DIY Accessibility Testing & Auditing

DrupalCampNJ 2020

Hi, there!

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Outline

- 1. Level setting ourselves
- 2. Building your toolset
- 3. Defining the scope
- 4. Using automated tools
- 5. Keyboard and manually testing your site
- 6. Determining next steps

"Disability is not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives."

- World Health Organization

1. Level setting ourselves

Before we begin, let's cover some ground rules to set our expectations.

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- 2. Very familiar with your site's architecture and functionality.

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- 2. Very familiar with your site's architecture and functionality.
- 3. Automated tools pick up > 40% errors. You must manually test.
- 4. Compliance does not equal a truly accessible site.
- 5. This is not a guide for a full or comprehensive accessibility audit.

1. Level setting ourselves

Why now?

1. Are you redesigning your site?

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- 1. Are you redesigning your site?
- 2. Are you doing considerable development work?

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- 3. Are you being sued? Are you afraid of being sued?

Why now?

- 1. Are you redesigning your site?
- 2. Are you doing considerable development work?
- 3. Are you being sued? Are you afraid of being sued?
- 4. Are you just trying to make your website better?

What's your bandwidth?

1. Do you have the in-house capacity to confidently identify errors?

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- 2. Do you have the in-house capacity to confidently fix errors?

What's your bandwidth?

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- 2. Do you have the in-house capacity to confidently fix errors?

If you answer no to either of these questions...

Contact a vendor.

1. Standardize your interpretation, goals, and tools.

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 - a. Are we working toward a minimum, optimized, or idealized solution?

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- b. Are we using the same tools?

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- 1. Standardize your interpretation, goals, and tools
 - a. Are we working toward a minimum, optimized, or idealized solution?
 - b. Are we using the same tools?
- 1. Identify your Achilles' heel.
- 2. Share knowledge (and responsibility).

2. Building your toolset

Automated tools pick up different errors.² Standardizing your toolset is a must.

Automated tools



Siteimprove browser extension

Headings are not nested properly

AAA 2.4.10 Section Headings

The headings on the page must be hierarchically

Think of headings as sign posts providing users

Screen readers often use a shortcut allowing users to view a list of all headings found on the page. The screen reader uses the heading code (H1-H6 and WAI-ARIA headings and their 'arialevel') to create this list. Some users also tab through the headings of a page.

Heading codes used in the proper order will give an accurate 'picture' of what is on the web page.

Headings must not skip levels.

There must be at least one top level heading (H1 or WAI-ARIA role="heading" with a arialevel="1") present on the page and sub headings for this must be H2 or WAI-ARIA role="heading" aria-level="2" and so on.



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It's never been easier to get a true overview of your digital presence, prove ROI, and maintain consistency and brand integrity across hundreds of pages and contributors.



