

# Accessibility for Everyone

Beth Tucker Long



# Beth Tucker Long

- PHP Developer
- Stay-at-home Mom
- User Group Leader
- Mentor
- OSMI volunteer



# Open Sourcing Mental Illness

<http://OSMIHelp.org>

- Handbooks to help improve workplaces
- Research
- Resources



# Find Me

Beth@TreelineDesign.com

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TreelineDesign.com/slides

# WHAT IS ACCESSIBILITY?

# What is Accessibility?

The measure of a web page's usability by persons with one or more disabilities.

--Usability.gov

<https://www.usability.gov/what-and-why/glossary/tag/accessibility/index.html>

# What is Accessibility?

- Improving your usability
  - Following government mandates
  - Improve customer satisfaction
  - Increase customer diversity
  - Be fair
- 
- Widening your audience

# How much bigger?

The United Nations estimates:

- 15% of the world's population has a disability

- <https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/world-report-on-disability>

- <https://unstats.un.org/unsd/demographic-social/sconcerns/disability/statistics/#!/home>



# All Age Issue

## Regardless of age, disabled Americans are adopting tech at lower rates

*% of U.S. adults who say they have ...*

	Ages 65+			Ages 18-64		
	Any disability	No disability	Diff	Any disability	No disability	Diff
<b>Desktop/laptop computer</b>	50	66	<b>-16</b>	67	84	<b>-17</b>
<b>Smartphone</b>	32	45	<b>-13</b>	70	87	<b>-17</b>
<b>Home broadband</b>	36	57	<b>-21</b>	66	80	<b>-14</b>
<b>Tablet</b>	21	36	<b>-15</b>	44	57	<b>-13</b>

Source: Survey conducted Sept. 29-Nov. 6, 2016.

PEW RESEARCH CENTER

<http://www.pewresearch.org/fact-tank/2017/04/07/disabled-americans-are-less-likely-to-use-technology/>

# Main Areas of Difficulty

- Vision
- Mobility
- Hearing

# Vision

- Colorblindness

<http://www.colourblindawareness.org/colour-blindness/>

# Vision

- Vision Impairment

<http://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment>

# Mobility

- Movement

[https://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/NHIS/SHS/2016\\_SHS\\_Table\\_A-10.pdf](https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2016_SHS_Table_A-10.pdf)

# Hearing

- Hearing Trouble

<https://www.cdc.gov/nchs/fastats/disability.htm>

# Need More to Sell This?

- It's not just for people with disabilities.

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3280373/>

# Need More to Sell This?

- It's the future.

- <http://www.pewresearch.org/fact-tank/2017/12/12/nearly-half-of-americans-use-digital-voice-assistants-mostly-on-their-smartphones/>
- <https://www.statista.com/statistics/1029573/us-voice-assistant-users/>



# Need More to Sell This?

- Money: \$1.2 trillion.

- <https://www.perkins.org/access>
- <https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment>

WHAT CAN WE DO?

# Vision - Color

**Last Name \***

**Address Line 2**

**State \***

**Country \***

Sign Me Up

**Last Name \***

**Address Line 2**

**State \***

**Country \***

Sign Me Up

# Vision

- Here is some text that does not have high enough contrast.

# Vision

- Here is some text that does not have high enough contrast.
- High contrast is important.

# Vision

- Here is some text that does not have high enough contrast.
- High contrast is important.
- High contrast makes a difference.

