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Lecture Series 5

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WEBSITE DEVELOPMENT FOR LIBRARIES

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PRESENTATION OUTLINE

- i The need for a Library website
- i Importance a well-designed website
- i Common Problems and Challenges in Website Design
- i Principles of Web Design
- i Essential Components of a Library Website
- i Development Technologies
- i Development and Accessibility Evaluation Tools
- i Platforms
- i Hosting
- i Analytics
- i Evaluation/Assessment
- i Security
- i Demo



Need for a Library Website

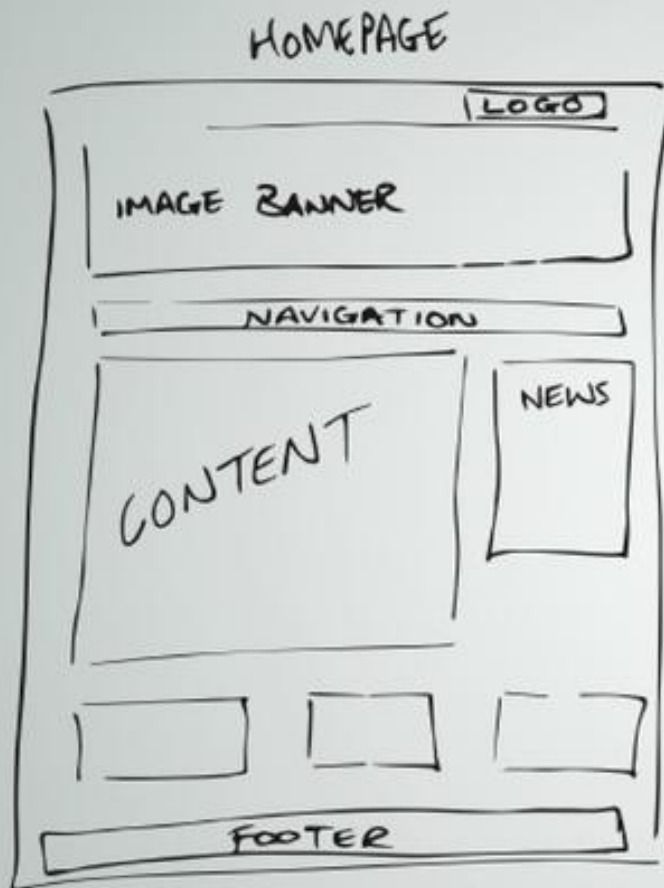
- The Web is now established as the medium for finding and disseminating information across the Internet.
- Having an official website is one way of establishing your library as an essential component of your organization; an authoritative and reliable source of information.
- Negative or weak web presence increases the possibility of negative information about your library being posted/circulated online elsewhere.
- The library website is an extension of your physical library; a virtual space to interact with your community.
- The Library website is a gateway to information resources and online services.

Key points:

- Web presence, promotion
- Establish importance and authority
- Bridge between physical and virtual learning
- Connect and interact with users
- Access to information



"If you're not in Google, you don't exist"



Importance a Well-Designed Website

- First impression lasts.
- Build trust – source of authority.
- Creates consistency.
- Enhanced usability and user experience.
- Good design = Greater control

Common Problems and Challenges in Website Design

Difficulty in organizing - too much information

Use of unfamiliar terms (Jargons)

Understanding search tools

Getting lost (navigability/usability).

Understanding sources (articles, books, etc.)

Finding information resources

Site is not mobile-friendly (responsive)



Principles of Web Design

Identity - official domain name assigned; URL persistence

Simplicity – minimalist; easy to read; user-friendly

Flexibility – consider different kinds of users with different needs

Consistency – same look and feel, style, layouts, color scheme, fonts,

Accessibility – organized; content structured in a logical way

Compatibility – modern browser support; WCAG 2.0 and W3c standards compliant

Responsiveness – dynamic; automatically adjusts for different screen sizes

Manageability – well-planned, established process for content editing, updating, testing