Public Ord

Ensure transparer tasks across your living up to moun

Plans & Pricing

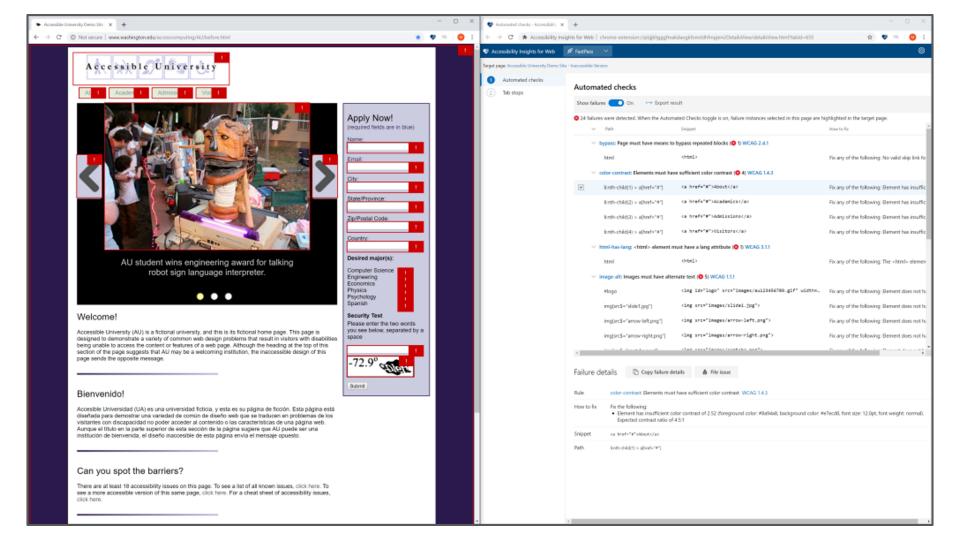
Automated tools



Siteimprove browser extension



Microsoft
Accessibility Insights



Automated tools



Siteimprove browser extension



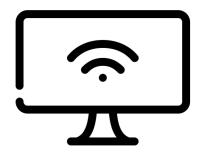
Microsoft
Accessibility Insights



WAVE browser extension



Other tools

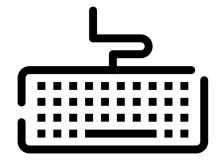


Web browser

Other tools



Web browser

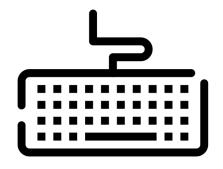


Keyboard

Other tools



Web browser



Keyboard



Spreadsheet

3. Defining the scope

Document what you are and are not evaluating.

What pages should you test?



Homepage



Contact page(s)



Top-visited pages

Out of a million homepages...

98%

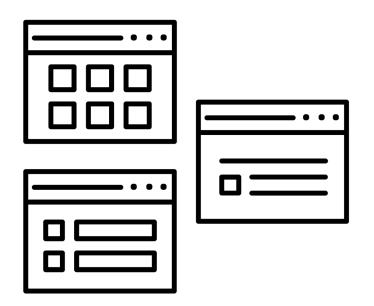
had detectable WCAG 2 failures.³

Users with disabilities would expect to encounter detectable errors on

1 in every 13

elements with which they engage.4

What pages should you test?



The best representation of each **type of page**

Example: landing page, blog post, search results page

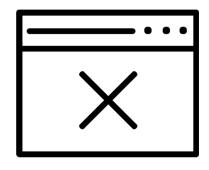
What pages should you test?



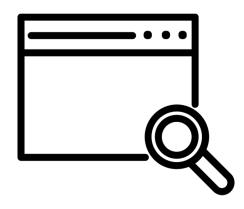
The best representation of each **type of process**

Example: multi-step form, checkout, registration form, status messaging

What else should you include?



A list of the areas you're **NOT** testing



A list of all the tools you used to test

1. Only achieved if the full Web page is in compliance.

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- 2. All web pages in the process must conform.

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- 2. All web pages in the process must conform.
- 3. All information, content, and functionality must be provided in a way that is supported by assistive technology.
- 4. Non-conforming parts can't block the user's ability to access the rest of the page.

4. Using automated tools

Find the most common accessibility errors.

Setting up



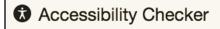
Spreadsheet



Automated tools







Choose filters

Choose conformance level

A conformance 19

A AA Conformance 22

A AA AAA AAA conformance (28)

What does conformance level mean?

Choose severity

✓ ① Error ①5

✓ △ Warning 6

Review 7

What does severity mean?