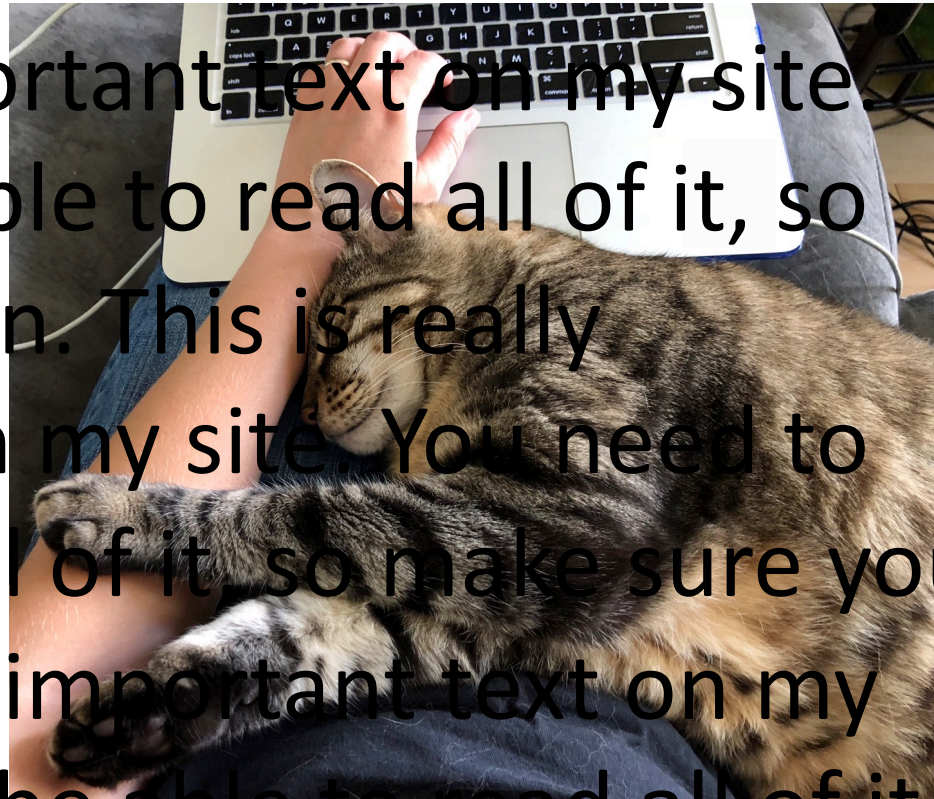
# Vision

This is really important text on my site. You need to be able to read all of it, so make sure you can. This is really important text on my site. You need to be able to read all of it, so make sure you can. This is really important text on my site. You need to be able to read all of it, so make sure you can. This is really important text on my site. You need to be able to read all of it, so make sure you can.



# Vision

This is really important text on my site. You need to be able to read all of it, so make sure you can. This is really important text on my site. You need to be able to read all of it, so make sure you can. This is really important text on my site. You need to be able to read all of it.





# Vision



# Vision

This is the great description of my website.  
You can click [here](#) to get to some great content or you could click [here](#) to get to our newsletter or you could click [here](#) to send us an email.

# Vision

Number of Users:	27
Number of Devices:	81
Top Usage Hour:	10am – 11am
Primary Entry Point:	Login

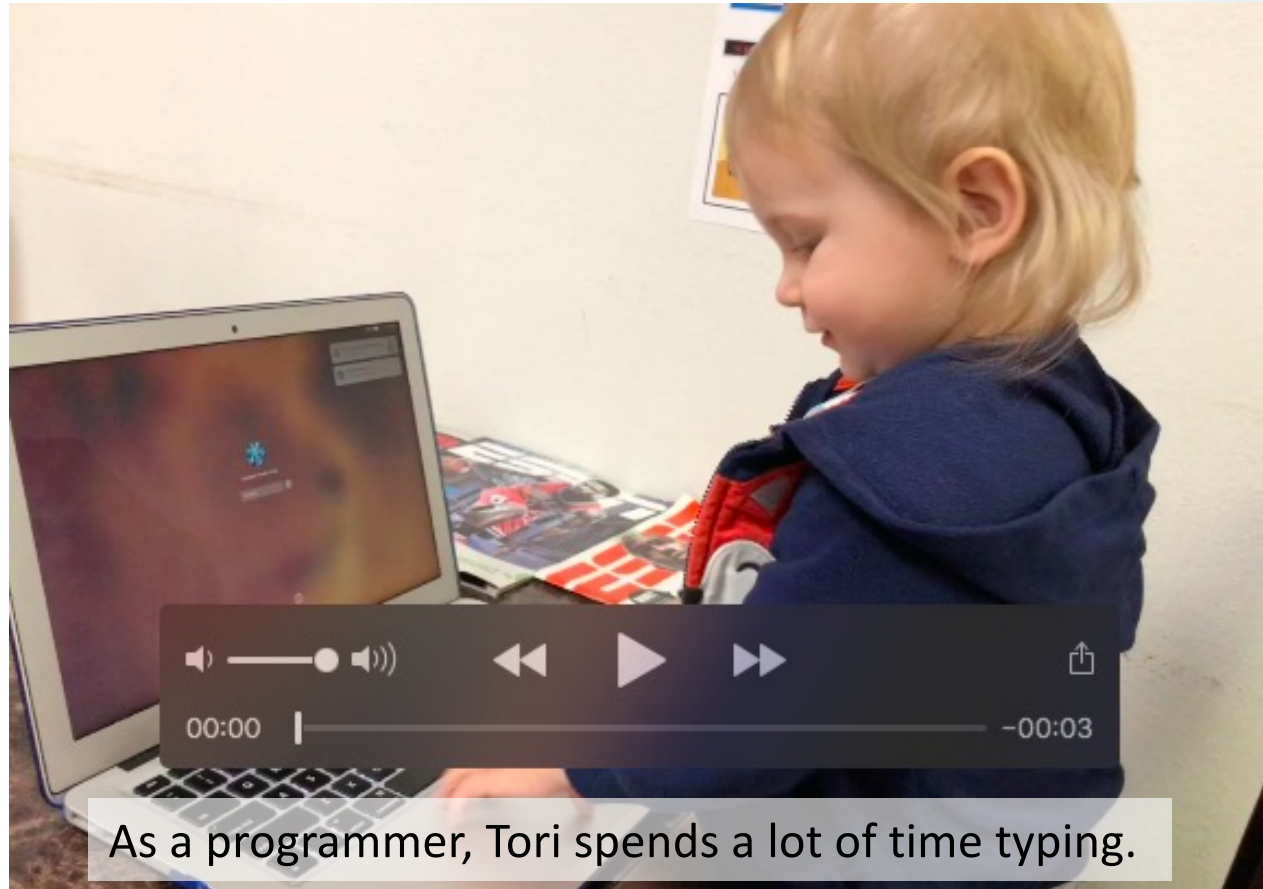
# Mobility

**Personal Information** (see [Privacy Policy](#))

<b>First Name *</b>	<b>Last Name *</b>
<input type="text" value="Beth"/>	<input type="text" value="Tucker Long"/>
<b>Address Line 1 *</b>	<b>Address Line 2</b>
<input type="text" value="123 Street Boulevard"/>	<input type="text"/>
<b>City *</b>	<b>State *</b>
<input type="text" value="That Place"/>	<input type="text" value="Select a State"/>
<b>Zip *</b>	<b>Country *</b>
<input type="text" value="12345"/>	<input type="text" value="United States"/>

[Special Shipping Instructions?](#)

# Hearing



As a programmer, Tori spends a lot of time typing.

