

Usability Evaluation

Kresge Library Website Evaluation

Assignment #7

SI 622: Evaluation of Systems & Services
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Table of Contents

Executive Summary	1
Performance Test	3
Analysis.....	4
Findings.....	5
Questionnaire Analysis	5
Overview of Aesthetics.....	6
Overview of Functionality	6
Overview of Usability.....	7
Rubric Analysis.....	7
Success A: Useful Resources.....	8
Success B: Look and Feel.....	9
Success C: Immediate Access to Critical Services.....	9
Issue 1: Organization	10
Issue 2: Content Heavy	12
Issue 3: Link Labels	13
Issue 4: Buried/Hidden Links	14
Issue 5: Expert-Level Users	14
Issue 6: Find.It.Fast.....	15
Issue 7: Homepage Search Form	17
Issue 8: Home Button.....	18
Conclusion	19
Appendix A: Scripts.....	i
Appendix B: Questionnaires	v
Appendix C: Task	ix
Appendix D: Usability Rubric	x
Appendix E: Subject Demographics.....	xi

Executive Summary

In conducting a series of usability tests, several usability problems were uncovered and are addressed herein. The analysis of the usability test data is based on three principles: 1) effectiveness, 2) efficiency, and 3) satisfaction. The tasks utilized in the usability testing were designed to target different sections of the website in order to reveal problems or issues surrounding these principles. The problems encountered by the users were identified in terms of: 1) functionality, 2) aesthetics, or 3) usability.

Participants with various backgrounds and prior experience using the Kresge Library website were solicited as users for the tests. By having a diverse user group, the common problems that arose were more meaningful as they were not defined by the user but more so by the system.

The results of the test revealed a number of usability problems. These problems vary as issues of function, use, and aesthetics. The following lists the usability problems in order of severity, with the more severe listed first:

1. Organization of the website is not intuitive or consistent;
2. Website tends to be content heavy, which is perceived as a hindrance and burden by users;
3. Link labels do not match real world equivalents nor user expectations;
4. Critical and useful links are buried (or hidden) from the homepage and are not easily accessible;
5. Structure and content of the website requires a high level of expertise by user in order to produce successful searches;
6. The Find.It.Fast section does not share a consistent interface or navigation with the rest of the website and is content heavy;
7. The homepage search form is confusing and defies user expectations because it does not work with the “Enter” button; and
8. The lack of a “Home” button on the website results in frequent use of the browser’s “Back” button.

While the primary purpose of the usability tests was to discover common usability problems, a number of successes were also revealed. The variety and richness of resources, overall look-and-feel as well as color scheme, and ease of access to databases and catalogs from the home page were all mentioned as positive attributes of the website.

Overview

The Kresge Business Administration Library (“Kresge”) website supports students and faculty for research in the business industry. The website provides a variety of functions and services. Additionally, the website uses both internal and external resources to satisfy the different needs of users. However, sometimes users experience difficulty in successfully utilizing or accessing these features and services.

Through user testing and subsequent data analysis, several usability problems surface as common issues for both novice and experienced users. This report addresses the key usability problems that users typically experience in terms of effectiveness, efficiency, and satisfaction.

Methodology

The primary goal of the usability tests was to gain insightful understanding into the user experience. In order to successfully complete this goal, both novice and experienced users were recruited to participate in a usability test that lasted approximately 30 minutes for each participant. A total of five users were selected of various backgrounds.

Performance Test

The usability test was designed to measure the user's ability to navigate the various resources of the website in order to complete both simple and multi-step tasks. The test began with two simple tasks: 1) to locate a book in the catalog, and 2) to renew a book that the user had checked out. These tasks were preliminary and simple in design. They were meant to evaluate the user's familiarity with the website and acclimate them to the environment before proceeding with the more complex task.

The scenario of the complex task was based on the premise that the user was a Ross School of Business student who was actively seeking employment. It had several subtasks that combined to create a real world scenario of what is entailed in researching potential employers and preparing for interviews. The task was outlined as such:

For this task, imagine you are an MBA student ready to begin job searching. There is an opportunity to meet with two companies next week: The Boston Consulting Group and McKinsey & Company. You have already decided you'd like to work in Investment Banking at a reasonably large company (over 200 employees and annual revenue over \$20 million) in Boston, Seattle or Washington, DC. Please complete each of the sub-tasks below to help you decide if these companies might be right for you and get information to help you prepare.

- a. Locate resources through the Kresge website that provide profiles on Boston Consulting Group and McKinsey & Company according to geographic location and find out if each meets your city criteria (Boston, Seattle or Washington, DC)
- b. Locate resources through the Kresge website that provide contact information for these companies (i.e. Reference USA)
- c. Locate resources through the Kresge website that provide articles about industry news; specifically about the selected companies
- d. Locate resources through the Kresge website that provide information on expected compensation (how do these companies compare?)
- e. Locate resources through the Kresge website that provide guidelines for job searching (such as how to interview, timelines, strategies, etc.)
- f. Locate the "Jumpstart Your Job Search" schedule of help sessions on the Kresge website

The complexity and multi-step design of this task was created so that the user would have to utilize several features of the website and navigate between internal and external resources. Additionally, the task could be successfully completed in any number of ways, allowing the group to gain an understanding of search behaviors, patterns, and problems.