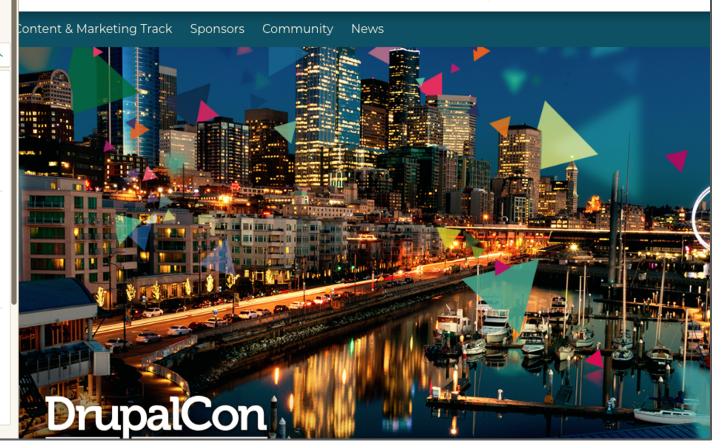
Choose responsibility

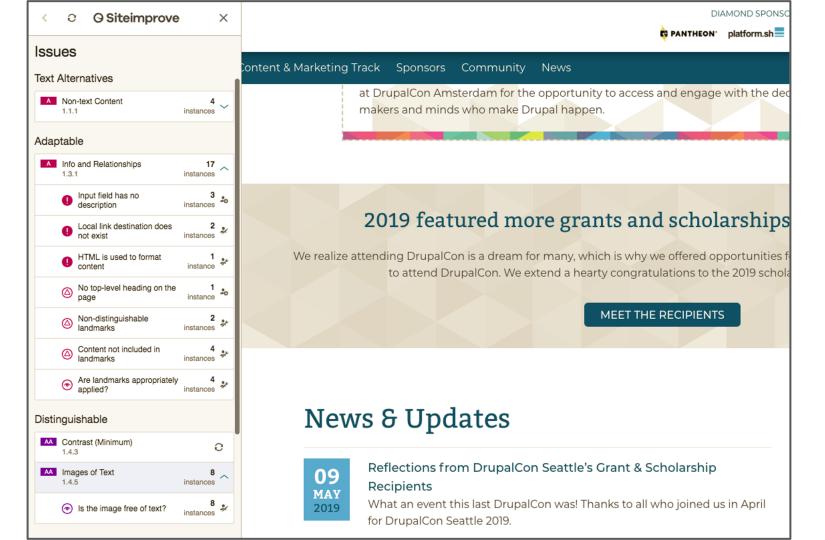
✓ 🦨 Editor 🕕

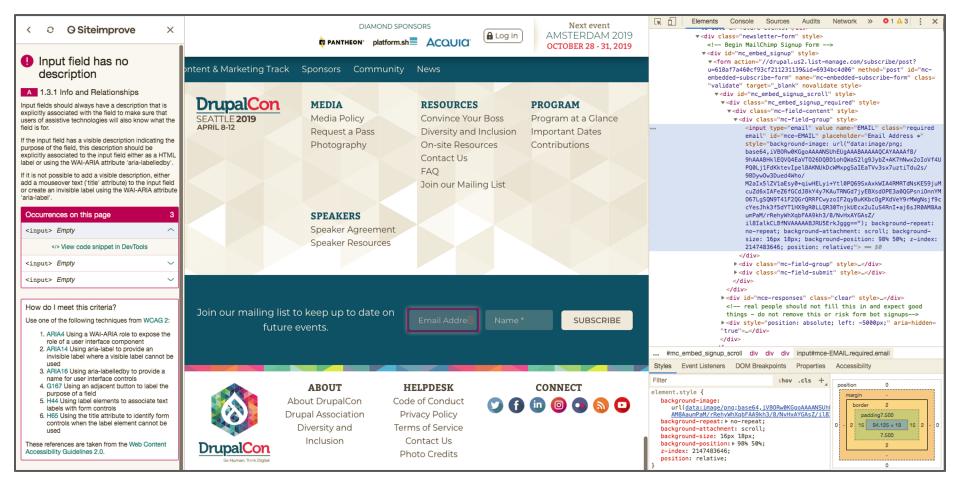
✓ ₩ Webmaster 6

✓ ♣ Developer

What does responsibility mean?









WAVE has detected the following:

9 Errors

13 Alerts

5 Features

30 Structural Elements

9 HTML5 and ARIA

26 Contrast Errors

Panel Options

DETAILS: A listing of all the WAVE icons in your page.

- DOCUMENTATION: Explanation of the WAVE icons and how you can make your page more accessible.
- OUTLINE: The heading structure of



