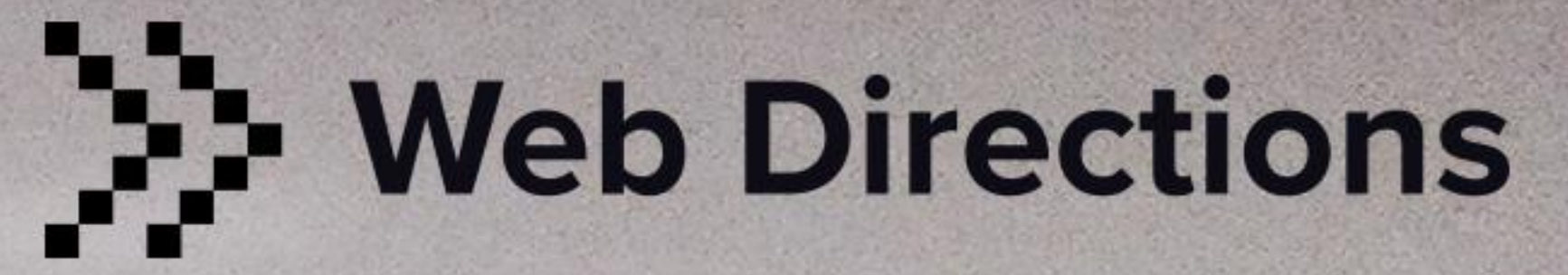


Today is Friday 12 April 2019



# Designing for Learning Difficulties

@cliener

Web Directions Design • Melbourne • April 2019



# cliener

Text April 09, 2019

## ABOUT



Short and sharp adventures in web and mobile development.

## PEOPLE I FOLLOW

## Designing for Learning Difficulties @ Web Directions Design 2019

Type not lest ye get a 404! I reference a number of different web sites as part of my [Web Directions Design](#) talk as below. I've also added a few extra links that helped influence the talk but weren't directly referenced.

Most of the information covering the formation of written languages and dyslexia were sourced from the in-service course @sazzari took and her many years' experience as a teacher.

<https://cliener.tumblr.com/>











@sazzarj

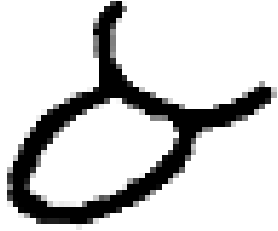
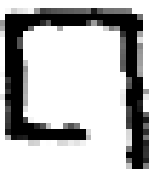

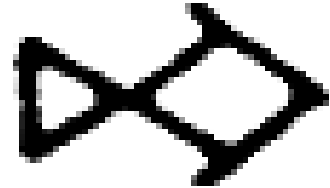
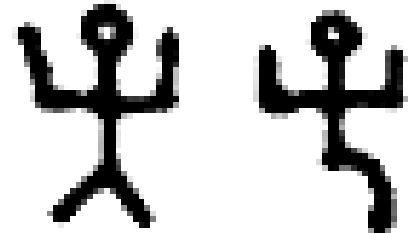











PROTO-CANAANITE	EARLY LETTER NAMES AND MEANINGS
	alp    oxhead
	bet    house
	gaml    throwstick
	dagg    fish
	ho(?)    man calling
	wō (waw)    mace
	et(n)    ?