Analysis

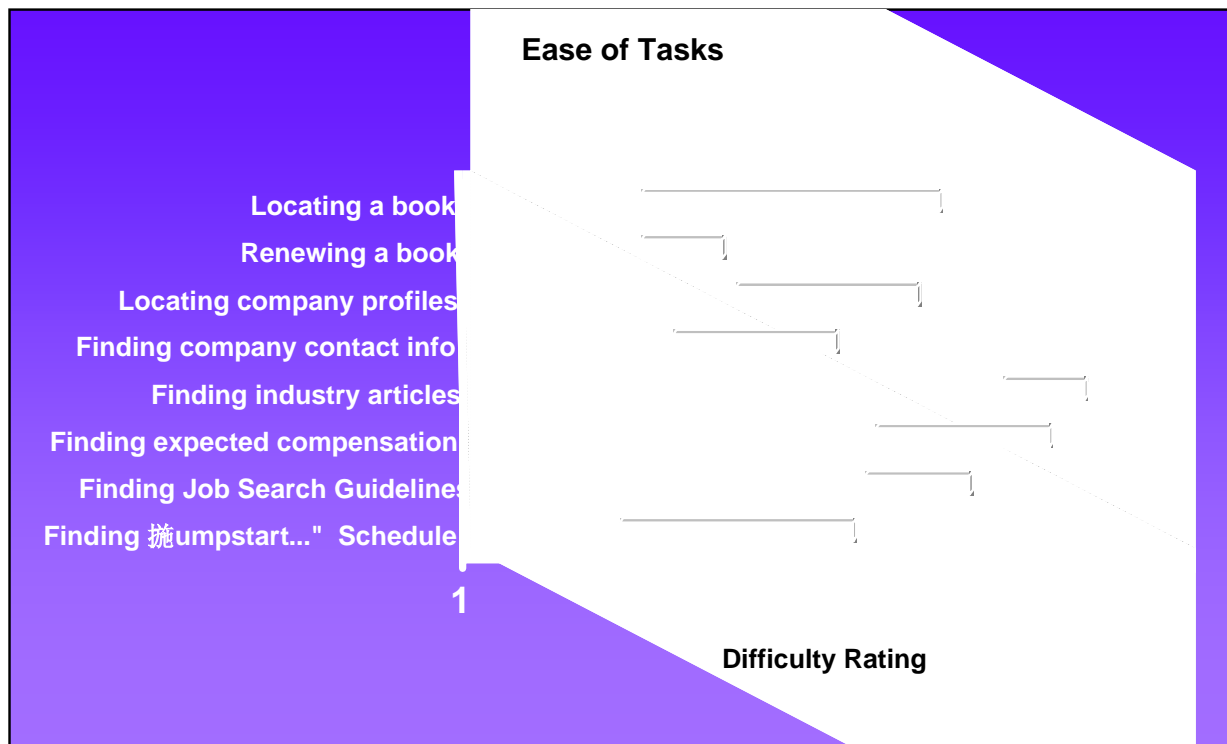
Several data capture points were utilized to gain the most complete picture available of the user experience. These data methods included: 1) pre-test questionnaire, 2) sequential and progressively more complex tasks, 3) and a post-test questionnaire and interview. During the tasks, users on-screen actions and facial expressions were captured using Camtasia, a usability software tool. Audio and visual recordings in addition to notes and questionnaire answers were then analyzed. Each member of the team attended at least two usability tests. After the conclusion of all five tests, each member selected one user recording and conducted a more thorough analysis of the user's actions, behaviors, and emotions. Each analysis was recorded using a rubric (see Appendix D) that addressed the effectiveness, efficiency, and satisfaction of the user experience. This quantitative analysis paired with the qualitative data captured during observation, questionnaires, and interviews, provided a complete account of the user experience for each session.

Findings

Questionnaire Analysis

We presented our subjects with a post-testing questionnaire. Our subjects had a variety of exposure to the Kresge website (See Appendix E), which is vaguely representative of the students who would be using Kresge.

Some preface of the following data is in order; for instance, it would probably not be reasonable to expect that all tasks could be rated as completely easy; some of these tasks relied on use of databases accessed through Kresge, so some noise from the accessibility and usability of various databases is to be expected (this affects the 3rd through 6th tasks). Also note that 5 is the most difficult rating, versus 1 as the easiest. The width of the bar indicates the standard deviation of responses (i.e. longer bars mean more variable results); each bar is centered around the average response.



The questionnaire revealed the general perspective students had of the site after attempting the assigned tasks. Some aspects for improvement were revealed (see the Quality Ratings chart below). In general, users had a negative reaction to many aspects of the website. A repeat of this test after implementing suggested changes would be useful in accessing the success of updates to the site.



Overview of Aesthetics

In general, the site is not aesthetically problematic. Of the aspects we tested, users rated the site highest in being “Professional” and “High Quality.” These attest to the general agreement with the appearance of the site. While some cosmetic changes could improve the site, there are few glaring errors in this area. The minimal use of graphics is effective and appropriate. The problems that exist in the area of aesthetics occur when areas of the website deviate from the established template. Particularly, the Find.It.Fast feature is visually distinct (and less attractive). This is aesthetically distracting, as well as inviting confusion by users who have to pause to determine if they are still on the Kresge website.

Overview of Functionality

Kresge provides many valuable resources for its users, and in general these are effectively available to users. However, this analysis uncovered several hiccups in the functionality of the site. We identify several possible solutions. Again, some solutions can be implemented with little effort; creating more site functionality is a viable option for the near future, such as, adding a home button to the website and making search available in the header/footer (available at all times). More solutions are also suggested.

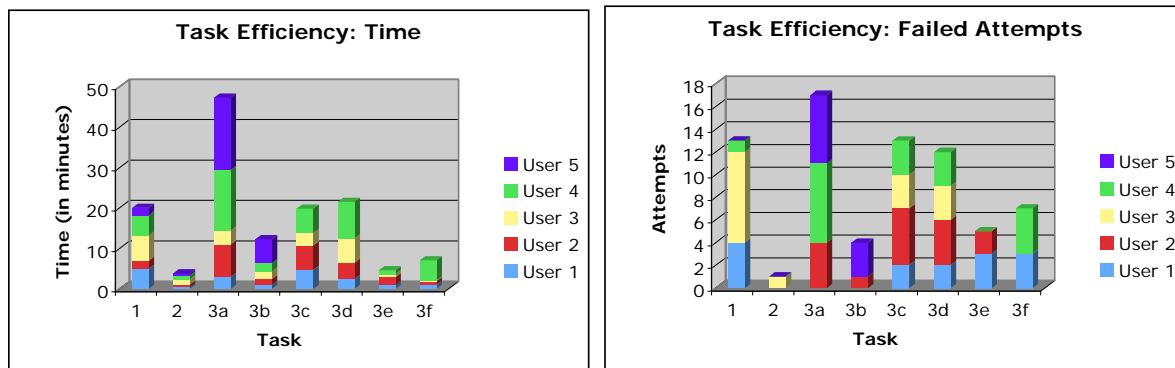
Overview of Usability

This aspect is most in need of improvement. As demonstrated in the questionnaire, “Difficult to Use” was the most highly negative reaction users experienced when interacting with the site. While this may seem disheartening, this area also has the potential for vast improvement by incorporating suggested solutions, some of which require little effort to implement. The most critical problems with usability include organization, buried links and link labels (vocabulary).

