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1.1 What is a Disability?

A disability is any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities and interact with the world around them. This also applies with accessing digital resources, in order for users to be able to have equal access to digital resources, applying accessibility to websites is important to ensure equity to every person globally.

What is Accessibility?

Accessibility is a practice of making digital products, environments, and experiences accessible by every individual, regardless of their disabilities. Accessibility is a feature that encompasses considerations such as providing captions for videos, ensuring websites are navigable by their keyboard alone, and designing physical spaces that are accessible to everyone.

The digital world's accessibility focuses mainly on web and app designs that accommodates users with visual, auditory, motor, and cognitive impairments. What it means is that content it is created for screen readers so they can interpret, use high-contrast color schemes for visibility, and structure pages and navigate the internet easily.

1.2 Why Does Accessibility Matter to Me

Accessibility is essential for providing an inclusive environment. When digital products or physical spaces are inaccessible to those with disabilities, there's a risk of excluding every community from important information, services, and opportunities that deny the equality that everyone deserves. By providing accessibility, not only are the legal requirements met, empathy and respect for a diverse user base is provided.

Personally, I have a few college friends who rely on technologies that assist their needs. Seeing their struggles and the impact of thoughtful design has motivated me to learn and apply accessibility principles of my professional writing.

1.3 Disability Rights & Regulations

Understanding the laws of helps content creators and developers avoid any legal pitfalls and ensures that every user is served.

Rehabilitation Act (1973)

The Rehabilitation Act prohibits discrimination on the basis of disability in programs conducted by federal agencies, in federally funded programs, and in federal employment.

Example: A government website must be screen-reader friendly and navigable without a mouse.

Section 504 of the Rehabilitation Act

This law was a key victory for disability rights activists. It mandates that any institution receiving federal funding must provide physical accommodations for disabled individuals.

Example: Public universities must ensure wheelchair-accessible buildings.

Americans with Disabilities Act (ADA, 1990)

Signed into law by President George H. W. Bush, the ADA guarantees equal opportunities for people with disabilities in employment, services, and public programs.

Example: A private business must provide reasonable accommodations (Equipment, Elevators, ramps) for disabled employees.

Section 508 of the Rehabilitation Act

While Section 504 focuses on physical spaces, Section 508 addresses digital accessibility. It mandates that federal websites, electronic documents, and IT systems must be accessible.

Example: Federal agencies must ensure pdf's are accessible and readable to users with disabilities.

Web Content Accessibility Guidelines (WCAG)

Unlike the previous laws listed, WCAG is not a law but a set of global accessibility guidelines. Many countries have adopted WCAG as a legal standard for government and corporate websites.

Example: WCAG requires alternative text (alt-text) for images so that cognitive disabled users can understand visual and textual content.

Why These Laws Matter?

- 1. The laws ensure equal access to information, employment, and services.
- 2. They prevent legal consequences for businesses and institutions.
- 3. The laws help improve user experience for all individuals, regardless of their disabilities.

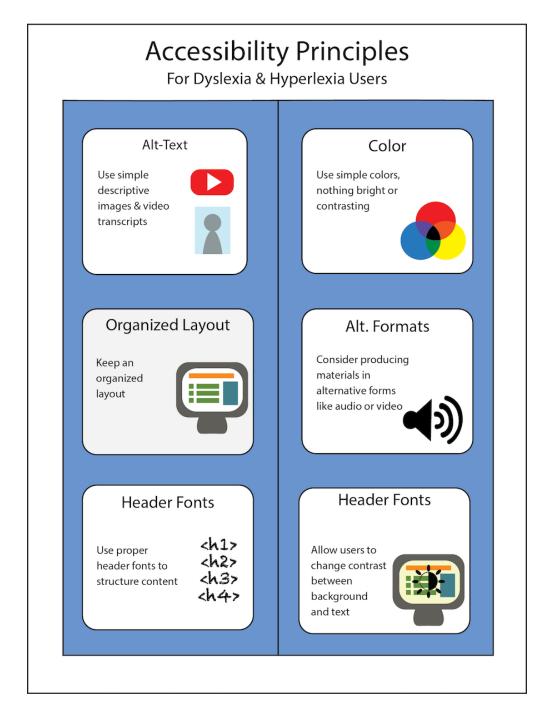
Works Cited

- Guide to disability rights laws. ADA.gov. (2025, March 7).
 https://www.ada.gov/resources/disability-rights-guide
- 2. How to meet WCAG (quick reference). How to Meet WCAG (Quickref Reference). (n.d.)

https://www.w3.org/WAI/WCAG22/quickref/?versions=2.1

2.1 Overview

This Digital



Access-

ibility project focuses on cognitive disabilities, specifically users with reading

disorders like dyslexia and hyperlexia. Dyslexia is a reading disorder characterized by difficulty with word recognition and fluency, often stemming from phonological deficits. Hyperlexia is rare disorder where individuals have advanced reading skills but struggle with comprehension.