TESTING

# Vision

- Enlarge your fonts
- Turn down your screen brightness
- Adjust the color saturation on your screen
- Disable your stylesheets

# Vision

Turn your monitor off/around and use:

VoiceOver - <https://help.apple.com/voiceover/info/guide/>

Narrator - <https://support.microsoft.com/en-us/help/17173/windows-10-hear-text-read-aloud>

NVDA - <https://www.nvaccess.org/>

Orca - <https://help.gnome.org/users/orca/stable/>

TalkBack - <https://support.google.com/accessibility/android/topic/3529932>



# Simulate Colorblindness

altreus.github.io says

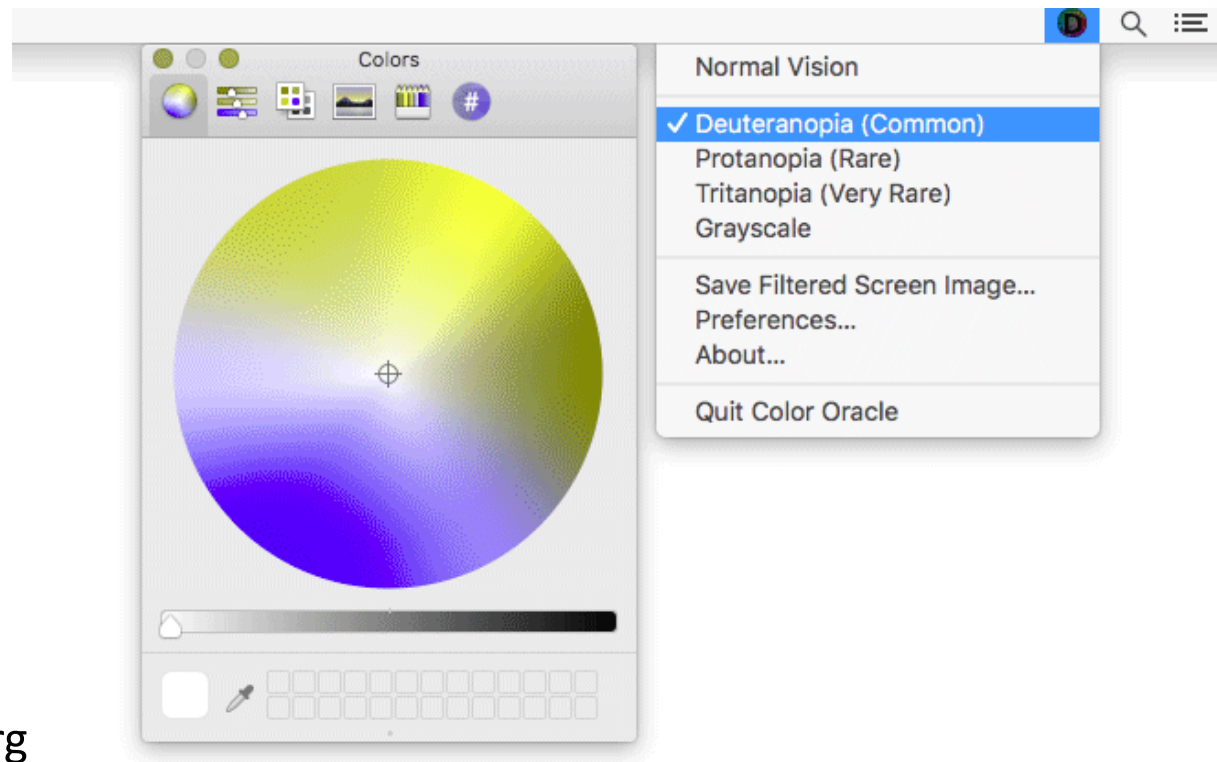
0: off; 1: protanopia; 2: protanomaly; 3: deuteranopia; 4: deuteranomaly; 5: tritanopia; 6: tritanomaly; 7: achromatopsia; 8: achromatomaly;

Cancel OK

Colour Blind

<https://github.com/Altreus/colourblind>

# Simulate Colorblindness



Color Oracle  
<http://colororacle.org>

# Generate a Color Palette

Background Color	Font-Family	Font-Size (px)	Font-Weight	WCAG Standard ⓘ
<input type="text" value="#ffffff"/>	<input type="text" value="Helvetica"/> ▼	<input type="text" value="24"/>	<input type="text" value="400"/> ▼	<input type="text" value="AA"/> ▼

Editable Text

The quick brown fox jumps over the lazy dog.