火



山



火山



動物



Mi



Mi chiamo



bruschetta



Ich



mich



Schule



# Engagement







the



them



theme



horse



worse



Thomson

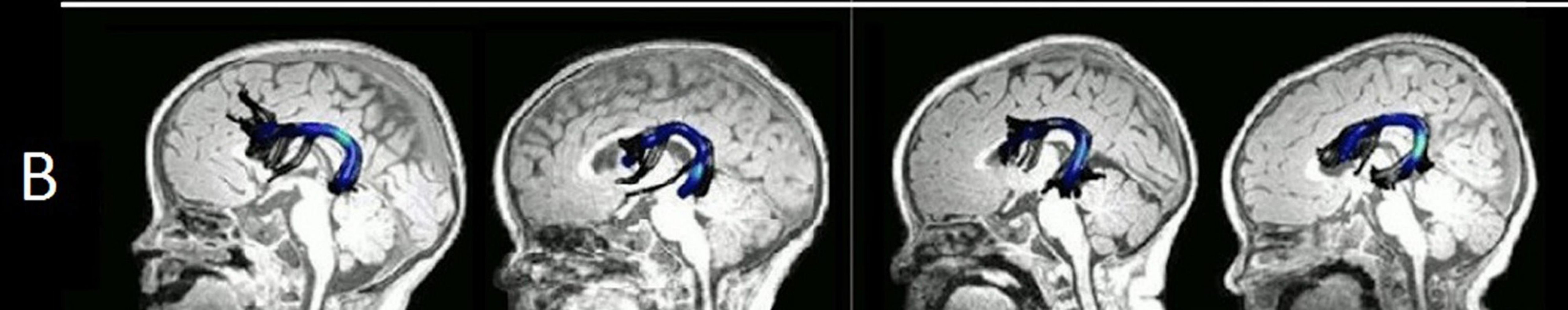
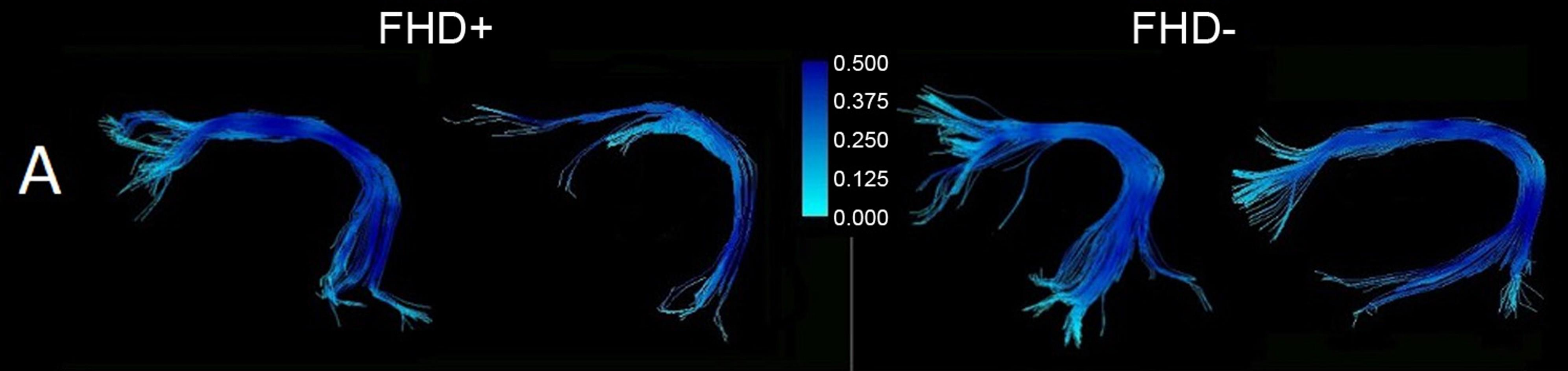


Thompson











# Typography



# Dyslexie font clears the way through the letter jungle.

Dyslexie font is a unique font developed and designed for people with dyslexia to make reading, learning and working easier – and more fun. With innovative products we clear the way through the digital letter landscape, making it accessible for everyone. See for



## COOKIE

We use cookies, just to track visits to our website, we store no personal details with it. It does not contain chocolate chips, you cannot eat it and there is no special hidden jar.

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OpenDyslexic

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I am the very model of a modern  
major general  
- Helvetica

I am the very model of a  
modern major general  
- Open Dyslexic



# Research

[Home](#) / Research

## Based on Research and Articles

Lots of different research bits and articles helped inspire and direct the development of OpenDyslexic. Here is a list of some:



### Category:

Products

Resource

-Applicat

-Books

-Devices

Uncatego





Learning &  
Attention Issues

School &  
Learning

Friends &  
Feelings

You & Your  
Family

Community &  
Events

Your Parent  
Toolkit



< Dyslexia

# Do Dyslexia-Friendly Fonts Really Work?

By Guinevere Eden, Ph.D.

