



CSUN

ASSISTIVE TECHNOLOGY CONFERENCE

2019 Highlights



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Highlights: Testing tools

What's new in Axe

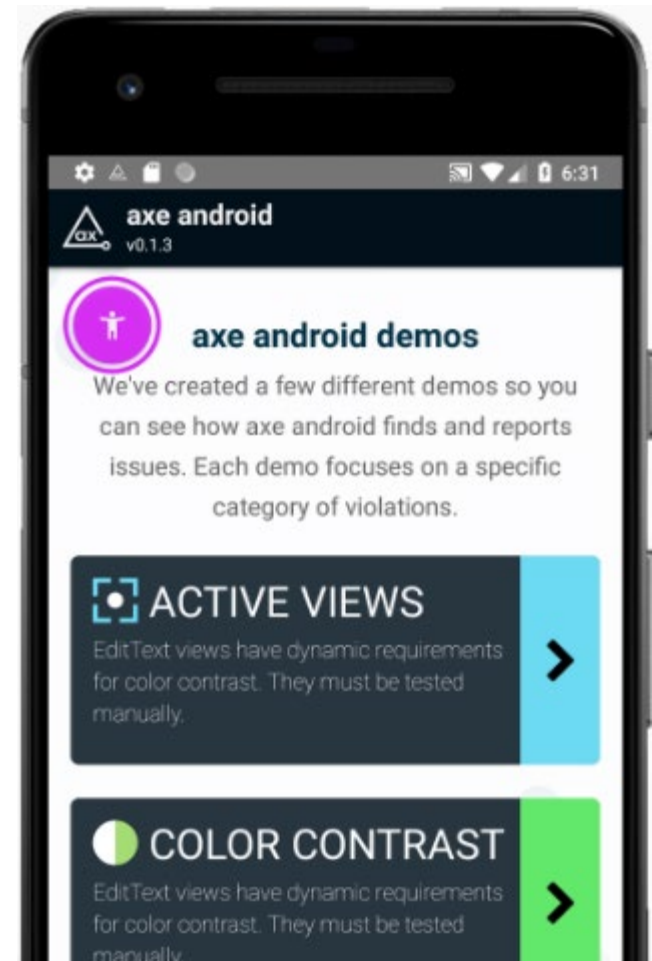
- Automation support for **WCAG 2.1 S.C.s** and **Shadow DOM**
- **Windows app analysis** as part of Accessibility Insights for Windows
- **Native mobile** android and iOS app analysis with Axe



Highlights: Native mobile

Axe for Native Mobile

1. Mobile application that analyzes Native and Hybrid application content for accessibility based on WCAG and Android Best Practices.
2. Open Source accessibility Rules Library built specifically for Android and iOS.





