

# Digital Accessibility in Libraries

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## Introduction to Digital Accessibility in Libraries

Libraries should be accessible to everyone – including people with disabilities – both physically AND digitally. Not only is ensuring digital accessibility for all people the right thing to do but it also helps libraries avoid lawsuits for violating the [Americans with Disability Act \(Section 508\)](#).

Accessibility is an important aspect of diversity, equity, and inclusion (DEI); and digital accessibility is about making sure digital technology such as websites, apps, and electronic documents, is usable by people with disabilities.

People with disabilities run into [accessibility barriers](#) that discourage them from using or don't even allow them to access content almost daily. For this reason, it's important to purposefully avoid those barriers **when planning and creating content**.

Disabilities can be either permanent or temporary and it's easy to overlook the effect a disability can have on someone's everyday life. Suppose a person hasn't personally experienced or witnessed the difficulties that come with a disability. In that case, it can be hard for them to understand just how important accessibility is in some situations.

## Web Accessibility Perspectives

Most of the information in this document comes from the [World Wide Web Consortium \(W3C\) Web Accessibility Initiative \(WAI\)](#), which “develops its work through W3C's consensus-based process, involving different stakeholders in web accessibility. These include industry, disability organizations, government, accessibility research organizations, and more.”

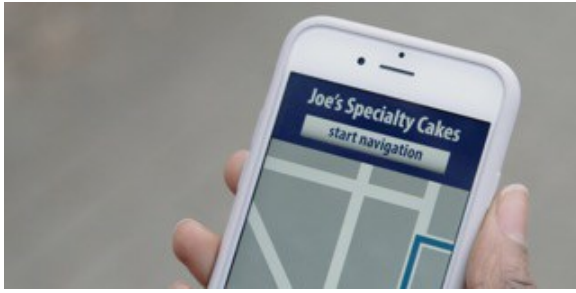
Web accessibility is essential for people with disabilities and useful for all. Learn about the impact of accessibility and the benefits for everyone in a variety of situations by watching this [Web Accessibility Perspectives](#) video (7 minutes and 36 seconds). The video is also broken down into [10 one-minute videos](#) provided by W3C WAI as described below.

### Video Captions



Captions are a text form of audio information in video and animations. This includes the words that are spoken, who is speaking when it is not evident, and important sounds like music, laughter, and noises. Captions must be synchronized with the visual content to contextualize them. [Learn more in this short video.](#)

## Colors with Good Contrast



Colors must have sufficient contrast, for example, between the text color and the background color (technically called *luminance contrast ratio*). This includes text on images, icons, and buttons. Also, colors used to convey information on diagrams, maps, and other types of images must be distinguishable. [Learn more in this short video.](#)

## Speech Recognition

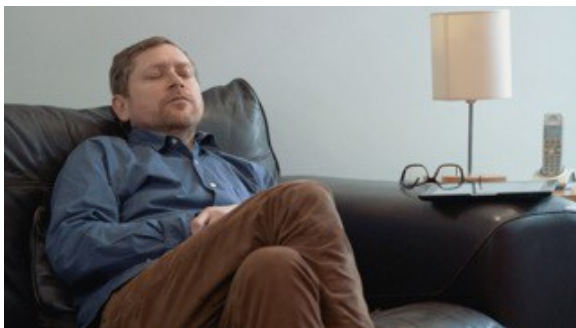
Most computers and mobile devices today have built-in speech recognition functionality.



Speech recognition can be used for dictating text in a form field, as well as navigating to and activating links, buttons, and other controls. Some speech recognition tools allow complete control over computer interaction, allowing users to scroll the screen, copy and paste text, activate menus, and perform other functions. (Update: The video uses “voice recognition”. This page is

updated to use “speech recognition”. “Speech recognition” is about recognizing words for speech-to-text (STT) transcription, virtual assistants, and other speech user interfaces. “Voice recognition” or “speaker recognition” is technology that identifies who the speaker is, not the words they’re saying. We hope to update the video to use “speech recognition” once it becomes available.) [Learn more in this short video.](#)

## Text to Speech



Many computers and mobile devices today have built-in text-to-speech software. Some people with disabilities, including people who are blind, use specialized software called screen readers. Screen readers provide important functionality such as navigating through headings, speaking image alternatives, and identifying internal and external links. They can also highlight the text as

it is being read aloud for people to see and hear the content at the same time. Content must be coded properly so that all of the functionality of the text-to-speech software works with the content. [Learn more in this short video.](#)

## Clear Layout and Design



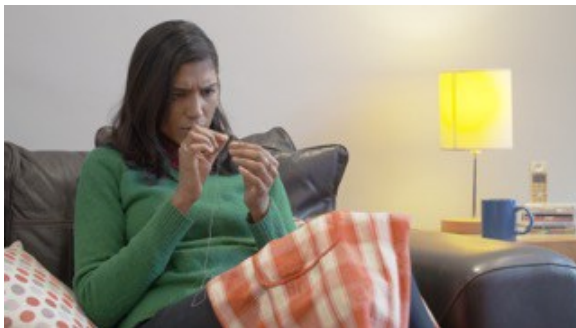
The various parts of a web page must be easy to locate and identify. This includes navigation menus, links, and text sections. These should be at predictable locations and consistently identified. Form labels and instructions must be clearly associated with their controls. [Learn more in this short video.](#)

