WCAG 2.1 Is Here!

May 16, 2019

Accessibility

Introduction

- Twan van Houtum
  - Technical consultant Accessibility Foundation

- Accessibility Foundation
  - Founded in 2001
  - International expertise center for accessible IT
  - Not-for-profit
  - W3C member (Dutch translation WCAG 2.0)
 - Audits, consultancy, training, projects

Program

- Introduction and history of WCAG

- WCAG 2.0 vs 2.1

- What's new in WCAG 2.1

- A closer look at the new succes criteria

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Who develops WCAG?

- Accessibility Guidelines Working Group (AG WG)

  - Part of the World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI)

  - More information: www.w3.org/WAI/GL

- The Working Group maintains a list of publications, which include:

  - WCAG 2.1

  - Understanding WCAG 2.0

  - WCAG 2.0 Techniques

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History timeline

WCAG 1.0 → **1999**

2008 → WCAG 2.0

2010 → WCAG 2.0 Dutch translation

WCAG 2.0 included in *Webrichtlijnen 2* → **2011**

2017 → First Public Working Draft WCAG 2.1

WCAG 2.1 Recommendation → **2018**

2019 → WCAG 2.1 Dutch translation

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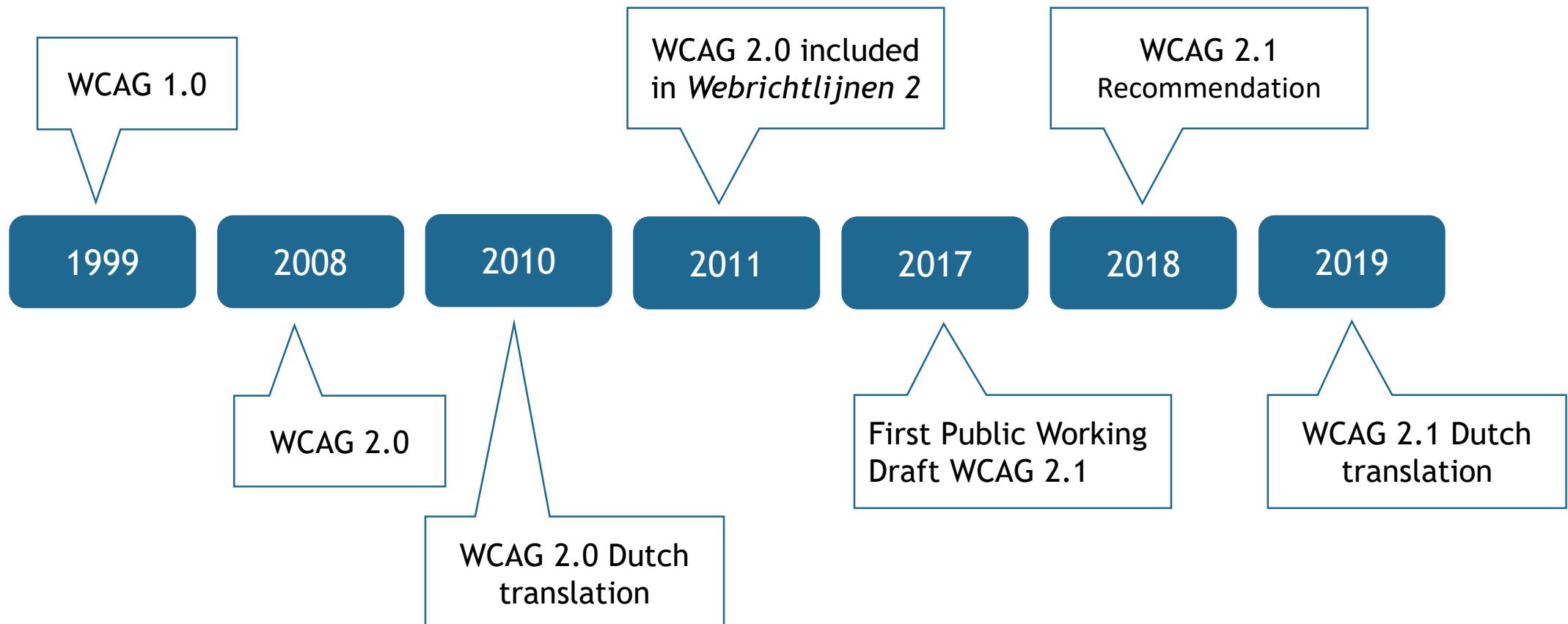
WCAG 2.0 vs 2.1

