

Hands-on accessibility testing



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Knowbility

<http://knowbility.org>

Handout

<http://bit.ly/a11y-testing-handout>

Disclaimer

No time for everything

Getting you started

Workflow to find a majority of issues

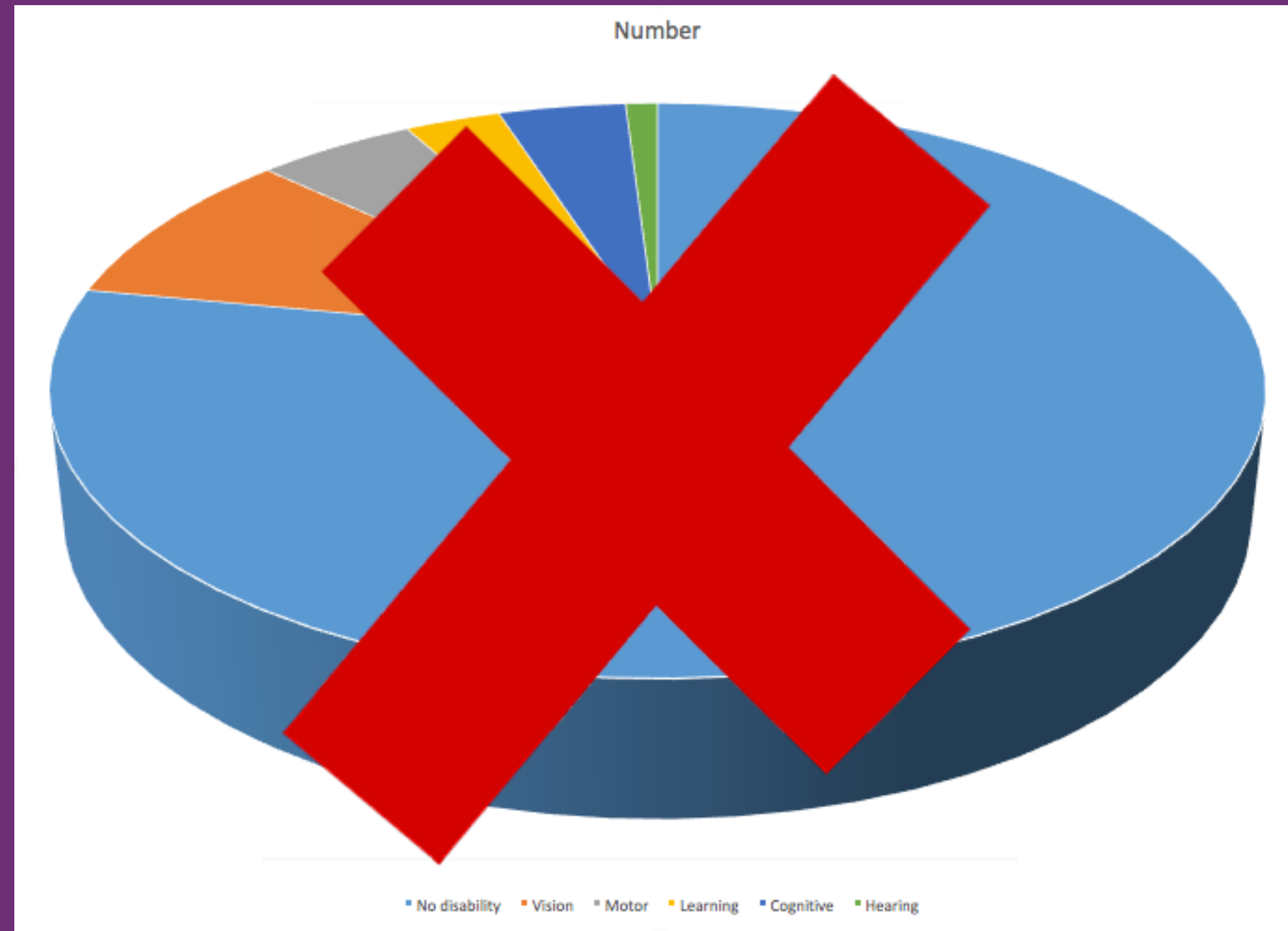
Accessibility Overview

**"The inclusive practice
of making websites
usable by everyone,
regardless of ability or disability."**

1 in 5



No Metrics





Vision

Blind, low vision, colour blind



Hearing

Deaf, hard of hearing



Physical or Motor

Fine control, slow motion, no mouse



Cognitive or Neurological

Learning impairment, distracted, decision-making

Good for everyone

CP makes fine movements difficult

VS

Big fingers and small checkbox on phone

Cognitive impairment - hard to read text

VS

Non-native language speakers

**Low vision - Difficult to perceive text without
contrast**

VS

Looking at phone in bright sunlight

WCAG 2.0

3 Levels

4 Principles

12 Guidelines

61 Success criteria

Lots of techniques

WCAG 2.1

Perceivable

Able to perceive info through their senses either via browser or assistive technology

