

Valery Marier

valery@marier.design

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Accessible design for non-designers

* Hello, I'm Valery Marier. I'm a digital designer living in the Toronto area. I am a recent graduate of the York/Sheridan Bachelors of Design and my accessible design work has been featured nationally.

Have you use any
assistive technologies
this past week?



Whether we think about it or not, we all benefit from accessible design practices

This is one of the more popular
braille readers on the market.



This is one of the more popular
braille readers on the market.



It costs \$2,995 CAD

1 Evaluating typography for Accessible design

Legibility

character-specific factors

- typeface
- type size
- letter spacing
- text colour
- type width
- etc...

Readability

text-specific factors

- alignment
- layout
- margins
- materials & surfaces
- paragraph line length
- etc...

Similar characters

dog

Proxima Nova

aog

Bonnechere

ag

HT Bitter

Mirrors

dbbqp

Proxima Nova

dbbqp

Vulf Sans

dbbqp

HT Bitter

Imposters

I11

URW Bodoni

I11

Helvetica Neue

I11

Times New Roman

Letter optics

Hello

Witchy

Hello

Bonnechere

HELLO

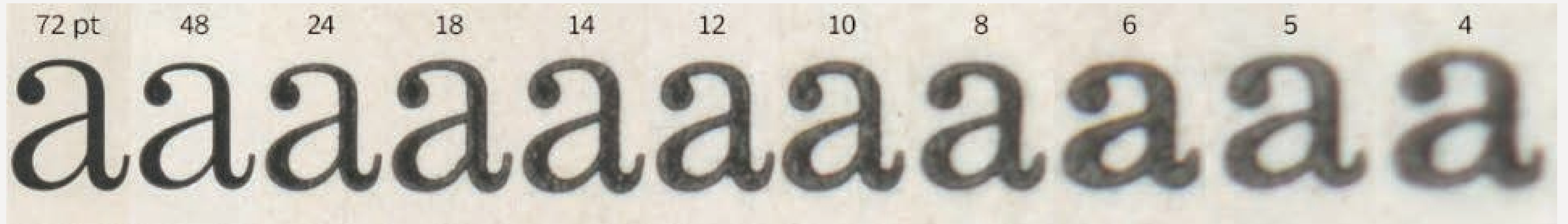
Pilowlava

Letter optics

Hello

Hello

HELLO

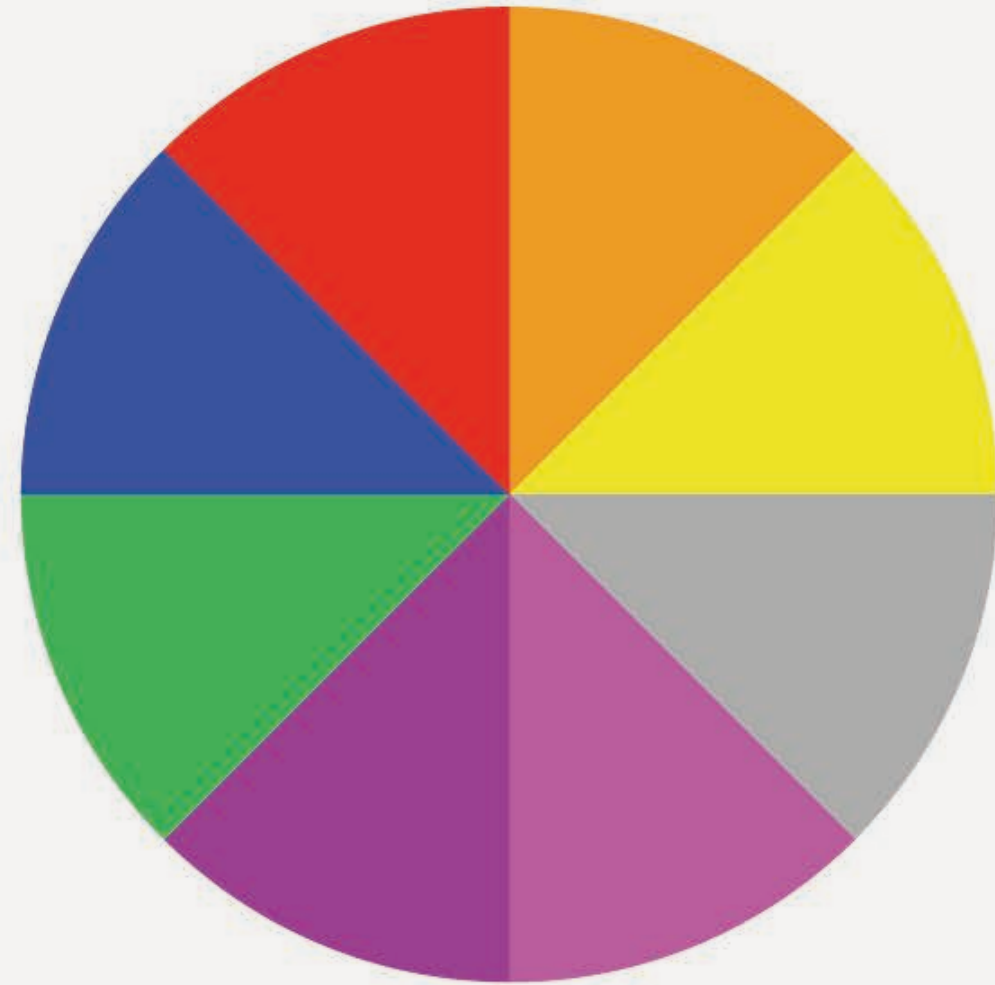


Before computers, specific fonts would be designed for each size to improve the legibility of text.

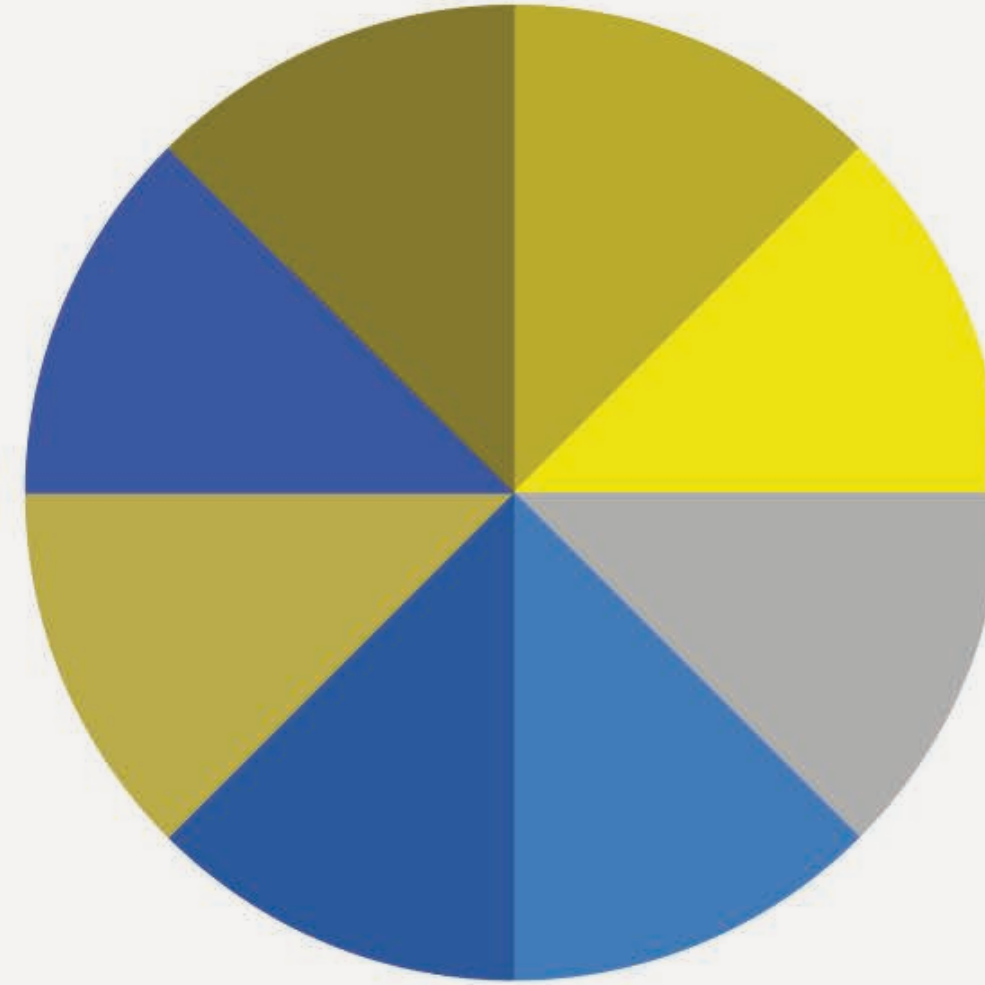
2 Colour considerations for your projects

If it doesn't work in
black and white, then
it doesn't work period.