**GENERATE COLOR PALETTE**


<http://colorsafe.co>

# Color Palette Accessibility Evaluator

**Color Palette Accessibility Checker: WCAG 2 Level AA** [Switch to WCAG 2 Level AAA](#)

**Color Palette**

Select a color to analyze



[Back to palette creator](#)

**Analysis**

**Small Non-Bold Text (less than 18pt, or approximately 1.5em rendered) for 00FF00**

Color Code	Sample Text	Sample Text (inverted)	Pass or Fail	Ratio (pass>=4.5)
000000	Lorem ipsum	Lorem ipsum	PASS	15.3
0000FF	Lorem ipsum	Lorem ipsum	PASS	6.26

**Large Non-Bold Text (18pt or greater, or approximately 1.5em rendered) for 00FF00**

Color Code	Sample Text	Sample Text (inverted)	Pass or Fail	Ratio (pass>=3.0)
000000	Lorem ipsum	Lorem ipsum	PASS	15.3
0000FF	Lorem ipsum	Lorem ipsum	PASS	6.26

<https://accessibility.oit.ncsu.edu/tools/color-contrast/>

# Snook.ca Color Contrast Check

Foreground Colour:	Background Colour:	Results
<input type="text" value="#33FF33"/>	<input type="text" value="#333333"/>	<p>This is example text. <b>Some of it bolded.</b> <i>Some of it italicized.</i></p>
Red: <input type="range"/>	Red: <input type="range"/>	Brightness Difference: ( $\geq 125$ ) <input type="text" value="119.747"/>
Green: <input type="range"/>	Green: <input type="range"/>	Colour Difference: ( $\geq 500$ ) <input type="text" value="204"/>
Blue: <input type="range"/>	Blue: <input type="range"/>	Are colours compliant? <input type="text" value="NO"/>
Hue (°) <input type="range"/>	Hue (°): <input type="range"/>	Contrast Ratio <input type="text" value="9.321"/>
Saturation (%) <input type="range"/>	Saturation (%): <input type="range"/>	WCAG 2 AA Compliant <input type="text" value="YES"/>
Value (%) <input type="range"/>	Value (%): <input type="range"/>	WCAG 2 AA Compliant (18pt+) <input type="text" value="YES"/>
		WCAG 2 AAA Compliant <input type="text" value="YES"/>
		WCAG 2 AAA Compliant (18pt+) <input type="text" value="YES"/>

[https://snook.ca/technical/colour\\_contrast/colour.html](https://snook.ca/technical/colour_contrast/colour.html)

# WebAIM- Color Contrast Checker

The screenshot shows the WebAIM Color Contrast Checker interface. It features two color selection panels: 'Foreground Color' with a hex code of #0000FF and a lightness slider, and 'Background Color' with a hex code of #FFFFFF and a lightness slider. A green-bordered box displays the 'Contrast Ratio' as 8.59:1, with a 'permalink' link below it. Below the color panels, there are two sections for text contrast: 'Normal Text' and 'Large Text'. Each section shows 'WCAG AA: Pass' and 'WCAG AAA: Pass' in green buttons, followed by a text box containing the sentence 'The five boxing wizards jump quickly.' in blue text.

<https://webaim.org/resources/contrastchecker/>

# Vision - Colour Contrast Analyser

The screenshot shows the Colour Contrast Analyser (CCA) application window. The title bar reads "Colour Contrast Analyser (CCA)". The menu bar includes "Colour Contrast Analyser (CCA)", "Edit", and "View". The main display area shows a "Contrast ratio" of "just below 4.5:1 (4.478:1)". Below this, there are sections for "Foreground colour" and "Background colour". The foreground colour is set to "#777777" (HEX) and the background colour is set to "#FFFFFF" (HEX), with a note "(white)" next to the background colour. A "Sample preview" section shows a dashed box containing the text "example text showing contrast" and a mouse cursor icon. At the bottom, the "WCAG 2.1 results" section lists three criteria: "1.4.3 Contrast (Minimum) (AA)" with a green checkmark and the note "Pass for large text only Fail for regular text"; "1.4.6 Contrast (Enhanced) (AAA)" with a red X and the note "Fail for large and regular text"; and "1.4.11 Non-text Contrast (AA)" with a green checkmark and the note "Pass for UI components and graphical objects".

Colour Contrast Analyser (CCA)

Colour Contrast Analyser (CCA) Edit View

**Contrast ratio** just below 4.5:1 (4.478:1)

**Foreground colour**

#777777 HEX

Background colour (white)

