Usability test report: Bento search

Background
Emily Daly and Joyce Chapman conducted a second round of usability testing on the Bento web interface in the Perkins lobby on September 11, 2014 from 11:00am-12:30pm. A pilot test was conducted on September 10, 2014 with Jeremy Zhang, undergraduate student worker in the Assessment & User Experience Department. The test consisted of a short set of background questions, three tasks, and five post-test questions. The test lasted approximately 10 minutes. See Appendix A for the full test script.

Questions that we hoped to answer through the test included the following

- Can users distinguish between types of resources in each box on the results screen?
- Do users understand the meaning of each box heading on the results screen? Is the help text under each main heading intuitive?
- Can users locate items from the Rubenstein library (currently scattered across a number of boxes in the results screen)?
- Where do users expect to see Rubenstein materials in the results screen?
- Are there other items we should highlight in the Bento results interface?
- What are users’ expectations of the search in the header/masthead – should this be a simple site search, or should we add back the drop-down options for scoping your search?
- Is the search results page load time slow and are users bothered by the speed?
- Users’ general thoughts about the presentation of results

Participants
Seven individuals (excluding the pilot participant) completed the test. Participants included four graduate students (57%), two undergraduates (29%), and one spouse of a faculty member (14%). They represented the following departments: the Divinity School (2, 29%), the Nicholas School of Environment Science (1, 14%), and engineering management (1, 14%). The first year students were not affiliated with any program. When asked whether they had used the library’s website to search for materials before, six (86%) responded that they had. Three use the website about once a week (43%), one participant used the website more than once a week, one uses it once or twice per semester, and the last uses it once per month. When asked if they had used the ALL search previously, 57% believed that they had. Three (43%) had done so about once a week since the beginning of the semester, the final participant had done so on a daily basis.

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Key findings

- Can users distinguish between types of resources in each box on the results screen?
  - Participants had no problem identifying journal articles, books, ebooks, and images. Participants were not certain what types of resources they should expect to see in Books & Media, other than books. There was some confusion over what content was appearing in Our Website and Research Guides. Some participants thought Our Website linked out to external sites, while others thought it was content from DUL’s website.

- Do users understand the meaning of each box heading on the results screen? Is the help text under each main heading intuitive?
  - Users may need additional clarification on some headings. While the descriptive text indicates that movies and music are considered “Media,” participants wanted to know what else appears in the Books & Media box. The explanatory text for Research Guides and Our Website did not seem to clarify content for participants. There was a lot of confusion about which box Special Collections materials would appear in.

- Can users locate items from the Rubenstein library (currently scattered across a number of boxes in the results screen)?
  - All but one participant completed task 2 without assistance, but it was by far the most difficult task to complete. Participants were not sure where such results would appear. Two users suggested adding a “Special Collections” box to the results screen. Several participants attempted to facet their ALL search to materials held in Rubenstein by including the word “Rubenstein” in their search, however, doing so does not achieve the desired results. One user who attempted to do this later found the item in the Endeca interface by faceting to Rubenstein, and said that would have liked the Endeca faceting options on the ALL results screen.

- Where do users expect to see Rubenstein materials in the results screen?
  - Participants were confused about where to look for special collections results. During task 2, participants looked in almost every box, including Books & Media, Our Website, Research Guides, and Other Resources.

- Are there other items we should highlight in the Bento results interface?
  - No

- What are users’ expectations of the search in the header/masthead – should this be a simple site search, or should we add back the drop-down options for scoping your search?
  - Three participants (43%) expected this to be a site search only. Of the three participants who understood that the masthead search was the same as the ALL search, two thought it redundant or confusing. Only one participant interacted with it enough to realize that both the ALL search and the masthead search
actually perform a site search. Once this became clear, he liked the functionality of the masthead search box.

- Is the search results page load time slow and are users bothered by the speed?
  o Yes, the search results page load time was noticeably slow and users’ experience was negatively affected. The delay ranged from two to eight seconds. Because of the delay one participant incorrectly believed that the ALL search doesn’t work if you hit the enter key and that you instead have to press the search button, which he believed to be poor design.

- Users’ general thoughts about the presentation of results
  o Reactions to the new interface were mostly positive; six respondents (86%) specifically mentioned that they liked the interface or it was an improvement over the last interface. Positive feedback was concentrated around the convenience of having all the categories of results on a single page.

Recommendations to Consider
- Consider ways to improve explanatory text under box headings on search results page (in particular, Our Website and Research Guides). Consider whether we need to explain the word “media” better in Books & Media.

- Determine whether Special Collections are appearing in the best locations on the results screen, then clarify to the users where Special Collections materials appear on the results screen. Consider pros and cons of adding a Special Collections results box to results.

- Fix search results page load time, which is currently adversely affecting users.

- Continue conversations around masthead search box. These limited usability results did not provide a compelling argument one way or the other for the functionality of this search, though it was clear that a significant percentage of users expect this search to behave like a typical site search. Consider how to clarify that the Our Website section of results is actually a site search.

