

The Inaccessibility of Accessible Web Design

The Prototype



The Idea

Since 1999, Web Content Accessibility Guidelines have set the standard to create accessible websites that anyone can access regardless of their ability. However, as of 2020, less than 10% of websites meet these accessibility standards.

Over half of all active websites use content management systems like WordPress, Squarespace and Wix, which allow anyone to create websites regardless of their skill set. However, content creators on these platforms are often unaware of accessibility guidelines or do not understand technical jargon that makes the guidelines inaccessible to them.

Now that anyone can create web content, we must ensure that accessibility guidelines are accessible to everyone.

This CMS prototype integrates accessibility guidelines within the website development process. The prototype aims to empower mainstream audiences to build accessible websites. This is done through educating them about accessibility guidelines during the web development process to help breakdown the guidelines into manageable amounts with direct application.

The prototype was co-designed with participants who have beginner, intermediate, and expert knowledge of accessibility guidelines to ensure that people of all skill sets could benefit from it.

By giving everyone the power to create accessible content, we shift the onus to the content creators from the people affected by the inaccessibility.

Accessible websites benefit everyone, and I hope this project can inspire change toward a more accessible digital world.

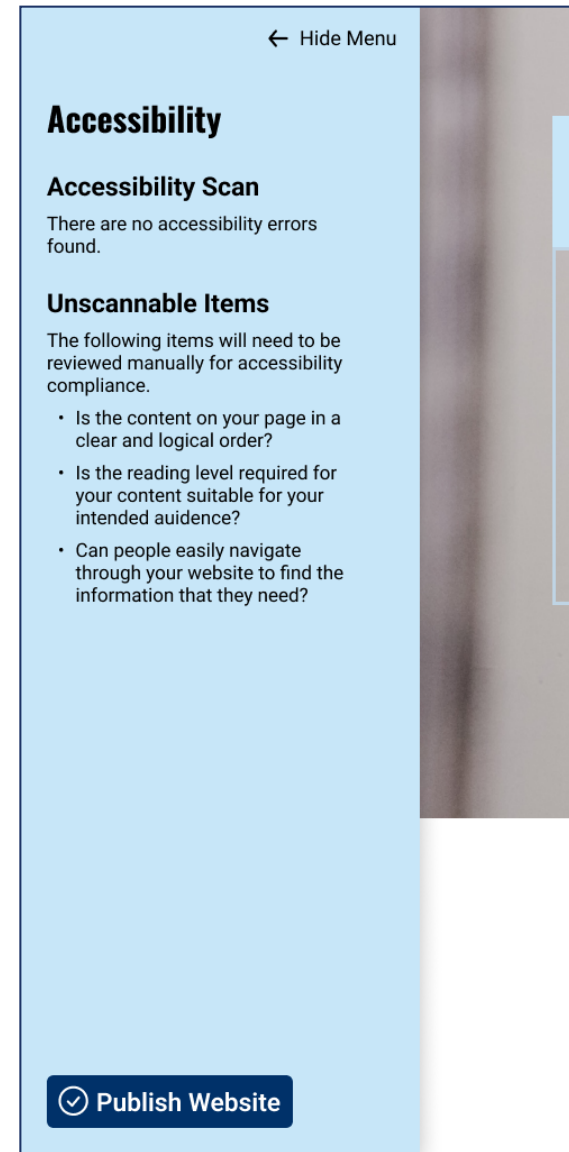
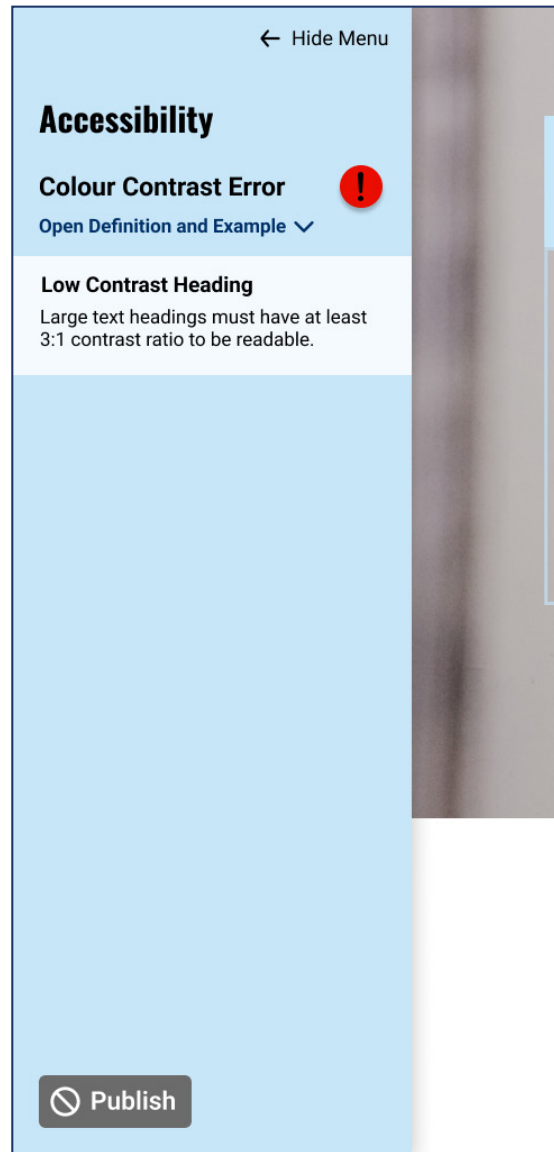