Essential Components of a Library Website

- Logo/banner, site navigation, site search
- Contact Information, including social media accounts
- Quick access to popular or most-used resources and services
 - Online catalog, discovery service, and/or digital repositories
 - Online resources (local and subscribed)
 - Online services (document delivery, ILL)
- Blog (events, activities, updates)
- FAQs
- Chatbot (Ask-a-Librarian) – FB Messenger, Tidio
- Organizational structure (offices, branches, sections, directory of personnel)
- New acquisitions; new resources
- Visitor information, including access requirements, service hours
- Data privacy notice



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Eliminating Barriers

7 Best Practices For Creating a User Friendly Library Website

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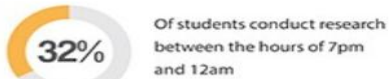
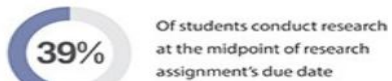
Background

According to a 2015 EBSCO survey on undergraduates' research workflow. Students rate their library websites...



User Friendly Library Website is a Powerful Research Tool

Students delay conducting research and allocate very little time. Once they begin they expect it to be fast, efficient and comprehensive. Based on the survey:



A challenging library website is a research roadblock to an already time constrained student.

1 Have a Vision

A vision defines your library website's goals. It also guides and inspires decisions about your library website.



Recommendations

- Keep the statement to **one to two sentences**.
- Align it with library and institution's **mission statements**.

2 Easy Access to Search

Search is the primary action a user takes on the library website.



Recommendations

- Make the search box prominent on the Home Page.
- Have one search box on a page.
- Provide a description or an example within the search box or search box area to set users' expectations.
- For a multi-tabbed search box, label tabs in plain language and default to your discovery service.

3 Keep Navigation Simple

"I don't want to have to navigate this site the way they want me to. I just want to find the thing I'm looking for." - Jakob Nielsen

Recommendations

- Display 5-6 main navigation items maximum. Do not **overwhelm** your users.
- Top level navigation should represent **high level categories** of your content.
- Common Top Navigation Items:** Search, Services, Research, About Us, Help, My Account
- Validate your navigation by conducting a paper card sort or use these online tools: **OptimalSort & Treejack**

4 Home Page is a Gateway

First impressions are critical. Your home page is typically the most visited page and where your users begin their research.



Recommendations

- Do not clutter your home page with too many options.
- Give users just enough detail to make the decision to explore. "3 click rule" is not always the best practice.

Items to display on home page:

- Primary user actions (i.e. Search)
- Access to Course Reserves
- Book a Study Room
- Location(s) & Hours
- Library News & Events
- Contact Us/ Ask-A-Librarian

5 Eliminate Library-ese

Library Jargon (aka Library-ese) is one of the most common reported usability testing issues. Non-familiar terms are barriers to accessing services and resources.

Terms Not Understood by Students:

- Boolean
- Catalog/ue
- HTML Full Text
- ePub
- eBook Full Text
- Database
- Trade Publication
- Magazines

Recommendations

- Weed** your content!
- Write in **plain language**.
- Be aware of library-ese when branding your link resolver and discovery service.
- Provide **explanatory text** when needed.
- Do not rely on a glossary!
- Ask a non-librarian to
- Conduct a survey or usability testing.

6 Accessibility Best practices

Inaccessible websites are barriers to all users. Students with disabilities are faced with frustration and helplessness.

Recommendations

- HTML Page Titles must be descriptive (i.e. Your Institution Library: Browse Journals).
- Link text must indicate intent or content.
- Images must have alt text or offscreen text.
- Audio/Video content must include captioning or transcripts.
- Website must be navigable by keyboard only.
- Test your library website for accessibility. **Recommended Tool:** WAVE

7 Conduct Usability Testing

Testing users informs decisions about the library website.