Operable

Able to interact with controls or dynamic elements with mouse, keyboard, etc

Understandable

Able to understand information and how to use the interface

Robust

Content can be accessed by old and new user agents and assistive technology



Compliance != Accessibility

Meeting
requirements
doesn't always
ensure
accessibility



Testing methods overview

Automated testing

Manual testing

User testing

Automated testing

Quick

Not all errors need human eye

Can review hundreds of pages

Good for getting "pulse", starting point

Automated testing

Incomplete coverage

Alternate text

Forms

Picks things up that aren't there

Colour

Scripting, dynamic content, etc

Automated testing

UK Government Digital Service

Worst accessible page ever

Best tool only picked up 38% of barriers

<http://bit.ly/2rEBZlx>

Manual testing

Human judgement

Slower

Depends on tester's experience

User testing

Real users

Discovering things testers can miss

Automated testing tools

tenon.io

Simplify Your Accessibility

1 ex: `<p>Code</p>` or `http://some-domain.com`

Show Options

Analyze Your Webpage

We believe...

in a web accessible to everyone. Tenon.io exists because universal design is hard. We create software to help you reach beyond compliance and build superior experiences for everyone.

Join us

Discover

Tenon.io can identify 508 and WCAG 2.0 issues in any environment - even on your developer's laptop. Because



WAVE toolbar



Opquast

Version française


opquast desktop

Opquast tests live in your browser

Opquast Desktop is a Firefox extension that allows you to launch more than 450 tests (UX, SEO, accessibility, performance...) on the webpages you're currently browsing or coding.

[+ Add to Firefox](#)
version 2.0.4
for Firefox 45.0 and 50.0
[Old versions](#)

Issues detection and highlight



Opquast Desktop tests automatically your web page and displays your results. For some issues, thanks to Firefox web developer tools, you can directly locate the errors on the page.

You can test the following checklists:

tota11y



tota11y

an accessibility visualization toolkit

from your friends at



Manual Testing Tools



Keyboard

Colour Contrast Analyser

Many tools out there

WebAIM contrast analyser

<http://bit.ly/Webaim-contrast>

Zoom Page WE

Zoom Page WE Options

General | Zoom Levels & Font Size

Zoom Levels

Levels (%): [separated by spaces]
30 50 67 80 90 100 110 120 133 150 170 200 240 300

Default Levels (%): Full: Text:

AutoFit Levels (%): Min: Max:

Zoom In/Out

To next level By fixed step (%):

Minimum Font Size

Default Minimum Size (px):

Code inspection

Web developer toolbar

Browser developer tools, etc

Screen readers

Using screen readers

Complex software

Experience mission critical

Good indication but can lead to false positives

Screen readers

JAWS (Windows)

NVDA (Windows)

VoiceOver (OS X)

Orca (Linux)

Screen readers / browser combo

JAWS (Windows) - IE / Edge

NVDA (Windows) / Firefox

VoiceOver (OS X) / Safari

NVDA Key combinations

Modifier key:
INSERT (or CAPS LOCK)

<http://bit.ly/Webaim-NVDA>

VO Key combinations

Modifier keys:

CTRL+OPTIONS = VO

<http://bit.ly/Webaim-VO>

Screen reader demo

Screen reader exercise

No time during part 1

Reconvene in part 2!

Manual testing

Keyboard

Navigate forward - TAB

Navigate backward - SHIFT+TAB

Activate with SPACEBAR or ENTER

Keyboard Challenge

Spend a day without using your mouse or trackpad

Keyboard Challenge

Spend ~~a day~~ an hour without using your mouse or trackpad

Challenge your friends and colleagues:

<http://nomouse.org>

Keyboard

Skip link?

Focus visible?

Keyboard traps?

Interactive elements - buttons, links, forms?

Images

alt attribute

`alt=""` vs `alt="Some description"`

Images

Decorative vs Informative

<http://bit.ly/alt-decision-tree>

Forms

labels

associated using the 'for' attribute

Forms

Error messages

Inline validation

Focus management

aria-describedby

Forms

Time out

Notify users session about to expire!

Document structure

Heading hierarchy

Skipped headings?

Missing headings?

Empty headings?

Language

Document language declared?

Changes in languages defined?

Text resize to 200%

Text readable?

Horizontal scroll?

Overlap?

Windows High contrast

How does it look?

Can you see all elements?

Colour Contrast

Regular text minimum 4.5:1

Large text: 3:1

Tables - tabular data

Are there `<th>`?

Are cells associated with headers?

Tables - layout

Don't use tables for layout

If you must, add `role="presentation"`

Audio & Video

Captions? Transcripts?

Controls keyboard accessible?

Questions?

Thank you!

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<http://bit.ly/Nic-Slides/>