The cognitive disabilities such as how individuals process information, interact with digital interfaces, and navigate online spaces Inclusive design will be taken in to account in order to create a tutorial on the accessibility features using a Unity-based guide that will provide clarity, predictability, and adaptability to my target audience

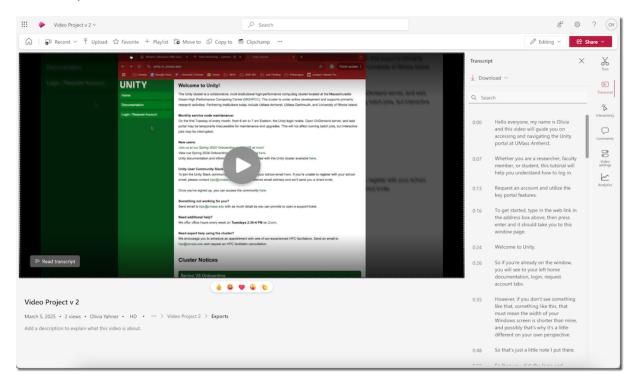
The accessibility features will include:

- Readable Fonts: Dyslexia-friendly fonts and tools like alternative text.
- Customizable Contrast Adjustments: How to access features to change contrast to enhance visual ad readable content.
- Light Sensitivity Adjustments: How to avoid unnecessary flashing lights that could be distracting or dangerous to certain users susceptible to flashing lights.
- Keyboard Navigation: How to access certain features on the keyboard.

2.2 Unity Video Tutorial

Tools used:

- Microsoft 365 Stream
- Captions



Requesting an account video section provided by Lauren Saloio.

The <u>video</u> is available on the University of Massachusetts Sharepoint site.

The video tutorial goes over how to request an account as a student or faculty member. In addition, features such as the Unity homepage, accessible tabs on Unity OnDemand, and where to access information and how to contact members of Unity for additional help were provided in the tutorial. As a result of making of the tutorial, I have gained some experience with both of Unity's and MadCap Flare's features.

2.3 Accessibility Additions

Why are Transcripts & Captions Important?

Providing closed captions and transcripts in video tutorials improves accessibility for users who have the following conditions:

- Users who are deaf or have trouble hearing.
- Users who have difficulty comprehending audible language.
- · Users who speak in a language other than English.

Sharepoint Captions Guide

- 1. Log into to Sharepoint Stream.
- 2. Open video details of your selected video.
- 3. Enable auto-captions by pressing the button (the small box with CC).

3.1 Alternative Text Guidelines

What is Alternative Text?

Describe images in a way that makes them more comprehensive without overwhelming or confusing digital users. Alternative text is one of the important tools in digital accessibility in providing simplified informational text to users who have reading disorders. Alternative text is a helpful tool in digital accessibility for readers with reading disorders such as dyslexia and hyperlexia who need to access and comprehend information on the internet.

- 1. Use plain, concrete language. Avoid metaphors or idioms.
- 2. Keep your sentences short and focused (1-3 sentences).
- 3. **Prioritize meaning over detail**. In other words, provide simple meaning rather than comprehensive meaning.
- 4. For charts or diagrams, use simple descriptions and labels.

Examples:

Good example: "A bar chart showing that recycling rates increased each year from 2019 to 2023." - This sentence uses simple words in its sentence which is important for digital users with reading disorders so they can comprehend the information given to them easily.

Bad example: "An intricate visualization showcasing data with trendlines." - This sentence uses complex vocabulary which will create confusion for digital users with reading disorders.

3.2 Where to Find Alternative Text Features

Alternative text can be found on (almost) any image on the internet. All you have to do is:

- 1. Right click on an image and select "inspect".
- 2. Then it should bring you to this tab on the right of your computer screen. Somewhere in the elements section of the inspected image's code you should find <alt> code and the alternative text title of the image.
- This is a good example of accessibility not being practiced. Down below you
 will see a screenshot of a perfect example of alternative text being implemented (<alt> <alt/>).

3.3 How to Download OpenDyslexic?

Consider allowing users to switch fonts (a toggle to enable OpenDyslexic). To that you can adjust certain settings on your computer or if you're using Chrome use an extension. Here's how to install the extension:

- 1. Go to OpenDyslexic.org
- 2. Install the extension: click on "Download" button to download the file.
- 3. The extension will add an icon to your Chrome toolbar. Click the settings icon to open the chrome settings.
- 4. Press "Enable OpenDyslexic" switch to turn the font on.
- 5. Customize your font style by clicking on the arrow next to "font" in the settings.

