## SI622 | Assignment 08

# Usability Testing Report

## for SI Academics, Judy Lawson

**Client:**
School of Information
Judy Lawson (jmlawson@umich.edu)
Director of Admissions and Student Affairs

**Group 10:**
Mukul Bisht | Bethany Huseman | David Ross | Shuo Yang

**Word Count:** 5,687

# Executive Summary

This report analyzes the results of our usability testing for the SI website. The goal of performing usability testing is to collect "quantitative and qualitative performance and preference measures" according to "observations of end users who either use or review a representation of the product" (Rubin & Chisnell, 2008). Performing the usability test involved recruiting participants who were representative of our target audience, constructing pre- and post-test questionnaires, formulating tasks, as well as refining those tasks through a pilot test.

To recruit participants for the usability test, team members recruited users from their social networks who had never used the SI website prior to participating in the usability test. Our team developed a list of tasks which we believed were representative of tasks that a typical student user might perform on the site. In our usability test, we asked participants to carry out these tasks. To gain more information about each user, we developed pre- and post-test questionnaires to gather background information on participants and to better understand their overall experience and satisfaction with performing the tasks on the site.

As a result of our study, we identified five issues and offer recommendations which should help to improve the website. They are listed here, in order of importance, starting with the most important:
1). Users found the search function unpredictable
2). In the case of the search bar in the course catalog, users ignored written instructions which told them what to enter.
3). Users struggled with finding TAPS sheets
4). Users found it inconvenient to remember information from one page to another.
5). The multiple forms of navigation provided by the site served the users well but minor improvements to the style could be useful.

To address these problems, we recommend the following:

1). Enable users to use the search bar in the course catalog to search for course number rather than by course name or course description.
2). Provide pre-written text in the course catalog search bars to instruct the user what to enter in.
3). Help users better understand the search results or the reason behind the lack of search results.
4). Put a readily apparent link to the TAPS sheet inside of the main body of each specialization. Alternatively, keep the link on the right pane and float the link down as the user is scrolling down the specialization page.
5). Enable users to spend less clicks navigating between degree requirements and the course catalog by linking lists of courses which fulfill degree requirements to pages which display course details.

6). Use bullet points, bold text, italics, graphics or different font styles or colors to highlight important details in text-heavy pages.
7). Apply a single color to signify hyperlinked text.

# Introduction

## Description of SI website and Focus of this Study

Si.umich.edu, the official website of the University of Michigan School of Information, is primarily used by prospective and current students, as well as by faculty and staff. Our study focused on tasks performed by current and prospective students, as the team decided that the site could do a better job supporting these tasks. As most of the information on the SI website relevant to students (e.g. how to apply to SI, the course catalog, etc...) is located on the "Academics" section of the website, our group focused it's efforts there. In addition, we felt that as the Academics page is quite large, our efforts could also help the SI web development team to better organize and name the information and resources.

## Overview of Usability Testing

Usability testing is a process that primarily involves "testing participants who are representative of the target audience in order to evaluate the degree to which a product meets specific usability criteria" (Rubin & Chisnell, 2008). In each session, participants who were representative of SI students and who had never used the website before were asked to perform 7 tasks. The tasks were each capped at 5 minutes. Each session involved at least one moderator and at least one observer who noted the time it took to complete each task, areas where the users got stuck, how participants accomplished the tasks, and any comments or observations the participants had.

## Goals of the Study and Research Questions

The overall goal of this study was to assess how learnable and effective the SI website was, as well as to test whether there were any features which interfered with its overall learnability and effectiveness. Towards this end, we attempted to answer several key questions:

- How easily and successfully do users accomplish tasks that require looking at information between different pages?
- Is it easy for new users to learn how to perform tasks which current and prospective SI students might perform?
- How easily and successfully do participants use the website's search function when searching for known items?
- Are there any recurring findings from our past tests that we can further confirm in our usability testing? For example, are the TAPS truly difficult to find, and why?
- Are users successfully able to find another way to accomplish tasks when one way does not work or there is not an obvious path toward completion of a particular task?

- How severe are the problems that we identified in our previous findings?

# Methods

## Overview

Our team conducted five usability tests that took place April 4-9th, 2012. Each of our participants was recruited from a team member's social network and instructed to perform seven tasks on the SI website. All of our participants were screened to ensure that none of them had used the SI website and that they constituted roughly the same age level and degree of Internet savvy as SI students. With the consent of each participant, audio and video recordings of each session were created for later analysis.

## Physical Setup and Equipment Used

Three of the tests were conducted in rooms chosen to prevent distractions and interruptions. Two of the tests took place in the participant's own home. This was done so as to encourage individuals to participate. In addition, while testers were asked to use a computer provided by one of the testers, when possible, care was taken to ensure that users could use their preferred operating system and browser. Each of these sessions were recorded using Camtasia for Mac, version 2, Camtasia Studio version 7.1 for PC, or Silverback 2.0. Tests consisted of a moderator sitting to the left or the right of the user. Before each test, the cache and form fields of the computer on which the tests were run were cleared to ensure that a user's actions were his own and were not influenced by the browsing history of a previous user or the group member to whom the computer belonged. Each participant started from the main page of the SI website (i.e. si.umich.edu).

## Participant Selection

The target users of this study are current SI students while the secondary users are prospective students. We needed people who hadn't used the SI academics website before, so that we could assess how well the site fit their mental models and expectations, as well as see how quickly the users could learn to navigate the site and find what they needed. We also wanted people who were likely to use a graduate school's website. So we decided to target students currently enrolled in post-secondary degree programs or recent graduates of such programs.

In total, we recruited five participants--two male and three female--all of whom were in their twenties. Three are currently enrolled in post-secondary degree programs, the fourth just recently received an undergraduate degree, and the fifth participant is a non-traditional student looking to enroll in an undergraduate program soon.

## Researcher Roles

The moderator was in charge of presenting the tasks to the participants, as well as obtaining their informed consent, administering the pre- and post-questionnaires, and making users feel comfortable throughout the test. The note-taker was in charge of observing the user's behavior, as well as tracking how that user completed tasks on the site, noting any areas of frustration, and asking follow-up questions. After each test, team members made the notes and audio-video recordings available on Google Docs for all the team.

## Tasks

In each session, participants were asked to perform seven tasks. Each participant was told to take as much time as they needed, although the team adopted a policy that if a user could not get a task after five minutes, the task would be considered not completed and the moderator could instruct users to stop working on the current task and work on the next task. Each participant was told to inform the moderator when he or she had completed a task. The tasks were as follows (see Appendix B for the full wording of the task).

Task 1.Find the final deadline for applying to the MSI program.

Task 2.Find the ARM TAPS sheet.

Task 3.Find which course all LIS students must take.

Task 4.Find out if SI 622 offers PEP credits and if so, how many.

Task 5.Find the ULA deadline.

Task 6.Find an HCI course and find out which professor is teaching it.

Task 7.Find an upcoming management course.

We chose these tasks, because we believed them to be representative of the current users' tasks, and because they enabled us to investigate our research questions. Finding the MSI application deadline was presented first as a "warm up" task to get users familiar with navigating around the site in general. We asked our users to find the TAPS sheet in order to test our earlier findings. Current users of the site informed us during the interviews (Bisht, Huseman, Ross, & Yang, 2012a) and surveys (Bisht, Huseman, Ross, & Yang, 2012b) that finding this was difficult. The task also presented a potential challenge to the user as the TAPS sheet is one of the few items on the SI website which is located in the right-hand pane. The third and fifth tasks were chosen to examine how easily users can locate information not found in any of the site's navigational bars and buried within the site's content. The fourth task examined the various paths that participants explored in order to find information about PEP credits as our interviewees told us that this information was not straightforward to find on the site (Bisht, Huseman, Ross, & Yang, 2012a). The final two tasks were formulated to examine how participants handled a task which required using

information from multiple pages. In addition, both of these tasks revealed how participants handled the different course views.

### Moderator scripts, questionnaires, and debriefing

In order to ensure that sessions were consistent between moderators, each moderator followed a basic script (see Appendix A) when introducing the team's goals, performing the usability testing, and administering the tasks and questionnaires. In the post-test debrief session, moderators and note-takers were free to ask any questions about behavior observed in the testing session. The script contained a list of starter questions as well as instructions to the moderator for generating questions, (e.g. "ask a question about a task which the participant struggled with the most"). In the pre-test questionnaire (see Appendix C), participants were instructed to guess what they might expect to find in the Academics section, what tasks the Academics section might allow them to accomplish, and whether or not they thought the site looked easy to use. In the post-test questionnaire, participants were asked to rate their experience on the SI website and offer comments or features they thought the site should have (see Appendix C). The participant's actions as well as notes on the session were recorded in the logging notes (see Appendices F & G).