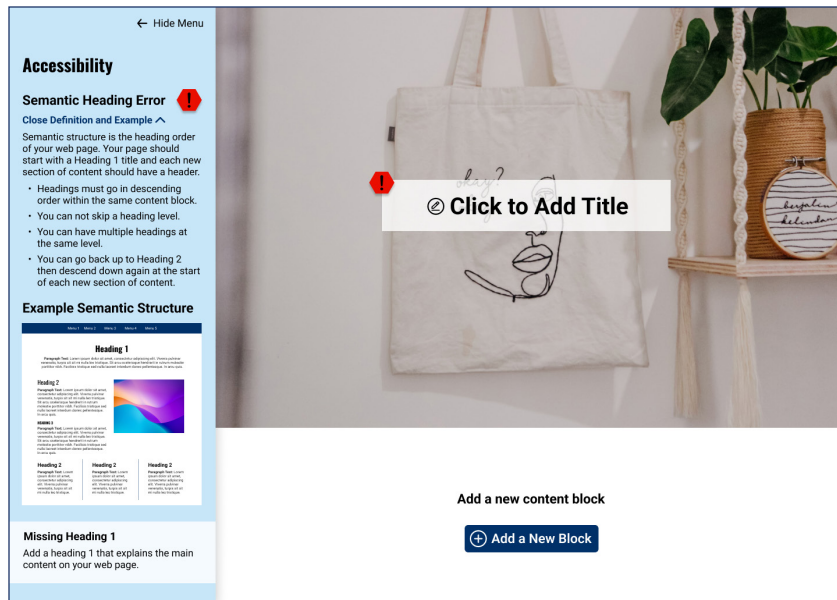
Accessibility Checker

An accessibility compliance checker is a tool that can scan a website's content to see if it meets most Web Content Accessibility Guidelines. If a website is compliant, the web content will be accessible to most people who access it. A website can never be 100% accessible because no one can design for every kind of human diversity.