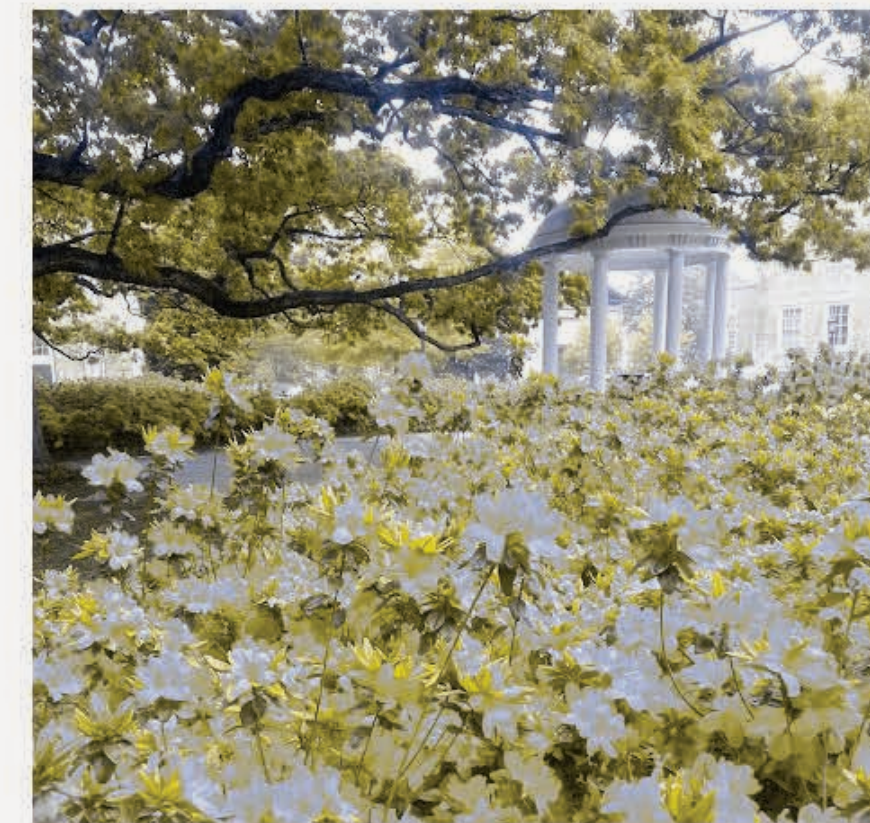
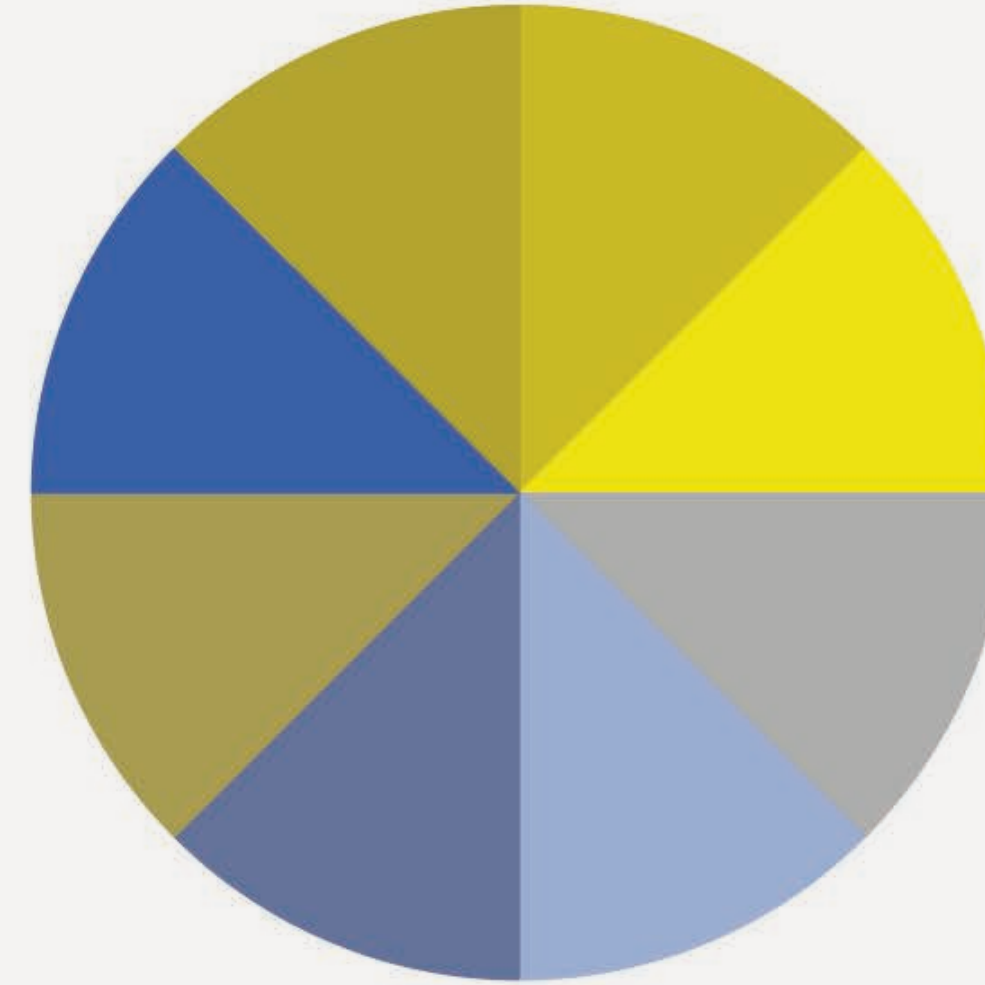
Unaffected Color Vision



