BACKGROUND

- Associate Professor at the Faculty of Sciences of the University of Lisbon

- Coordinator of the Inclusive Human-Computer Interaction research line at LASIGE

- QualWeb lead researcher

- Co-chair of the W3C ACT Rules Community Group

WEB ACCESSIBILITY LEGISLATION

The Web Content Accessibility Guidelines (WCAG) are the de facto standard for web accessibility

• EN 301 549 v3.2.1 maps to WCAG 2.1 Level AA

• Section 508 maps to WCAG 2.0 Level AA

EN 301 549 – FUNCTIONAL PERFORMANCE STATEMENTS (1)

4.2.4 Usage without hearing

Where ICT provides <u>auditory modes of operation</u>, the ICT provides at least one mode of operation that does not require hearing. This is essential for users without hearing and benefits many more users in different situations.

EN 301 549 – FUNCTIONAL PERFORMANCE STATEMENTS (2)

4.2.5 Usage with limited hearing

Where ICT provides <u>auditory modes of operation</u>, the ICT provides enhanced audio features. This is essential for users with limited hearing and benefits many more users in different situations.

EN 301 549 – FUNCTIONAL PERFORMANCE STATEMENTS (3)

Requirements	Usage without hearing	Usage with limited hearing
9.1.1.1 Non-text content	Primary	Secondary
9.1.2.1 Audio-only and video-only (pre-recorded)	Primary	Primary
9.1.2.2 Captions (pre-recorded)	Primary	Primary
9.1.2.4 Captions (live)	Primary	Primary
9.1.3.3 Sensory characteristics	Primary	Primary
9.1.4.2 Audio control	-	Primary
9.2.2.1 Timing adjustable	Primary	Primary
9.2.2.2 Pause, stop, hide	Primary	Primary
9.2.4.6 Headings and labels	Secondary	-
9.3.1.1 Language of page	Secondary	Secondary
9.3.1.2 Language of parts	Secondary	Secondary
9.4.1.3 Status messages	Primary	Primary

LEGISLATION AND GUIDELINE FOCUS

Primary – Availability of textual alternatives to audio content

Secondary – Interpretability of textual content

CONSEQUENCES

Text alternatives usually result in one the following:

• **Degraded task performance** due to the difficulty in understanding content that is not available in the user's first language

• **Inability to successfully complete tasks** when written language is not understood

WHERE IS SIGN LANGUAGE?

Success Criterion 1.2.6 Sign Language (Prerecorded)

(Level AAA)

Sign language interpretation is provided for all prerecorded audio content in synchronized media.

AND IN THE FUTURE? (1)

WCAG 3 Working Draft from 12 December 2024 includes

- Guideline 2.1.2 Media alternatives - Users have equivalent alternatives for media content.
  - Requirement: Captions
    - Where there is audio content in media, there are equivalent synchronized captions.
  - Requirement: Descriptive transcripts
    - A transcript is available whenever audio or visual alternatives are used.
  - Requirement: Non-verbal cues
    - Media alternatives explain nonverbal cues, such as tone of voice, facial expressions, body gestures, or music with emotional meaning.

AND IN THE FUTURE? (2)

WCAG 3 Working Draft from 12 December 2024 includes

- Guideline 2.1.3 Nontext alternatives - Users have alternatives available for non-text, non-image content that conveys context or meaning.
  - Requirement: Nontext content
    - Equivalent text alternatives are available for non-text, non-image content that conveys context or meaning.

AND IN THE FUTURE? (3)

WCAG 3 Working Draft from 12 December 2024 includes

- Guideline 2.1.5 Single sense - Users have content that does not rely on a single sense or perception.

  - Requirement: Use of sound

    - Information conveyed with sound is also conveyed programmatically and/or through text.

  - Requirement: Use of spatial audio

    - Information that is conveyed with spatial audio is also conveyed programmatically and/or through text.

WHAT ABOUT NOW? AI IS HERE!

- Sign Language Generation

  - CODA - https://codasign.ai (5 languages)

  - Signapse - https://www.signapse.ai (BSL and ASL)

  - Signer.AI - https://signer.ai (Indian Sign Language)

  - Hand Talk - https://www.handtalk.me/en/ (ASL and Brazilian Sign Language)

  - Hand Sign Talk-Talk - https://klcube.co.kr/eng/dh/ai (Korean Sign Language)

  - Kara - https://www.kara.tech (ASL)

Thank you for your attention

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