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Oregon State University Libraries: Findings & Recommendations

This document consolidates findings from all of our Discovery work into recommendations for the development of a unified, user-friendly library website system for Oregon State University.

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Discovery Deliverables

- [Online Survey Results](#)

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Online Survey

We collected 99 valid responses through the survey. Of these, 80 were submitted by regular users of at least one of the three library websites. Within this pool of regular users, we saw a broad spread of roles: 50% students, 42.5% faculty or staff, and 7.5% family or community members.

Interviews & Focus Groups

We conducted ten group interviews with a combined total of 51 participants, ranging from light to heavy users of the library websites and representing a range of perspectives: undergraduate students in their second and senior years, graduate students in their first through sixth year of a masters or PhD program, an Ecampus student-mentor, staff providing support to students or proctoring exams on campus or via Ecampus, teaching and professional faculty, library administrative leadership and staff, LEAD leadership and staff (including student workers), Research and Learning leadership and staff, Research Acquisitions and Sharing leadership and staff, and librarians from each of the three library locations.

Comprehensive Website Analysis

We completed a comprehensive audit of the three library websites (library.oregonstate.edu, guin.library.oregonstate.edu, and cascades.library.oregonstate.edu) at all standard responsive breakpoints (desktop, tablet, and mobile). We reviewed website organization (information architecture), usability, content quality, tone and voice, calls-to-action, accessibility compliance, and website analytics to inform our findings and recommendations for improvement.

Internal Document Review

We conducted a thorough review of internal documents provided by your team to learn about library requirements and guidelines, to get insight into current communication via the website, and to understand already-identified issues and goals for this project.

Findings & Recommendations

Improvements in navigation and wayfinding are needed.

The current organization of the library website system is not meeting user needs. Navigation is "a constant issue," as one interview participant said.

> *"I go into some subpages, and besides hitting the back button on my browser I don't know how to get back to where I was."*
>
> *"On one page there's a link and it takes you there, but that link is not present on a different page."*
>
> *—Interview participants*

Among survey respondents, nearly one in five regular users (18.75%) called the library website system either "difficult" or "somewhat difficult" to navigate, while in qualitative responses, 30 percent of regular users flagged issues with navigability. Only a few expressed satisfaction.

> *"Hard to navigate."*
>
> *"It's hard to find where and how to borrow books. There is a labyrinth of links."*
>
> *"Not user-friendly for students or faculty who are not familiar with academic library websites."*
>
> *—Survey respondents*

About half of regular users (48.75%) said that navigation was "somewhat easy." However in this context "somewhat easy" does not mean that the current navigation is meeting user needs, but that users are figuring out how to work around obstacles—an observation supported by interview participants, who said they develop their own workarounds to compensate for the website's issues. For new users, for users with ambiguous questions, for users without training on how to use the websites, and even at times for experienced users, the system presents major barriers.

On a related note, some survey respondents expressed a desire for various resources that the library already offers, indicating a lack of awareness about what's already available. Similarly,

interview participants expressed concern that the wealth of resources and services to be found through the university library is not being utilized to its full potential, because library patrons "don't know what they don't know," and resources that could fill the gap—such as LibGuides and library liaisons—are not easy to find.

> "So much of our valuable information is buried in LibGuides. And it's just really not intuitive, where to find it and how. That's kind of a trend in general. Where did we put that; what did we call it."
>
> "One of my biggest pet peeves is to find the library liaisons, you have to go to like three different pages. As I'm helping students, I think that should be front and center."
>
> —Interview participants

Even among users who find the website system straightforward, it's unlikely that their understanding of the library's resources is complete. Many students never access the full value of their university's resources. Better wayfinding would help to address this.

Recommendations

1. Reader-friendly navigation labels and page paths should be applied throughout, with paths corresponding to page titles and avoiding any specialized, insider terms.

2. Wayfinding elements (the consistent use of accurate breadcrumbs, highlighted navigation labels, etc.) should indicate where a user is and how to navigate elsewhere as desired.

3. The top navigation bar of each website should be adjusted to clarify the top-left logo link destination (will clicking the logo bring them to library home or university home?), which library website they're currently visiting, how to navigate to a different library website, and how to find the centralized resources of the university library system as a whole.

4. The interface should indicate whether or not elements are interactive (e.g. behaviors triggered on hover) and when mistakes have been made (e.g. warning notifications).

