Dalhousie Libraries
Prototype Website
Usability Test

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<th>Page</th>
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<td>28</td>
</tr>
</tbody>
</table>
1 Executive Summary

A talk-aloud usability test of the prototype Dalhousie Libraries website was conducted as part of a School of Information Management Reading Course. The purpose of the test was to assess the usability of the prototype’s information architecture and general user experience, and provide recommendations for its improvement.

Eight participants (two faculty and six students) were recruited and testing took place from November 4\textsuperscript{th} to November 18\textsuperscript{th}, 2015. Student participants were asked to complete 10 tasks and faculty participants were asked to complete 9 tasks. Testing times ranged from 16 minutes to 33 minutes with an average testing time of 23 minutes.

Faculty participants were mostly successful in completing the tasks in less than 1 minute. Student participants experienced varied success in completing tasks, ranging from 33\% to 100\%. In general, student participants spent longer on tasks ranging from an average of 37 seconds to 2 minutes and 51 seconds.

The test identified several usability issues including:

- Confusion with Document Delivery terminology
- Difficulty registering DalCard as library card
- Difficulty with finding databases
- Difficulty finding DalSpace
- Difficulty locating printing stations in the libraries
- Confusion between the subject guides and subject-specific pages on the Research Help page
- Accessing the APA citation guide

This report also includes several recommendations to improve the Dalhousie Libraries homepage user experience based on participants’ comments.
2 Introduction

The Dalhousie Libraries website serves as the primary access point to the university’s information services and resources. In the summer of 2015, a User Experience intern conducted a card-sorting exercise and usability best practices literature review to design a prototype Dalhousie Libraries Website. Usability testing of the prototype website was conducted with Dalhousie faculty and students as part of a School of Information Management Reading Course. Usability testing is intended to understand how users interact with a website’s interface and test the performance of its information architecture. The usability tests were recorded to help identify issues and make recommendations to improve the prototype’s information architecture.

3 Methodology

The test administrator recruited eight participants to participate in the usability testing - 6 students (5 undergraduate and 1 graduate student) and 2 faculty members. Two of the participants were recruited from the Agricultural Campus and were tested by Emily Colford at the MacRae Library. The remaining six participants were recruited from the Studley campus and were tested in the Rowe Management Usability Lab, the School of Information Management Boardroom and the Wallace McCain Learning Commons.

The test administrator recruited 2 participants after making an announcement in MGMT 1601. One participant responded to an announcement posted in the weekly Faculty of Science newsletter sent to Faculty, Graduate and Undergraduate students. Sarah Stevenson contacted 2 faculty members in the Department of Classics to participate in the usability testing. A graduate student from the Faculty of Health Professions was contacted via email to participate in the testing. All participants accepted a $10.00 gift card to Superstore for their participation.

Each participant was asked to perform a series of 10 tasks (9 tasks for faculty). The test administrator explained the test session and asked participants to sign a form (see Appendix A) consenting to be recorded. Participants were given a paper copy of the tasks in addition to the test administrator reading the scenarios aloud to the participants. Participants were asked to provide a narrative of their thought process (talk aloud method) while performing the tasks.

Participants were asked their relationship to Dalhousie (student, faculty, department, year of study), how often they used the Dalhousie Libraries website, and the primary purposes for visiting the website to determine their level of comfort with using the Libraries website. Participants were asked to look at the homepage and provide their overall impression. At the beginning of the test, they were asked to look over all the tabs and links and asked what they think will happen if they click on them, and if there were any words or labels that they did not understand. Participants were timed while completing the tasks.

The test administrator reviewed the recordings to calculate the completion success rates and the average time it took for each task.
4 Limitations

Several issues arose during testing that may have affected the results.

1. The Search Libraries Website bar did not work. Some of the participants who used this search bar to complete the task also tried to complete the task using the top level navigation increasing the time spent on the task.
2. When a participant clicked on certain external links, they were returned to the current Libraries website. In the case of Participant 1, the last two tasks were accidentally completed using the current Libraries website and were therefore not included in the results.
3. Participant 5 was not asked to complete the Renew Books task due to the test administrator’s oversight.
4. The Library Hours task asked participants to find the time the Killam/MacRae Library opened on Friday morning, however, only the summer hours were listed on the prototype website. While most participants were able to quickly locate the Library hours, some participants kept looking for the regular hours thus increasing the time spent on the task.