- All success criteria from 2.0 are included in 2.1

- 2.0 criteria are unchanged

- Same A, AA, and AAA conformance levels as WCAG 2.0

- WCAG 2.1 is backward compatible with WCAG 2.0

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WCAG 2.0 vs 2.1

- New success criteria have been appended to the end of their guideline
  - 2.1 A criteria follow 2.0 AAA
  - Some related criteria are not close to each other
    - Example: Contrast in WCAG 2.0 is SC 1.4.3. Non-text Contrast is SC 1.4.11

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New in WCAG 2.1

1 guideline

17 success criteria

- Level A: 5

- Level AA: 7

- Level AAA: 5

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Main areas of focus

WCAG 2.1 provides additional success criteria to address:

- mobile accessibility

- people with low vision

- people with cognitive and learning disabilities

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KEEP CALM

AND

CARRY

ON

Accessibility

The 17 new success criteria

- 1.3.4 Orientation (AA)

- 1.3.5 Identify Input Purpose (AA)

- 1.3.6 Identify Purpose (AAA)

- 1.4.10 Reflow (AA)

- 1.4.11 Non-Text Contrast (AA)

- 1.4.12 Text Spacing (AA)

- 1.4.13 Content on Hover or Focus (AA)

- 2.1.4 Character Key Shortcuts (A)

- 2.2.6 Timeouts (AAA)

- 2.3.3 Animation from Interactions (AAA)

- 2.5.1 Pointer Gestures (A)

- 2.5.2 Pointer Cancellation (A)

- 2.5.3 Label in Name (A)

- 2.5.4 Motion Actuation (A)

- 2.5.5 Target Size (AAA)

- 2.5.6 Concurrent Input Mechanisms (AAA)

- 4.1.3 Status Messages (AA)

New: Guideline 2.5 Input Modalities

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SC 1.3.4 Orientation (level AA)

- Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.

- Don't lock orientation.

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SC 1.3.4 Orientation (level AA)

SC 1.3.5 Identify Input Purpose (level AA)

- The autocomplete attribute should be used to make it easier for users to complete forms.

- There are around 40 possible autocomplete attributes. See the W3C list "Input Purposes for User Interface Components".

  https://www.w3.org/TR/WCAG21/#input-purposes and https://www.w3.org/TR/html52/sec-forms.html#sec-autofill

Accessibility

SC 1.3.5 Identify Input Purpose (level AA)

```
<form method="post" action="step2">

  <label for="fname">First Name</label>

  <input id="fname" type="text" autocomplete="given-name" ... >

  <label for="lname">Last Name Name</label>

  <input id="lname" type="text" autocomplete="family-name" ... >

  <label for="cc-num">Credit card number:</label>

  <input type="text" id="cc-num" autocomplete="cc-number">

  <input type="submit" value="Continue...">

</form>
```

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SC 1.4.10 Reflow (level AA)

- Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:
  - Vertical scrolling content at a width to 320 CSS pixels;
  - Horizontal scrolling content at a height to 256 CSS pixels.
- Except for parts of the content (tables, images) which require two-dimensional layout for usage or meaning.

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SC 1.4.10 Reflow (level AA)

SC 1.4.11 Non-Text Contrast (level AA)

User interface components and essential graphical objects have a contrast ratio of at least 3:1 against the background color.