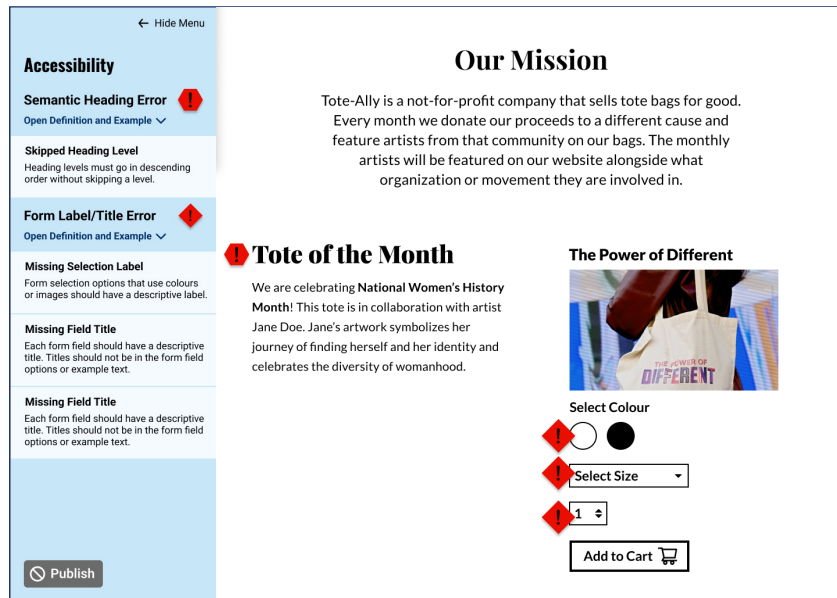
The checker appears as a side panel that constantly scans for accessibility errors as content is added to the website. When no errors are found, the checker will display a list of content that the creator must manually check. The list explains that even though the tool did not find any accessibility errors, this still does not mean that the website is entirely compliant.

This compliance integration aims to help content creators address accessibility errors as they appear rather than after completing a page to help people integrate accessibility from the beginning. The goal is to remove the stigma that making accessible websites takes more time and effort than inaccessible ones.

