

Upper Sandusky Community Library

Final Report

IAKM 60112: Information Architecture II

By George Burgess

Project Overview

The Upper Sandusky Community library director would like the library's website to be redesigned from the bottom up. This can be accomplished by designing a new information architecture (IA) for the website. **Information Architecture** focuses on organizing, structuring, and labeling content in an effective and sustainable way. The goal of any IA is to help users find information and complete tasks.

The new IA will meet and answer the following goals and concerns of the library's website:

- ❖ Patrons will find it less daunting to find Information.
- ❖ The information will be organized better.
- ❖ Patrons will be able to find exactly what they are looking for.
- ❖ The redesigned website will be easy for existing staff to maintain.

Project Plan

Over the course of six weeks, user research was conducted, a new Information architecture was designed, the new IA was evaluated, and the finalized IA and design decisions were delivered.

In Week one and two, participant recruitment & interviews was conducted with people who have knowledge of municipal library users to learn what library users tend to do and what they want to do. In week three, the information and data gathered from the user research was used to create the information architecture for the site's redesign. Which includes content analysis, development of a classification scheme, and the creation of a site map. In week four, a taxonomy design assessment was conducted to evaluate the new IA. In week five and six, testing was continued with a navigation assessment. Finally, all of the information and data gathered from the assessments was used to improve and finalize the new Information architecture and design decisions.

Activity	W1 & W2	W3	W4	W5 & W6
Participant Recruitment	X			
Participant Interviews	X			
Design a new Information Architecture		X		
Development of a Classification Scheme		X		
Site Map Creation		X		
Taxonomy Design Assessment			X	
Navigation Assessment				X
Finalize IA design & Design Decisions				X

User Research

The first step when designing a new IA, is to conduct user research to understand what users are looking for and why. This will help organize information and prioritize tasks completed on the website. Below is a summary of the research and assessments conducted for this project.

Stakeholder Interviews

User Research Goal

- ❖ To learn and understand as much as possible about the people who use municipal libraries. specifically, people who visits the library's website.
- ❖ To determine what type of information patrons are looking for on the website as well as what tasks they complete or want to complete.

User Research Method

Two librarians from the South Cobb Regional Library participated in directed interviews where they where asked questions as well as follow up questions to gather additional details. The sessions were one-on-one and lasted 20 to 30 minutes. Audio from the Interviews were recorded with consent.

Results

Based on the research, people who typically use library websites can be placed loosely into one of the four categories represented by the personas. The research also revealed which tasks users complete online as well as what information they are looking for. The task priority table provides insight on which task the personas have in common as well as how each persona differs.

Taxonomy Design Assessment

User Research Goal

- ❖ Assess the new labeling and taxonomy using Treejack,
- ❖ Decide wither any changes needs to be made to the labeling and taxonomy.

User Research Method

The study was used to test the initial version of the taxonomy in the new IA. Eight participants were given scenarios related to the key tasks and personas that were Identified for the new IA. The study was conducted using Treejack, which is a tool that is built for evaluating taxonomy and labeling.

Results

Overall the study was a success. All of the participants were able completed 100% of the tasks. And majority of the tasks were completed by going directly to the correct answers. However, there were two tasks where the participants struggled.

Task #2

The first one was accessing an online database. Instead of navigating to one of the two databases under the 'Services' category, participants selected 'Library Catalog' under the 'Library Collection' category. This may be due to the fact that library catalogs could also be used to complete the task.

Task #3

The second one was reserving a meeting room. Instead of navigating to 'Reserve a Meeting Room' under 'My Account', majority of the participant chose 'Meeting Rooms' which is in the 'Services' category. The Meeting Rooms page contains information about meeting rooms but was not intended as a way to reserve a room. This may have caused some confusion.

IA Design Changes

To correct the issues causing the participants to fail the tasks the following revisions were made to the IA:

- ❖ Moved the Databases under the 'Library Catalog' category and changed the label to 'Library Catalog and Databases'
- ❖ Created and link to the 'Reserve a room' page under 'Meeting Rooms'.

Navigation Assessment

User Research Goal

- ❖ To test whether people can figure out where to start key tasks.
- ❖ Decide wither any changes needs to be made to the Navigation.

User Research Method

The study was used to test the navigation for the new IA. Six participants were given wireframes & scenarios related to the key tasks and personas that were Identified for the new IA. The study was conducted using Chalkmark, which is a tool that is built for evaluating the first click of the users.

Results

Overall the study was successful. All of the tasks had a success rating of 83% and above except for one. also all of the participants completed the study in under five minutes and two completing it in under two minutes. Task #7 had a success rating of 67%. This issue was caused because of the way the task was worded. Based on the result no design changes were made.

Personas

The following Personas were created based on the information gathered from the interviews and Literature review. They represent the different types of people who visit and use library websites.

Persona # 1 (Primary)



Demographic

- ❖ Name: Ryan
- ❖ Title: Student
- ❖ Age: 17

Goals/Needs

- ❖ Would like to conduct research for projects and homework.
- ❖ Would like to receive help on projects and homework.
- ❖ Would like find books for book reports.
- ❖ Would like to access online articles in the library's database.