5 Participant Profiles

<table>
<thead>
<tr>
<th>ID</th>
<th>Relation to Dalhousie</th>
<th>Libraries website usage</th>
<th>Test Date</th>
<th>Test duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>3rd Year Animal Science undergraduate</td>
<td>1/week</td>
<td>04/11/2015</td>
<td>33:32</td>
</tr>
<tr>
<td>P2</td>
<td>3rd Year Animal Science undergraduate</td>
<td>1/week</td>
<td>05/11/2015</td>
<td>22:16</td>
</tr>
<tr>
<td>P3</td>
<td>2nd year Management undergraduate (International Student)</td>
<td>First time using the website</td>
<td>8/11/2015</td>
<td>34:23</td>
</tr>
<tr>
<td>P4</td>
<td>1st year Management undergraduate</td>
<td>2 or 3 times</td>
<td>9/11/2015</td>
<td>16:07</td>
</tr>
<tr>
<td>P5</td>
<td>3rd year Speech Language Pathology graduate student</td>
<td>1/week</td>
<td>9/11/2015</td>
<td>16:27</td>
</tr>
<tr>
<td>P6</td>
<td>4th year Psychology undergraduate</td>
<td>Several times a week</td>
<td>11/11/2015</td>
<td>20:25</td>
</tr>
<tr>
<td>P7</td>
<td>Philosophy professor</td>
<td>Daily</td>
<td>17/11/2015</td>
<td>14:30</td>
</tr>
<tr>
<td>P8</td>
<td>Philosophy professor</td>
<td>Daily</td>
<td>18/11/2015</td>
<td>23:19</td>
</tr>
</tbody>
</table>
6 Evaluation Tasks

The Dalhousie Libraries Web Committee drafted a long list of proposed tasks for participants to test (see Appendix B). This list was pared down to ten tasks for student participants and nine tasks for faculty members based on information commonly sought by these user groups.

<table>
<thead>
<tr>
<th>Task</th>
<th>Faculty</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register DalCard</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Renew a book</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Find Document Delivery information</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Find Refworks information</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Find PubMed</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Find DalSpace information</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Find course reserves information</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Find subject librarian contact information</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Find library hours</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Find printing services information</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Book a study room</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Find subject guides</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Find APA citation guide</td>
<td></td>
<td>✔️</td>
</tr>
</tbody>
</table>

6.1 Overview of tasks

Please refer to Appendices D, E, and F for the complete set of faculty and students tasks and the test administrator’s script.

6.1.1 Student and faculty tasks

1. Participants were asked to find the Library’s operating hours.
2. Participants were asked to find information about registering their DalCard.
3. Participants were asked to find information about Document Delivery.
4. Participants were asked to find information about Refworks.
5. Participants were asked to find how to renew library books.
6. Participants were asked to find the PubMed database.

6.1.2 Student-specific tasks

1. Participants were asked to book a study.
2. Participants were asked to find the cost of printing and find where the printers are located.
3. Participants were asked to find the Philosophy subject guide.
4. Participants were asked to find the APA citation guide.

6.1.3 Faculty-specific tasks

1. Participants were asked to find information about DalSpace.
2. Participants were asked to find the contact information for their subject librarian.
3. Participants were asked to find information about course reserves.
7 Results

7.1 Task Completion Success Rate

7.1.1 Definition of Success

Participants were deemed to fail a task if they claimed they could not complete the task using the prototype website. Participants were also deemed to fail if they stated they would contact library staff in order to complete the task. In the case of the Philosophy Subject Guide task, participants were asked to find the most important resources for philosophy to start their research and were deemed to fail if they did not find the subject guide for Philosophy. Some participants found the Philosopher’s Index from the Humanities Research Tools page, however, for the purposes of this test, these participants were deemed to fail the task. Despite the Libraries Prototype search not working, participants who used it to complete their task were not deemed to fail if it was determined by the task administrator the search terms they used would result in the participant completing the task.

7.1.2 Student Participants

<table>
<thead>
<tr>
<th>Task</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>Completion Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library Hours</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>DalCard Registration</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>50%</td>
</tr>
<tr>
<td>Document Delivery</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>33%</td>
</tr>
<tr>
<td>Refworks</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>Printing Services</td>
<td>✓</td>
<td>*</td>
<td>*</td>
<td>✓</td>
<td>*</td>
<td>*</td>
<td>100% (Finding cost) 33% (Finding location)</td>
</tr>
<tr>
<td>Renew Books</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NA</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>Book Study Room</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>PubMed Database</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>67%</td>
</tr>
<tr>
<td>Philosophy Subject Guide</td>
<td>NA</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>40%</td>
</tr>
<tr>
<td>APA Citation Guide</td>
<td>NA</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>80%</td>
</tr>
</tbody>
</table>

7.1.3 Faculty Participants

<table>
<thead>
<tr>
<th>Task</th>
<th>P7</th>
<th>P8</th>
<th>Completion rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library Hours</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>Register DalCard</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>Document Delivery</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>Refworks</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>Renew book</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>PubMed</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>DalSpace</td>
<td>✓</td>
<td>X</td>
<td>50%</td>
</tr>
<tr>
<td>Course Reserves</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
<tr>
<td>Subject Librarian Contact</td>
<td>✓</td>
<td>✓</td>
<td>100%</td>
</tr>
</tbody>
</table>
All student participants successfully completed four of the ten tasks (Library Hours, Refworks, Renew Book and Book Study Room). Only two participants successfully completed the Document Delivery task. All participants were successful in completing the first part of the Printing Services task which asked them to find the cost of printing a 40-page article. Only 33% were successful in completing the second part of the task which asked them to find the location of the printers the library. Only 50% of participants were successful in finding information about registering their DalCard and 40% were successful at finding the Philosophy subject guide.