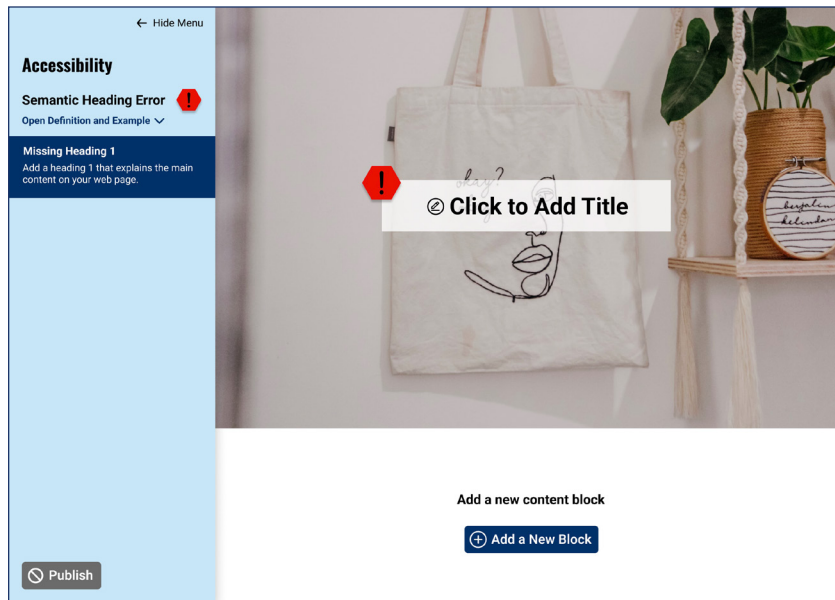




Error Descriptions

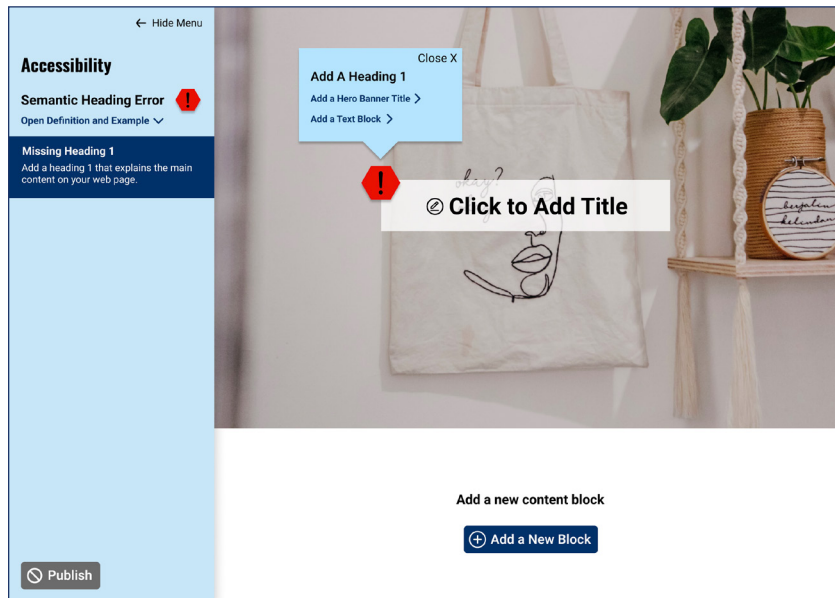


Grouped Errors



Error Location

The side panel and icons on the content are linked to help the content creators find what content is creating the error. When hovering over an error in the side panel, it will highlight, and the icon will grow larger and vice versa. People can also click either the error or the icon, and the page will move to display the corresponding information.



Prompted Solutions

Selecting an error will make a popup appear with a solution prompt. Errors with multiple solutions will provide multiple options to choose from. Selecting one of the solutions will take the content creator to the interface that will add or change the required content.

Alternative Text


Giving images alternative text is one of the most common accessibility integrations. However, it is still not common in CMS interfaces.


This prototype has an option to add alternative text or mark an image as decorative when adding an image to the website. The content creator will not be able to save their image until one of the fields are used.

The interface shows a short, plain language description of both options that explain why it is used. The content creator can only use one of the fields per image. If a person adds alternative text and then clicks Mark as Decorative, the Alternative Text field will be disabled until Mark as Decorative is no longer selected.

Content creators can also read a lengthier, more technical definition with more examples in another panel.

Create Your Banner Image



Select a different image 


Add Alternative Text ?

Write a short description of this image for people who are unable to see it or if the image does not load.


Example: A business professor speaking to a school auditorium filled with students


☐ **Mark as Decorative ?**

If the content of this image does not contribute essential information for this page it can be marked as decorative instead of adding alternative text.

 Save

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Semantic Headings

Semantic headings are one of the accessibility integrations common in CMS tools but are not used correctly. Because CMS platforms generally combine text styling with the heading tags, people associate them more with the visual design of the page rather than the content structure. Content creators may choose to use headings out of order if they stylistically look better without understanding that it completely changes how a screen reader understands the content.

