

Accessibility in the Age of Digital Media

Issues, Agencies, and Resources

Setting the Stage

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Disability Demographics

People with disabilities comprise almost [13% of our state's population](#)—just shy of 250,000 people

Nebraskans with disabilities reside in [every county](#).

Annual median earnings of full-time, full-year civilian workers with disabilities ages 18-64 (2021): \$40,738

Number of Nebraskans with disabilities ages 18-64 years living in the community employed in 2021: 67,109

<https://disabilitycompendium.org/>

<https://disabilitystatistics.org/>

Purchasing Power

American Institutes for Research's 2018 study, ["A Hidden Market: The Purchasing Power of Working-Age Adults With Disabilities"](#) describes significant purchasing power of people with disabilities:

- **The total after-tax disposable income for working-age people with disabilities is about \$490 billion.**
- **Discretionary income for working-age people with disabilities is about \$21 billion.**
- **People with disabilities are not a solitary market**

They are surrounded by family members and friends who also recognize the value in products and services that accommodate all people in society.

Accessibility in Context

Often accessibility for persons with disabilities is thought of only for environmental or social conditions: curb cuts, automatic door openers, ramps, large print/braille, sign language interpreters, how far is housing from public transportation

Accessibility should be considered more broadly, after all accessibility is making something that people will engage in or interact with easier for them to do that.

People with disabilities can work, they surf the web, play Candy Crush, apply for jobs, shop in-store and on-line; they go to parks, movie theaters, coffee shops; they interact with various types of media-- *including digital media*.

Accessibility of Digital Media-- Huh?

“Digital accessibility is the ability of a website, social media, mobile application or electronic document to be easily navigated and understood by a **wide range of users**, including those users who have visual, auditory, motor or cognitive disabilities”. ([University of Florida Health](#))

“Digital accessibility...is about **designing and building** digital products so that, regardless of a person's disability, they can still interact with the product in a **meaningful and equivalent way**.” ([web.dev](#))

“Digital accessibility refers to the **inclusive** practice of removing **barriers** that prevent interaction with, or access to websites, digital tools and technologies, by people with disabilities.” ([Georgetown Law](#))

Digital Accessibility Matters

Digital accessibility is important because it ensures that everyone, including people with disabilities, can access and use digital content.

It is a way to promote inclusion and diversity and to ensure that no one is excluded from accessing important information and services.

Three Types of Accessibility

1. **Visual accessibility:** the ability of digital content to be accessed and used by people with visual impairments. This includes people who are blind, have low vision, or have color blindness.
 - Examples: alternative text for images, high contrast options, and resizable text
2. **Auditory accessibility:** the ability of digital content to be accessed and used by people with auditory disabilities, including people who are deaf or hard of hearing.
 - Examples: closed captions for videos and transcripts for audio content.

Three Types of Accessibility

- 3. Motor accessibility:** the ability of digital content to be accessed and used by people with motor impairments, including people with limited mobility, dexterity, or coordination
 - Examples: keyboard navigation, voice recognition, and alternative input devices

Federal Accessibility Requirements

[Section 508 of the Rehabilitation Act](#) requires federal agency electronic communications and information technologies, such as websites, social media, email, or web documents, be accessible.

- For video content, closed captions are a specific requirement.

[Section 504 of the Rehabilitation Act](#) protects the civil rights of people with disabilities by requiring all federal entities — and organizations that receive federal funding — to make accommodations for equal access.

- This means that closed captioning must be provided for users who are deaf or hard of hearing.

Global Accessibility Standards

Web Content Accessibility Guidelines (WCAG) is a set of technical requirements for making web-based content accessible for users of every ability—including people with disabilities who use assistive technology

The goal is to provide a single, common global standard for web accessibility

WCAG's accessibility standards are based on four principles (often referred to as POUR): **Perceivable, Operable, Understandable, Robust**

Four Principles of WCAG

1. **Perceivable** = Information and user interface components must be presented to users in ways that they can perceive

For example, it's important to present information that can be perceived in different ways, where a user can adjust color contrast or font size, or view captions for videos.

