# Digital Library Accessibility Policy and Practice Guidelines

## A Guide by the Digital Accessibility Working Group

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Guideline Authors: Calida Barboza (Millersville University), Rebecca Bayeck (Pennsylvania State University, Amy Drayer (University of Minnesota), Jacqueline Frank (Montana State University), Gabe Galson (Temple University), Mary Hricko (Kent State University), Rachael Hu (California Digital Library, University of California), Bonnie Russell (Michigan State University), Lydia Tang (Lyrasis), Wendy Guerra (University of Nebraska at Omaha)

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## Table of Contents

**About the authors**

This document was written and maintained by the Digital Library Federation Accessibility Policy and Workflows group. Specific contributors are:

Calida Barboza, Millersville University
Rebecca Bayeck, Pennsylvania State University
Amy Drayer, University of Minnesota
Jacqueline Frank, Montana State University
Gabe Galson, Temple University
Mary Hricko, Kent State University
Rachael Hu, California Digital Library, University of California
Bonnie Russell, Michigan State University
Lydia Tang, Lyrasis
Wendy Guerra, University of Nebraska at Omaha

# 1.    Introduction

The Digital Library Federation developed this document to help Galleries, Libraries, Archives, and Museums (GLAM) institutions work to adopt accessibility best practices in their digital libraries by implementing an accessibility policy.

It will support you in overcoming challenges, advocating, and gaining buy-in and support, and will provide resources for developing an accessibility policy with strategies to achieve assigned responsibilities.

The Introduction outlines who this document is intended for, and how it can be used.

## 1.1.    Audience

This document is intended to support people in GLAM institutions directly, or tangentially involved with digital libraries, or otherwise managing digital materials.

### 1.1.1.    Digital Library definition

Digital Libraries consist of the digital materials, both digital-born and digitized, that are owned by GLAM (galleries, libraries, archives, and museums) institutions, as well as the tools and platforms used to produce, take in, aggregate, create, and display them.

## 1.2.  Getting Started (How to use this Document)

Use this document to address challenges that come up along the way, to advocate for accessibility, and to be a foundation for developing institutional accessibility policies and procedures with operation strategies to achieve the outlined responsibilities. Use suggestions for ensuring enforcement and accountability of those responsibilities and relevant standards.

# 2.    Why Accessibility

This section covers why accessibility is important and therefore why it is important to have an accessibility policy for your institution.

*Use this section to:* help educate others about the benefits of implementing an accessibility policy, and advocating to administrators.

## 2.1. Accessibility Is Important

Accessibility work improves access for everyone by removing barriers and is important for many reasons.

- **It's the law!** The W3C web page for [Web Accessibility Laws & Policies](#) includes relevant laws by country, including the United States [Americans with Disabilities Act of 1990](#) and [Section 508 of the US Rehabilitation Act of 1973](#). Read the [Payan v. LACCD explainer](#) for greater understanding.

- **It minimizes risk**. It may minimize legal risk – see [Business Case for Digital Accessibility](#) – as well as operational risks.

- **It benefits everyone,** while still remaining focused on users with disabilities. Learn more on the W3C web page for [User Experiences and Benefits to Organizations](#).

- **It increases usage** of materials and the patron base**.** Learn more on the W3C web page for [User Experiences and Benefits to Organizations](#).

- **It builds a healthy institutional culture** of belonging and continued improvement, and it validates individual efforts, allowing them to succeed by having organization commitment codified in a policy.

- **It's the right thing to do;** accessibility is a human-rights cause.

Disability is more prevalent than some might think:

- 27 percent  of adults live with some type of disability ([CDC](#), 2023;)

- 19 percent of undergraduate students reported having a disability in 2015/16 ([NCES](#));

- 48 percent of students reported that they have had a diagnosed mental health condition in 2020 ([Boynton health survey](#));

- 100 percent  of people will experience a disability at some point, according to [Axess Lab](#).

While accessibility is focused on people with disabilities and should remain that way, everyone will experience a disability, because disability can be:

- **permanent**, or something that will not go away over time (such as Turner Syndrome);

- **temporary**, such as an injury that will eventually heal;

- **situational**, for example, when someone forgets their glasses they may experience situations in which they have visual impairment.

Impairments can also be physical, cognitive, or emotional, whether:

- **invisible**, for example, hearing loss or cognitive disabilities such as dyslexia, or

- **visible**, for example, using a mobility device.

### 2.1.1. Access as Success

Access is at the heart of accessibility, and access underlies success (Nagle & Vitez, 2021). If our users can't access the information or content they need, in the ways they need, they will not accomplish what they wanted to.

In the UN Convention on the Rights of Persons with Disabilities, the United Nations calls upon countries to "promote access to information by providing information intended for the general public in accessible formats and technologies (Article 21)." Designing your digital materials with accessibility in mind helps you meet the fundamental right to information among a much broader population.

### 2.1.2. Accessibility vs. Accommodation

Don't make content or services accessible only when someone asks for it. That creates a barrier to inclusive access and can discourage users from making a request.  Creating content and services with accessibility in mind fosters an inclusive environment for all users. Accessible U states that accessibility is proactive; accommodation is reactive, where

- **Accessibility = equal access for everyone, by design**

- **Accommodation = additional support for needs that have not been met**

Make accessible choices now to support accommodations more quickly, cheaply, and effectively in the future.

### 2.1.3. Accessibility Benefits Everyone

Increasing accessibility benefits everyone in the end. While certain features are designed for people with disabilities, many other folks also find them helpful. Accessible U notes that the benefits of accessible design can also help:

- people developing their English language skills;

- people using older technologies to access the internet;

- people in very loud or very quiet environments where speech is difficult or impossible to understand;

- people using mobile devices: the Pew Research Center reported that, as of 2021, 28 percent of people aged 18-29 depend on smart phones for online access, and 15 percent of Americans rely on mobile devices as their only form of high speed Internet access.