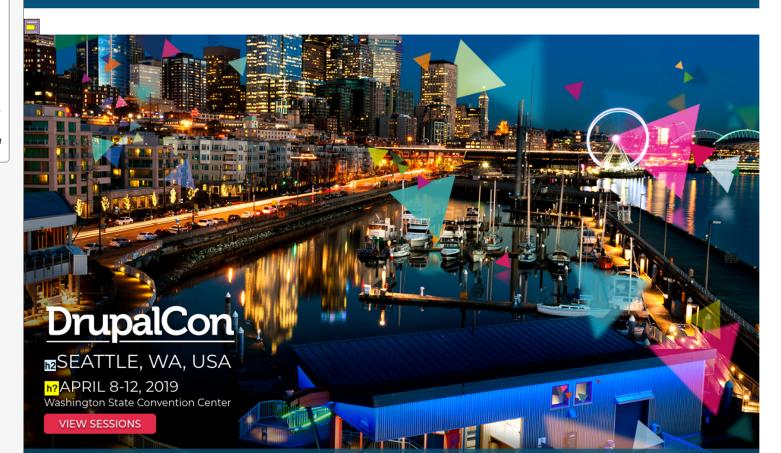
PANTHEON"

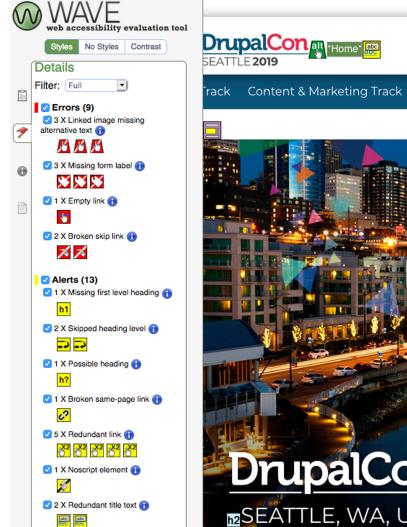
h2 DIAMOND SPONSORS platform.sh ACQUIQ

A Log in

Next event AMSTERDAM 2019 OCTOBER 28 - 31, 2019

Content & Marketing Track Sponsors Community News







PANTHEON"