The faculty participants completed virtually 100% of the tasks. Only one faculty participant was unsuccessful in finding information about DalSpace. Both faculty participants expressed their comfort with using the Dalhousie Libraries website and were able to complete the tasks based on their familiarity with the current website. The only task that both faculty participants struggled with completing was finding information about DalSpace as they were unaware of this service.

### 7.2 Time on Tasks

#### 7.2.1 Student Participants

Text highlighted in red indicates the participant failed to complete the task.
Text highlighted in yellow indicates the participant partially completed the task.

<table>
<thead>
<tr>
<th>Task</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>Average Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library Hours</td>
<td>01:13</td>
<td>00:58</td>
<td>02:28</td>
<td>00:08</td>
<td>01:24</td>
<td>01:02</td>
<td>01:11</td>
</tr>
<tr>
<td>DalCard Registration</td>
<td>02:26</td>
<td>01:58</td>
<td>03:56</td>
<td>00:40</td>
<td>00:27</td>
<td>01:38</td>
<td>01:51</td>
</tr>
<tr>
<td>Document Delivery</td>
<td>05:45</td>
<td>03:39</td>
<td>02:41</td>
<td>03:23</td>
<td>00:41</td>
<td>00:58</td>
<td>02:51</td>
</tr>
<tr>
<td>Refworks</td>
<td>01:04</td>
<td>01:09</td>
<td>00:32</td>
<td>00:06</td>
<td>00:44</td>
<td>00:52</td>
<td>00:45</td>
</tr>
<tr>
<td>Printing Services</td>
<td>02:02</td>
<td>01:08</td>
<td>05:19</td>
<td>01:24</td>
<td>00:43</td>
<td>02:07</td>
<td>02:07</td>
</tr>
<tr>
<td>Renew Books</td>
<td>00:54</td>
<td>00:28</td>
<td>01:01</td>
<td>00:24</td>
<td>NA</td>
<td>00:18</td>
<td>00:37</td>
</tr>
<tr>
<td>Book Study Room</td>
<td>01:30</td>
<td>00:55</td>
<td>00:35</td>
<td>00:27</td>
<td>00:45</td>
<td>00:53</td>
<td>00:51</td>
</tr>
<tr>
<td>PubMed Database</td>
<td>00:15</td>
<td>01:07</td>
<td>03:26</td>
<td>00:07</td>
<td>01:06</td>
<td>00:10</td>
<td>01:02</td>
</tr>
<tr>
<td>Philosophy Subject Guide</td>
<td>NA</td>
<td>00:47</td>
<td>01:58</td>
<td>00:22</td>
<td>01:37</td>
<td>01:06</td>
<td>01:10</td>
</tr>
<tr>
<td>APA Citation Guide</td>
<td>NA</td>
<td>00:13</td>
<td>02:05</td>
<td>00:54</td>
<td>00:27</td>
<td>00:36</td>
<td>00:51</td>
</tr>
</tbody>
</table>

#### 7.2.2 Faculty Participants

<table>
<thead>
<tr>
<th>Task</th>
<th>P7</th>
<th>P8</th>
<th>Average Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library Hours</td>
<td>00:40</td>
<td>00:24</td>
<td>00:32</td>
</tr>
<tr>
<td>Register DalCard</td>
<td>00:27</td>
<td>00:24</td>
<td>00:26</td>
</tr>
<tr>
<td>Document Delivery</td>
<td>00:23</td>
<td>00:33</td>
<td>00:28</td>
</tr>
<tr>
<td>Refworks</td>
<td>00:39</td>
<td>00:16</td>
<td>00:28</td>
</tr>
<tr>
<td>Renew Books</td>
<td>00:35</td>
<td>00:15</td>
<td>00:25</td>
</tr>
<tr>
<td>PubMed</td>
<td>00:33</td>
<td>02:48</td>
<td>01:40</td>
</tr>
<tr>
<td>DalSpace</td>
<td>01:08</td>
<td>04:03</td>
<td>02:35</td>
</tr>
<tr>
<td>Course Reserves</td>
<td>01:20</td>
<td>00:38</td>
<td>00:59</td>
</tr>
<tr>
<td>Contact Subject Librarian</td>
<td>00:20</td>
<td>00:11</td>
<td>00:16</td>
</tr>
</tbody>
</table>
The Document Delivery task took the longest time to complete (average time = 02:51) and had the lowest success rate for student participants. Faculty participants commented that they used this service often and were aware of how to find the patron request form (average time = 00:28). The Printing Services task asked participants to find the cost of printing and the location of the printers at the Sexton/MacRae Library. Most of the participants were able to find the pricing information relatively quickly, but only 33% were able to find the location of the printers impacting the time it took to complete the task. The time for this task therefore ranges from 00:43 to 05:19. Student participants also took an average of 01:51 to find how to register their DalCard, however, time spent on this task ranged from 00:27 to 03:56. Student participants also varied in their ability to locate the PubMed database from the prototype website with an average time of 01:02. The Subject Guide task asked participants to locate the philosophy subject guide – only two participants were successful in completing this task. The time spent on this task ranges from 00:22 to 01:59 as some participants stated they completed the task by finding the Philosopher’s Index from the Research Services page. Most participants were able to locate the APA Citation guide in an average time of 00:51. One participant took 02:05 to find the guide as they initially used the Search Libraries Website and then proceeded to find the guide using the top navigation impacting their time spend on the task.