5. A consistent approach to the use of on-page sidebar menus should be established.

6. User journeys should be strategized to improve engagement within and across pages to address user engagement, which is extremely low.

Significant changes to information architecture should be considered.

Where user experience is concerned, the root issue is information architecture. The structure of the library website system as a whole deserves rethinking.

The Cascades and Guin websites are valuable online spaces where digital content, physical equipment, and site-specific information are presented with autonomy and innovation—yet while these websites are free to focus on location-specific content, the main website is burdened with two contradictory purposes: to provide location-specific information about the Valley Library's physical offerings, and to provide centralized content relevant to the entire university library system as a whole, including Cascades and Guin.

> *"We fall into the pattern of thinking of the library as the Valley."*
>
> *—Interview participant*

There is an implicit category error at play here, which could be resolved by placing all Valley-specific content (e.g., hours, equipment, spaces available, on-site events, etc.) in a dedicated Valley location website; and placing all centralized content reflecting the Oregon State University Library as a whole (e.g., policies, big picture vision, outreach to donors and job candidates, etc.) in an overarching Library website, which would serve users of all three location-based websites (Valley, Cascades, and Guin), as well as online-only users.

This is an approach that other major university libraries have modeled successfully. Doing so would resolve many of the problems caused by the current information architecture, eliminating the need for extensive duplication and interlinking, and giving users a more intuitive experience.

Recommendations

1. A new approach to information architecture within and across the three websites should be explored: placing all centralized resources under a single umbrella ("the library"), while breaking location-specific content out into separate websites (Valley, Cascades, and Guin).

2. Consistent naming conventions should be introduced for the library system as a whole and for the three library locations, to clarify their structure and relationships both within the online system and also within Google search results.

3. A reasonable reduction of interlinking and duplicate content across websites should be achieved through a better-integrated content strategy.

4. Within each website, a logical hierarchy of pages should be established.

There is a lack of storytelling, and an opportunity to change this.

The library is a hub of community, warmth, and vibrancy, with a holistic array of offerings. Yet its website system is not telling this story.

> *"The website feels sterile and doesn't convey the warmth of how we really are."*
>
> *"The front page is overwhelming and the personality is mismatched."*
>
> *"There are so many amazing things happening and they're not visible. … I don't see any of that on the website. It's business-forward but it's intimidating."*
>
> *"The integration of our identity is something we need to do."*
>
> —*Interview participants*

Through storytelling, the website system could do a much better job of bringing users (especially students, job candidates, and donors) into community with all that the library is and does.

Recommendations

1. The homepage of each website should reflect the warmth and vibrancy of the library by positioning it not just as a collection of resources, but as a community.

2. Space on the homepage should be given to sharing images and social updates from live events, presenting the library as a vibrant community.

3. A concise, broad-brush overview of all that the library offers should be showcased.

Guidance should be established to improve the quality and accessibility of on-page content.

With a multitude of staff editors, online consistency is a perennial challenge. On-page content quality falls well below the industry standard (a difference of 58 percentage points) and includes large bricks of text, jargon, long and unwieldy calls to action, and many hard-to-see, in-line links.

> *"It's text heavy; and way too much information on pages."*
>
> *—Survey respondent*
>
> *"It's scattered and not very intuitive. It's cluttered. I don't even know where to look, there's so much."*
>
> *"Overwhelm … it's just too much, and [the user thinks], I can't do it, and vacate. I have to know exactly what I'm looking for and go exactly there, and otherwise it's too much for me."*
>
> *—Interview participants*

Staff members expressed a desire for guidance to address this.

> *"Please document thoroughly how things should be changed."*
>
> *"My wish would be that … those workflows were clearer."*
>
> *"We don't have a cohesive design. A lot of people edit a lot of individual pages. There's no style guide or admin guide for consistency."*

Accessibility is also lower than industry standard (by 18 percentage points).

"As a migraine sufferer, I wish more of the website had 'dark mode' design elements so it wasn't so bright and harsh on my eyes."

"Lack of accessibility and options for accessibility aids."

—Survey respondents

"Using an accessibility assessment tool, it takes 80 tabs before you get to the chat window."

—Interview participant

Recommendations

1. Guidance should be established to ensure consistency on quality among all staff editors.

2. On-page content should be restructured to reduce large bricks of text, decode jargon, shorten calls to action, and display on-page links in a visually engaging way.

