Usability Test: ArcLight

Recommendations

1. Make the “containers” information on component pages more prominent, and provide brief instructions on the “Request” page to alert the user to look for the relevant box number on the component page, or to inform them that this page lists all containers associated with the collection.
   
   Alternative # 1: Display information, such as the title of the lowest level component of each box, next to the box number on the “Request” page so the user can understand which boxes are relevant once they arrive at the “Request” page.
   
   Alternative # 2: Direct the user only to the relevant box (as opposed to all the boxes for that collection) on the “Request” page, which would make the process more streamlined for the user.

2. Place “online access” at the top of the “limit your search” bar on search result pages.

3. Make the “show more” button in the navigation tree more prominent. For example, consider changing its color to something more visually salient.

4. Clearly delineate between a collection and a series in the breadcrumb. Consider providing a quick guide for terminology such as “parent collection” and “parent series,” including screenshots for where this information is found on component pages.

5. Consider whether “Index terms” is the most user friendly term available.

Background

This study was conducted to test the usability of Duke University Libraries’ (DUL) new ArcLight collection guides interface for the David M. Rubenstein Rare Book & Manuscript Library. It was the first remote usability test that AUX staff conducted after staff began working remotely due to the COVID-19 pandemic. The study questions were developed by Joyce Chapman and Noah Huffman. The test sessions were conducted by Joyce Chapman, Candice Wang, and Anh Nguyen, with the guidance of Emily Daly. All tests were conducted via Zoom between September 4th and September 15th, 2020. We recruited five novice-user participants from DUL’s newly-created Student Experience Panel (STEP) as well as five experienced users from a pool of Aeon researchers. Joyce Chapman moderated the first novice participant and the first experienced participant; Candice Wang moderated the rest of the participants while Anh Nguyen took notes.

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Questions we hoped to answer through this study:

1. Does the general page layout make sense to users (for search results, collection pages, component pages)?
2. Do users understand how to request materials in a specific box?
3. Do users understand “search within collection” vs. “search across collections”?
4. When viewing a component record, do users understand the context of that component (e.g. its parent collection, parent series, etc.)? Is the breadcrumb trail obvious?
5. Do users use the nav tree to look for relevant components, or the contents list?
6. Can users successfully locate digital content if they’re unable to come to the reading room?

Participants

Novice users:
2 undergraduate students
3 graduate students

Baseline knowledge about collection guide (novice users only):
None of the novice users knew what a “finding aid” or “collection guide” is. However, all were able to infer from the ArcLight homepage that this is a website where they can find archives and manuscripts but not newer materials in other sections of the Duke Libraries.

Experienced users:
1 Duke-affiliated researcher
4 external researchers

Prior experience with archival research:
We asked users what experience they had conducting archival research on a scale of 1 to 5, with 1 being no experience and 5 being very experienced.

Four of five novice users reported having no prior experience with archival research. One novice user reported having used the archives for a class.

One experienced user reported being very experienced (5) with archival research. The other four users reported themselves as a 3 or 4 on the provided scale.
Key findings

1. Does the general page layout make sense to users (for search results, collection pages, component pages)?

All novice users were able to find a collection from the search bar and locate relevant components within the collection. When asked to look for a collection (Task 1), two of five users went to “View all collections” first, then switched back to using the search bar after seeing that there are over 3,000 collections.

In response to the post-test question “What do you think worked well about the interface?”, three of five novice users mentioned layout-related features. One participant reported “the interface design does a pretty good job of funneling me to what I need to see... Most of the things I was looking for were in the first place or two I’d suspect they’d be.” Another participant found the “Limit your search” options on the left of search results helpful. One participant reported that the ArcLight page is similar to the library’s main homepage, which made it easy to navigate.

All five experienced users were successful in finding a collection from the search bar (Task 1). When asked what worked well about the interface, one user mentioned, “…the various ways to search something, which is always good” as well as “the Google-like mechanism to search at the top of the page.” Another user also commented on how “it’s nice there are multiple ways to get to the same material.” Meanwhile, one user said, “The search isn’t intuitive. You have to know how the website is made because sometimes the page has an advanced search, and sometimes it doesn’t.”

2. Do users understand how to request materials in a specific box?

Requesting a specific box (Task 1) based on Container information on the component page was the hardest task for novice and experienced users alike. Surprisingly, more novice users were able to figure out which box to request than advanced users: two of four novices and one of four advanced researchers that made it to the right request page eventually found the Container information.