Participants were able to find information about Refworks and renewing books in an average of 00:45 and 00:37, respectively.

The DalSpace task took the longest to complete for faculty participants with a completion rate of 50%. One faculty participant took 04:03 before giving up and admitting he would contact library staff as he could only find information related to data management services. The other faculty participant searched “institutional repository” in the Search Libraries Website bar to complete the task.

8 Usability Key Findings and Recommendations

8.1 First Click
The participant’s first click provides insight into the effectiveness of the website’s information architecture and top level navigation.

Task: Find the Killam/MacRae Library hours of operation
- 7 participants clicked the Hours and Locations from the top navigation.
- 1 participant clicked the Hours and Locations link above the Live Help chat box.

Task: Register DalCard as Library card
- 3 participants clicked Services
- 3 participants clicked Borrowing
- 2 participants searched “DalCard” using the Search Libraries Website bar

Task: Document Delivery
- 3 participants clicked Borrowing
- 2 participants clicked Services
- 2 participants clicked Research Help
- 1 participant would contact the Library for assistance
Task: Refworks

- 5 participants clicked Research Help
- 3 participants clicked Services

Task: Printing Services

- 5 participants clicked Services
- 1 participant clicked Hours and Locations

Task: Renew library books*

- 7 participants clicked Borrowing
* P5 was not asked this question.

Task: Book Study Room

- 4 participants clicked Services
- 2 participants clicked Hours and Locations

Task: PubMed Database

- 2 participants selected Databases from the Search Libraries dropdown and searched “PubMed”
- 3 participants clicked Research Help
- 1 participant searched “PubMed” using the basic library search
- 1 participant clicked on the Kellogg Library’s homepage assuming there would be a link to key Health Sciences resources on the main page.

Task: Philosophy Subject Guide*

- 1 participant clicked Subject Guides
- 1 participant clicked Collections
- 4 participants clicked Research Help
*P1 experienced an error during this task.

Task: APA Citation Guide*

- 3 participants clicked on the Research Help
- 1 participant searched “APA” in the Search Libraries Website bar
*P1 experienced an error during this task.

Task: DalSpace

- 1 participant searched “institutional repository” in the Search Libraries Website bar
- 1 participant clicked Services

Task: Contact Subject Librarian

- 2 participants clicked Subject Guides
Task: Course Reserves

- 2 participants click on the Services tab

8.2 Homepage Key Findings

Participants were asked to look at the prototype homepage and provide their general impression of the page. They were asked to look over the tabs and links and explain what they mean, and if there were any words or labels that they did not understand.

Participant comments:

- Search Libraries bar is confusing – unsure of what is being searched
- The library website is designed for students who have an idea of what they want to access – is not user friendly to people who are new to the website
- Subject guides are unclear for several participants
- All participants were unfamiliar with the term GIS and asked for clarification
- Several participants mentioned that it would be useful to hover over the top navigational tabs to preview what is contained within each
  - One participant mentioned that the arrows in front of the text is misleading as she assumed a preview would appear if the tab was clicked
- Several participants mentioned they liked the location of the Live Help chat box and have used the service at least once
- One participant is unsure of what would be listed under the Services tab that is not listed under the Research Help and Borrowing tabs
- One participant mentioned that the font is too small and difficult to read
- Several participants mentioned that they ignore the slider and one participant referred to it as advertisements
8.3 Recommendations

The following recommendations are based on the test administrator’s observations of the most significant usability issues.

8.3.1 Homepage

<table>
<thead>
<tr>
<th>Change</th>
<th>Justifications</th>
</tr>
</thead>
</table>
| Remove the slider from the front page and replace it with links to commonly-accessed information resources and services. *See University Library Websites Examples* | • All of the participants ignored the slider when completing the tasks despite it displaying information related to the Document Delivery and Library Hours tasks.  
• One participant stated that the library website is designed for people who are already familiar with accessing information. Adding links to key information services would improve accessibility for users who are familiar and unfamiliar with Library resources. |
| Add dropdown previews for the top navigation bar | • Several participants commented that a preview or dropdown of the information contained within that tab would make it easier to find the information they are looking for.  
• Several participants were observed hovering over the top navigation bar expecting a drop down menu to appear when deciding which tab to select.  
• The arrows beside the tabs mislead the user to believe a dropdown preview will appear if they click or hover over the link. |
| Replace the search library search dropdown menu with tabbed searching | • Several users were unsure of what was being searched when using the basic library search.  
• Dropdown menus hide important information from users. |
| Remove or clarify the GIS tab | • All of the participants were unfamiliar with the term GIS and asked for clarification during the test.  
• Once the term was clarified, many of the participants commented that they would only use this service if it directly applied to their field of study. |
### 8.3.2 Register DalCard

Participants were generally unaware that they were required to register their DalCard as their library cards and found it difficult to locate this information once they were on the Borrowing page.

