

Software Design

Accessibility Audits 101

Why is accessibility important?

- Non accessible content will be difficult if not impossible for users with disabilities to use.
- Improving the accessibility of your content improves the user experience for all users regardless of ability.
- Happier users = easier to achieve your goals

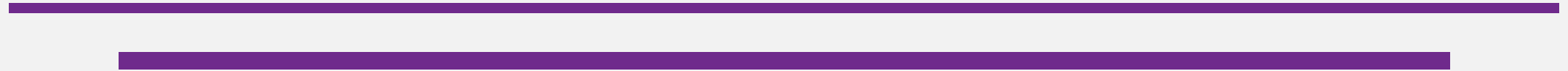
Dangers of being not accessible

- Under the Americans with Disabilities Act (ADA), users can file complaints, sue, and request settlements.
- ADA fines are \$55,000 for the first violation and \$110,000 for subsequent violations.
- Entities receiving federal funding can have their funding revoked.

What should I do about it?

- Conduct an accessibility audit!
- Use the Web Content Accessibility Guidelines (WCAG) to review your website/app/etc. to find where you have potential ADA violations.
- Revise the design, structure, content to meet the standards.

Laws and Standards to Know



Accessibility Related Laws and Standards

- The Americans with Disabilities Act (ADA)
- Section 504 and Section 508
- Web Content Accessibility Guidelines (WCAG)

ADA

- Civil rights law that prohibits discrimination against those who have disabilities
- Aims to give people with disabilities the same rights and opportunities as everyone else
- Affects several aspects of life

Section 504 and Section 508

- Sections of the Rehabilitation Act
- Section 504 requires federal agencies to provide equal opportunity for people with disabilities to participate in their programs and benefit from their services
- Section 508 requires federal agencies to make their information and communication technology accessible to people with disabilities

What is WCAG?

- Stands for Web Content Accessibility Guidelines.
- A set of standards created by the World Wide Web Consortium (W3C)
- Actionable guidelines on how to make content accessible to those with disabilities.

More on the WCAG

More on the WCAG

Within the WCAG, there are three different levels of compliance.

Level A: some users can access the content

Level AA: most users can access the content

Level AAA: all users can access the content

Most companies will shoot for Level AA compliance.

Level AAA is like the gold standard and is more rare.

More on the WCAG

The WCAG is also broken up into four categories:

Perceivable: is it visible to the user's senses?

Operable: can the user operate the content?

Understandable: can the user understand the information and controls?

Robust: as technology changes, is the content still accessible?

What if I'm not making a website?

The WCAG was written for websites specifically, but there are still a lot of standards apply to other digital content. There are some resources to help map the web standards to mobile. Do your best to meet the standards that apply to the content you are creating.

[How WCAG 2.0 Applies to Mobile](#)

Doing Your Own Audit

What does an accessibility audit look like?

- Basically running through your website/app/etc. and finding all the places where you fail to meet a standard
- Once you know which standards you fail to meet, you know what to fix

The Accessibility Audit Helper

The Accessibility Audit Helper is an interactive spreadsheet created to help you do your own accessibility audit.

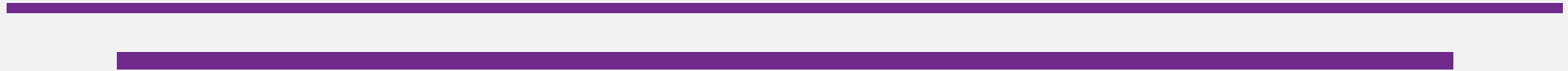
How to use the Helper

- Make a copy of the worksheet for your own use
- On the WCAG Standards sheet, record the state of compliance for that standard
- Once you finish going through your content, you can see a breakdown of how your website/app/etc. did in the Compliance Breakdown and Charts
 - Compliance Breakdown will show percentage of compliance for all standards and the different categories of the WCAG
 - The Charts sheet will show this data visually
 - A list of all the standards marked “Fail” is shown on the Compliance Breakdown sheet

Other Helpful Auditing Tools

- Contrast by Maark (Figma plugin)
- Leonardo Color
- WebAIM Contrast Checker
- Adobe Color Accessibility Tools
- Google Play Store Accessibility Report (only if you upload an app to the store.)

Appendix



Anatomy of the Helper

WCAG Standards

- Standard Number: number of the WCAG standard and a link to more information
- Standard Name: name of the WCAG standard
- Level: level of compliance of the WCAG standard (can be filtered to your needs)
- Description: description of how to comply with the standard
- Category: group that the standard fits into (can be filtered to search for certain types of standards)
- Pass or Fail?: Dropdown to record if your content passes or fails the standard in question (can be filtered to show types of responses)

Standard Number	Standard Name	Level	Description	Category	Pass or Fail?
1.1.1	Non-Text Content	A	Provide a text alternative to non-text content that serves the same purpose. Exceptions: controls, controls that take user input, time-based media, tests, CAPTCHA, decoration	Text Alternatives	▼
1.2.1	Audio/Video-only Media	A	Present equivalent information in an alternative format to the time-based media. For video-only content, provide the equivalent information in either an alternative method or an audio track.	Time-based Media	▼
1.2.2	Captions	A	Provide captions for all prerecorded audio content in synchronized media. Exception: Media that is a labeled alternative to text.	Time-based Media	▼

Anatomy of the Helper

Compliance Breakdown

- Total Standards: number of standards are in the category/level
- Passing Standards: number of standards marked “Pass”
- % Compliant: total number of standards divided by the number of standards marked “Pass” and “N/A”

	Total Standards	Passing Standards	% Compliant
All Standards:	78	15	31%
Level A	30	8	27%
Level AA	20	7	35%
Level AAA	28	0	32%
Perceivable	29	15	83%
Level A	9	8	89%
Level AA	11	7	64%
Level AAA	9	0	100%

Anatomy of the Helper

Compliance Breakdown Cont.