For the novice users, excluding one participant who accidentally exited ArcLight and went to a different part of the website to request materials, only two novice participants were able to figure out which box they needed to request. These two participants were able to return to the component page to locate container information (one of them by hovering the cursor on the component name in the left-bar navigation tree) after seeing all of the boxes on the “Request” page (see Figure 1). However, they both reported that this step is counterintuitive and that it is unclear what the contents of the boxes are. These two participants also recommended that the “Request” page provide descriptions of the boxes or go directly to the relevant box for the component the user was viewing.
Figure 1

Four of five experienced users were able to successfully locate the request button, although one of them did not see it initially, and the other three were not sure which box number would be needed to complete the request. One experienced user mistook the four boxes on the “request” page to be materials for the specific component page to which they had navigated prior to clicking the “Request” button, rather than all the boxes in that collection. There is no visual indicator that the Request system brings a user back to the top level of a collection, whether or not their search within the finding aid has already narrowed their location to particular boxes. Out of those who were unsure as to the box number, only one was able to eventually find it. The remaining user had to be prompted to use the button. This user mentioned that the request workflow was confusing since it went straight to the boxes and suggested it might be easier to first identify which items a person might want to request.

3. Do users understand “search within collection” vs. “search across collections”? 

When asked to search for new materials in other collections (Task 2), two of five novice users did not start on the intended component page (one used the search bar from the Request page; one used the main search bar). The remaining three participants all noticed the drop-down menu for search context right away and successfully changed it from “this collection” to “all collections,” and two of them reported that the drop-down menu was useful and intuitive.
Four of five experienced users successfully changed the search from “this collection” to “all collections” using the drop-down menu (Task 2). One user went back to the home page instead to search in other collections.

4. When viewing a component record, do users understand the context of that component (e.g. its parent collection, parent series, etc.)? Is the breadcrumb trail obvious?

All five novice users were able to use the breadcrumb trail (see Figure 2) to report the collection and series information of a given component (Task 3). One of the participants initially found the component context information in the left-bar navigation tree. However, two of five participants were unsure of what “collection” and “series” meant due to unfamiliarity with archive terminology.

![Figure 2](image)

All five experienced users were able to locate the breadcrumb trail. However, not all were successful in identifying the information in it. Two users were not able to identify the series information, and one found it through the navigation tree.

5. Do users use the nav tree to look for relevant components, or the contents list?

Four of five novice users successfully used the navigation tree to look for another component in the same collection (Task 3). Three of them used the top search bar to search within the collection first. The specific task required the participant to click on “show more” (see Figure 3) to reveal the whole content list in the collection, and two of the participants took a couple seconds scrolling through the navigation tree before seeing the button. One participant never found the “show more” button and eventually located the component using “index terms” -- a term that they found confusing. The “show more” button is grey with white text, which is not visually salient compared to the blue text in the navigation tree.
All five experienced users tried to use the search bar at the top to search within the collection first and had to be prompted to use the navigation tree. All but one of them, who never saw the “show more” button, were able to successfully locate the information afterwards, though one of them took a minute to see the “show more” button.

When asked to search for digital materials (Task 4), two of five novice users used Advanced Search and clicked on the “Online Access” checkbox (see Figure 4). The remaining three novice participants found “Online Access” among the Limit Your Search options on the left side of search results (see Figure 5) after using the main search bar. However, locating “Online Access” in the left side bar, which is on the very bottom, took a while for two of these participants. One of them initially went to “Format” to look for online options before seeing “Online Access.” In response to the post-test question “what would you change about the interface,” one participant recommended placing “Online Access” at the top. None of the participants seemed to notice the small green icon for online materials.

6. Can users successfully locate digital content if they’re unable to come to the reading room?
Advanced Search

Search in: All Collections
Search field: All Fields
Search for: world war ii

Start Over
Search

Figure 4

LIMIT YOUR SEARCH

Collection
Creator
Date range
Level
Names
Repository
Place
Subject
Format
University Archives Record Group

Online Access

Online access 116

Figure 5
Four of five experienced users were able to check the “Online Access” checkbox found in the advanced search. One user found it on the left hand side of the search results after first trying to use “Format” to identify digital content, just as one of the novice users had. This user mentioned that it was confusing trying to find online information from the home page.
Appendix A: ArcLight test script

Thank you for volunteering to participate in the Libraries’ website usability 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.

We will screen record this test today. It would be anonymous and deleted after we use it to flesh out our notes. [Consent forms were processed via Qualtrics beforehand.]

The Libraries recently updated part of our website, and we’d like to hear your feedback. We have a few general questions and 3 tasks; it should only take around 15 minutes.

Don’t worry about going too fast or too slow. There are no right or wrong actions here because we’re testing the website, not you. We are interested in learning more about how easy it is for people to find materials that they need. You should feel free to provide opinions and feedback whether they are positive or negative; it won’t hurt our feelings. If you could also please tell us what you’re thinking while doing these tasks so that we can get an idea of your thought process, that would be super helpful. Do you have any questions so far?