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SC 1.4.11 Non-Text Contrast (level AA)

Failed: 2:1

Heeft deze informatie u geholpen?

◯ **Ja**   ⦿ **Nee**

Failed: 2:1

Uw mening

Verstuur

Accessibility

SC 1.4.11 Non-Text Contrast (level AA)

Heeft deze informatie u geholpen?

Passed: 6:1

○ **Ja**   ● **Nee**

Uw mening

Passed: 6:1

Verstuur

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SC 1.4.11 Non-Text Contrast (level AA)

Most famous social network sites worldwide as of January 2018, ranked by number of users

NETWORK

Most famous social network sites worldwide as of January 2018, ranked by number of users (in millions)

NETWORK

Accessibility

SC 1.4.11 Non-Text Contrast (level AA)

Market Share
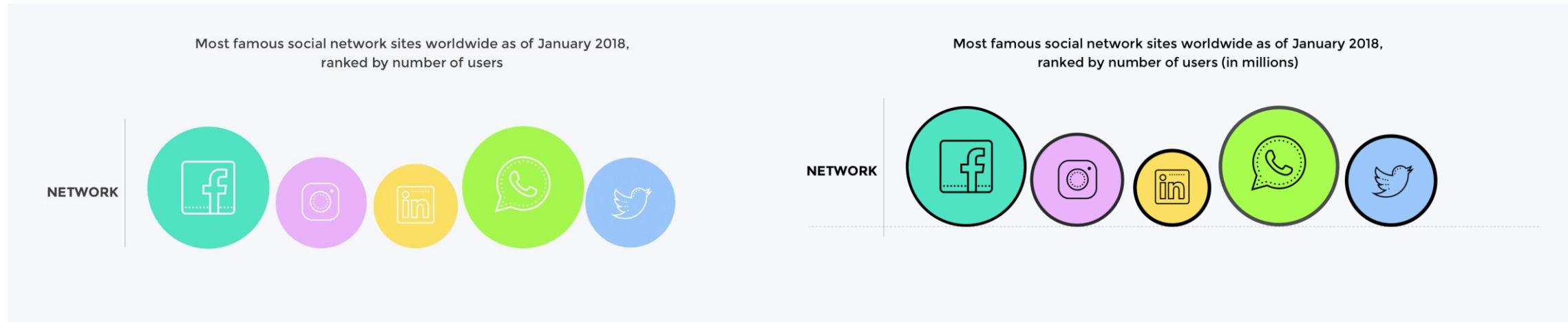
Fail: The pie chart has labels for each slice (so passes 1.4.1 Use of Color), but in order to understand the proportions of the slices you must discern the edges of the slices and the contrast between the slices is not 3:1 or greater.

Accessibility

SC 1.4.11 Non-Text Contrast (level AA)

