

An Introduction to Web Accessibility

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What is Digital Accessibility?

The goal of digital accessibility is to design digital content in a way that allows the widest number of users to navigate, understand and use the content.

Digital content includes:

- Websites
- Web, mobile, and software applications
- Documents
- Videos and multimedia

Remember P.O.U.R.

- **P**erceivable
- **O**perable
- **U**nderstandable
- **R**obust

Typical Barriers in Digital Design

- Images with no alt text
- Poor contrast
- Links that are not descriptive
- Not using heading levels appropriately
- Drop-down menus that require a mouse to operate
- Videos without captions
- Videos that are purely visual
- Inaccessible Word Documents
- Inaccessible PDFs
- Inaccessible PowerPoint presentations

Who is excluded by Inaccessible Digital Design?

- People who are Deaf or Hard of Hearing
- People who are Blind or with Low Vision
- People who are DeafBlind
- People with Motor-Related Disabilities
- People with Dyslexia
- People who are Color-Blind

Most common barrier for people who are Deaf

- Videos with no captions
- Auto-Caption Fails

Screen reader technology used by people who are Blind

- Voiceover (Mac and iOS)
- JAWS (Job Access with Speech)
- NVDA (Non-visual Desktop Access)
- Refreshable braille output device

Biggest barriers for people who are Blind

- Images with no alt text
- Mouse-dependent navigation
- Lack of true headings
- Inaccessible documents
- Videos without narration
- No option to skip navigation

Technology use by people who are DeafBlind:

- Refreshable Braille Display

Biggest barriers for people who are DeafBlind:

- All of the barriers faced by blind users +
- Videos with no transcripts

Technology Used by People with Low Vision

- Magnification Software (with or without speech)
- High contrast options

Biggest barriers for people with Low Vision

- Pages or objects that do not enlarge gracefully
- Poor contrast

Technology Used by People with Upper Mobility-Related Conditions:

- Cheek operated switch
- Other input devices:
 - Large keyboards
 - One-handed keyboards
 - Puff and sip device
 - Head wand
 - Eye tracking technology
 - Mouth stick
 - Enlarged mouse or roller ball
 - Speech recognition

Biggest barriers for People with Mobility-Related Conditions

- Lack of keyboard accessible design
- Skip navigation not visible
- No visible keyboard focus

Accessibility Testing

- **Visual inspection:** Ensure appropriate color contrast and usability.

- Use [WebAIM Color Contrast Checker](#) as needed.
- **Keyboard navigation:** Ensure each link, button or other element requiring interaction can be tabbed to and operated using the keyboard only
- [WAVE](#)

Civil Rights Law

- Americans with Disabilities Act
 - Even though it does not speak directly to digital access is invoked in lawsuits
- Section 508 of the Rehabilitation Act of 1973
 - Applies to US federal agencies only