Usability Test: Masthead Navigation

Recommendations

1. Consider changing the helper text in the site search bar on the Duke University Library homepage to emphasize that it searches the DUL website, e.g. “Search our website, articles, books & more.” Because of the length of the site search helper text, the fact that it searches the site is obscured unless a user clicks into the search bar.

2. Consider changing the text of the “Map/Info” button, e.g. to “Find This” or “Where is This?” The “Info” text may over-promise what the link contains; one participant attempted to use this link to find hours of operation for the library.

3. Continue to evaluate the usability of the hamburger menu. Consider doing future usability tests that includes a task that is not as suited for a Google search as a search for library hours of operation or performing an A/B test that compares whether users are more likely to use the library menu if it is permanently visible versus when it is hidden.

4. Consider doing further testing on branding for the catalog. Participants were familiar with the term and there was some evidence that they associated the catalog with books and not with online databases. However, we did not receive good data when we asked participants to describe the catalog because they seemed unsure what we were asking.

Background

This study was conducted to test the overall usability of the masthead for the new Duke University Libraries catalog, explore user conceptualizations of the catalog, evaluate user navigation paths, and provide recommendations for future changes and further testing. The study was developed and conducted by Erin Black and Cami Goray with guidance by Emily Daly.

On October 31, 2018, we recruited seven participants at a table set up in the lobby of Perkins Library at Duke. Data from the pilot test is also included in this report. Each participant was given a voucher for a coffee or snack in exchange for their time. Erin Black moderated and Cami Goray took notes.

The development versions of the Duke University Libraries homepage (https://dev.library.duke.edu/) and the new catalog (https://find-dev.library.duke.edu/) were used for testing.

Questions we hoped to answer through this study:

For more information, please contact emily.daly@duke.edu
1. What does “catalog” mean to users?
2. How do users interpret the different search options on the library homepage?
3. How do users navigate between the catalog and other parts of the Duke Library website?
4. Do users notice the hamburger menu and, if so, how do they interpret it?

**Participants**

**Participant demographics:**
- 4 Undergraduate students
- 3 staff members
- 1 Graduate student

**Participant familiarity with Duke University Library’s current catalog:**
- 3 were “Extremely familiar”
- 3 were “Moderately familiar”
- 1 was “Very familiar”
- 1 was “Not familiar at all”

Pre-test questionnaire responses are available at: [https://ql.tc/UsZHjS](https://ql.tc/UsZHjS)

**Key findings**

1. What does “catalog” mean to users?
   It seemed difficult for participants to articulate an answer to our question, “How would you describe the library catalog?” Overall, participants interpreted this as a question asking about their experiences with the catalog. We did not get much data about participant perceptions of the types of material contained in the catalog.

   - 3/8 participants mentioned books in their description without mentioning articles or databases
   - 3/8 participants offered evaluative comments such as “pretty good” or “frustrating”
   - 3/8 participants remarked on the size of the collection, using terms such as “vast” and “encompassing”

During our post-test questionnaire, we asked participants if their understanding of the catalog had changed.
Notably, one participant (an infrequent catalog user) said that they now understood the catalog as the place to find any Duke University Library resources. This may indicate that the scope of the catalog is vague, especially to new users.

Another participant who was also an infrequent user referred to the Books & Media tab and said, “I didn’t even think of this as a catalog...in fact I didn’t really pay attention to it.”

3/8 participants said that their understanding had not changed

2/8 participants commented on the interface design

2/8 participants said that they’d learned something about the navigation

2. How do users interpret the different search options on the library homepage?

The main catalog search bar seemed to be the most obvious navigation element on the page for users to start their search, and the majority of participants said they would start a research task there.