Market Share
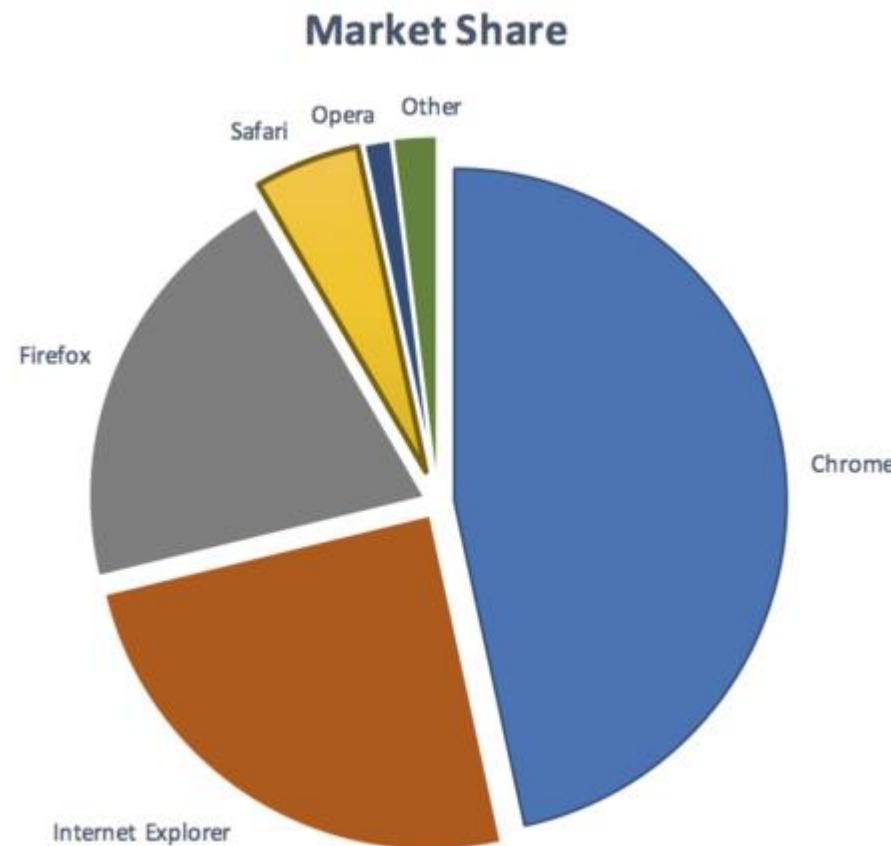
Pass: The pie chart has visible labels, and sufficient contrast around and between the slices of the pie chart. A darker border has been added around the yellow slice in order to achieve the contrast level.

Accessibility

SC 1.4.11 Non-Text Contrast (level AA)

Market Share

Opera 1%
Other 2%
Safari 5%
Firefox 20%
Chrome 47%
Internet Explorer 25%
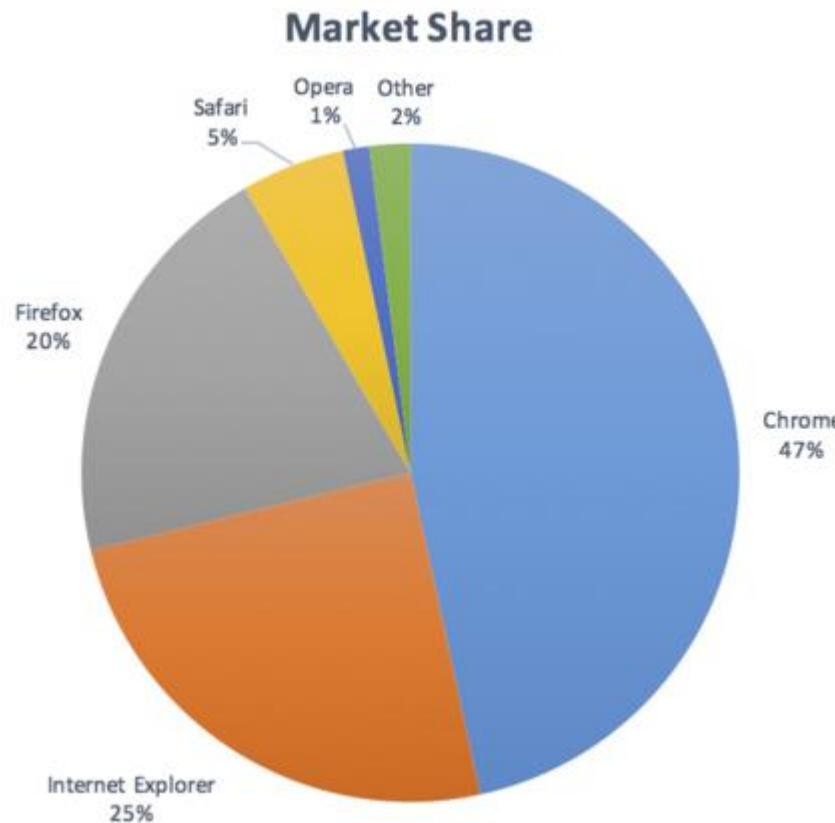
Not applicable: The pie chart has visible labels *and* values that convey equivalent information to the graphical objects (the pie slices).