### Pilot tests

Our team administered a series of pilot tests prior to conducting the actual tests. This was done to allow us to verify that the task descriptions were clear, that the order of the questions made sense and that the moderators were comfortable with using the recording software while reading from the script. Feedback from the pilot test allowed us to alter the script, the wording of the tasks and the order of the questions.

### Evaluating the severity of the findings

In order to assess the severity of the usability issues that we located, we adapted Jakob Nielsen's five-point rating scale. The higher the rating, the more severe the problem was deemed to be.

| Priority (Severity) | Description |
|---|---|
| 4 | Highest – usability catastrophe; imperative to fix right away |
| 3 | Major usability problem; high priority to fix |
| 2 | Minor usability problem; low priority to fix |
| 1 | Cosmetic problem or very minor; fix only if extra resources available |
| 0 | Do not agree issue is a usability problem |

## Findings and Recommendations

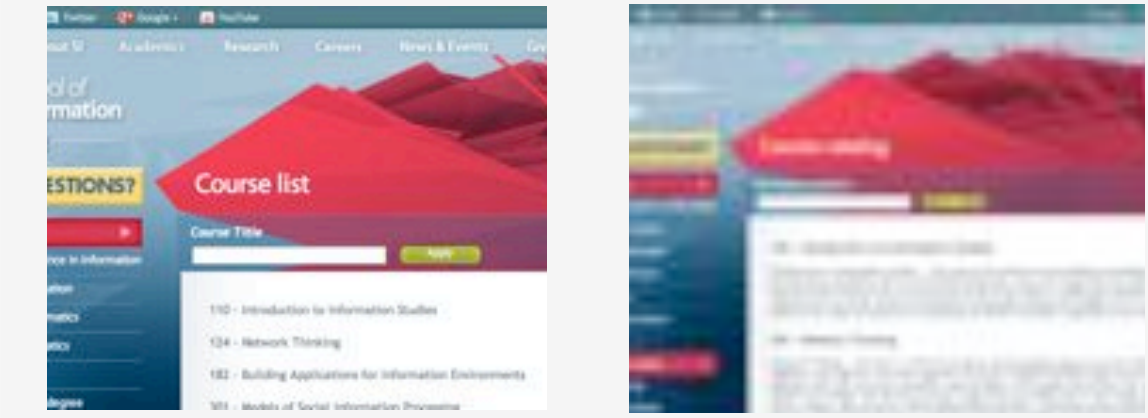
## Finding 01: Search functionality frustrates users

Overall, users found the search functionality important when they were unsure where to find the relevant information on the web site needed to complete the moderator's task. Several users turned to the search box after trying to look for information in the relevant subsections of the site and not finding it in the expected areas. The main problems identified were with users entering into in the search text field and insufficient feedback for search results on the various course pages.

### Users do not pay attention to labels telling them what constitutes a valid entry in the search field

Severity: 3

On the course catalog and course list pages, there is a search field with an apply button (Figure 1). This search field is labeled with the statement 'Description Contains' on the course catalog page and 'Course Title' on the course list. We found however that users did not pay attention to these labels noticeable enough for users to predict what needs to be entered in the search field. For instance, U01 and U04 tried to enter the course number while interacting with these pages, expecting the course corresponding to that number to show up. Since, the search fields only return results which match a part of the course description and the course names respectively, nothing was displayed in the results. This is a fairly severe problem because it forces users to spend more time browsing through the various pages of the course catalog in order to locate a course. If a user has to do this on a consistent basis, not having a working search bar in the course catalog makes this very inconvenient.




a b

**Figure 1:** Search functionality shown in the course list page (a) and course catalog page (b)

### Recommendations

In our experience, most of the students and faculty at SI use course numbers when talking about courses. This indicates that searching for courses by course number will be fairly common. Hence, the ideal solution would be to

enable users to search by course number rather than by course name or course description. An additional fix would be to provide pre-written text inside the search field such as "Enter the Course Number" so that users know what constitutes a valid search. Finally, if a user enters a number which returns no results, the search bar should provide feedback to the user by telling him that no course with that number is being offered in the term that the user has selected.

## Unpredictable search results

Severity: 3

There were several times when users were puzzled by a search result that they got. As described in the previous paragraph, several users were not sure why anything was displayed in the search results when they attempted to enter in a course number in the search bar in the course catalog (Figure 2a). In addition, when searching for "TAPS sheets" in the main search bar, U02 found several links to TAPS sheets (Figure 2b), and stated that they expected to see the search results returned in alphabetical order.



a b

**Figure 2:** Figure a highlights the case when no search results are displayed when a user searches for course SI622 by just typing '622' while figure b shows the search results but not in alphabetical order

## Recommendations

If a search returns no hits, instead of leaving the results section blank, some text should be displayed explaining that there were no matches and possibly some direction could be given to help the user refine his search. Some of the options to consider would be 'No matches were found', 'Did you mean <some word close to what the user typed>?' or 'Please enter text only' if users enter numbers in the search fields which are meant only for text.

In addition, when a search result returns several different hits, giving users several different options which they can select to display results (e.g. alphabetical order, relevance) and/or provide some information to the user explaining the logic behind the order in which the results are displayed.

## Finding 02: Users miss out on important information due to inconsistent layout

Severity: 3

In general, the users were comfortable with the layout of the site. They easily used the sub-section headers to find the relevant sections of text. However, our usability tests revealed that users had trouble locating the TAPS sheet on the MSI specializations page since they did not expect it to be on the right-hand pane, which is where it is located (see Figure 3). Given that most of the information on the site was located in the body of the page, users were more prone to scroll through the text on the page than to look on the right-hand pane.

Both U01 and U03 faced this problem when performing the task of finding the TAP sheet for Archives and Records Management. Both users managed to reach the Archives and Records Management specialization page. However, their first instinct was to scroll down to search for the information on the page itself. They did not pay attention to the link in the right hand side panel when they first reached this page. This problem was compounded by the fact that after the user scrolls down the page, the link is no longer visible. Hence, these users spent a lot of time hunting for the TAPS sheet on the specializations page.

This particular task causes the users a lot of frustration. In his efforts to find the TAPS sheet, U01 originally located the ARM specialization page and left it to explore other areas of the site, after not finding the TAPS sheet in the page body. However, after returning to the page later, the user exclaimed "I'm going in circles here. That's not a good thing." U01 finally ended up using the main search bar to find the TAPS sheet. In addition, after discovering the link to the TAPS sheet in the right pane of the ARM specialization page (after scanning through the text of that page), U03 exclaimed "That's far away!".

a b

**Figure 3:** Figure a shows the ARM TAP sheet on the right side pane, but figure b shows a scrolled down view where the TAP sheet are not visible.

## Recommendations

When asked by moderators, users confirmed that they expected to see either a link to the TAPS sheet or the sheet itself on the ARM specializations page. The simplest fix would be to put a link to the TAPS sheet inside of the specializations page, as this is where users are accustomed to looking for information on the site. Another idea would be to keep the link to the TAPS sheet on the right hand panel, but to float the link downwards when a user scrolls down a page. Possibly these recommendations could both be implemented so that if a user misses one link, he will see the other one.

## Finding 03: Issues with Information organization

### Course lists are not consistently clickable.

Severity: 2

When several of our users were performing tasks that required them to browse sections of the site which listed courses, they attempted to click on course titles to get more information about a particular course, but were surprised to find that these titles were not clickable. For example, when users were asked to identify an HCI course and find the name of the instructor teaching that class, U01 managed to find the HCI specializations requirements within half a minute. U01's immediate reaction was to click on the course to view the professor (Figure 4a). Upon finding that the Course titles listed in the specializations page were not clickable, U01 navigated over to course catalog, and through some trial-and-error, found a page that would allow him to view which professor was teaching a course. Similarly, when trying to identify a Fall 2012 course to fulfill the management requirement, U04 opened two tabs in the browser, one with course catalog, and the other with a list of courses which fulfilled the management requirement.

a b

**Figure 4:** Figure a shows the courses that counts towards HCI specialization while figure b shows the courses fulfilling management requirements. Both pages have course names that are not clickable.