#FFFFFF HEX

▼ **Sample preview**

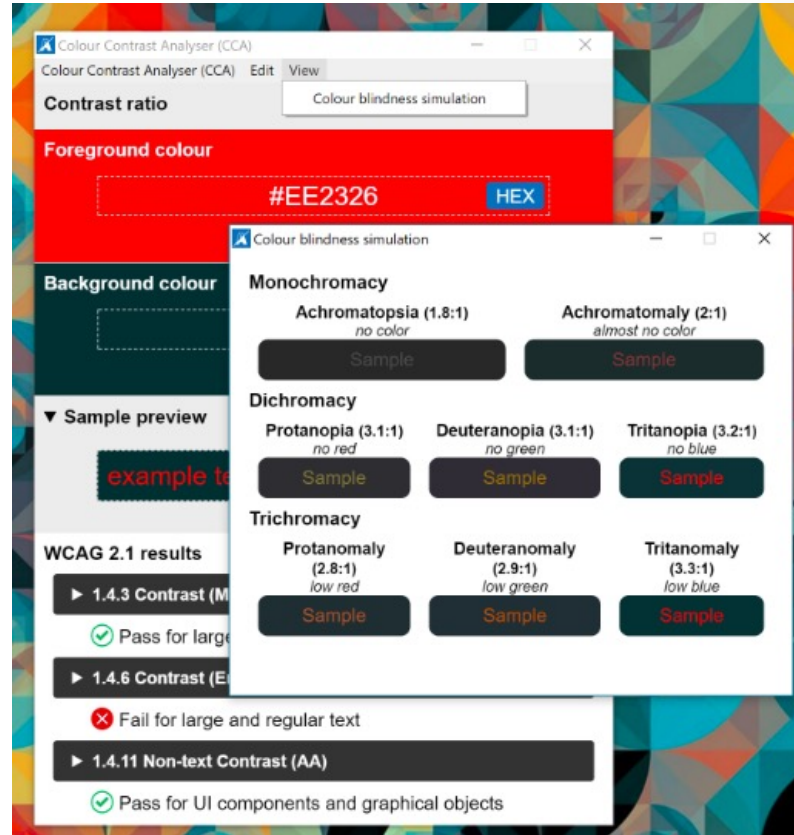
example text showing contrast

**WCAG 2.1 results**

- ▶ **1.4.3 Contrast (Minimum) (AA)**
  - ✓ Pass for large text only ✗ Fail for regular text
- ▶ **1.4.6 Contrast (Enhanced) (AAA)**
  - ✗ Fail for large and regular text
- ▶ **1.4.11 Non-text Contrast (AA)**
  - ✓ Pass for UI components and graphical objects

# Vision

Colour Contrast  
Analyser from The  
Paciello Group



<https://developer.paciellogroup.com/resources/contrastanalyser/>



# Mobility

- Disable your mouse/trackpad
- Interact with a touch screen using a stylus you hold with tweezers, chopsticks, or in your mouth
- Use your website one-handed
- Use voice recognition software only to navigate your site

# Hearing

- Turn off the sound

# Hearing

- Test audio contrast

Contrast Analysis (WCAG 2 compliance)

Contrast Analyzer, for measuring RMS volume differences between two selections of audio.

Parameters

	Start	End		Volume
Foreground:	00 h 00 m 00.00 s	00 h 00 m 00.00 s	Measure selection	<input type="text"/>
Background:	00 h 00 m 00.00 s	00 h 00 m 00.00 s	Measure selection	<input type="text"/>

Result

Contrast Result:

Difference:

<https://manual.audacityteam.org/man/contrast.html>

# Whole Analysis

- AChecker

**Check Accessibility By:**

**Web Page URL** **HTML File Upload** **Paste HTML Markup**

Address:

► [Options](#)

<https://achecker.achecks.ca/checker/index.php>

# Whole Analysis

- WAVE API  
<http://wave.webaim.org/api/>

PopeTech for WAVE  
<https://pope.tech/>

WAVE Accessibility Impact (AIM)  
<https://wave.webaim.org/aim/>

# Whole Analysis

WAVE Browser Extension - <http://wave.webaim.org/extension/>

The screenshot displays the WAVE web accessibility evaluation tool interface. On the left, a sidebar contains a 'Summary' section with the following statistics:

- WAVE has detected the following:
- 2 Errors
- 4 Alerts
- 3 Features
- 3 Structural Elements
- 53 HTML5 and ARIA
- 1 Contrast Errors

Below the summary, there are 'Panel Options' including 'DETAILS', 'DOCUMENTATION', and 'OUTLINE'. The main content area shows a Google search page with various accessibility annotations overlaid on the elements. These annotations include:

- 'alt="Google"' for the Google logo.
- 'aria-autocomplete="both", aria-haspopup="false", aria-label="Search"' for the search input field.
- 'aria-label="Google Search"' for the search button.
- 'label="I'm Feeling Lucky"' for the 'I'm Feeling Lucky' button.
- 'aria-controls="fsett"' for the settings link in the footer.

The footer of the page includes links for 'Advertising', 'Business', 'Privacy', 'Terms', and 'Settings'.

# Whole Analysis

aXe

Browser Extension

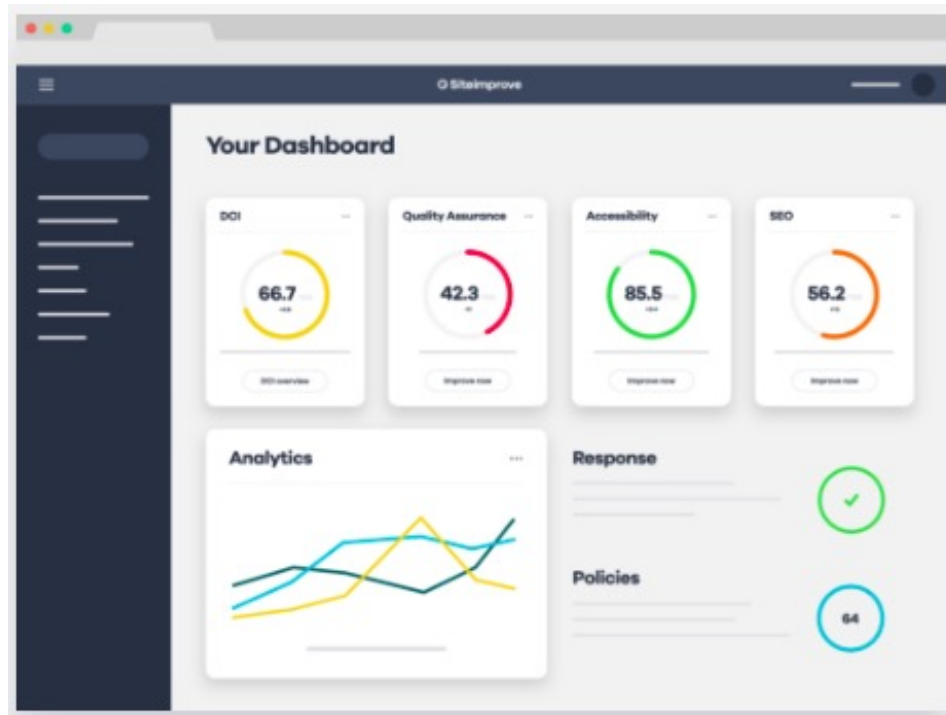
The screenshot displays the aXe browser extension interface. On the left, a sidebar shows a list of issues found: 'All issues found 77' with a 'Run again' button. Below this, a list of issues is shown, with 'Elements must have sufficient color contrast' selected, showing 74 instances. Other issues include 'Heading levels should only increase by one' (1 instance), 'Content should be contained in a landmark region' (1 instance), and 'Elements should not have tabindex greater than zero' (1 instance).