2. **Operable** = User interface components and navigation must be functional for users in ways they can operate

For example, a user must be able to perform required interactions using a keyboard or voice commands, not just using a mouse.

Four Principles of WCAG

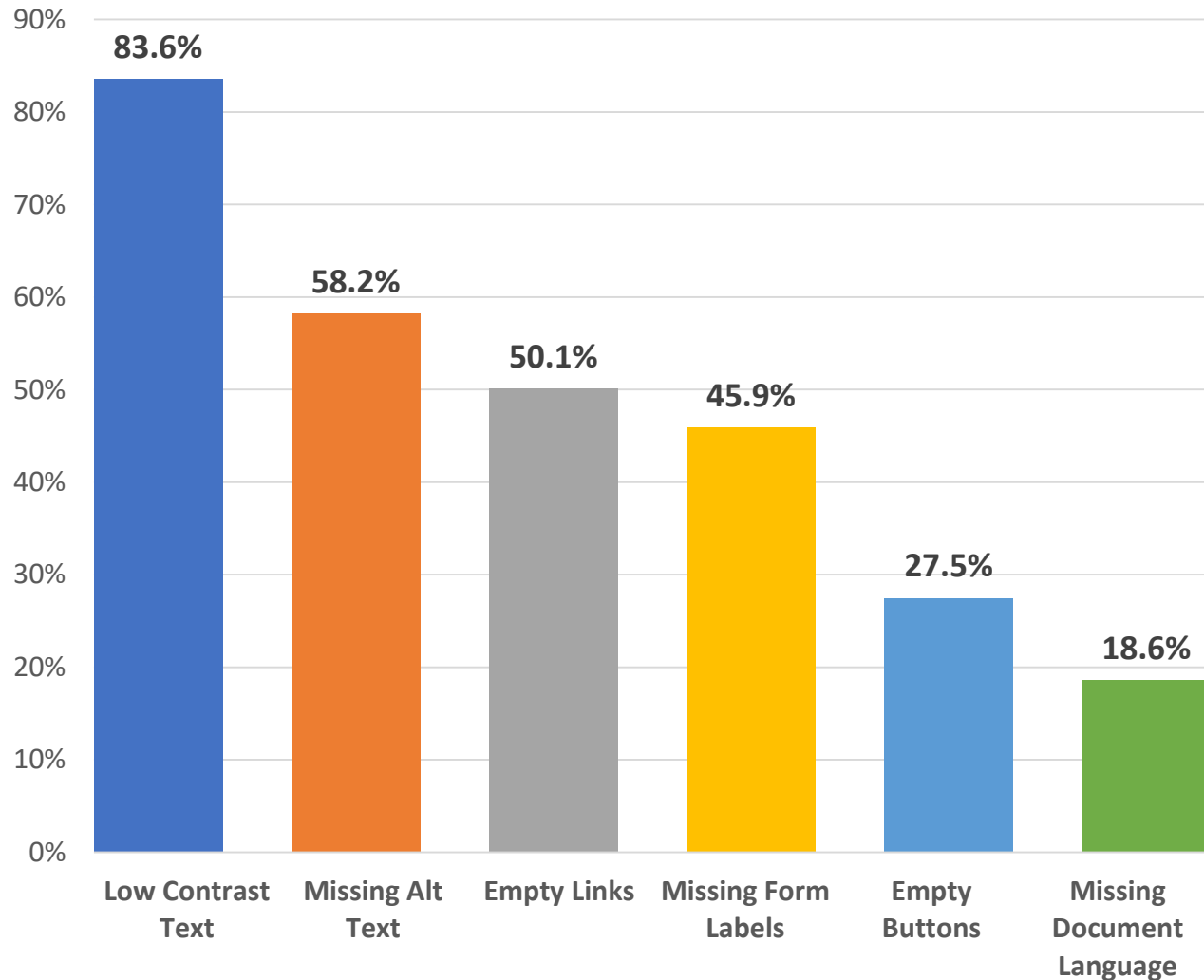
3. Understandable = Information and user interface operation must be understandable