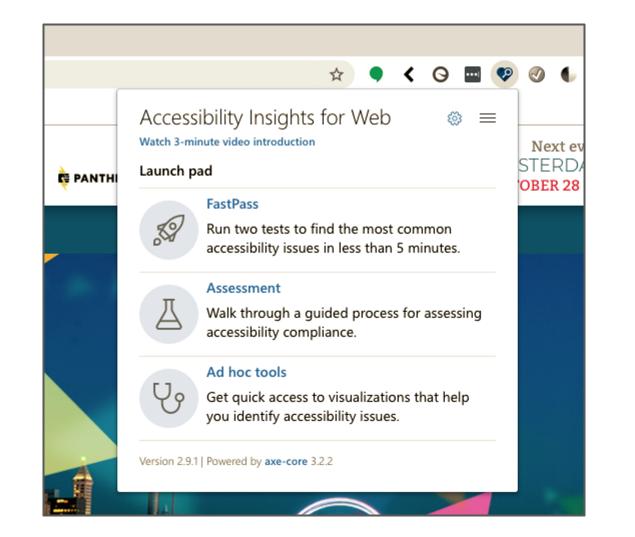






Sponsors Community News

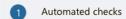








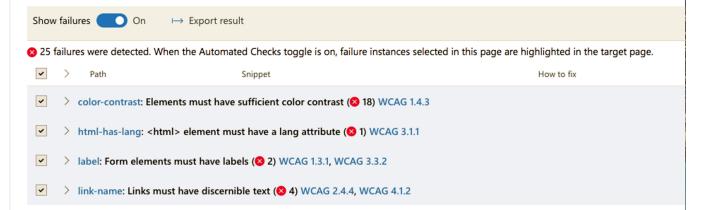
Target page: Seattle 2019 | DrupalCon



2 Tab stops

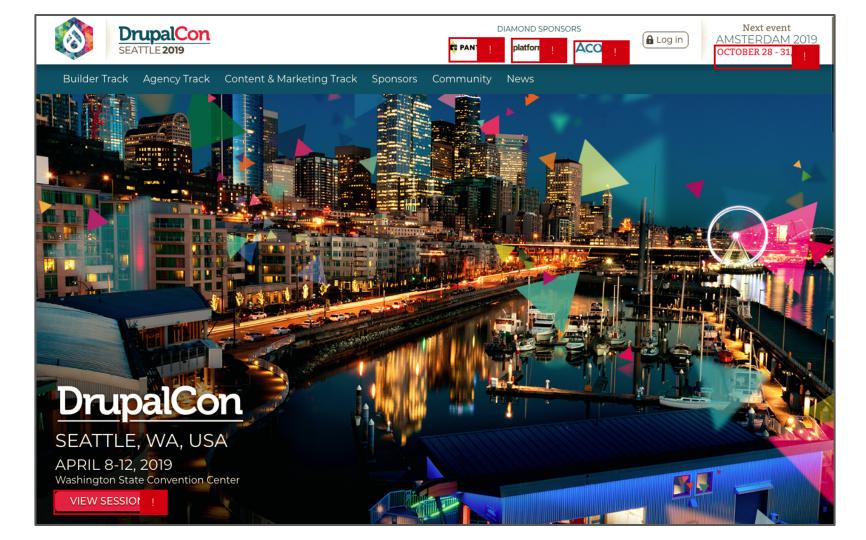
Automated checks

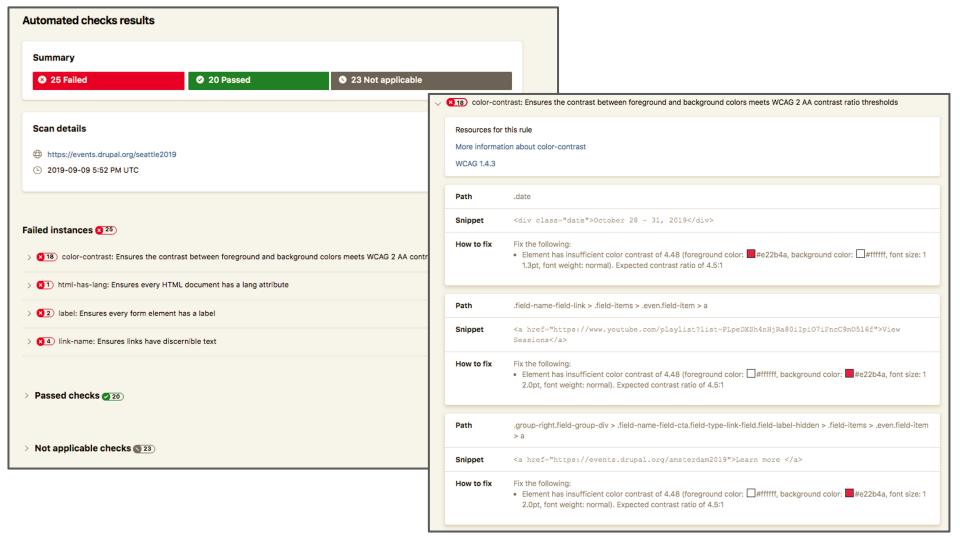
Automated checks can detect some common accessibility problems such as missing or invalid properties. But most accessibility problems can only be discovered through manual testing. The best way to evaluate web accessibility compliance is to complete an assessment.



Failure details

Select a single failure instance from a group in the table above to see more details here.





5. Keyboard and manually testing your site

Evaluate your site's functionality.

Keyboard testing basics

TAB

Go forward

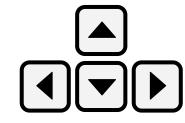
ENTER OR

SPACE

Activate



Go backward



Move around

1. Visible focus

When we navigate to an interactive component, it is visually apparent.

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When we navigate to an interactive component, it is visually apparent.

2. Keyboard navigation

We can navigate **to** all interactive components.

1. Visible focus

When we navigate to an interactive component, it is visually apparent.

2. Keyboard navigation

We can navigate **to** all interactive components.

3. No keyboard traps

We can navigate **away** from all interactive components.

4. On focus

Navigating to a component does not cause a change of context, like opening a new browser window.

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Navigating to a component does not cause a change of context, like opening a new browser window.

5. On input

Changing a component's settings does not cause a change of context, like submitting a form when the user leaves the last input field on the form.

4. On focus

Navigating to a component does not cause a change of context, like opening a new browser window.

5. On input

Changing a component's settings does not cause a change of context, like submitting a form when the user leaves the last input field on the form.

6. No keystroke timing

No components require specific keystroke timing, like an app only loading if we hold down a key for 5 seconds.