Rubric Analysis

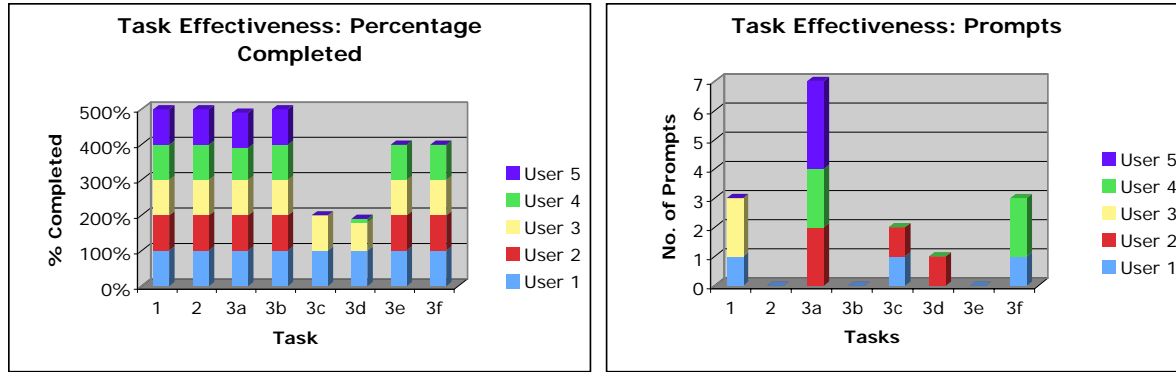
Efficiency

The quantitative data captured in the Usability Rubric revealed areas of the website that were more challenging than others for users to successfully maneuver. In evaluating the efficiency of the website, Task 3a proved the most difficult in terms of duration and number of failed attempts before completion. Task 2, which involved renewing a book online, was the most efficient, requiring little time to complete and no interference by the interviewer. This is most likely a result of good labeling and organization, which provided an intuitive search path for the user.



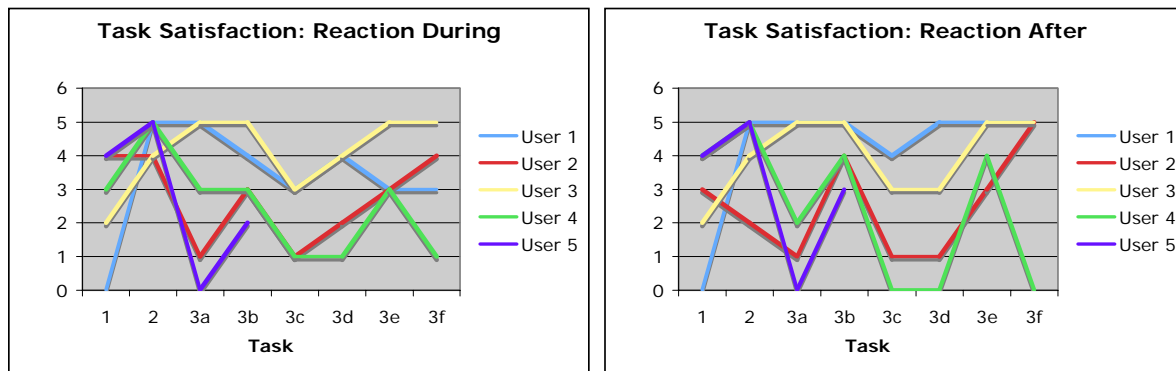
Effectiveness

With the exception of User 5, all users were able to complete each task, though Task 3a required numerous prompts by the interviewer. The aid of the interviewer during Task 3a likely influenced the effectiveness and efficiency of Task 3d through 3f by providing additional information to the user that they in turn used to complete the subsequent tasks.



Satisfaction

The satisfaction of the user was recorded during and after each task sequence. Satisfaction was ranked on a scale of 0 to 5, with 0 being Frustrated and 5 being Satisfied during the task. After the task, satisfaction was evaluated at 0 for having gone poorly and 5 for being satisfied with the experience. As with the previous metrics, Task 3a, the initial subtask in the complex scenario, proved the most frustrating and least rewarding. This reveals the confidence and familiarity of the user with the website. Although User 1 and 5 were frequent users of the website, it still took them several minutes to rediscover the appropriate resources and search path for completing the task. Once they found the correct path, it was easier for them to complete the subsequent tasks, which consequently affected their satisfaction level.



Success A: Useful Resources

Description

The Kresge Business Administration Library website acts as a portal to useful and relevant resources making the functionality both meaningful and appropriate for ROSS School of Business students and faculty with research purposes. There are over 80 external databases that users can reach by clicking on the link, *A to Z database Listing*, a sub link under *Collections*. Users can also find databases by using the search box tool on the main page. All subjects who

went through the user testing understood the importance or relevance of the databases provided by the Kresge Business Administration Library website. When subjects were doing task number three, searching for career related information; they all knew to search for that piece of information from the databases online. Even the subject that was not affiliated with Ross School of Business, and could not finish the third task, initially knew and started to search for the information through databases.

Success B: Look and Feel

Description

Users repeatedly commented that the overall aesthetic appeal of the website was pleasing. They mentioned the color scheme and general layout as being positive features of the website, though in specificity, the layout was the cause of some concern. However, during the usability testing, we did not get any indication from the subjects that one of the shortcomings of the website is its failure to present its content and graphical components in a professional manner. Indeed, when prompted for an opinion of the website's look and feel, all user subjects responded, saying that the website looked at least "ok," and that they do not have any problems with how it looks.

Success C: Immediate Access to Critical Services

Description

Providing direct access to database and catalog links from the homepage was seen as a positive attribute of the website. While there were concerns about the content and layout of the homepage, the general availability of resources from the homepage was considered a useful and timesaving attribute. The links repeat at the top section, the bottom right section, and the bottom left section, for users to choose. Also, the search box, which the subjects used for most of the tasks, such as searching for a book and looking for career related information is located in the middle of the home page, and covers a significant portion.

The home page uses gestalt principles of proximity and closure to space out and give users the illusion that the information grouped together portrays an enclosed figure. This helps the users process the information on the website more easily. By using these gestalt principles, the search box became a prominent feature of the home page, and made it easier for users to locate and utilize for tasks given to them during the usability testing.

Issue 1: Organization

(Usability)

Priority: **High**

Description

Implementation Difficulty: **Medium**

One problem that has been depicted is the organization of main links and sub-level links on the main page. One subject mentioned that the *A to Z Database Listing* would be better suited if grouped with other resources found in the Research Tools section (instead of in the *Collections* section). This user had to traverse between both *Collections* and *Research Tools* sections to reach all the links to resources that they needed.

