

Usability Test: TRLN Discovery Facets

Recommendations

1. Consider adding a facet to filter by physical availability status.
2. For facets with many options, evaluate methods for orienting users after they click “more ».” Consider adding a search bar, noting the number of pages of results and providing a way to jump to a specific page (e.g., the bottom of a Google search results page), or displaying all the options on a single page with a scroll bar.
3. Consider changing the hover behavior for the subject headings under “This Item is About” on item pages. Currently, there is both an underline and a highlight; however, the highlight applies to the entire subject heading, while the underline applies only up to where the cursor is hovering. We recommend using only one of these, not both. Also, we recommend that the hover behavior only apply up to where the cursor is (e.g., for Tourism > Canada > Statistics, only Tourism > Canada should be highlighted or underlined if the user hovers over Canada). As we believe the developers are aware, the highlight color doesn’t meet the AA level for contrast with the background or with the text color under WCAG guidelines. If the highlight were higher contrast, we recommend it over the underline.

Background

This study was conducted to test the overall usability of the TRLN Discovery interface, evaluate how users interacted with the TRLN Discovery catalog facets, and provide recommendations for future changes and further testing. It builds on prior findings made in June and August 2018 by Yu Yuan and Anne Le-Huu Pineault. The study was developed and conducted by Erin Black and Cami Goray with guidance by Emily Daly.

On October 3, 2018, we recruited seven participants at a table set up in the lobby of Perkins Library at Duke. Data from the pilot test is not 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.

Duke’s instance of TRLN Discovery (<https://lib-trln-blacklight-dev-01.oit.duke.edu>) was used for testing.

Questions we hoped to answer through this study:

1. Can users find and interpret facets and labels to narrow down their search results?
2. Do participants accurately interpret online and physical access information on records pages?

3. Do users notice the various subject heading links and do they understand their function (“This item is about” section)?
4. Can participants use the toggle button to expand their search to all TRLN libraries?
5. What features or design elements are liked best, and which could be changed to make TRLN Discovery more usable?

Participants

Participant demographics:

- 3 Undergraduates
- 3 Graduate students
- 1 Doctoral candidate

Participant familiarity with Duke University Library’s current catalog:

- 3 were “Moderately familiar”
- 2 were “Very familiar”
- 2 were “Extremely familiar”

Pre-test questionnaire responses are available at: <https://gl.tc/8Otb2Z>

Key findings

1. Can users find and interpret facets and labels to narrow down their search results?

Overall, participants were easily able to find and understand facets in the left sidebar to narrow down their search results. Our findings indicated that users take many paths when narrowing search results or revising their searches.

- Participants were asked to find currently available items at Perkins
 - 7/7 participants quickly found the Library Location facet and used it without difficulty
 - All participants were confused by the phrasing of this task and searched for a facet that would allow them to filter by physical availability
 - 4/7 participants pointed out the availability status on the brief item record displayed on the search results page
 - One user later gave feedback that they would like an availability status filter
 - Another user said, “I don’t know if you can sort by currently available...I guess I don’t even worry about that.”
- Participants were asked to “narrow [their] results” based on topic
 - 2/7 used the About Topic facet

- 2/7 used the search bar at the top of the page
- 2/7 used the “Edit Search” link
- 1/7 used the “Advanced Search” link
- Next, participants were asked to narrow their results based on another topic
 - 3/7 used the About Topic facet; one of those attempted to revise their search in the search bar first, but the revised search had no results
 - 3/7 used Edit Search
 - 1/7 used the search bar

2. Do participants accurately interpret online and physical access information on records pages?

Overall, participants were able to easily interpret online and physical access information on records pages.

- 7/7 participants were able to identify an item’s physical availability through its short-form record on the results page
- 7/7 participants quickly identified the online access button, despite differences in display text (e.g. “getit@Duke,” “Online Access”)
- 7/7 participants quickly found the “Available Online” filter
 - One participant “like[d] anything with check boxes”
- When asked to identify the location of a TRLN book, 1/7 participants did not notice the “UNC Libraries” heading and named the branch library instead.