Share & Save





# Good Fonts for Dyslexia

Luz Rello  
NLP & Web Research Groups  
Universitat Pompeu Fabra  
Barcelona, Spain  
luzrello@acm.org

Ricardo Baeza-Yates  
Yahoo! Labs &  
Web Research Group, UPF  
Barcelona, Spain  
rbaeza@acm.org

## ABSTRACT

Around 10% of the people have dyslexia, a neurological disability that impairs a person's ability to read and write. There is evidence that the presentation of the text has a significant effect on a text's accessibility for people with dyslexia. However, to the best of our knowledge, there are no experiments that objectively measure the impact of the font type on reading performance. In this paper, we present the first experiment that uses eye-tracking to measure the effect of font type on reading speed. Using a within-subject design, 48 subjects with dyslexia read 12 texts with 12 different fonts. *Sans serif*, *monospaced* and *roman* font styles significantly improved the reading performance over *serif*, *condensed* and *italic* fonts. On the basis of our results,

The main contributions of this study are:

- Font types have a significant impact on readability of people with dyslexia.
- Good fonts for people with dyslexia are *Helvetica*, *Courier*, *Arial*, *Verdana* and *Computer Modern Unicode*, taking into consideration reading performance and subjective preferences. On the contrary, *Arial It.* should be avoided since it decreases readability.
- *Sans serif*, *roman* and *monospaced* font types increased



## Success Criterion 1.4.12 Text Spacing



(Level AA)

[Understanding Text Spacing](#)

[How to Meet Text Spacing](#)

In content implemented using markup languages that support the following [text style properties](#), no loss of content or functionality occurs by setting all of the following and by changing no other style property:

- Line height (line spacing) to at least 1.5 times the font size;
- Spacing following paragraphs to at least 2 times the font size;
- Letter spacing (tracking) to at least 0.12 times the font size;
- Word spacing to at least 0.16 times the font size.

Exception: Human languages and scripts that do not make use of one or more of these text style properties in written text can conform using only the properties that exist for that combination of language and script.

## Success Criterion 1.4.13 Content on Hover or Focus



(Level AA)

[Understanding Content on Hover or Focus](#)

[How to Meet Content on Hover or Focus](#)

Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:

- **Dismissable:** A [mechanism](#) is available to dismiss the additional content without moving pointer hover or





```
* {  
  line-height: 1.5;  
  letter-spacing: 0.12em;  
  word-spacing: 0.16em;  
}
```

```
p {  
  margin-bottom: 2em;  
}
```



[« From Casual to Textile to Marker: the story of a font | Main | Web Links \(URLs\) for Typography & Dyslexia post »](#)

## TYPOGRAPHY & DYSLEXIA

### TYPOGRAPHY & DYSLEXIA

Fonts that purportedly ameliorate dyslexia have recently been featured in blogs and on-line news media: Slate (Nov. 10, 2014, with correction Nov. 12), NPR (Nov. 11, 2014), USA Today (Nov 12, 2014), The Guardian (Nov. 12, 2014), and an earlier post in Scientific American (October 26, 2011).

What is missing from these news reports is scientific evidence that special dyslexia fonts are actually better for dyslexic readers than commonly used fonts.

In preparing a literature review on dyslexia and typography for a major font vendor, I surveyed more than fifty scientific papers and