Solution

A potential solution for this problem is to reorganize the sub-level links into categories that are more easily understood by users. For example, as mentioned above by one of our subjects, the *A to Z Database Listing* should be grouped with other types of resources. The reason users wanted to search in databases, is for their own research, so it is natural to think that *A to Z Database Listing* as a research tool, rather than part of a collection.

When users are searching for a function, it is easier to locate items if the main idea is conveyed in the first word. For instance, “Library Staff Directory” could be more easily seen if listed as “Staff Directory”. Eliminating words that don’t convey the point will help to speed up searching.

Most of our users had difficulty finding information about preparing for the job searching. There are several valuable resources for career search “buried” in the Collections >> By Topic >> Career menu. One subject found the resource quite useful, but only located it after using the site index. To bring these, and other valuable services to light, a new top-level heading could un-bury this information. We also found that many links were unnecessary or could otherwise be consolidated with some site improvements.

By incorporating all of these ideas, we came up with the following suggestion for new menu organization. Links that have been moved to a **new heading** are in blue. Those that have had the *name changed* are italicized. Links that have been eliminated (or moved to a lower level) are indicated by a ~~strikeout~~. **New additions** are in bold.

<i>Resources</i>	Browse By Topic	<i>Services</i>	<i>About Kresge</i>	Help!
<i>Kresge Catalog</i> <i>A-Z Database</i> <i>Journal Locator</i> <i>E-journals*</i> <i>E-books</i> <i>Working Papers</i> <i>RefWorks</i> <i>SFX Citation Linker</i> <i>Video Archive</i> <i>Other Sources</i> <i>Search Tools</i> <i>Database Finder</i> <i>MIRLYN</i> <i>MeLCat</i> <i>Database Ins. Handouts</i>	Accounting & Taxation <i>Business (General)</i> Company & Industry Finance International Business Marketing Social Responsibility Statistics Real Estate <i>E-Journals</i>	Your Account <i>Course Packets</i> <i>Course Reserves*</i> Journal Alerts Alumni Services Faculty Services Instruction Sessions Session Handouts <i>C-Tools</i>	<i>Hours & Events</i> <i>Directions/Map</i> <i>Staff Directory</i> Circulation Policies <i>Accessibility Info</i>	Ask Us Live! <i>Email Us*</i> <i>Find.It.Fast (Q&A)</i> Site Index <i>Email a Librarian</i> <i>Make Appointment</i> <i>Make a Comment</i> <i>Online Forms</i> <i>Suggest Resource</i>

Figure 1: Revised Menus

To take this solution further, after the sub level links are organized under categories so it's easier for its student and researcher users to understand, a landing page should be incorporated for each of the main headings.

With more usable menus, the homepage real estate should be better utilized and the information on the website should be organized by importance. Important information should be organized so that the most important information is presented in the path of the users' eye-movement when scanning pages so users can get to the information they need, more quickly. This is illustrated below in Figure 2.



Figure 2: Home page: Illustration of Most Important to Least Important Content

Issue 2: Content Heavy

(Aesthetics/Usability)

Priority: **High**

Description

Implementation Difficulty: **Medium**

Another problem that is a high priority is that the users feel overwhelmed by the website's content layout. Three out of five user subjects explicitly mentioned that the content is too heavy to process in a reasonable amount of time. One subject was confused when he was looking for some of the site functions. He said that nothing pops out when navigating the homepage and every thing seems to blend with each other. He also mentioned that some of the text used in the homepage is redundant.

Another user mentioned there are too many databases listed on one page and has a lengthy description for each, which is not necessarily read by all users. The Figure 3 (see below) illustrates this point.

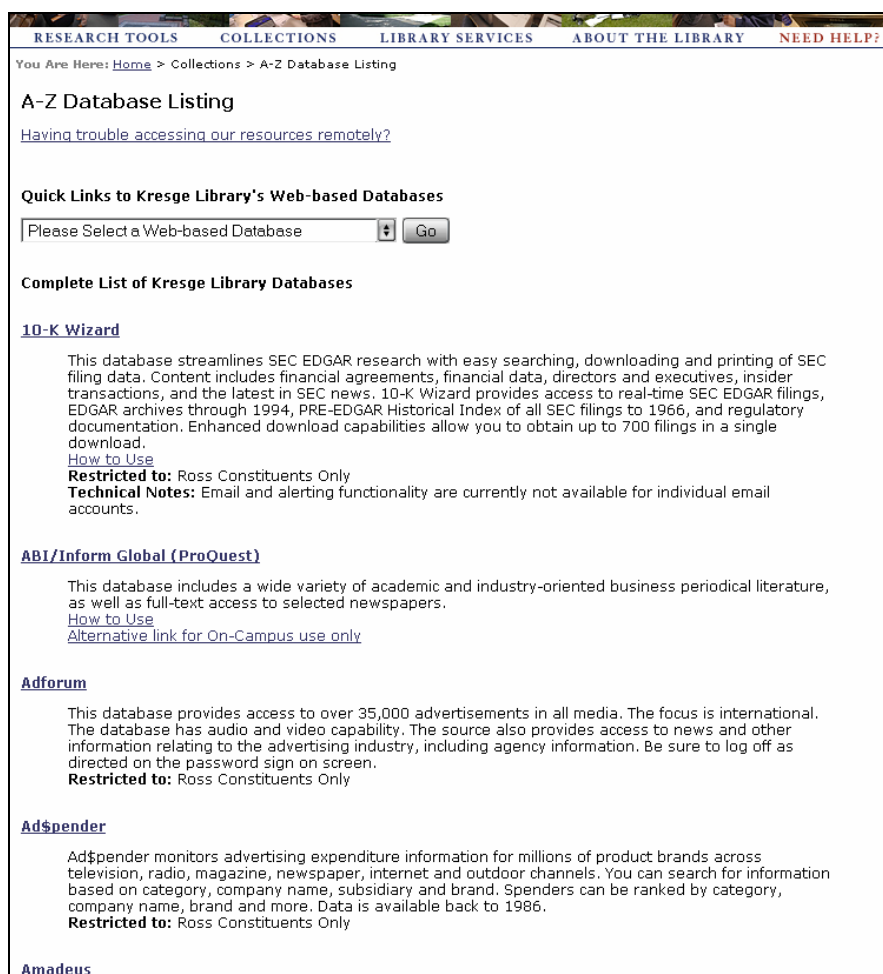


Figure 3: A to Z Databases

There are 80 more of these databases in one long list, each with its own explanation. Not only is this information hard to understand at once, it requires users to scroll for a long time to get to all the databases.