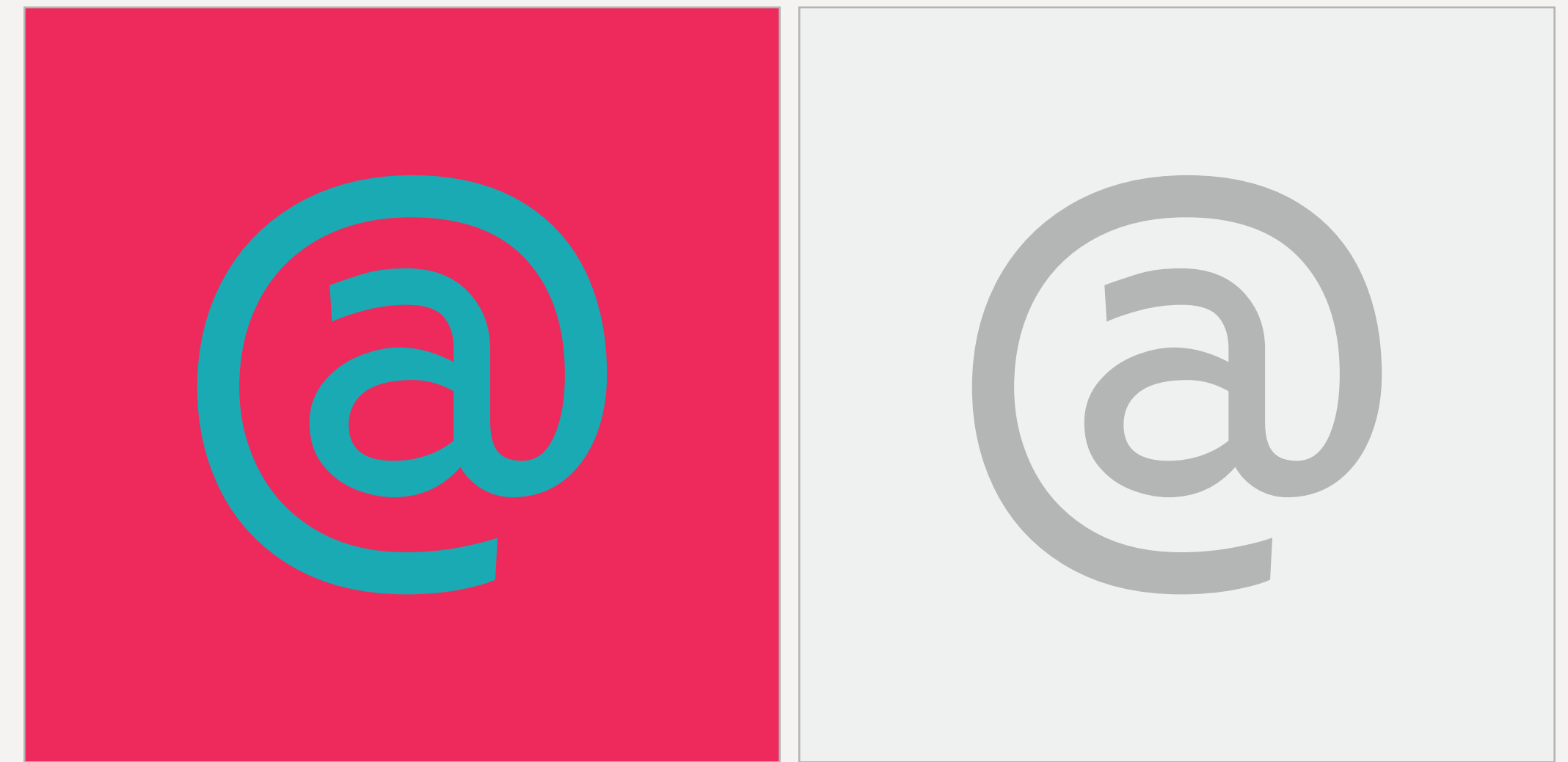