This interface provides detailed explanations of what semantic headings are, how they work, and why the order of them is important. There are guides for choosing the correct headings and an example web page that shows all of the heading levels.

← Hide Menu

Accessibility

Semantic Heading Error

Open Definition and Example

Skipped Heading Level

Heading levels must go in descending order without skipping a level.

Form Label/Title Error

Open Definition and Example

Missing Selection Label

Form selection options that use colours or images should have a descriptive label.

Missing Field Title

Each form field should have a descriptive title. Titles should not be in the form field options or example text.

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Publish

Our Mission

Tote-Ally is a not-for-profit company that sells tote bags for good. Every month we donate our proceeds to a different cause and feature artists from that community on our bags. The monthly artists will be featured on our website alongside what organization or movement they are involved in.

Tote of the Month

We are celebrating **National Women's History Month!** This tote is in collaboration with artist Jane Doe. Jane's artwork symbolizes her journey of finding herself and her identity and celebrates the diversity of womanhood.

The Power of Different

Select Colour

Select Size

1

Add to Cart

Heading Errors and Warnings

The accessibility checker will create an error if a heading level is skipped or a Heading 1 tag is missing from the page. The checker will also generate a warning message if the text is formatted to look like a heading but not tagged as one. For example: if the text is larger than the body copy, in a different font, or in a separate paragraph, the system will ask if this should be marked as a heading.

← Hide Menu

Accessibility

Accessibility Scan

Add content to start scanning.

Publish

Shop Tote-Ally

Heading Level

Font

Style

Size

Paragraph

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

Lato

Regular

19

Our Mission

or-profit company that sells tote bags for good. donate our proceeds to a different cause and om that community on our bags. The monthly e featured on our website alongside what :ion or movement they are involved in.