Solution

A good way to solve this problem, as well as some of the congestion issues, is to use icons that provide information. A simple “?” icon next to the item could open a bubble (that toggles on/off or works with a mouse over—beware over use of mouse-over). When activated, this bubble would provide a description of the resource. There are many tools on the Kresge site that could benefit novice users by providing easy access to a description (*Find.It.Fast*, *Database Finder*, *Catalog Search*, etc.). In a way, this would act as a second-best online orientation to the site. Users who have attended library sessions or contacted librarians performed like experts for those functions they have been oriented to. This is a commendation to the quality of those interactions, but also an illustration of how currently the website requires significant training for optimal use of the resources it provides.

This problem could also be ameliorated by a revision of the site organization and vocabulary. Specific menu and homepage suggestions will be included in our final report.

Issue 3: Link Labels

(Usability)

Priority: **High**

Description

Implementation Difficulty: **Medium**

The labels used for internal links on the website were created and heavily influenced by the librarians at Kresge. While the labels are meaningful and intuitive to this user population, they do not mirror the real world expectations of the student population. Terminology such as *Research Tools* and *Collections* has vastly different interpretations for the two groups. User 5 stated that he/she would expect to find a special collection of resources on the topic of Economics, for example, under *Collections* but instead found the resource *A to Z Database Listing*, which he/she would have expected to be under *Research Tools*. Instead of being highly specialized and limited, User 5 believed that the *Collections* section was too “all encompassing.”

Solution

Figure 1 incorporated our suggestions for a more student-centered design. Another possible solution is to segment the website by user audience. For the latter solution, two or more sections (depending on the total number of user groups) could be created that are designed and geared towards one user group. Just as with many university websites that have sections for faculty, undergraduate, and graduate students, the Kresge website would create separate sections for each of their user groups. Each section would contain the content, labeling, and organization adapted specifically to the user population.

Issue 4: Buried/Hidden Links

(Usability)

Priority: **Medium**

Description

Implementation Difficulty: **Medium**

Some resources are difficult to locate, both due to vocabulary problems, and being buried within the website. For example, students had a difficult time locating career resources. The main career resources page is under *Collections >> By Topic >> Career*. Most users were never able to find this; instead they relied solely on the ‘Jumpstart Your Job Search’ handout once they had located that. The only subject who did use this page, found it through the *Site Index*. Also, we noticed that the library calendar contained information about the workshops, but this was not indicated anywhere, so again this helpful feature was probably unknown to most users. None of our users found the calendar when looking for information about *Jumpstart Your Job Search* classes.

Solution

A solution to this problem is making the resources by topic, a top-level heading, so only a mouse over is necessary to get an idea of contents. Knowing that in the current format, adding yet another menu would be a problem, the group has some suggestions to relieve this problem by eliminating unnecessary links and reorganizing resources. For example, simplify the search options as *In Our Catalog, On Our Site, Google, In a Database, In a Collection, and Using a Research Tool* (eliminating Find.It.Fast from the drop-down menu). In addition to that, A simple sub-level menu with options of scale next to the chosen scale could open a bubble (that toggles on/off or works with a mouse over). Particularly, the *In a Collection* we would suggest only provides two sub-level options: by topic and by collections. Figure 1 incorporates these suggestions.

Additionally, it was noted by the users that they had previously attended workshops hosted by the library that taught them how to effectively use the resources on the website. While the library is successful at promoting these workshops onsite and through email, the information is otherwise buried and obscured on the website. Instead, the group recommends that the events calendar be highlighted on the homepage so that more users can be made aware of this external resource and take advantage of it.

Issue 5: Expert-Level Users

(Usability/Functionality)

Priority: **Medium**

Description

Implementation Difficulty: **Significant**

During the usability testing, it became increasingly evident that the success of tasks was highly influenced by the user’s previous experience and understanding of the website. Most users, including User 1 and 5, relied on resources they had previously used in order to complete the tasks and were unable to easily locate new resources, even if those resources would prove more meaningful and useful in completing the task. User 5 stated,

“I have done research on here before and I have found it frustrating just in the sense that I don’t know what a lot of these databases are and I have to read through them all and I’m not even sure if I’m in the right one. It would be kind of nice to have them general and then from that have listings from there.”

The numerous resources provided by the Kresge website in addition to the organization and description of the resources makes it difficult for novice or even experienced users to have a successful or satisfying experience. Users not only need to know how to navigate the website but they must also have a fairly detailed understanding of the resources. In other words, they are almost required to know what database they need before they start their search instead of the website providing an interactive and complete description of the resources that is easily traversed and accessed.

Solution

The most effective solution to this problem relies on the aggregation of data to steer the user in the right direction. This data comes in the form of organization, labeling, and more labeling. In addition to successfully organizing the website and addressing link labels, the resources also need to be labeled, possibly as a folksonomy that is influenced by the users themselves. Users are unwilling to read lots of text for descriptions of resources. Instead, the resources need to be easily drilled down with as little burden on the user as possible.

Issue 6: Find.It.Fast

(Aesthetics/Functionality)

Priority: **Medium**

Description

Implementation Difficulty: **Medium**

The *Find.It.Fast* feature can be a useful mechanism. However, some problems inhibit positive interaction between the page and its users. First, while the name *Find.It.Fast* sounds clever, it does not differentiate its function apart from a catalog search or a database search. Subjects frequently attempted to find resources from this page by searching for a title or author in this field. After experiencing failed attempt once, subjects would find out their query was not found. However, they still did not realize that *Find.It.Fast* was not a catalog or database, and such searching behavior in this field was not necessary in Q & A information. This was compounded by the visual layout of the *Find.It.Fast* feature being completely separate from the Kresge website layout. This is misleading to users, suggesting that they are resources outside of Kresge or separate from the basic site.

Solution

Visually, the *Find.It.Fast* feature should be embedded into the Kresge site. Currently, while the Kresge website has done a pretty good job of keeping the look and style of the website consistent, it has failed to do so for the *Find.It.Fast* page. The two figures below prove this point.



