and we can do a coverage analysis of a library's collection. We have had enthusiastic participation from providers of all types.

SECTION TWO (Local USC Libraries FAQ)

How does the relevancy ranking work? We don't know the exact formula. To help illustrate how it works, and build our collective understanding, we will list examples of relevancy-related questions in this section of the FAQ document.

Relevancy Question & Answer Example 1. Why doesn't "sound and the fury" bring up William Faulkner's work first? It's about the frequency of the words both together and separately in the text that's indexed by the search engine. In this case it is doing a straight phrase search. If you search "sound and the fury" in any system, except the Faulkner archives, it's possible you may not get the book. It's a phrase that's used in many contexts and often quoted. Originally it came from Shakespeare, "out out brief candle, life's but a walking shadow....It is a tale told by an idiot full of sound and fury, signifying nothing."

Why can't we know which 25% of our e-resources are excluded if we know that 75% are included (approximately)? This is only an estimate. What we can do is take their list of what they've got indexed and compare it with what we've got.

How should we explain in instruction classes what is included and what is not? For instruction classes we can say: It contains over 1/2 billion citations most of which have content available online. It's good for finding current information to which the library subscribes as well as other online scholarly information. It's not as good at finding highly specialized content, content available in print only and historical information.

How is the subject term list created? The subject terms that come up on the left side of the screen are coming from all USC resources searched. The subject terms are the terms that appear in those bibliographic records (depending on how they're indexed). They may include keyword field results and not only controlled vocabulary.

How does the language refinement work? Why when I limit to Armenian do I also get English language materials? It will bring back Armenian-language-only results if you go to "more options" and ALSO EXCLUDE English. Otherwise Summon™ retrieves all English translations. Look at the list in both Summon™ and Homer. Some of the works are important historical Armenian texts in a book with critical discussions in English about those texts, or with English translations in the document. If you did this in the classics, then Latin and Greek works with English translations wouldn't appear, nor would critical works in English that contain the Greek and Latin texts.

Also, the use of the language filter and expectations will be different for people in different fields. Examples: "I can read science articles in English or Spanish or French or Russian"; "I only want Italian translations of Macbeth"; "I was looking for Don Quixote in Spanish and was happy to find that it came with an English translation and commentary."

For languages, the facets broaden the search and act like "OR" if you select something other than "ANY". It's English OR French when they are both selected. It's easy to exclude English (or any other language and by extension multilingual works) after selecting a language.