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SC 1.4.12 Text Spacing (level AA)

All content and functionality is still available when the user changes the style (adjust distances between characters, words, lines and paragraphs).

- Line height (line spacing) to at least 1.5 times the font size;
- Spacing following paragraphs to at least 2 times the font size;
- Letter spacing (tracking) to at least 0.12 times the font size;
- Word spacing to at least 0.16 times the font size.

Bookmarklet: https://www.html5accessibility.com/tests/tsbookmarklet.html

Accessibility

Nationaal Congres
Digitale Toegankelijkheid

Congres Digitale Toegankelijkheid 2019

De 6e editie van het Nationaal Congres Digitale Toegankelijkheid is donderdag 16 mei 2019. In 1 dag praten we je bij over toegankelijkheid van websites en apps voor mensen met een functiebeperking. Schrijf je nu in. Locatie is weer Antropia in Driebergen.

Thema: hoe implementeer ik digitale toegankelijkheid in onze organisatie?

Bekijk het programma, het is zo goed als klaar. Met veel aandacht voor de implementatie van digitale toegankelijkheid. Renata Verloop is de dagvoorzitter.

Zoals altijd hebben we in de ochtend een aantal plenaire presentaties. Wij zijn heel blij met Lou Downe van gov.uk die een fantastisch verhaal heeft over service design. Eric Velleman en Wiep Hamstra bespreken groeimodellen, waarmee ze laten zien dat werken aan toegankelijk mogelijk is voor elke organisatie. De Universiteit van Amsterdam zet daar een aparte 'accessibility officer' voor in. Hoe bevalt dat? En hoe doe je dat als kleine organisatie? Ook het bedrijfsleven komt aan bod: VNO-NCW vertelt over de concurrentievoordelen van een goed toegankelijke online performance.

In de middag praktische sessies: over toegankelijkheid van kaarten, video en pdf. Of hoe je als webredactie op een pragmatische manier webstatistieken kunt inzetten. Dit jaar besteden we extra aandacht aan de techniek met 4 technische sessies. Dus ook als front-ender ben je welkom!
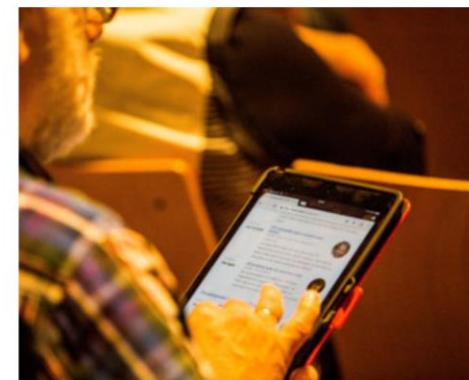
SC 1.4.13 Content on Hover or Focus (level AA)

Content displayed when an item gets focused is useful and accessible until the user moves the focus.

Accessibility

SC 1.4.13 Content on Hover or Focus (level AA)

Accessibility
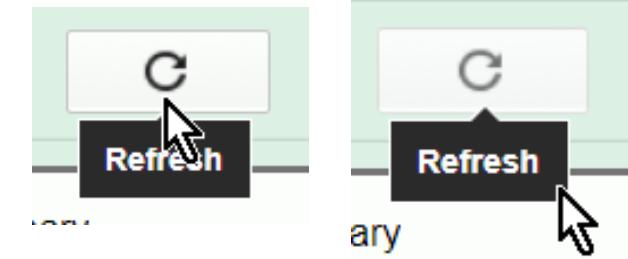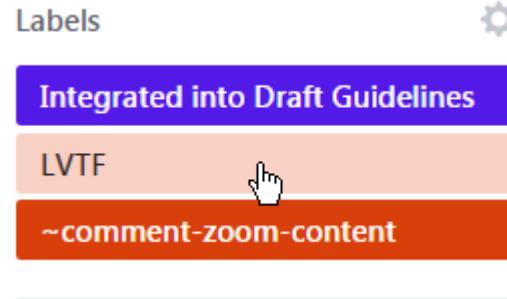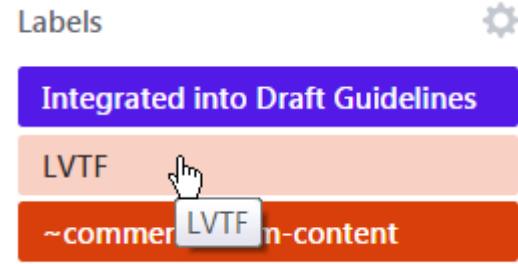
SC 2.1.4 Character Key Shortcuts (level A)