### 2.1.4. Accessibility is the Foundation of Usability

ISO 9241-11, defines usability as:

> The "extent to which a product can be used by specified users to achieve specified goals effectively, efficiently and with satisfaction in a specified context of use".

Broadly speaking, accessibility work supports all people but is critical to those who have impairments. It improves access to information. For instance, captions on videos are used by people *without* hearing impairments for a multitude of reasons such as needing the sound low or off, facilitating  memory and retention, understanding unclear parts or how words are spelled, and learning the language. The Web Accessibility Initiative (WAI) describes how accessibility and usability overlap.

### 2.1.5. The Case for Digital Accessibility

The Web Accessibility Initiative (WAI) has outlined The Business Case for Digital Accessibility, which includes how it may:

- drive innovation;

- enhance your brand;

- increase market reach;

- minimize legal risk.

Their case outlines how:

- Accessible content is ranked higher in search results.

- Accessible documents and transcripts can be searched by individuals and automated systems such as search engines.

- Flexible designs ensure access for individuals with diverse abilities, learning styles, and devices.

- Diversity that includes the experiences of people with disabilities creates a more vibrant, rigorous community, enriching research and scholarship.

## 2.1.6.    Rethinking Ability and Disability

Jay Dolmage's book [Academic Ableism](#) provides some definitions to consider:

> "Disablism" can be defined as "a set of assumptions (conscious or unconscious) and practices that promote the differential or unequal treatment of people because of actual or presumed disabilities" (Kumari Campbell, 4). Disablism, in short, negatively constructs disability. Disablism negatively constructs both the values and the material circumstances around people with disabilities. Disablism says that there could be nothing worse than being disabled, and treats disabled people unfairly as a result of these values. Ableism, on the other hand, instead of situating disability as bad and focusing on that stigma, positively values able-bodiedness. In fact, ableism makes able-bodiedness and able-mindedness compulsory. Disablism constructs disability as negative quite directly and literally. Ableism renders disability as abject, invisible, disposable, less than human, while able-bodiedness is represented as at once ideal, normal, and the mean or default.

When thinking of all the different abilities of people engaging with digital content, focus on the social model of disability. Traditionally, people view disability through what is referred to as the medical model, which:

- defines disability as something that needs to be cured or fixed;

- focuses on the problem as something that resides within the individual.

When thinking about the work done to reduce and remove barriers for people of all abilities, using the social model of disability:

- focuses on how society does or does not allow an impairment to disable the person with the impairment;

- defines the problem as something in the environment, not the individual.

When addressing digital content work with an accessibility mindset, use the social model of disability.

# 3.   Writing an Accessibility Policy

*Use this section to*: develop an accessibility policy.

The Web Accessibility Initiative (WAI) has excellent resources with detailed guidelines for developing accessibility policies. The following subsections refer to the basic policy structure:

- Developing Organizational Policies on Web Accessibility
- Developing an Accessibility Statement, and
- Generating an Accessibility Statement for your Institution.

## 3.1.   What an Accessibility Policy Should Contain

Specific information should be included in the policy that you share with the public, as well as additional information in your internal procedures and workflows documentation.

For an accessibility policy, the WAI outlines what to include in an accessibility statement:

> "Accessibility statements should contain at least the following:
> - a commitment to accessibility for people with disabilities
> - the accessibility standard applied, such as WCAG 2.1
> - contact information in case people encounter problems
>
> The following information is also advisable:
> - any known limitations, to avoid frustrating people
> - measures taken by your organization to ensure accessibility
> - technical prerequisites, such as supported web browsers
> - environments in which the content has been tested to work
> - references to applicable national or local laws and policies
> - a defined exception process that covers non-compliant solutions.
>
> Note that some situations may require you to provide particular content in your accessibility statements. For example, the EU Web Accessibility Directive requirements for accessibility statements. (WAI, 2021, Developing an Accessibility Statement). Additionally, federally funded programs or institutions must meet accessibility laws of Section 508 and the Americans with  Disabilities Act (ADA); if state funded, check what accessibility requirements exist by state law.

### 3.1.1.    Developing Organizational Policies

Beyond the accessibility policy statement, the WAI outlines these steps to follow, with detailed explanations, in its resource on [Developing Organizational Policies](#) (2016):

- "[determine] Reference standards
- define conformance levels
- define scope of policy
- set conformance milestones
- consider third-party content
- define monitoring and review process
- next steps: Maintaining your policy
- longer term: Strategic planning"

### 3.1.2.    What to Include in Policies and Procedures

In addition to what your accessibility policy should contain, we recommend that your policies and workflows should address these additional areas:

- the user experience
- the digital content and associated metadata,
- the authoring interface for staff or authorized users,
- the content ingestion tools,
- the standards that the institution intends to follow, including remediation workflows.

### 3.1.3.    Accessibility Statement Generator Tool

If you don't know where to start, the WAI has created a tool to [Generate an Accessibility Statement for your Institution](#). Fill in the form fields to get a draft accessibility statement.

## 3.2.    Accessibility Policy Examples

Here are some examples of accessibility policies:

- [WAI's Example of a Comprehensive Organizational Policy](#)
- [Artstor's accessibility statement](#)
- [University of Michigan Library accessibility statement](#)
- [Montana State University Library accessibility policy](#)
- [Electronic Resources Accessibility Policy from Montana State University](#)
- [University of Minnesota Library's accessibility policy](#)

- [Harvard University Digital accessibility policy](#)

# 4. Putting Policy into Practice

Use this section to ensure that your accessibility policies will lead to workflows that integrate and prioritize accessibility work in digitization and digital libraries.