- 6/8 participants said that they would start their search in the main catalog search bar
  - 2/8 specifically mentioned that they would use the “All” tab
- 1 participant said that they would use the “Research Databases” link below the search bar
- 1 participant said that they would ask a librarian for the “human connection”
- 1 participant read the helper text in both the main catalog search bar and the site search bar in the top right corner and said they were “redundant” because both mentioned searching articles and books
- No participants used the site search box to search the catalog or said they would start research there

No participants mentioned that they could search the Duke University Library website when asked to describe what they could do on the library homepage. Overall, participants seemed confident when evaluating what they could do on the homepage and where they would start research.

3. How do users navigate between the catalog and other parts of the Duke University Library website?

After participants performed a search of their choice, the moderator pointed out a resource in the results and asked participants to find the hours of operation that the library holding the resource was open. The moderator chose resources that were not located in Perkins, Rubenstein, or Bostock libraries.

The test showed that participants take a variety of paths to achieve the same goal e.g., find a library’s hours of operation. The majority of participants either performed a Google search or went to the Duke University Libraries homepage to complete this task.
Participants who completed the task successfully on their first try tended to do so quickly and confidently.

<table>
<thead>
<tr>
<th>Navigational Path</th>
<th>Google</th>
<th>DUL homepage</th>
<th>Hamburger Menu</th>
<th>Location facet</th>
<th>Item page</th>
<th>Catalog search bar</th>
<th>Map/Info button</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of participants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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</tr>
<tr>
<td><strong>Total</strong></td>
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<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1. The navigational paths participants took to find library hours of operation.

- 4/8 participants were successful on the first attempt
  - 3/8 used Google
  - 1/8 used the hamburger menu
- 4/8 participants were unsuccessful on the first attempt
  - 1 clicked on the item result for information about library location
  - 1 clicked on map/info button for the item in the results which produced a pdf of the library building map
  - 1 clicked on the library location facet in the left sidebar
  - 1 typed “hours of operation for the ford library at duke university” in the catalog search bar
- Of the 3 participants who navigated to the Duke Libraries homepage
  - 2/3 clicked on the Duke University Libraries logo in the masthead
  - 1/3 opened a new tab and typed in the Duke University Library website ([https://library.duke.edu/](https://library.duke.edu/))

4. Do users notice the hamburger button and, if so, how do they interpret it?
   While some participants used or said that they had noticed the hamburger menu, it was unclear whether participants understood the scope or contents of the hamburger menu.

- 2/8 participants used the hamburger menu
- 2/8 participants were asked if they had noticed the hamburger menu after they completed the task and both said they had
  - One of these participants said, “Most websites are poorly designed and [the hamburger menu] does nothing, so I usually skip it.”
  - The other participant said, “I just thought it would be easier to go to the homepage.”
After participants completed the task, the moderator pointed to the hamburger menu and asked participants what the symbol meant to them. Even though few participants used the hamburger menu, the majority were familiar with the symbol.

- 6/8 participants referenced options, menus, or navigation
  - 3/8 participants said that the symbol represented that there were more “choices” or “options” available.
    - One of those participants said they expected the menu to contain search options but indicated uncertainty about its contents.
  - 2/8 participants said that the symbol indicated a drop-down menu
  - 1/8 participants said it was a generic navigation button
- 2/8 participants did not say what the symbol meant to them

5. What stood out to users on the catalog page?
Overall, participants were drawn to elements with contrasting colors, such as the item availability text or the “Request” button.

Half of the participants mentioned that the item availability text stood out to them. While the current catalog also displays the item availability text in contrasting colors (figure 1), the new catalog results page (figure 2) is not as dense with text so the availability text stands out more. The small change in the formatting of the item results made a large difference in what users noticed.

![Originals: how non-conformists move the world](image_url)

*Figure 2. Availability status in the current catalog.*
In addition, buttons tended to attract users’ attention, including the “View Online” button, the “Request” button, and the TRLN/Duke Libraries toggle button.