3. Best practices in accessibility should be implemented.

4. Each parent page should provide an overview of the child pages within that section.

5. Homepage content should be strategized to serve the needs of advanced users (allowing them to perform common functions with a minimum of scrolling or clicking) as well as new users (providing in-context guidance on how to use the site).

The visual design of web pages should be updated for consistency and professionalism.

The lack of fresh and consistent design templates, the layout of the homepage, its emphasis on hours at the expense of other information, and the use of static tiles, are frustrating to users.

> *"The overall look and feel is old."*
>
> —*Survey respondent*
>
> *"The boxiness, it's not very pleasing to the eye. It feels outdated."*
>
> *"My personal gripe is the gigantic photos, which require you to scroll past the break. They get in the way of the function the site is meant to serve."*
>
> *"The website can be a little disconnected. Different pieces have been designed at different times. … There are layers of stuff that are not coalescing. It would be nice if things were more harmonious."*
>
> —*Interview participants*

Recommendations

1. Page themes should be updated so that users experience professional, consistent norms for visual design and content layout throughout.

2. Visual elements such as icons should be used only when they add value to the user experience; the overabundance of unintuitive icons should be avoided.

3. The use of favicons should be made consistent throughout all websites.

The search functions of the site require functional improvements and additional context.

Among survey resopndents, regular users were ambivalent about the usability of the search tool: responses were split roughly half in half on whether the tool is working well or poorly.

> *"The search functionality is sometimes difficult to navigate."*
>
> *"Searches can be overwhelming and hard to narrow down."*
>
> *"Hard to determine where the item is physically held."*
>
> *"Difficult to navigate the search functionality for specific topics."*
>
> —*Survey respondents*

There are two types of search taking place. The first is the site search tool, which searches web pages. This tool fails to display the most relevant search results, automatically displaying Cascades and Guin web pages at the top of the list, whether or not these are relevant to the user's query.

The second type of search pertains to research, including 1Search, but also the databases, Special Collections, and Archives that are distinct from it. Here again, ease of use emerged as a major weakness. Links to research resources apart from 1Search are located on different parts of the page, making it hard for students to understand all the options available to them. In addition, students and staff alike expressed a strong need for context—either a one-line description under each resource, or an on-hover tool tip—to indicate how the tool will behave and what it's for.

Finally, the options provided on the 1Search widget itself are confusing to users, and the filtering tools provided on the 1Search homepage need finetuning.

> *"There's a lot that's not very intuitive [about 1Search and the other research tools]. So there's a lot of explaining what things mean and what to expect when you click."*
>
> *"The one thing I was confused about at first was the name '1Search' … does that mean you're searching for a page in the website, or … ? And the database index is a little hidden."*
>
> *"I don't know what course reserves is [in the 1Search widget], but you can click that. And there's a Help search, too. I don't know what those do, and I'm not going to try to figure that out."*
>
> *—Interview participants*

Without readily accessible, user-friendly guidance, many students just choose to wing it, missing out on the full extent of the library's search capability.

Recommendations

1. The principal research tools of the site (1Search, Databases, Archives, etc.) should be grouped and contextualized on-page so that first-time users can understand them in context and immediately decipher what each type of search is designed to do, which resources it will search, how to use it, and what use case or user type it's meant to serve.

2. An option to go straight to the 1Search homepage should be provided so that users can skip directly to the advanced search screen without having to use the widget first.

3. The labels on the navigation bar of the 1Search homepage should be made more intuitive.

4. The 1Search homepage filtering tools should be examined for usability: e.g., differentiating 1Search from third-party databases, clarifying categorical differences in search options, making it impossible to apply a filter more than once, making filter names self-explanatory, providing a "search all" option, etc.

5. The site search tool contained within the 1Search widget (under the "Help" tab) should be removed to prevent confusion between searching the library's resources versus searching a website's pages.

6. The site search tool (the magnifying glass on the top navigation bar) should be contextualized so that users understand what this tool does (e.g., which sites or pages it searches) in contrast to 1Search.

7. The site search tool should be configured to show results in order of relevance, with a better filtering system to help users narrow results by location.

The mobile experience requires improvement.

The library website system has many issues with mobile, deterring users from accessing the website via mobile devices. All websites should be mobile-friendly.

"On mobile I have a lot of trouble finding what I need. Basic stuff like logging into my account takes like four clicks — if you can find it! The interface will change based on the size of your phone, and there are some things you can only see if you tilt your phone to landscape."