## 4.1. Enforceable Policies

Accessibility policies must not simply define best practices. They must be enforceable once put into practice. Policies must clearly communicate what is expected institution-wide regarding accessibility, and outline strategies that ensure these responsibilities are met. Furthermore, policies should mandate that these strategies be resourced and set up to succeed.

Consider these factors:

- institutional context [section 4.2]
- obtaining support [section 4.3]
- accessibility roles [section 4.4]
- adoption model [section 4.5]

## 4.2. Understanding the Context of your GLAM Institution

When developing a policy, consider your institution type, structure, and decision-making context. This helps determine who needs to be involved in developing or approving a new policy and how you can govern those policies and procedures after you have established them. For example, private or non-profit institutions may have different obligations to a board of directors than public institutions do. Among libraries, significant differences exist between academic libraries, public libraries, and special libraries.

### How are decisions made?

Two organizations of the same type may still have differing governance models, decision-making contexts, and structures. Some institutions may take a top-down approach to decision making, while others take a more collaborative approach. Understanding and acknowledging the organizational structure will help develop successful accessibility policies and procedures within the context of your institution.

A "one size fits all" approach will not work, even for institutions of the same type and structure, making best practices difficult to generalize. Given this, it is helpful to ask yourself the following questions:

- Is accessibility a distributed and shared responsibility, or the specified responsibility of certain employees?
- Is decision making top-down, committee-based, or something in between?
- Are projects managed and evaluated in a top-down manner, or in a more distributed way?
- Who has the authority to make or approve policy decisions and responsibilities? By extension, who must be involved in an accessibility policy's creation if it's to be enforceable?
- Who, if anyone, has the time, resources, and authority to monitor an accessibility policy's success?

It is important to develop policies that work within your organizational structure. This can be done by creating and developing policies through a committee, sending a policy proposal to the administration, or bringing it to the right person or group with the power to develop or approve library policies. Seek buy-in from those responsible for completing accessibility work, as well as from those who will be accountable for its success.

# 4.3.   Obtaining Resources to Support the Initiative

A policy may contain or communicate rationales for undertaking this work, and maintaining organization-wide buy-in. A knowledge of these rationales can also be helpful when generating buy-in for the policy-creation process; they can be presented to organizational leaders, and/or used to disseminate accessibility knowledge. These rationales can range from the punitive (you will be sued if you do not), to the aspirational (it is a human-rights cause).

Refer to Section 2.1, Why Accessibility is Important, for a list of rationales that can be used to generate buy-in.

## 4.3.1.   Budgeting For Accessibility

**Budgeting**

Think through the various types of budgeting that should be undertaken in support of an accessibility policy; or mandated through that policy. Consider the following needs:

a.  software and hardware, including implementation burden and technical debt

b.  staff time and effort

c.  resources to pay for vendor or third-party services

Project participants, from administration to specialists, should understand that accessibility-aware initiatives will often require more technology, time, and money than accessibility-unaware initiatives do. Here are some examples:

● Limited remediation and evaluation services may require time for an accessibility specialist to work through each piece of content.
● Vendor contracting for content remediation may take an indeterminate amount of time for approval.
● Material may have unique formatting in which automated processes will need heavier manual remediation.

**Financial Resourcing**

Adequate financial resources must be committed to accessibility if policy is to be effective and actionable. One successful approach requires centralizing accessibility expertise in one well-funded department (e.g. IT), which serves this role across systems, departments, and projects. Another involves vesting one individual (e.g, an accessibility expert or project manager) with this responsibility. While individual institutions' financial practices will vary, in all cases a mechanism is required for obtaining financial support across a range of projects.

**Non-Financial Resourcing**

Even with a financially secured accessibility team in place, access to adequate staff time and support must be ensured. One successful approach is to implement a project-management system that allows project sponsors or managers to assign staff with accessibility responsibilities as appropriate.

## 4.4. Accessibility Roles

### 4.4.1. Distribution of Responsibility

Distribute responsibility for accessibility throughout the organization in a sensible and fair way. Aim to achieve a balance both horizontally and vertically.

**Achieving a Balance**

Achieving that balance does not mean that each individual is equally responsible for ensuring the accessibility of an organization's output. While this could be true in some institutions, for others; one or several point people take primary responsibility for a digital library's accessibility.

Delegate responsibility in accessibility policies by role or job class, rather than to an individual. Use these categories of responsibility as a starting point, and define individual assignments and responsibilities by project to meet organizational needs.

**Larger vs. Smaller Teams**

For larger teams, accessibility specialists should shape and guide accessibility work. Involve non-specialist project participants whenever possible. Have administrators supply resources, support, and promote this work.

For smaller teams, in which a single individual or small group is responsible for accessibility work, give the individual(s) adequate resources; and the appropriate authority to get the support they need.

**An Integrated Approach**

Accessibility is an integrated task, spanning content creation, product development, and post-launch maintenance. It is not a piece of assessment work done after the creation and development phases.

A truly integrated accessibility process builds enforcement into each phase of work so that the cost of creating and maintaining an accessible digital product is shared and distributed. Spreading the cost of integrating best practices throughout the digital library lifecycle reduces cost and implementation barriers during the post-development phase of a project.

## 4.4.2. Institutional vs. Individual Roles

While it's important to take an individual interest in accessibility and to look for ways to enhance accessibility through individual effort, institutions must have a strong commitment to accessibility if individual efforts are to succeed.

**Institutional Roles**

Different institutions have different levels of commitment to accessibility in effort, energy, expense, and enforcement. In the absence of a firm organizational commitment to this work, an accessibility policy can help fill the gap. It generates interest, cements the work's professional worth within an organization, and clearly defines responsibilities.