- Consider the ways in which the current results screen might be overwhelming to users. Are there simple ways to rectify the impression of clutter (for example, more whitespace)?

- Other recommendations made by users: create a Databases results box, create an Audio results box, add a “most used” or personalizable resource section to the DUL homepage, enable filtering on the ALL results page like on the Endeca results page.
Tasks

Task 1

Task one asked participants to search for a topic of their interest² using the ALL search from the homepage. On the results screen, they were asked to describe the types of resources / materials that can be found using the interface. Participants easily completed this task and found it straightforward. There was some confusion about the meaning of several box headings used in the results screen, in particular the heading “Research Guides,” the phrase “Media” in the heading “Books & Media,” and the heading “Our Website.”

Participants were also asked to identify a resource on the page that might be useful to them and explain what it was. Participants completed this part of the task easily as well.

Some points of confusion identified during this task include the following.

- #1 not sure what the phrase “Internet resource” means when it’s written next to a book.
- #6 Special collections are not obvious from the results page.
- #6 If he were in a hurry he’d never scroll down far enough to see “Images” and other lower boxes in the right column.

Task 2

Task two asked participants to use the ALL search to find the papers of Eliza Dupuy, held by the Rubenstein Library. This was a difficult task because the Eliza Dupuy papers do not appear on the results screen if the search term “Eliza Dupuy” or “Eliza Dupuy Rubenstein” is used, though they will be returned as the first result in Books & Media of “Eliza Dupuy Papers” is entered as the search term. All but one participant found the papers without assistance, but many felt unsure about where to look on the results screen for this type of material. Only one participant entered the search term that returned the item directly on the results screen. Three participants (43%) began by clicking the “American Literacy materials in Special Collections” within the Research Guides box, two participants (29%) went to Books & Media “see all” and used the location facet.

- #1, #2, #6 Research Guides → American Literary Materials in Special Collections → Eliza Dupuy papers
- #4 Books & Media → “see all” → Refines facet by location to Rubenstein → Eliza Dupuy papers
- #5 Books & Media → Eliza Dupuy papers (searched “eliza dupuy papers” so it was the first result)
- #3 Other resources → “see all” → back ← Articles → see all ← back → Our Website → see all → Research Guides → American Literary Materials in Special Collections → Eliza Dupuy Papers
- #7 Articles → See All ← Books & Media → See All → Refines facet by location to Rubenstein → Eliza Dupuy papers

Task 3

Task three asked participants to locate the database JSTOR from the Libraries homepage. Participants easily completed this task, though they used a number of methods to find JSTOR.

² See a list of search terms in Appendix A
Some accessed JSTOR via the Research Databases link on the homepage or Search & Find dropdown menu, others used the ALL search or masthead search and entered via results listed in Our Website. After completing the task, one participant said he would have expected to see a “Databases” box on the results screen, and found it confusing for JSTOR to be located in the Our Website box.

- #1, #2 Research databases → JSTOR
- #3, #7 All search, “JSTOR” → Our website JSTOR
- #4 Using the library, Search and Find → Research databases → JSTOR
- #5 Masthead search box, “JSTOR” → Our website JSTOR
- #6 Online Journal Titles → J Research databases → JSTOR

**Post-test interview**

**Thoughts on the results interface**

Reactions to the new interface were mostly positive; six respondents (86%) specifically mentioned that they liked the interface or it was an improvement over the last interface. Positive feedback was concentrated around the convenience of having all the categories of results on a single page.

- #1 She loves having all the results here on one page. “Amazing.”
- #2 I think it works well. I’ve had good success with it. Three years ago search results didn’t come up like this and they were frustrating. I like this better. I prefer the clarity of the different sections groupings. It’s really good.
- #3 It’s well organized into categories. Very helpful.
- #4 It’s pretty nice because it splits up content categories. Articles and books are what we use most, so having them at the top is best.
- #5 It’s convenient because you can see all the different headings.
- #7 Better than last interface. Easier to navigate. Look and feel is better.

**Negative feedback included:**

- #1 It’s a little overwhelming, there’s a lot of info. Having a little more white space between listing items might help. She wants to walk away because there’s so much here.
- #6 “I’m an old person. And this type is too small.” Wishes there were more graphical stuff on results page. Pictures, something to jump out and help you differentiate between results.
- #6 “Media” is such a general word. How is “media” different from articles? “Articles”; are these peer reviewed, or are they articles in Newsweek or time magazine?
- #7 This results page is easy to navigate, but for someone who isn’t used to it, brief one line descriptions about what these categories are would be helpful (some of the descriptions that are there now do not make sense).
What is missing from results screen?

Four of seven participants (57%) responded that nothing they would expect is missing from the results screen. Suggestions for additions to the results screen included:

- #2 Adding a “most used resources” section on the homepage so that you didn’t have to search for items like the Oxford English Dictionary.
- Filters on the results page like on the Endeca page. She always wants the most recent material first, for example.
- #6 Something to specifically refer to audio materials. He ho idea where he would look for that in the current results interface. Maybe under Books & “Media” or Research Guides.
- #7 “Databases” specifically as their own category. So if you searched for JSTOR, it would appear in this section.

