

# Usability Report

## Library maps

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### FACILITATOR

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### PURPOSE

The purpose of this usability study was to examine how well a representative sample of library patrons can interpret and use the design and organization of the library maps CMS webpage. Areas that were evaluated for overall user satisfaction included the Web page's information architecture, navigation, terminology, visual aesthetic, as well as it's overall ability to offer strong usability.

In the interest of time, and as a first iteration before a public beta, user testing was conducted among library personnel only, inclusive of the following departments: RADS, Access Services, and DUCT. Both professional staff and student assistants were tested.

### TESTING PROCESS

The testing process consisted of two phases:

#### Talk-aloud Protocol

The facilitator provided 5 scenario-like tasks, each of which asked the user to attempt several aspects of the specific primary functions of the webpage. These included:

- Navigate the tabs and the opening of several pop-up windows
- Enlarge the Maps
- Discover the driving directions and other functional links at bottom of the interface
- Find and open the print map PDF
- Use the directory and/or maps themselves to locate specific services/amenities

The following scenario-tasks were used to evaluate task-success:

1. You've never visited the Van Pelt and Opie Library, and live in Iron Mountain. A friend is presenting her research soon and you wish to attend? What's the best route to take to drive to the library?
2. You are the graduate coordinator for your department and would like to provide new students with a printed map of the library, since they will be spending a good deal of time there utilizing its many resources and services. Where might you find a printed map?
3. A colleague mentioned the library has a new oversize scanner that can scan media such as book-spreads. You have a project that requires just this service. Where might you find this scanner?
4. A friend who is looking over your shoulder at the first floor maps is having difficulty making out the text on the maps. How might you see the fine print descriptions more clearly?
5. An event you are scheduled to attend is being held in the 'Education Experiment Room thingy'? Where exactly is that?

The following criteria were used to evaluate task-success:

- **SUCCESS**—Participant completes the task with relative ease and with no prompting in a relatively brief amount of time.
- **LEVEL 1 PROMPTING**—Test facilitator responds to a participant's question but doesn't provide any additional detail. For example, a participant asks 'I think it would be this button, should I click on it?' The facilitator responds 'Go ahead and try it.' While a level 1 prompt may indicate success, it may also indicate some uncertainty on the part of the participant and so should be noted.
- **LEVEL 2 PROMPTING**—The test facilitator sees the participant struggling and gives a hint, though not the answer directly, in response to a participant's specific question. For example, the facilitator may prompt the participant with "Is there anything else on this page that you think might relate to this task?"
- **LEVEL 3 PROMPTING**—The participant has given up in frustration or has struggled to the point where he would likely have given up if faced with the task in real life. In this case, the facilitator gives a direct answer to part of the task, such as "To send this form, you'd click the Submit button."

Definitions adapted from *A Project Guide to UX Design* (Unger & Chandler, 2012).

### **Open-ended Survey**

Users were asked to fill out a survey of the following six open-ended exit questions (Google Form):

1. What is your OVERALL IMPRESSION of the maps page?
2. What did you like BEST about the site?
3. What did you like LEAST about the site?
4. Do you feel that there is anything MISSING or INACCURATE from the new maps?
5. What 3-5 TERMS / PHRASES would you use to describe the new library maps?
6. Do you have any other final comments, questions or suggestions?

## TEST RESULTS

There were 9 participants in the talk-aloud protocol. There were 7 respondents for the exit-question survey (two omissions due to employee vacation and other scheduling constraints). Results were as follows:

	Success	Prompting Lvl1	Prompting lvl2	Failure
Task 1: Driving directions	8	0	0	1
Task 2: Printed map	9	0	0	0
Task 3: Locating book scanner	3	1	3	2
Task 4: Enlarge the maps	8	0	1	0
Task 5: Use directory, locate E3	6	2	1	0

### Task 1—Driving directions

All respondents except one found the links at the bottom of the interface in under 5-10 seconds. One respondent did not see the links and suggested they be moved higher, perhaps close to the top near the tabs. This user grabbed the address from the footer and navigated of her own accord to Google Maps and pasted it in. All respondents were very familiar with Google Maps. Several participants commented on the convenience of having the destination field pre-populated with the library's address when they clicked over to the Google Maps Web page for driving directions.

### Task 2—Printed map

All participants found the link at the bottom of the interface immediately. Almost all participants noted that the link text "print this map," (especially in the context of a single floor's map) indicated that they expected the link to help them print the map of the single floor corresponding to the tab they were on. Many were then pleasantly surprised to find a map of the entire library. A majority of the respondents agreed

that it would help to make the links at the bottom more prominent. Most participants found the icons to significantly improve the usability of the maps.

### **Task 3—Locating the book scanner**

Response to the third task was very mixed. Factoring in the fact that library staff are already familiar with the organization of the library building and services, on balance this task thus represents a fail since a majority of the respondents required at least some level of prompting and 2 users failed the task outright. Participants experienced difficulty with distinguishing between the various types of scanners based on their name, especially the difference between large-format, and oversized materials scanners.