**Administration's Responsibilities**

Accessibility needs to be a formal institutional priority, through a strategic plan or a statement of values. The duty of enforcement should rest on those with the greatest institutional power, as in the following policies:

- [Harvard University Digital Accessibility Policy](#)

● [Portland Community College Accessible Technology Policy](#)

**Defining Individual Roles**

Organizations can help staff understand their individual responsibilities in accessibility and how to connect with other staff by defining roles and responsibilities.

● Assign accessibility point person(s). Provide this individual with both the authority and the resources necessary to advocate for accessible digital initiatives.

● Use project management tools, such as a responsibility matrix, to clarify and embed accessibility experts or advocates at all levels of an organization, or in multiple roles within a project team.

## 4.4.3.    List of Individual Roles

The following is a list of roles that participants may have in accessibility-focused projects. These can be integrated into policies as needed. They can also be used to define and conceptualize the discrete tasks that may be integrated into policy workflows. Note that only some roles may participate in some projects, and that one participant can assume multiple roles simultaneously. Many different groups are working on codifying these roles. One example of this work that is still in development is the [ARRM Success Criteria Matrix](#), in particular its [role definitions](#).

● **Head of institution**
Supports and communicates the importance of digital accessibility institution-wide, through policy and staffing structures that advance accessibility work across the institution.

● **Library department head or senior administrator**
Commits budgetary resources and communicates importance of digital accessibility department-wide, through policy and staffing structures that support accessibility work across the library's project portfolio. Responsible for implementing accessibility-friendly policy and adequately resourcing project teams so that accessibility work is possible. Sometimes this role is also a major initiator of a project or stakeholder and can weigh in or have high-level review of work that takes place within the department.

● **Product or Project manager**
Coordinates long term product or process maintenance and monitors the long-term success of accessibility work. This position can be a major stakeholder for a product or project. It is responsible for guiding overall progress of the project, forming project teams, building accessibility tasks into the project plan, and assigning the work to applicable team members. It could include the accessibility

point person role as well. Sometimes this role is also a major stakeholder and can weigh in or review work that takes place within a project team.

- **Functional managers**
  Functional managers, such as technical leads or user-experience (UX) managers, lead, organize, and provide planning for staff in a particular functional area, such as the design or development of library systems or websites. They are responsible for ensuring that staff are properly trained and aware of accessibility considerations within their work area, and that these considerations are built into the workflow.

- **Accessibility point person**
  Ensures accessible practices across the project. Researches and consults on accessibility topics.

- **Collection curator or project sponsor for digitization work**
  Initiates requests for digitization of collections or other physical content owned or managed by an institution. This role is a major stakeholder in digitization projects and can review or specify content-based requirements for the work and approve the quality of the digitization work conducted.

- **Digitization technician or specialist**
  Coordinates or conducts tasks within a digitization project. This may include working with vendors who provide services within the overall digitization workflow and ensuring that they take accessibility standards into consideration. If the specialists are conducting the hands-on digitization work themselves, they ensure that accessibility standards are configured into their work from the start of the project.

- **UX specialist**
  Attends to "user experience" (UX), including for staff with disabilities. Outlines the specification, information architecture, and general layout of all interactions and features in a system or website project. Handles the usability testing. Can take on the role of accessibility point person when that role isn't filled.

- **Technical developer**
  Executes technical work underlying the project or product. This role is aware of how accessibility standards can be integrated into the coding and technical development of a project.

- **Metadata consultant or lead**
  Attends to metadata considerations; consults on and/or implements accessible metadata practices.

- **Visual designer**
  Attends to visual, informational, and structural design of the product, including the visual design of accessible features and conveying to developers the accessibility interactions with annotated wireframes.

- **Content author**
  Writes content that aligns with accessibility and UX best practices.

## 4.5.    Models of Adoption

Accessibility buy-in and accountability are part of every role. Some roles take on more of the hands-on work. Others take on policy advocacy and enforcement as well as financial budgeting for accessibility resources.

The flow of accountability from role to role during the progression of a project is illustrated in the examples below. They show different work phases and project types and some possible staffing configurations for larger teams, smaller teams, and institutions within a system or consortium where resources may be shared.

Along with other tools from Agile or Scrum project-management methods, a responsibility matrix, such as a RACI chart, can help you conceptualize accessibility roles. RACI is an acronym that stands for Responsible, Accountable, Consulted, and Informed. This tool can help structure organizational responsibilities, operational work, and projects by encouraging the inclusion of accessibility experts in project teams, ensuring that responsibility is sensibly distributed, and achieving buy-in at all levels of an organization.

### 4.5.1.    Setting Policy

Setting policy and planning into place is a key step in embedding accessibility planning in the core operational planning. Leadership, management, implementation, and accessibility roles should be included in the policy creation and decision-making involved in this work.

Policy setting and planning can include any of the following.

- setting institution-wide goals
- communication and advocacy for these goals
- creation of staffing structures to support these goals
- creation of budgets and funding to carry out these activities

For a detailed RACI matrix for setting policy, see Appendix 1.

## 4.5.2. Web-based Projects

A large number of projects that digital library staff undertake involves the design, creation, development, and maintenance of websites or system user interfaces (UI's).

Web-based projects require different types of accessibility work depending on the phase of the project.

Phases are often overlapping and non-linear. Examples include:

- planning
- design, Content Creation, and Development
- metadata Specification
- testing

For a detailed RACI matrix for a possible distribution of responsibilities during a development or redesign of a website, go to Appendix 1.

**Ongoing Maintenance**

Once the initial design, development, testing, and implementation phase are complete, the project team may move on to create or add content, functionality, or metadata fields. When these additions are made to the original website, they should be tracked by the project manager, with time allotted for accessibility-design best practices and accessibility testing. Any fixes are the responsibility of the appropriate team members.

