

COLUMBIA UNIVERSITY LIBRARIES

Usability Report

Keneil Buchanan / Margaret Daly / Megan De Armond / Leah McGowan

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Executive Summary

This report details the results from a user test applied to the Columbia University Libraries website (library.columbia.edu), along with recommendations for improving the site based on the results and findings.

The Columbia University Libraries website serves a primary user group of nearly 50,000 with the aim of providing “excellent service to students and faculty that will advance their research, teaching and learning, and to support library users anytime and anywhere.” (library.columbia.edu/about).

To meet this robust objective, it seems imperative that basic tasks be completed with ease and satisfaction, so that users are then launched into deeper, more complex interactions with the libraries website.

The test team comprised four evaluators, each of whom conducted four user tests. Three of the user tests were remote, asynchronous tests, and one was face to face, synchronous. All were recorded, and were supplemented with pre- and post-questionnaires to assess usability and user experience with the website.

In general, users were able to complete most of the tasks, but encountered difficulty navigating aspects of the interface, and locating specific information. Based on the results of the user testing, the following recommendations have been made and are detailed in the report:

Recommendation #1

Reduce Homepage Clutter

The library could improve navigation and visibility by reducing the website’s visual clutter. This issue is easily remedied by only including the most vital information on the library’s homepage.

Recommendation #2

Enhance Tablet-user Search

In the tablet view, users can miss seemingly obvious actions amid the page’s low-contrast color features and dense text. Adding contrast remedies this.

Recommendation #3

Consolidate Borrowing Policies and Add Max Checkout

The current borrowing privileges details useful information, but undergraduate borrowing limits are not included and other information is categorized by library or user-type. We recommend adding max checkout information and aggregating common borrowing privileges.

Recommendation #4***Establish Home Icon***

It's not uncommon to provide users with multiple options to return to the homepage, however, users often ended up on the university homepage or in CLIO, when they wanted to return to the library homepage. Reducing options when the user clicks on the Columbia University Libraries icon would help users.

Introduction

The Columbia University Libraries website (library.columbia.edu) is the access point for it to “provide excellent service to students and faculty that will advance their research, teaching and learning, and to support library users anytime and anywhere.” (library.columbia.edu/about)

With a collection of over 12 million volumes, over 160,000 journals and serials, as well as electronic resources, manuscripts, rare books, microforms, maps, graphic and audiovisual materials, Columbia University Libraries ranks as one of the top five academic library systems in North America and is the largest in the state of New York, hosting over 3 million visitors annually.

From gathering university information to searching through its collections, the Columbia University Libraries/Information Services website includes a wide array of features for its 30,000 undergraduate and graduate students, nearly 4,000 full-time faculty, 12,000 non-instructional employees, and alumni, visiting scholars and others.

With a keen understanding that its digitally fluent faculty and students now expect a user-friendly, seamless experience while searching for and requesting information in support of their research, teaching, and learning activities, the library is committed to continuous incremental improvement derived from user feedback. This is evident in its five critical areas of focus, including: building effective interfaces and improved access to scholarly information ([library.columbia.edu/about/strategic plan](http://library.columbia.edu/about/strategic-plan)). Additionally, CLIO, its recently redesigned discovery system, provides a single search interface for gathering information from many different sources, including catalogs, journal articles, and academic commons.

As the library of a major academic institution, it’s equally important that basic tasks can be completed with ease and satisfaction.

Methodology

User testing is an inspection method that allows evaluators to gather direct input from real users interacting with a product or interface. It involves observing participants in a controlled setting where they complete real and meaningful tasks. User testing can be done with a few participants or hundreds. Tests can be conducted in various environments and conditions (Barnum, 2011).

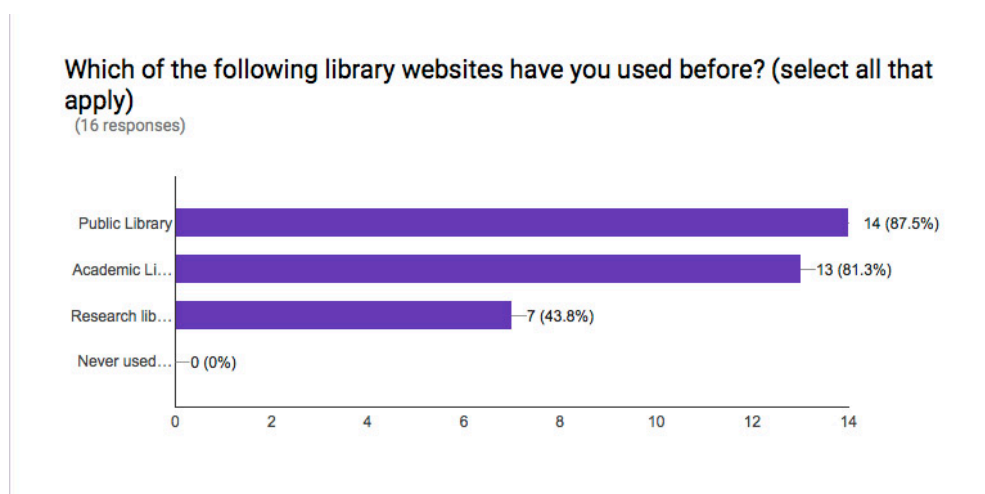
Test Scope

We evaluated the Columbia University Libraries homepage, which, after consultation with Columbia's Web Services Librarian, Candice Kail confirmed the focus on tasks that launch from the homepage. We explored the site with an eye toward common user tasks. We selected three tasks that were realistic and represented typical use cases on a basic level. This was an important consideration. The libraries homepage is a portal to a large and varied universe of information, so successful entry-level access is key to a positive long-term user experience.

Participant Demographics

Sensitive to Columbia Libraries' primary users, candidates were required to be current students or graduates of a four-year college or university and fit age bands from 18-65+.