## Recommendation

As U02 stated, "I think that would be helpful to just kind of streamline all [the degree requirements and courses] into one thing, instead of having to jump back and forth." As users want to be able to click on courses to learn more information, all course titles should link to a page where users can find more information about the course. For example, when users find the list of requirements in the "MSI degree components" page, they should be able to click on each course so that they do not have to spend extra time browsing through the course catalog to find this information. This would help users spend less time navigating between the degree requirements, specialization requirements, and course catalog when planning their schedules.

## Important information gets hidden in text heavy pages

Severity: 2

Many pages on the SI website contain a lot of text, which, as we observed, can cause users to miss out on important or relevant details. For instance, when trying to find the deadline to apply for a University Library Associate, U02 saw the 'Assistantships' link (Figure 5a) but still kept scrolling down expecting to find a subsection with a list of links to various assistantships. Similarly, when trying to find the required course for LIS (Figure 5b), U03 scanned through the paragraph containing the answer, and scrolled to the bottom of the page before returning to the relevant paragraph and reading the page more carefully to find the answer. Also, in one of the tasks, when referring to the way in which the text was organized on the page, U04 mentioned "If it's more broken up into boxes, I just see that, where as if it's all condensed into the same page, I won't read it or look at it."

a b

**Figure 5:** Figure a shows the 'assistantships' link hidden between lots of information on the page while figure b shows the mandatory course requirement SI647 hidden amidst too much information.

### Recommendations

While having users think out loud helped us identify this challenge, a solution to this problem is not apparent. For the time being, in order to make important information better stand out, we believe that the site should use bullet points, bold text, italics, graphics or different font styles or colors. Further user research like card sorting could be conducted to identify how users categorize information and where they expect to find it. However, as this is a minor usability problem, differentiating important points from the surrounding text using the elements listed above will suffice.

## Finding 04: Navigation could be improved

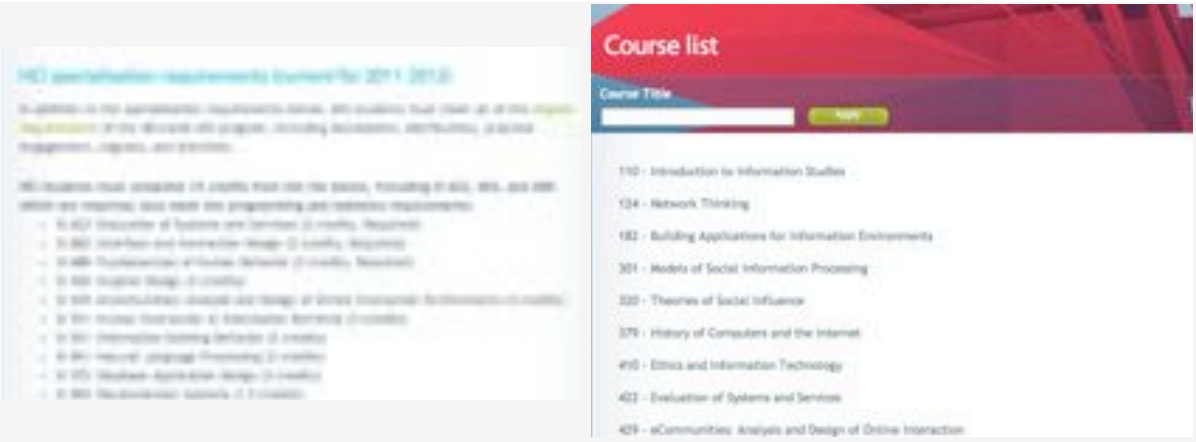
Severity: 1

Overall, users seem to be comfortable accessing different pages through the navigation provided on the website. An interesting observation was that users seem to prefer different ways of navigation and comfortably use the ones they prefer without being bothered or confused by the others. They seem to comfortably switch between different options for navigations at some points too.

One of the problems identified was that links do not seem to be clickable and vice versa. For instance, as noted earlier, U01 did not recognize that the course names on the Course list page are clickable (Figure 6b). Also, multiple users expected the courses listed in the course requirements pages (Figure 6a) to be clickable, but were surprised to find them not clickable. This led to users inventing ways to wrap around this problem. For example, U02 briefly stopped browsing to memorize the titles and numbers of several courses required to fulfill the management requirement before navigating over to the Course pages to see when they were being offered.

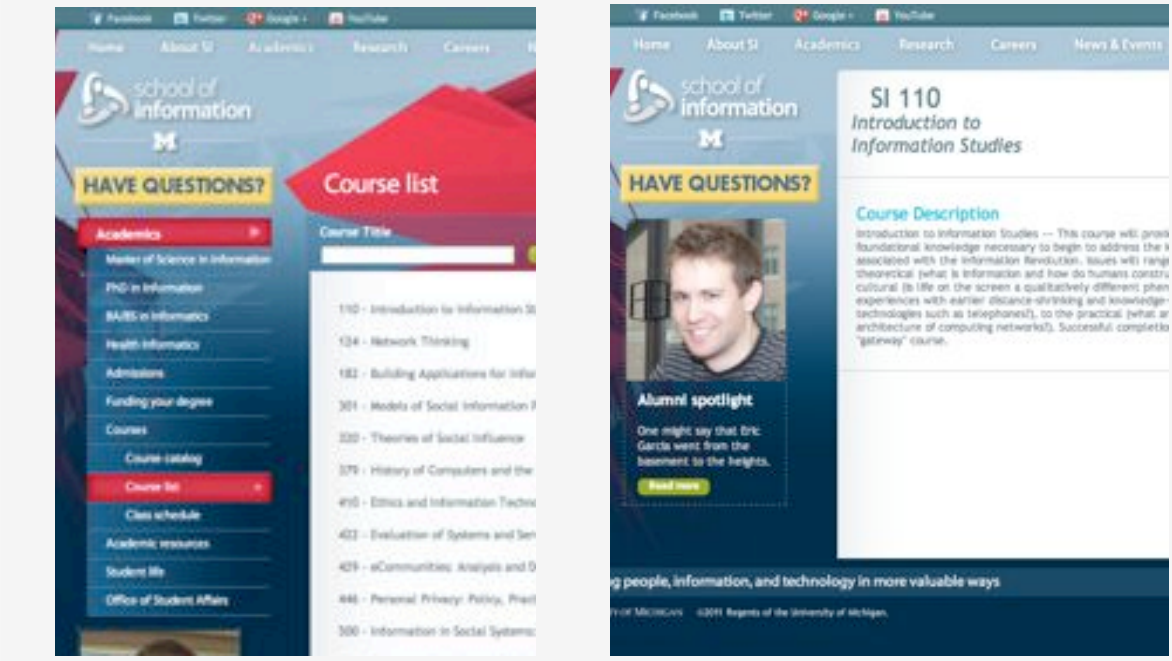
Another challenge for the users was that when they entered the Course details page to view the professor name or PEP credits, the left hand side navigation menu disappeared (Figure 7). Though this was not a major

problem the users had no way of going back other than using the back button or starting over by clicking on Academics link at the top.




a b

**Figure 6:** Figure a shows the course links that are not clickable but the user tried to click them, while figure b shows course list page with clickable links but user did not perceive them as clickable.




a b

**Figure 7:** Figure a shows the course list page with the left menu bar while figure b shows the course details page with no left menu bar

## Recommendations

Currently, the links on the course list page appear like normal text. A consistent color should be applied for all links on the website to enable users to identify the links even without hovering over the text. As it was seen, different users prefer using different ways of navigation; more flexibility for navigation should be provided to the users. For instance, the courses on pages listing degree requirements could be linked to the course details, so that users don't have to navigate to a different section to find

relevant information. Having the side navigation menu available on all the pages of the website including course details page could improve the consistency in navigation across the website. Also, using breadcrumb trails would allow users to drill down several pages while providing them with an easy way to start over.

## Discussion

We discovered that participants who had never used the site before were able to complete almost all of the tasks that they were given. In fact there were only three times were a user failed to complete a task within the 5 minutes allotted. We believe that this was not due to the tasks being overly easy, but rather due to several properties of our users and the website. For one, our users had performed similar tasks on the web pages of other academic institutions they had attended. The SI academics site mostly seemed to fit their expectations from their previous experiences. Also, our users were Internet savvy and thus were able to devise several different methods for accomplishing a task if the first method they chose did not yield results. For example, when it was not apparent where the TAPS sheet was on the specializations page, U01 performed a keyword search in main search bar. This led him to the TAPS sheet. The academics website provided several alternative ways to find information, and this seemed to make the site flexible enough to support students as they used alternative approaches to complete the tasks.