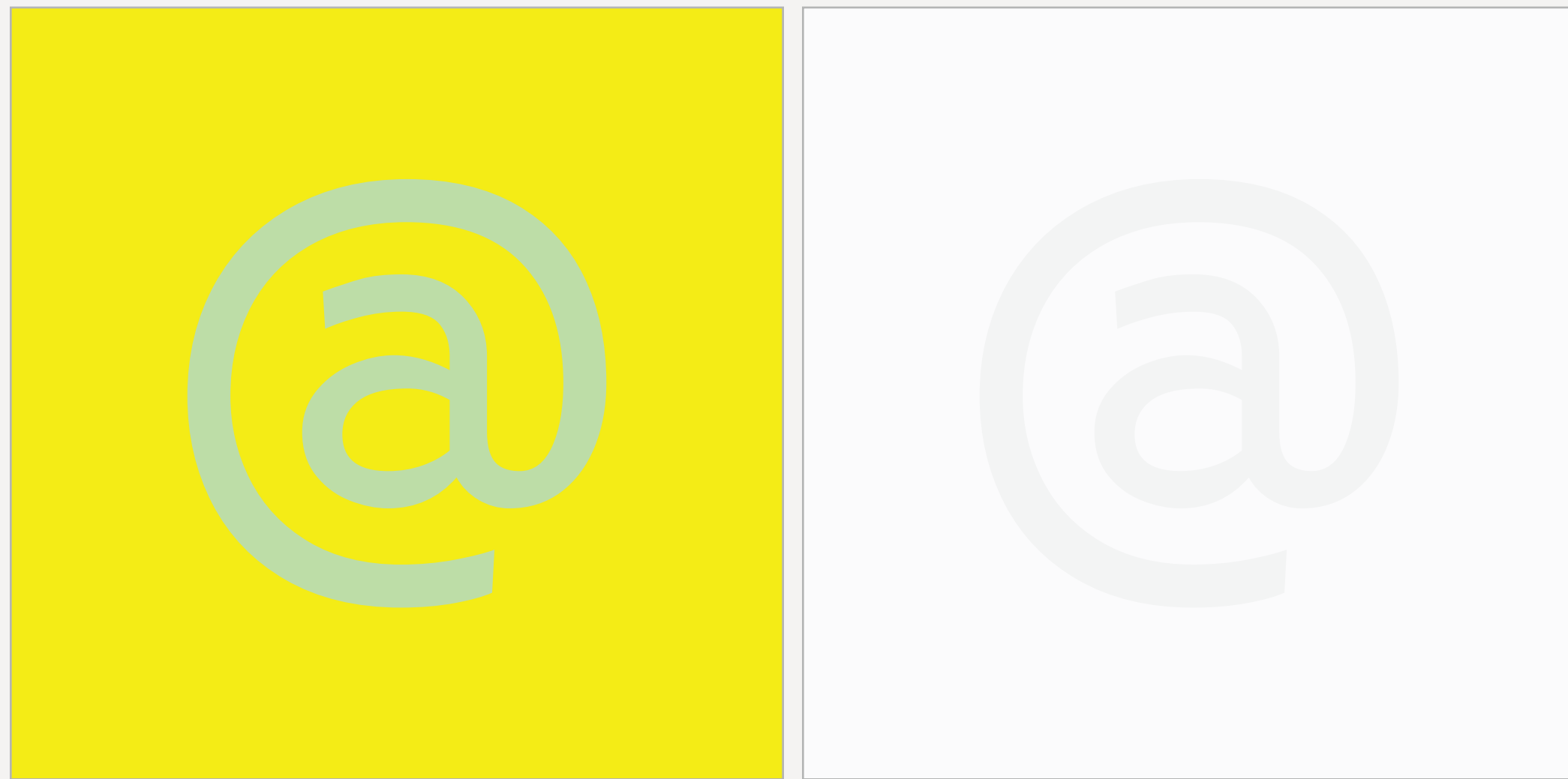
Protanopa Type