Where would you expect to find materials from the Rubenstein library?

During the test, it was unclear whether each participant understood what “special collections” or the Rubenstein library were, and there was little consensus on whether participants believed such materials would appear in search results. The most popular guess was Books & Media (57%, 4). One participant explained that they believed special collections were books; if this is a common misconception, then it might play a role in why so many people chose Books & Media. Two people (29%) guessed that such materials might appear in Other Resources, two in Research Guides, and one (14%) in Our Website. Two participants indicated that they thought there should be a results box specifically for Special collections or Rubenstein.

Would you use this interface again?

Results for this question are of limited utility because an unknown number of participants interpreted the question to mean “would you use the library’s website to search for materials again?” instead of “would you use the ALL search (instead of one of the other possible ways to search) on the libraries’ website?” This confusion became clear through several responses.

- #1 Yes. It’s great to have everything right there.
- #2 Probably. It seems just fine. I’ve always used it.
- #3 Yes. It’s easier for me to use this than to Google it. Resources in the library are better than Google.
- #5 Yeah. It’s convenient and on the homepage. It’s easy.
- #6 I’d usually start with the more specific search. Like the article search.
- #7 No, I’d rather use the articles search than ALL.
What would you change about the results interface?

When asked what they might change about the results screen, the following recommendations were made:

- #1 Add more whitespace to diminish clutter. Current view overwhelms.
- #2 Add a special collections box to results.
- #6 Explanatory text saying what “media” means. Add audio as a search results box.
- #7 He likes the Endeca faceted interface much better than the ALL search results page. Would like to see those facets appear on the Bento search results page.

Expectations for the search box in the upper right hand corner?

Three participants (43%) believed the masthead search would be a typical site search, searching over only webpages on the library’s website. Two participants (29%) had no idea what it might be, and one (14%) believed it would be identical to the ALL search, but this participant first clicked on the box and saw the prompt text in the expanded box. Of the three participants who understood that the box was the same as the ALL search box, two believed it to be redundant and confusing. However, only one participant discussed the issue in enough depth with staff to understand that a site search is included in the ALL search. This participant liked the functionality of the masthead search box.
Appendix A: search terms

Graduate search terms

- Martin Luther King Jr.
- New Aristotelianism
- Renewable energy
- iPhone

Undergraduate search terms

- Psychology
- Musical history

Faculty spouse search term

- Mill towns in North Carolina

Appendix B: script

“Thank you for agreeing to take part in this study.

We are currently developing a new interface to improve the way results appear when searching from the Duke Libraries homepage, and we’d like your input.

I will be asking you to complete 3 tasks that involve finding articles, books, images and other resources to support your research through Duke Libraries. Keep in mind that there are no right or wrong answers and that we’re testing a tool — not you.

Okay, first some general questions:

1. Are you an undergrad, grad student, faculty member, staff member?
   a. If you are an undergrad, what year are you?
   b. If you are an undergrad, what is your major?
   c. If you are a grad student or faculty or staff member, what department are you in?

2. Have you ever used the Duke Libraries website to search for books, articles or other materials to support your research?
   a. If yes, would you say you search for materials from Duke Libraries every day, every week, every month, once a semester, or less often?
3. Have you used the ‘ALL search’ [POINT TO ALL] on the Duke Libraries website this semester to search for books, articles or other materials to support your research?
   a. If yes, would you say you’ve used the ‘ALL search’ every day since the start of the semester, every week or less often?

We’re now ready to complete a few tasks using the Libraries website. It would be really helpful if you would share your thoughts and observations as you are completing the tasks, so try to think aloud as much as you can. Like I said, there are no right or wrong answers.

**TASK ONE:** Think of a topic you’re currently interested in or researching for a class or project. Use the ALL search to look for books, articles or other resources that would help you research this topic.

a. What are the types of resources or materials you could find or learn more about using this interface?
b. Next, find an item from this page that you think would be useful in your research. What is this item?

**TASK TWO:** You’re researching the author Eliza Dupuy, and you’ve discovered that some of her papers are held by Duke’s Rubenstein Library. Use the ALL search to locate these papers.

**TASK THREE:** You’d like to search the database JSTOR for articles for a research paper or project. Use the Libraries website to locate JSTOR.

**POST-TEST INTERVIEW**

a. What are your thoughts about the way this interface [point to ALL results interface] looks?
b. What is missing from this results screen that you’d expect to see when searching for library materials from the Libraries homepage?
c. Where would you expect to find materials from our Rubenstein Rare Book & Manuscript Library in this interface?
d. If given the option, would you use this search interface again to locate materials for your research?
   a. If yes, why?
   b. If no, why not?
   c. What would you change to improve the interface?
e. From the Libraries homepage, what would you expect to find by using this search box [point
to masthead search]? Where would you expect this search box to take you?

f. Is there anything else you’d like to tell us about your experience using the new ALL interface or the Duke Libraries website?