For a detailed RACI matrix example of ongoing maintenance work, go to Appendix 1.

## Different Institutional Configurations

Different institutional configurations will cause accessibility work to be carried out with different configurations of team resources. Digital libraries in larger institutions, with centralized, trained personnel, can conduct accessibility testing across all departments, including the digital library.

In smaller institutions, the user-experience design, accessibility monitoring, and testing may be done by the project-management librarian with support by the developer. While the roles laid out above may not be available for all libraries, the accessibility best practices should be adhered to as much as possible.

The following matrices include possible distributions of accessibility responsibilities for smaller teams.

For a view of possible RACI matrices for smaller institutions, go to Appendix 2.

### 4.5.3.  Digitization Projects

Digitization projects require accessibility specification, evaluation, and ongoing monitoring. Often the content from these projects is displayed on a website. If the digital objects are not accessible at the point of creation, the barriers of time, cost, and implementation may prevent future remediation.

These projects have a different staff configuration from the website projects. Sometimes the staff involved in the work is located at the digital library. Other times, the staff taking part in the digitization process are outside vendors. These contractors may also evaluate the digital objects for quality assurance.

At the time of the publication of these guidelines, accessibility considerations for digitization projects were a largely unexplored area in the GLAM and digital-library community. Beyond the suggestions provided here, we recommend that these communities discuss and create collective best practices for the accessibility of digitized content.

**Planning Stage**

The planning for digitization projects should start early. If the project is grant-funded, then accessibility considerations and staffing should be included in the grant application so that accessibility is accounted for. The department head and project manager are often involved in setting up initial planning and allocating budget appropriation, either in a grant or in the operational budget for a department that is responsible for digitization work.

If digitizing is conducted by an outside vendor, price-estimation information will need to be solicited from the vendor to supplement the accessibility needs for a given digital object.

**Digitization or Digital Asset Creation Stage**

For each digital object type, vendors and digital team members may be involved in setting and implementing accessibility standards.

Projects that entail scanning a paper-based physical document, book, or image into a digital format may have an internal digitization technician performing the work. While digital best practices to optimize scanned images of physical material are necessary, machine-readable text surrogates will help create a more accessible digital object. These text-based assets are sometimes created by content authors, metadata specialists or outside vendors.

If video or audio formats are created or incorporated into a repository of digital objects, transcripts and captions can be created by outside vendors.

**Quality Assurance Stage**

Conduct quality-assurance work once all the digital objects and supplemental assets are created. This work can be achieved by designated staff members, who can also spot-check the content. The quality assurance team can include developers, content authors, metadata specialists, or even public-service reference staff who might recommend use of these objects to library patrons.

Project managers need to be aware of this stage and allow sufficient time in the project plan for the work.

**Ongoing Operations**

When changes are made to the digitization process or the supplemental-asset-creation process, it is important to include accessibility best practices into these changes. Introduce additional accessibility quality-assurance methods as needed to ensure that new areas, components, or assets meet accessibility standards.

This ongoing operational work includes planning by the project manager, as well as consultation and additional information provided by the technical lead/developer, content author, metadata specialist, and digitization specialist.

For a view of a RACI matrix depicting some of the possible workflow processes in a digitization project, go to Appendix 3.

# 5.   Accessibility Standards and Best Practices

Use this section to consider ways to integrate accessibility standards, best practices, and accessibility-oriented tools into your policies.

When developing and selecting standards and best practices for digital-library accessibility, consider three areas: standards that apply to web development, standards that apply to content, and best practices that apply to accessibility metadata.

## 5.1.   Standards

The World Wide Web Consortium (W3C) has published multiple standards for the Web; other organizations are writing standards for other web formats. While the intent is to follow these standards, it's important to go beyond them to create truly usable experiences for people accessing digital collections.

When writing a policy or statement, include the standards that the institution intends to follow.

### 5.1.1.　Standards That Apply to Web Development

Basic guidance is available for both digital assets (including web sites, web content, and web applications) as well as authoring platforms for web content.

For basic accessibility, websites must at least adhere to the latest release of the Web Content Accessibility Guidelines (WCAG), written by the W3C. The WCAG only lightly touch on cognitive accessibility, so also refer to the note from the COGA Working Group.

When purchasing an online authoring platform, or developing a custom authoring tool, the editing interface must at least conform to the latest release of the Authoring Tool Accessibility Guidelines (ATAG), also written by the W3C.

Adherence to these standards does not equate to a usable experience for people with disabilities. DLF recommends wording that not only encourages developing compliant websites but also extends the institution's intention to create usable experiences for everyone.

### 5.1.2.　Standards That Apply to Content

DLF recommends adhering to the W3C's Web Content Accessibility Guidelines (WCAG), which is also available as ISO Standard (ISO/IEC 40500:2012) as, "Following these guidelines will make [web] content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and combinations of these."

The Canadian Research Knowledge Network's Model License 2016 advises that content should be in formats that are accessible to people with print-related and other disabilities. Content should be usable with assistive devices, but if it's not, users should be permitted to alter or modify the materials to provide an equivalent level of access to users with disabilities.

> Accessibility requirements for digitization vendors can be found in the Big Ten Academic Alliance's document on IT accessibility.  **Format standards** WCAG and the COGA working-group guidance cited  above can help with a variety of formats outside of HTML and its counterparts. Other formats have specific standards for accessibility as well.

- **Text-based content**
  Digitized text-based media must be provided in an accessible format, via either tagged PDFs following PDF/UA standards, accessible EPUB 3.x, HTML following

current WCAG standards, or scanned images with a textual transcript file with proper semantic structure.

