Erin Black and Cami Goray
Assessment & User Experience Department
December 5, 2018

Usability Test: Refining Searches

Recommendations

1. Consider adding options such as "View Online," "Request" and the availability status to the Bento results for Books & Media.
    - In multiple tests, participants have said that the most salient features on a page were the above; in addition, they have also mentioned that they don't like having to click through to an item to access these options
    - During this test, participants made statements to suggest that they were comparing this ease of access to Bento results rather than the existing catalog search results page
2. Assess whether adding a help page or tooltip with information on how the relevance ranking algorithm works would be beneficial.
    - 2/7 participants mentioned that the ranking mechanism was unclear
    - However, participants only mentioned this after being specifically prompted for things they disliked, which suggests this may be a low-priority issue

Background

This study was conducted to test how users refined their searches as well as how they started new searches from an existing search in the Duke University Libraries catalog. In addition, it explored user conceptualizations of the catalog, evaluated user navigation paths, and provided recommendations for future changes and further testing. The study was developed and conducted by Erin Black and Cami Goray with guidance by Thomas Crichlow.

On November 26, 2018, we recruited six 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. Cami Goray moderated and Erin Black 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:

1. How do participants refine an existing search from the search results page?
2. What paths do participants take to start a new search from the search results page?

For more information, please contact emily.daly@duke.edu

3. What steps do participants take to use an item from the results list?
4. What steps do participants take to use an item from an item page?
5. What are participants' impressions of the search results page?
6. What types of resources do participants think the catalog contains?

Participants

Participant demographics:

- 3 undergraduate students
- 2 graduate students
- 1 doctoral candidate
- 1 staff member

Participant familiarity with Duke University Library's current catalog:
- 5 were "Very Familiar"
- 2 were "Extremely Familiar"

Participant usage of Duke University Library's current catalog over the last semester:
- 4 used the current catalog weekly
- 2 used it daily
- 1 used it monthly

Pre-test questionnaire responses are available at: https://ql.tc/aNgNqD

Key findings

Our findings for this study were, in general, aligned with prior observations. We once again found that participants take multiple paths to refine searches, although most used the search bar in the masthead or the Advanced Search, which is located directly beneath the masthead search bar. Similarly, participants described a variety of paths they would take to access an item on the results page or from an item page.

1. How do participants refine an existing search from the search results page?
   We asked participants to refine an existing search from the search results page. We found that participants used a variety of paths, but most clicked back into the masthead search bar.

   - 4/7 participants used the masthead search bar
     - o 2/7 used the Author field delimiter in the drop-down menu

- o 2/7 added the author's name to their existing keyword search
- o One of these four initially attempted to use CTRL+F to find an item by a specific author; when that failed, the participant used the masthead search bar
- 2/7 participants used the Advanced Search link
  - o 1 put the author's name in the Author field and the search phrase (war of the worlds) in the Title field
  - o 1 put the author's name in the Author field and the search phrase in the All field.
- 1/7 participants used the DUL logo in the top left corner to return to the Duke University Libraries homepage: that participant changed their search in the Books & Media tab, using the Author field delimiter in the drop-down menu

2. What paths do participants take to start a new search from the search results page?

Similarly to our first question, this task also revealed that users take a variety of paths start a new search from scratch. Over half of the participants used the top search bar to refine their search while on the search results page.

- 4/7 participants used the top search bar
  - o All four performed a keyword search without selecting a field delimiter from the drop-down menu
- 2/7 participants used the DUL logo
  - o 1 initially returned to the homepage to perform an article search, but used the Books & Media tab after being redirected
  - o 1 used the Author field in the dropdown menu
- 1/7 participants used the "Start Over" button and the masthead search bar, evaluated their results, and then clicked the Advanced Search link
  - o This participant said, "Well, it depends on what I'm looking for," and articulated a difference between a known-item search and exploratory search

3. What steps do participants take to use an item from the results list?

Participants would also use a variety of paths to use an item from the results list. This task was designed such that every participant was attempting to access the same item, a physical book. While few participants referred to the call number by that name, all of those who mentioned visiting the library to acquire the item knew they would need the call number to do so.

- 3/7 participants would use the request button
  - o One of those participants would then use ILL if the book were not available at Duke
- 3/7 participants would go to the library to retrieve the book
  - o One of those participants would ask a librarian for help finding the book

- o   2/7 would go to the stacks; both of these mentioned looking on the side of the shelves until they found the range they needed and then narrowing down to the item itself
- 1/7 participants said they would either use the request button or visit the library, depending on their needs

4. What steps do participants take to use an item from an item page?

Overall, we did not see significant differences in the paths participants would take from the results list and the item page. It's important to note that this task was designed such that every participant was attempting to access a different item; therefore, some of them saw a "View Online" button while others did not.