### **Task 4—Enlarge the map**

All participants but one quickly located the link to enlarge the maps. When prompted to find another way to enlarge the maps, nearly all users recognized the hand icon indicated the map was actionable and clicked on the map to enlarge it. A few users noted they did not immediately notice the hand icon appear when over the individual maps because of the icon density of the maps.

### **Task 5—Use directory to locate the E3**

Users also experienced some slight difficulty with this task, requiring some prompting. One user indicated that map transferred the cognitive load to the user in asking her to match the E3 on the map with the E3 found only in the parentheses at the end of the long room title in the legend. Users were fairly evenly divided in recommending adding the full title to the map, or maintaining the E3 designation on the map but somehow improving user's ability to make the connection with the legend.

## **COMMENTS**

The following are comments excerpted from the exit questionnaire. For a full summary of all comments made, see: [bit.ly/1nzckE1](https://bit.ly/1nzckE1)

Users indicated that overall the changes in the map were “one of improvement” to “very positive.” Users generally saw the maps as “very user friendly,” “easier to use,” “easy to navigate,” “easy to read and find items.” Users generally felt the interface balanced provided strong content without overloading the user, giving “all the detail needed to locate spaces, material, and services” without being “cluttered with unnecessary detail” or displaying “too

much extra stuff shown on the map.” One user termed it “drastically easier to use.” Several users mentioned the icon/text balance as a strong aid to usability.

Users liked best the driving directions, colors and icon use, clickable zoom on the individual maps. The tabbed organization was cited several times, as well: “Instead of bombarding you all at once, it just came together as a nice little set of tabs working together.”

Users liked least: the “inconsistencies in how things were described in the directory and on the map itself (namely E3). They also cited the need to make the links at the bottom into buttons, or move them to the top of the screen, or otherwise make them more apparent. The clarity of some icons was problematic, both in terms of design and their symbolic meaning. “Not all icons were clear, particularly the service center ones. If someone is not familiar with the library, it would be confusing to see the key, the calculator and so on and not have a clue what it really means in comparison to the others.” Many users had trouble making the connecting/finding the E3 room (task 3).

When asked to note missing items or inaccuracies in the maps, users questioned: Whether there was a need to mark emergency exits? Should the microfilm and microfiche readers in archives be needed? Should the Archives space be shortened to reflect the actual space usable by patrons (as opposed to staff/storage areas)? Are the government documents open to all library patrons? Should the 3rd floor computer block be lengthened to more accurately reflect it’s actual size? Drinking fountain noted missing on the garden level near the bathrooms on the west side. Should there be a different, better icon for the director’s suite as “the figure looks intimidating and as if it is flanked by a terrifying army (of librarians)? Should there be a key to the colored bank of the computers?

The icons and text were

## **DESCRIPTIVE TERMS & PHRASES**

Respondents were asked to provide 3-5 terms/phrases to describe the maps interface.

User-friendly (2)	Any-age friendly	Organized (3)	Accurate
a great resource	informative	colorful	contrasted
clean (2)	modern	simple (3)	easy to read and understand
logical progression to find items	eye-catching (in a good way)	Easily-understood icons	Helpful to both internal and

external customers/patrons/s takeholders			
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## RECOMMENDATIONS (w/ non-approved in red)

1. Make the links at the bottom of the interface more prominent—either by placing them higher from the bottom interface border, or perhaps above each visual map, right at the top.
2. Adjust the name of the scanners, copiers, printer to better, more clearly distinguish/differentiate their functions. I suggest large-format scanner for the maps scanner, and overhead scanner for the book scanner. The Printer/copier/scanner should be simply “photocopiers.”
3. Change the link text of “print this map” to “Library Map.” Add link to Campus Map next to Library map?
4. Unbold email on print version of maps
5. Remove the legend with the “Facilities” rubric from the printed maps and space out the categories more.
6. Make the blue table highlights the same winter wheat used in other tables (#eeee1)
7. Make the rubrics on the printed maps #860e25 and slightly larger.
8. Replace the compass on the printed maps with a more maplike icon and move the compass into the page itself. Modernize the compass icon.
9. Create a “you are here” graphic for the printed version of the maps held only at the Library and IT Service Center.
10. Shorten the Archives to reflect only the reading Room.
11. Should changes be made to government docs?
12. Should the 3rd floor map have a note about being the silent study floor?
13. We might provide an icon (i) next to each item in the map legend which activates a pop-up tooltip describing more about the thing, with possibly a picture, as well (a similar feature currently exists for the Libcal room booking system). This could help distinguish between, say, the large format scanner and the overhead scanner.
14. Should we add References and Indexes to the 2nd floor map?
15. Change the hover icon on the maps (magnifying glass?) to better indicate that you can click directly on the map to enlarge it.

## FINAL ACTION ITEMS

Excepting the red items, the recommendations edits above will be changed on the maps. It is recommended that we possibly short-term-parking lot the recommendation to create informative hover-based pop-up tooltips for the legends. Chad will meet with Ellen S. for a final review of the maps.