- **Image-based content**
  All image-based content must at least have alternative text. The type of image should be identified and described in line with W3C WAI image accessibility guidelines or the image description guidelines from the Diagram Center.

- **Audio content**
  Audio-based content must be accompanied by an accessible textual transcript that is at least 99 percent accurate for comprehension.

- **Video (moving images) content**
  Video-based content must be closed-captioned, with a separate textual transcript file. For captions to be effective, they must be at least 99 percent accurate. Audiovisual materials that may trigger photosensitive epilepsy (see WCAG success criteria 2.3.1 and 2.3.2) must have a trigger warning.

- **Accessibility metadata schema**
  Refer to W3C's EPUB Accessibility 1.1 Guidelines for additional metadata that each object could have to improve identifying how it could be accessible or used by assistive technology.

## 5.1.3. Best Practices That Apply to Descriptive Metadata

Metadata is the primary key for access for people using screen readers. It is also the lens of how disability is described, documented (or not), and categorized.

Disability language, particularly codified in standards, is slow to evolve and often historically offensive and disempowering for people with disabilities. While many repositories are currently interrogating subject headings and terminology that is racist and colonialist, the same approach should be taken for language on disability.

Some disability language has been reclaimed within some disability communities, but there is no unified agreement on terminology and use. Some language is acceptable for disabled people to use for themselves, but less acceptable for others to use on them. As with interrogating language for other historically marginalized communities, take cues from the individual or community and ask if you are uncertain about respectful language.

**People-First vs. Identity First Example**

People-first language (e.g. "person with a disability") evolved from the disability-rights movement in the 1970s. It was intended to center the humanity of the person. However,

many disabled people, particularly in the Autistic and Deaf communities, prefer Identity-first language because it recognizes that their disability strongly shapes who they are.

**"Crip" Language Example**

"Crip" is historically an offensive term ("cripple") that has in some cases been reclaimed by disabled people. It tends to be a word that disabled people might use on themselves or other disabled people but is less acceptable for nondisabled people to use to describe disabled people.

**Resources**

- [DEI Controlled Vocabs Resource List](#)
- [History of Stigmatizing Names for Intellectual Disabilities](#)
- [Here Are Some Do's and Don'ts of Disability Language](#)
- [National Center on Disability and Journalism's Disability Language Style Guide](#)
- [Twitter thread of examples of offensive and disempowering disability subject headings and categorization](#)

# 6.   Accessibility Tools

## 6.1.   Integrating Accessibility Tools Into Policies

Use this section to consider ways to integrate accessibility-oriented tools into your policies and the workflows they govern.

It's often not advisable to mandate the use of specific tools in top-level policies. A tool must be selected on the basis of technological and local considerations that are ever shifting or may vary widely between individual projects. However, mandating the use of a specific tool type in a type of workflow can work well. For example, requiring that all public-facing web pages are checked with a webpage checker, and tested with a screen reader, could be a viable way to encourage accessible tools.

Suggesting or mandating accessible practices through top-level policies is also an option. For example, mandating that meetings are recorded and transcribed through captioning software can be a good practice.

## 6.2.   Identifying Accessibility Tools

Many tools are available for evaluating and improving the accessibility of one's policies, and by extension, practices. These are constantly changing, as accessibility standards and digital technologies evolve. Refer to W3C's [Web Accessibility Evaluation Tools List](#) for suggestions.

# 7. Advocacy and Troubleshooting Tips

When developing an accessibility policy, you may experience challenges getting buy-in and support. People are motivated for different reasons. It is important, when coming across folks who do not immediately understand the benefits of accessibility work such as policy writing and workflow planning, to know what motivates an individual.

When library staff were asked during a 2019 internal survey at the University of Minnesota (University of Minnesota Libraries Accessibility Steering Committee, 2019) if accessibility is important, most strongly agreed. However, when asked what barriers they experience in their work, the issues they most often cited were resources (time, budget, tools), training and guidance, and support from management. Here are tips to address these concerns when preparing a policy or workflow plan.

- **First, know your audience.** For example:

    - **When talking with administrators**, use the Business Case for Digital Accessibility from W3C referenced in Section 2.1.5.

    - If you encounter **the argument that there isn't enough time**, or that the effort isn't worthwhile, use Section 2 of this document, on why accessibility matters, to make your case.

- **Training and Guidance**

    - **This document offers guidance** on how to get started.

    - **For training resources,** the W3C has material to get started on its Teach and Advocate page.

    - **Understand that we will need to adjust over time.**
      We cannot build to one way of being or doing. That means addressing all aspects of accessibility, including vision, hearing, mobility, and cognitive impairments. And folks range from new to digital libraries to experts, visitors to content authors to web developers. Considering the breadth of concerns may be overwhelming, so prepare to adjust work as the team becomes more aware.

- **Resources**

    - **Time**

        - **Acknowledge that this will take time.**
          Accessibility is a journey, as is all diversity and inclusion work.

Emphasize that the work doesn't happen overnight, and requires patience with one another as we learn and do better.

- **Acknowledge that accessibility work will be imperfect**. Mistakes will happen. But making any improvement is worth it, and continuing to learn from mistakes and to improve over time can lead to lasting results.

- **There will be limitations.** Some work may be too costly to pursue, such as retroactively tagging thousands of PDFs in a digital repository. Developing a plan to support tagging PDFs over time may be a compromise.

- **Remediate on-demand**. Because there are limitations to how long remediation takes, take an on-demand approach and create a service to allow users to request the materials they need in accessible formats. Prioritize those resources for immediate remediation.

- **Budget**

  - Use Section **4.2.1 Budgeting for Accessibility**, which outlines information on securing resources for budgets**.**

- **Tools and Training**

  - **Suggestions for accessibility tools and training are included in Section 6,** which provides links to find more resources and accessibility training.