Recommendations

- "Test early. Test often." Start with paper prototypes continue through final designs.
- Testing 5-7 users identifies 85% of usability issues.
- Schedule usability testing sessions monthly at same day/time.
- Want to test students anytime/anywhere? Unmoderated remote user testing is a quick way to get results. **Recommended tool:** usertesting.com

Website Development Technologies

Markup Language (HTML, XHTML, XML)

Style Sheet Language (CSS, XSL)

Client-Side Scripting (JavaScript)

Web Browsers

Programming Languages (Python, PHP, Java, Ruby)

Frameworks (Laravel, Django, Zend, Ruby on Rails)

Web Services APIs

Databases (MySQL, MSSQL, Oracle, PostgreSQL)

Data Formats (XML, JSON)

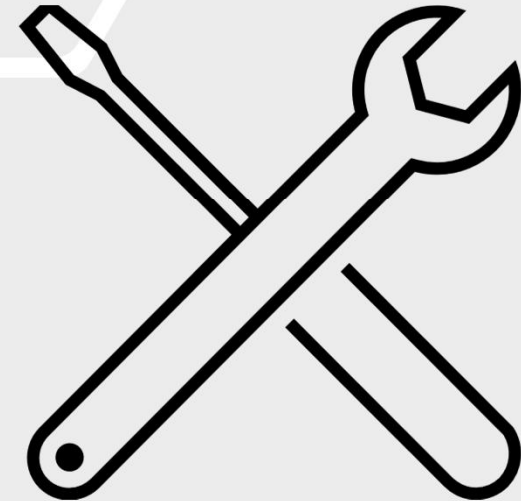


Web Development and Accessibility Evaluation Tools

Web Browser Developer Tools

Accessibility:

- Wave Web Accessibility Evaluation Tools - <https://wave.webaim.org>
- Non-Visual Access to Technology - <https://www.nvaccess.org/>
- Web Accessibility Reading List - <http://www.webaxe.org/>
- VoiceOver - <https://www.apple.com/ph/accessibility/vision/>
- Content Readability toolkit - <https://readable.com/>

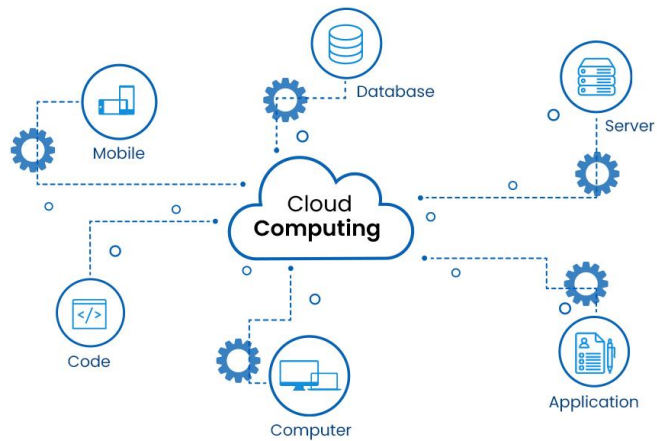


WEBSITE PLATFORMS



- | Custom-Developed
 - | Using web design software (e.g., Adobe Dreamweaver)
- | Using Content Management System (CMS)
 - | WordPress (wordpress.org vs wordpress.com)
 - | Joomla
 - | Drupal
 - | Wix
 - | Blogger (Google)

WEB HOSTING

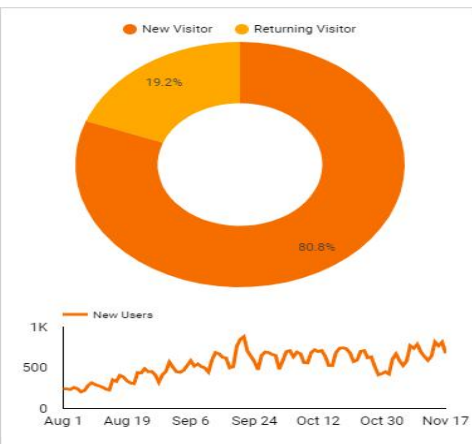
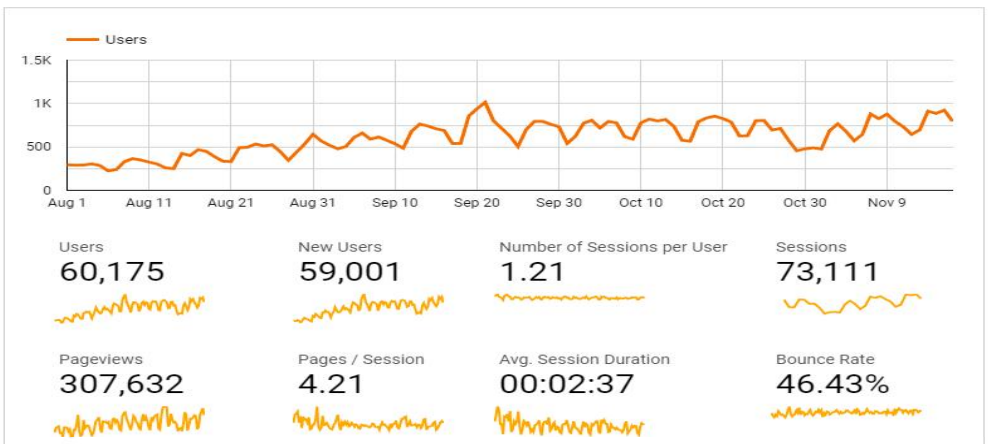