Save Changes

Separated Font Styling

To remove the stigma that people need to sacrifice the styling of their page to create accessible content, the Heading Levels are separate from the other text styling options. This separation allows content creators to design their text as they see fit while ensuring the proper semantic structure is used.

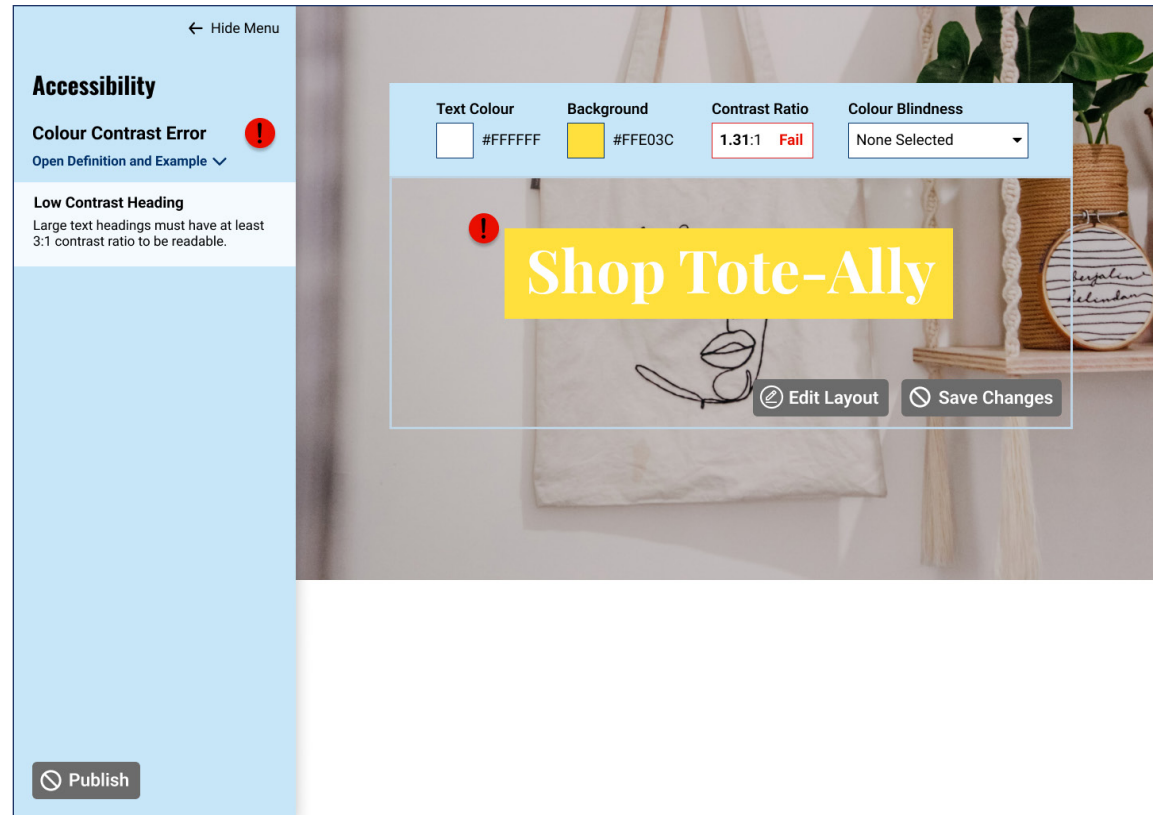
9

Colour Contrast

Colour contrast checkers are often third-party software that content creators can use in tandem with web content development. Still, CMS platforms would benefit from integrating them directly within their interfaces.

The tool checks if the text colour has enough contrast with the background colour or image. The contrast appears as a ratio number indicating if the ratio passes or fails accessibility compliance. Failing ratios will not be able to be saved until they are updated.

The tool also comes with colour blindness contrast integrations, and banner presets designed to create higher contrast between text and images.



← Hide Menu

Accessibility

Accessibility Scan

There are no accessibility errors found.

Unscannable Items

The following items will need to be reviewed manually for accessibility compliance.