3. Do users notice the various subject heading links and do they understand their function (“This item is about” section)?

Participants were directed to the “This Item is About” section and asked what they thought it was for. Most participants said it listed topics the item covered and most participants thought the links would take them to related materials. However, no participants noticed that clicking different parts of the subject heading links would produce different results.

- 5/7 participants said the section listed topics covered by the item
 - 1 of these participants mentioned that they were like subject headings
- 2/7 participants did not say what they thought the “This Item is About” section was for

- 6/7 participants said the subject heading links would lead to related materials
- 1/7 participants said the subject heading links would narrow their search
- 0/7 participants noticed that clicking different parts of the subject heading links would lead to different results

Overall, participants seemed unfamiliar with the concept of subject headings and read the terms as keywords.

- “I think it’s categorized by type and some similar words but I don’t know why the first [result] came up.”
- One participant read the subject headings backwards, with the rightmost term being the broadest
- One participant, who had previously mentioned subject headings, noticed that the breadcrumbs at the top of her results said “subject (begins with): tourism” and wondered what it meant

4. Can participants use the toggle button to expand their search to all TRLN libraries?

When prompted to expand their search from a results page, most of the participants found the toggle button after some exploration, but one participant did not locate the toggle at all.

- 2/7 participants quickly noticed the toggle
- 4/7 participants found the toggle after exploring the page
 - All 4 of these participants explored the “Library Location” facet before finding the toggle. Participants were asked to use the “Library Location” facet during a previous task, which may have affected this finding.
 - 2 of these participants referenced WorldCat or TRLN while looking for the toggle, indicating that they may have been scanning for those terms
 - “To be honest, I would use WorldCat...I don’t know how you would do it from this page.”
 - “I don’t really remember what the acronym for Triangle libraries was.”
- 1/7 participants did not find the toggle
- In the post-test questionnaire, 2/7 participants mentioned that the toggle was unclear or not prominent enough

All participants were able to quickly expand their search to TRLN libraries from the “No Results” page. Because 6/7 participants used the toggle in a previous task, this may indicate recall of its placement rather than recognition.

- 4/7 participants used the toggle button
- 3/7 participants used the link below the “No Results” message (Figure 1)

No results available at Duke Libraries

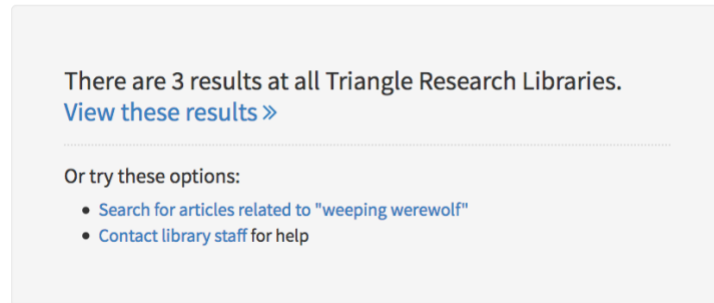


Figure 1. The No Results message displayed during the test.

5. What features or design elements are liked best, and which could be changed to make TRLN Discovery more usable?

Participants Liked

- 3/7 participants said they liked the facets and ability to narrow search
- 3/7 participants said they liked the location facet
- 2/7 participants said the availability status (not in sidebar) was useful
- 1/7 participants found the facets, breadcrumbs, and Online Availability checkbox to be familiar from e-commerce sites
- 1/7 participants found the Advanced Search familiar from their experiences with the current catalog and online databases

Participants Disliked

- 1/7 participants found the "About Topic" facet difficult to use when the topic they wanted to narrow to wasn't on the first page
- 1/7 participants didn't like the aesthetics design, mentioning that "Everything is so white"
- 1/7 participants mentioned that they wanted the Advanced Search to have a database-style functionality that would allow them more control over Boolean operators. They referenced the Advanced Search on PubMed (figure 2).



Figure 2. The Advanced Search builder on PubMed.