#### CATEGORIES

*Lucida Grande*

*Apple Typeface Designs*

*Articles*

*Artwork*

*Calligraphy in Type Design*

*Casual to Textile*

*Digital Type Archaeology*

*Dyslexia & Typography*

*Film*

*Handmade Calligraphy*

*History of B&H*

*How and Why Lucida*

*Isadora*

*Lettering and Signage*

*Literacy*

*Lucida Calligraphy*

*Lucida Casual*

*Lucida Console*



# Colour Contrast



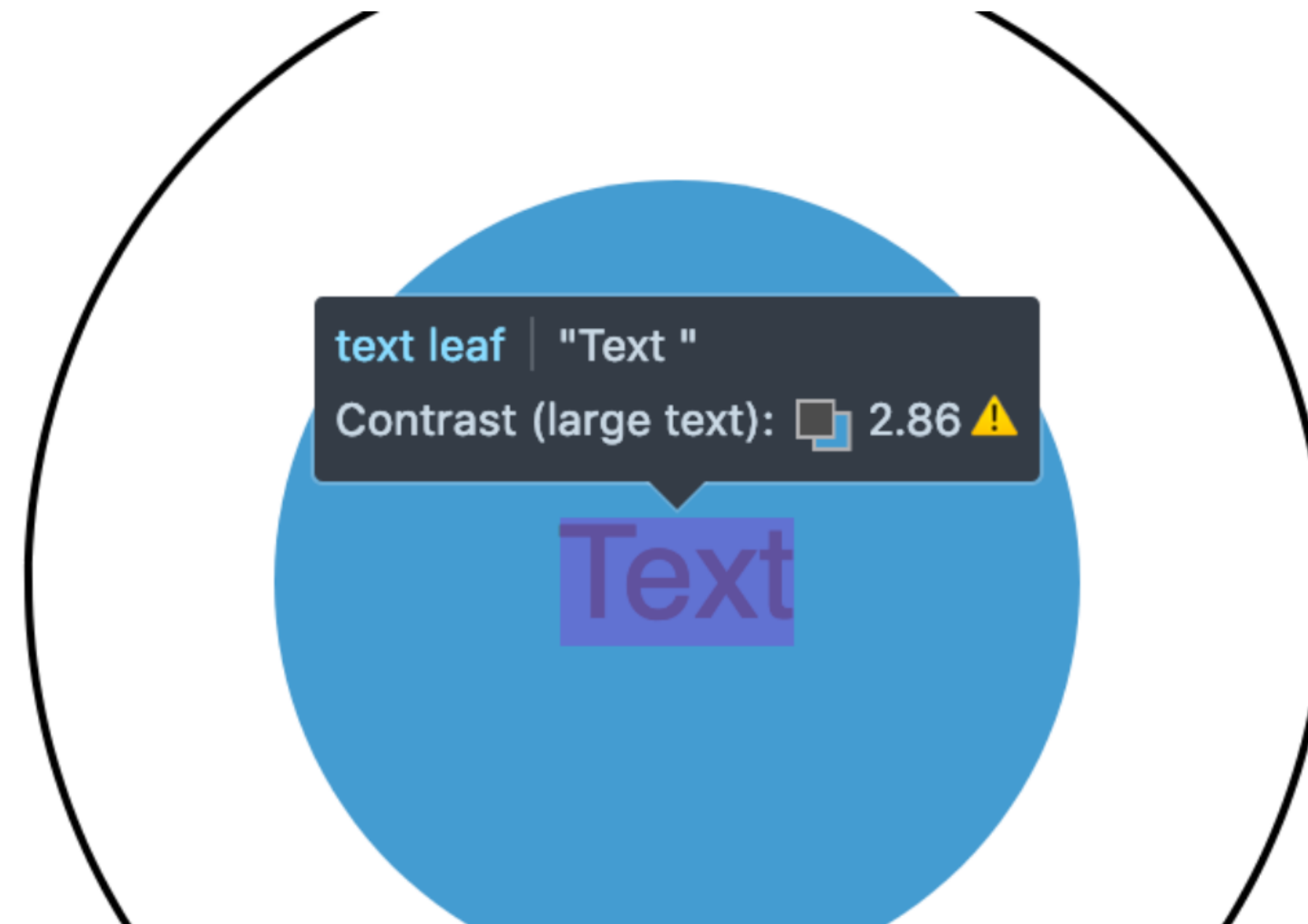




# Color contrast

Contrast ratio information is particularly useful when you are designing the color palette for your website because if the contrast is not sufficient, readers with visual impairments such as color blindness will be unable to read the text. The [Web Content Accessibility Guidelines \(WCAG\) Guideline 1.4](#) specifies 4.5:1 as the minimum contrast ratio between the foreground and background color for body text, and 3:1 for headings, for AA compliance (criterion 1.4.3). For AAA compliance, the specified ratios are 7:1 for body text, and 4.5:1 for headings (criterion 1.4.6).

For example:





[Home](#)[Open DevTools](#)[▶ DevTools for Beginners](#)[▶ DOM](#)[▶ CSS](#)[▶ JavaScript](#)[▶ UI References and Overviews](#)[▼ Accessibility](#)