Additionally, we asked about the testers' library usage and overall impressions of library websites. This proved beneficial, as users were able to apply their experience to the test tasks. The library usage information gave us a sense of the types of library experiences users brought. We believe this enhances the relevance of our findings for the Columbia Libraries site. (*Methodology: Fig.1*)



Methodology Figure 1, Valuable demographic Data: The library usage information provided insight into our users.

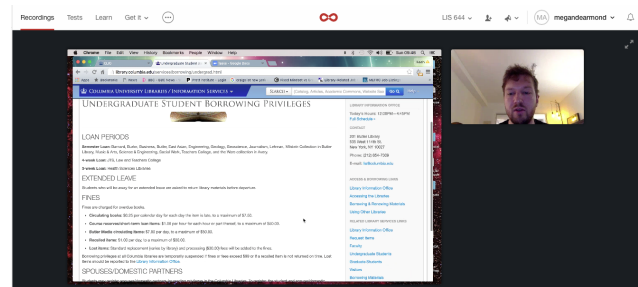
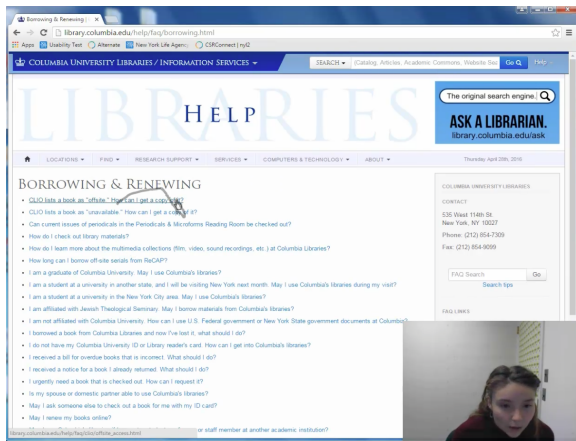
Recruitment and Administration Protocol

Our four-member research team conducted synchronous, face-to-face user tests and asynchronous, remote user tests. Each evaluator recruited one participant for our face-to-face tests. Two face-to-face tests were moderated with a partner, and two were individually moderated.

We conducted our asynchronous testing via usertesting.com, an online service that recruits testers, administers tests, and then provides video and metrics for each test. Each evaluator launched three tests, netting 12 remote participants. Based on input from Kail, three of the 12 tests were completed by tablet users.

Because we sought to capture task completion and observe users, we employed the “think aloud” method, which is widely used and seems to present few methodological difficulties (Norgaard & Hornbaek, 2006). In addition to the in-context observations that were recorded, the post-test questionnaire (see Appendix) allowed for open-ended responses, encouraging participants to reflect on their experience.

The face-to-face tests were administered using Morae and LookBack. The Morae tests were done in the same location -- a user-testing lab -- with one team member acting as moderator and another as an observer. The LookBack tests were conducted in separate locations, each with a single moderator. These decisions were dictated by scheduling logistics and preferences of the test subjects. Both Morae and LookBack record on-screen user movement as well as capturing audio and webcam footage (*Methodology: Fig. 2*).



Methodology Figure 2, Benefits of Morae and LookBack: As you can see in the images above the user-testing recording software allows evaluators to capture the user's mouse movements, verbal comments and register facial expressions.

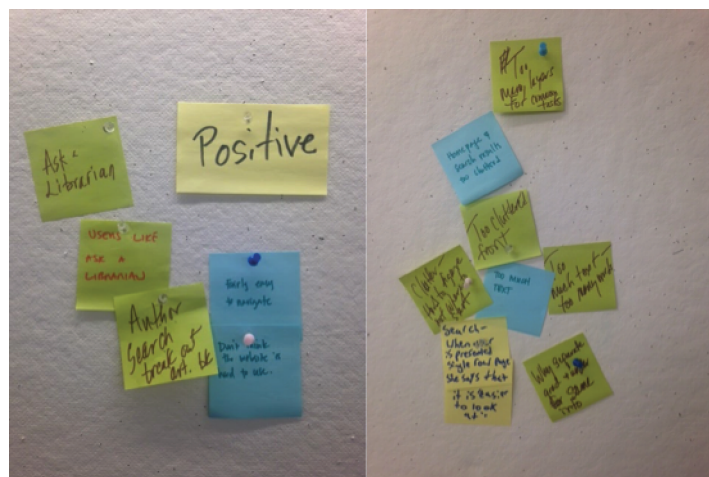
User Tasks

Our team developed tasks that would represent typical library usage. Our objective was to understand the ease and flow of these tasks, and identify ways to improve user experience derived from those results. Users performed the same tasks in face-to-face and remote sessions. We gave participants specific tasks with scenarios, framing realistic user goals (Barnum, 2011). Below are the tasks our team defined:

1. You are a master's student at Columbia University in the Department of Art History and Archeology looking for an article and a book written by one of your professors, Jonathan Crary. Using the Columbia University Library website see if you can find both an article and a book.
2. You are an undergraduate student at Columbia University using the library for the first-time and would like to know (1) how long can you check out a book and (2) how many books you can borrow at one-time?
3. Find out if it is possible for Columbia students to borrow material from other libraries and universities.

Analysis

Each team member viewed and listened to all recordings and examined the supplemental documentation and data. We then met as a group, sorting our findings through discussion and affinity diagramming (Methodology: Fig. 3). Eventually, findings were categorized into positive, negative, or unexpected “a-ha” moments. We were able to see clearly emerging issues and begin to assess the severity of the issues. When reviewing our findings we were looking to see if the interface was effective, efficient, engaging, error tolerant, and if it was easy to learn. We also wanted to understand how users felt as they performed the tasks.



Methodology Figure 3: Affinity Diagramming

Findings & Recommendations

Making its vast amount of information and resources accessible without a typical reference interview is a challenge that Columbia is meeting. Our usability testers found much to appreciate on the website. They pointed out useful aspects of the website that were not part of the tasks, in particular, the “Ask a Librarian” feature was repeatedly cited as helpful.