Deuteranopia Type



Bringing contrast to light



How do I know if two
colours have enough
of a contrast?

Plugins and tools!

The screenshot shows the Colorable.jxnblk.com web tool interface. At the top, it displays 'Aa 7.84 AAA' in a large, bold, dark blue font. Below this, a paragraph explains contrast: 'Contrast is the difference in luminance or color that makes an object (or its representation in an image or display) distinguishable. In visual perception of the real world, contrast is determined by the difference in the color and brightness of the object and other objects within the same field of view.' The interface is divided into two main sections: 'Text' and 'Background'. The 'Text' section shows the hex code '#004466' with sliders for Hue (200°), Saturation (1), and Lightness (0.2). The 'Background' section shows the hex code '#00ffa2' with sliders for Hue (158°), Saturation (1), and Lightness (0.5). At the bottom, there are 'Reverse' and 'Random' buttons. A quote at the bottom reads: 'If one says 'Red' (the name of the color) and there are 50 people listening, it can be expected that there will be 50 reds in their minds.' A 'Tweet' link is in the top right, and a small purple circle with the number '1' is in the bottom right.

Aa 7.84 AAA

Contrast is the difference in luminance or color that makes an object (or its representation in an image or display) distinguishable. In visual perception of the real world, contrast is determined by the difference in the color and brightness of the object and other objects within the same field of view.

Text

#004466

Hue 200°

Saturation 1

Lightness 0.2

Background

#00ffa2

Hue 158°

Saturation 1

Lightness 0.5

Reverse Random

"If one says 'Red' (the name of the color) and there are 50 people listening, it can be expected that there will be 50 reds in their minds."

[Tweet](#)

1

This tool is *<https://colorable.jxnblk.com>* all you need to use it is a web browser!

3 Semantic markup and alternate text

With HTML5 we are able to write websites using semantic markup. What this means is that we can write a website that is machine readable and make it easier for screen readers to parse.

Semantic structures provide us with tags that give us the purpose of each element, the reading order of the content, the hierarchical structure of the content, and of course the content itself.

The most common semantic structure is the paragraph tag `<p>`, but there are also other useful tags like `<nav>` , `<article>`, `<section>` and `<figure>` that are still often underappreciated and under used.