Figure 4: General Style and Look of Kresge Website

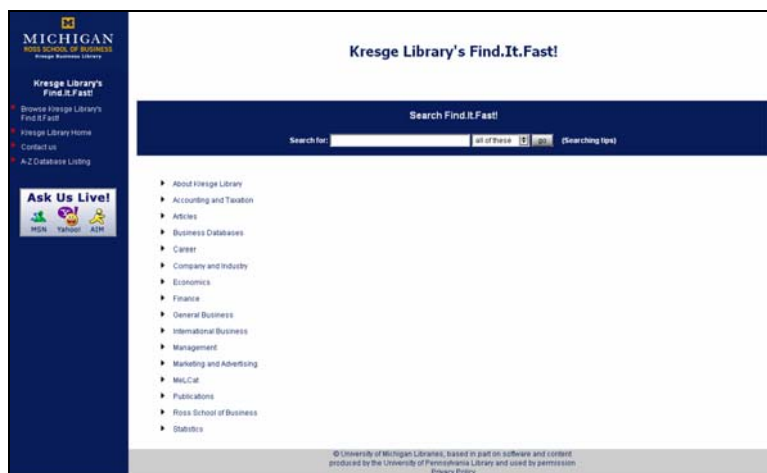


Figure 5: *Find.It.Fast* Page

As can be seen, the two pages look quite different in terms of style and layout. It would be more useful for users if they could integrate the *Find.It.Fast* content into the framework of the Kresge website.

Also, a new name (Site Q&A Search) or providing more contexts to for the links (Search the Kresge website with *Find.It.Fast*) would improve service to the patrons. Organizationally, it would make sense to list this next to the site index (additional locations may also be appropriate).

Issue 7: Homepage Search Form

(Functionality)

Priority: **Low**

Description

Implementation Difficulty: **Medium**

As mentioned above, the search tool is a prominent feature of the website. Most of our subjects used the feature to figure out tasks. However, many had problems with even searching for a simple book on the online catalog, using the search box tool. Three out of five subjects had problems searching for the book, *Presence: An Exploration of Profound Change in People, Organizations, and Society*. All those three subjects had to modify their search query at least twice when no search results came up after searching for the book by typing in the full title.

Also, we noticed that every single user scrolls down and looks at all of the information below the “NO ENTRIES FOUND,” before going back to the top of the page to search for something again. This wastes the users’ time and is misleading, because it may give the user false hopes that there is actually something more down there (such as hidden results or a clue to one), when in actuality, it’s just a long list of how to conduct searches, which most users didn’t even read thoroughly. The figure below illustrates this point.

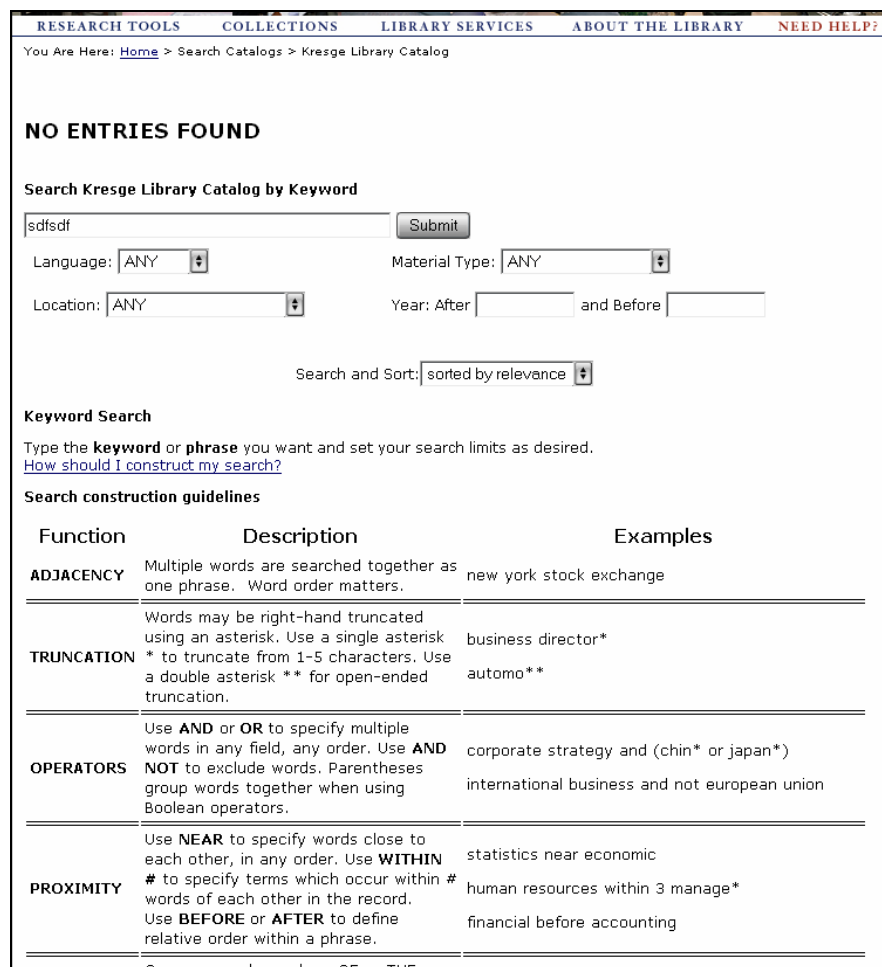


Figure 6: NO ENTRIES FOUND page: A Long List of Search Guidelines

Solution

This problem can be addressed by looking closely at the figure above. The search box tool is a good resource to have, but we believe that all of the “Keyword Search” below is not necessary or useful for users, since users do not look closely at the search guidelines, anyways. If you look closely, there is a link to the search guidelines, in form of a paragraph link, “How should I construct my search?” Our recommendation is to keep this link, and make the guidelines pop-up or appear in a different page, so it can be useful for people who actually want to know about these guidelines.

Issue 8: Home Button

(Functionality)

Priority: **Low**

Description

Implementation Difficulty: **Easy**

One of the Neilson’s heuristics is “Recognition rather than Recall.” This means that the website should provide objects and links visible to the users so they don’t have to search for functionalities. While Kresge does a fair job in this area, there is a need for a separate link to the main page of the site. Some of the user subjects were always clicking on the back button from other pages, and specifically database pages.

In reality, the Kresge website provides a link to the main page, which is located on the masthead of the page, in form of an image. However, through user testing, we got the impression that users do not understand that clicking on the Kresge library logo directs you to the home page of the website. Actually, one user did understand the logos on top of the masthead are links, but he/she tried to click on the ROSS School of Business logo, instead of the Kresge library website logo to go to the Kresge library website’s homepage.

Solution

A solution to this problem is to provide a link to the home page that’s visible on all pages, so the website still maintains a consistent and professional style. It is an issue to consider where exactly or in what category the home page link should go. If this is not possible without hindering the style of the website, maybe switching the location of the two logos may be a potential solution to this problem. Users naturally look from left to right of a website, and it is logical for users to click on the logo they see first.

