

# J220

## Coding for Journalists

LECTURERS

Yoli Martinez and Soo Oh

### PROMPTS

Go to [colororacle.org](https://colororacle.org) to download and install the Color Oracle program. You may have to restart your computer after.

start Zoom recording + captions

# Agenda

Announcements

Guest Speaker: Holden Foreman

## **BREAK**

Homework review

Lecture: Accessibility, tools

Next week's homework

In-class exercise: VoiceOver

# Announcements

No class next week! (Presidents' Day)

# Guest Speaker:

**Holden Foreman, The Washington Post**

# What questions do you have?

# Break

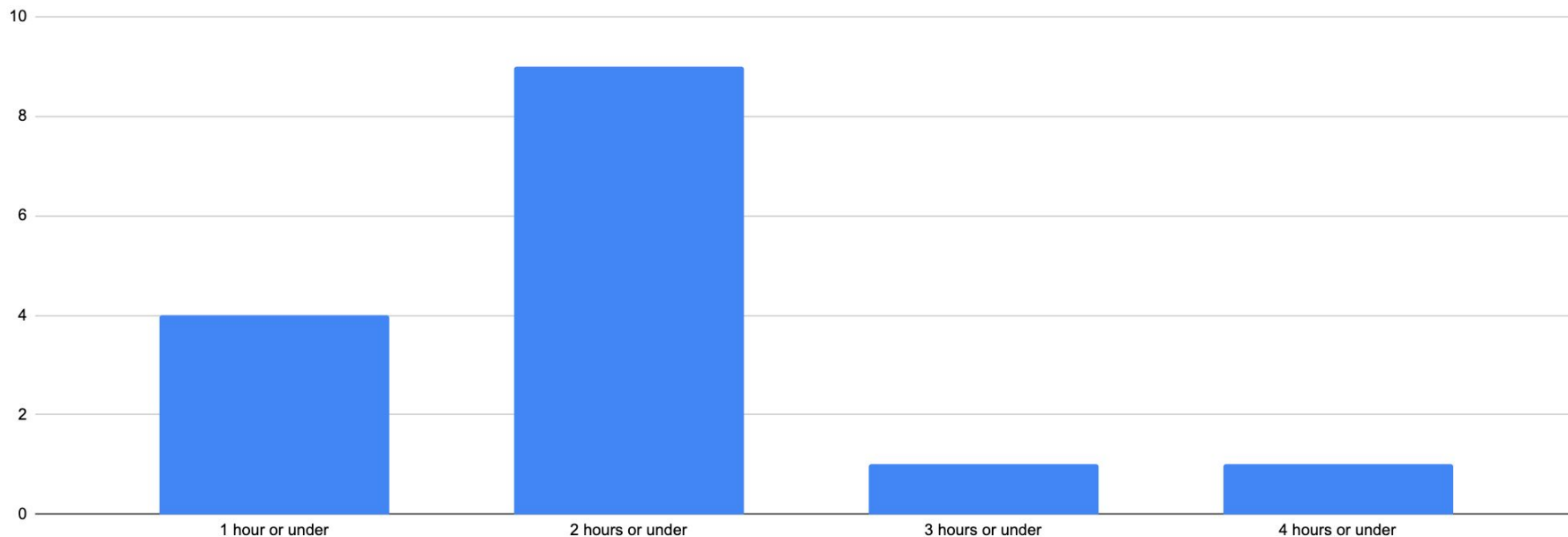
Meet back in 15 minutes.

start Zoom recording + captions



# How much time spent on J220 last week

Week 02-06: Number of students grouped by hours spent outside of lecture and office hours



# Homework Review

## Table

| Course Number                 | J221                        | J233            | J220                  | J296                 |
|-------------------------------|-----------------------------|-----------------|-----------------------|----------------------|
| Semester                      | Fall                        | Fall            | Spring                | Spring               |
| Course title                  | Intro to Data Visualization | Advanced Coding | Intro to Coding       | Data Journalism      |
| Languages or programs learned | R                           | Python          | HTML, CSS, JavaScript | Google Sheets, Excel |
| Instructors                   | Peter Aldhous               | Soo Oh          | Yoli Martinez, Soo Oh | Dana Amihere         |

```

<table>
  <caption>Classes involving code and data at the School of
  Journalism</caption>
  <thead>
    <tr>
      <th scope="row">Course Number</th>
      <th scope="col">J221</th>
      <th scope="col">J233</th>
      <th scope="col">J220</th>
      <th scope="col">J296</th>
    </tr>
  </thead>
  ...
  ...

```

# Accessibility

You've already been learning it!

Hearing

Visual

Mobility

Cognitive

# Designing around accessibility

Once you start making more complex websites, it is difficult to make every part of it 100% accessible to everybody.

There are sometimes legal reasons why a website should be accessible, but laws are not always the basis to do something.

