

3. What is web accessibility? List some of the assistive devices which play a major role in providing accessibility

Web accessibility refers to the inclusive practice of designing and developing websites and web content that can be accessed and used by people with disabilities. It aims to ensure that individuals with disabilities can perceive, understand, navigate, and interact with websites and web applications effectively. Here are some commonly used assistive devices and technologies that play a major role in providing web accessibility:

1. **Screen Readers:** Screen readers are software applications that convert text on a web page into synthesized speech or braille output. They enable people with visual impairments to navigate and access web content by reading aloud the text and providing alternative descriptions for images, links, and other elements.
2. **Screen Magnifiers:** Screen magnifiers are tools that allow users to enlarge a portion or the entire screen, making content more readable for individuals with low vision. These tools help users with visual impairments to zoom in on specific areas of a web page and adjust the level of magnification according to their needs.
3. **Braille Displays:** Braille displays are tactile devices that convert on-screen text into braille characters, enabling individuals with visual impairments to read and navigate web content through touch. Web pages are translated into braille, allowing users to access information by running their fingers over the raised dots.
4. **Keyboard Navigation:** Keyboard navigation is crucial for individuals with motor disabilities who cannot use a traditional mouse. Assistive technologies such as alternative input devices, on-screen keyboards, and switch devices allow users to navigate websites using keyboard commands, such as tabbing through interactive elements and activating links with the Enter key.
5. **Voice Recognition Software:** Voice recognition software enables users with physical disabilities, such as limited mobility or dexterity, to interact with websites and control their computers using their voice. These tools convert spoken words into text or execute commands, allowing users to browse the web and interact with web applications hands-free.
6. **Captions and Transcripts:** Captions and transcripts are essential for individuals who are deaf or hard of hearing. Captions provide synchronized text display of spoken content in videos, making them accessible to individuals who cannot hear the audio. Transcripts are text versions of audio content, allowing users to read the information instead of relying on audio.
7. **Alternative Text (Alt Text):** Alt text is descriptive text provided for images in HTML code. Screen readers read the alt text aloud, allowing individuals with visual impairments to understand the content and context of images on a web page.

These are just a few examples of assistive devices and technologies that support web accessibility. Designing and developing websites with accessibility in mind ensures that people with disabilities can fully engage with and benefit from the digital world.