- | On-Premise Hosting
 - | Physical, on-site server
- | Cloud Hosting
 - | § SaaS (WordPress.Com, Wix)
 - | § PaaS (Heroku, Microsoft Azure, Oracle Cloud, AWS Lambda)
 - | § IaaS (GoDaddy, Linode, DigitalOcean, Microsoft Azure, Oracle Cloud, AWS)

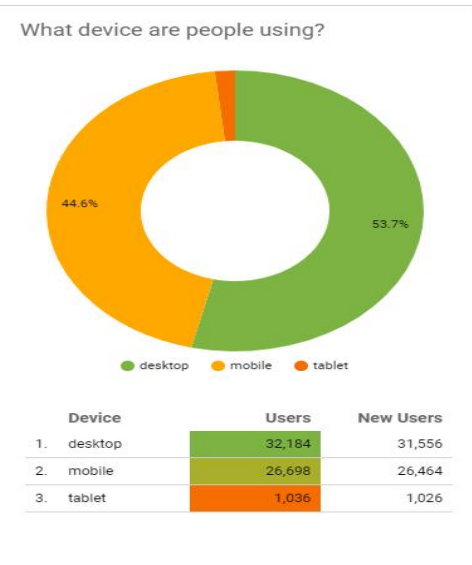
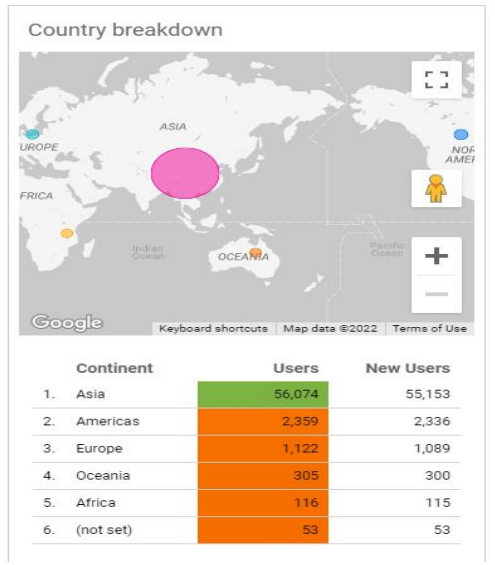
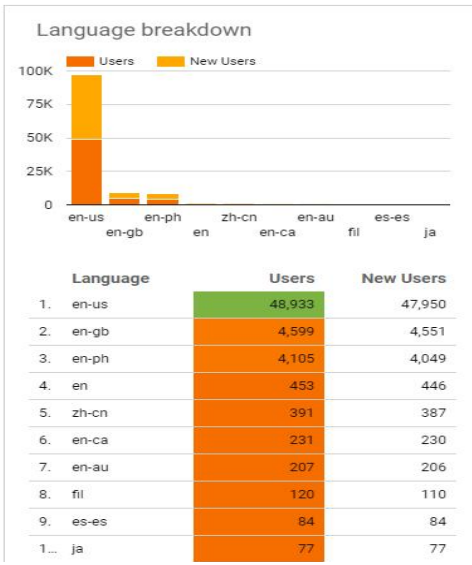
Google Analytics Audience Overview

Continent ▼ | Region ▼ | Channel ▼ | Device ▼ | Aug 1, 2022 - Nov 17, 2022 ▼

Your audience at a glance



Let's learn a bit more about your users!