Do your best with accessibility.

# What you've already learned

- Semantic HTML
- Alt text on images

This is already more accessible than the vast majority of websites on the Internet.

# When to not use `img alt` text

Don't use alt text if you already have a description caption nearby.

A screen reader will read both the alt text and the caption.

**Review from  
last week!**

```
<figure>

  <figcaption>Close-up shot of a
  blue flower by photographer
  Soo Oh.</figcaption>

</figure>
```

# When to not use `img alt` text

Instead, leave the alt text attribute blank.

```
<figure>

  <figcaption>Close-up shot of a
  blue flower by photographer
  Soo Oh.</figcaption>

</figure>
```

# When to not use `img alt` text

Use alt text if the caption isn't a description of the image.

```
<figure>

  <figcaption>Credit: Soo
  Oh.</figcaption>

</figure>
```



# Specifying language

“You should always include the `lang` attribute inside the `<html>` tag, to declare the language of the Web page. This is meant to assist search engines and browsers” — [W3Schools](https://www.w3schools.com/html/html_meta.asp)

```
<html lang="en">  
...  
</html>
```

# Languages

## Plain language

PROPUBLICA

Donate

Many people think Arizona does a good job helping people with developmental disabilities. But some people have problems getting help. It can be confusing. People wait a long time.

These are stories about people who had problems getting help in Arizona.

Developmental disabilities are sometimes called DD.

There are many kinds of DD. Some of them are:

- Cerebral palsy
- Autism
- Intellectual disability
- Epilepsy

The place that helps people with DD in Arizona is called the Division of Developmental Disabilities. It is sometimes called DDD.

Kyra Wade is 11 years old. She likes:

- The color pink
- The movie “Monsters, Inc.”
- Watching people laugh
- Noodles and rice

## Original

PROPUBLICA

Donate

Kyra Wade's favorite color is pink. The 11-year-old likes road trips and the movie “Monsters, Inc.” She loves to watch people laugh. Her culinary preferences run to noodles and rice.

Beyond that, her parents don't know much about her needs and wants.

Kyra is autistic and profoundly deaf. She was born premature at about 27 weeks, just a little over 2 pounds, which has impacted pretty much everything: eyesight, hearing, digestion, sleep patterns. A strong tremor in her hand makes it impossible for her to use American Sign Language. Her parents think she recognizes a couple dozen signs.

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### Listen to the Story

Play the audio

They know she's frustrated. Kyra often smacks herself on the side of the head with her hand or bites her palm so hard she draws blood, said her mother, Ka Wade. The Wades assume she is doing it when she is in pain. Kyra is not potty trained, but she got her period recently. Ka couldn't explain what was happening.

The Wades moved to Arizona in the summer of 2017 with the expectation that services

## Spanish

PROPUBLICA

Donate

El color favorito de Kyra Wade es el rosa. A esta niña de 11 años le gustan los viajes por carretera y la película “Monsters, Inc.”. Le encanta ver reír a la gente. Sus preferencias culinarias se inclinan hacia los fideos y el arroz.

Aparte de eso, sus padres no saben mucho sobre sus necesidades y deseos.

Kyra es autista y profundamente sorda. Nació prematura, a las 27 semanas y pesando un poco más de 2 libras, lo cual le ha afectado en casi todo: la vista, el oído, la digestión, los patrones de sueño. Tiene un fuerte temblor en la mano que le impide usar el lenguaje de señas americano. Sus padres creen que reconoce un par de docenas de señas.

Saben que está frustrada. Con frecuencia, Kyra se golpea en un lado de la cabeza con la mano o se muerde la palma de la mano con tanta fuerza que le sale sangre, dijo su madre, Ka Wade. Los Wade suponen que lo hace cuando tiene dolor. Kyra no sabe ir al baño, pero recientemente comenzó a menstruar. Ka no pudo explicarle lo que estaba pasando.



Los Wades se mudaron a Arizona en el verano de 2017, con la expectativa de que los servicios proporcionados por el estado les ayudarían a cuidar de Kyra. Arizona gozaba desde hacía mucho tiempo de prestigio como uno de los mejores lugares del país para las personas con discapacidades de desarrollo y sus familias. Gracias a un programa especial de Medicaid creado en 1988, Arizona tenía un sistema

# Good link text

[Here's good link text on accessibility.](#)

[This](#) is a bad one.

Accessibility is fun to learn. [Click here](#) for more info. (In case you didn't know, that was bad link text, too.)

# Which side is easier to read?

## Which text is easier to read?

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Start the presentation to see live content. For screen share software, share the entire screen. Get help at [pollev.com/app](https://pollev.com/app)

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Start the presentation to see live content. For screen share software, share the entire screen. Get help at [pollev.com/app](https://pollev.com/app)

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## Which text is easier to read?

