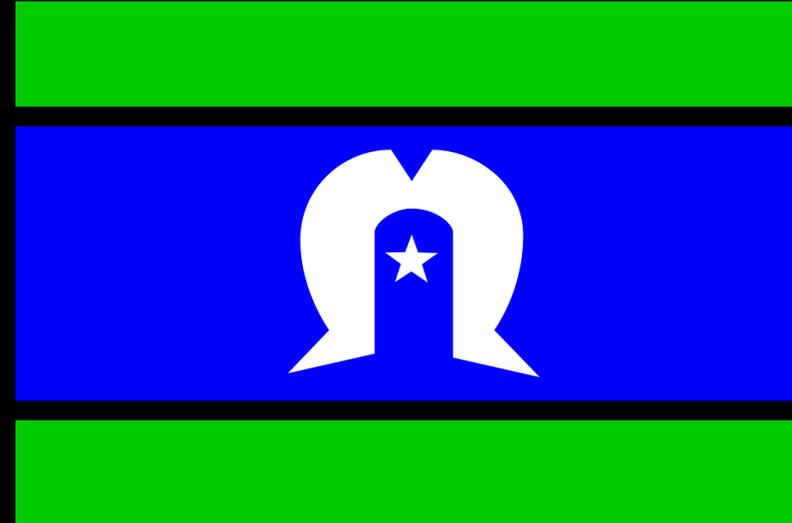


Accessibility of Machine Learning and Generative AI

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CFA Australia respectfully acknowledges the Traditional Owners of Country across Australia and pay our respects to Elders past, present and emerging.

About Me

Professional:

- Chief Executive Officer, CFA Australia
- Co-convenor, W3C WAI Research Questions Task Force

Academic:

- Senior Lecturer, Professional Certificate in Web Accessibility, University of South Australia
- Adjunct Senior Lecturer, Edith Cowan University

Personal:

- Author of book 'Outrunning the Night'
- Legally blind, first-hand knowledge of access issues



Two sides of the digital access coin

- Do people with disability have the right tools on their device of choice?
- Is the content created in a way that works with those tools?

Definitions

Machine Learning

Computer processing with the ability to learn from data and make decisions or predictions based on that data without explicitly being programmed to do so

Alternative text for images

- AI generated alt text has come a long way but is not reliable.



Example 2: James Webb space telescope alt text

The image is divided horizontally by an undulating line between a cloudscape forming a nebula along the bottom portion and a comparatively clear upper portion,” reads one. “Speckled across both portions is a starfield, showing innumerable stars of many sizes. The smallest of these are small, distant, and faint points of light. The largest of these appear larger, closer, brighter, and more fully resolved with 8-point diffraction spikes. The upper portion of the image is bluish and has wispy translucent cloudlike streaks rising from the nebula below.



Live captioning

- Available in most operating systems and remote meeting platforms
- Live captions available for any audio
- What do you think of the quality? See below.

Automated testing tools

- Even the best tools can only assess about 40% of WCAG
- Automated alternative text still has a long way to go
- Try it out: <http://wave.webaim.org>
- Could AI improve these tools?

Plain language ISO 24495-1

- A communication is in plain language if its wording, structure, and design are so clear that the intended readers can easily find what they need, understand what they find, and use that information.

Mary had a little lamb

AI conversion - Mary had a little lamb

Its fleece was white as snow

And everywhere that Mary went

The lamb was sure to go.

Translation to another language then back to English

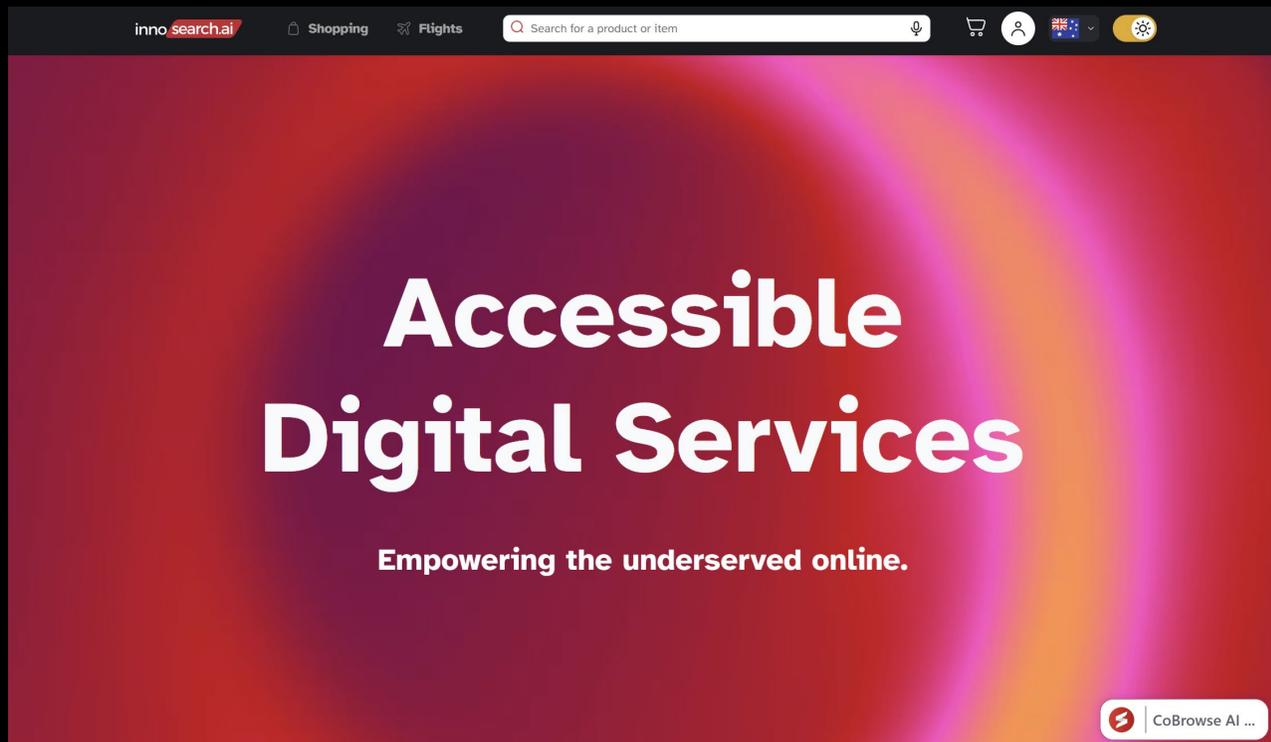
Mary owned short lamb
It snowed sheep hair
And when Mary walked
Lamb returned.

User agent accessibility

- AI could address digital access issues in real time as web pages are loaded into a user agent like a web browser
- Accessibility overlays are also starting to look at AI to improve their tool offerings

What if AI could bypass inaccessible websites completely?

- <https://www.innosearch.ai/>



Privacy and Security

- Despite many benefits for people with disability, much of what has been demonstrated is not available in everyday scenarios
- Apple demonstration just shown is being blocked by banks as a machine voice is detected and thus, assumed to be a scammer
- Similar to CAPTCHA, there is still some way to go before people with disability stop being put in the 'bot' category.

W3C work to date

- <https://w3c.github.io/ai-accessibility/>

Australian Access Awards 2025

Questions?

Further information

- E-mail: admin@accessibility.org.au
- Website: accessibility.org.au
- Mobile: 0466 099 101
- Membership: accessibility.org.au/membership