Our user testing revealed that basic tasks providing access to library services were achievable, however, the “think aloud” methodology gave us insight into the user experience, or a “window to the soul” (Nielsen). Users completed tasks and, regardless of the amount of time spent -- one user spent five minutes trying to find both book and article -- reported on the questionnaire that the task was easy. Their “self-talk” as they attempted the tasks, however, described a different experience:

Library websites are so filled with text, it's hard to keep your eye on what's most important. That's actually kind of really frustrating.

Site was a bit confusing to use ... I found my way to one place, then got lost. Organization of the site and sections could be made easier.”

Users were able to find what was required, but finding it did not create an experience of overall positive satisfaction. The ability to complete a task coupled with the user’s emotional state is the basis for a positive or negative user experience. The problem tasks we identified aren’t only usability issues, but lead to an overall negative user experience. For example, users were asked to find out the borrowing limit. None of the participants were able to complete the task. While there is information about who may borrow material and for how long, users were unable to locate the undergraduate borrowing limit on the library’s website. Users commented that this information should be available on the library’s website. The elusiveness of this information has the potential to erode the user’s trust in the website (Nielsen).

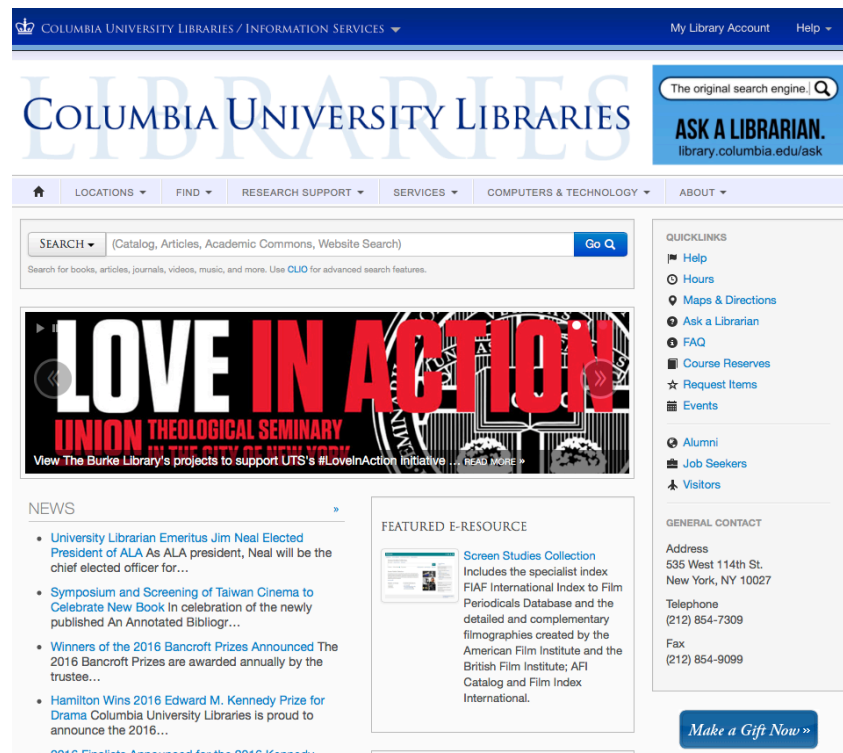
Remedying the usability issues identified in the study will improve the overall usability of the library’s website; and provide a better user experience. While analyzing user responses, we identified a number of specific findings in several aspects of the user experience.

Recommendation #1: Reduce Homepage Clutter

The homepage itself wasn't ugly, though there is quite a bit of information on the one page, where perhaps headings and a small image would have looked better and be more clear to navigate!

Issue

While participants appreciated the depth and quality of information provided on the library's webpage. Several participants noted the library's homepage was "cluttered" with "too much text" that obstructed the view of the primary navigation and features of the website (*Findings & Recommendations: Fig.1*). While the library's homepage offers a platform to feature events and collection highlights - it's primary function is to connect students, faculty, staff and researchers to the library's collections and services.



Findings and Recommendations Figure 1, Current homepage: The library's homepage as it is today.

Recommendation

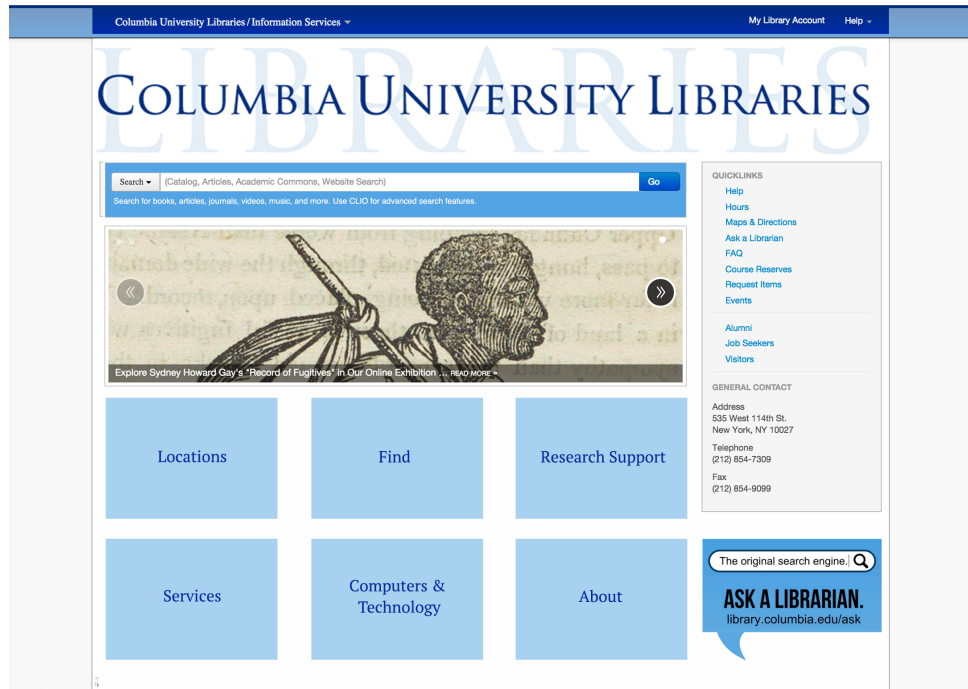
Like the front page of a newspaper, the library's homepage should showcase the most pertinent and vital information for library users. However, it now contains a lot of information most patrons would consider low priority. The library could improve navigation and visibility by reducing the visual clutter. This issue is easily remedied by only including the most vital information on the library's homepage. This will not only improve the aesthetics of the homepage but, reduce the information overload experienced by the study's participants.