- 4/8 participants said the item availability text
- 3/8 participants said the View Online button
- 2/8 participants said the library facets sidebar
- 2/8 participants said the TRLN/Duke Libraries toggle button
- 1/8 participants said the Request button
- 1/8 participants made an evaluative comment, saying the page looked “very clean”
Appendix A: Masthead Navigation test script

Hello [NAME]. Thank you for volunteering to participate in this study. My name is [NAME] and I will be walking you through our tasks today. This is [NAME] and she will be taking notes. I will mostly be reading from a script to ensure each testing session is as consistent as possible.

The goal of this study is to test the usability of a new search tool for library resources and materials here at Duke.

All of the tasks we are going to complete today should take around five minutes total, but don’t worry about going too fast or too slow. There is no right or wrong action, because I am testing the system, not you. I will ask you to think aloud while you complete tasks so that I can get an idea of the thought process behind your behaviors. Your input is very valuable to our research so please be as honest as possible when providing feedback. If you have any questions as we go along, don’t hesitate to ask. Do you have any questions for me so far?

We will be audio recording this session. Your responses will be confidential and the recordings will be deleted at the conclusion of this study. Before we get started, please read this form and, if you agree, fill it out.

[GIVE PARTICIPANT COPY OF CONSENT FORM]

Thank you.

Now I’d like you to answer a few questions about yourself and your previous experience with the library. Please let me know if you’d like me to repeat anything or if you have any questions.

[PRE-TEST QUESTIONNAIRE]

Thanks. If you are ready to begin, I am going to start recording.

Now I’m going to ask you to try doing some specific tasks. Please remember to think aloud as you complete each task.

[TASK 1]

[PULL UP BROWSER TO LIVE HOMEPAGE]

A. Without clicking on anything, briefly describe what you think you can do here.
B. Still without clicking anything, tell me where you would start if you were doing research.
   Research databases

[TASK 2]

[OPEN A NEW WINDOW THAT HAS THE DEVELOPMENT PAGE OPEN WITH BOOKS & MEDIA TAB SELECTED]
A. Search for something you’re interested in.
   o Does anything stand out about this page?

[TASK 3]
[*BASED OFF OF PREVIOUS SEARCH RESULTS]*
A. Insert question(s) here, e.g. How would you find the hours to Lilly Library? Show me how you would find a scanner in [NAME OF LIBRARY THAT THE PARTICIPANT IS SEARCHING.]

[IF USER IS STUCK]
[PROMPT] Is there anything on this page that could help you find that information?
Thank you.

[ASK EVERYONE] What does this [SHOW HAMBURGER MENU SYMBOL] mean to you?

[END TASKS]

[POST-TEST QUESTIONNAIRE]

Great! That concludes our final task.

Do you have any more questions for me?

Thank you so much for your participation in this study. Here is your voucher for The Perk; you can use it until [TIME] today.

Have a great day.
Appendix B: Pre-Test Questionnaire

1. Which of the following describes you best?
   - Undergraduate student
   - Graduate student
   - Doctoral candidate
   - Faculty
   - Staff
   - Other: ____________

2. IF UNDERGRAD/GRAD/DOC: How many years have you been enrolled at Duke?
   ______________________

3. IF UNDERGRAD/GRAD/DOC: What is your major or program of study?
   ______________________

4. IF FACULTY/STAFF: How many years have been in your current position?
   ______________________

5. IF FACULTY/STAFF: What is your department?
   ______________________

6. On average over the last semester, how frequently have you visited the Duke University Libraries website for research purposes?
   - Never
   - Once or twice
   - Monthly
   - Weekly
   - Daily

7. How familiar are you with using the libraries’ current catalog to search for a book, journal, or other materials?
   extremely familiar – very familiar – moderately familiar – slightly familiar – not familiar at all

8. How would you describe the library catalog?
Appendix C: Post-Test Questionnaire

1. After participating in our study, has your understanding of the catalog changed?
   ____________________________

2. Do you have any other comments or suggestions?
   ____________________________