Conclusion

This evaluation identified eight key problems that can be addressed and remedied. Our suggestions for improvements are based on our usability testing of five subjects in graduate school who do now or could in the future need access to the Kresge website. The issues identified are all items that can be addressed and solved with a reasonable amount of effort, and some can be easily and quickly implemented.

In general, the most problematic aspect of the site is usability, followed by some needed improvements in functionality, and minimal aesthetic suggestions. Our post-test questionnaire confirmed many of the attitudes and general themes noted throughout the usability assessment. This data is consistent with our previous research, but also illuminated additional areas where specific changes can improve the overall interaction experience Kresge provides.

It is worth noting that many of our subjects mentioned favorable experiences with the librarians and Kresge. One subject succinctly summed up the shortcomings of the website and the excellence of the staff by stating early on in one task, “Usually, this is when I would give up and call the library. It’s much faster to just ask them.” While this is a credit to the librarians, it is also important to provide a quality experience online for times when staff is not available or users are reluctant to seek outside help. Incorporating even just the most easily implemented solutions will vastly enhance the user experience.

Appendix A: Scripts

Script: Usability Test of Kresge

Greeting the participant

Location of the test: Usability Lab of Duderstadt Center

Meeting the participant at...

Good afternoon. My name is ... and I will be working with you in today's session. Before we sit down, do you need to use the bathroom or get a drink of water?

[When the participant is ready, walk him/her into ... and sit him/her down in front of the computer being used for the study. The moderator should sit next to and slightly behind the participant.]

Pre-test procedures

The following introduction will be read to all participants before starting the test session.

Thank you for participating in this study. Let me first explain why we've asked you to come in today.

We're here to look at the Kresge Library website. We're interested in observing how you complete some typical tasks with the library website, how easy the website is to use, and what aspects of the website you like and dislike. Your feedback is greatly appreciated, because it helps us understand how to improve the website in the future.

We do want you to remember a few things as we begin the study:

I want to emphasize that we are not testing you or your abilities - we are testing the site. We are here to learn from your experience, so please don't worry about how fast or well you perform the tasks.

We'd like you to perform as you normally would. For example, try to work at the same speed and with the same attention to detail that you normally do. Do your test, but don't be all that concerned with results.

I'll be sitting nearby taking some notes and timings. You may ask for help clarifying what I want you to do at any time, but I may not be able answer questions about how to complete an activity, because I want to replicate, as closely as possible, how you would use the site if I were not here.

You and I will be in a room, which others may be watching via cameras. Also, we are videotaping this session for the purpose of analysis and for the benefits of those who could not be here today.

I want you to feel free to comment about anything, such as the content, the navigation or buttons, the terminology or names of things on the screen, the graphics, the colors, and the layout.

I would really like you to constantly think aloud. That is, I want to know anything you can say about your reaction to the website that I can't tell from watching you. For instance, tell me whatever you are looking at, what you are thinking, why you are doing something, and what is confusing you as you work through an activity. This will enable us to understand your thought process of task completion rather than only the final product and gives us insights on how to improve the website.

I may ask you to some questions as you work and complete some forms after the entire activity. It's important that you answer truthfully. My only role here today is to discover both the flaws and advantages of the website from your perspective. So don't answer questions based on what you think I may want to hear. I need to know exactly what you think.

Finally, our session includes three tasks, one of which includes some sub-tasks. The entire test will cost you no more than half an hour. You should know that you can let me know if you begin to feel uncomfortable during this study and wish to stop. You may leave at any time.

Do you have any questions before we begin?

If not, then let's begin by having you sign the nondisclosure agreement and consent to tape form.

Introduction

During the next thirty minutes we are going to complete several activities. First, I will ask you to fill out a pre-test questionnaire, just to obtain some information about yourself.

Next, I will give you some things to do in the Kresge library website, and I will observe you as you work. Remember to talk aloud while you are working, so that I know what you're thinking. Also again, we are testing the site not you, so please don't worry about how fast or well you perform the tasks.

At the end you will fill out a final questionnaire and I will ask you some debriefing questions.

Pre-Test Questionnaire

[Hand participant the questionnaire.] *First, fill out this questionnaire and then we'll begin working with Kresge.*

[Pre-test questionnaire will go here.]

Task Completion

Next, you are going to use Kresge website to complete some tasks. You'll go through each task one at a time and talk aloud about your thoughts. Remember that there are no right or wrong answers, and that this is not a test of your abilities.

[Stop after 2 minutes.]

[Tasks and follow-up questions will go here.]

Task 1: Use the Kresge website to locate the book: *Presence: An Exploration of Profound Change in People, Organizations, and Society*. Is it available online, in the Kresge library or both?

Task 2: Renew a book you currently have checked out (or navigate to the appropriate place to do so).

Task 3: For this task, imagine you are an MBA student ready to begin job searching. There is an opportunity to meet with two companies next week: The Boston Consulting Group and McKinsey & Company. You have already decided you'd like to work in Investment Banking at a reasonably large company (over 200 employees and annual revenue over \$20 million) in Boston, Seattle or Washington, DC. Please complete each of the sub-tasks below to help you decide if these companies might be right for you and get information to help you prepare.

1. Locate resources through the Kresge website that provide profiles on Boston Consulting Group and McKinsey & Company according to geographic location and find out if each meets your city criteria (Boston, Seattle or Washington, DC)
2. Locate resources through the Kresge website that provide contact information for these companies (i.e. Reference USA)
3. Locate resources through the Kresge website that provide articles about industry news; specifically about the selected companies
4. Locate resources through the Kresge website that provide information on expected compensation (how do these companies compare?)
5. Locate resources through the Kresge website that provide guidelines for job searching (such as how to interview, timelines, strategies, etc.)
6. Locate the "Jumpstart Your Job Search" schedule of help sessions on the Kresge website

Post-Test Questionnaire

[Walk the participant to... and hand him/her the questionnaire.]

Please fill out this questionnaire and return to the testing room when you are finished.

[Post-Test questionnaire goes here. Leave participants in privacy to complete the questionnaire.]

