

# **1 Introduction**

## **2 What is accessibility?**

### **2.1 What is disability?**

WHO estimates that 1.3 billion people – or about 16% of the global population – experience a significant disability and this number is growing. Disability is a part of being human and persons with disabilities are different from each other. (World Health Organization, 2022)

Disability beyond the 1.3 billion reported – being old and maybe just not at a 100%. ()

### **2.2 Universal design**

### **2.3 Web accessibility**

”The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect,” said Tim Berners-Lee, W3C Director and inventor of the World Wide Web (World Wide Web Consortium, 1997).

Essentially accessibility in providing equal access to goods and services to everyone regardless of their age, gender or disabilities. These principles can be applied to any various fields. For example in architecture it could be designing buildings in a way that that can be accessed by people who can walk on their own as well as the ones who need to use a wheelchair. In digital products it is more often related to the senses we use to consume content. Everything could be equally accessible whether I want to see or hear it for example.

Web accessibility is standard practices and requirements are defined in WCAG. People who consume web content have different abilities, because of their experience or different conditions that might affect their physical or mental capabilities. Someone might break their hand and be temporarily unable to use a mouse to navigate, or they might have been born blind and rely entirely on assistive technologies to consume content. The same content should be equally accessible for them both.

## **3 Automated accessibility testing**

Web content is essentially code and any code can be analyzed and compared against rule sets. Accessibility testing can be done by experts, real users or by code. The last one is what we call automated testing.

It can be set up in different way - as a browser plugin that check the site you are currently on against a rule set or a test written to ensure that a piece of code does not violate a certain rule or unit test that will ensure that the sites' compliance with a set of rules is consistent.

These kinds of test can detect up to 60% of violations. There is a limit to what can be detected. More testing will always be required to ensure that the content is fully accessible. These kinds of tests can be set up to run automatically and they provide measurable results. This means it a good way to monitor compliance with WCAG rules consistently without any extra effort. This can help avoid unwanted changes and show easy fixes in your code.

## **4 Summary**

\*\* All references are listed remove before submitting

## References

- World Health Organization. (2022, December 2). *Disability*. World Health Organisation. Retrieved December 26, 2022, from <https://www.who.int/news-room/fact-sheets/detail/disability-and-health>
- World Wide Web Consortium. (1997, October 22). *World Wide Web Consortium Launches International Program Office for Web Accessibility Initiative*. Retrieved December 26, 2022, from <https://www.w3.org/Press/IPO-announce>