Tasks

- ❖ Search the library catalog.
- ❖ Get basic library information.
- ❖ Reserve books, CDs, and DVDs.
- ❖ Renew a book, DVD, or CD.
- ❖ Use an online database.
- ❖ Get research or homework help.
- ❖ Check fines or pay fines online.

Persona # 2 (Secondary)



Demographic

- Name: Aliyah
- Title: Parent
- Age: 29

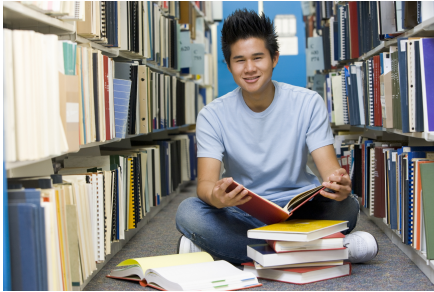
Goals/Needs

- ❖ Would like to find books for her daughter to read.
- ❖ Would like to find events and activities to take her daughter to.
- ❖ Would like to find out about library hours and location.

Tasks

- ❖ Search the library catalog.
- ❖ Get basic library information.
- ❖ Reserve books, CDs, and DVDs.
- ❖ Renew a book, DVD, or CD.
- ❖ Check fines or pay fines online.
- ❖ Sign up for library programs and event

Persona #3 (Secondary)



Demographic

- ❖ Name: Jacob
- ❖ Title: Bookworm
- ❖ Age: 22

Goals/Needs

- ❖ Would like to find new books to read.
- ❖ Would like to join a book club.
- ❖ Would like search for books by certain authors and genres.

Tasks

- ❖ Search the library catalog.
- ❖ Get basic library information.
- ❖ Reserve books, CDs, and DVDs.
- ❖ Renew a book, DVD, or CD.
- ❖ Check fines or pay fines online.
- ❖ Read book reviews.
- ❖ Get book recommendations.
- ❖ Sign up for library programs and events.

Persona # 4 (Secondary)



Demographic

- ❖ Name: Carla
- ❖ Title: Event Coordinator
- ❖ Age: 43

Goals/Needs

- ❖ Would like to hold meetings at the local library.
- ❖ Would like to reserve a room.
- ❖ Would like to reserve a projector.
- ❖ Would like to print event materials.

Tasks

- ❖ **Get basic library information.**
- ❖ **Sign up for library programs** and events.
- ❖ **Reserve a meeting room.**
- ❖ **Reserve Library Equipment.**

Task Priority by Persona Table

This table contains a list of tasks that are commonly completed by people who use library websites. The tasks are ordered by priority. Also the table shows which tasks the personas complete.

Persona	Ryan the Student (Primary)	Jacob the Bookworm (Secondary)	Aliyah the Parent (Secondary)	Carla the Event Coordinator (Secondary)
Tasks				
High Priority Tasks				
Search the library catalog.	Yes	Yes	Yes	
Get basic library information.	Yes	Yes	Yes	Yes
Reserve books, CDs, and DVDs.	Yes	Yes	Yes	
Renew a book, DVD, or CD.	Yes	Yes	Yes	
Medium Priority Tasks				
Use an online database.	Yes			
Look for information about library programs or events.			Yes	Yes
Get research or homework help.	Yes			
Check fines or pay fines online.	Yes	Yes	Yes	
Low Priority Tasks				
Read book reviews.		Yes		
Get book recommendations.		Yes		
Sign up for library programs and events.		Yes	Yes	Yes
Reserve a meeting room.				Yes
Reserve Library Equipment.				Yes

Classification Scheme

When designing an information architecture, one important aspect is the organization of content. There are several different ways to organize content called Classification Schemes. Some examples include organizing content alphabetically or organizing content by Time(Date). Deciding which scheme is used is based on the website's content, users, and business goals. Also IAs are not tied to using only one scheme. They can use a combination of any existing schemes or create entirely new ones.

For the new information architecture, the classification scheme will be ambiguous based on a combination of a topic/subject scheme and a task-based scheme. The Primary Classification scheme will be based topic/subject. This is one of the most commonly used schemes and can be designed specifically for the library's content. This scheme was also selected because a lot of the site's content can be placed into categories or topics. This is similar to the scheme used in the current version of the website. The Secondary scheme will be based on the tasks we discovered from the user research.

Sitemaps

Below are two site maps. The first map represents the structure and defines the labels for the entire website. This map is organized by topic/subject. The second map represent the My Account Page which is organized by task. The maps are also color coded based on the task priority by persona table from the user research.