### Reference

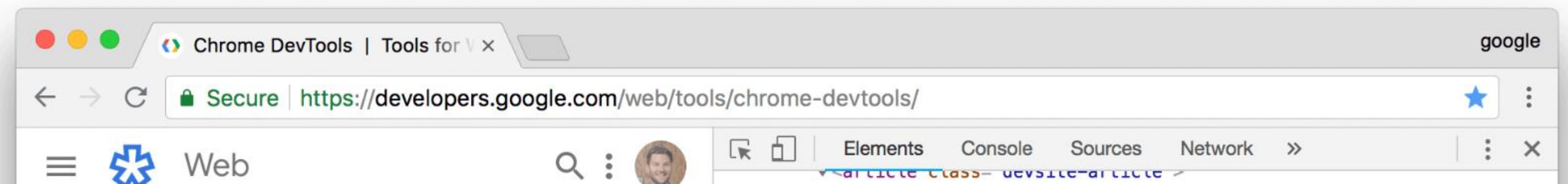
[Navigate DevTools With Assistive Technology](#)[▶ Guides](#)[▶ Simulate Mobile Devices](#)[▶ Remote Debugging](#)[▶ Console](#)[▶ Performance](#)

## View the contrast ratio of a text element in the Color Picker

Some people with low vision don't see areas as very bright or very dark. Everything tends to appear at about the same brightness, which makes it hard to distinguish outlines and edges. Contrast ratio measures the difference in brightness between the foreground and background of text. If your text has a low contrast ratio, then these low vision users may literally experience your site as a blank screen.

The Color Picker can help you make sure that your text meets recommended contrast ratio levels:

1. Click the **Elements** tab.
2. In the **DOM Tree**, select the text element that you want to inspect.





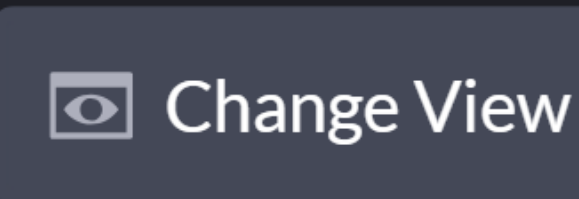
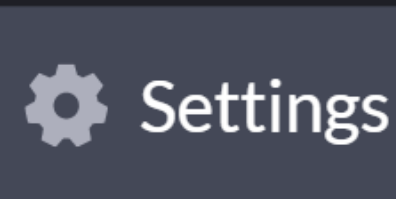
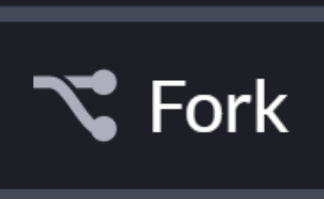
[Mac](#)[iPad](#)[iPhone](#)[Watch](#)[TV](#)[Music](#)[Support](#)

# How to use Dark Mode on your Mac

Dark Mode makes it easier to stay focused on your work, because your content stands out while darkened controls and windows recede into the background.







HTML

CSS (SCSS)

```
22 > *:last-child svg {
23   transform: scaleX(-1);
24 }
25 }
26
27 @media (prefers-color-scheme: dark) {
28   body {
29     background-color: #222;
30     color: #eee;
31   }
32
33   .kin svg {
34     fill: #ff3c41;
35   }
36 }
```

JS



## CSS Dark Mode

A short demo of the CSS media query prefers-color-scheme for [Singapore CSS](#). The feature was introduced with MacOS Mojave and (at the time of writing) available in Safari Tech Preview. More details in [Paul Miller's](#) post: [Using dark mode in CSS with MacOS Mojave](#).



[HTML](#)[CSS \(SCSS\)](#)

```
23     transform: scaleX(-1);
24   }
25 }
26
27 // @media (prefers-color-scheme: dark) {
28   body {
29     background-color: #222;
30     color: #eee;
31   }
32
33   .kin svg {
34     fill: #ff3c41;
35   }
36 // }
```

[JS](#)

## CSS Dark Mode

A short demo of the CSS media query `prefers-color-scheme` for [Singapore CSS](#). The feature was introduced with MacOS Mojave and (at the time of writing) available in Safari Tech Preview. More details in [Paul Miller's post: Using dark mode in CSS with MacOS Mojave](#).