Although our findings generally do not present major usability issues, addressing these problems will help users to accomplish tasks on the site more efficiently. For example, all of our users recognized that they needed to remember information from one page to another when selecting courses to fulfill degree requirements. This represents an additional burden to the user and the site should employ several of the recommendations listed here to relieve the user's burden. In addition, given that the School of Information website is designed to attract prospective students to attend U-M for fields like Interaction Design and Information Architecture, we believe that making the website more efficient to use will reflect positively on the school by showing that the school "practices what it preaches."

At first, when we were performing usability testing, we mistakenly used SI students rather than representative users. We soon realized our mistake when we found that our users were able to easily accomplish every task we gave them and it became apparent that these users were accustomed to performing these tasks on the site. While it was possible that there were problems with the site, using current users would not have revealed these problems as current users would have simply learned to work around them.

Thus, in order to more fully investigate the learnability of the site, we choose five new users who were representative of our target population but who had

never used the site before and were unfamiliar with the School of Information. Whenever a task required knowledge of terminology or information related to the School of Information, we provided it to the users. For example, when asking the users to find the TAPS sheets, we informed users that TAP stood for "Tracking and Planning" and that these sheets were checklists that SI students could use to keep track of their progress towards completing their degree requirements.

The fact that we had to come up with new users complicated matters as we were forced to spend more time than anticipated on usability testing. Consequently, we adapted a compromise that while each testing session would have 1 note-taker and 1 moderator, the note-taker did not need to be present at the usability test, but that the moderator would send the note-taker the video of the session and the note-taker could take notes. This carried two risks. For one, we may have lost data by not having another member of the team present in the interview to ask follow-up questions. Also, this carried the risk that if our recording software failed, we would have to find a replacement user. In our tests however, all of the recording software worked properly. In addition, if a note-taker wanted to ask a follow-up question, he or she was directed to e-mail the user.

As an additional note, there were several areas where bias may have crept into our study. Since we wanted to examine whether our previous findings were in fact valid, it is possible that the wording of the tasks as well as the way the team interpreted the results were the result of a confirmation bias. In addition, we only ran 5 usability tests, which is not enough to constitute a statistically significant sample and may have caused us to overgeneralize our results. However, according to Rubin and Chisnell (2008, p. 72), testing four or five representatives of a particular group generally finds about 80 percent of the usability problems for that group, so we are fairly confident in our findings. Finally, as our participants were not familiar with the site, it is possible that some of their challenges were due to their unfamiliarity with the school. However, since all of our current users were at one-point novices, our tests examine the learnability of the site as well as the degree to which users can efficiency perform tasks after learning the design.

# Conclusion

In conclusion, our five usability tests have suggested to us that although the SI website is mostly learnable, there are improvements which the web development team can make which will improve the efficiency with which users can accomplish tasks. We gave users tasks to perform which were representative of tasks that SI students typically accomplish on the site. Based on our usability tests, our recommendations were as follows:

1). Allow users to search for course number in the course catalog search bar
2). Provide pre-written text instructions within course catalog search bar to tell the user this.

3). Help users better understand the search results or why their search did not return any results.
4). Make the link to the TAPS sheet distinguishable.
5). Enable users to spend less clicks navigating between degree requirements and the course catalog.
6). Highlight important details in text-heavy pages.
7). Apply a single color to signify hyperlinked text.

Our usability tests also helped us to put our previously identified findings into perspective. Observing the actual behavior of user of the site led us to conclude that while some of our findings still needed to be addressed, they did not present users with major obstacles. However, even though our findings areas do not represent major usability flaws, motivation for improving these areas of the site lays in the fact that prospective students interested in user experience design and research visit these pages. Making these changes will help SI employ the principles of usability and further market itself as a good school to attend for studying these fields.

# References

1. Bisht, M., Huseman, B., Ross, D., & Yang, S. (2012a). SI website Academic section: Survey.

2. Nielsen, J. (1994). Heuristic evaluation. In J. Nielsen & R. L. Mack (Eds.), Usability inspection methods (pp. 25-62). New York, NY, John Wiley & Sons.

3. Ross, D., Huseman, B., Yang, S., & Bisht, M. (2012b). SI 622, SI website Academic section: Interviews, personas, and scenarios.

4. Rubin, J. & Chisnell, D. (2008) Handbook of usability testing: How to plan, design, and conduct effective tests (2nd ed.). Indianapolis, IN: Wiley Publishing Inc.

# Appendices

## Appendix A: Moderator Scripts

### Introduction Script

Hi, I'm **[NAME OF INTERVIEWER]** and this is **[NAME OF NOTE-TAKER]**. This semester we are evaluating the usability of the academics section of the SI website as part of SI 622. Thank you for agreeing to help us.

In this study, I will give you a series of tasks to perform. Our findings from this study will be shared with our client, but your identity will be kept secret. Only the team members will know who you are. All of this will take less than an hour. To begin, could you fill out this questionnaire please? **[Hand out questionnaire]**

With your permission, we will be recording this session. Only the group members will see these recordings, and the recordings will be destroyed at the end of this semester. Could I have you fill out this consent form please? [Collect the completed consent form, give them a copy] Thank you**. [Start recording]**

It would really help us if you could narrate your actions as you perform these tasks. It would help us to get a sense of what you're thinking and experiencing while you are doing these tasks.

Just so you know, even though we are asking you to perform certain tasks, we are not testing you. We are evaluating the site itself. Don't worry if you cannot complete a task, or if you run into any confusion or encounter difficulties. In fact, your honesty and candor will help us obtain the best results. Feel free to ask questions at any time.

Do you have any questions before we begin?

[Read first task, give it to the test participant...]

## Post-test Moderator Script

Thanks for participating in the usability testing of the SI website. Your feedback will greatly help us to improve the website and generate recommendations. If I could just have a few more minutes of your time, would you mind filling out this survey? **[HAND THEM POST-INTERVIEW QUESTIONNAIRE]**

**After survey is complete…**

1). How do you think the session went? Were the tasks easier or harder than you expected?

2). What were your impressions of the site?

3). [TO Moderator: LOOK OVER THE QUESTIONNAIRE FOR A LITTLE BIT AND NOTE ANY RESPONSES].

4). I noticed that you were having trouble with [INSERT whatever they were having trouble with]. Can you talk about what caused these difficulties?

5). Is there anything else you would like to talk about?

# Appendix B: Task Scripts

1) You would like to apply to the University of Michigan School of Information, and are wondering if you still have time to apply to attend school in 2012. Find the final deadline for applying to the MSI program.

2) The School of Information has several main tracks of study. The school provides students with a TAPS sheet for each track of study. A TAPS sheet is basically a checklist designed to be printed on the front and back of a piece of paper. Students can use this to check off each of the courses they have taken to fulfill the requirements of a particular track of study. Find this document for the Archives and Records Management degree.

3) Each track of study has particular classes that everyone pursuing that course of study must take. You think you might be interested in studying Library and Information Science (LIS), and would like to know which classes you have to take for it. Find the page which lists the classes that count toward the Library of Information Science degree. Tell me the course number of the one class which all LIS students must take.

4) The School of Information requires that students get practical experience as part of their education. SI awards "PEP credits" for jobs, internships, and some courses that teach skills that can be used in the real world. You would like to take a class that has PEP credit. Does SI 622 – Evaluation of Systems and Services have any of these? How many?

5) Pretend you are currently applying to SI and are interested in opportunities for financial aid. Your friend told you about an assistantship opportunity to be a University Library Associate. Find the deadline for applying for a position as a University Library Associate.

6) You are studying Human Computer Interaction. Find out which School of Information courses count toward your degree. Choose 1 of these courses and find out which professor is teaching it.

7) You need to fulfill the management requirement to get your MSI degree. Find out which courses fulfill the management requirement for a MSI degree. Then find one of these courses which is offered in the upcoming Fall semester.