Site Map Key
Homepage
Primary Page
Secondary Page
High priority Task & Information
Medium priority Task & Information
Low priority Task & Information

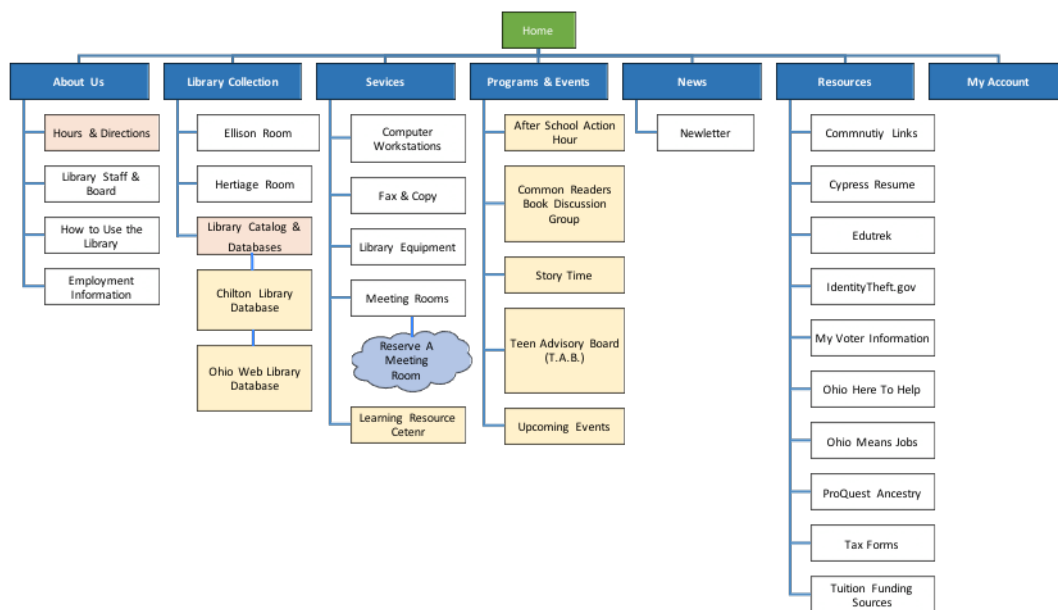


Figure 1. Hierarchical Site Map – Entire Site

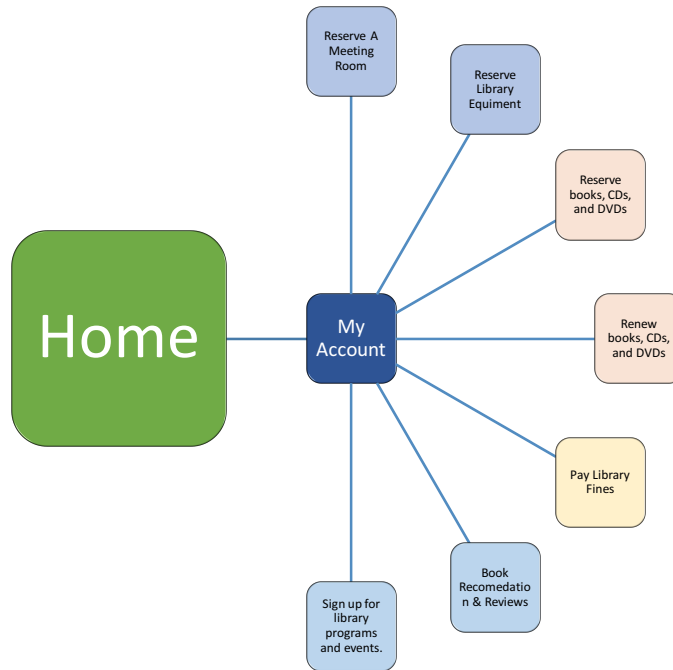


Figure 2. Hub & Spoke Site Map – My Account

Wireframes

Based on the new IA, the following wireframes were created for the homepage and the high-priority workflows. The main purpose for the wireframes was to represent the navigation. But it also shows key access points on the body of a page.

Wireframe Annotations:

1. This represents library hours.
2. Link to the My Account Page. User would be taken to a login screen then the page.
3. Dropdown menu items
4. Represents library address.
5. Local navigation bar on the left side of the page.