Before we start the tasks, could you tell us which browser you are using? [If it is not Chrome, Safari, or Firefox, ask them to switch to one of these.]

[Novice users only]

Do you know what a “finding aid” or “collection guide” is? [do not explain if they say no]

Looking at this page https://archives.lib.duke.edu/, what kinds of materials do you expect to find here? What do you expect that you cannot find here?

Now, let’s begin our test. Please share your computer screen on Zoom. [Start screen recording once their screen is shared]. I am beginning the recording now. [Copy and paste each question in Zoom chat]

Task 1:
You are trying to find materials about Black Wall Street in the Pauli Murray Project collection. How would you go about finding the collection, starting from this page https://archives.lib.duke.edu/?

[if the participant does not go to the Pauli Murray Project collection, direct them there.]

If you wanted to come to the library’s special collections reading room to view photographs of the Black Wall Street exhibit in 2007, how would you request this material?
Task 2:
[leave them where they are or bring them back if they’ve left the previous page]
Now, starting from the Black Wall Street Exhibit page
https://archives.lib.duke.edu/catalog/paulimurrayproject_aspace_ref23_kfs, could you search for some materials about Doris Duke in other collections?

[If the participant goes to another page to find information, stop the task here.]

[if they continue searching in the same collection, follow up with]
Can you tell me more about why the search didn’t give you what you were looking for?

Ok! That was really helpful. Let’s keep going.

Task 3:
Looking at this page of Ellen Shipman’s drawings for the Duke Gardens:
https://archives.lib.duke.edu/catalog/uadukegar_aspace_ref566_pso, could you tell me what collection they are part of? And what series in that collection they are located in?

[If the answer is yes, follow up with “How did you know”]

[If the answer is not yes, follow up with]
That’s ok!

Now, what if you want to find the Larry Daniel papers in the same collection?

[If the participant does not use the nav tree, continue.]
3A. Could you find this series using the navigation tree on the bottom left?

[If the user does not have any idea where to go, continue]
3B. That’s ok, this has been really helpful!
Task 4:
Start at this web page: [https://archives.lib.duke.edu/](https://archives.lib.duke.edu/). You are trying to find materials about World War II on this website that are available online. How would you go about trying to find them?

   [If the participant goes to the digital repository website, continue.]

4A. How can you use the page that we started on to find them?

   [If the participant does not seem to know which materials are available online, follow up with:]

4B. How would you tell which of these materials are available online?

Ok, those are all the tasks. Thank you so much for taking the time to complete them! We have just a few wrap-up questions about your experience using this webpage. [Ask Post-Test Questions.]
Appendix B: Post-test questions

1. What experience if any do you have conducting archival research on a scale of 1 to 5, with 1 being no experience and 5 being very experienced?

2. What do you think worked well about the interface?

3. What did you find confusing about using the interface?

4. What would you like to add or change about the interface?

5. What other suggestions or comments do you have?
Appendix C: Recruitment email

The email below was sent to a sample of graduate and undergraduate members of the Duke Libraries’ Student Experience Panel (STEP).

Subject: Calling STEP volunteers: Short Libraries feedback session via Zoom

Body: Dear [first name],

Thank you again for signing up to be a part of the Duke Libraries’ Student Experience Panel (STEP). The Libraries have recently updated part of our website. We are looking for five students who would be willing to share valuable feedback with us via a short Zoom session. The session will take no longer than 15 minutes, and it will be recorded for note-taking purposes. We’ll ask you to try to complete a few tasks on the site while sharing your screen, and to talk out loud about your thought process as you go. There is no need to review the website beforehand. Please note that you will need to use Chrome, Safari, or Firefox browser for the session.

If you are able to help us in the next few weeks, just reply to this email and we’ll set up a time that works with your schedule. We know you are very busy, and we appreciate any time you can give us!

Thank you,

[signature]
Appendix D: Virtual Consent Form

We recorded each test session on Zoom for note taking purposes. The recordings were only shared with DUL staff who were involved in this project, and the recordings were deleted once the research was complete. Prior to the test sessions, every participant signed the following virtual consent form via Qualtrics.

Usability Test Recording Consent Form

Duke Libraries staff are conducting this usability test in order to improve part of our website. As a member of the Student Experience Panel (STEP) or a patron of the Rubenstein Library, you have been invited to participate in a 15 minute session via Zoom. Participation is completely voluntary.

During the session, you will be asked to share your screen and the session will be recorded to check accuracy of note-taking afterward. The recording will be erased after the study is complete, and no portion of the recordings will be shared beyond Duke Libraries staff. Reports of study findings will not include any identifying information, and your name will not be stated on the recording.

Please sign on the line below using your mouse (desktop) or finger (mobile) if you consent to have your session recorded.

_________________________________(sign here)

Please print your name.

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