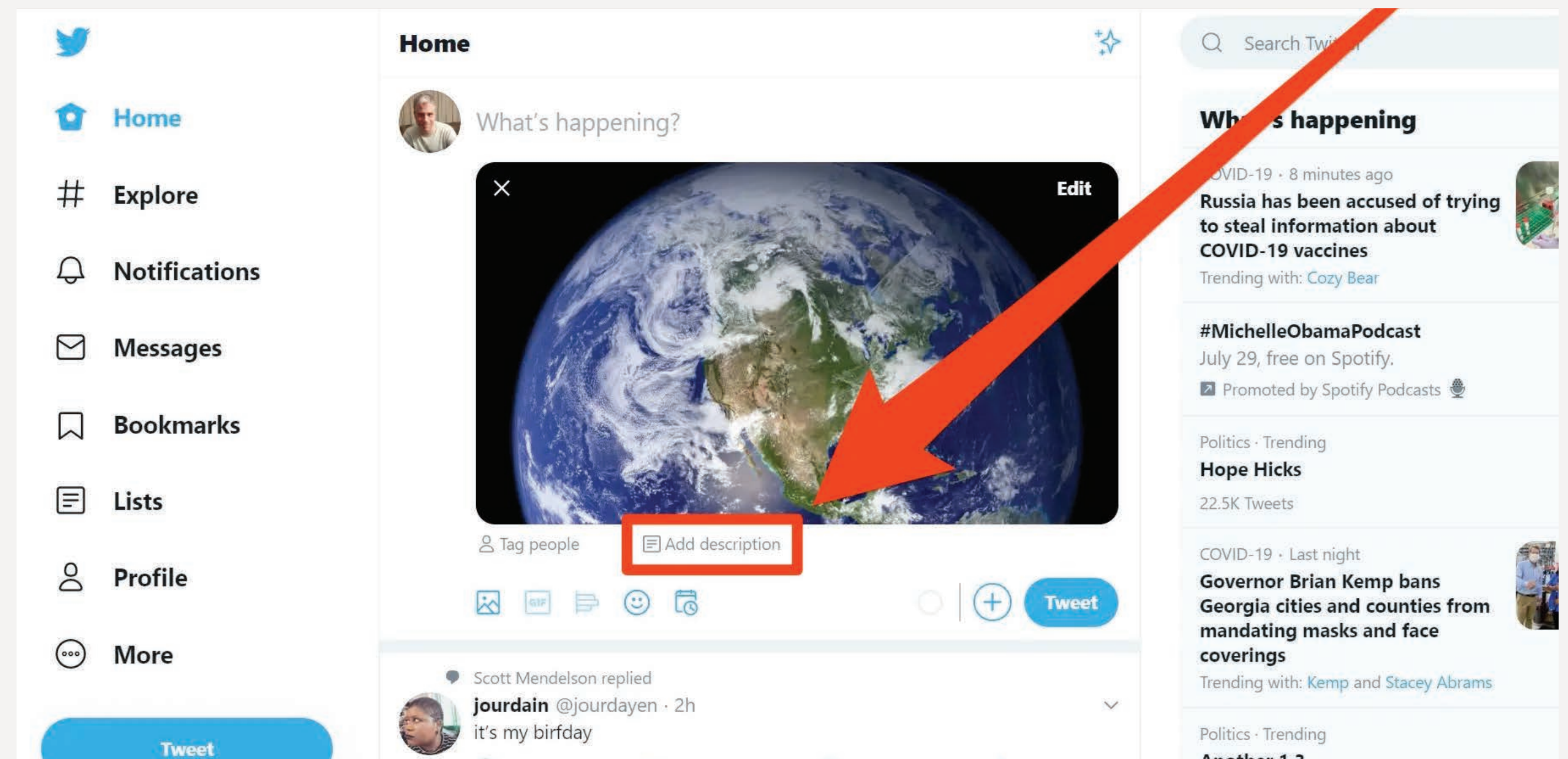
Another important aspect is the ARIA label. Basically, if you have an element that is not using a semantic tag, but is necessary to the websites function, you can add the `aria-label=' '` modifier to the tag to describe what the element is.

Avoid 'hacked'
solutions, because
they are often not
very user-friendly.

Alternate text is how we describe images in a way that machines can understand.

Good alternate text is functional, relevant, and written with economy. It should describe the image enough that the reader can understand its purpose, but not enough that the reader is stuck listening to the text for five minutes.

Adding alternate text on social media is often just one click away!



* Some Helpful Resources

- Colourable (<https://colorable.jxnblk.com>) is a website that lets you see the amount of contrast between two colours
- The A11y Project (<https://www.a11yproject.com/>)
- The RGD AccessAbility 2 Handbook (<https://www.rgd.ca/resources/accessibility/access>)
- Letter and symbol misrecognition in highly legible typefaces (<https://typography.guru/journal/letters-symbols-misrecognition/>)
- The ethical design manifesto (<https://ind.ie/ethical-design/>)
- The W3 Web Accessibility Initiative (<https://www.w3.org/WAI/>)
- Accessibility for Everyone by Laura Kalbag (<https://abookapart.com/products/accessibility-for-everyone>)
- The WAVE Web Accessibility Evaluation Tool (<https://wave.webaim.org/>)