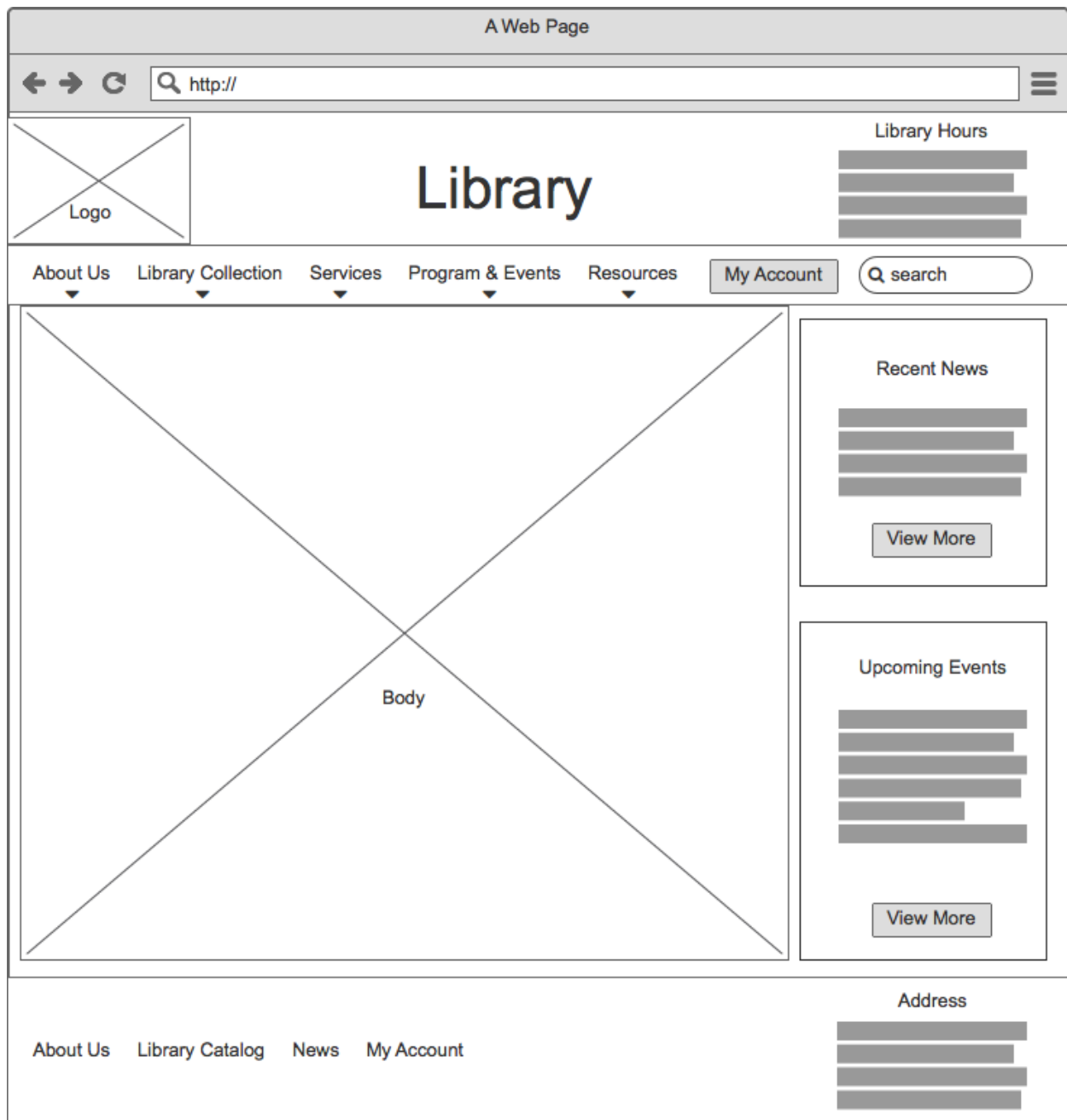


Figure 3. Homepage Wireframe

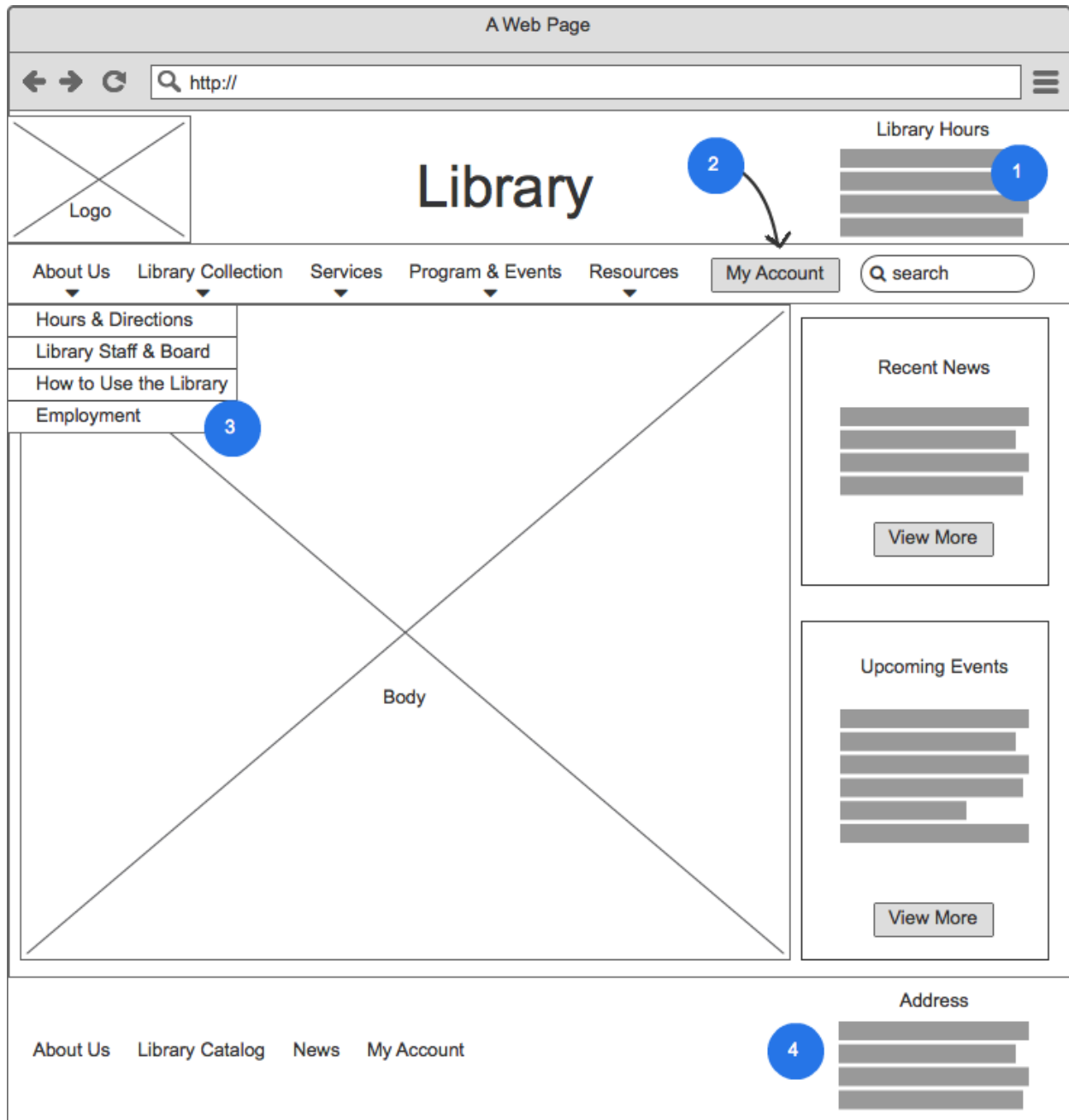


Figure 4. Homepage Wireframe w/ Dropdown

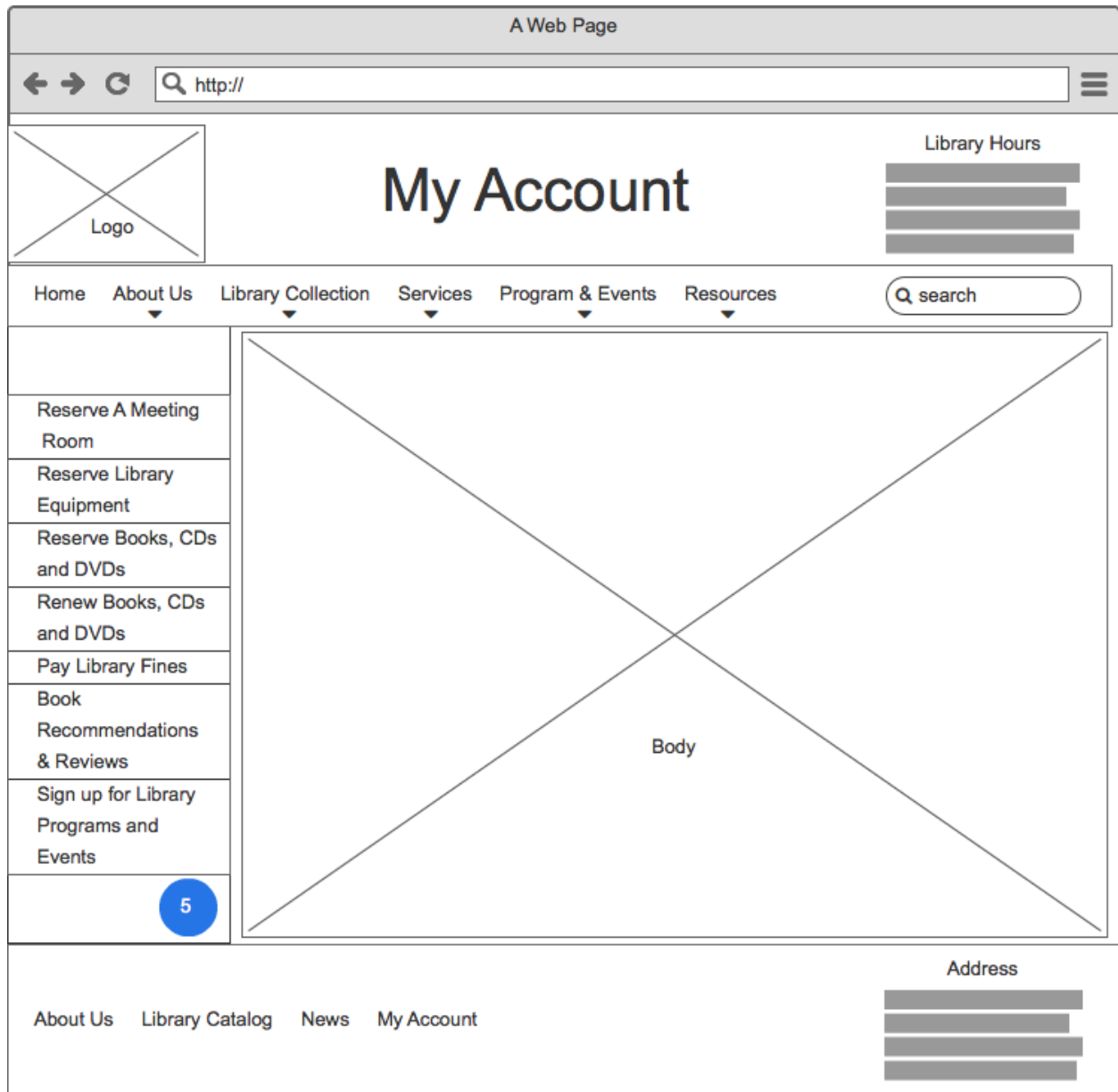


Figure 5. My Account Page Wireframe

Appendix

I. Current Website Structure

Organization

Currently the website has a topical organization scheme. Which mean majority of the website's content is organized by topic.