## Notifications and Feedback



Users need to know what is going on and get appropriate feedback during interaction. For example, users need confirmation messages when actions are completed, such as when forms are submitted. Also, error messages must provide clear directions rather than confuse users. [Learn more in this short video.](#)

## Large Links, Buttons, and Controls



The area for clicking and tapping controls must be large enough for people to activate them. This includes links, buttons, checkboxes, and other controls. Small controls, and controls that are placed too close to each other, are difficult for many people to use. This is particularly relevant on mobile devices with small screens. [Learn more in this short video.](#)

## Customizable Text



Some users need to be able to change the way text is displayed so that they can read the text. This includes changing the size, spacing, font, color, and other text properties. When users change these properties, no information or functionality should be lost, and the text should re-flow so users don't have to scroll horizontally to read sentences. Text customization is more than the zoom functionality, which only changes the text size. [Learn more in this short video.](#)

## Understandable Content



Content must be easy to follow and understand for many users. For most content, this means simply avoiding overly complex sentences and jargon, and providing a clear layout and design. For some complex content such as medical information, separate, easy-to-read information may be necessary. [Learn more in this short video.](#)

## Keyboard Compatibility



All functionality must be usable with the keyboard. That is, users can access and move between links, buttons, forms, and other controls using the Tab key and other keystrokes. Websites should not require a mouse; for example, pop-up calendars should also let users type in a date. [Learn more in this short video.](#)

## Digital accessibility requirements for websites, apps, browsers, and other tools

Some web accessibility requirements for websites, web apps (such as Word, Google Docs, or PDF files), browsers (such as Chrome, Microsoft Edge, Mozilla Firefox, Internet Explorer, Safari, and more), and other tools (such as online calculators) are available at <https://www.w3.org/WAI/fundamentals/accessibility-principles/>.

### How to test for digital accessibility

There are many other sources of knowledge and tools that library and system staff can use to design, test, and develop digital content with accessibility in mind. Two examples are NV Access and Microsoft.

#### NV Access

[NV Access](#) is a not-for-profit organization that supports the development of the NVDA screen reader. NVDA is an open-source software, which means the code is accessible to anyone.

Check out the following video (3:36 long) to learn more about the NVDA software: [NVDA: The free software empowering blind people worldwide](#). If you would like to learn how to set up and use NVDA, this YouTube video (49 minutes) is helpful: [How to Set up and Use NVDA to Read a Website for Accessibility Testing](#).

Microsoft

Microsoft support has an [Accessibility help & learning](#) page that touches on accessibility tools for [Vision](#), [Hearing](#), [Neurodiversity](#), [Learning](#), [Mobility](#), and [Mental Health](#).

Watch this [Microsoft 365: Making documents accessible video \(less than 4 minutes\)](#) for a brief overview of the tools available.

Microsoft support also offers keyboard shortcuts for [Windows](#) and [Microsoft 365](#), which enable users to navigate without using a mouse or touchscreen.

## Summary

Ensuring that technology is accessible to all is the right and responsible thing to do. Start today by making sure your library's digital creations are usable by people with disabilities.

The next page offers links to all the digital resources mentioned throughout this document.

## Digital Accessibility Resources

- [Americans with Disability Act](#)
  - [Section 508](#)
  - [Examples of Website Accessibility Barriers](#)
- [World Wide Web Consortium \(W3C\) Web Accessibility Initiative \(WAI\)](#)
  - [Web Accessibility Perspectives - Compilation of 10 Topics/Videos on YouTube \(7:36\)](#)
    - [Keyboard Compatibility \(0:48\)](#)
    - [Video Captions \(0:48\)](#)
    - [Colors with Good Contrast \(1:04\)](#)
    - [Customizable Text \(0:47\)](#)
    - [Clear Layout and Design \(1:06\)](#)
    - [Speech Recognition \(1:11\)](#)
    - [Text to Speech \(0:54\)](#)
    - [Understandable Content \(0:55\)](#)
    - [Large Links, Buttons, and Controls \(0:43\)](#)
    - [Notifications and Feedback \(1:07\)](#)
  - [Web Accessibility Perspectives: Compilation of 10 Topics/Videos on W3C server \(MP4 format\) \(7:36\)](#)
  - [Accessibility Principles](#)
- [NV Access](#)
  - [NVDA: The free software empowering blind people worldwide \(video, 3:36\)](#)
  - [How to Set up and Use NVDA to Read a Website for Accessibility Testing \(video, 49:14\)](#)
- Microsoft
  - [Accessibility help & learning](#)
    - [Vision](#)
    - [Hearing](#)
    - [Neurodiversity](#)
    - [Learning](#)
    - [Mobility](#)
    - [Mental Health](#)
  - [Microsoft 365: Making documents accessible video \(3:28\)](#)
  - [Keyboard shortcuts in Windows](#)
  - [Keyboard shortcuts in Microsoft 365](#)