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>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent euismod felis ut dignissim fermentum. Quam efficitur nibh est. Aliquam posuere semper ex vestibulum. Vestibulum elementum habitasse posuere arcu non eros sapien blandit. Sed at lacus lacinia non eget mauris.



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# Which side is easier to read?

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Sed at lacus  
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# Which side is easier to read?

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sapien bland

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>Lorem ipsum dolor sit amet, consectetur  
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sed posuere fermentum. Donec efficitur  
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>Lorem ipsum dolor sit amet, consectetur  
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Lorem ipsum dolor sit amet, consectetur  
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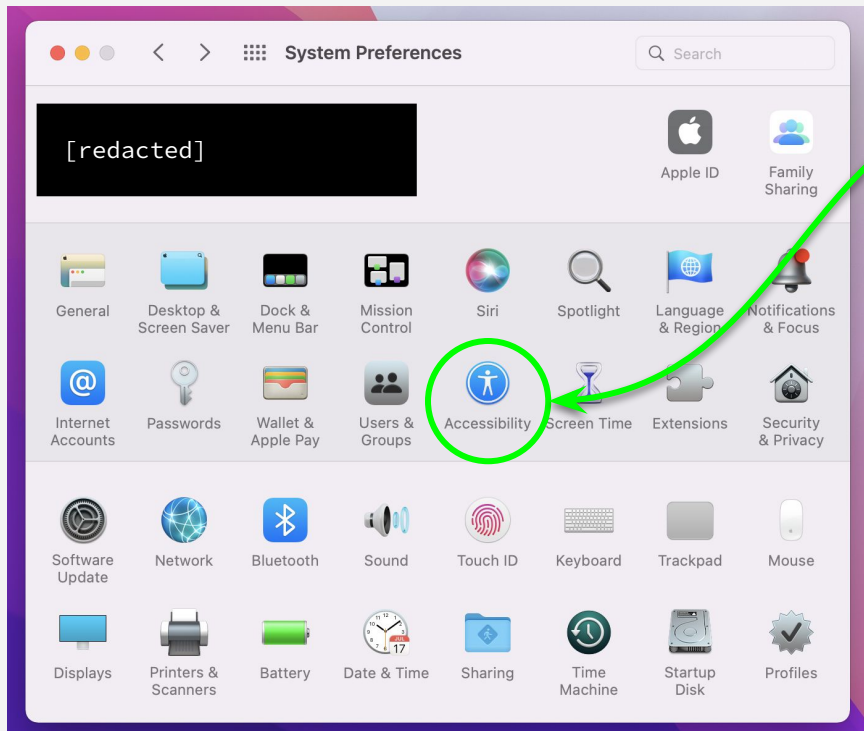


# Using a screen reader

On a Macbook

**Plug in your  
headphones  
or  
Mute your  
laptop**

# Open **System Preferences**

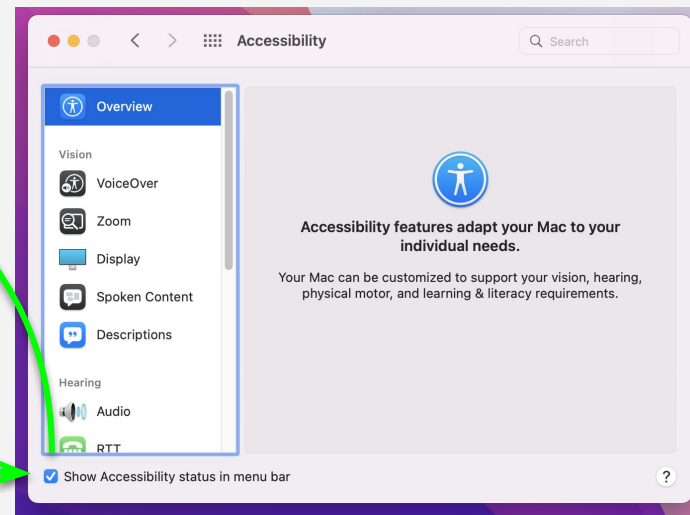


Select Accessibility from your System Preferences window.