Appendix A: TRLN Discover Facets 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. I will mostly be reading from a script to ensure each testing session is as consistent as possible. This is [NAME], and she'll be taking notes.

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 fifteen 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 using the system 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. I may not be able to answer them right away, since we're interested in how people do when they don't have someone guiding them. But if you have any questions when we're done I'll try to answer them then. 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]

[AFTER PRE-TEST]

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.

[PULL UP BROWSER]

[TASK 1]

Now let's say you're doing research on "colonialism". Try searching for that topic. Remember to think aloud while searching.

[OBSERVE: does user use "start over"? back button? just uses the search bar?]

There are a few changes I would like you to perform:

1. Now, you're interested in looking at items that are currently available and that are located in Perkins Library. Show me how you would do that.
[OBSERVE: does user look to the "Library Location" facet in sidebar?]
2. And can you narrow down these results to resources focusing on imperialism?
[OBSERVE: does user look to the "About Topic" facets in sidebar?]
3. What if you wanted to narrow the results to focus on decolonization instead?
[OBSERVE: does user remove facet? use "start over"? back button? just uses the search bar? Does user notice "more>>" and "Next Page" in facet box?]

[ASK: Now that you've gotten acquainted with it, can you tell me if there's anything you found challenging or confusing about the left hand menu?]

Thanks.

[RE-SET SEARCH]

[TASK 2]

Now let's say you're looking for resources about "tourism," and you're especially interested in resources that are available online. Show me how you would find online resources on tourism. Remember to think aloud while searching.

[OBSERVE: does user use "Available Online" option? If so, before or after typing keyword?]

[IF the user didn't select "Available Online," point them to it.]

I am now going to ask you to click on the third item on the list, and I'll ask you some questions about it.

1. How would you go about accessing this item?
[OBSERVE: Can user find and interpret online availability?]
2. Do we have a physical copy of this item here at Duke?
[OBSERVE: Does user distinguish online availability from local availability?]
3. Can you scroll down to "This item is about" and tell me what that section is for?
[OBSERVE: Do users recognize that this section includes subject headings? Do they mention whether those subject headings would influence how they formulate/adjust their search?]
4. What do you expect to happen when you click on the different links under "This is about"? You can take a moment to explore each link.
[OBSERVE: Does the user notice the broader/narrower links on the subject headings? If not, do they notice that the link didn't work as expected?]
[ASK: Were the results what you expected?]

[TASK 3]

Next, I'd like you to go back to your search on "tourism".

[OBSERVE: does the user use "Back to Search" link or the browser's BACK button]

1. Now you'd like to see if there are items on this topic at other universities in the Triangle. Show me how you would do this.

[OBSERVE: does the user look to the TRLN toggle link?]

[If user does not find the expand link, click it for them before the next question.]

2. How many online resources on "tourism" can you find across the different universities in our area?

[OBSERVE: can user find total number of online results?]

[RE-SET SEARCH]

[TASK 4]

Let's say you need the book "This is How You Pitch." Is it available here at Duke?

[IF USER LOOKS THROUGH ALL RESULTS AND SEEMS CONFUSED, SAY It looks like it's not available at Duke AND MOVE TO 4.1]

1. Is there another way to get a copy of this book? Show me what you would do next.

[OBSERVE: can the user locate and interpret the TRLN toggle?]

2. Where is the textbook available?

[OBSERVE: do they notice the difference between the Duke and TRLN interfaces?]

[ASK: I noticed that you [CLICKED ON or DID NOT CLICK the TOGGLE BUTTON]. What do you think of the way this option to search other libraries is displayed?]

[END TASKS]

Great! That concludes our final task. I have some additional questions I'd like to ask you.

[POST-TEST QUESTIONNAIRE]

Thank you! Do you have any more questions for me?

Thank you so much for your participation in this study.

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

Appendix C: Post-Test Questionnaire

1. What two things about this search tool did you like best?

2. What two things about this search tool did you like least?

3. While performing the tasks, you were asked to adjust your search in the left hand sidebar. Tell me about your experience using that sidebar.

4. Do you have any other comments or suggestions?