<table>
<thead>
<tr>
<th>Change</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add a link to Library Account/My Library Account on the Homepage.</td>
<td>• Improve access to Library Account log-in and borrowing information.</td>
</tr>
<tr>
<td>Rename the “Who Can Borrow?” heading to “How to get a Library Card?” on the Borrowing page</td>
<td>• The information contained under this heading relates to DalCard/Library Card therefore the heading should accurately reflect this. Only 3 participants immediately clicked on the Borrowing tab to find DalCard registration information, while 3 participants first clicked on the Services tab.</td>
</tr>
</tbody>
</table>

### 8.3.3 Document Delivery

Four of the student participants were unable to complete this task and spent an average of 3:52 trying to find information before giving up. The other four participants (including both faculty participants) had used this service previously and were aware of how to find this information with relative ease (average time = 38s).

<table>
<thead>
<tr>
<th>Change</th>
<th>Justifications</th>
</tr>
</thead>
</table>
| Clarify terminology. Document Delivery could be renamed to “Borrow from non-Dalhousie Libraries (Document Delivery)” or “Request items from other institutions”. ILL could be renamed to “Lending Services for non-Dalhousie libraries” to clearly differentiate between the two services. | • Most student participants were confused between the terms Borrow Anywhere, Return Anywhere, Document Delivery, Interlibrary Lending, Distance Services, and Holds, Recalls, and Searches. One participant commented that she wasn’t looking for a document therefore she claimed that the information she was looking for wouldn’t be under Document Delivery section.  
• The current headings assume that the users are familiar with DocDel services, therefore the headings should not use Library jargon to confuse users. |
8.3.4 PubMed

The first click section shows that participants approached this task four different ways suggesting that accessing databases from the Libraries website is not intuitive for most users.

<table>
<thead>
<tr>
<th>Changes</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make finding and browsing databases a more prominent feature on the homepage. For example, changing the dropdown menu beside the search bar to tabs of the available search options.</td>
<td>• Only two student participants used the dropdown feature beside the search bar. One participant mentioned she would not be able to find any databases if she had not been shown the method previously. • One participant stated that they would not be able to find databases unless they were given the name of it • One participant looked for a databases tab. • Many of the participants clicked on Research Help or Subject Guides and looked for Medical or Health Sciences resources. From there they were able to find links to the PubMed database. This process could be improved if there was a direct link to databases on the homepage.</td>
</tr>
</tbody>
</table>

8.3.5 DalSpace

Both faculty participants admitted that they did not know how to find information about DalSpace. One participant spent 04:03 trying to find information about DalSpace mostly from the Services page and spent a considerable amount of time trying to discern if the data management page contained information pertaining to the institutional repository.

<table>
<thead>
<tr>
<th>Changes</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relocate information about DalSpace from the Collections page to the Services page</td>
<td>• Both faculty participants looked under the Services for Faculty heading of the Services page for this information and did not consider looking on the Collections page.</td>
</tr>
<tr>
<td>Open the DalSpace page when the user clicks on the link and add the information</td>
<td>• The DalSpace page is text heavy and the link to DalSpace is hidden amongst the text.</td>
</tr>
</tbody>
</table>
8.3.6 Printing Services

All participants were able to find printing costs, however, only 33% could find where the location of the printers in library.

<table>
<thead>
<tr>
<th>Changes</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add a “Find Printers” table that shows the location of printing stations in all campus libraries and what kinds of printing services are offered at that library.</td>
<td>Most participants were either unable to find the location of the printers or spent a considerable time (average time = 02:07) looking for this information.</td>
</tr>
</tbody>
</table>

8.3.6.1 Find Printers example table

<table>
<thead>
<tr>
<th>Library</th>
<th>Location in the Library</th>
<th>Number of Printing Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Killam</td>
<td>Atrium</td>
<td>1</td>
</tr>
<tr>
<td>Killam</td>
<td>1st Floor Learning Commons</td>
<td>3 (including 1 colour printer)</td>
</tr>
<tr>
<td>Killam</td>
<td>2nd Floor Learning Commons</td>
<td>1</td>
</tr>
<tr>
<td>Kellogg</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

8.3.7 Task: Subject Guides

<table>
<thead>
<tr>
<th>Changes</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make Subject Guides a more prominent feature on the Research Help page.</td>
<td>4 student participants clicked on Research Help as their first step. Participants were confused between the Subject Guides and the links to subject-specific pages located below the link to the Subject guides. Participants clicked on the Humanities link instead of the Subject Guides.</td>
</tr>
<tr>
<td>Make the subject guides a drop down list from the Research Help page so users can view and access the desired subject guide directly from the Research Help page</td>
<td>Users could easily view which subject guides are available before navigating and select their desired guide without having to navigate to the subject guides site.</td>
</tr>
</tbody>
</table>
8.3.8 Task: APA Citation Guide

<table>
<thead>
<tr>
<th>Changes</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add a link to the Citation Guide under the Writing and citations heading on the Research Help page</td>
<td>One user expanded this section and looked for a link to the writing and citation guides mentioned in the text.</td>
</tr>
<tr>
<td>Add the Writing and Style Guides to the top navigation</td>
<td>Two participants looked for this tab from the top navigation when asked to complete this task.</td>
</tr>
</tbody>
</table>

** Based on the test administrators experience as a Live Help student assistant, users are commonly asking for links to citation guides (across all institutions). This information should be immediately accessible from the front page.