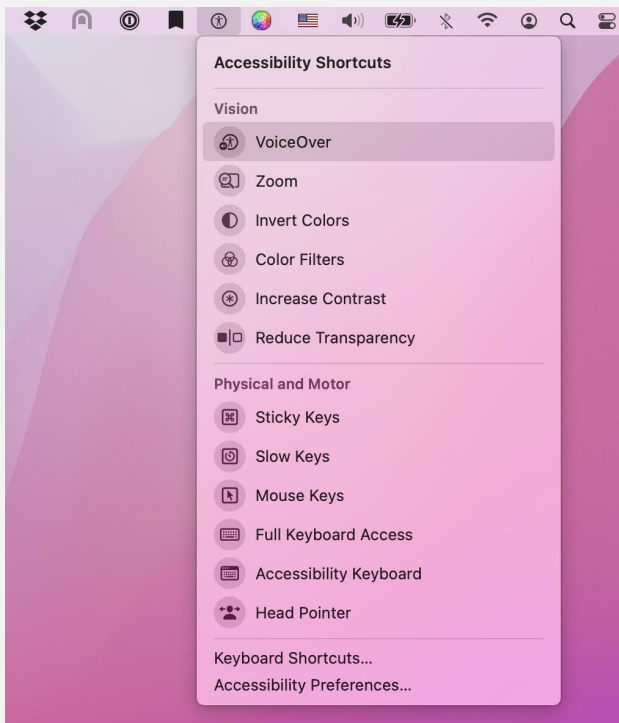
# Show Accessibility status in menu bar



Check this box off. This allows you to access Accessibility features fast (and turn them off fast).



# Trying out VoiceOver



Now go to the Accessibility icon in the menu bar.

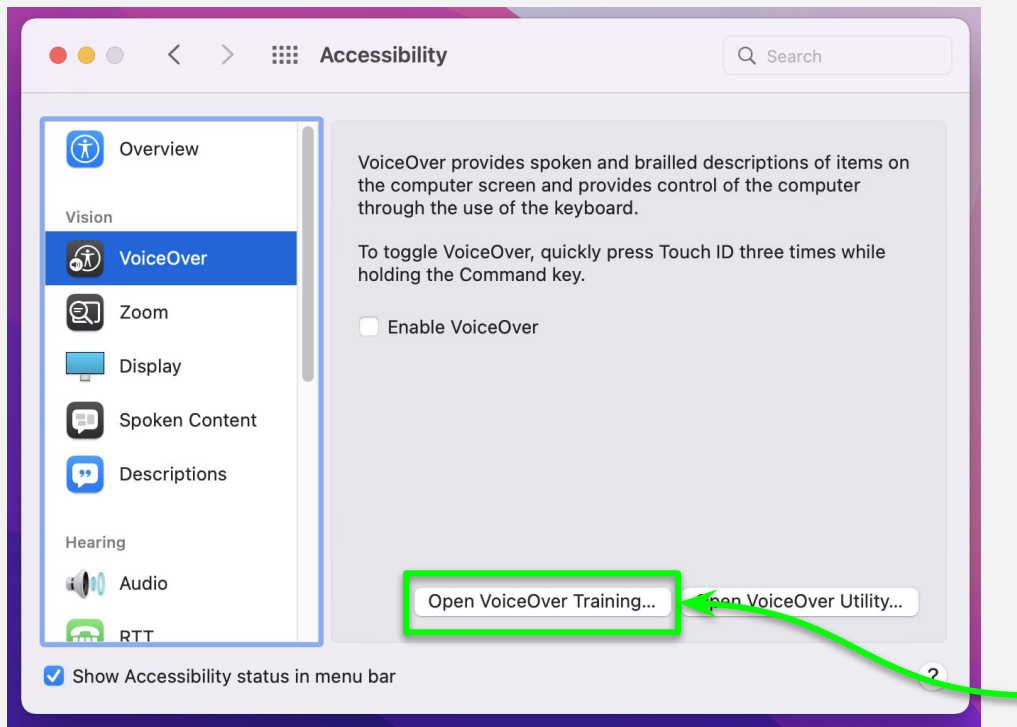
There are lots of ways websites and software can make their content accessible.

For today, we'll be using VoiceOver.

**Last chance to  
plug in your  
headphones  
or mute your  
laptop**

**Demo time**

# VoiceOver stats



Only 13% of screen reader users use **VoiceOver**, according to accessibility nonprofit WebAim.

The most popular screen readers, **NVDA** and **JAWS**, requires Windows and/or payment.

We'll take the training program at the end of class.



# Accessibility Tools

# Accessibility Checklist: WAI standards

The World Wide Web Consortium (W3C) is an international organization that creates web standards.

They have have a Web Accessibility Initiative (WAI) which created the **Web Content Accessibility Guidelines (WCAG)**

# Accessibility Checklist: WAI standards

There have been a few WCAG versions (2.0 release in 2008 and 2.1 released in 2018) as people from the community learn and solve problems.

Version 2.2 is suppose to be released in April.

WCAG 3 is in the works! You can find a [working draft of WCAG3](#) on their site.

# Accessibility Checklist: WAI standards

You can review the [current WCAG 2.1 Guidelines](#). For testing, they have created some preliminary easy checks.

Let's review:

<https://www.w3.org/WAI/test-evaluate/preliminary/>

## Scope

These checks cover just a few accessibility issues and are designed to be quick and easy, rather than definitive. A web page could seem to pass these checks, yet still have significant accessibility barriers. More robust assessment is needed to evaluate accessibility comprehensively.

This page provides checks for the following specific aspects of a web page. It also provides guidance on [Next Steps](#) and links to more [evaluation resources](#).