The main panel shows the details for the selected issue: 'Elements must have sufficient color contrast'. It includes an 'Issue description' stating 'Ensures the contrast between foreground and background colors meets WCAG 2 AA contrast ratio thresholds' with an impact of 'serious'. The 'Element location' is shown as `button[data-disable-with="Creating\ file.."]`. The 'Element source' is shown as `<button class="btn btn-sm BtnGroup-item" type="submit" data-disable-with="Creating file.."> Create new file </button>`. A note states 'We are not sure this is an issue, because: Element's background color could not be determined due to a background gradient'. There is a 'Related node' section with the same element location and an 'Inspect' button. At the bottom, there are radio buttons for 'This is an issue' (selected) and 'This is not an issue', a text input for 'Provide an issue description:', and 'Issue tags: category: color wcag2aa wcag143'.

<https://accessibility.deque.com/free-axe-devtools-browser-extension>

# Whole Analysis

SiteImprove - <https://siteimprove.com>





# Whole Analysis

SiteImprove free report of your site:

<https://siteimprove.com/en/accessibility/>

# Automate Tests

- Unit Tests
- Integration Tests

Writing Automated Tests for Accessibility

<https://www.deque.com/blog/writing-automated-tests-accessibility/>

# Diverse Testers

## Standard Usability Tests

- <https://www.usability.gov/how-to-and-tools/methods/usability-evaluation/index.html>
- <https://digital.gov/topics/usability-testing/>

# Live Accessibility Testing

- Allyant  
<https://allyant.com/digital-accessibility-auditing/>
- Perkins Access  
<https://www.perkins.org/access>
- AccessWorks  
<https://access-works.com/>

# Lots More Tools

Web Accessibility Evaluation Tools List

<https://www.w3.org/WAI/ER/tools/>

18F Accessibility Guide – Resources

<https://accessibility.18f.gov/>

18F Accessibility Guide – Tools

<https://accessibility.18f.gov/tools/>

# GAAD

The purpose of GAAD is to get everyone talking, thinking and learning about digital (web, software, mobile, etc.) access/inclusion and people with different disabilities.

<http://www.globalaccessibilityawarenessday.org/>



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## How We Work

We will get to know you, your business, and your customers. We will sit down with you and talk through your vision, your goals, and your budget for the project. Then, we will come up with a plan to get you where you need to be and discuss each step of that plan with you. Our goal is not to just work for you, but to work with you. After completing the work, we will make sure that you are not only happy with the solution, but feel comfortable using it. We will always make sure that you receive a high-quality product that fits your business needs and personality.

Our site upholds the following standards:

- W3C WAI-A WCAG 1.0
- W3C CSS
- W3C XHTML 1.0





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business needs. We program  
in HTML, PHP, and

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# TREELINE DESIGN

CUSTOM WEBSITE DESIGN AND PROGRAMMING

## Web Design to Bring your

At TreeLine Design, LLC, we will build a website to fit your business needs. We program and create custom graphics to make your website efficient while keeping your costs low.

## How We Work

We will get to know you, your business, and your customers. We will sit down with you to discuss your vision, your goals, and your budget. Then, we will come up with a plan to meet your needs. Our goal is not to just work for you, but to help you succeed. After completing the work, we will make sure you are not only happy with the solution, but also comfortable using it. We will always provide a high-quality product that fits your needs and personality.

Contrast ratio

6.6:1

Foreground colour

#006D05

HEX



Background colour

(white)

#FFFFFF

HEX



▼ Sample preview

example text showing contrast



WCAG 2.1 results

▶ 1.4.3 Contrast (Minimum) (AA)

✔ Pass for large and regular text

▶ 1.4.6 Contrast (Enhanced) (AAA)

✔ Pass for large text only ✘ Fail for regular text

▶ 1.4.11 Non-text Contrast (AA)

✔ Pass for UI components and graphical objects

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CUSTOM WEBSITE DESIGN AND PROGRAMMING

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## How We Work

We will get to know you, your business, and your customers. We will sit down with you to discuss your vision, your goals, and your budget. Then, we will come up with a plan to get your website need to be and discuss each step of the way. Our goal is not to just work for you, but to help you. After completing the work, we will make sure you are not only happy with the solution, but comfortable using it. We will always make sure you receive a high-quality product that fits your needs and personality.