- Is the content on your page in a clear and logical order?
- Is the reading level required for your content suitable for your intended audience?
- Can people easily navigate through your website to find the information that they need?

Text Colour

#000000

Background

#FFD8A3

Contrast Ratio

15.6:1

Pass

Colour Blindness

None Selected

Red-Green Colour Blindness

Deuteranopia

Protanopia

Yellow-Blue Colour Blindness

Tritanopia

Complete Colour Blindness

Monochromacy

Shop Tote-A

Edit Layout

Save Changes

← Hide Menu

Accessibility

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There are no accessibility errors found.

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Text Colour

#000000

Background

#FFD1E2

Contrast Ratio

15.47:1

Pass

Colour Blindness

Tritanopia

Shop Tote-Ally

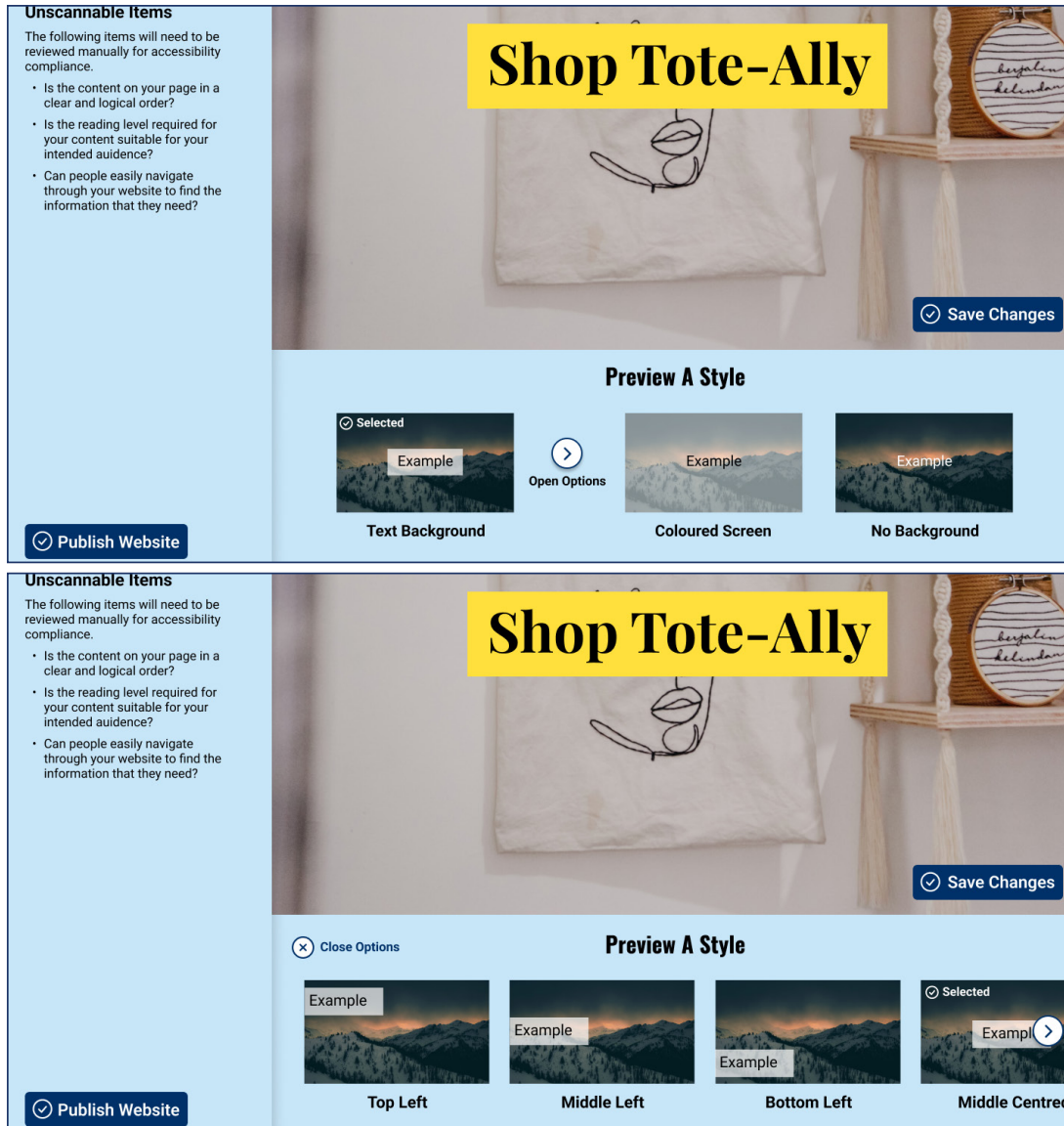
Edit Layout

Save Changes

Colour Blindness Contrast

There is an option to check the colour contrast for different colour blindness in the colour selection screen. This dropdown shows the kinds of colour blindness between the red-green deuteranopia and protanopia colour blindness, the yellow-blue tritanopia colour blindness, and the complete lack of colour, which is monochromacy.

Though colour blindness can range in severity, and some are more common than others, the tool will ensure that if people with the most severe or rare cases have enough contrast, everyone else will also have enough contrast.



Preset Styling Options

When adding text over an image, the interface comes with preset styles to help promote more contrast between text and the image. These include having a background directly behind the text, a translucent screen over the whole image, or no background if the image is not too busy.

Selecting a Style will show a preview of it using the content on the screen. Selecting Open Options will show more customizations for the style, like text placement or background opacity.

Form Fields


There are two primary accessibility integrations for adding forms. The first is ensuring that all form fields have proper titles that clearly explain what information is needed. These titles should sit outside of the input field itself so that once a person begins typing or choosing content, the title is not lost.

The second integration is labeling options that rely on colour or images. Adding a title to each visual option, like colour selections, ensure that people who cannot see the colour will still be able to understand what they are choosing.

Not relying on colour also includes form errors. Instead of a field simply turning red to indicate an error, the text must also show that something is wrong. Content creators can do this by adding a prompt to add to or change the field that is creating the error.

← Hide Menu

Accessibility

Form Label/Title Error 
Open Definition and Example ▾

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Tote of the Month


We are celebrating **National Women's History Month!** This tote is in collaboration with artist Jane Doe. Jane's artwork symbolizes her journey of finding herself and her identity and celebrates the diversity of womanhood.