"On mobile, I'm always surprised that if I tap on the link on the left it loads the page, but if I carefully tap on the arrow next to it, it opens a dropdown menu."

—Interview participants

Recommendations

1. The mobile experience should deliver the same content and functionality as on desktop.

2. Mobile menus should be large enough to navigate without mistakes, with visual cues to help the user predict behavior (i.e., will this unroll a sub-menu or load a new web page?).

3. The chatbox on mobile should be less intrusive.

4. The mobile experience should include easy-to-find, on-page navigation tools (e.g., sidebar menus that are not buried).

LibGuides are experiencing scope-creep and should be reevaluated.

The Research Guides section, where LibGuides are located, is a robust content hub where staff can create tailored guides for specific use cases. However, some of the content stored here spills into other domains, and would be more appropriately displayed in the form of web pages. With a more intuitive, easily maintained website, the necessity to use LibGuides in this way should be relieved.

Recommendations

1. The content of the guides should be reevaluated, identifying which are proper research aids and which constitute other types of content.

2. Any content that does not fit the definition of a research guide should be migrated to a web page within the new website system, or removed.

Other improvements should be considered.

Here are a few other points we noted during Discovery that deserve mention.

Recommendations

1. The footer should include a logo identifying which website the user is visiting, its content should reflect the structure of the site, and it should highlight commonly needed pages (drawing on analytics data).

2. The chatbox should be contextualized so that users understand this is not a bot; it's staffed by real librarians. Also, it should be configured to appear only at strategic moments, so that it doesn't continually interrupt the user.

3. The website system should include a landing page for Ecampus students, guiding them to the particular resources and experiences that are relevant to them.

4. Multiple interview participants wish to make the physical spaces of the library easier for patrons to visualize and understand, helping people navigate the building, identify spaces to use, and understand where specific resources can be found on-site. Ways to do so should be explored.

Recommendations Summarized

Navigation and Wayfinding

1. Reader-friendly navigation labels and page paths should be applied throughout, with paths corresponding to page titles and avoiding any specialized, insider terms. *Source: Web Analysis, Best Practice.*

2. Wayfinding elements (the consistent use of accurate breadcrumbs, highlighted navigation labels, etc.) should indicate where a user is and how to navigate elsewhere as desired. *Source: Web Analysis, Survey, Interviews, Best Practice.*

3. The top navigation bar of each website should be adjusted to clarify the top-left logo link destination (will clicking the logo bring them to library home or university home?), which library website they're currently visiting, how to navigate to a different library website, and how to find the centralized resources of the university library system as a whole. *Source: Web Analysis, Interviews, Best Practice.*

4. The interface should indicate whether or not elements are interactive (e.g. behaviors triggered on hover) and when mistakes have been made (e.g. warning notifications). *Source: Web Analysis, Best Practice.*

5. A consistent approach to the use of on-page sidebar menus should be established. *Source: Web Analysis, Best Practice.*

6. User journeys should be strategized to improve engagement within and across pages to address user engagement, which is extremely low. *Source: Web Analysis.*

Information Architecture

7. A new approach to information architecture within and across the three websites should be explored: placing all centralized resources under a single umbrella ("the library"), while breaking location-specific content out into separate websites (Valley, Cascades, and Guin). *Source: Web Analysis, Survey, Interviews.*

8. Consistent naming conventions should be introduced for the library system as a whole and for the three library locations, to clarify their structure and relationships both within the online system and also within Google search results. *Source: Web Analysis.*

9. A reasonable reduction of interlinking and duplicate content across websites should be achieved through a better-integrated content strategy. *Source: Web Analysis, Survey, Interviews.*

10. Within each website, a logical hierarchy of pages should be established. *Source: Web Analysis, Best Practice.*

Storytelling

11. The homepage of each website should reflect the warmth and vibrancy of the library by positioning it not just as a collection of resources, but as a community. *Source: Interviews.*

12. Space on the homepage should be given to sharing images and social updates from live events, presenting the library as a vibrant community. *Source: Interviews.*

13. A concise, broad-brush overview of all that the library offers should be showcased. *Source: Interviews.*

Content Quality

14. Guidance should be established to ensure consistency on quality among all staff editors. *Source: Web Analysis, Interviews, Best Practice.*

