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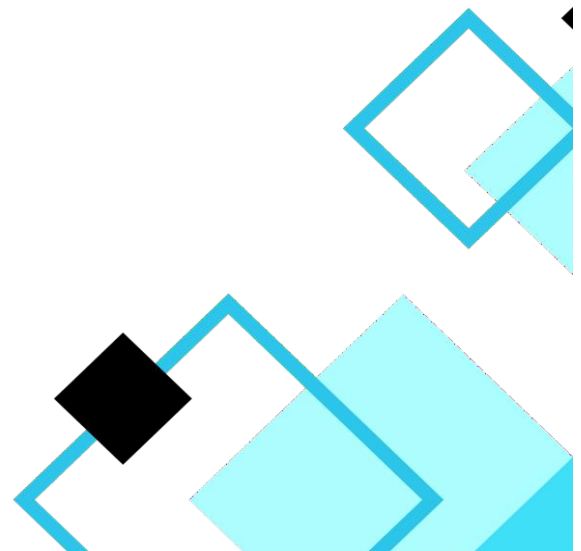
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## MODULE 6: USER CENTRED DESIGN IN LIBRARIES



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## Introduction

Welcome to this course introducing user-oriented design. This course is on a basic level and no previous knowledge on the topic is required. We expect you to have basic computer skills. The "User-oriented design" course is designed for librarians and LIS students to enhance their understanding and skills about user-centered design. Over approximately 10 hours, participants will explore and learn about principles of user-centered design in the context of libraries' activities.

After you have worked through this course you should have acquired the following competencies:

## Learning Objectives

The overall learning objectives for this module are:

- Identify and explain user-oriented design principles, methods, and techniques.
- Recognize and evaluate relevant and usable digital solutions that are inclusive of all users.
- Describe unintended consequences of the digital revolution, such as unequal geographic spread, [accessibility](#) challenges, [usability](#) issues, and unequal benefits from digital solutions.

## PRE-Quiz

Take a look at this 5-question pre-quiz focused on Assistive Technologies in Libraries: Enhancing Accessibility and Inclusion:

In this topic you will learn about:

- [Digital Inclusion design](#)  
"Meaningful access is vital for social, political, and economic empowerment and therefore narrowing digital divides needs to go beyond simply reaching basic internet connectivity."— Roundtable on Digital Inclusion, United Nations.
- [Accessibility](#)  
[Accessibility](#) entails ensuring that digital products and services are usable by people with a wide range of abilities, including those with disabilities.
- [Diversity / Inclusivity](#)  
Diversity within inclusive digital design in libraries underscores the value of creating digital spaces, tools, and resources that are accessible, equitable, and inclusive to library users of any culture, language, socio-economic status, or ability.
- [Usability](#)  
[Usability](#) is one of the most important aspects of inclusive digital library design.

## Digital Inclusion Design

*"Meaningful access is vital for social, political, and economic empowerment and therefore narrowing digital divides needs to go beyond simply reaching basic internet connectivity."*— Roundtable on Digital Inclusion, United Nations.



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Digital Inclusion Design refers to the creation of digital products, services, and environments that are accessible, usable, and beneficial to all people, regardless of their age, ability, socioeconomic status, or technological proficiency.

The goal of digital inclusion design is to ensure that everyone has equal access to digital technologies and the opportunities they provide, such as education, employment, healthcare, and social participation. Inclusive design is an approach to create accessible products and experiences that are usable and understandable by as many people as possible. It goes beyond [accessibility](#) to consider users' diverse needs, backgrounds and experiences (Interaction Design Foundation - IxDF).

For librarians, Inclusive Digital Design pertains to the development of products, services, and interfaces that consider every user inclusive of their ability, background, and tech-savviness. Inclusion is essential, and librarians constitute one of the most important components of ensuring that the institution is digitally inclusive.

The most important aspects of Inclusive Digital Design geared toward librarians are [Accessibility](#), [Diversity / Inclusivity](#) and [Usability](#).

### Self-Assessment:

1. What is Digital Inclusion Design, and why is it important?
2. What is the primary goal of Digital Inclusion Design?
  - a) To create visually appealing digital products
  - b) To ensure that digital products are accessible and usable by everyone
  - c) To increase the number of digital products available in the market
  - d) To reduce the cost of digital product development

Read more on General principles of Inclusive Digital Design here:

- Inclusive Design for a Digital World Designing with [Accessibility](#) in Mind — Regine M. Gilbert Foreword by Ron Rateau. [L-G-0012681361-0040026145.pdf](https://unesdoc.unesco.org/ark:/48223/pf0000265537)
- Designing inclusive digital solutions and developing digital skills: guidelines - UNESCO Digital Library by Steve Vosloo, <https://unesdoc.unesco.org/ark:/48223/pf0000265537>

### Accessibility

Accessibility entails ensuring that digital products and services are usable by people with a wide range of abilities, including those with disabilities. This involves adhering to accessibility standards (e.g., WCAG - Web Content Accessibility Guidelines) and designing for assistive technologies like screen readers, voice recognition software, and alternative input devices. Inclusive digital design in libraries really begins with accessibility. It's all about making sure that everyone, including those with disabilities, can easily navigate and use digital resources and services that are provided in our libraries.