9 University Library Websites Examples

Following are several examples of how other university libraries employ good user experience design on their websites. These examples have been selected to demonstrate ways that Dalhousie Libraries could improve their website by making it easier find important information especially for users who are unfamiliar with the Libraries resources and services.

9.1 University of Toronto Libraries Website

![University of Toronto Libraries homepage](https://onesearch.library.utoronto.ca)

**Figure 1: University of Toronto Libraries homepage.**

Examples of good user experience:

- The search bar clearly lists what is being searched. All Search options are visible making it convenient for users to decide if they want to limit their search.
- Important library services are listed directly on the home page – these are quick and accessible ways the user can find what they are looking for.
- Users can also see the other more advanced search option on the right of the screen. Popular databases are also easily accessible from the homepage.
9.2 UBC Libraries Website

Examples of good user experience:

- The top navigation includes a preview of what the user will find if they click the link. The user can also select what they want directly from the preview without having to navigate to the page.
- The search options are clearly listed on tabs above the search bar so the user can easily select which collection they would like to search.
RESEARCH CONSENT FORM

We invite you to take part in a research project called “Library Website Usability”. This study is being led by Charlotte MacKeigan, a Masters student in the Faculty of Management at Dalhousie University in Halifax, Nova Scotia. This research is for a course in the MLIS degree, supervised by Mike Smit. The information below tells you about our research and what you will be asked to do. It also tells you about any benefits, risks, inconveniences or discomforts you might experience. You can take part in this study if you are a member of the Dalhousie University community. About 10-15 people will be taking part in this research.

To help us understand how people use the Dalhousie Libraries website, we will ask you to find specific information on a new version of the website, while talking out loud about your experience and what you are thinking. We will record the screen, and your comments, so we can use them letter to assess the website. We hope to understand how you use the site to find information relevant to you, and what we can do to make the site better and easier to use. We understand that it might feel like we are testing you, but we aren't – the goal is to test the website, and you are helping us to administer this test. We expect participation in the study will take a total of 15 minutes, not including the time spent reading and signing this form.

It is your decision whether or not you want to take part in this research project. Even if you do take part, you can leave the study at any time for any reason. There will be no negative consequences to you. You may choose to skip any task or step that you are not comfortable with. Once you have completed this study and left the room, withdrawing your data from the study may not be possible, as we will not be storing your name along with the data we have collected to protect confidentiality.

All information you give to members of our research team will be kept private. When we share our project findings in reports and presentations, we will talk about overall website usability, and may include some anonymous quotes. It will not be possible for you to be identified. Any identifying information about you (like your name) will be kept in a separate file, in a locked cabinet or password-protected, secure file.

If you agree to participate in this research project, please sign this form. If you would like to see a copy of our report, please let us know via e-mail. We expect to have the report complete by the end of December 2015.
I have read the explanation about this study. I understand what I am being asked to do and my questions about the study have been answered. I agree to take part in this study. I know that participating is my choice and that I can leave the study at any time.

__________________________________   ________________________________
PARTICIPANT’S SIGNATURE      DATE

__________________________________   _________________________________
RESEARCHER’S SIGNATURE      DATE

If you have any questions, comments, or worries about your participation in this research project, please contact my supervisor, Mike Smit, School of Information Management, 902-494-190, or Mike.Smit@dal.ca.
11 Appendix B: Dalhousie Libraries Web Committee proposed tasks for web assessment/evaluation:

Find the hours of the Archives and Special Collections reading room
Library hours
What time is the Library Open?
What are the hours of the Sexton Help Desk?
How late is the MacRae Library open?
When is the McCain Learning Commons open? *(page will be built today)*

Register your DalCard with the library

Find the Archives Catalogue and Online Collections
How to access Novanet (the search bar is hard to see on the site--white on white)

How to put money on DalCard
Where/How do I add money to my DalCard?

Submit an archives document delivery request (service to be launched Oct. 16)
Request an article through Document Delivery

"What does 'Collections' mean?"
Exam schedules (apparently law students and faculty ask the library staff for this--it's on the law school website, but staff think maybe we should link to it)

Who is the librarian for history and classics and how do I contact them? (needs modification – these are actually two people)

How do I log into and use Refworks?

How much does it cost to 3D print?
Where can I print( BW, Colour or 3D)?
How much does printing cost?
Where can I print my poster?
Find information on photocopying in the archives

How do I use ArcGIS?

How/Where can I register my DalCard to use the library?
How can I renew my books?
How many times can an undergraduate student can renew a loan?

How can I book the Sexton Library's study room, A207?
*Book a study room in the MacRae Library*

Where can you provide feedback about the Dal Libraries' website?
Where can you give feedback about the New Novanet?
Find the Kellogg Library on a campus map
Is there a floorplan for the Sexton Library?
Where is the writing centre at the Faculty of Agriculture/Agricultural Campus?
Find the Help Desk location nearest you

Find PubMed
Find the resource that gives information about adverse drug reactions in Canada
How do I find primary resources for my history assignment?