### Checks on this page:

- [Page title](#)
- [Image text alternatives \("alt text"\)](#) (pictures, illustrations, charts, etc.)
- *Text:*
  - [Headings](#)
  - [Contrast ratio \("color contrast"\)](#)
  - [Resize Text](#)
- *Interaction:*
  - [Keyboard access and visual focus](#)
  - [Forms, labels, and errors](#) (including Search fields)
- *General:*
  - [Moving, Flashing, or Blinking Content](#)
  - [Multimedia \(video, audio\) alternatives](#)
  - [Basic Structure Check](#)

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  - [Resize Text](#)
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  - [Keyboard access and visual focus](#)
  - [Forms, labels, and errors](#) (including Search fields)
- *General:*
  - [Moving, Flashing, or Blinking Content](#)
  - [Multimedia \(video, audio\) alternatives](#)
  - [Basic Structure Check](#)

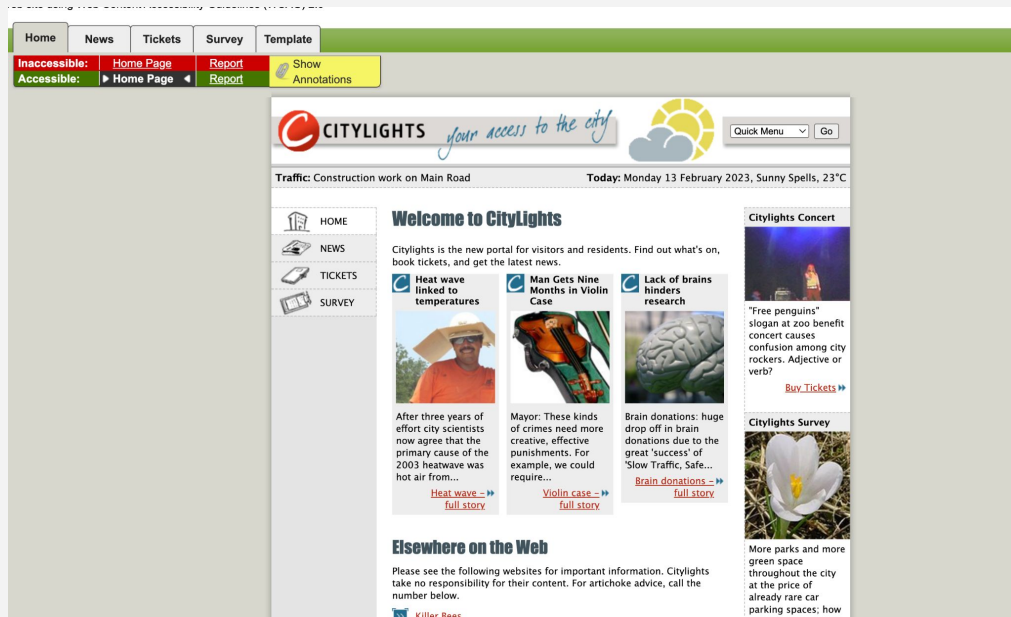
**Demo time**

# Accessibility Checklist: WAI standards

Remember, one of the key points to creating accessibility websites comes down non-visuals decisions.

We'll use this WAI tool to compare some websites

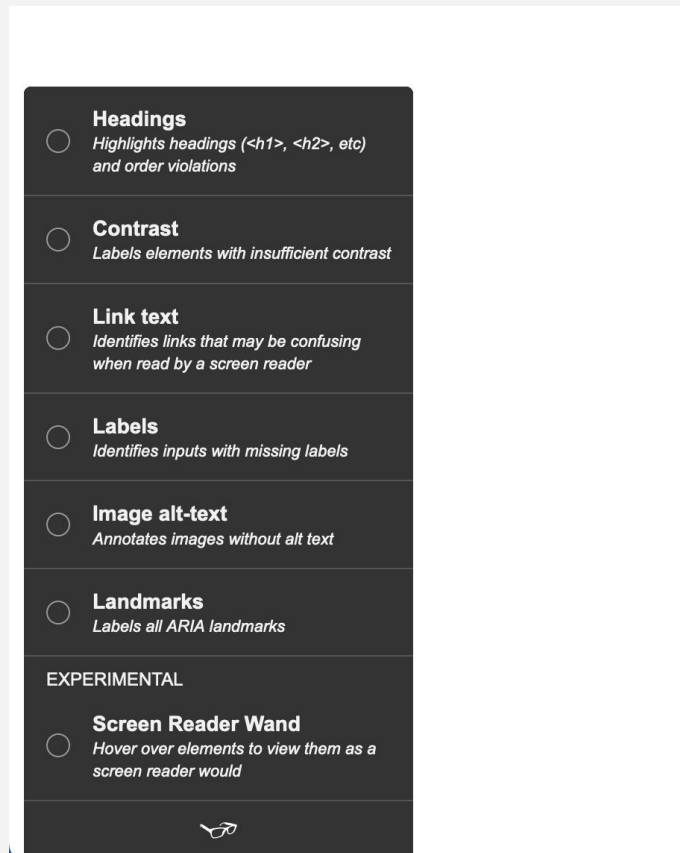
<https://www.w3.org/WAI/demos/bad/after/home.html>



# Tools: Total1y

This bookmark created by Khan Academy runs a script to check for several accessibility pitfalls.

