WEB ACCESSIBILITY RESEARCH - TASK 1
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Web accessibility refers to the inclusive practice of designing and developing websites that are usable by all individuals, regardless of their disabilities. This includes considerations for people with visual, auditory, motor, and cognitive impairments, ensuring they can perceive, understand, navigate, and interact with the web effectively. The goal is to eliminate barriers that might prevent access to information and functionalities, thereby promoting equal opportunity and participation in the digital world.

Principles of Web Accessibility

The Web Content Accessibility Guidelines (WCAG) provide a comprehensive framework for creating accessible web content. These guidelines are organized under four main principles: Perceivable, Operable, Understandable, and Robust (POUR).

1. **Perceivable:** It's important to show information and user interface elements in a way that people can understand. Text Alternatives: Screen readers can communicate with visually challenged people by offering text alternatives for non-text items, such photos.
   The W3C's Easy Checks site, for example, places a strong emphasis on looking for suitable substitute text for pictures. Time-based Media: By providing subtitles for videos, you can guarantee that people who are hard of hearing can still enjoy the audio.
   To meet this requirement, websites such as YouTube have integrated automated captioning.

2. **Operable:** The navigation and user interface elements need to be functional.

Keyboard Accessibility: To accommodate users who are unable to use a mouse, all features should be available by keyboard. The materials provided by WebAIM emphasise how crucial it is to make sure that interactive features are keyboard accessible.
Navigable: Users can more easily access material and orient themselves when obvious navigation features are provided, such as site maps and consistent menus.

3. **Understandable:** Information and the operation of the user interface must be understandable.
   Readable Text: Using clear and simple language aids comprehension, especially for users with cognitive disabilities.
   Predictable Functionality: Ensuring that web pages operate in predictable ways, such as consistent placement of navigation elements, helps users build familiarity and trust.

4. **Robust:** Content must be robust enough to be interpreted reliably by a wide variety of user agents, including assistive technologies.
   Compatible: Ensuring that web content is compatible with current and future user tools, including screen readers and browsers, is essential for accessibility.

Examples of Accessibility Implementations and Issues Several websites exemplify both adherence to and neglect of these accessibility principles:

AccessNow: Created by Maayan Ziv, this app provides information on the accessibility of various global locations, aiding users in planning their visits.

iAccessLife: Co-founded by Brandon Winfield, this platform allows users to rate and review locations based on

accessibility, fostering a community-driven approach to accessibility information.

AnySurfer: is a Belgian organisation that works to make websites, applications, and digital documents accessible to people with disabilities. Based on the Web Content Accessibility Guidelines (WCAG 2.0), they offer a quality badge to fully accessible websites.

Google Maps: Integrates accessibility into popular navigation services by providing features like wheelchair-accessible routes and assistance for those with problems with vision.

Examples of Accessibility Issues:

Uber and Lyft: have faced criticism for their poor accessibility to those with difficulty seeing, especially those who use white canes or guide dogs.

Retail Websites: According to a poll, two-thirds of persons with disabilities feel excluded from stores because of accessibility problems with product and shop designs.

Paris Metro System: Because of its outdated architecture, the Paris Metro system is still difficult for people with disabilities, even with advancements in public transit before to the 2024 Paralympics. Only the most recent line is completely accessible.

Accessibility Implementation in my project

When creating my own project, I want to include a number of important online accessibility considerations:

Making sure that key interactive components, including buttons, links, and forms, can be accessed with the keyboard. This entails efficiently controlling attention states and making focused items visible.

Alternative text for photos to inform viewers who use screen readers, every photo should include informative alt text. This procedure guarantees that those with visual impairments may access visual material.

Colour contrast and text scaling are the process of using enough colour contrast between text and backgrounds to enhance reading for those with difficulties with vision. When text can be resized without sacrificing functionality or information, users with low vision are also supported. Using bolder text in headings or titles also help to emphasize or highlight specific words.

Form labels and instructions to help users comprehend and correctly complete forms, labels should be directly linked to form controls and instructions should be made plain. Users of assistive technology and individuals with cognitive disabilities benefit from this approach.

Responsive design ensures that the website functions across a range of displays and devices, including tablets and smartphones, to suit users with different preferences and needs.