- Failed Standards: a list of all the standards marked “Fail”
- Number, Name, Level, Description, and Category are the same as the columns on the WCAG Standards page.

Failed Standards					
Number	Name	Level	Description	Category	
1.2.1	Audio/Video-only Media	A	Present equivalent information in an alternative format to the time-based media. For video-only content, provide the equivalent information in either an alternative method or an audio track.	Time-based Media	
1.3.4	Orientation	AA	Do not restrict the content view and operation to a single display orientation unless absolutely necessary.	Adaptable	
1.4.3	Minimum Contrast	AA	The contrast ratio of text and images of text must be at least 4.5:1. Large text (18 point or 14 point bold) must have a contrast ratio of at least 3:1. Exceptions: Elements that are inactive or decorative.	Distinguishable	

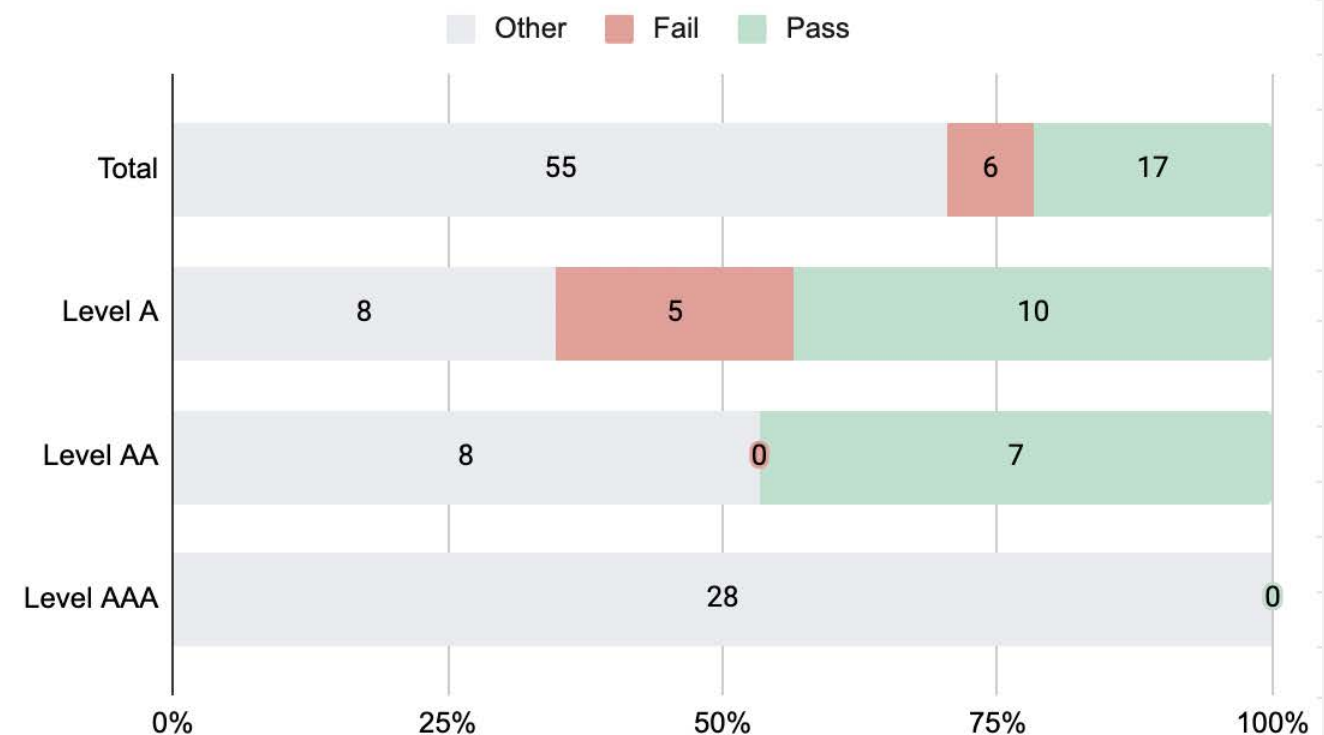
Anatomy of the Helper

Charts

- Tables show the various counts of standards that meet different criteria.
 - Other: standards marked “N/A” or left blank.
 - Fail: standards marked “Fail”
 - Pass: standards marked “Pass”
- Charts show a visual breakdown of passing, failing, or other standards.

All Standards	Other	Fail	Pass
Total	55	6	17
Level A	8	5	10
Level AA	8	0	7
Level AAA	28	0	0
Perceivable	Other	Fail	Pass
Total	9	5	15
Level A	0	1	8
Level AA	0	4	7
Level AAA	9	0	0
Operable	Other	Fail	Pass
Total	9	5	15
Level A	0	1	8
Level AA	0	4	7
Level AAA	9	0	0

All Standards



More Information

- [What is the Americans with Disabilities Act \(ADA\)?](#)
- [WCAG 2 Overview](#)
- [ADA vs 508 Compliance vs WCAG](#)
- [What are the Four Major Categories of Accessibility?](#)
- [What is Section 504 and how does it relate to Section 508?](#)