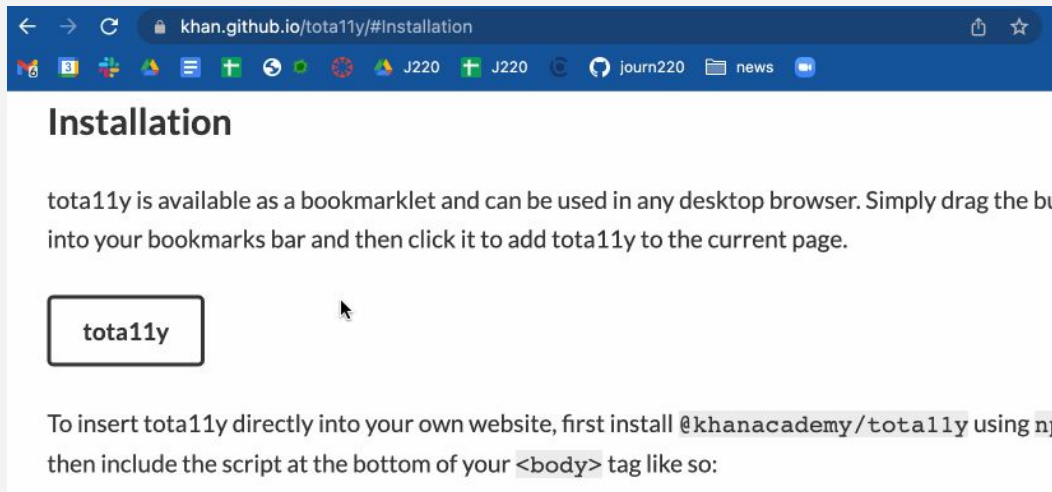
<https://khan.github.io/total1y/#installation>



# Tools: Tota11y

Go to this website: <https://khan.github.io/tota11y/#Installation>

Drag the button into your bookmarks bar:

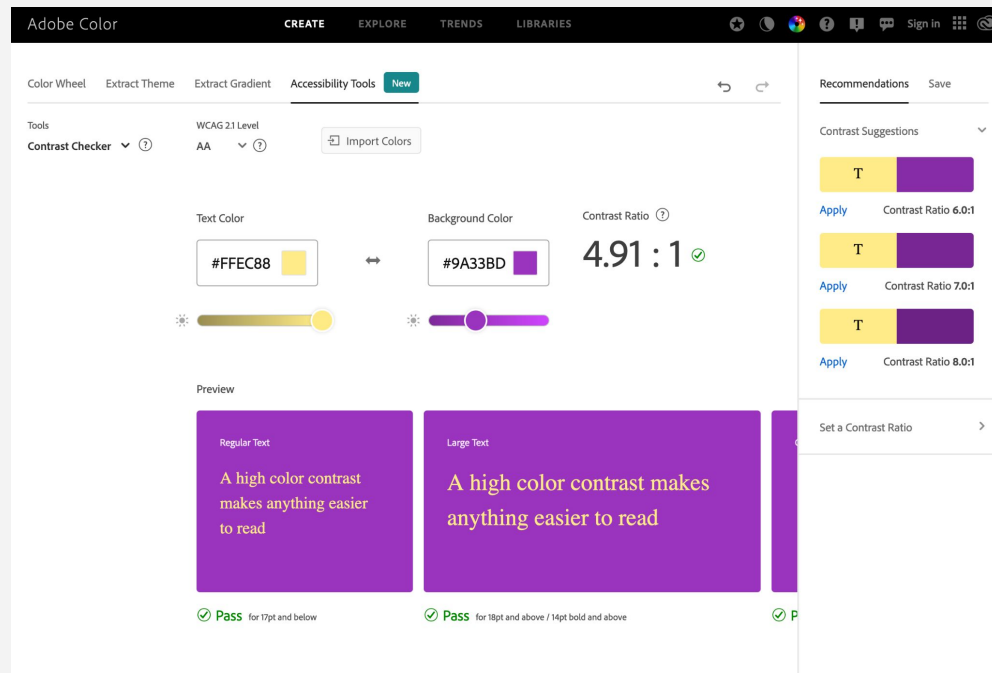


**Demo time**



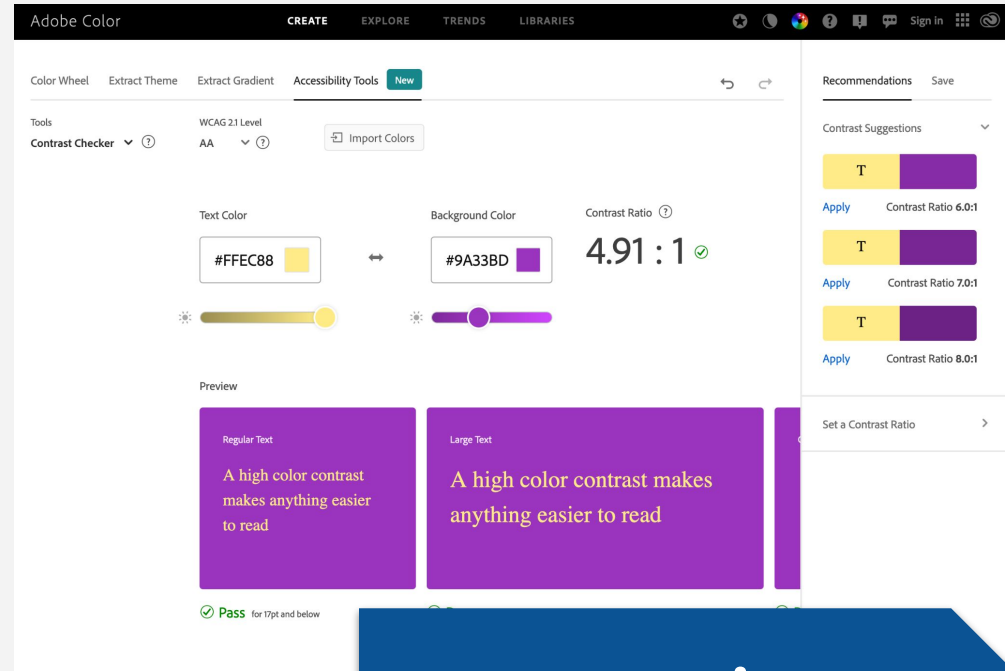
# Tools: Adobe Color

Using WCAG accessibility rules for font size and color contrast, the [Adobe Color tool](#) helps you select text and background colors



# Tools: Adobe Color

Using WCAG accessibility rules for font size and color contrast, this tool helps you select text and background colors

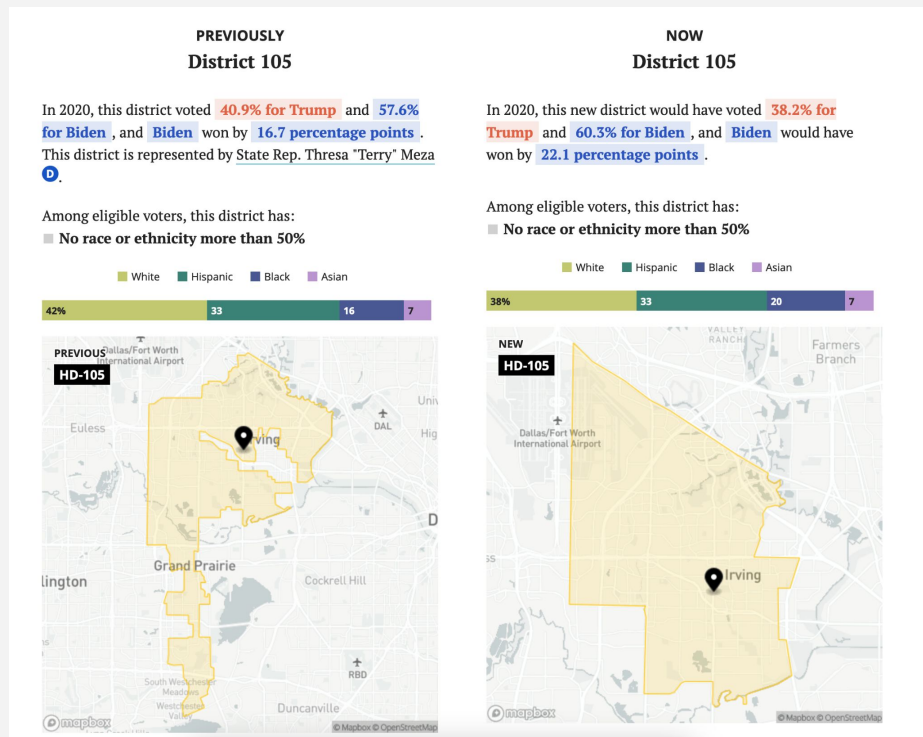


**Demo time**

# Tools: Color Oracle

Color Oracle lets you simulate for several types of color blindness.