Navigation

The site contains several different navigation bars present on each page of the website. The site's main navigation or global navigation is located on the left-hand side of the page instead of across the top of the page like most modern websites. On the right hand side of the page, there is a navigation bar labeled 'Resources' that contains icons that lead to external sites. On the top of the page, there is a third navigation bar that contains links to pages for library information such as hours, directions, and staff.

Labels

The labels used currently do not represent the content or information they are linked to very well. If a user is not familiar with library, they may be confused on what the labels mean. If you go deeper into the website, you will notice that pages have labels for the subsections but no way to navigate to those section easily, because there is no local navigation. meaning to find the specific information or content, users would have to scroll through the entire page.

Other Observations

There is no way to search the site because it lacks a search system. Meaning if a user knows exactly what they are looking they would still have to navigate through the site to find the content instead of typing a keyword into a search bar.

While navigating through the website, users may become lost. This is caused by the absence of ways to tell where they are within the website. For example, the use of breadcrumbs or highlighted labels.

The navigation, labels, and other observations may all be causes of why patrons might find it daunting to find information.

II. Literature Review

A literature search was conducted to find resources that would provide more information about the users of library websites. Two great resources were the Pew Research Center and the Pew Internet & American life Project. The two websites provided several facts and demographic information about who uses library websites as well as how people use library websites. Another resource was a study conducted by MIT Libraries. In the study, they asked over fifty students what they would want in a library. This study included suggestions for digital services that could be provided on libraries website.

Here is a list of interesting facts from the studies:

Who uses library websites

- ❖ Younger and higher educated people are more likely to use libraries virtually (via a website or an app)
- ❖ Those who are most likely to have visited library websites are parents of minors, women, those with college educations, those under age 50, and people living in households earning \$75,000 or more.

How people use library websites

- ❖ Search the library catalog for books (including audiobooks and e-books), CDs, and DVDs.
- ❖ Get basic library information such as the hours of operation, location of branches, or directions.
- ❖ Reserve books (including audiobooks and e-books), CDs, and DVDs.
- ❖ Renew a book, DVD, or CD. Those ages 30-49 and parents of minor children are especially likely to have done this.
- ❖ Use an online database. Those ages 18-29 are particularly likely to have done this.
- ❖ Look for information about library programs or events. Those ages 50-64 are especially likely to do this.
- ❖ Get research or homework help.
- ❖ Read book reviews or got book recommendations.
- ❖ Check whether they owed fines or paid the fines online. Those ages 30-49 are particularly likely to have done this.
- ❖ Sign up for library programs and events.
- ❖ Borrow or download an e-book.
- ❖ Reserve a meeting room.

MIT Library student digital services suggestions

- ❖ Kindle checkout option to easily borrow eBooks
- ❖ Cloud for checking out music
- ❖ suggest literature based on past checkout history
- ❖ More efficient look ups by using using key words.

III. Content Analysis

A content analysis was performed on the current website to determine what content is present and can be repurposed, what current content needs to be reworked, and what content is not present and needs to be created.

Content Inventory

The table below is a High level Content inventory of the content throughout the current site. The numbering scale starts at 0.0 which is the homepage (green). The homepage navigation located across the top of the page is numbered 1.0 – 5.0. The Navigation located on the left side of the page is numbered 6.0-15.0 (Blue). The Navigation located on the right side of the page is numbered 16.0-19.0 (Gray). There is another navigation menu located on the bottom left side of the page 16.0-19.0 (Orange). A more exhaustive in depth version the the content inventory will be provided in the excel file.

ID	Navigation	Title	Hyperlink	Format
0.0	Home	Home	Link	HTML
1.0	Directions	Directions To The Upper Sandusky Community Library	Link	HTML
2.0	Hours	Hours Of Operation	Link	HTML
3.0	Library Staff & Board	Upper Sandusky Community Library Board of Trustees & Staff Members	Link	HTML
4.0	Community Links		Link	External Link
5.0	News & Info	News & Information	Link	HTML
	Our Library			Navigation Menu
6.0	Our Library	Our Library	Link	Page
7.0	Our Collection	Our Collection	Link	HTML
8.0	Program & Events	Programs & Events	Link	HTML
9.0	Library Newsletter	Library Newsletter	Link	PDF
10.0	Heritage Room	Heritage Room	Link	HTML
11.0	Ellison Room	Ellison Room	Link	HTML
12.0	Teen Advisory Board (T.A.B.)	Teen Advisory Board	Link	HTML
13.0	Story Time	Storytime	Link	HTML
14.0	After School Action Hour	After School Action Hour	Link	HTML
15.0	Common Readers Discussion	Common Readers Book Discussion Group	Link	HTML
	Resources			Navigation Menu
16.0	Library Catalog		Link	External Link
17.0	Cypress Resume		Link	External Link
18.0	MY Voter Information		Link	External Link
19.0	Ohio Web Library Database		Link	External Link
	Other Nav			Navigation Menu
20.0	Chilton Library		Link	External Link
21.0	News and Information		Link	HTML
22.0	Edutrek,Tution,Funding Sources,Proquest Ancestry		Link	HTML
23.0	Ohio Here to Help		Link	HTML
24.0	Support Your Library		Link	HTML
25.0	Tax Forms:		Link	HTML
26.0	Ohio Means Jobs:		Link	HTML