We recommend removing all "secondary information," which would improve the visibility of the primary navigation, including "Ask a Librarian" and placing CLIO at the heart of the interface (*Findings & Recommendations: Fig. 2*).



Findings & Recommendations Figure 2, Emphasize Search: We recommend creating a clear, clean homepage.

Another option would be to adopt a mobile-like interface by placing the primary navigation at the center of the page, removing content that is not vital and providing subtle visual cues that communicate the different affordances, perhaps making the "Ask a Librarian" logo a dialogue bubble. (*Findings & Recommendations: Fig 3*).



Findings & Recommendations Figure 3, Mobile-like Interface: Another proposed solution to the usability issue

Recommendation #2: Enhance Tablet Search

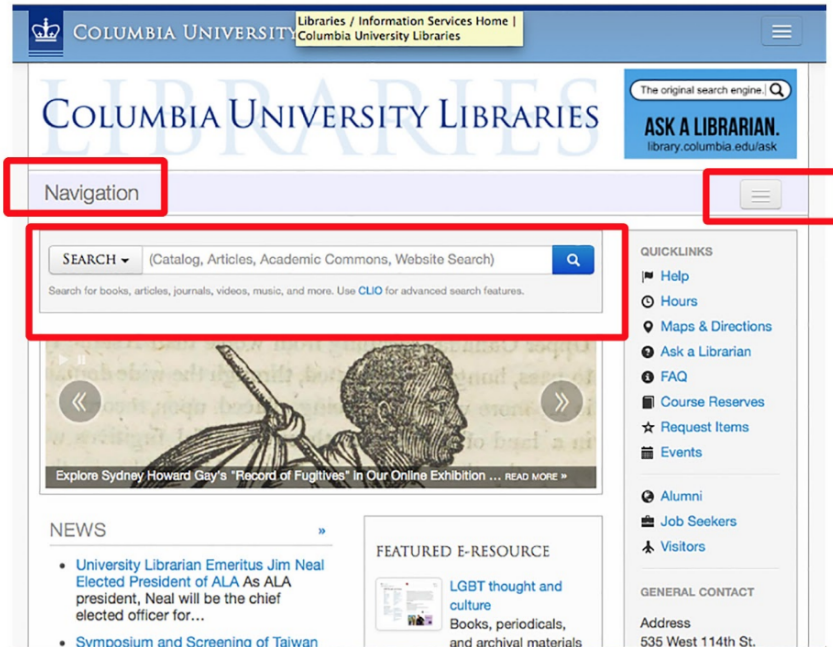
“Overall, lots of words. Difficult to find the information.”

Issue

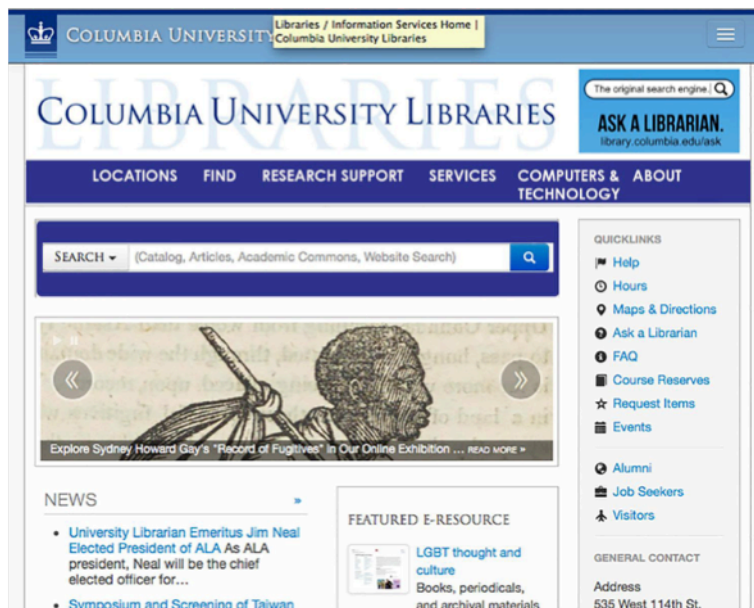
According to the Pearson Student Mobile Device Survey 2015, most students continue to rely on their laptops, but the use of hybrid tablets has increased steadily. We included three tablet users in our asynchronous test cohort. These users found the interface fully functional, but had difficulty finding search basics. An ideal solution would incorporate the recommendations above, which would resolve the issue for users of all devices. As you can see in the image below (*Findings & Recommendations: Fig. 4*) common search elements are nearly invisible. The solution is fairly simple with dramatic results. Increasing the color-contrast makes the elements easy to see. Bringing the navigation out of the hamburger menu increases the user’s search options (*Findings & Recommendations: Fig 5*).

Recommendation

The solution is fairly simple with dramatic results. Increasing the color-contrast makes the elements easy to see. Bringing the navigation out of the “hamburger” menu increases the user’s search options (*Findings & Recommendations: Fig.5*).



Findings and Recommendations Figure 4, Vertical Tablet View: The navigation options are hidden in a “hamburger” menu. The “Search” box is directly below the navigation tab. The low-contrast colors and dense text make it easy to see how users can miss seemingly obvious actions.



Findings & Recommendations Figure 5, Colorful Solution: Increasing the color contrast and creating a strong contrast between the text and background may resolve the issue.

Recommendation #3: Consolidate Borrowing Policies and Add Max Checkout

I think the thing most frustrating was trying to find out the number of books I could borrow and for how long. That is the first thing I'd wonder, and I really thought it would be in the FAQ section. I

never fully got the answer.