  - **Workarounds will have to be developed.** Current workflows may not support accessibility work. Or the accessibility workflow may conflict with necessary steps in the archival and digitization processes. Be prepared to recommend workarounds for desired results.

- **Support From Management**

  - **Ask for a commitment and a public accessibility statement** for your institution**.** Ask your management or administration to post a public statement about your institution's accessibility commitment and standards. To help explain  why your institution should have such an accessibility statement in a public location, use the Business Case for Digital Accessibility from W3C referenced in Section 2.1.5, or Why Accessibility in

Section 2 of this document. Then use that commitment to advocate for accessibility work, and the support to do the work. Learn more in Section 4, Putting Policy into Practice.

- **Enforcement and Accountability**

  - ○ **Discuss the shared responsibility.**
    Accessibility is embedded in all our work. It cannot be the domain of a sole person. Each person contributes to someone else's experience, whether through communication, cataloging, coding, or maintaining materials. Section 4, Putting Policy into Practice, discusses enforcement, and outlines different institutional and individual roles and responsibilities.

# 8.  Conclusion

The authors intend these guidelines not only to serve as your foundation for developing accessibility policies and procedures in an achievable way but provide you with direction on how to put them into action. They may help you advocate for the importance of accessibility being factored into every stage of digital library work. Accessibility benefits everyone and is the foundation of usability.

The preparation of this work is a volunteer effort. The community is grateful for all the authors' contributions.

# Appendix 1: Models of Adoption: RACI Charts

## What Is a RACI chart?

A RACI chart is a project-management tool used to clarify responsibilities and roles when multiple team members are working on a complex project. Project participants are listed by role in Row 1. The tasks or stages comprised by a project are listed in Column 1. Within the chart, the nature of each participant/role's responsibility for a given task is noted with an R, A, C, or I. RACI stands for Responsible, Accountable, Consulted, and Informed.

- **Responsible (R):** directly in charge of executing a project or one of its parts.
- **Accountable (A):** accountable for a project's completion and its outcomes. This may not be the person directly executing the work, and often is filled by a project manager overseeing progress, or an administrator shaping or overseeing a project.
- **Consulted (C):** reviews a project or a task undertaken as a part of a project.
- **Informed (I):** informed of a project's progress and completion, but not directly involved in the work.

## Setting Policy for Larger Institutions

|  | Head of Institution | Library Department Head | Product/ Project Manager | Functional Managers | Project Implementers | Accessibility Specialist |
|---|---|---|---|---|---|---|
| **Sets institution-wide goals and priorities to include digital accessibility** | R/A | C | C | C | I | C |
| **Communicates** | R | R | R | R | R | R |

| importance of digital accessibility | | | | | | |
|---|---|---|---|---|---|---|
| **Creates staffing structures that accommodate accessibility work across all of the institution's portfolio of work** | A | R | R | R | C/I | C/I |
| **Creates budget with the necessary funding to provide accessibility services** | R | R | C/I | C/I | C/I | C/I |
| **Creating institution-wide accessibility policies that provide guidance, standards, and governance** | C | C/A | C/I | C/I | C/I | R/A |
| **Putting accessibility** | I | I | A/C/I | A | R | R |

| policies into practice | | | | | | |
|---|---|---|---|---|---|---|
| Resourcing projects to accomplish accessibility work | I | C/I | R | R | C/I | C/I |

# New Website Project for Larger Institutions

| | Senior Administrator | Project Manager/ Product Manager | Functional Manager | Developer | UX Designer | Visual Designer | Content Author | Accessibility Specialist | Metadata Analyst |
|---|---|---|---|---|---|---|---|---|---|
| **Creates project plans (may include budget, resourcing, and timeline)** | C/I | R/A | C | I | I | I | I | I | I |
| **Designs technical architecture** | I | A | R | C | C | I | I | C | I |
| **Designs user experience (UX) (including interactions, page layout structure, and information architecture)** | C | C/A | C | C | R/A | C | C/I | C | I |
| **Doe visual design (color palette, font styling, page layout g)** | C | C/I | I | C/I | C | R/A | C/I | C | I |
| **Designs metadata for digital objects that will move through the website** | I | C | C/I | C/I | C | I | C | C | R/A |
| **Creates content for website** | C/I | C | I | C/I | C | C | R/A | C | C |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Develops front end** | I | C | A | R | C | C | C/I | C | I |
| **Develops back end** | I | C | A | R | C | I | I | C | C |
| **Tests and evaluates for usability** | I | I | I | I | R/A | I | I | C | I |
| **Tests front-end code** | I | I | C/I | R | C | I | I | R/A | I |
| **Tests accessibility test UI** | I | I | I | C | C | C | C | R/A | I |
| **Fixes any accessibility bugs** | I | I | C | R | C | I | I | A/C | I |

## Maintenance Phase for Larger Institutions

| | Project Manager/ Product Manager | Technical Lead | Developer | UX Designer | Visual Designer | Content Author | Accessibility Specialist | Metadata Analyst |
|---|---|---|---|---|---|---|---|---|
| **Monitors long-term success of accessibility work undertaken during implementation. Schedule periodic accessibility evaluations, noting accessibility issues throughout life cycle of website or service.** | A | C | I | C | I | I | R/A | I |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Assesses new features, content, or infrastructure maintenance work** | A | C | C | C | C | C | R | C |
| **Receives requests for remediation** | A | C | C | C | I | C/I | R | C/I |
| **Decides course of action based on remediation request** | R/A | A | C | C | C | I | C | I |
| **Conducts content-based remediation** | C | I | I | C | I | R/A | C | I |
| **Conducts redesign remediation** | C | I | C | R/A | C | C | C | C |
| **Conducts new-code remediation** | C | A | R | C | I | I | C | I |
| **Tests remediation fixes** | I | I | C | C | I | I | R/A | I |

# Appendix 2: Models of Adoption: RACI Charts for Smaller Institutions

## What Is a RACI chart?

A RACI chart is a project-management tool used to clarify responsibilities and roles when multiple team members are working on a complex project. Project participants are listed by role in Row 1. The tasks or stages comprised by a project are listed in Column one. Within the chart, the nature of each participant/role's responsibility for a given task is noted via an R, A, C or I. RACI stands for Responsible, Accountable, Consulted, and Informed.