- 3/7 participants would click the "View Online" button
  - o   All of the participants presented with a "View Online" button clicked it
  - o   Some participants mentioned a preference for online resources, making comments such as "This is interesting and I can view it online so that's interesting and immediate" and "I personally like online stuff, so I guess I'd click stuff that says view online."
- 1/7 participants would use the request button
- 1/7 participants would go to the library to retrieve the book
- 1/7 participants would use the request button unless they needed it immediately, in which case they would go to the library
- 1/7 participants would ask a librarian
  - o   This participant was unable to determine the location of an item (an archival resource) based on the information in the catalog

5. What are participants' impressions of the search results page?

We asked participants what stood out to them on the search results page. Many participants noticed the library location facet in the left sidebar. Others mentioned features that are missing from the Bento results page, which aligns with previous test results.

- 5/7 participants mentioned the library location facet
- 2/7 participants mentioned the first result on the page
- 2/7 participants mentioned the request button
- 2/7 participants mentioned the item type
- 2/7 participants mentioned online resources
  - o   1/2 specifically mentioned the "View Online" button
- 1/7 participants mentioned the availability status text

6. What types of resources do participants think the catalog contains?

Many participants were confused by the word "resources" in this question. In addition, several were clearly offering non-exhaustive lists. Participant responses ranged from four to nine items each, with three participants listing four things. Therefore, all of our participants conceptualized the catalog as containing more than books. Furthermore, participant responses included physical items, online items, and tools and services; plainly, they understood the catalog as a rich and diverse resource.

What do participants think the catalog contains?

Resource Type	Number of Times Mentioned
Books	7
Movies	6
Articles	4
Archival Resources	3
Journals	2
Subject-Specific Resources	2
E-books	2
Ask a Librarian	2

Table 1. Resources that participants named and the number of times each was mentioned.

In addition to the above (Table 1), six things were mentioned only once: magazines, advanced search, interlibrary loan, media, sounds, and events.

7. What participants liked and disliked

Likes

Overall, participants were complimentary about the new catalog page. Two participants were unable to mention anything they disliked.

- 3/7 participants mentioned the facets
  - 2 of those mentioned the library location facet
  - 2 of those mentioned the resource type facet
  - 1 of those mentioned the About Topic facet
- 1 participant said they liked seeing how many results were returned
- 2/7 participants said they liked the images displayed by each item

Several participants mentioned that they liked certain features being displayed on the results page, as opposed to having to click through to the item page. This seems to be in comparison to how Bento results are currently displayed.

- 2/7 said they liked that the "View Online" button was displayed
- 1/7 liked that the call number was displayed
- 1/7 liked that the availability status was displayed
- 1/7 liked that the request button was displayed

Dislikes

Although there were three participants who said that they liked the facets, one participant reported that they did not like the facets, describing them as "visual overload". Two users were confused about how the relevance ranking of results worked.

- 2/7 mentioned that they did not understand how the results were ranked
  - One commented that, "I don't really know how I'm receiving this results...so why is this book from 2016 up near the top, why is this journal first?" while another said that it seemed "random."
- 1/7 participants said that non-standard call numbers for archival materials were confusing
  - That participant did not know where to find the University Archives or RUB Bay
- 1/7 mentioned the facets, calling them "information overload"
- 1/7 wanted to be taken to the Divinity Library website when that library was selected in the location facet; this participant was unfamiliar with the main DUL website, and thought that the Divinity Library website used a different catalog

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 ten 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.

[START SCREEN 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

[OPEN the Duke Libraries homepage. The search bar should be set to the Books & Media tab.]

[GIVE the participant the first scenario] **Please read this aloud.**

> *You want to find something about "war of the worlds." Please perform a search using that search phrase.*

[OBSERVE: Where does the participant perform the search?]

[Once participant is on the search results page, ASK] **Does anything stand out about this page?**

Task 2

[GIVE the participant the second scenario] **Please read this aloud.**

> *You remembered that the author of the "war of the worlds" book you want to read is Brad Schwartz. Please find a book about "war of the worlds" by an author named Brad Schwartz.*

[OBSERVE: How does the participant refine their search? Do they use the search bar? Advanced search? The facets? Go back to the DUL homepage? Start over button?]

[On search results page, ASK]
Based on what you see, if you wanted to use the book by Brad Schwartz, how would you do that?

[OBSERVE: What path would the user take?]

Task 3

[WITHOUT changing the screen]

[GIVE the participant the third scenario] **Please read this aloud.**

> *You're doing research on something you're interested in. Please search for a resource you could use from Duke Libraries.*

[OBSERVE: How does the participant start an entirely new search?]

From these results, find an item that looks interesting and click on it.

[On item page, ASK]
Based on what you see, if you wanted to use this item, how would you do that?

[OBSERVE: What path would the user take?]

[END TASKS]

[POST-TEST QUESTIONNAIRE]

[END TEST]
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

[MODERATOR PULLS UP SEARCH RESULTS PAGE]

1. What two things do you like most about this page?
2. What two things about do you like the least?

[MODERATOR OPENS TAB WITH GOOGLE]

3. While performing the tasks, you used the library catalog. What kinds of resources do you think you could find in the catalog? Remember, there are no wrong answers.
4. Do you have any other comments or suggestions?