

Web Accessibility

is actually a well-forgotten old

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What we will be discussing today

- Introduction
- Web Accessibility in real world
- Testing types
- AI & Web Accessibility
- Summary
- Q&A

Introduction

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Web Accessibility in real world

"It is better to arrive late than to not arrive at all"

What do people generally know about A11Y?

- *“It's only meant for people with permanent physical disabilities”*
 - In reality, everyone uses at least one of accessibility features.
- *“Only corporations should worry about this”*
 - All businesses should evaluate their web accessibility to provide equal access to all users and avoid potential legal issues.
- *“Users with disabilities don't use my website”*
 - How can we be sure? Most of assistive technologies are not detectable in any way.

These are just some of the statistics

45%

Dutch **iOS** users use at least one accessibility feature

24%

Android users in the Netherlands use dark theme on their phone

These are just some of the statistics

95,9%

websites in the world identified
WCAG 2 compliance issues

81%

websites failed to apply **low contrast text**

60%

of images on websites **do not have alt text**

Testing types

A11Y testing without WCAG? That's like cappuccino after 12:00

WCAG (Web Content Accessibility Guidelines) - international standards that ensure digital content is accessible to people with disabilities, promoting inclusivity and compliance.

The World Wide Web Consortium (W3C) has the following list of requirements for accessibility testing:

- **Perceivable:** e.g. alt texts in images.
- **Operable:** e.g. keyboard navigation
- **Understandable:** The user interface's content must be readable using a meaningful statement instead of color-coded instructions.
- **Robust:** e.g. URL access from different viewports (desktops, mobile phones and tablets).

Types of Accessibility Testing

- **Automated Testing:** Uses tools to identify common issues like missing alt text or insufficient color contrast.
- **Manual Testing:** Conducted by humans, this testing uncovers usability problems that automated tools may miss.
- **User Testing:** Involves real users with disabilities to provide feedback on their experiences.
- **Assistive Technology Testing:** Ensures compatibility with tools like screen readers and voice recognition software.

AI & Web Accessibility

How AI simplifies life

Certainly, AI can simplify life with features like automatic speech recognition, adaptive interfaces, and screen reading tools.

Here are some examples:

- Basic Built-in Accessibility Features
- Text-to-Speech (TTS) Technologies
- Voice Assistants
- Many companies are developing additional applications to make using the phone easier

Basic Built-in Accessibility Features

Easy Access mode in IOS allows **elders to use the phone without grandson and granddaughter.**



Text-to-Speech (TTS) Technologies

Many platforms, including Amazon Polly and Google Text-to-Speech, **convert text into speech**, helping individuals with dyslexia and other reading difficulties.



Source:

<https://support.apple.com/ru-ru/guide/assistive-access-iphone/devcd5016d31/ios>

<https://www.apptek.ai/technology/text-to-speech-technologies>

Voice Assistants

Yandex has trained its Alice voice assistant to recognize speech from people who have had a stroke



Voice assistant Alexa is often installed to help people with disabilities do household chores: open the door, turn off the lights

Additional applications

Whispp App helps convert impaired speech or whispers into the user's natural voice during a call



AI limitations

As of today, AI cannot fully replace manual testing and human expertise in digital accessibility. This insight comes from a tester with a visual impairment.

Summary

Simple Commandments for Web Accessibility

1. **Disability cannot be hidden.** If we ignore it, we won't create universally accessible applications
2. Never rely on just one opinion. **Invite experts with disabilities to share their insights**
3. There will always be people who simply aren't interested. **Don't waste your time trying to convince them**
4. Be prepared for the fact that implementing **digital accessibility can be costly**

Q&A

Thank you for your attention

**and we wish for all your projects to shine as bright as the
highest WCAG AAA standard**