Accessibility for the Visually Impaired

Josie Grundler

Color Blindness

- X-Linked Inheritance
- Red (protan), green (deutran), blue (tritan) cone photopigments
- Red-Green Color Blindness
  - Protanomaly, Protanopia, Deuteranomaly, Deuteranopia
- Blue-Yellow Color Blindness
  - Tritanomaly, Tritanopia
- Complete color blindness
  - Don't see any colors & have other visual impairments
  - Cone monochromacy, Rod monochromacy or achromatopsia

https://nei.nih.gov/health/color_blindness/facts_about

CAL POLY

Search

LEARN BY DOING

APPLY NOW   EXPLORE STUDENT LIFE

MAPS   PARKING   VISIT

CAL POLY

Search

Admissions & Aid   Majors & Colleges   Research   Alumni   Campus Life   Athletics   About

LEARN BY DOING

APPLY NOW   EXPLORE STUDENT LIFE

MAPS   PARKING   VISIT

CAL POLY

Search ❯

Admissions & Aid   Majors & Colleges   Research   Alumni   Campus Life   Athletics   About

LEARN BY DOING

APPLY NOW   EXPLORE STUDENT LIFE

MAPS   PARKING   VISIT

Color Blindness

- Normal
- Protanopia
- Deuteranopia

calpoly.edu

Standards for Accessibility

Good Contrast | Bad Contrast

- Contrast Ratio
- American Foundation for the Blind (AFB)
- Americans with Disabilities Act (ADA)
- WCAG
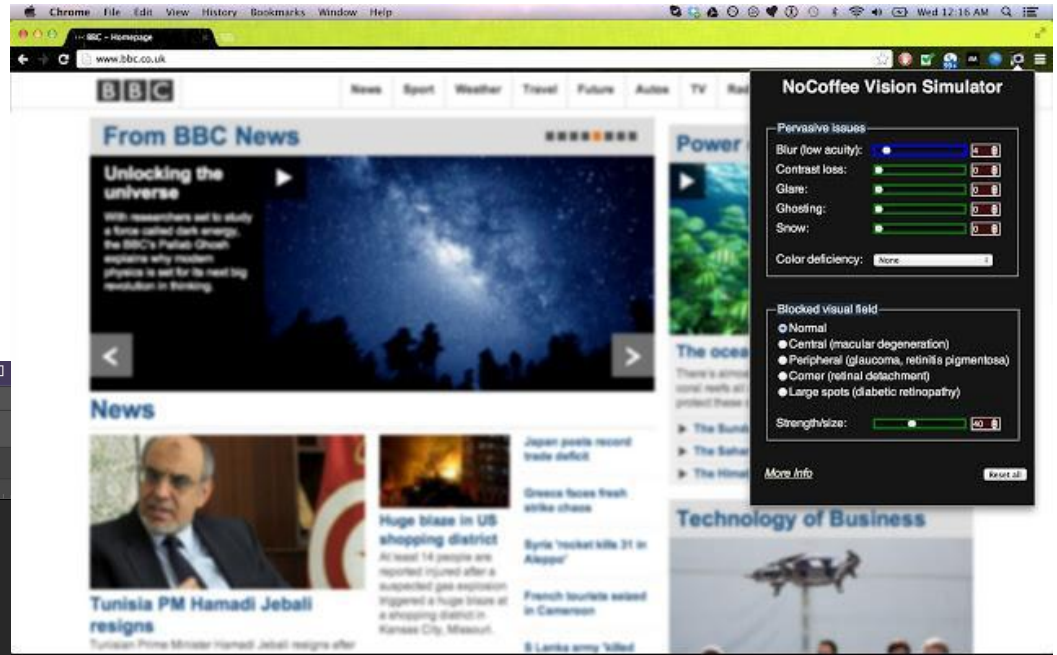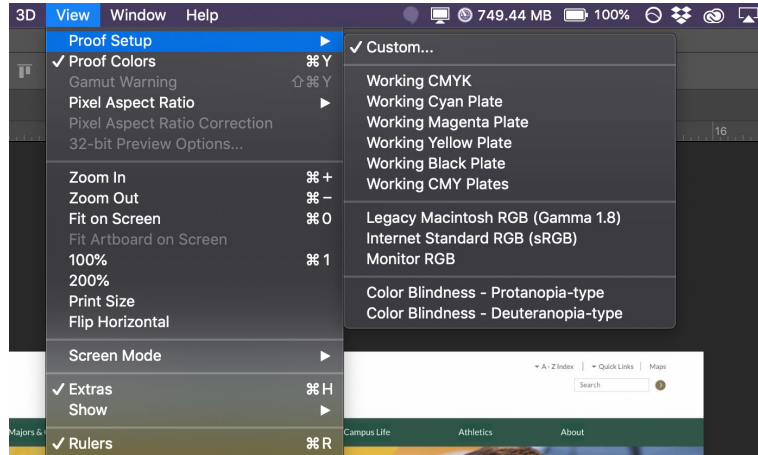 - "4.5:1 contrast ratio at Level AA and a 7:1 contrast ratio at Level AAA"

https://css-tricks.com/accessibility-basics-testing-your-page-for-color-blindness/

https://webaim.org/blog/wcag-2-0-and-link-colors/

Filters

- Photoshop
- NoCoffee - Chrome Extension

Evaluating

- Color Contrast Checker
- Color Contrast Analyzer
- Alt Text

https://chrome.google.com/webstore/detail/color-contrast-analyzer/dagdlcijhfbmgkjokkjicnnfimlebcll

Color Contrast Checker

Home > Resources > Color Contrast Checker

Foreground Color	Background Color	Contrast Ratio
#0000FF	#FFFFFF	**8.59**:1
Lightness	Lightness	permalink

Normal Text

WCAG AA: **Pass**
WCAG AAA: **Pass**

The five boxing wizards jump quickly.

Large Text

WCAG AA: **Pass**
WCAG AAA: **Pass**

The five boxing wizards jump quickly.

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

WAVE
web accessibility evaluation tool

calpoly.edu

Styles | No Styles | Contrast

Summary

WAVE has detected the following:

- **2 Errors**
- **193 Alerts**
- **28 Features**
- **109 Structural Elements**
- **36 HTML5 and ARIA**
- **0 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 the web page.

Current Students Future Students Parents

my CalPoly login

▼ A - Z Index

Quick Links Maps

CAL POLY

Search alt *Submit Search Query*

Admissions & Aid Majors & Colleges ² Research ² Alumni ² Campus Life ² Athletics ² About ²

http://wave.webaim.org/

Thank you!

jgrundle@calpoly.edu