Issue

Every test-taker was frustrated with the same task: finding the total number of books students are able to check out at one time. None were able to locate the information. Many even exclaimed that as students they believe this is vital. All searched and tracked the most time on this task. The reason it took so long is simply because the information does not appear on the website. Testers showed a lot of frustration when they were unable to find the answer. They believed it should be on the borrowing privileges page. (*Findings & Recommendations: Fig. 6*).

This task produced user anxiety and frustration. Not only was the information not where it was expected to be, but also users looped through a series of possible locations, sometimes clicking on a right-rail link only to return to the page they were already on. In part, users experienced the library website as thorough, and so, couldn't accept that this basic information wasn't there. They repeatedly faulted themselves for failing to find something so basic.

Users' frustration was exacerbated when they landed on separate pages for graduate and undergraduate borrowing privileges. Most of the information is identical with few exceptions.

UNDERGRADUATE STUDENT BORROWING PRIVILEGES



LOAN PERIODS

Semester Loan: Barnard, Burke, Business, Butler, East Asian, Engineering, Geology, Geoscience, Journalism, Lehman, Milstein Collection in Butler Library, Music & Arts, Science & Engineering, Social Work, Teachers College, and the Ware collection in Avery.

4-week Loan: JTS, Law and Teachers College

3-week Loan: Health Sciences Libraries

EXTENDED LEAVE

Students who will be away for an extended leave are asked to return library materials before departure.

FINES

Fines are charged for overdue books.

- **Circulating books:** \$0.25 per calendar day for each day the item is late, to a maximum of \$7.50.
- **Course reserves/short-term loan items:** \$1.00 per hour for each hour or part thereof, to a maximum of \$50.00.
- **Butler Media circulating items:** \$7.00 per day, to a maximum of \$50.00.
- **Recalled items:** \$1.00 per day, to a maximum of \$30.00.
- **Lost items:** Standard replacement (varies by library) and processing (\$30.00) fees will be added to the fines.

Borrowing privileges at all Columbia libraries are temporarily suspended if fines or fees exceed \$99 or if a recalled item is not returned on time. Lost items should be reported to the [Library Information Office](#).

Findings & Recommendations Figure 6, Not Available: Testers showed a lot of frustration when they were unable to find the answer. They believed it should be on the borrowing privileges page.

Recommendation

Add in a "Max Checkout" after Loan Periods and Extended Leaves. (*Findings & Recommendations: Fig. 7*) We've shown "50" max check outs, however this is only an example. There may well be operational reasons for omitting the figure, however, there should be a mention of this common

patron query, even if it's "Please contact the library for specific checkout limits."

Consolidate the policies into a single "Student Borrowing Privileges" page. Though JTS Borrowing only applies to graduate students, it could still be mentioned at the end since the description specifies that it is for students in the Graduate School of Arts and Sciences. This will allow users to have all the information in one place, reduce unnecessary pages and clutter, and add the very important max check out information.

STUDENT BORROWING PRIVILEGES

LOAN PERIODS

Semester Loan: Barnard, Burke, Business, Butler, East Asian, Engineering, Geology, Geoscience, Journalism, Lehman, Milstein Collection in Butler Library, Music & Arts, Science & Engineering, Social Work, Teachers College, and the Ware collection in Avery.

4-week Loan: JTS, Law and Teachers College

3-week Loan: Health Sciences Libraries

EXTENDED LEAVE

Students who will be away for an extended leave are asked to return library materials before departure.

MAX CHECKOUT

Students may check out 50 books at one time.

FINES

Fines are charged for overdue books.

- **Circulating books:** \$0.25 per calendar day for each day the item is late, to a maximum of \$7.50.
- **Course reserves/short-term loan items:** \$1.00 per hour for each hour or part thereof, to a maximum of \$50.00.
- **Butler Media circulating items:** \$7.00 per day, to a maximum of \$50.00.
- **Recalled items:** \$1.00 per day, to a maximum of \$30.00.
- **Lost items:** Standard replacement (varies by library) and processing (\$30.00) fees will be added to the fines.

Borrowing privileges at all Columbia libraries are temporarily suspended if fines or fees exceed \$99 or if a recalled item is not returned on time. Lost items should be reported to the [Library Information Office](#).

JTS BORROWING

Students in the Graduate School of Arts and Sciences have borrowing privileges at the [Jewish Theological Seminary Library](#).

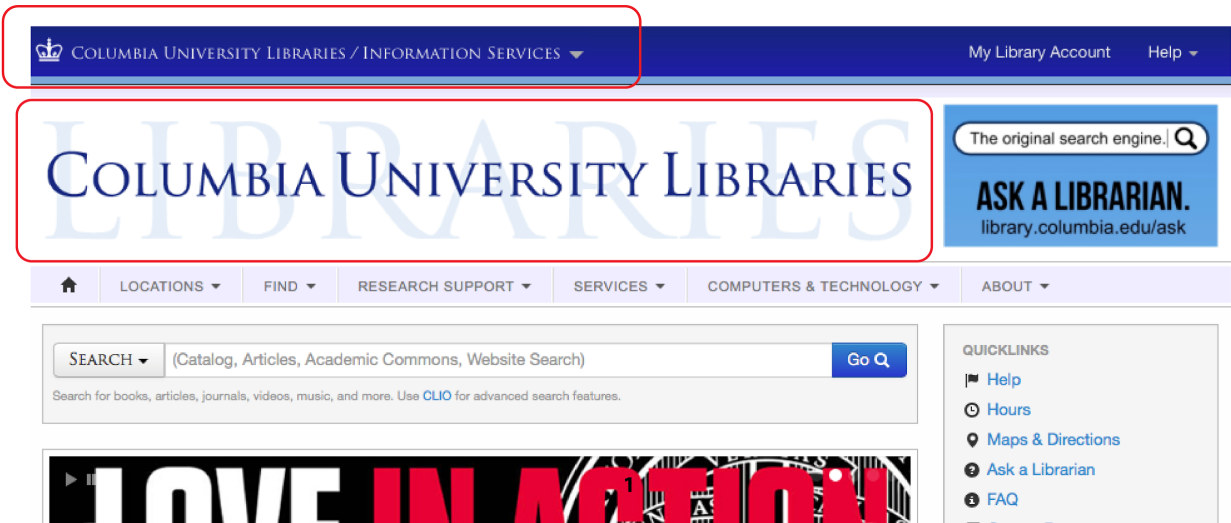
Findings & Recommendations Figure 7, Line Item: The solution is as simple as adding a line of text.