Libraries can make this happen by sticking to well-known accessibility guidelines, like the Web Content Accessibility Guidelines (WCAG 2.1). This means offering alternative text for images, making sure all interactive features are keyboard-friendly, and



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providing closed captions for any audio and video content.

### How Libraries Can Promote Accessibility:

- Make all digital media platforms accessible by standards like WCAG (Web Content Accessibility Guidelines).
- Provide alternative formats for content like audio description, captioning, and screen-reader compatibility.
- Adopt clear, readable fonts, high-contrast color combinations for users with visual impairment.

### Read more on accessibility in libraries here:

Mamabolo, M.J. and Durodolu, O.O. (2023), "Rural accessibility to digital libraries: requirements and challenges", [Digital Library Perspectives](#), Vol. 39 No. 4, pp. 551-570. <https://doi.org/10.1108/DLP-04-2023-0025>

Panda, Subhajit and Kaur, Navkiran, Enhancing User Experience and Accessibility in Digital Libraries through Emerging Technologies (November 21, 2023). In K.P. Sinhamahapatra [et al.] (Eds.), *Digital Libraries: Sustainable Development in Education*, Presented on 21 November 2023 at the International Symposium on Digital Libraries: Sustainable Development in Education, Indian Institute of Technology Kharagpur, pp. 676-703, Available at SSRN: <https://ssrn.com/abstract=4645610>

### Diversity / Inclusivity

Inclusive Digital Design is a framework that ensures digital spaces, tools, and resources are accessible, equitable, and usable by everyone, regardless of their abilities, backgrounds, or technological proficiency.

Inclusivity is a key principle of inclusive digital design in libraries. This involves designing digital resources and services that are welcoming and inclusive of diverse users, including those with disabilities, language barriers, and cultural differences. Inclusivity and Diversity are like siamese twins as they speak to similar objectives in library.

Diversity within inclusive digital design in libraries underscores the value of creating digital spaces, tools, and resources that are accessible, equitable, and inclusive to library users of any culture, language, socio-economic status, or ability.

Libraries act as a vital community link, and access points such as their websites, online catalogs, e-resources, and virtual programs should reflect the diverse needs of their community of users. An inclusive digital design allows all users, including users living with disabilities, users who do not speak English as a first language, and users living with low levels of digital literacy, engage with library services with equal opportunities and benefits to different users. In the context of libraries, inclusivity means that digital resources and services are accessible, usable, and inclusive of diverse communities. This could include resources available in multiple languages, content that is



representative of differing perspectives and experiences, and not promoting or endorsing stereotypical and biased aspects of culture.

**How Libraries Can Promote Diversity/Inclusivity:**

- Community outreach and engagement: libraries have a fantastic opportunity to connect with various community groups to really grasp their needs and preferences.
- Multilingual support: libraries can roll out digital resources and services in several languages to meet the diverse language needs of their patrons.
- Adopt Web [Accessibility](#) Standards: Libraries should ensure their websites and digital platforms comply with Web Content [Accessibility](#) Guidelines (WCAG). This includes providing alt text for images, ensuring keyboard navigation, and offering resizable text and high-contrast options for users with visual impairments.
- Incorporating a range of perspectives and experiences: libraries should strive to ensure that their digital content showcases a variety of viewpoints, especially those from marginalized communities.
- Ensure Inclusive Virtual Programming: Libraries should design virtual events, such as webinars and online storytimes, with inclusivity in mind. This includes providing live captions, sign language interpretation, and transcripts for recorded sessions
- Avoid cultural stereotypes and biases: libraries can make a conscious effort to avoid these pitfalls in their digital content and services.
- Developing inclusive digital collections is key: libraries can curate collections that truly reflect the richness of diverse cultures, languages, and experiences.
- Offering culturally sensitive digital literacy training: libraries can provide training that resonates with and is relevant to the diverse communities they serve; and
- Finally, partnering with diverse community organizations: libraries can collaborate with these organizations to champion digital inclusion and celebrate diversity.

**Read more on Diversity in Libraries here:**

Designing for Diversity in Your Library’s Communications by Mollie Peuler, eLearning Librarian, Appalachian State University (NC)

<https://www.webjunction.org/events/webjunction/designing-for-diversity.html#:~:text=Being%20intentional%20and%20inclusive%20in%20the%20design,incluing%20%80%94but%20not%20limited%20to%20%80%94race%2C%20gender%2C%20or%20neurodiversity.>

Designing Libraries for Diversity, Equity, and

Inclusion <https://www.libraryjournal.com/story/designing-libraries-for-diversity-equity-and-inclusion-lj231016>



## **Usability**

Usability is one of the most important aspects of inclusive digital library design. For libraries to have inclusive digital design, usability is essential. Regardless of the user's degree of technical proficiency, this entails making sure that all digital resources and services are simple to use and navigate. Libraries can accomplish this by identifying areas for improvement through user testing and research. This entails making navigation easier, speaking clearly and succinctly, and creating user-friendly interfaces.