Highlights: Unique to Axe

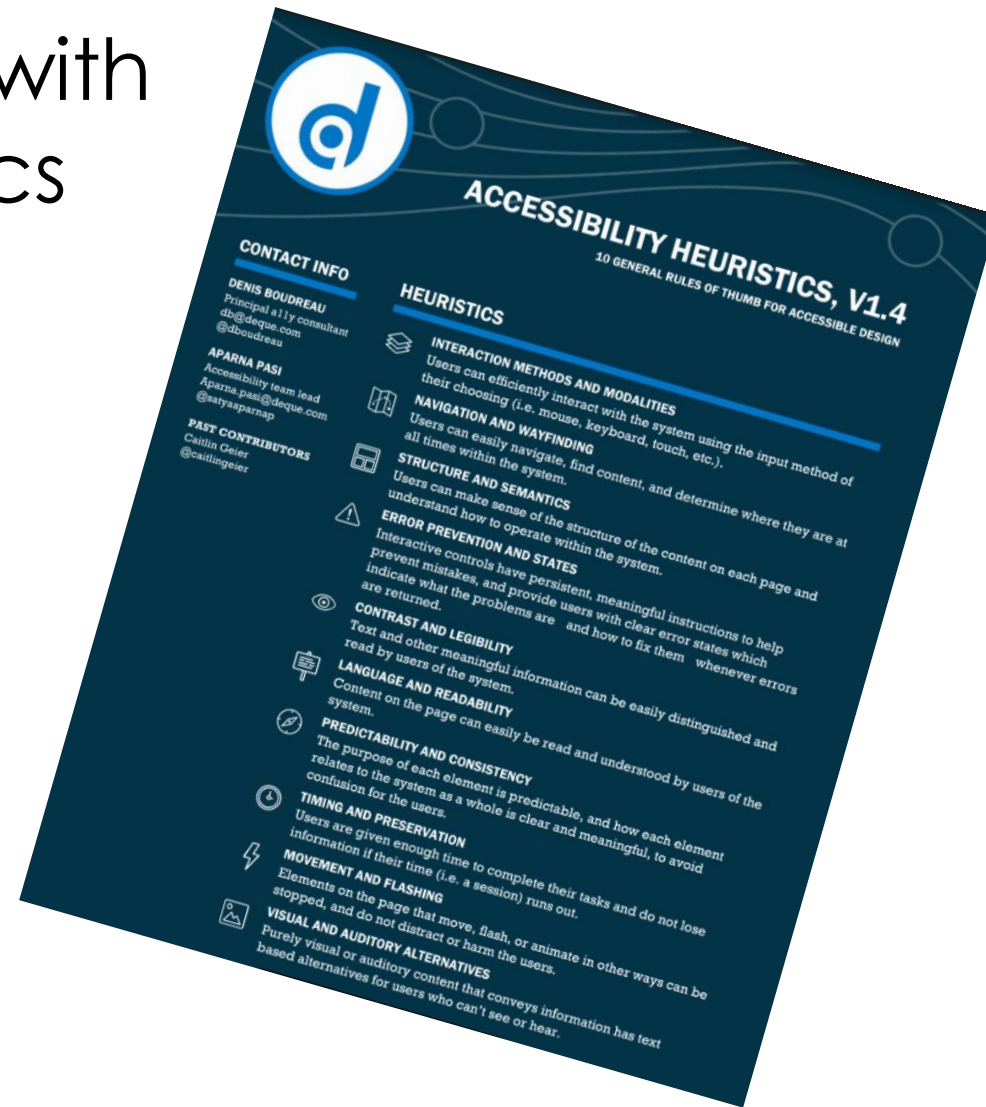
	Rule ID	Issue Type	Unique to axe
1	Active View Name	WCAG 2.0, WCAG 2.1	✗
2	Color Contrast	WCAG 2.0, WCAG 2.1	✗
3	ImageView Name	WCAG 2.0, WCAG 2.1	✗
4	Touch Size - WCAG	WCAG 2.1	✗
5	Touch Size - Custom	Best Practice	✗
6	CheckBox Name	Best Practice	✓
7	Don't Move Accessibility Focus	Best Practice	✓
8	EditText Name	Best Practice	✓
9	EditText Value	WCAG 2.0, WCAG 2.1	✓
10	Switch Name	Best Practice	✓



Highlights: Design heuristics

Supporting designs with accessibility heuristics

Ten general rules of thumb based on WCAG to integrate accessibility considerations directly into the design process.





Highlights: Heuristic example

Supporting designs with accessibility heuristics

Heuristics statements

Navigation & wayfinding	★ (+2)	✓ (+1)	X (-1)	N/A (+0)
Is there a clear, visible indicator set on all active elements as they receive focus?				
Does the page have meaningful title text, with page-specific information going first?				
Are the page title element and H1 the same or similar?				
Does the page have meaningful headings for each major section?				
Can the links' purpose be defined from link text alone, or their immediate context?				
Is a "skip link" provided as the very top of the page, and is it revealed on focus?				
Does the organization of navigational elements facilitate wayfinding?				
TOTAL				



Highlights: Anxiety

How to Improve Accessibility for Users with Anxiety

- Spectrum of anxiety disorders (GAD, OCD, PTSD, Phobia, Panic)
- WCAG 2.1 criteria that support these users
- Simple design solutions to mitigate anxiety





Highlights: Anxiety inducers

Apartment **Number12** 

[Napier](#) • [Show on map](#)

Apartment – 

Layout: 2 bedrooms

Beds: 2 double beds 

Size: 84 m² – Bigger than most in Napier

In high demand!

Risk free: You can cancel later, so lock in this great price today.

Exceptional 
25 reviews

Location 10

Guest Favourite

Price for 3 nights

~~NZD 500~~  **NZD 495**

includes taxes and charges


FREE cancellation

[See availability >](#)

Highlights: Anxiety inducers

Porters Boutique Hotel ★★★★★

[Havelock North](#) - [Show on map](#)

Deluxe Double Room - Disability Access – 

Only 3 rooms left!

Risk free: You can cancel later, so lock in this great price today.

Superb 
474 reviews

Location 9.5

Price for 3 nights

~~NZD 710~~  **NZD 686**

includes taxes and charges

FREE cancellation

[See our last available rooms >](#)

Highlights: WCAG & Anxiety

- ✓ Provide clear instructions (**WCAG 3.3.2**)
- ✓ Clarify jargon and abbreviations (**WCAG 3.1.3, 3.1.4**)
- ✓ How much time a user will have (**WCAG 2.2.6**)
- ✓ Keep navigation/controls consistent (**WCAG 3.2.3, 3.2.4**)
- ✓ Avoid unexpected context changes on focus or input (**WCAG 3.2.1, 3.2.2, 3.2.5**)
- ✓ Provide help! (**WCAG 3.3.5**)
- ✓ Prevent errors by ensuring submissions will be reversible, checked for errors, confirmable, correctable (**WCAG 3.3.4/3.3.6**)
- ✓ Avoid automatically-playing audio, animations or slides (**WCAG 1.4.2, 2.2.2, 2.2.3**)