Colour blindness simulation

### Monochromacy

**Achromatopsia (8.3:1)**

*no color*

Sample

**Achromatomaly (8:1)**

*almost no color*

Sample

### Dichromacy

**Protanopia (6.6:1)**

*no red*

Sample

**Deuteranopia (6.6:1)**

*no green*

Sample

**Tritanopia (6.6:1)**

*no blue*

Sample

### Trichromacy

**Protanomaly**

**(6.9:1)**

*low red*

Sample

**Deuteranomaly**

**(7:1)**

*low green*

Sample

**Tritanomaly**

**(6.7:1)**

*low blue*

Sample

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Our site upholds the following standards:

- W3C WAI-A WCAG 1.0
- W3C CSS ✓
- W3C XHTML 1.0 ✓

Protanopia

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- Meet Our Customers
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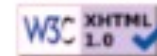
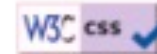
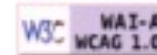
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Deutanopia

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- Contact Us Today
- Reviews

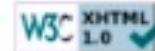
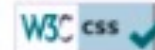
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We will get to know you, your business, and your customers. We will sit down with you and talk through your vision, your goals, and your budget for the project. Then, we will come up with a plan to get you where you need to be and discuss each step of that plan with you. Our goal is not to just work for you, but to work with you. After completing the work, we will make sure that you are not only happy with the solution, but feel comfortable using it. We will always make sure that you receive a high-quality product that fits your business needs and personality.

Our site upholds the following standards:

- W3C WAI-A WCAG 1.0
- W3C CSS ✓
- W3C XHTML 1.0 ✓

Achromatopsia

- Home
- Meet Our Customers
- Contact Us Today
- Reviews

## Web Design to Bring your Business to the Top

At Treeline Design, LLC, we will build you a dynamic website or custom web application to fit your business needs. We program in HTML, PHP, and MySQL/SQL, as well as create custom graphics to make your site stand out. It is our goal to maximize your efficiency while keeping your costs down. Let your website do the work!

## How We Work

We will get to know you, your business, and your customers. We will sit down with you and talk through

Our site upholds the

Elements Console Sources Network Performance Memory Application Security Audits Adblock Plus axe

**Page must have one main landmark**  
[Inspect Node](#) [Highlight](#)

All issues found 18 Run again

Page must have one main landmark	1
All page content must be contained by landmarks	1
Elements must have sufficient color contrast	16

**Issue description**  
Ensures the page has only one main landmark and each iframe in the page has at most one main landmark  
Impact: moderate [Learn more](#)

**To solve this violation, you need to:**  
Fix the following:  
Page does not have a main landmark



Element location  
html

Element source  
`<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">`

Issue tags: category: semantics best-practice



Elements | Console | Sources | Network | Performance | Memory | Application | Security | Audits | Adk

All issues found 18 ▾ [Run again](#)

Page must have one main landmark	1
All page content must be contained by landmarks	1
<b>Elements must have sufficient color contrast</b>	<b>16</b>

### Elements must have sufficient color contrast

[Inspect Node](#) [Highlight](#)

Element source

```
<div id="header">Treeline Design</div>
```

**We are not sure this is an issue, because:**

Element's background color could not be determined due to a background image

Related node:

[Inspect](#)

```
#container4
```

This is an issue  This is not an issue

[SAVE](#)

Issue tags: category: color wcag2aa wcag143

Address: treelinedesign.com

Styles: OFF ON

### Summary

- Summary
- Details
- Reference
- Structure
- Contrast

0  
Errors

5  
Contrast Errors

1  
Alerts

7  
Features

3  
Structural  
Elements

0  
ARIA

View details >

The following apply to the entire page:



The following apply to the entire page:



### No page regions

No page regions or ARIA landmarks were found.

REFERENCE

CODE

TREELINE



CUSTOM



Web Design to Bring your Business to the Top

At Treeline Design, LLC, we will build you a dynamic web application



\*You are here - image: Leaf\*



Home



Leaf



web accessibility evaluation tool

powered by  
[WebAIM](#)

Address:

Styles: OFF  ON

## Details

Summary Details Reference Structure Contrast

### 5 Contrast Errors

5 X Very Low Contrast



### 1 Alerts

1 X No page regions



### 7 Features

4 X Alternative text



3 X Linked image with alternative text



### 3 Structural Elements

The following apply to the entire



# TREELINE DESIGN

CUSTOM WEBSITE DESIGN AND PROGRAMMING

## h1 Web Design to Bring your Business

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## h1 How We Work

We will get to know you, your business, and your customers. We will sit down with you and talk through your vision, your goals, and your budget for the project. Then, we will come up with a plan to get you where you need to be and discuss each step of that plan with you. Our goal is not to just work for you, but to work with you. After completing the work, we will make sure that you are not only happy with the solution, but feel comfortable using it. We will always make sure that you receive a high-quality product that fits your business needs and personality.

HTML, PHP, and MySQL/SQL as well as  
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REFERENCE CODE

W3C WAI-A  
 WCAG 1.0 \*Level A

conformance icon, W3C-WAI  
 Web Content Accessibility  
 Guidelines 1.0\*

W3C CSS ✓ \*Valid

CSS!\*

W3C XHTML  
 1.0 ✓ \*Valid

XHTML 1.0 Transitional\*

Linked image with  
 alternative text

Alternative text is present for an  
 image that is within a link.