If a keyboard shortcut is implemented in content using only letter, punctuation, number, or symbol characters, then at least one of the following is true:

- Turn off: A mechanism is available to turn the shortcut off;
- Remap: A mechanism is available to remap the shortcut to use one or more non-printable keyboard characters (e.g. Ctrl, Alt, etc);
- Active only on focus: The keyboard shortcut for a user interface component is only active when that component has focus.

SC 2.1.4 Character Key Shortcuts (level A)

- Single key shortcuts affecting speech input - example 1:

    https://www.youtube.com/watch?v=xzSyIA4OWYE

- Single key shortcuts affecting speech input - example 2:

    https://www.youtube.com/watch?v=OPjfpDU9S08

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Guideline 2.5 Input Modalities

Make it easier for users to operate functionality through various inputs beyond keyboard.

- 2.5.1 Pointer Gestures (A)
- 2.5.2 Pointer Cancellation (A)
- 2.5.3 Label in Name (A)
- 2.5.4 Motion Actuation (A)
- 2.5.5 Target Size (AAA)
- 2.5.6 Concurrent Input Mechanisms (AAA)

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SC 2.5.1 Pointer Gestures (level A)

- All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential.

- There should always be alternative ways to control the interface that is not based on gestures, such as buttons.

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SC 2.5.1 Pointer Gestures (level A)