IV. Stakeholder Interviews

Interview Summary

Interview #1

Name: **Ashley**

Job: **Library Circulation Assistant**

Description: **Assists patrons with checking library materials in and out, hold requests and other general library duties.**

Narrative of the interview:

Ashley Stated the following:

- ❖ “The main type of people who visits the library are students, everyday readers and people looking for specific books.”
- ❖ “Visitors mainly use our site to look for books or research materials, check if books are checked out, or find the location of the book. They use the site to find articles for projects and assignments.”
- ❖ “Students really use the website to access our databases so they can do research or get with their schoolwork.”
- ❖ “Visitors are mainly looking for information about how reserve rooms and how to use our fax and copy machines or our new 3D printer. Sometimes they want to check our hours or information on any events we have planned on the calendar.”

Interview #2

Name: **Deidra**

Job: **Library Clerk**

Description: **Provides assistance and information related to library services, fees, procedures, or other issues.**

Narrative of the interview:

Deidra Stated the following:

- ❖ “Our main visitors are students, parents and people who want to hold meeting or events.”
- ❖ “Student use the site for help with their homework as well as to find resources. Parents uses the website to find afterschool activities, events and the book clubs we have for children. Event coordinators use our site to reserve rooms and items.”
- ❖ “Event coordinators mainly are the only ones who want to reserve rooms and use resources like projectors or TVs.”
- ❖ “Visitors look for information about our hours, how reserve rooms, event calendar stuff, and hoe to access our databases.”

V. Taxonomy Design Assessment

The study was used to test the initial version of the taxonomy in the new IA. Eight participants were given scenarios related to the key tasks and personas that were Identified for the new IA. The study was conducted using Treejack, which is a tool that is built for evaluating taxonomy and labeling.

Tasks

- 1. Bookworm – Join a Book Club**
You recently discovered a new found love for books. You would like to meet and discuss with others who love books just as much as you. Where on the website would you find information about joining a book club/group? *Correct Answer: Common Readers Book Discussion Group*
- 2. Student – Access Online Database**
As part of your homework assignment, your teacher made it mandatory that you include at least on scholarly article or research paper. Where on the website would you go to access a database and search for your research paper? *Correct Answers: Ohio Web Library Database & Chilton Library Database*
- 3. Event Coordinator – Reserve a Meeting Room**
You are in charge of this week's Girl Scouts meeting held at the local library. You decided this week's theme would be a movie night. You already have the movie, screen, and popcorn. Where on the website would you go to reserve a room? *Correct Answer: Reserve A Meeting Room*
- 4. Parent – Find Information about Story Time**
You are a parent of two 3-year-old twins who love books, but can't read yet. You've heard that your local library has a really fun story time. Where on the website would you go to find out more information about the story time? *Correct Answer: Story Time*
- 5. General - Find Basic Library Information.**
You just moved to brand new town and would like to visit the local library. Where on the website would you go to find out how to get to the library and when the library is open? *Correct Answer: Hours & Directions*
- 6. General – Pay Library Fines**
While packing to move, you found a library book that you checked out a few months ago. Where on the website would you go to pay your library fine? *Correct Answer: Pay Library Fines*

IA Design Changes

To correct the issues causing the participants to fail the tasks the following revisions were made to the IA:

- ❖ Moved the Databases under the 'Library Catalog' category and changed the label to 'Library Catalog and Databases'
- ❖ Created and link to the 'Reserve a room' page under 'Meeting Rooms'.

Sitemap

Below are two site maps. The first map represents the initial structure of website used for the Treejack study. The second map represent the updated structure after IA Design revisions.