Usability is one of the most important aspects of inclusive digital library design. It is how easily users can find, access, and use digital materials and services. In library settings, usability is about creating digital interfaces that are intuitive, simple, and easy to use, no matter what the user's technical skills are. This is done through offering digital content and services on various devices like desktops, laptops, tablets, and phones.

### **How Libraries Can Promote Usability:**

- User research and testing: Libraries can conduct user research and testing to learn about where they should enhance and ensure that digital materials and services are user-focused.
- Simplify search and navigation: Libraries can simplify search and navigation processes so that users can easily find what they need.
- Utilize simple and clear language: Libraries can utilize simple and clear language in digital interfaces to avoid confusion and make sure that users receive what they are doing.
- Design intuitive interfaces: Libraries can design intuitive interfaces that are easy to use regardless of the level of technical knowledge of the user.
- Provide access across devices: Libraries can provide digital resources and services accessible across a variety of devices, including desktops, laptops, tablets, and smartphones.
- Offer personalized support: Libraries can offer personalized support to help users access digital resources and services.
- Review and improve regularly: Libraries can review and improve digital resources and services regularly to ensure they remain usable and meet user needs.
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### **References**

Interaction Design Foundation - IxDF. (2016, August 16). What is Inclusive Design?. Interaction Design Foundation - IxDF. <https://www.interaction-design.org/literature/topics/inclusive-design>

### **Self-Assessment:**

1. Describe the key principles of [Digital Inclusion Design](#).
2. Which of the following is a key principle of [Digital Inclusion Design](#)?
  - a) Exclusivity



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- b) [Accessibility](#)
  - c) Complexity
  - d) Exclusivity
3. Which principle of [Digital Inclusion Design](#) emphasizes the importance of creating digital products that are easy to use and navigate?
- a) [Accessibility](#)
  - b) Usability
  - c) Inclusivity
  - d) Flexibility

### Read more on Usability in Libraries here:

Jeng, Judy. (2013). What Is Usability in the Context of the Digital Library and How Can It Be Measured? Information Technology and Libraries.

DOI: [10.6017/ital.v24i2.3365](https://doi.org/10.6017/ital.v24i2.3365)

Iqbal, S., Ikram, N., Imtiaz, S. et al. Maximizing coverage, reducing time: a usability evaluation method for web-based library systems. Sci Rep 12, 7285

(2022). <https://doi.org/10.1038/s41598-022-11215-7>

## Compliance and Design Inclusion

Being compliant does not mean that you are accessible. Focus should not only be on compliance of legal frameworks but also on inclusivity.

Compliance and design inclusion are critical components of inclusive digital design in libraries. Compliance involves adhering to established [accessibility](#) standards and guidelines, such as the Americans with Disabilities Act (ADA) and the Web

Content [Accessibility](#) Guidelines (WCAG 2.1). Design inclusion involves designing digital resources and services that are accessible, usable, and inclusive of diverse users. This includes considering the needs of users with disabilities, language barriers, and cultural differences. By prioritizing compliance and design inclusion, libraries can ensure that their digital resources and services are accessible and usable by everyone.

What Libraries Can Do to Ensure Compliance and Design Inclusion in Libraries:

- Conduct [accessibility](#) audits: Libraries can conduct regular [accessibility](#) audits to ensure compliance with established [accessibility](#) standards and guidelines.
- Implement accessible design principles: Libraries can implement accessible design principles, such as providing alternative text for images, using clear and consistent navigation, and ensuring that all interactive elements can be accessed using a keyboard.
- Provide inclusive digital content: Libraries can provide inclusive digital content, such as e-books and online articles, in accessible formats, including EPUB, PDF, and HTML.
- Ensure language [accessibility](#): Libraries can ensure language [accessibility](#) by providing digital resources and services in multiple languages and offering



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language translation tools.

- Consult with diverse stakeholders: Libraries can consult with diverse stakeholders, including users with disabilities, language barriers, and cultural differences, to ensure that digital resources and services meet their needs.
- Provide ongoing [training and support](#): Libraries can provide ongoing [training and support](#) to ensure that library staff have the skills and knowledge needed to design and implement inclusive digital resources and services.
- Continuously evaluate and improve: Libraries can continuously evaluate and improve digital resources and services to ensure they remain accessible, usable, and inclusive.

Compliance means that designers of digital products and services are adhering to regulations, standards, and/or guidelines regarding [accessibility](#) and inclusion, to help ensure that these digital products and services can be used and are usable by all individuals regardless of disabilities of whatever circumstance those perhaps may find themselves in. This also means that organisations such as libraries must procure or provide digital products and services that are compliant in [digital inclusion design](#).