# Appendix C: Pre and Post-Test Questionnaires

## Pre-Test Questionnaire

Moderator's initials:____ Note taker's initials:____ Date:_____

1. Have you used this specific site before? Y | N | Not sure

1a. If Yes, approximately many times in the past month? _____

2. Have you used other sites that seem similar to this one? If so, which?

_____

3. Are you currently in school? Y | N
If so, what are you studying? _____

4. Have you ever conducted or developed a usability test?
Circle one of the following. Y | N | Not sure

5. In the past 12 months, have you used class schedule tools on other schools' websites?
Circle one of the following. Y | N | Not sure

6. How many hours would you say you spent on websites this semester to pick classes?
Circle one of the following. None 1-2 hours 3-5 hours
More than 6 hours

7. What information do you expect to find on the SI Academics page? _____

## Post-Test Questionnaire

Moderator's initials:____ Note taker's initials:____ Date:_____

1. For each of the following statements, please indicate the degree to which you agree or disagree with the following statements.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| This site is easy to navigate | ☐ | ☐ | ☐ | ☐ | ☐ |
| The information was generally where I expected to find it | ☐ | ☐ | ☐ | ☐ | ☐ |
| It is clear which pages have the information I need about classes | ☐ | ☐ | ☐ | ☐ | ☐ |
| I always know where I am on the site | ☐ | ☐ | ☐ | ☐ | ☐ |
| I was confident that I would be able to find the information needed to complete the tasks | ☐ | ☐ | ☐ | ☐ | ☐ |
| It was easy to learn how to perform new tasks on the site | ☐ | ☐ | ☐ | ☐ | ☐ |

2. What would make these tasks easier to perform?

_____

_____

3. Do you have any other comments or suggestions?

_____

_____

# Appendix D: Consent Form

## Usability Evaluation of SI Website

**Principal Investigators: David Ross, Mukul Bisht, Shuo Yang, Bethany Huseman.**

### Description of involvement

Participating in this research study means the following:
1). You will be asked to perform tasks in front of the experimenters using the SI website.
2). Before and after the study, you will be given a questionnaire to fill out.
3). A video and audio recording of this session will be made. If you are not comfortable with being recorded, you may still participate in the study. Also, the recording will not be shared with anyone except our group members and the instructional staff of SI 622 (if necessary). All recordings will be destroyed at the end of the semester.
4). You will be asked to describe out loud what you are doing/thinking while performing these tasks.

The results of this study will be used to help the SI web development team improve the SI website.

### Risks and discomforts

The researchers have taken steps to minimize the risks of this study. Even so, you may still experience some risks related to your participation, even when the researchers are careful to avoid them. These risks may include the following: Fatigue from looking at a computer screen for approximately 45 minutes and anxiety from displaying your web browsing skills to other people.

### Confidentiality

We plan to provide a report detailing the results of this study to the SI web development team, but will not include any information that would identify you. There are some reasons why people other than the researchers may need to see information you provided as part of the study. To keep your information safe, we will be using alias for you (e.g. User 01) and the match from alias to actual person will be only known by members of our team.

**Voluntary nature of the study**

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. If you decide to withdraw early, your data will be erased.

**Contact information**

If you have questions about this research, including questions about scheduling or your compensation for participating, you may contact David Ross djosiahr@umich.edu or Mark Newman, mwnewman@umich.edu.

**Consent**

By signing this document, you are agreeing to be in the study. You will be given a copy of this document for your records and one copy will be kept with the study records. Be sure that questions you have about the study have been answered and that you understand what you are being asked to do. You may contact the researcher if you think of a question later.

I agree to participate in the study.

_____ _____

Signature Date

I agree to allow my session to be video and audio recorded.

_____ _____

Signature Date

# Appendix E: Questionnaire Answers

## Pre-Test Questionnaire Answers

| | U01 | U02 | U03 | U04 | U06 |
|---|---|---|---|---|---|
| Have you used this specific site before? | No | No | No | No | Yes [1] |
| If Yes, approximately how many times in the past month? | N/A | N/A | N/A | N/A | N/A |
| Have you used other sites that seem similar to this one? If so, which? | Yes[2] | No | Yes[3] | Yes[4] | Yes[5] |
| Are you currently in school? If so, what is your area of study? | Yes[6] | No[7] | Yes[8] | Yes[9] | No |
| Have you ever conducted or developed a usability test? | No | No | No | No | No |
| In the past 12 months, have you used class schedule tools on other schools' websites? | Yes[10] | No | Yes | Yes[11] | Yes[12] |
| How many hours would you say you spent on websites this semester to pick classes? | 3-5 hours | None | ? | 3-5 hours | 1-2 hours |

**Notes:**

1) Last looked at the SI site 3 years ago, before the migration to the new one.

**Have you used other sites that seem similar to this one?**

2) msu.edu and the LSA course guide
3) Considers the site to be similar to all major University of Michigan departments' sites.
4) Any umich.edu website
5) Other graduate program websites: School of Social Work, Public Health, Law

**What is your area of study?**

6) Undergraduate in Mechanical Engineering
7) U02 was in college a few years ago and is thinking of going back.
8) Undergraduate student pursuing Earth & the Environmental Sciences.
9) Is a junior at LS&A, Anthropology, BA

**Have you used class schedule tools on other schools' websites?**

10) LSA course guide
11) Has used both LS&A and Urban Planning class scheduling tools

12) Browsing Washtenaw Community College class listings.

**What information do you expect to find on the SI Academics page?**
**U01:** Program information, course listings, maybe something about faculty
**U02:** Information about different courses offered at the school and how to enroll in them.
**U03:** Class preferences, class information, course guides, course descriptions, degree requirements
**U04:** Information like that found LS&A's
**U05:** Course listings, specialty/concentration programs, requirement for admission. I.e., academic

## Post-Test Questionnaire Answers

| | U01 | U02 | U03 | U04 | U05 |
|---|---|---|---|---|---|
| This site is easy to navigate | Agree | Strongly Agree | Agree | Agree | Agree |
| The information was generally where I expected to find it | Agree | Agree | Neutral[1] | Agree | Strongly Agree |
| It is clear which pages have the information I need about classes | Agree | Agree | Neutral[1] | Neutral | Strongly Agree |
| I always know where I am on the site | Strongly Agree | Strongly Agree | Agree | Agree | Agree |
| I was confident that I would be able to find the information needed to complete the tasks | Neutral | Strongly Agree | Disagree[2] | Agree | Agree |
| It was easy to learn how to perform new tasks on the site | Strongly Agree | Strongly Agree | Agree[3] | Agree | Strongly Agree |

**Notes:**
1)Was neutral, because "sometimes I could, sometimes I couldn't"
2)Was not confident, because the descriptions for some of the pages weren't comprehensive enough [probably referring to the courses pages?]
3) Performing tasks on this site was OK once I got used to it.

**What would make these tasks easier to perform?**
**U02:**More links to course offerings that take you to a page with a fuller description of what, where, and when the course is, as well as who is teaching it and who can be contacted for information about it.
**U03:** Change some of the names of the tabs [navigation/page names] and put better descriptions under the names like Course List
**U04:** The course description could include the side information shown on the right of the course list screen. [Per debrief, user considered the pages for each specific course to be part of the course list, and is referring to

information contained in the right-side of the page for each specific class. I.e., Instructors, term, Date/Time, Credits, PEP credits…]
**U05:** Nothing, the site is laid out well and easy to navigate.

**Do you have any other comments or suggestions?**
**U02:** [Had none]
**U03:** The color scheme is fun too.
**U04:** Nope, very easy to navigate!
**U05:** [Had none]

## Appendix F : Blank Logging Form

| **Logging Form for Usability Testing** | | |
|---|---|---|
| **Task 1** | Find the final deadline for applying to the MSI program. | |
| **Definition of completion** | Finds the deadline as May 1 Y \| N | |
| **Start Time:**<br>**End Time:** | Difficulty Level (Nominal Scale: 1 -5, 1 being easiest.) | Successful Completion of Task Y \| N |
| **Points of Difficulty** | | |
| **Quotes/Notes** | | |

| **Task 2** | Find the TAPS sheet for the Archives and Records Management degree. | |
|---|---|---|
| **Definition of completion** | Finds the ARM TAPS sheet Y \| N | |
| **Start Time:**<br>**End Time:** | Difficulty Level (Nominal Scale: 1 -5, 1 being easiest.) | Successful Completion of Task Y \| N |
| **Points of Difficulty** | | |

| | |
|---|---|
| **Quotes/Notes** | |

| | | |
|---|---|---|
| **Task 3** | Find the page which lists the one course which all LIS students must take. Tell me which course this is. | |
| **Definition of completion** | Finds Tap sheet Y \| N or<br>MSI Specializations→PI or LIS page Y \| N<br>and<br>LIS = SI 647 Y \| N | |
| **Start Time:**<br>**End Time:** | Difficulty Level<br>(Nominal Scale: 1 –5,<br>1 being easiest.) | Successful Completion of Task Y \| N |
| **Points of Difficulty** | | |
| **Quotes/Notes** | | |