Site Map Key	
Homepage	
Primary Page	
Secondary Page	
High priority Task & Information	
Medium priority Task & Information	
Low priority Task & Information	

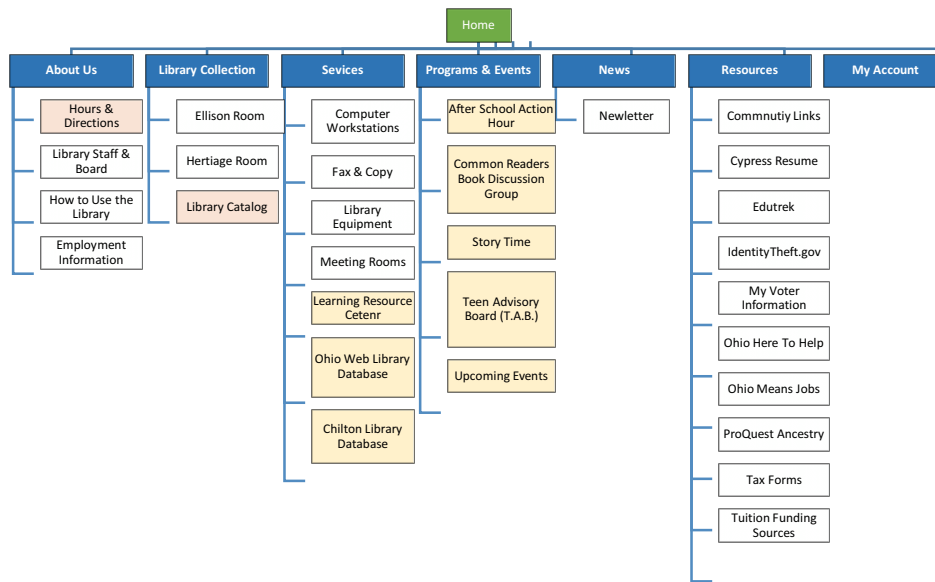


Figure 6. Initial Hierarchical Site Map

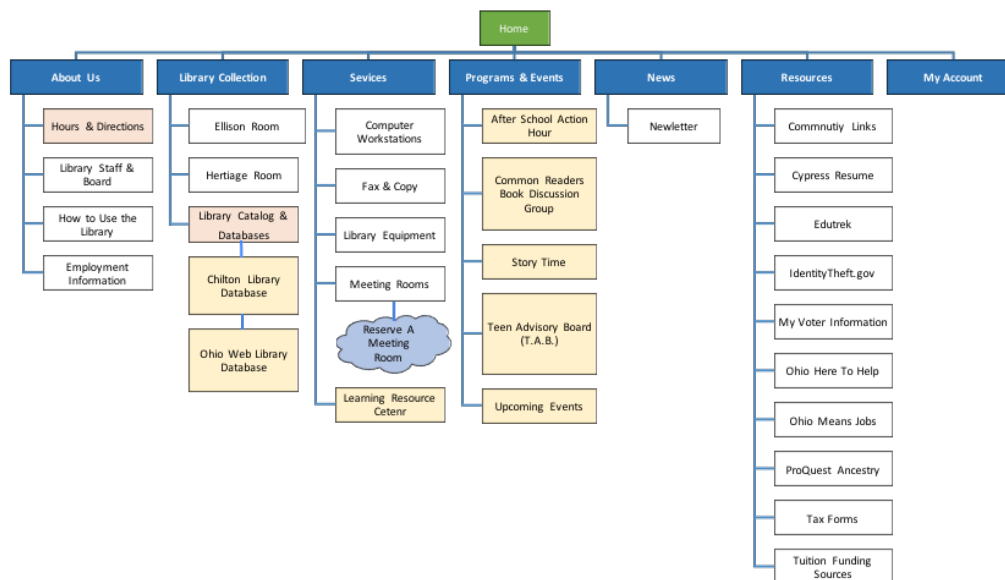


Figure 7. Revised Hierarchical Site Map

VI. Navigation Assessment

Tasks

1. A coworker told you that your child's favorite author is having a book signing at the local library. Where would you go to find out more information about the book signing?

- ❖ Clicks: 6
- ❖ Successful: 5
- ❖ Skips: 0
- ❖ Average time: 5.5 (secs)

2. You are in charge of setting up the weekly study group at the library. Where would you go to find a place big enough for your eight classmates?

- ❖ Clicks: 6
- ❖ Successful: 6
- ❖ Skips: 0
- ❖ Average time: 11.0 (secs)

3. Your Literature Arts teacher assigned a book report to the class. Several of your classmates mentioned that there are a few copies left at the local library. Where would you go to find the book?

- ❖ Clicks: 6
- ❖ Successful: 6
- ❖ Skips: 0
- ❖ Average time: 4.9 (secs)

4. The library is starting a new club for people who like Astronomy. Where would you go to find out more information about the club?

- ❖ Clicks: 6
- ❖ Successful: 5
- ❖ Skips: 0
- ❖ Average time: 8.8 (secs)

5. You just moved to brand new town and would like to visit the local library. Where on the website would you go to find out when the library is open?

- ❖ Clicks: 6
- ❖ Successful: 6
- ❖ Skips: 0
- ❖ Average time: 6.9 (secs)

6. A new library just opened in your neighborhood. Where on the website would you go to find out how to get to the new library?

- ❖ Clicks: 6
- ❖ Successful: 6
- ❖ Skips: 0
- ❖ Average time: 6.2 (secs)

7. You heard that the library will be closing early because of snow tomorrow. Where would you go to look for announcements about the new closing time?

- ❖ Clicks: 6
- ❖ Successful: 4
- ❖ Skips: 0
- ❖ Average time: 9.9 (secs)