The Power of Different




Select Colour


 Select Size ▾

 1 ▴ ▾

Add to Cart 

← Hide Menu

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Select Colour

 
Add label Add label


 Select Size ▾

 1 ▴ ▾

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The Power of Different





Select Colour

 
White Black

Add Field Title

 Select Size ▾

 1 ▴ ▾

Add to Cart 

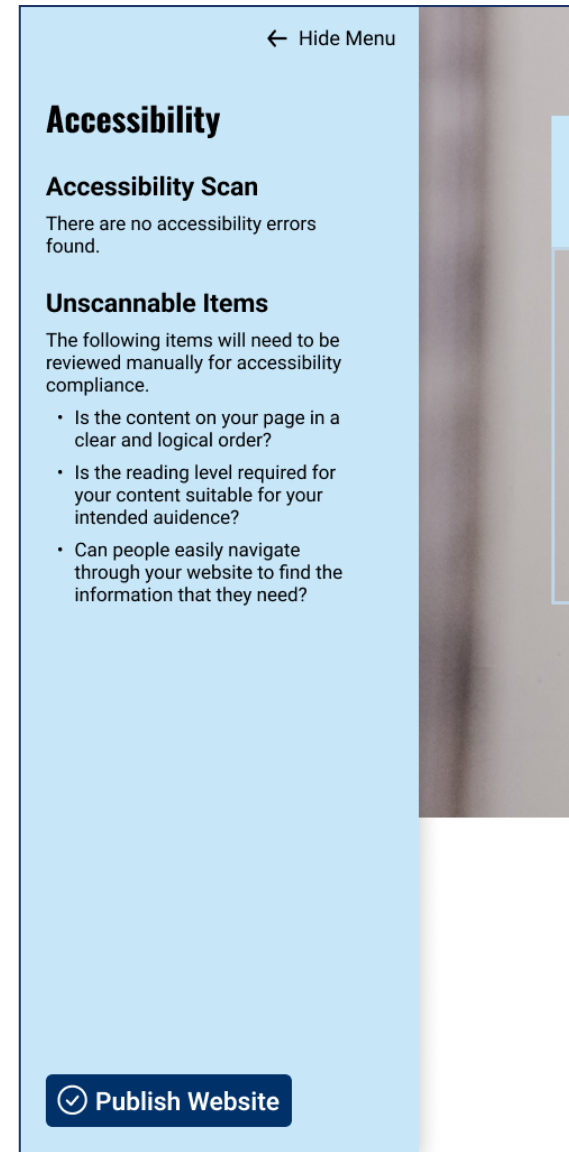
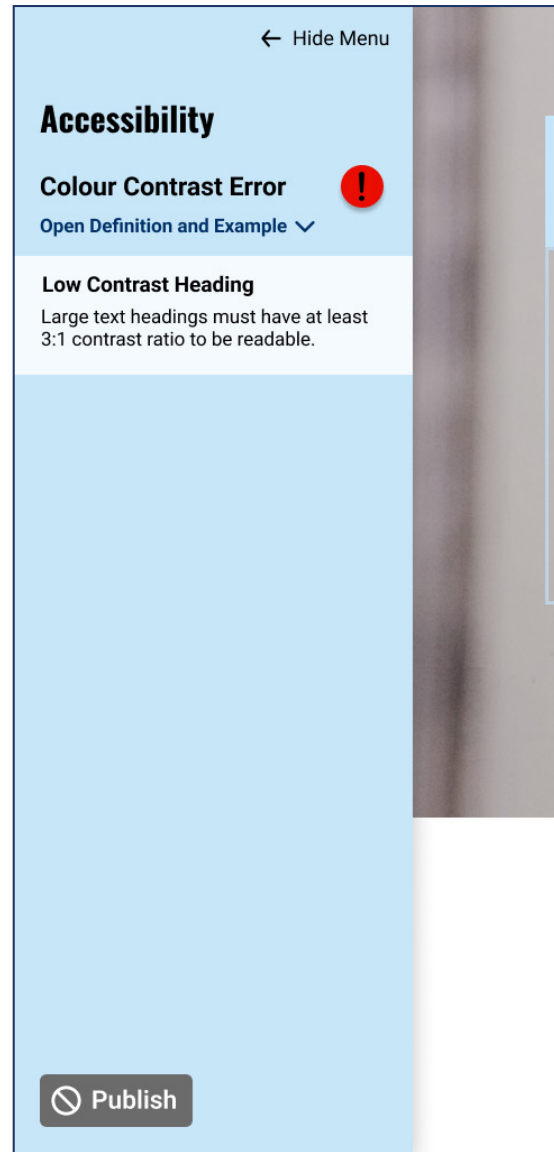
Publishing

Publishing Without Errors

There are two different ways that publishing can work with this prototype.

The first is to make accessibility mandatory. In this version, the Publish button will not be able to be used until all accessibility errors are fixed. Once the scanner detects no more errors, the Publish button will change from grey to blue, and the icon will change from being crossed out to a check mark.

This option allows a CMS platform to promote that all websites published using their software pass a compliance scan.



← Hide Menu

Accessibility

Form Label/Title Error

Open Definition and Example ▾

Missing Field Title

Each form field should have a descriptive title. Titles should not be in the form field options or example text.

Close X

Accessibility Warning

If you choose to publish your website with accessibility errors you must return to fix them within 30 days. You can set how often you would like to receive reminders leading to the deadline.

Your website will be temporarily unpublished if the errors are not fixed within the timeframe.

Publish and Set Reminder >

⊘ Publish

← Hide Menu

Accessibility

Form Label/Title Error

Open Definition and Example ▾

Missing Field Title

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Close X

Reminder Schedule

Maximum Days to Remediate

15 ▴ ▾

Email Reminder Schedule

Weekly ▾

Save Schedule >

⊘ Publish

**Here's to a more
accessible digital future.**

Chloe Typert-Morrison