For example, information and instructions should be clear and navigation methods should be easy to understand and use

4. Robust = Content must be robust enough so that it can be interpreted reliably by a wide variety of users and types of assistive technologies

As technologies evolve, code and content should remain accessible for users of common and current assistive devices and tools

The WebAIM Million Study



Top one million home pages:

- 49.9 million distinct accessibility errors were detected (an average of 50 errors per page)
- 96.1% of these errors fell into these six categories
- 43 million images in the study, 22.1% had missing alternative text
- 35.8% of form inputs were not properly labeled

A Specific Example: PDF's

Equidox [conducted a survey](#) of over 250 blind and low-vision assistive technology users across the United States about problems they encounter with PDF's. Survey participants reported:

- 67% of PDFs they encountered were either partially or entirely unreadable
- 72% said inaccessible PDFs impact their ability to do their job or complete coursework
- 60% said that inaccessible PDFs affect their ability to go about their daily lives.

A Specific Example: PDF's

- Words not separated by spaces, words with letters left out, and no headings
- Graphs and chart labels interrupt sentences, non-existent word wrap so carriage returns interrupt words
- PDFs of scanned images or pictures of text are not accessible with a screen reader. In order for the screen reader to be able to read the text, it must be typed.

Digital Media Accessibility Matters

If digital content is not accessible:

- Someone can't buy a present for a friend because the online shopping cart was incompatible with your assistive device.
- Someone must ask a coworker to help you understand the recent sales chart because it only used soft monotone colors.
- Someone can't enjoy a video because the captions are missing or badly automated.
- Someone's screen reader may not be able to understand web fill-in forms or jump between headings.
- Someone who is a keyboard-only user might not be able to navigate across a page or to activate certain controls on a website or app.

Digital Media Accessibility: Ideas*

1. **Design with accessibility in mind:** Incorporate accessibility into the design process from the beginning
2. **Use accessible design elements:** Use design elements that are accessible, such as high-contrast color schemes, clear and legible fonts, and easy-to-navigate layouts
3. **Use alternative text for images:** Provide [alternative text descriptions](#) for images, so that people who use screen readers can understand the content of the image.

*according to [Abledocs.com](https://www.abledocs.com)

Digital Media Accessibility: Ideas

- 4. Provide captions and transcripts for videos:** Provide captions for videos and transcripts for audio content, so people who are deaf or hard of hearing can access the content.
- 5. Ensure keyboard accessibility:** Ensure that all content can be accessed and navigated using a keyboard, so that people who cannot use a mouse can still access the content.
- 6. Use descriptive links:** Use descriptive links that explain the purpose of the link, so that people who use screen readers can understand where the link leads.

Digital Media Accessibility: Ideas

- 7. Test with assistive technologies:** Test the accessibility of your digital content using assistive technologies, such as screen readers and speech recognition software
- 8. Train content creators and developers:** Train content creators and developers on the importance of digital accessibility, best practices, and standards (like WCAG)

Resources

What is digital accessibility, and why does it matter?

<https://web.dev/learn/accessibility/why/>

Why digital accessibility is a must in today's corporate world

<https://tinyurl.com/3surdnsf>

PDF accessibility survey says 67% of PDFs will get you sued

<https://tinyurl.com/mdhsvk2t>

A Hidden Market: The Purchasing Power of Working-Age Adults With Disabilities

<https://tinyurl.com/5brvayzh>

What Is Digital Accessibility? Best Practices And Guidelines

<https://tinyurl.com/yw3f294v>

Resources

Plain Language guidelines

Plain language makes it easier for the public to read, understand, and use government communications.

<https://www.plainlanguage.gov/>

Great Plains ADA Center

<https://gpadacenter.org/>

Nebraska State ADA Coordinator

Gloria Eddins

nebraska.ada.coordinator@nebraska.gov

<https://das.nebraska.gov/director/ada/grieve.html>

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