# Learn More - Design

- Inclusive Design Principles  
<https://inclusivedesignprinciples.org/>
- Inclusive Design 24  
<https://inclusivedesign24.org/>
- The Paciello Group: cupper  
<https://github.com/ThePacielloGroup/cupper>
- Nutrition Cards for Accessible Components  
<https://davatron5000.github.io/a11y-nutrition-cards/>

# Learn More - Tools

- An Introduction to Screen Readers (Webinar)  
<https://accessibility.deque.com/live-webinar-introduction-to-screen-readers>
- Facebook's Alt Tag AI  
<https://newsroom.fb.com/news/2016/04/using-artificial-intelligence-to-help-blind-people-see-facebook/>

# Ironic?

Using Artificial Intelligence to Help Blind People 'See' Facebook

Read more about the development of automatic alt text [here](#) and [here](#).



# Status of Platforms

- HTML5 Accessibility  
<https://www.html5accessibility.com/>
- HTML5 Implementation Status  
<http://stevefaulkner.github.io/html-mapping-tests/>
- Android and iOS Mobile Testing Guide  
[https://developer.paciellogroup.com/downloads/TPG\\_Mobile\\_Testing\\_Guide.pdf](https://developer.paciellogroup.com/downloads/TPG_Mobile_Testing_Guide.pdf)
- Windows Accessibility Options  
<https://www.microsoft.com/en-us/windows/accessibility-features>  
Apple Accessibility Options  
<https://www.apple.com/accessibility/>

# Standards

- Section 508 Guidelines and Resources  
<https://www.section508.gov/>
- United States Laws relating to 508 Standards  
<https://www.w3.org/WAI/policies/united-states/>
- VFO Standards  
<https://github.com/FreedomScientific/VFO-standards-support>
- Web Content Accessibility Guidelines  
<https://www.w3.org/WAI/standards-guidelines/wcag/>
- ADA Standards for Accessible Design  
[https://www.ada.gov/2010ADAstandards\\_index.htm](https://www.ada.gov/2010ADAstandards_index.htm)

# Standards Help

- Use Assistive Technology to Comply with Section 508  
<https://www.youtube.com/watch?v=4XJcswWmmAw>
- HTML 508 Process and Checklist  
<https://www.hhs.gov/web/building-and-managing-websites/development-process-and-milestones/index.html>

# Resources - Tools

- W3C WAI Web Accessibility Evaluation Tools List  
<https://www.w3.org/WAI/ER/tools/>
- Juicy Studio Accessibility Resources:  
<http://juicystudio.com/services.php>
- Top 25 Awesome Accessibility Testing Tools for Websites  
<https://dynamapper.com/blog/27-accessibility-testing/246-top-25-awesome-accessibility-testing-tools-for-websites>
- TPGi: Accessibility Testing Tools  
<https://www.tpgi.com/accessibility-testing-tools-we-use/>

# Resources - Persuasion

- Stories of Web Users  
<https://www.w3.org/WAI/people-use-web/user-stories/>
- WAI Tools & Techniques  
<https://www.w3.org/WAI/people-use-web/tools-techniques/>
- Mythbuster's Guide to Accessibility  
<https://medium.com/the-u-s-digital-service/mythbusters-guide-to-accessibility-92ccd88655c6>
- Usability.gov's Accessibility Page  
<https://accessibility.digital.gov/product/accessibility-basics/>

# Additional Articles

- "Not All Screen Reader Users Are Blind" by Adrian Roselli  
<http://adrianroselli.com/2017/02/not-all-screen-reader-users-are-blind.html>
- "The Accessibility of Styled Form Controls & Friends"  
[https://scottaohara.github.io/a11y\\_styled\\_form\\_controls/](https://scottaohara.github.io/a11y_styled_form_controls/)
- "Lessons in iOS Voiceover Accessibility"  
<https://medium.com/aaptiv-engineering/lessons-in-ios-voiceover-accessibility-834c5ed9a374>
- "The Importance Of Manual Accessibility Testing"  
<https://www.smashingmagazine.com/2018/09/importance-manual-accessibility-testing/>
- "Involving Users in Evaluating Web Accessibility"  
<https://www.w3.org/WAI/test-evaluate/involving-users/>

# More Additional Articles

- "5 accessibility tests you can do in 5 minutes"  
<https://openinclusion.com/blog/5-accessibility-tests/>
- "The 6 Simplest Web Accessibility Tests Anyone Can Do"  
<http://www.karlgroves.com/2013/09/05/the-6-simplest-web-accessibility-tests-anyone-can-do/>
- "Easy Checks - A First Review of Web Accessibility"  
<https://www.w3.org/WAI/test-evaluate/preliminary/>
- "Handling common accessibility problems"  
[https://developer.mozilla.org/en-US/docs/Learn/Tools\\_and\\_testing/Cross\\_browser\\_testing/Accessibility](https://developer.mozilla.org/en-US/docs/Learn/Tools_and_testing/Cross_browser_testing/Accessibility)

# Takeaways

- Accessibility testing doesn't have to be expensive.
- A diverse testing group means better testing.
- Improving accessibility helps everyone.



# Find Me

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