Accessibility
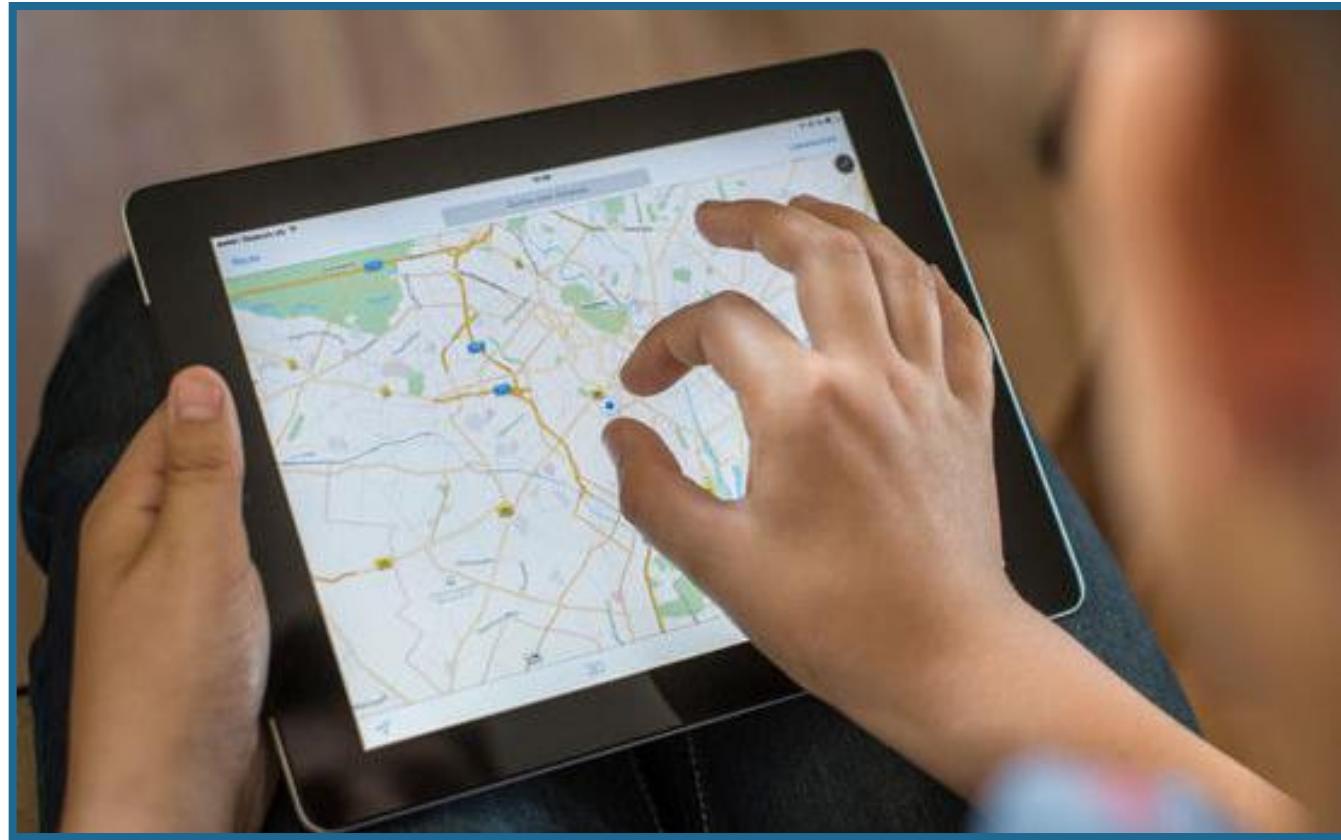
SC 2.5.2 Pointer Cancellation (level A)

Started click event should be able to be canceled or undone.

- No Down-Event

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SC 2.5.3 Label in Name (level A)

Visible and hidden names of clickable objects correspond to each other.

A best practice is to have the text of the label at the start of the name.

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SC 2.5.3 Label in Name (level A)

Not accessible:

    <button aria-label="Submit">Send</button>

It is visually labelled as 'send' but the 'name' in the code is 'submit'.

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SC 2.5.3 Label in Name (level A)

- Link text equals the accessible name:

  <p>Go to accessibility</p>

- The button text provides the accessible name:

  <button>Send</button>

- The label provides the accessible name:

  <label for="input_name">Name</label>

  <input type="text" id="input_name" name="name" size="50" maxlength="255" value="" required="">

SC 2.5.3 Label in Name (level A)

- The visible button text matches the beginning of the accessible name:

 `<button>Send <span class="accessibly-hidden">mail</span></button>`

- Link text matches the beginning of the accessible name:

  `<a href="news-item1.html">Read more<span class="accessibly-hidden">of news item 1</span></a>`

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SC 2.5.4 Motion Actuation (level A)

- Functionality that can be operated by device motion or user motion can also be operated by user interface components (such as buttons or links)

- Exception: if the entire functionality dependents on just movement, for example a step meter.