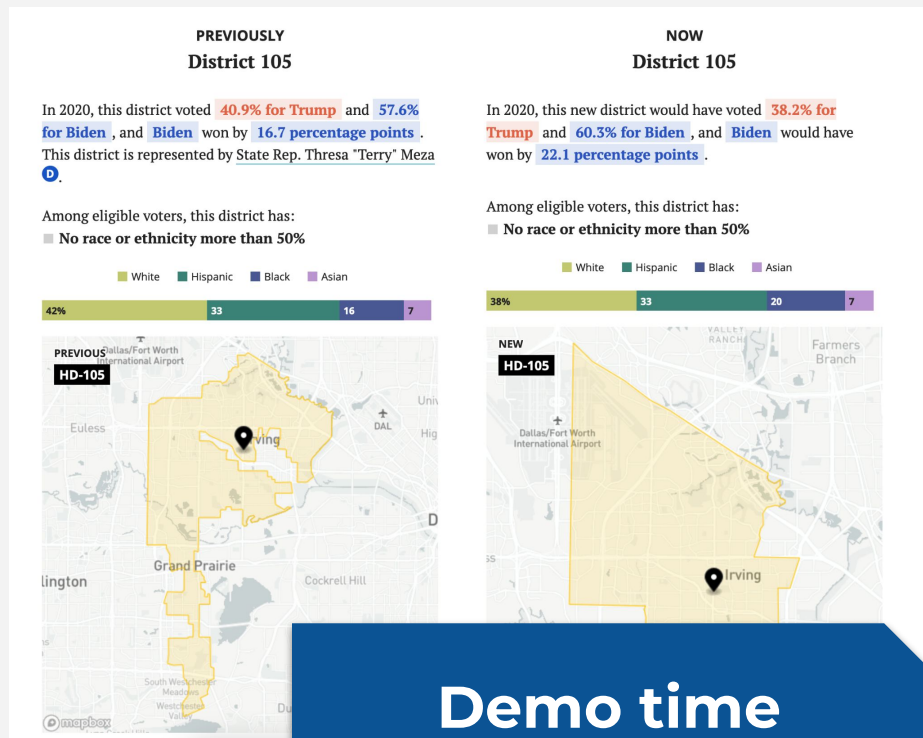
Color blindness affects about 1 in 12 men (8%) and 1 in 200 women. There are a lot of tools to check for this accessibility component.



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# Data viz color schemes

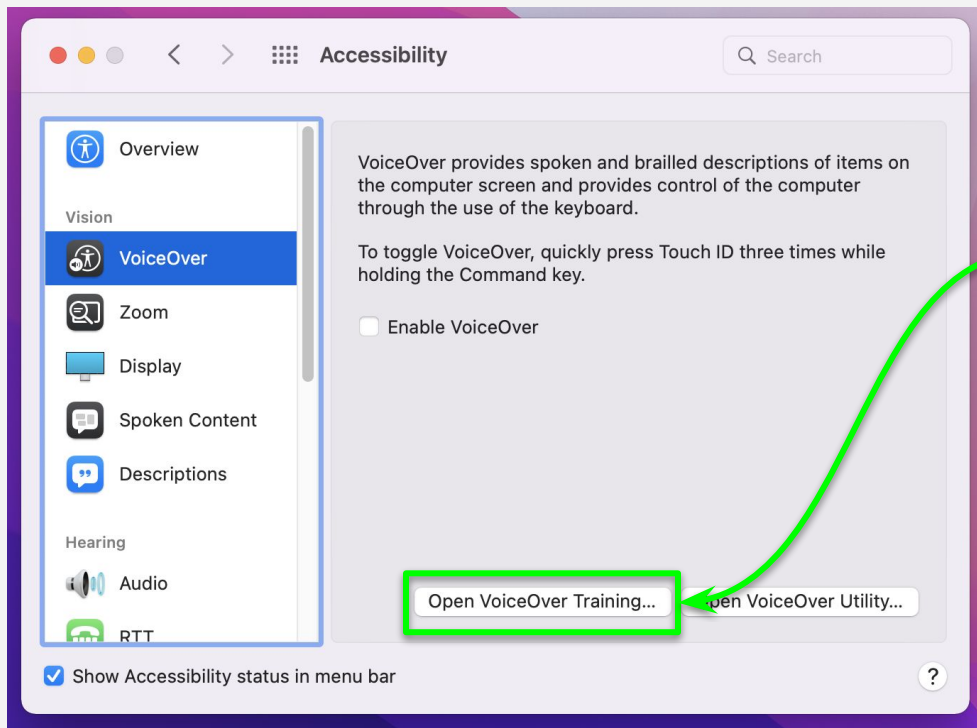
[Colorbrewer2.org](https://colorbrewer2.org) is a great website to look at color schemes for data visualizations.

# Homework

Assignment 02-13 in bCourses

Optional recommended items: <https://journ220.github.io>

# In-class exercise



Let's take the VoiceOver training program on our own quietly.

After you're done, you can go home or stay to work on homework.