Keyboard ①		
> Getting Started		
Requirements		
 Keyboard navigation. Users must be able to navigate to all interactive interface components using a keyboard. 	0	Keyboard navigation ① Info & examples
2 No keyboard traps. Users must be able to <i>navigate away</i> from all components using a keyboard.	0	Visual helper ● Off ✓ How to test
3 On focus. Navigating to a component must not trigger any unexpected change of context.	0	The visual helper for this requirement records elements in the target page that receive the input focus. 1. Use the keyboard to navigate through all the interactive interface components in the target page. a. Use Tab and Shift+Tab to navigate between widgets both forwards and backwards.
4 On input. Changing a component's settings must not trigger any unexpected change of context.	0	b. Use the arrow keys to navigate between the focusable elements within a composite widget.2. If a "keyboard trap" prevents the focus from leaving a widget:a. Use your mouse to move the focus to the next widget.
5 No keystroke timing. Components must not require specific timings for individual keystrokes.	0	b. Resume testing.3. If you encounter any trigger component that reveals hidden content:a. Activate the trigger.
6 Character key shortcuts. Users must be able to turn off or remap character key shortcuts.	0	 b. Navigate through the revealed content. c. Close the revealed content. d. Resume navigating the page. 4. Verify that you can navigate to all interactive components using the keyboard. 5. Record your results: a. If you find any failures, select Fail, then add them as failure instances. b. Otherwise, select Pass.
		Pass Fail 9

Healthcare

This Summit aims to help connect you with Drupal users in the industry - be it pharma, scientific, or medical, to learn from each other about best practices, new trends, and generate ideas.

LEARN MORE

Libraries

This Summit is a one-day event for anyone using Drupal at a library who is looking to connect with other library users through presentations, peer networking, and collaborative round table discussions.

LEARN MORE

Nonprofit

The Nonprofit Summit aims to help connect you with other nonprofit Drupal users, to learn from each other about best practices, new trends, and generate ideas in a day that includes collaborative peer discussion and networking.

LEARN MORE

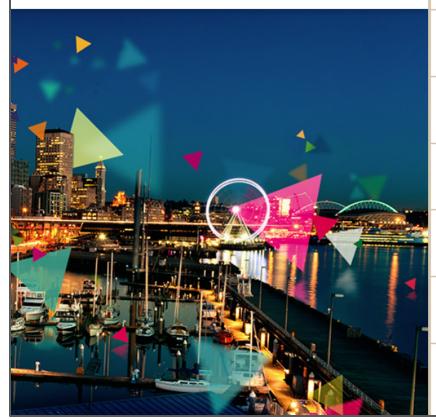












Agency Track

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6. Determining next steps

What now?

1. Basic tasks

Example: creating an account, logging in, buying a product

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2. Navigation issues

Example: skipped heading levels, no skip links, focus order

1. Basic tasks

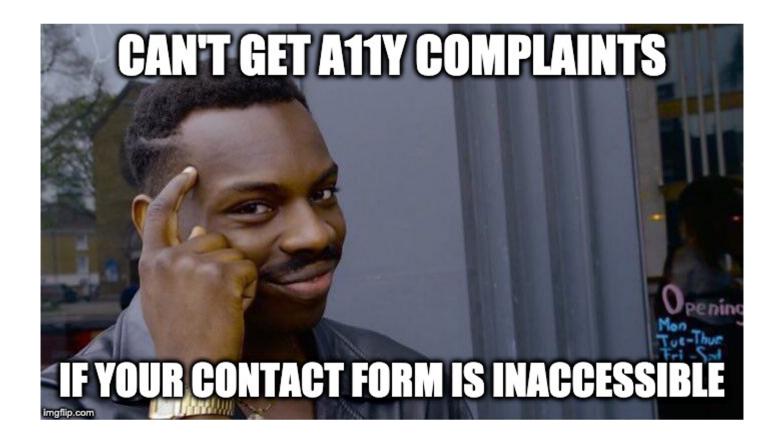
Example: creating an account, logging in, buying a product