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# SC 2.5.4 Motion Actuation (level A)
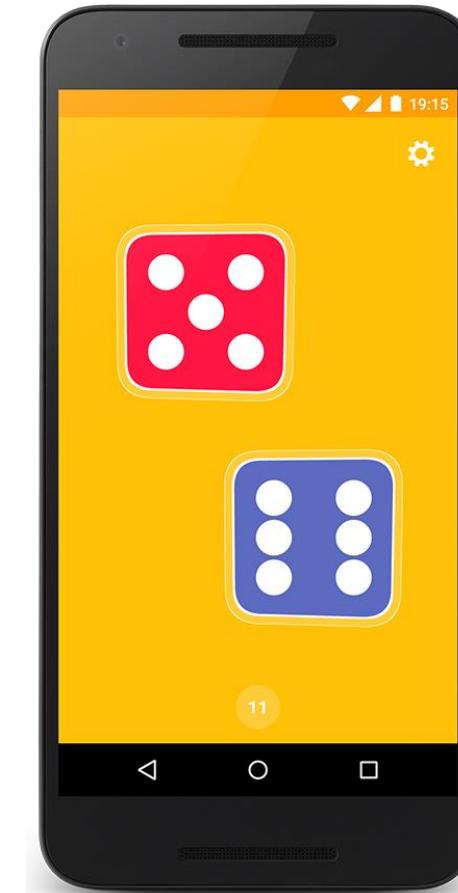
SC 4.1.3 Status Messages (level AA)

When the status is changed (such as error messages), screen reader users must be notified without moving the focus or keyboard navigation.

One way to do this is by using aria-live.
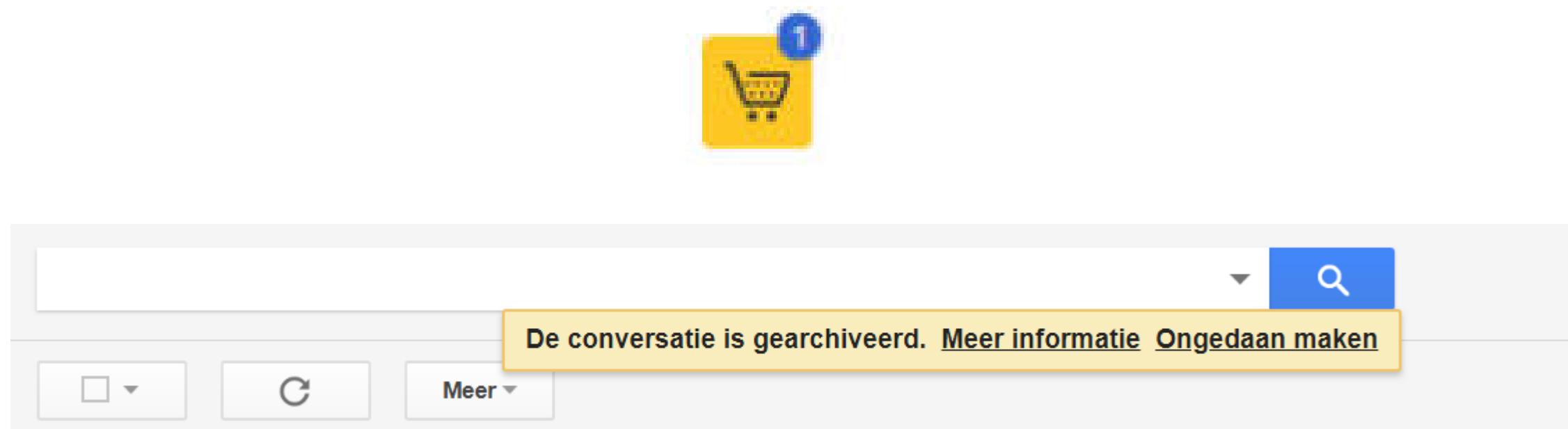
Accessibility

SC 4.1.3 Status Messages (level AA)

Summary

- Focus on mobile accessibility, people with low vision and people with cognitive and learning disabilities

- 12 new succes criteria for A en AA (5 for AAA)

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Learn more about WCAG 2.1

- WCAG 2.1 specification

  - *https://www.w3.org/TR/WCAG21/*

- What's new in WCAG 2.1 (W3C

  - *https://www.w3.org/WAI/standards-guidelines/wcag/new-in-21/*

- Accessibility Guidelines Working Group

  - *www.w3.org/WAI/GL/*

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Christiaan Krammlaan 2
3571 AX Utrecht
Phone: +31 30 239 82 70
E-mail: info@accessibility.nl