- **Responsible (R):** directly in charge of executing a project or one of its parts.
- **Accountable (A):** accountable for a project's completion and its outcomes. This may not be the person directly executing the work, and often is filled by a project manager overseeing progress, or an administrator shaping or overseeing a project.
- **Consulted (C):** reviews a project or task undertaken as a part of a project.
- **Informed (I):** informed of a project's progress and completion, but not directly involved in the work.

## Setting Policy for Smaller Institutions

|  | Head of Institution | Head of Library | Service Librarian |
|---|---|---|---|
| **Sets institution wide goals and priorities to include digital accessibility** | R | C | C |
| **Communicates importance of digital accessibility institution-wide** | R | R | R |
| **Creates staffing structures that accommodate accessibility work across the institution's portfolio of work as well as the staff who carry** | A | R | R |

| | | | |
|---|---|---|---|
| out the work | | | |
| **Creates budget with the necessary funding to provide accessibility services (captioning etc), license accessibility tools, and contract or provide gift funding for test subjects** | R | R | C/I |
| **Creating institution-wide accessibility policies that provide guidance, standards, and governance** | R/A | C/A | C/I |
| **Puts accessibility policies into practice** | I | I | R/C/I |
| **Resources projects to accomplish accessibility work** | I | C/I | R |

## New Website Project for Smaller Institutions

| | Senior Administrator (Project Sponsor) | Service Librarian | Developer |
|---|---|---|---|
| **Creates project plans (may include budget, resourcing, and timeline)** | A | R/A | C |
| **Designs technical architecture** | I | C | R/A |
| **Designs user experience (including interactions, page layout structure, and information architecture)** | C | R/A | C |
| **Does visual design (color palette, font** | C | R/A (may outsource to a | C |

| | | | |
|---|---|---|---|
| **styling, page layout)** | | contractor as funding allows) | |
| **Design metadata for any digital objects that will move through the website** | I | R/A (may outsource to a metadata or cataloging librarian if on staff) | C |
| **Creates content for website** | A | R | I |
| **Develops front end** | C | C | R/A |
| **Develops back end** | I | C | R/A |
| **Tests and evaluates for usability** | C | R/A | C |
| **Tests front end code** | I | C | R/A |
| **Tests accessibility test UI** | I | R/A | C |
| **Fixes accessibility bugs** | I | C | R/A |

## Maintenance Workflow for Smaller Institutions

| | Senior Administrator (Project Sponsor) | Service Librarian | Developer |
|---|---|---|---|
| **Monitors long-term success of accessibility work undertaken during implementation. Schedules periodic accessibility evaluations, noting accessibility issues throughout the lifecycle of the website or service.** | C/I | R/A | C |
| **Assesses new feature, content, or infrastructure maintenance work.** | I | R/A | R/C |

| | | | |
|---|---|---|---|
| **Manages planning and staff resourcing for work.** | | | |
| **Receives requests for remediation** | I | R/A | R/C |
| **Decides course of action based on remediation request** | I | R/A | C |
| **Conducts content-based remediation** | C | R/A | I |
| **Conducts redesign remediation** | C/I | R/A | R/C as needed |
| **Conducts new code remediation** | I | C | R/A |
| **Tests remediation fixes** | I | R/A | R/C |

# Appendix 3: Models of Adoption: RACI Charts for Digitization Projects

## What is a RACI chart?

A RACI chart is a project-management tool used to clarify responsibilities and roles when multiple team members are working on a complex project. Project participants are listed by role in Row 1. The tasks or stages comprised by a project are listed in Column 1. Within the chart, the nature of each participant/role's responsibility for a given task is noted via an R, A, C, or I. RACI stands for Responsible, Accountable, Consulted, and Informed:

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- **Consulted (C):** reviews a project or a task undertaken as a part of a project.
- **Informed (I):** informed of a project's progress and completion, but not directly involved in the work.

## Digitization Workflow

This chart can be used during the digitization workflow process, including work handled in house or via a third-party vendor.

| | Accessibility point person | Project manager | Technical lead/developer | Metadata Creator | Collection Curator/ Project Sponsor | Digitization technician/ vendor |
|---|---|---|---|---|---|---|
| **Assign accessibility work and ensures that there is appropriate time available to complete accessibility evaluation, testing, and fixing** | C | R/A | C | I | I | C |
| **Executes technical work underlying** | C | C | R/A | C | C/I | C/I |

| | | | | | | |
|---|---|---|---|---|---|---|
| **project or product** | | | | | | |
| **Attends to metadata considerations; consults on and/or implements accessible-metadata practices** | C | I | C/I | R/A | C/I | R/A (if metadata is being created as part of vendor workflow) |
| **If digitization work is conducted by third-party vendor, provide accessibility guidance and quality review as work goes on** | R/A | I | C | C | I | C/I |
| **Evaluate and quality-checks digitization output for accessibility-standards compliance,either manually or through automatic tool testing.** | R/A | I | C/I | C/I | C | I |
| **Works with staff or third- party vendors if fixes are needed in digital objects accompanying content, or metadata description.** | R/A | C/I | I | C/I | C/I | C/I |