Recommendation #4: Establish Home Icon

I'm not able to get to the home page by clicking on the logo.

Issue

Users click on the Columbia University Libraries icon and text to return to the Columbia University Libraries homepage. Our synchronous and asynchronous testers clicked on the page header. (*Findings & Recommendations: Fig 8*) Instead of going to the library homepage, they were rerouted to the Columbia University homepage, given a dropdown menu, or not taken anywhere. Beneath the header (*Findings & Recommendations: Fig 8*) is another Columbia University Libraries icon, which leads to the library homepage, but it is not visible if the user goes into CLIO, which many of our users did when moving from task 1 to task 2.



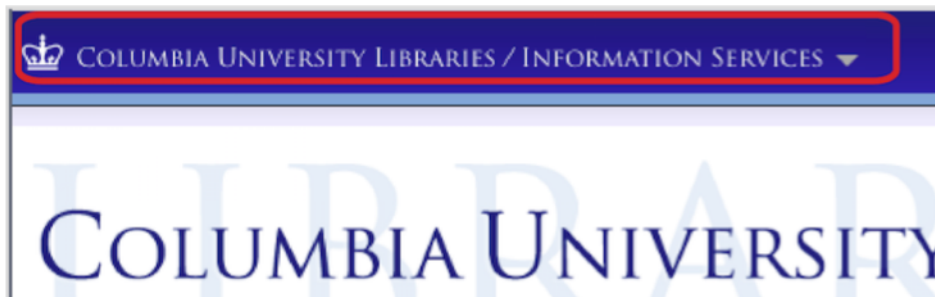
Findings & Recommendations Figure 8, No Direction Home: Users were rerouted in attempts to return to the library homepage. Clicking on the crown icon took them to the university homepage, and clicking on the text header, they were sent to CLIO.

Recommendation

It seems to be common practice in web design that clicking on the logo icon will take the user to the homepage. We offer two solutions.

Suggestion #1: Give one option

When users click on either the Columbia crown icon or on the text “Columbia University Libraries,” they would be taken to Columbia Libraries homepage. We would also suggest that the icon and text be larger. (*Findings & Recommendations: Fig. 9*)



Findings & Recommendations Figure 9, Solution #1: Fewer choices and larger fonts will ease the way

Suggestion #2: Reduce the number of options



Findings & Recommendations Figure 10, Solution #2: Give the user two options: one to the Columbia.edu homepage or to the library.columbia.edu homepage.

Conclusion

Columbia University Libraries as an entity is attuned to the value of its website, and is committed to long-term iterative improvement.

Its stature and vast collection are well served. Attention to user experience in achieving basic tasks is as essential.

We realize some of our recommendations will require difficult choices and will likely impact other aspects of functionality. If the website adopts a minimalist homepage emphasizing the Search box, it will necessarily sacrifice its news section, the carousel and other features. While this recommendation is beyond the scope of our study, the sentiment from our talk aloud feedback stressed that a satisfactory beginning user experience would drive deeper exploration and perhaps an opportunity for the library to connect in other ways. Opportunities to consolidate common content emerged.

We believe that our recommendations: Reduce Homepage Clutter, Enhance Tablet-User Search, Clarify Borrowing and Adding Limits, and Establish Home Icon will provide a positive user experience that will have a ripple effect, informing the experience for users throughout the website.

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Appendix

1. Consent Form
2. Moderator Checklist
3. Moderator Script
4. Pre-Test Questionnaire
5. Post-Test Questionnaire
6. Tasks
7. Pre-Test Demographic Questionnaire
8. Post-Test Questionnaire

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Title Of Study: Columbia University Libraries

The purpose of this usability study is to evaluate the Columbia University Libraries website (library.columbia.edu). We are interested in determining whether or not people can accomplish common tasks and easily find information using this website. The session will not 'test' you or your ability, rather, the session will test the library.columbia.edu website to provide information on areas that might need to be improved. Please be advised that there are no risks associated with participation in this session.

Procedures:

I have been told that, during this session, the following will occur :

- You will complete brief online questionnaires; pre-test, post-tasks and post-test.
- You will be given tasks using the library.columbia.edu website while completing these tasks.
- You will be asked to "think aloud" to verbalize my thought process.
- Member(s) of the Pratt UX Team will observe and take notes.
- In addition, the session will be captured on video for future review.
- The session will last no longer than forty-five minutes.
- If for any reason you are uncomfortable during the session and do not want to complete a task, you may say so and we will move on to the next task.
- In addition, if you do not want to continue, you may end the session and leave at any time.

Approximately 16 people will participate in this study. Results from all sessions will be included in a usability report. Your name will not be included in the report nor will your name be associated with any session data collected unless disclosure is required by law.

I, _____, have read and fully understand the extent of the study and any risks involved. My questions, if any, have been answered to my satisfaction. My signature below acknowledges my understanding of the information provided in this form and indicates my willingness to participate in this user testing session.

Age: _____ (Note: Must be 18 or older to participate in this study)

ID # _____

Signature: _____ Date: _____

Thank you for your participation!