## Dark Mode

- Enabled Dark Mode CSS Support by default in the Experimental Features menu ([r238213](#))
- Added experimental support for a `supported-color-schemes` CSS property ([r238001](#))
- Updated `prefers-color-scheme` media query matching to better match the draft spec ([r238200](#))
- Changed the default document background and text colors in dark mode and when `dark` is listed as a `supported-color-schemes` on the document or body element ([r238212](#))
- Added support for forcing color scheme (dark or light mode) in Web Inspector's Elements tab ([r238570](#))

## Web Animations

- Enabled Web Animations by default in the Experimental Features menu ([r238095](#))

## Intersection Observer

- Enabled Intersection Observer by default in the Experimental Features menu ([r238129](#))

## Web Authentication



# Extraneous Lingual Complexity



~~Extraneous Lingual  
Complexity~~

Use Simple Words





**Queenie**

@queer\_queenie

Follow



tour guide: here are the sharks

me: bitey boi

guide: ...and over here, a swordfish

me: pointy boi

guide: get out of the aquarium

1:52 AM - 23 Jul 2018



# Animation



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# Your UI isn't a Disney Movie



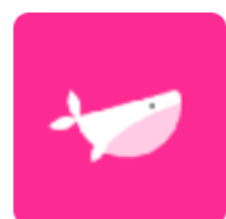
Sophie Paxton

[Follow](#)

Oct 5, 2015 · 5 min read

My previous short article about gratuitous animation really struck a chord with people. The response has been phenomenal and it's been awesome reading others' frustrations with overly animated UIs.

To be clear, **I'm not anti motion design** for UIs. Far from it. I have a problem



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[GET UPDATES](#)



# prefers-reduced-motion

Jump to:

Syntax

Examples

Specifications

Browser compatibility

See also

Web technology for developers

>

CSS: Cascading Style Sheets

>

@media >

prefers-reduced-motion

The `prefers-reduced-motion` CSS media feature is used to detect if the user has requested that the system minimize the amount of animation or motion it uses.

## Syntax





**Roger Johansson**

@rogerjohansson

Following



I've started wrapping transitions and animations—even subtle ones—in (prefers-reduced-motion:no-preference) media queries. You should too.

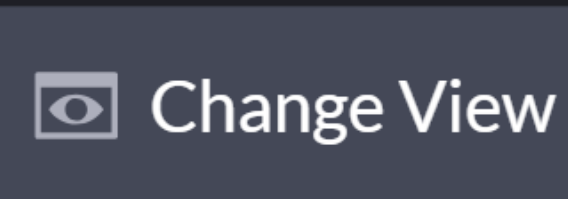
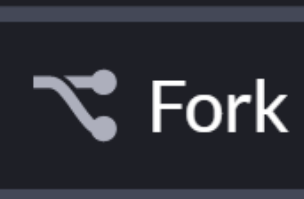
8:20 PM - 3 Apr 2019





# Prefers-reduced-motion experiment

A PEN BY Chris Lienert



HTML

CSS (SCSS)

```
9  ▾ :root {
10    --animation-timing: 500ms;
11
12    // reduce or eliminate timing when
    requested
13  ▾ @media (prefers-reduced-motion: reduce) {
14    --animation-timing: 0;
15  }
16 }
17
18 ▾ button {
19   font-size: 2em;
20   background-color: #c00;
21   color: #fff;
22   // hard-coded fallback for non-custom
    property friendly browsers
```

JS

Using CSS custom properties to control animation with the [prefers-reduced-motion](#) media query.

Hover me

Console

Assets

Comments

Shortcuts

Ad Bring your team together with Slack, the collaboration hub for work.

Embed

Export

Share



# Visual Noise



THE  
World turn'd upside down:

O R,  
A briebe description of the ridiculous Fashions  
of these distracted Times.

By T. J. a well-willer to King, Parliament and Kingdom.



London: Printed for John Smith. <sup>1646</sup> 1647.  
Jan: 28.



×

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Firefox

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# Allow or block media autoplay in Firefox

Basic browsing





## Updates

FEATURED

BY YEAR

BY TAG

Join us for the first **#AskChrome Live** session to learn about Implementing Performance Budgets and live Q&A. [Register now](#)

Picture-in-Picture (PiP)

Audio/Video Updates in  
Chrome 62

Introducing the Web Share API

New in Chrome 61

Introducing visualViewport

▶ August

▶ July

▶ June

▶ May

▶ April

# Autoplay Policy Changes



## Contents ▼

New behaviors

Media Engagement Index (MEI)

Developer switches

Iframe delegation



**Note:** The Autoplay Policy launched in M66 Stable for audio and video elements and









There's no such thing as  
**NORMAL**



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