WEBSITE ANALYTICS

- Google Analytics
- Matomo
- Open Web Analytics
- SmartLook



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Website Evaluation / Assessment

User Experience (UX)

- Online feedback, ratings
- Surveys
- Interviews
- User interactions with forms
- Heatmaps
- Usability Testing
- Page Views and Time on page

Website Security



Run essential Platform Updates, security fixes



Implement HTTPS - apply SSL/TLS to secure communication



Implement Single-Sign-On (SSO) for login

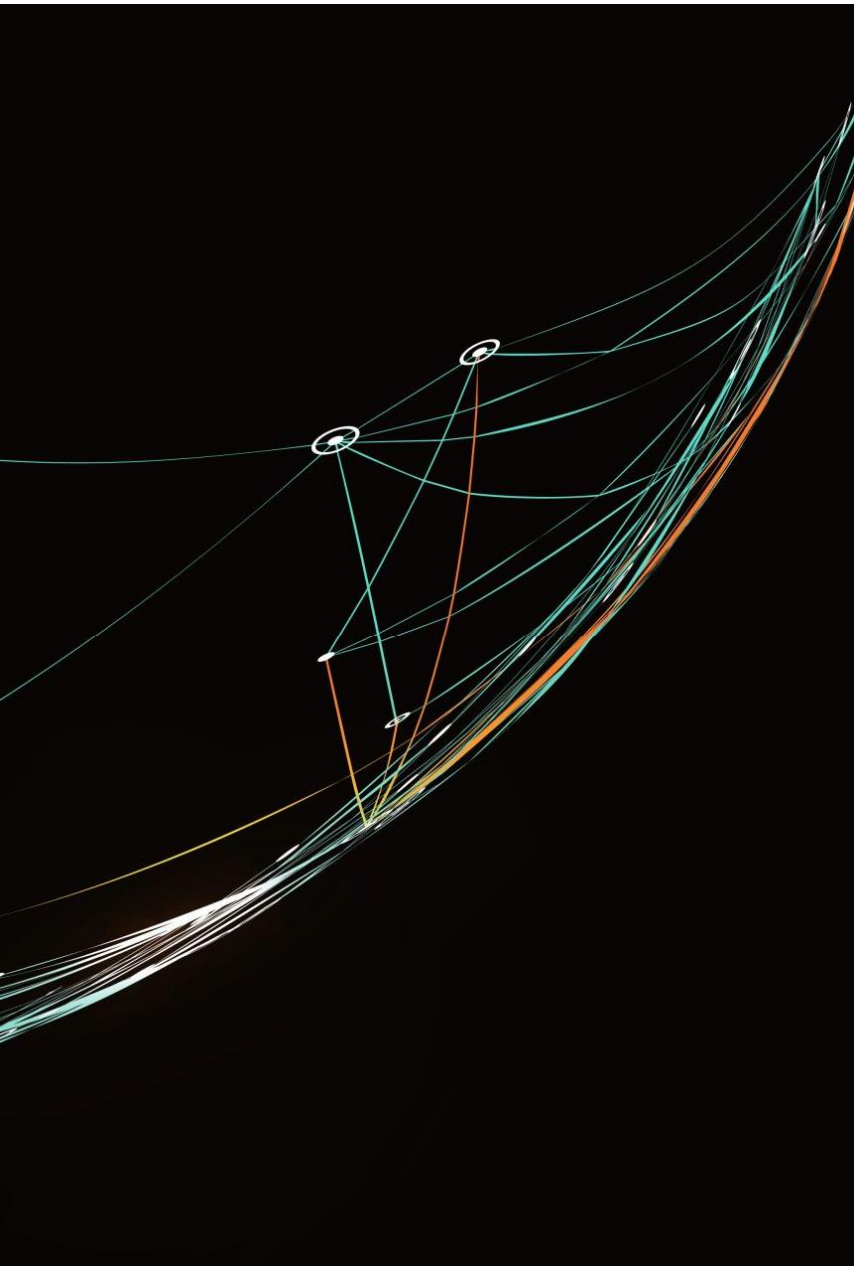


Apply Two-Factor Authentication for login



Consult with Cyber security Analyst





Demo

- Using CMS to build library website
 - WordPress.com
 - WordPress.org