What is web accessibility?

Web accessibility means that people with disabilities can perceive, interpret, interact with, and contribute to the Web. This broad spectrum includes all disabilities that inhibit access to the Web including visual, auditory, speech, cognitive, physical, and neurological disabilities.

Guidelines set by the World Wide Web Consortium (W3C)

WCAG 2.0 Web Content Accessibility Guidelines

Websites should be:

- **Perceivable** – cannot be invisible to all of their senses
- **Operable** – interface has performable operations
- **Understandable** – information and operation is understandable
- **Robust** – ability to be interpreted by various user agents

Creating an accessible informational website

One of the main tasks of my internship with EvoXLabs was to help create the website for their new API Aditum, a tool that makes important data from the Philadelphia Office of HIV Planning easy to access and use.

The Design Process

- Research existing websites
  - Color, layout, and message
- Development and Implementation
  - HTML/CSS/JS
- Testing for accessibility – screen readers, usability, navigability

Developers should incorporate accessibility testing into their development process. This includes adaptability with screen readers like macOS VoiceOver, and blurring your page to test for understandability in layout and color scheme.

How to optimize content for screen readers:

- Always have alternative text for any non-text content on the page like images, videos, podcasts, graphs, etc.
- Have multiple elements of emphasis or indication on websites - do not use solely color to differentiate between elements. Use in conjunction with font size, text pattern, layout on page
- Use applicable markup language whenever possible. This means using header tags in your code, using `<h1>` tags to indicate the largest font size rather than hard coding the font size as 32pt. This allows screen readers to pick up on the header tag as they can not pick up on actual font size.
- Avoid hard coding anything - especially text boxes/sections. This allows flexibility in page sizes as users will want to heavily zoom in or out.

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