Moderator Checklist

Before participant arrives

- Be sure Columbia University Libraries homepage is loaded properly and ready for the first user test

Welcome

- Introduce yourself, thank participant for participating
- [Offer refreshment]
- Setup participant at computer console

Consent form, pre-test questionnaire, instructions

- Explain the purpose of the test
- Review consent form, allow participant time to read and sign, collect form
- Ask participant if he/she is comfortable being recorded
- Give a run-through of the questionnaires and tasks in the study
- Ask for questions/concerns
- Explain the process of using task scenarios while participant thinks aloud
- Start pre-test questionnaire

After each task

- Offer reassurance that there are no wrong actions/answers
- Give feedback on quality of the think-aloud procedure. If necessary, review task to elicit more feedback
- Guide participant through post-task questionnaire if necessary

Upon completion, post-test questionnaire

- Guide participant to post-test questionnaire
- Thank for participation
- Provide thank you treat to participant

Moderator Script

Hi, my name is _____, and this is _____. Thanks for agreeing to take part in our research study today. We are two of four members of a team of usability design students. We are doing a user study of the Columbia University Libraries homepage. Your feedback will give us valuable information which will be used to assess the usability design of the library.columbia.edu.

Introduction to the testing environment

During the rest of our session, I'll be working from a script, just to make sure that our instructions to all the participants are the same. Before we start, please take a look around the room. We will spend the next 30 minutes using this computer in front of you to conduct our study: this includes a pre-test questionnaire, a series of three tasks to be completed on the Columbia University Libraries site, and a post-test questionnaire. During this process, a software program called (fill in here what you are using-lookback or morae) will run in the background of the computer. It will record sound and a video of your mouse moving on the screen this helps us get a sense of how you complete the tasks. We won't be sharing the recording outside the evaluation team, although we may review it with our professor. Are you comfortable with that? [If not, place sticky paper over the camera.]

_____ and I will also observe while you complete the tasks and will be taking notes. One of us may ask you questions from time to time. We can also try to answer questions if you have them. It will be most helpful to us in working to assess the site's usability if you can speak aloud your thoughts and reactions during your work on the tasks. Before we start, do you have any questions for me?

Consent Form

Before we start, please read through this Consent Form. It reviews the points we've already discussed, and outlines the kinds of tasks you will be asked to complete during this user test. When you've read it, feel free to ask me any questions you have. Once you feel comfortable, please sign it with your full name and the date.

Did you have a chance to read through the Consent Form? Do you have any questions? I'll take it now please. Thanks.

Pre-test Questionnaire

To begin, so we can learn a bit more about you, please fill out this short questionnaire to help us understand your background.

[Click to Pre-test questionnaire]

[Make sure participant clicks "Send form"?]

Introduction to Task

We have three tasks for you to work through. We aren't testing you during this process -- we are testing the website, and we are very interested in your reactions to it, so please remember to think out loud. There is no such thing as a wrong action or a wrong answer. And neither of us had anything to do with the website design, so you won't offend us -- just give your honest reactions. When you are finished with each task, click the task completion box - I may ask you a couple of follow-up questions before you move on to the next task.

I will give you an introduction to the task and then open the library.columbia website for you to work on. There will be a brief summary of the task in a window open under the Columbia website, so you can remind yourself. Do you have any questions before we start?

Task 1 (no changes below this point)

You are a master's student at Columbia University in the Department of Art History and Archaeology looking for an article and a book written by one of your professors, Jonathan Crary. Using the Columbia University Libraries website see if you can find both an article and a book by Jonathan Crary.

You can use whatever way you want to search for the information - just be sure to talk about your process out loud.

--- end Task 1---

[Did you complete the task successfully? Yes or No]

[Overall, how would you rate this task 1 -Very difficult to 5-Very Easy] _____

Task 2

For the second task, you are an undergraduate student at Columbia University using the library for the first time and would like to know (1) how long can you check out a book and (2) how many books you can borrow at one-time?

--- end Task 2---

[Did you complete the task successfully? Yes or No]

[Overall, how would you rate this task 1 -Very difficult to 5-Very Easy] _____

Task 3

For the third task, find out if it is possible for Columbia students to borrow material from other libraries and universities.

--- end Task 3 ---

[Did you complete the task successfully? Yes or No]

[Overall, how would you rate this task 1 -Very difficult to 5-Very Easy] _____

Post-Test Questionnaire

Thanks. Now please fill out the post-test questionnaire. Do you have any thoughts about the Columbia University Libraries website in general?

Debrief

Thank you so much for all of your insights and feedback on the Columbia University Libraries website. We really appreciate you taking the time to be a participant in our user test. All the information you provided will be anonymous and confidential. We will take the screencast, review it and combine it with our other user test results to create a report evaluating the usability of the Columbia University Libraries website.

Do you have any further questions or final thoughts for me? Feel free to contact us later with any feedback.

Thanks again for participating!

Pre-Test Questionnaire

Your answer

Age

- 17 or below
- 18-30
- 36-40
- 41-50
- 61-70
- 71+

Gender

- Male
- Female
- Trans*

What is your highest level of education?

- High School
- Undergraduate (or currently undergraduate)
- Graduate
- Master's
- Doctorate
- Post Doctorate

Which of the following library websites have you used before? (select all that apply)

- Public Library
- Academic Library
- Research Library
- Never used a library website
- Other:

Overall, do you usually have a positive experience using library websites?

- Always
- Sometimes
- Never
- No opinion

SUBMIT

Post-test Questionnaire

Participant ID Number

Your answer

What frustrated you most about this site?

Your answer

If you had a magic wand, how would you improve this site?

Your answer

What did you like about the site?

Your answer

How user friendly do you feel this site is?

	0	1	2	3	4	5	
not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very user friendly

SUBMIT

Never submit passwords through Google Forms.

Columbia University Libraries
Tasks for User Test

1. You are a master's student at Columbia University in the Department of Art History and Archeology looking for an article and a book written by one of your professors, Jonathan Crary. Using the Columbia University Library website see if you can find both an article and a book.
2. You are an undergraduate student at Columbia University using the Library for the first-time and would like to know (1) **how long can you check out a book and** (2) **how many books you can borrow at one-time?**
3. Find out if it is possible for Columbia students to borrow material from other libraries and universities.