Highlights: Design for anxiety

Designing for users with anxiety

by the UK Home office

Inclusive Design Principles

by The Paciello Group



Highlights: Web State

The State of Web Accessibility:
What We Learned Testing 1,000,000
Homepages

WebAIM 
web accessibility in mind

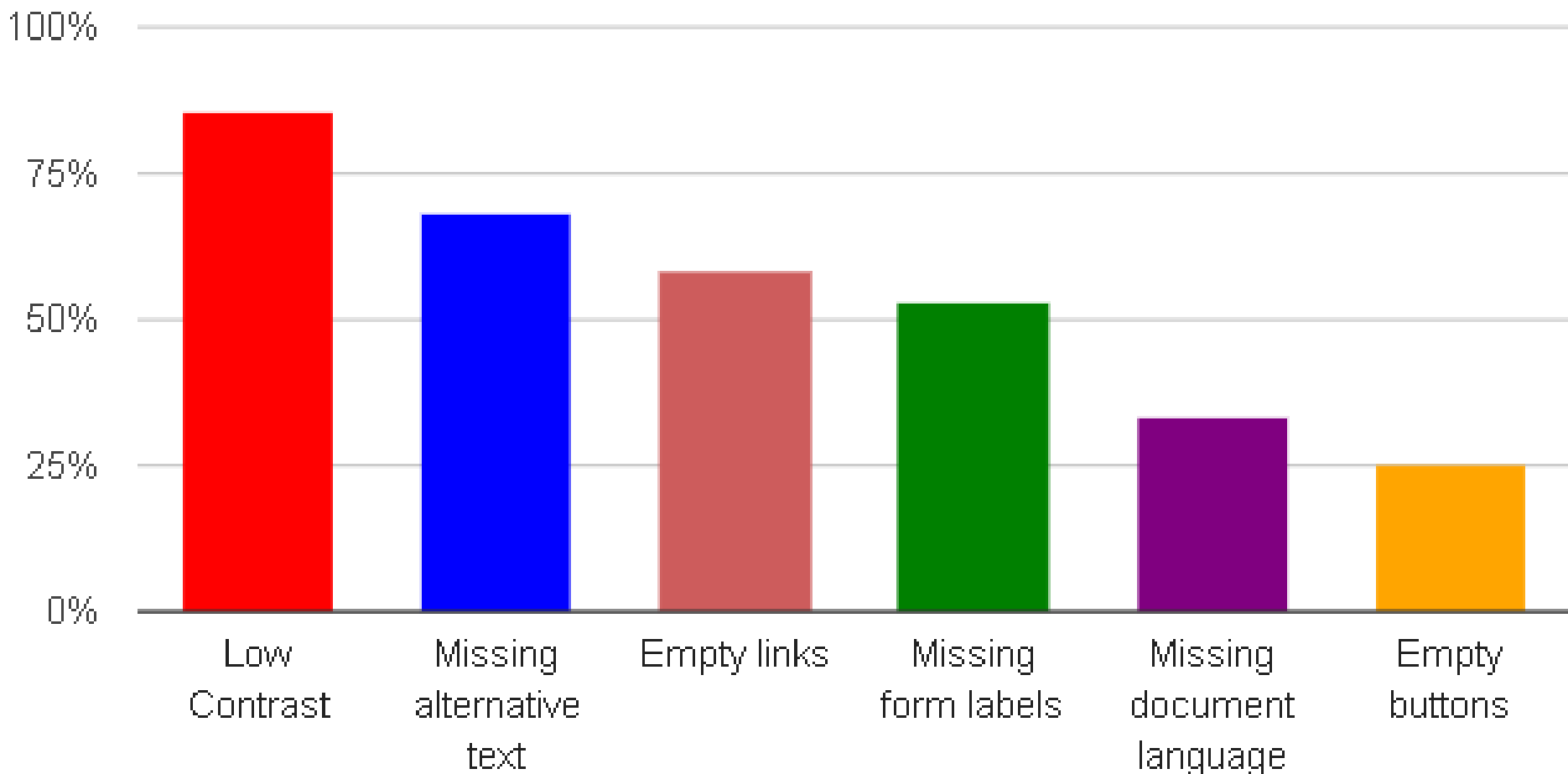
Highlights: Insights

- Home pages averaged 59.6 detectable errors each.
- 7.6% of all home page elements have a detectable accessibility error.
- The WCAG failure rate for home pages was at least 97.8%.



Highlights: Common failures

Most common WCAG failures (% of home pages)





Highlights: Technologies

- Pages with ARIA averaged 11.2 more detectable errors than pages without ARIA
- Common technologies used (CMS, JavaScript libraries & frameworks, web frameworks) and how these impact accessibility

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