Post-Test Debriefing

[When participant returns with completed questionnaire] *Now, I just want to ask you some questions about the responses you gave on the questionnaire.*

The purpose of the post-test debriefing is to assess participants' emotions and impressions about the product. In addition, debriefing will allow us to clarify any ambiguities that may have occurred during the test. Debriefing will expand on the post-test questionnaire and address the following questions:

- *How would you rate, overall, the ease or difficulty of the task, and why?*
- *What did you like the least about the website?*
- *What did you like the most about the website?*
- *Is there is one thing that you would like the designers to change, what is it? why?*
- *Would you use the website again?*
- *Would you recommend Kresge to anyone else?*

Thank you for participating! Here is your gift. [Hand gift to participant.]

Appendix B: Questionnaires

Pre-Test Questionnaire

Please answer the questions below in order to help us understand your background and experience. (Circle the one most applied to your situations)

Name: _____

Gender : Female Male

Age: _____

1. Please circle the current program and level below.

Ross

BBA- 1 2 3 4

Full-time MBA- 1 2

Evening MBA- 1 2

Executive MBA- 1 2

Global MBA- 1 2

MAcc- 1 2

PhD of Business- 1 2 3 4 5 6

non-Ross

Undergraduate- 1 2 3 4

Master- 1 2

PhD- 1 2 3 4 5 6

Not a student

2. Please list your major area of study

3. I would find a library website that gave me the knowledge of business-related fields and company information very useful?

Strongly Agree Agree Neither Agree nor Disagree
 Disagree Strongly Disagree

4. Have you ever used Kresge Library website prior to this activity?

Yes
 No

If yes, how often do you use the website?

Less than 5 times per month
 5-10 times per month
 More than 10 times per month

5. Please list the three most common online resources you use for studies and/or work on a daily basis, excluding Kresge.

6. How familiar are you with searching on the Internet?

Very familiar Somewhat familiar Average
 Somewhat unfamiliar Very unfamiliar

Thank you!

SI Kresge Evaluation Team

Post-Test Questionnaire

Please answer the following questions to the best of your ability based on your experience with today's task. We appreciate your participation to help us understanding your experience with using Kresge website.

1. I felt the task of locating a book was easy.

1-----2-----3-----4-----5
Strongly Agree Agree Neutral Disagree Strongly Disagree

2. I felt the task of renewing a book was easy.

1-----2-----3-----4-----5
Strongly Agree Agree Neutral Disagree Strongly Disagree

3. I felt the task of locating given companies' profile was easy.

1-----2-----3-----4-----5
Strongly Agree Agree Neutral Disagree Strongly Disagree

4. I felt the task of locating given companies' contact information was easy.

1-----2-----3-----4-----5
Strongly Agree Agree Neutral Disagree Strongly Disagree

5. I felt the task of searching articles about industry news was easy.

1-----2-----3-----4-----5
Strongly Agree Agree Neutral Disagree Strongly Disagree

6. I felt the task of searching information on expected compensation for given companies was easy.

1-----2-----3-----4-----5
Strongly Agree Agree Neutral Disagree Strongly Disagree

7. I felt the task of searching guidelines for job searching was easy.

1-----2-----3-----4-----5

Strongly Agree Agree Neutral Disagree Strongly Disagree

8. I felt the task of locating "Jumpstart Your Job Searching" schedule was easy.

1-----2-----3-----4-----5

Strongly Agree Agree Neutral Disagree Strongly Disagree

9. The amount of screen explanation was adequate for performing the tasks.

1-----2-----3-----4-----5

Strongly Agree Agree Neutral Disagree Strongly Disagree

10. Using the rating chart below, please circle the number that closely matches how you feel about Kresge.

- Simple.....1....2....3....4....5....Complex
- Reliable.....1....2....3....4....5....Unreliable
- Easy to use.....1....2....3....4....5....Difficult to use
- Friendly.....1....2....3....4....5....Unfriendly
- Professional.....1....2....3....4....5....Unprofessional
- High Quality.....1....2....3....4....5....Low Quality
- Like.....1....2....3....4....5....Dislike

Thank you!

SI Kresge Evaluation Team

Appendix C: Task

- Task 1: Use the Kresge website to locate the book: *Presence: An Exploration of Profound Change in People, Organizations, and Society*. Is it available online, in the Kresge library or both?
- Task 2: Renew a book you currently have checked out (or navigate to the appropriate place to do so).
- Task 3: For this task, imagine you are an MBA student ready to begin job searching. There is an opportunity to meet with two companies next week: The Boston Consulting Group and McKinsey & Company. You have already decided you'd like to work in Investment Banking at a reasonably large company (over 200 employees and annual revenue over \$20 million) in Boston, Seattle or Washington, DC. Please complete each of the sub-tasks below to help you decide if these companies might be right for you and get information to help you prepare.
- a. Locate resources through the Kresge website that provide profiles on Boston Consulting Group and McKinsey & Company according to geographic location and find out if each meets your city criteria (Boston, Seattle or Washington, DC)
 - b. Locate resources through the Kresge website that provide contact information for these companies (i.e. Reference USA)
 - c. Locate resources through the Kresge website that provide articles about industry news; specifically about the selected companies
 - d. Locate resources through the Kresge website that provide information on expected compensation (how do these companies compare?)
 - e. Locate resources through the Kresge website that provide guidelines for job searching (such as how to interview, timelines, strategies, etc.)
 - f. Locate the "Jumpstart Your Job Search" schedule of help sessions on the Kresge website

Appendix D: Usability Rubric

USER: X	Efficiency		Effectiveness		Satisfaction	
Metrics:	Total Time min	Failed Attempts #	Task Complete Y / N or % (make footnote)	Prompted / Assisted #	Reaction During 0 = Frustrated 5=Satisfied	Reaction After 0 = Task went poorly 5=Satisfied with experience
Tasks:						
Find Book						
Renew						
Find profiles with location info—Seattle, Boston, DC? (in db)						
Find Company Contact Information (in db)						
Find news articles about companies (in db)						
Find compensation information (in db)						
Locate job searching guidelines						
Locate the “Jumpstart Your Job Search” schedule						

Appendix E: Subject Demographics

Subject	1	2	3	4	5
Gender	F	M	M	M	F
Age	28	34	39	33	25
Level	n/R M1	EMBA2	FTMBA1	n/R M2	n/R M2
Major	IEMP	CS	FIN/Strategy	LIS/ARCH	HCI
Business knowledge Useful?	SA	SA	A	Neutral	A
Kresge visits per month	<5	Y	5-10	N	N
Most common other resources	Mirlyn, Google, C-Tools	Google, UM site	Google	Mirlyn, Google, SI site	Google
Familiarity with Internet Search	Very Familiar	Very Familiar	Very Familiar	Very Familiar	Somewhat Familiar