Pre Test Demographic Questionnaire

Participant Name Gender Age band Education	Library web use	Positive library web experience
P1 F 51-70 College graduate	Research	Sometimes
P2 F 18-30 Student	Public, Academic, Research	Sometimes
P3 F 18-30 Student	Public, Academic	Sometimes
P4 F 31-40 Student	Public	N/A
P5 M 18-30 Student	Public, Academic Research	N/A
P6 F 18-30 College graduate	Public, Academic, Research	N/A
P7 M 18-30 Student	Public, Academic, Research	Sometimes
P8 F 18-30 Student	Public, Academic	Sometimes
P9 M 18-30 College graduate	Public, Academic	Sometimes
P10 M 18-30 Student	Academic	Always
P11 M 41-50 College grad	Public, Academic, Research	Always
P12 F 51-70 College graduate	Public, Academic	Always
P13 F 18-30 Student	Public, Academic, Research	Sometimes
P14 F 18-30 Student	Public, Academic	Sometimes
P15 M 31-40 College grad	Public	Sometimes
P16 F 31-40 College grad	Public, Academic, Research	Sometimes

Post-test Questionnaire

Q1: What frustrated you most about the site?

Q2: If you had a magic wand, what would you change about this site?

Q3: What did you like about the site?

Q4: How user friendly do you feel this site is 0-10 (Not at all=0, Very=10)?

Q	P1	P2	P3	P4
Q1	I think the thing most frustrating was trying to find out the number of books I could borrow and for how long. That is the first thing I'd wonder and I really thought it would be in the FAQ section. I never fully got the answer.	Not finding the limit of books you can borrow at one time if you are an undergraduate. It was practically impossible and I had to give up.	Some of the information was hard to find. The website had a Borrowing and Renewal section but it did not have information on how long you could borrow a book or how many books. I couldn't find that information anywhere on the website.	I was unable to locate information regarding how many books could be checked out from the library. I imagine other students will have similar issues regarding finding specific information for the library.
Q2	Make it easier to return to the home page from any page you go searching on. I found that the home page icon was not visible from many of the searches I did.	By making it easier to navigate by grouping general questions and first-time user questions together, as well as trying to make the site less overwhelming to navigate	It needs to be organized better.	A lot of the information is hidden under multiple links. A general rule of thumb is that website users should be able to easily access most information in about 2-3 clicks. This website fails to do that and I got lost trying to remember where i was.
Q3	I liked the tabs and the search field. I was able to quickly scan and look for what I wanted and if I didn't find it then I could use the Search field to speed things up.	Nothing in particular, honestly	The category tabs at the top.	I like that a lot of information is on the website rather than needing to call the library or email one of the librarians. Just wish the information was better organized.

Q4	<p>I think about a 6 or 7. I just really wanted to find that simple answer to the number one question I think anyone would have. And that is "how long can I borrow a book for?" and "How many books can I borrow at a time?"</p> <p>While I found a couple of different responses to the first question I never did find the answer to the second one. I find it hard to understand why that is not in the FAQ section. I hope this comment is beneficial to you all and thank you for the chance to participate and help however I could.</p>	<p>If you're a student and have worked with a university library website before, it is much easier to understand in that way. However, if I wasn't, I'd be pretty frustrated and give up easily</p>	6	7

Q	P5	P6	P7	P8
Q1	Finding how many books I can borrow at once	The details and all the questions there, also the Ask a librarian	I was frustrated trying to find information about policies for undergraduate students. On the search, when I typed in 'Jonathan Cray,' I could not see his name anywhere on the page until I clicked on one of the books or articles.	Not being able to find the second task.
Q2	Put more questions in FAQ	Organize the sections a bit more	I would fix the website by allowing the main search bar to access everything. As of now if I type something in such as "artificial intelligence unemployment," nothing pops up at all. When I went to click on the article tab however, I was able to find a good amount of articles.	Make it less like a library website and more user friendly.
Q3	The details and all the questions there, also the Ask a librarian	It had a lot of information on it	The color scheme was pleasing.	
Q4	8	8	8	7

Q	P9	P10	P11	P12
Q1	The Frequently Asked Questions section was missing key pieces of information, and wasn't organised well (I couldn't determine an organisation system if there was any!)	lots of words, took quite a while to find out whether I was reading useful information or not	Not much. It was a standard academic website that I felt comfortable with.	Finding information about borrowing rules. Faq seemed a bit disjointed in organization .
Q2	I would have a simple, searchable FAQ section, ideally with a dynamic search function so that as you type, possible results are listed immediately. I think if I'd typed "Loan period" or "How long" I should have found that answer immediately, as well as "How many"!	Make the e-resources more accessible because it was hidden away in the menu	Maybe make it a little more modern in its presentation. But otherwise it functions well as an academic library website.	Search on faq? Ask a librarian doesn't work all the time and that might help.
Q3	I liked the robust ability to search the reading materials, and the direct links to those resources available online. I also liked that the search could be refined with many different options after having searched a simple term. The homepage itself wasn't ugly, though there is quite a bit of information on the one page, where perhaps headings and a small	I found what I was looking for fairly quickly.	I found what I was looking for fairly quickly.	Overall it's well designed. Searching for books was very easy and that's the point .

	image would have looked better! (and been more clear to navigate)			
Q4	5	was very fitting to its purpose	8	8

Q	P13	P14	P15	P16
Q1	None of the tabs really let me know what they would lead me to. I also thought the some of the tabs on the FAQ page were really specific and the kind of question that only a select few would ask instead of the general public.	A lot was going on. Some things were easy to find while others were too embedded.	Too many links & menus, too busy	Columbia seems to use it's own words for the same basic things that other libraries have. That makes doing easy stuff, hard.
Q2	I would make a page specifically of general library information regarding library use. I think I would make the process by which people take out books really clear and obvious - maybe even have a step by step procedure.	I would narrow certain information into one link. Like how many books a person can borrow on the borrower's page.	Streamline / condense all the menus & links, particularly on the homepage	Too many categories.
Q3	Nothing	For the most part it was very organized which made it easy to know where to click, however with too much embedded information it can be slightly confusing.	The search library function was very intuitive	Can't say I liked it or didn't like it.
Q4	2	3	3	It felt like an exclusive place.