| | | |
|---|---|---|
| **Task 4** | Find out if PEP credits are awarded for completion of SI 622. If so, how many? | |
| **Definition of completion** | Finds that SI 622 has 2 PEPs Y \| N | |
| **Start Time:**<br>**End Time:** | Difficulty Level<br>(Nominal Scale: 1 –5,<br>1 being easiest.) | Successful Completion of Task Y \| N |
| **Points of Difficulty** | | |
| **Quotes/Notes** | | |

| **Task 5** | Find the deadline for applying for a position as a University Library Associate. | |
|---|---|---|
| **Definition of completion** | Finds that the deadline is January 15 Y \| N | |
| **Start Time:**<br>**End Time:** | Difficulty Level (Nominal Scale: 1 -5, 1 being easiest.) | Successful Completion of Task Y \| N |
| **Points of Difficulty** | | |
| **Quotes/Notes** | | |

| **Task 6** | Find out which School of Information courses count Human Computer Interaction. Select one of these courses and find out which professor is teaching it.<br><br>[If they can't complete the first task, we won't ask to complete the second task. Tell them the section in the follow-up session. ] | |
|---|---|---|
| **Definition of completion** | Found the HCI specialization requirements page or TAPS Y \| N<br>Picked an HCI course Y \| N<br>Figured out which Professor teaches the course they picked Y \| N | |
| **Start Time:**<br>**End Time:** | Difficulty Level (Nominal Scale: 1 -5, 1 being easiest.) | Successful Completion of Task Y \| N |
| **Points of Difficulty** | | |
| **Quotes/Notes** | | |

| **Task 7** | Find at least one course which fulfills the management requirement and is being offered in the upcoming Fall semester. | |
|---|---|---|
| **Definition of completion** | Finds a page that shows courses that meet mgt requirement Y \| N<br>Picks the right semester and finds a mgt course Y \| N<br>Offered mgt courses = SI 523, SI 534, SI 626, and SI 663 | |
| **Start Time:**<br>**End Time:** | Difficulty Level (Nominal Scale: 1 –5, 1 being easiest.) | Successful Completion of Task Y \| N |
| **Points of Difficulty** | | |
| **Quotes/Notes** | | |

# Appendix G: Consolidated Logging Form

<table>
<tr><th colspan="3">Logging Form for Usability Testing</th></tr>
<tr><td>Task 1</td><td colspan="2">Find the final deadline for applying to the MSI program.<br>➢ Successes (5 out of 5)<br>➢ Times to complete task: 0:41, 1:42, 1:21, 0:40, 0:42</td></tr>
<tr><td>Definition of completion</td><td colspan="2">Finds the deadline as May 1</td></tr>
<tr><td>Average Time: 1:01<br>Median Time: 0:42</td><td>Minimum Time: 0:40<br>Maximum Time: 1:42</td><td>Difficulty Level (Nominal Scale: 1–5, 1 being easiest.) 1</td></tr>
<tr><td>Points of Difficulty</td><td colspan="2">U03-01: Goes to the Students quick link page, doesn't see the word "deadline" so goes to MSI admissions, from which they quickly work straight through the path to the answer.</td></tr>
<tr><td>Quotes/Notes</td><td colspan="2">U02-01: Looked for "Admissions" or "enrollment". Easily found the navigation link that said "Admissions".<br>U02-03: Carefully read the blurbs for each of the Admissions links. Double-checked if it was the doctorate or masters that we wanted. These things are what lead to most of the time needed to complete this task.</td></tr>
</table>

| | | |
|---|---|---|
| **Task 2** | Find the TAPS sheet for the Archives and Records Management degree.<br>➢ Successes (3 out of 5) U05 finds TAPS for SLM<br>➢ Times to complete task: 2:06, 4:38, 1:39, 0:50, 5:13 | |
| **Definition of completion** | Finds the ARM TAPS sheet | |
| **Average Time:** 2:53<br>**Median Time:** 2:06 | **Minimum Time:** 5:13<br>**Maximum Time:** 0:50 | **Difficulty Level** (Nominal Scale: 1-5, 1 being easiest.) 4 |

| | |
|---|---|
| **Points of Difficulty** | U01-03: From Archives and Records Management. Scrolls down and clicks on degree requirements link. On MSI degree requirements page, scrolls down, laughs, and clicks on link to go back to MSI specializations page. "I'm going in circles here, that's not a good thing." However, quickly and easily decides to go back to the MSI specializations page.<br><br>U02-04: Starts with Academic resources link in left navigation. [In debrief, said they thought of such a "table" that allows you to track what you need to take and have taken as a "resource to have for planning " and it was tied to academics, hence the Academic resources link seemed like a place to look] and looks for TAPS sheet in that page's content. Tried Skills enrichment program [Seemed to have their doubts, but chose the most likely of the links on that page to be see if it contained the TAPS? "I'm going to try going to this skills enrichment link to see if there's anything here"]<br><br>Went to courses link when that didn't pan out. Based on the task description they are looking for a "table format" document, so tries Class schedule: table format.<br><br>U03-03:Per debrief: Was not expecting a page of general MSI degree components that everyone had to take. They thought that each specialization would have all of its degree components given under it in the Specializations section of the navigation. Hence the confusion. The navigation didn't say "general". So when faced with two degree components choices in the left navigation, they expected the MSI degree components page to be a summary of what each specialization required.<br><br>U03-04: Per debrief: The taps was on the side where they couldn't see it. They "aren't expecting it to be up in that corner." |

| | |
|---|---|
| **Quotes/Notes** | U01-04: Eventually ends up using website's search box to search for TAPS sheet.<br>U02-04b: When browsing doesn't work, ultimately decides to use the website's search box for TAPS which is how they find it, when they go to the second page of search results.<br>U02-06: Uses browser back button to get back to academics home page [didn't seem to be looking for a link to the academics home page, so I think it may just be their way of working]<br>U03-05: Starting in MSI degree components was not a problem. User scrolled down, found and clicked the specializations link and then the ARM link. Actually discovers the TAPS quickly. Just scrolled to the bottom of the page and back up once, then glances to the right and sees it. Comment upon discovery, "That's far away."<br>U04-02: Clicks from About SI—admissions--MSI Specializations--ARM and find TAPS sheet quickly on the right top area<br>U04-02b: Per debrief: When there are big blocks of text, they don't read through it, but stuff on the right draws their attention. "If it's more broken up into boxes, I just see that, where as if it's all condensed into the same page, I won't read it or look at it." They naturally look for boxes and stuff on the right. |

<table>
<tr><td>Task 3</td><td colspan="2">Find the page which lists the one course which all LIS students must take. Tell me which course this is.<br>➢ Successes (5 out of 5)<br>➢ Times to complete task: 1:38, 1:43, 1:09, 1:42, 1:26</td></tr>
<tr><td>Definition of completion</td><td colspan="2">Finds LIS Specialization requirement page<br>Finds all LIS students must take SI 647</td></tr>
<tr><td>Average Time: 1:32<br>Median Time: 1:38</td><td>Minimum Time: 1:09<br>Maximum Time: 1:43</td><td>Difficulty Level (Nominal Scale: 1-5, 1 being easiest.) 2</td></tr>
<tr><td>Points of Difficulty</td><td colspan="2">U01-05: Reopens ARM TAPS sheet, doesn't seem to notice it is the wrong specialization for the task.<br><br>U02-07: Didn't easily see a way from the Masters in Science of Information page to the information, so defaulted to website search. However, this may just be because task didn't sound like a specialization to them. They referred to it as a course at one point.<br><br>U02-08: Could barely tell that the bold lines in the LIS specialization requirement section were bold. [Just the feature of the computer being used and the font size of the browser?]<br><br>U03-06: Goes straight to LIS specializations page, but when reaches the degree requirements section, clicks on the degree requirements link which takes the to the MSI degree components page. However, returns to LIS specialization page very quickly.<br><br>U03-07: Mousing shows they are scanning the paragraph where the text is, yet they scroll to the bottom of the page and then back up to the section. Reads the paragraph more slowly and finds the answer.<br><br>U03-08: Per debrief: the information was "just little bitty. I wasn't expecting it to be there [in the text]. "Little tiny print. Oh by the way, just so you can't see it..." [commenting on how the little print makes it so unobvious.]</td></tr>
</table>

| | |
|---|---|
| **Quotes/Notes** | U01-07: Double checks with the moderator that MSI Degree components page is requirements for everyone at SI. On the Library and Information Science (LIS) page scrolls down to the specialization requirements section, and easily finds the course in the introductory/ explanatory paragraphs.<br><br>U02-10: Spends a few seconds studying the left navigation choices. Clicks Masters of Science in Information. Studies the resulting screen briefly, and opts to use the website's search box [Nothing seems to have leapt out as a good choice on the Masters of Science in Information home page. Just because they are not familiar with the specializations concept, or just because of the wording of the task, or just because of the words on the web page?]<br>U04-03: Took a relatively long time to find the required course. [Note: They suggested that putting the courses into bullet point or in bold will help to find it quickly.] |