15. On-page content should be restructured to reduce large bricks of text, decode jargon, shorten calls to action, and display on-page links in a visually engaging way. *Source: Web Analysis, Interviews, Best Practice.*

16. Best practices in accessibility should be implemented. *Source: Web Analysis, Survey, Interviews, Best Practice.*

17. Each parent page should provide an overview of the child pages within that section. *Source: Web Analysis, Best Practice.*

18. Homepage content should be strategized to serve the needs of advanced users (allowing them to perform common functions with a minimum of scrolling or clicking) as well as new users (providing in-context guidance on how to use the site). *Source: Web Analysis, Interviews.*

Visual Design

19. Page themes should be updated so that users experience professional, consistent norms for visual design and content layout throughout. *Source: Web Analysis, Survey, Interviews, Best Practice.*

20. Visual elements such as icons should be used only when they add value to the user experience; the overabundance of unintuitive icons should be avoided. *Source: Web Analysis, Best Practice.*

21. The use of favicons should be made consistent throughout all websites. *Source: Web Analysis, Best Practice.*

Search

22. The principal research tools of the site (1Search, Databases, Archives, etc.) should be grouped and contextualized on-page so that first-time users can understand them in context and immediately decipher what each type of search is designed to do, which resources it will search, how to use it, and what use case or user type it's meant to serve. *Source: Web Analysis, Interviews.*

23. An option to go straight to the 1Search homepage should be provided so that users can skip directly to the advanced search screen without having to use the widget first. *Source: Web Analysis.*

24. The labels on the navigation bar of the 1Search homepage should be made more intuitive. *Source: Web Analysis, Interviews.*

25. The 1Search homepage filtering tools should be examined for usability: e.g., differentiating 1Search from third-party databases, clarifying categorical differences in search options, making it impossible to apply a filter more than once, making filter names self-explanatory, providing a "search all" option, etc. *Source: Web Analysis, Interviews.*

26. The site search tool contained within the 1Search widget (under the "Help" tab) should be removed to prevent confusion between searching the library's resources versus searching a website's pages. *Source: Web Analysis, Interviews.*

27. The site search tool (the magnifying glass on the top navigation bar) should be contextualized so that users understand what this tool does (e.g., which sites or pages it searches) in contrast to 1Search. *Source: Web Analysis, Interviews.*

28. The site search tool should be configured to show results in order of relevance, with a better filtering system to help users narrow results by location. *Source: Web Analysis, Interviews, Best Practice.*

Mobile Experience

29. The mobile experience should deliver the same content and functionality as on desktop. *Source: Web Analysis, Survey, Interviews, Best Practice.*

30. Mobile menus should be large enough to navigate without mistakes, with visual cues to help the user predict behavior (i.e., will this unroll a sub-menu or load a new web page?). *Source: Web Analysis, Interviews, Best Practice.*

31. The chatbox on mobile should be less intrusive. *Source: Web Analysis, Interviews, Best Practice.*

32. The mobile experience should include easy-to-find, on-page navigation tools (e.g., sidebar menus that are not buried). *Source: Web Analysis, Interviews, Best Practice.*

LibGuide Review

33. The content of the guides should be reevaluated, identifying which are proper research aids and which constitute other types of content. *Source: Web Analysis, Interviews.*

34. Any content that does not fit the definition of a research guide should be migrated to a web page within the new website system, or removed. *Source: Web Analysis, Interviews.*

Other Recommendations

35. The footer should include a logo identifying which website the user is visiting, its content should reflect the structure of the site, and it should highlight commonly needed pages (drawing on analytics data). *Source: Web Analysis, Best Practice.*

36. The chatbox should be contextualized so that users understand this is not a bot; it's staffed by real librarians. Also, it should be configured to appear only at strategic moments, so that it doesn't continually interrupt the user. *Source: Web Analysis, Interviews.*

37. The website system should include a landing page for Ecampus students, guiding them to the particular resources and experiences that are relevant to them. *Source: Web Analysis, Interviews.*

38. Multiple interview participants wish to make the physical spaces of the library easier for patrons to visualize and understand, helping people navigate the building, identify spaces to use, and understand where specific resources can be found on-site. Ways to do so should be explored. *Source: Interviews.*

Next Steps

- OSU Libraries to provide input on this Findings & Recommendations document, **notifying MAC of any recommendations not accepted for implementation in later phases of work.**
- MAC to proceed to the next phases of the project - **UX/UI Planning & Design**.