2. Navigation issues

Example: skipped heading levels, no skip links, focus order

3. Form submissions

Example: contact form, feedback form, surveys, donation form



4. Pages with legal implications

Example: privacy policy, nutritional information, GDRP pages

Prioritizing defects in-house

4. Pages with legal implications

Example: privacy policy, nutritional information, GDRP pages

5. High traffic pages

Example: homepage, landing pages, campaign pages

Prioritizing defects in-house

4. Pages with legal implications

Example: privacy policy, nutritional information, GDRP pages

5. High traffic pages

Example: homepage, landing pages, campaign pages

6. Issues picked up by free crawlers

Example: the issues found by using automated tools

1. Measures your organization takes to support accessibility

ACME Inc. takes the following measures to ensure accessibility of the ACME Inc. website:

- Include accessibility as part of our mission statement.
- Integrate accessibility into our procurement practices.
- Appoint an accessibility officer and/or ombudsperson.
- Provide continual accessibility training for our staff.
- Include people with disabilities in our design personas.

- 1. Measures your organization takes to support accessibility
- 2. Which accessibility standard your site follows

To help make the ACME Inc. website a positive experience for everyone, we have been using the Web Content Accessibility Guidelines (WCAG)

2.1, which explain how to make web content more accessible for people with disabilities and user-friendly for everyone.

The guidelines have three levels of accessibility (A, AA and AAA). We've chosen Level AA as the target for the ACME Inc. website.

- 1. Measures your organization takes to support accessibility
- 2. Which accessibility standard your site follows
- 3. Contact information for issues or feedback

If you enjoyed using the ACME Inc. website, or if you had trouble with any part of it, please get in touch. We'd love to hear from you in any of the following ways:

E-mail: AnActualPerson@example.com

Phone: (555) 867-5309

We aim to respond to feedback within 1-3 business days.

- 1. Measures your organization takes to support accessibility
- 2. Which accessibility standard your site follows
- 3. Contact information for issues or feedback
- 4. Accessibility features your site has

Accessibility features on the ACME Inc. website:

- Invisible skip links that lead screen reader users directly to the main content on a page
- Headers that help define page organization
- Videos that are captioned and include transcripts
- Color contrast that assists reading for people who are color blind or have vision impairments

- 1. Measure your organization takes to support accessibility
- 2. Which accessibility standard your site follows
- 3. Contact information for issues or feedback
- 4. Accessibility features your site has
- 5. Known areas that have limitation or are non-compliant

1.1.1: Non-text Content

As we continue to move our old content over to our new site, we will be reviewing all non-text content on a case-by-case basis to ensure that items have the proper text alternative.

1.2.3: Audio Description or Media Alternative (Prerecorded)

We are reviewing our video content and will be making captioning and transcripts available as they are completed. Should you need an audio description or media alternative before it is available, please reach out to us at AnActualPerson@example.com and we will work to get it to you as soon as possible.

- 1. Measure your organization takes to support accessibility
- 2. Which accessibility standard your site follows
- 3. Contact information for issues or feedback
- 4. Accessibility features your site has
- 5. Known areas that have limitation or are non-compliant
- 6. Time frame of when you expect to reach accessibility milestones

April 2020

We plan to have rectified all keyboard navigation errors by this time.

December 2020

While new video content posted on this site have both transcripts and captions, videos posted to this site prior to 2014 might lack them. By this time, all video content on our site will have transcripts and captions.

1. Minimal example:

https://www.w3.org/WAI/planning/statements/minimal-example/

2. Complete example:

https://www.w3.org/WAI/planning/statements/complete-example/

3. Accessibility statement generator:

https://www.accessibilitystatementgenerator.com/

Resources

- http://bit.ly/a11y-testing-sheet
- 2. https://accessibilityinsights.io/
- 3. https://wave.webaim.org/extension/
- 4. https://siteimprove.com/en-us/core-platform/integrations/browser-extensions/
- 5. Code Academy: <u>Learn HTML</u> and <u>Learn CSS</u>
- 6. HTML Dog: HTML Beginner Tutorial and CSS Beginner Tutorial

Sources

- 1. https://alphagov.github.io/accessibility-tool-audit/
- 2. https://alphagov.github.io/accessibility-tool-audit/results.html
- 3. https://webaim.org/projects/million/update under "WCAG Conformance"
- 4. https://webaim.org/projects/million/ under "Errors and Error Density"