<table>
<tr><td>Task 4</td><td colspan="2">Find out if PEP credits are awarded for completion of SI 622. If so, how many?<br>➢ Successes (5 out of 5)<br>➢ Times to complete task: 2:38, 1:01, 1:58, 2:06, 0:45</td></tr>
<tr><td>Definition of completion</td><td colspan="2">Finds that SI 622 has 2 PEPs</td></tr>
<tr><td>Average Time: 1:42<br>Median Time: 1:58</td><td>Minimum Time: 0:45<br>Maximum Time: 2:38</td><td>Difficulty Level (Nominal Scale: 1–5, 1 being easiest.) 2</td></tr>
<tr><td>Points of Difficulty</td><td colspan="2">U01-08: Did not recognize that the course list gives access to more information than just the number and title. Did not realize it was clickable, so had to find the information by quite a different route.<br><br>U01-09: First tries Course catalog in Courses section of the contents in the main box. Finds 622 and realizes the information isn't there.<br><br>U03-09: Used the website's search box, because nothing else seemed to have the information.<br><br>U03-10: Was surprised that the page they found the answer on was in the Careers section, where they wouldn't have thought to look.<br><br>U03-11: Had been expecting the Course catalog to contain the information.<br><br>U03-12: Per debrief: Because the blurbs were rather detailed, the user expected the blurb to mention all of the information that could be found under that class view. So, they didn't realize any of these actually would give access to the information they were looking for.<br><br>U04-04: Searched si622 in the courses search box (not the top-right one), but nothing returned.</td></tr>
</table>

| Quotes/Notes | |
|---|---|
| | U01-10: Uses the browser's back button to return to the Academics home page. Retries the course catalog link in the contents. Quickly realizes they were just there. Goes back and tries Class schedules. Goes back and tries Course list. Goes back and tries More to see what else they have in courses. →Class schedule: table format finds 622, but sees it doesn't say anything about PEPs "OK, I'm striking out on the courses, so let's try the search feature."<br><br>U01-11: Searches for PEP. Clicks on 4th search result, which turns out to be for School Media Specialists. Sees 622 is not there, uses back button to return to search results. Finds link to PEP courses near the bottom of the search results. Notes that this page is actually in Careers, "I would expect that to be in courses, but hey." Finds that 622 has 2 PEP credits.<br><br>U02-12: Once again goes back to the SI Academics home page to begin this task.<br><br>U02-13: Leaps straight to website search option "because it seems to be working quite well." Searches for si 622, and finds it as the 5th result.<br><br>U03-13: Chooses the course catalog and pages through to 622. Sees the information isn't there. Considers all of the left navigation, chooses Masters of Science in Information, but quickly goes back to Courses. Re-reads all of the course view options, then decides to search for pep in website's search box. Finds the search result for PEP courses. Clicks it, and finds the information on that page.<br><br>U04-04b: [Note: They went to course catalog first because they thought that it would be faster. Suggested converging list and catalog together: courses in the catalog could be clickable and show the information that is on the right side.] |

<table>
<tr><td>Task 5</td><td colspan="2">Find the deadline for applying for a position as a University Library Associate.<br>➢ Successes (5 out of 5)<br>➢ Times to complete task: 0:52, 2:15, 0:58, 1:34, 1:28</td></tr>
<tr><td>Definition of completion</td><td colspan="2">Finds that the deadline is January 15</td></tr>
<tr><td>Average Time: 1:25<br>Median Time: 1:28</td><td>Minimum Time: 0:52<br>Maximum Time: 2:15</td><td>Difficulty Level (Nominal Scale: 1-5, 1 being easiest.) 2</td></tr>
<tr><td>Points of Difficulty</td><td colspan="2">U02-15: Started by trying Student affairs page, “Sounds like something that might be student affairs.”<br><br>U02-16: Read “assistantships” and keeps on reading. Scrolls down to the bottom of the page then back up to the MSI funding part. Doesn’t see the link they are looking for, so “I’m just going to click on assistantships, the link and see where it takes me.” [In debrief, when asked about hesitancy to click this link, said they were expecting the Funding your degree page’s MSI funding section to have sub-sections for each of the types of funding. They expected to find an assistantships sub-section with a list of links for the various assistantships that they could then click on--instead of having a link in the paragraph they needed to click to go to yet another page for a list of assistantships]<br><br>U03-14: User was first drawn to the colorful text on the ULA page [the hotlinks in the text], and then “Oh!” sees the deadline which has a font not made to standout. However, it didn’t take them long to see the information.<br><br>U04-05: Was looking specifically for the words financial aid which were not actually present on the Students quick links page.</td></tr>
</table>

| | |
|---|---|
| **Quotes/Notes** | U01-12: Scans side menu and instantly zeros in on Funding your degree. "OK, that sounds about right." Quickly clicked through to the answer.<br><br>U04-05b: When can't find financial on quick links page, goes to the website's search box and types in financial aid. Scans search results, but can't find assistantship program. Uses website search box to search for assistantship program. The first result takes them to the page with the University library Associate (ULA) page link in the text. Finds the answer in under 10 seconds of arrival at the page ULA.<br>U04-05b: Per debrief: didn't use the left navigation Funding your degree because misread it as Finding your degree. Plus, in past experience it's always been called financial aid. |

| | | |
|---|---|---|
| **Task 6** | Figure out which School of Information courses count toward the HCI degree. Select one of these courses and find out which professor is teaching it.<br>➢ Successes (4 out of 5): U01 required a lot of help to find the professor<br>➢ Times to complete task: | |
| **Definition of completion** | Found the HCI specialization requirements page: 5 Y<br>Picked an HCI course: 5 Y<br>Figured out which Professor teaches the course they picked: 4 Y, but U01 N | |
| **Average Time Spent: 4:24, 9:00,1:53, 1:35, 1:59** | Minimum time spent:<br>Max time spent: | Difficulty Level (Nominal Scale: 1 -5, 1 being easiest.) 3 |

| | |
|---|---|
| **Points of Difficulty** | U01-13: Tries to click on SI618 in the HCI degree requirements list and nothing happens.<br><br>U01-14: Tries several course views, not sure where to go.<br><br>U01-15: Doesn't realize course list is clickable. Thinks it is just a list, so doesn't click the course and find the answer.<br><br>U01-16: Reaches a point where they just want to be told which courses are available in the Fall, so they can find the professor's name in that view.<br><br>U02-20: Was looking for links in the list of HCI required courses, and scrolled to the bottom of the page in the hopes of finding these links. And to double check, hovers mouse over the list of courses before moving to the search box. "These aren't links though. I'm going to have to go, just pick one of them, and search it." Later, again mentions the wish to click on the links, or for more information on the page.<br><br>U02-21: When searched for SI622, ended up on the Careers SI622 page, which looks quite convincingly like a class information page. Found the contacts section and was wondering if that was the same thing as the professor.<br>U03-16: First clicks on the MSI degree components link, but fairly quickly returns to the correct page.<br><br>U03-17: On the Courses page, examines the blurbs for the word "teachers". Upon not finding that, tries the Course catalog, quickly realizes it won't have the information and goes back to Course page.<br><br>U03-18: Goes to Course list and as clicks on the class, asks "If I click on any of these, is it going to show me--the teacher?" |