4.1 Appropriate Header Fonts

What are header fonts?

Header fonts are often used for organizing written digital content. Accessible header fonts help improve readability and navigation for all users, especially users who need digital accessibility needs. By using appropriate font sizes and styles on digital websites, navigating digital information is made easier for users to scan content, understand the page structure, and navigate to the information they need.

Here's a list of important header font guidelines for digital accessibility:

- 1. Use fonts like sans-serif: Arial, Verdana, Tahoma, or OpenDyslexic.
- 2. Avoid italics or all caps—use bold instead to indicate emphasis.
- 3. Maintain consistent header levels (H1, H2, H3) and spacing.
- 4. Increase line spacing to 1.5x and letter spacing slightly for readability.

4.2 Appropriate Heading Layouts

- 1. Left-align your text to provide a consistent starting point for each line and prevent disorientation.
- 2. Avoid newspaper-style columns, as they can make it harder to follow the text.
- 3. Use subheadings to break down long blocks of text and create a clear hierarchy. Utilize bullet points and numbering for organizing information in a concise manner.
- 4. Use white space effectively to create visual breaks between sections and elements, improving readability.

5.1 What are Visual Aids?

Visual aids are helpful tools that focus on making digital content perceivable for digital individuals with visual impairments. This involves using techniques and tools that enhance the clarity, readability, and accessibility of visual information for digital users who may have difficulty comprehending written digital information or users who have other vision-related challenges.

Visual aids are valuable tools for digital users with dyslexia, offering support in reading and writing. Visual aids can help digital users who suffer from dyslexia and even hyperlexia manage their reading, organizing information, and even managing time.

5.2 Visual Aid Guidelines & Examples

Some examples of visual aids for digital users with dyslexia and hyperlexia include:

- 1. Diagrams and flowcharts are visual representations that help break down complex information into more manageable chunks, making it easier for dyslexic individuals to understand and retain information.
- 2. High Contrast using dark text on a light background and vice versa can improve readability.
- 3. Using pictures to support text can be particularly helpful for digital users who struggle with comprehending written details..

About Me



Welcome! My name is Olivia Yahner. I am an aspiring writer with an interest in different types of professional writing such as technical documentation, scientific writing, and creative writing. I am from Norwell Massachusetts, having graduated from Norwell High school in 2021. I attended my first year of college at the University of Maine at Orono deciding to transfer to the University of Massachusetts Amherst for my second year. I graduated college in May of 2025 and am now excited to start my career.

In my spare time I enjoy writing Fantasy and Horror stories. Growing up, I always kept journals during holiday travels and other signifigant events in my life. These are often a source for my writing pool and I review them periodically to pad my fiction with realistic scenarios. I enjoy travelling, the journeys just as much as the destinations.

My Biology minor stems from an avid fascination for animal care. I've kept a menagerie of pets that include several uncommon species. Some of my favorite pet projects have included

- Chameleons (veiled, panther)
- African Pygmy Hedgehog
- Hairless guinea pigs
- Madagascar Hissing Cockroach
- Axolotls

As a compromise for my "hobby" of raising so many animals, my parents requested a short research proposal. They would evaluate and inevitably approve the request

as a commitment of responsibility for bringing them into our home. This directly led me toward my chosen fields of study, as writing and animal care were always something closely entwined for me.

My most interesting animal experiment in high school included breeding the Axolotls. While I anticipated a yield of a dozen or so, the final (shocking) product was over 200 healthy younglings! We re-homed them to local pet stores.

Roadmap

This details the road-map for the HTML version of the Accessibility User Guide.

This details the roadmap for the PDF version of the Accessibility User Guide.

Versions

1.0.0

• Initial Release with 3 basic topics

1.0.1

- · Added 8 new topics
- Updated Welcome Page
- Included FAQ and linked to relevant Topics
- Variables for my personal details
- Snippet for Latest Updates used in Home and Release Notes
- Conditionals set for Web and Print versions
- · Enabled partial searches for the search index

1.0.2

Added 4 new topics

Glossary



Digital Accessibility

Digital accessibility ensures that everyone, including individuals with disabilities, can access and use digital content and technology.

Dyslexia

Dyslexia is a specific learning disability characterized by difficulties with accurate and fluent word recognition, and poor spelling and decoding abilities.



Hyperlexia

Hyperlexia is a condition where a child exhibits advanced reading skills far beyond their age or developmental level, often accompanied by an intense fascination with letters and numbers. While they may be able to decode words quickly, they may struggle with understanding the meaning of what they read.

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