Find the quick guide to the APA style.
Where can I find out how to cite APA style?

Where is the form to/how can I put an item on Reserve?
Find the free MacAfee download for Dalhousie students/staff/faculty
Submit a 3D Scanning Request

Find the institutional repository
Where can I deposit my research data? Who do I contact?
Hi, my name is Charlotte, and I’m going to be walking you through this session today.

Before we begin, I have some information for you, and I’m going to read it to make sure that I cover everything.

You probably already have a good idea of why we asked you here, but let me go over it again briefly. We’re asking people to try using the Dalhousie Libraries’ prototype website so we can see whether it works as intended. The session should take about fifteen minutes.

The first thing I want to make clear right away is that we’re testing the site, not you. You can’t do anything wrong here. In fact, this is probably the one place today where you don’t have to worry about making mistakes.

As you use the site, I’m going to ask you as much as possible to try to think out loud: to say what you’re looking at, what you’re trying to do, and what you’re thinking. This will be a big help to us. We’re doing this to improve the site, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we’re interested in how people do when they don’t have someone sitting next to them to help. But if you still have any questions when we’re done I’ll try to answer them then. And if you need to take a break at any point, just let me know.

With your permission, we’re going to record what happens on the screen and our conversation. The recording will only be used to help us figure out how to improve the site, and it won’t be seen by anyone except the people working on this project. And it helps me, because I don’t have to take as many notes.

If you would, I’m going to ask you to sign a simple permission form for us. It just says that we have your permission to record you, and that the recording will only be seen by the people working on the project.
OK. Before we look at the site, I’d like to ask you just a few questions.

1. What’s your relationship to Dalhousie? Are you: Student, Faculty, Staff, etc.
2. How often do you use the Dalhousie Libraries’ website?
3. What are the primary reasons you visit the Dalhousie Libraries’ website?

OK, great. We’re done with the questions, and we can start looking at things.

- **Hand them the mouse**

Now I’m going to ask you to try doing some specific tasks. I’m going to read each one out loud and give you a printed copy.

As much as possible, it will help us if you can try to think out loud as you go along.

- **Hand the participant the first scenario, and read it aloud.**
- **Allow the user to proceed until you don’t feel like it’s producing any value or the user becomes very frustrated.**
- **Repeat for each task or until time runs out.**

Do you have any questions for me, now that we’re done?

- **Give them their incentive**
- **Stop the screen recorder and save the file.**
- **Thank them and escort them out.**
13 Appendix D: Tasks for Students – Halifax Campuses

1. **Task:** Take a look at the homepage  
   **Scenario:** I’m going to ask you to look at this page and tell me what you make of it: what strikes you about it, what can you do here, and what it’s for. Just look around and do a little narrative. You can scroll if you want to, but don’t click on anything yet.  
   **Prompting questions:** Look over the tabs and links and share what you think these mean and what you think will happen if you click on them. Are there any words or labels you don’t understand?  
   What’s your general impression of the homepage?

2. **Task:** What are the library operating hours?  
   **Scenario:** You need to take out a book from the Killam library before your 8:30 Friday class.  
   Find what time the Killam Library opens on Fridays to see if you are able to take out the book before your class.

3. **Task:** Register your DalCard  
   **Scenario:** You are a new student to Dalhousie and need to borrow a book for an assignment, but first you need to set up your DalCard as your library card.  
   Register your DalCard as your library card.

4. **Task:** Document Delivery  
   **Scenario:** You need a book for a research paper, but it is not available from any of the Dalhousie Libraries or Novanet Libraries. You really need this book to complete your research.  
   Find information about how you can borrow this book from another library.

5. **Task:** Refworks  
   **Scenario:** You are looking for a way to manage the growing list of references for a major research paper. A professor mentions something about Refworks, but you forget the details.  
   Find information about Refworks to see if this tool works for you and if you are eligible to use it.

6. **Task:** Printing services  
   **Scenario:** You need to print a 40 page article to read before class. You’ve tried reading it online, but you go cross-eyed at page 20. You don’t have a printer at home, and need to print it on campus. The closest library to you is the Sexton library.
Find out how much it will cost to print the 40 page article and where the printers are located in the Sexton library.

7. **Task**: Renew books  
   **Scenario**: You took out three books from the Kellogg library several weeks ago and just received an email that they are due back at the library tomorrow! You still need them to work on your assignment, so will have to renew them.

Find out how renew your library books.

8. **Task**: Book a study room  
   **Scenario**: You and your group are looking for a quiet space on campus to finish an assignment.

Find and book a study room in the Kellogg Library.

9. **Task**: PubMed Database  
   **Scenario**: You are writing a paper on juvenile diabetes and need to find a database of medical literature. You are told by your professor that you should start your research using PubMed.

Access the PubMed database from the library’s website.

10. **Task**: Subject Guides  
    **Scenario**: You are a fourth-year chemistry student, you decide to take a first year philosophy course “Ethics in Science”. Your first assignment is very different from the work you’ve done previously and don’t know where to start researching. You are only comfortable using chemistry journals and databases, and they don’t have the information you are looking for.