| | |
|---|---|
| **Quotes/Notes** | U01-17: Has found the requirements within ½ a minute of starting the task. Picks SI618 and tries to click on it. Scrolls up and down, looking to see if the professor information is there. Responds to moderator reminding them to look for the professor, "That's a good question, it's not on this page." Scrolls back to the top. "There's got to be some kind of course, something."<br><br>U01-18: Looks at the left navigation and guesses maybe it's in Academic resources. Scans page. "No, that's not it." Rescans left navigation "Courses" [said with much more confidence] "I missed that." Goes to Courses and tries Course catalog [tone says they are not certain if it is the right choice] "Nope, it just tells you what they are" "So I guess Course list maybe?" Tries Course list "Nope". Tries Class Schedule "Wow … so here's a giant spreadsheet" Uses ctrl+f for 618. Nothing is found, so they don't think it is offered this term. Notes it has classes with professors and times "But it's in one giant table, so it's not the most friendly thing to look at."<br><br>U01-19: Tries class calendar format, but realizes it's just a different format. Uses browser back button to Courses page again. Coming up against a dead-end again, asks moderator which HCI classes will be offered in the semester, thinking to pick one so they can find the professor for it. "That would be something that would be helpful to see which ones are offered, which dates, easily"<br><br>U01-21: [Moderator tries again to get them to find the professor for the class they are interested in, by prompting them to find a course that isn't being offered in the upcoming semester.] They try Class Schedule: calendar format and note that they are in the Fall semester and uses the arrow key to get to the Winter format, and now can use ctrl+f to find 618. "That's not easy to find though"<br><br>U02-22: This task took a lot of exploring. They had a lot of difficulty, until decided to try the Courses link in |

| | | |
|---|---|---|
| **Task 7** | Find at least one course which fulfills the management requirement for an MSI degree which is being offered in the upcoming Fall semester.<br>➢ Successes (5 out of 5)<br>➢ Times to complete task: 2:30, 3:00, 1:12, 1:32, 1:59 | |
| **Definition of completion** | Finds a page that shows courses that meet the management requirement: All 5<br>Picks a management course offered in the Fall: All 5 | |
| **Average Time:** 2:03<br>**Median Time:** 1:59 | **Minimum Time:** 1:12<br>**Maximum Time:** 3:00 | **Difficulty Level** (Nominal Scale: 1–5, 1 being easiest.) 3 |

| | |
|---|---|
| **Points of Difficulty** | U01-22: Tries clicking on 638 in the list of management courses and can't.<br><br>U01-23: Tries searching for 638 in the Catalog number box and nothing is found. However, they do not seem fazed, but quickly choose a different semester and search for it again. Finds 638 is being offered in the Winter. [moderator prompts them to try to find one offered in the fall]<br><br>U02-29: Hopes that all of the management courses are offered in the next semester, because doesn't want to have to go through looking for anything else.<br><br>U02-30: Once again, expresses hope for more information to be available on the page where the courses are listed.<br>U04-07: Starts by looking in About SI. Quickly and easily abandons it and chooses the right path though. [Comment: they didn't even hesitate, they really seemed to think the information would be in About SI]<br>U04-08: Checks with moderator, because isn't sure that "management distribution requirement" is the same as the "management requirement" we asked them to find.<br>U04-09: Site's search box results for si 523 and the search for si 530 did not produce what they were seeking<br>U04-10: Tries searching si 530 in Course catalog's Description contains search box<br>U04-11: Tries searching 622 in Course list's Course title search box |

| | |
|---|---|
| **Quotes/Notes** | U01-24: Double checks with the moderator that "Management and distribution requirements" is what we are talking about. Notes there are a lot of them.<br><br>U01-26: When moderator prompts them to try to find one offered in the fall: "I suppose. [sounds a bit reluctant] I'll just kinda guess and check."<br><br>U02-31: Double checks with moderator that "Management distribution requirments" are the same thing as "Management requirments" and is told "Yes"<br>U02-32: Studies the Management section of the MSI degree component's page a bit, then says "Alright, it doesn't look like it's going to tell me when these courses are offered here."<br>Picks 523, 530, and 534 and memorizes them. Goes back to the Courses via the left navigation. Clicks course list, clicks 523, and finds it is offered in the fall term.<br>U02-33: Zooms right in on where the information is located on the SI 523 class page.<br>U03-20: Seemed to be a straight forward task. Easily went to degree components and picked a class. Considered the left navigation and chose Courses. Reads down over the different class options until reaches and chooses Class Schedule. In the correct semester, finds that SI 523 is offered in Fall term. [Comment: interesting that this user deliberately sought and picked the view that would best support the task.]<br><br>U04-12: Opened a new tab in the browser. Has one tab on course catalog and one with the management requirement page. Picks SI530 and enters si 530 in the Course catalog's Description contains box. Empty results page. Uses left navigation to change tab to Course list saying because it was easier last time. Finds the information there. |

**Debriefing answers:**

U01-27: Moderator prompts them to click on 523, and they finally see a class page with the course description, professor, and PEP information. "Oh I could have used that." Tone of voice is discovery.

U01-28: Finds he SI site is a little easier than Wolverine access. "Less steps involved, so that's a positive."

U01-28: Always knows where they are on the site, because they look at the URL.

U01-29: "I like the search bar, that's kinda nice."

U01-30: "Would be nice if you could type in a class [in the Courses: Class schedules view at the time of comment], and if it's not offered that term, you could see when it's offered."

U01-31: Agreed that they would change the behavior of the classes search displaying nothing when nothing is found.

U01-32: "It's not the best site ever, but it's not the worst." "It was pretty good. It's better than a lot of school of information sites that are out there, but uh, it could be a little better I guess."

U01-33: They think that the most trouble they had with the site is all the acronyms they don't know, but they think this is to be expected.

U01-34: Wanted the course list to say "offered fall, blah, blah, blah, blah blah"

U01-35: Thought course list was a list, wasn't aware you could click on them to find more information. Was also thrown by the fact you can click things in that list, and not in Course catalog. "Maybe you could make these links go to the same page, or something, that would be, I mean these are like the same thing, but not."

U01-36: They noted you have to go several places to get information. They would somehow combine the course list and course catalog.

U01-37: When asked about using control+f to find the information, they said they always use control+f

U02-34: The user wanted more information about the classes to be on/or directly linked from the specialization's degree requirements page.

U02-35: Impressions of the site's usability: "It has a lot of information that you can get to easily. There are a couple of areas that seemed to be redundant to each other though." When explaining the redundancy, mentions the list of courses for a specific degree without any links "so you had to go back to courses, to go find the courses again, and if you can just click there [the degree requirements list], and it would take you so you can see, alright these are the courses that I need for this specific thing, I want to click on them to find out when this class is being offered … it's conflicting with other classes you need to take as well. I think that would be helpful to just kind of streamline all that into one thing, instead of having to jump back and forth."

U02-36: Moderator pointed out the presence of the TAPs sheet in the right-hand bar of the specialization's page and asked if they had noticed it. "It's kinda not catching your eye there … you've got your main body of text going right down the middle [of the screen]… your eye doesn't really get drawn up to what's this little link off to the side?, and if you scroll down, just like a little paragraph, you don't see it anymore. So if you're just browsing the large blue headings for the sections looking for something specific… it's gone."

U02-37: Went to the search bar when wanted to be more direct and specific in what they were looking for. If unsure, they went to the search bar.

U02-38: They chose Course list over any of the other options because they figured it would be easier to search through a numerically ordered list. They don't think they even looked at the other options. "Even in the description, it says 'streamlined.'" They were seeking very brief and fast information. Then experimentally clicks on the course catalog "Whoa!, yeah that's way more than I need to know for all of these courses."

U03-21: Often began the task at SI home page, because to them, the left navigation seemed to be all about the Academics page you are currently looking at. [Note-taker wonders: Maybe this is because of how bits of the navigation expand out when you are at that section?]

U03-22: When asked why they decided to use the website's search box, instead of continuing to browse, they replied they searched to "streamline it, because none of these [the course options whose blurbs did not mention the information being sought] made any sense." They said they went to the search box when they had no idea where to start looking for the information.

U03-23: Was not quite sure how the course catalog would be different from the course list.

U03-24: Also mentions the need to click on the specific class page, instead of having all of the information present in the course catalog view. [As in, they would have liked to have the information present with the other information in the catalog.]

U04-13: "It looks very nice, the site." [without us even beginning the debriefing. Had just handed back the questionnaire.]

U04-14: Found tasks a little harder than they thought. They said the tasks sounded easy, but then… Said that tasks got easier when found the search box.

U04-15: Is used to the LS&A course guide and finds this site "so much more clear, especially in terms of what you like need to get—like what you need to fulfill for the degree, like the LSA one is much more complicated."

U04-16: When asked what they were expecting in About SI: Expected to find information about the different degrees and ways to go about getting them. Was looking for a more general page about the requirements, and thought it would be there.
U04-17: When searching for management distribution in website's search box, was looking for a courses thing that said this is what is offered in the fall, this is what is offered in the winter.

U04-18: Mentioned it would have been nice if you could click on the course in the Course Catalog and be taken to the class's page like you can do in the Course list.