Find the most important resources for philosophy so you can start researching your topic.

11. **Task**: APA Citation  
    **Scenario**: On your last assignment your professor docked you several marks for incorrect APA citation and formatting. On the next assignment, you want to get full marks for APA citation and formatting.

Using the library website, find out how you will properly cite and format your next assignment.
14 Appendix E: Tasks for Student - Agricultural Campus

1. **Scenario:** I’m going to ask you to look at this page and tell me what you make of it: what strikes you about it, what can you do here, and what it’s for. Just look around and do a little narrative. You can scroll if you want to, but don’t click on anything yet.
   **Prompting questions:** Look over the tabs and links and share what you think these mean and what you think will happen if you click on them. Are there any words or labels you don’t understand?
   What’s your general impression of the homepage?

2. **Scenario:** You need to take out a book from the MacRae library before your 8:30 Friday class.

   Find what time the MacRae Library opens on Fridays to see if you are able to take out the book before your class.

3. **Scenario:** You are a new student to Dalhousie and need to borrow a book for your first assignment, but you need to set up your DalCard as your library card.

   Register your DalCard as your library card.

4. **Scenario:** You need a book for your fourth-year seminar research paper, but it is not available from any of the Dalhousie or Novanet Libraries. You really need this book to complete your research.

   Find information about if you can borrow this book from another library outside of the province.

5. **Scenario:** You are looking for a way to manage the growing list of references for a major research paper. A professor mentions something about Refworks, but you forget the details.

   Find information about Refworks to see if this tool works for you and if you are eligible to use it.

6. **Scenario:** You need to print a 40 page article to read before class. You’ve tried reading it online, but you go cross-eyed at page 20. You don’t have a printer at home, and need to print it on campus.

   Find out how much it will cost to print the 40 page article and where the printers are located in the MacRae library.
7. **Scenario**: You took out three books from the MacRae library several weeks ago and just received an email that they are due back at the library tomorrow! You still need them to work on your assignment, so will have to renew them.

Find out how renew your library books.

8. **Scenario**: You and your group are looking for a quiet space on campus to finish an assignment.

Find and book a study room in the MacRae Library.

9. **Scenario**: You are writing a paper on juvenile diabetes and need to find a database of medical literature. You are told by your professor that you should start your research using PubMed.

Access the PubMed database from the library’s website.

10. **Scenario**: You are a fourth-year chemistry student, you decide to take a first year philosophy course “Ethics in Science”. Your first assignment is very different from the work you’ve done previously and don’t know where to start researching as you are only comfortable using chemistry journals and databases, and they don’t have the information you are looking for.

Find the most important resources for philosophy so you can start researching your topic.

11. **Scenario**: On your last assignment your professor docked you several marks for incorrect APA citation and formatting. On the next assignment, you want to get full marks for APA citation and formatting.

Using the library website, find out how you will properly cite and format your next assignment.
15 Appendix F: Tasks for Faculty Members

1. **Scenario:** I’m going to ask you to look at this page and tell me what you make of it: what strikes you about it, what can you do here, and what it’s for. Just look around and do a little narrative. You can scroll if you want to, but don’t click on anything yet.  
   **Prompting questions:** Look over the tabs and links and share what you think these mean and what you think will happen if you click on them. Are there any words or labels you don’t understand?  
   What’s your general impression of the homepage?

2. **Scenario:** You need to take out a book from the Killam library before your 8:30 Friday class.  
   Find what time the Killam Library opens on Fridays to see if you are able to take out the book before your class starts.

3. **Scenario:** You are a new to Dalhousie and need to borrow a book, but first you need to set up your DalCard as your library card.  
   Register your DalCard as your library card.

4. **Scenario:** You need a book for your research paper, but it is not available from any of the Dalhousie or Novanet Libraries. You really need this book to complete your research.  
   Find information about how you can borrow this book from another library.

5. **Scenario:** You are looking for a way to manage the growing list of references for a major research paper. A colleague mentions something about Refworks, but you forget the details.  
   Find information about Refworks to see if this tool works for you and if you are eligible to use it.

6. **Scenario:** You took out three books from the Killam library several weeks ago and just received an email that they are due back at the library tomorrow! You still need them, so will have to renew them.  
   Find out how to renew your library books.

7. **Scenario:** You are writing a paper on juvenile diabetes and need to find a database of medical literature. You are told by your subject librarian to start your search using PubMed.
Access the PubMed database from the library’s website.

8. **Scenario:** You just presented your research at a conference, and would like to make your conference presentation freely accessible to the research community via the Dalhousie Libraries institutional repository.

Find information about how you can upload your conference paper to DalSpace.

9. **Scenario:** You are teaching a first year course, and would like to place a copies of the course materials on reserve for student use. You find that the library has two of the three books already in the library, and the third book is from your personal collection.

Find information about how you can place resources on reserve for your students.

10. **Scenario:** You would like to invite the subject librarian for your Faculty/Department to one of your classes to present how to find and use the library resources for an upcoming research paper.

Find the contact information for your subject librarian.