

COLOR
CONTRAST

BRUCE SPRINGSTEEN

BORN TO RUN



SPRS 7907

BRUCE SPRINGSTEEN

SONY RECORDS STEREO

THUNDER ROAD

Bruce Springsteen: guitar, vocals, harmonica
Garry Tallent: bass guitar
Max M. Weinberg: drums
Roy Bittan: Fender Rhodes, glockenspiel
Clarence Clemons: saxophones
Background vocals: Roy Bittan,
Mike Appel, Steve Van Zandt

TENTH AVENUE FREEZE-OUT

Bruce Springsteen: guitar, vocals
Garry Tallent: bass guitar
Max M. Weinberg: drums
Roy Bittan: piano
Clarence Clemons: tenor saxophone
†Randy Brecker: trumpet, flugel horn
†Michael Brecker: tenor saxophone
**Dave Sanborn: baritone saxophone
Wayne Andre: trombone

NIGHT

Bruce Springsteen: guitar, vocals
Garry Tallent: bass guitar
Max M. Weinberg: drums
Roy Bittan: piano, harpsichord, glockenspiel
Clarence Clemons: saxophone

BACKSTREETS

Bruce Springsteen: guitar, vocals
Garry Tallent: bass guitar
Max M. Weinberg: drums
Roy Bittan: piano, organ

BORN TO RUN

Bruce Springsteen: guitar, vocals
Garry Tallent: bass guitar
Ernest "Boom" Carter: drums
†David Sancious: keyboards
Danny Federici: organ
Clarence Clemons: saxophone

SHE'S THE ONE

Bruce Springsteen: guitar, vocals
Garry Tallent: bass guitar
Max M. Weinberg: drums
Roy Bittan: piano, harpsichord, organ
Clarence Clemons: saxophone

MEETING ACROSS THE RIVER

Bruce Springsteen: vocals
Roy Bittan: piano
Richard Davis: bass
†Randy Brecker: trumpet

JUNGLELAND

Bruce Springsteen: guitar, vocals
Garry Tallent: bass guitar
Max M. Weinberg: drums
Roy Bittan: piano, organ
Clarence Clemons: tenor saxophone
Strings arranged and conducted by Charles Calello

†Appear courtesy of Arista Records
*Appears courtesy of Epic Records
**Appears courtesy of Warner Reprise

PRODUCED BY BRUCE SPRINGSTEEN, JON LANDAU, AND MIKE APPEL
*PRODUCED BY BRUCE SPRINGSTEEN, AND MIKE APPEL

[Stereo]
SRCS 7907



BRUCE SPRINGSTEEN

BORN TO RUN



SRCS 7907

BRUCE SPRINGSTEEN - BORN TO RUN

SONY RECORDS STEREO



Sony Records
Sony Music Entertainment (Japan) Inc.

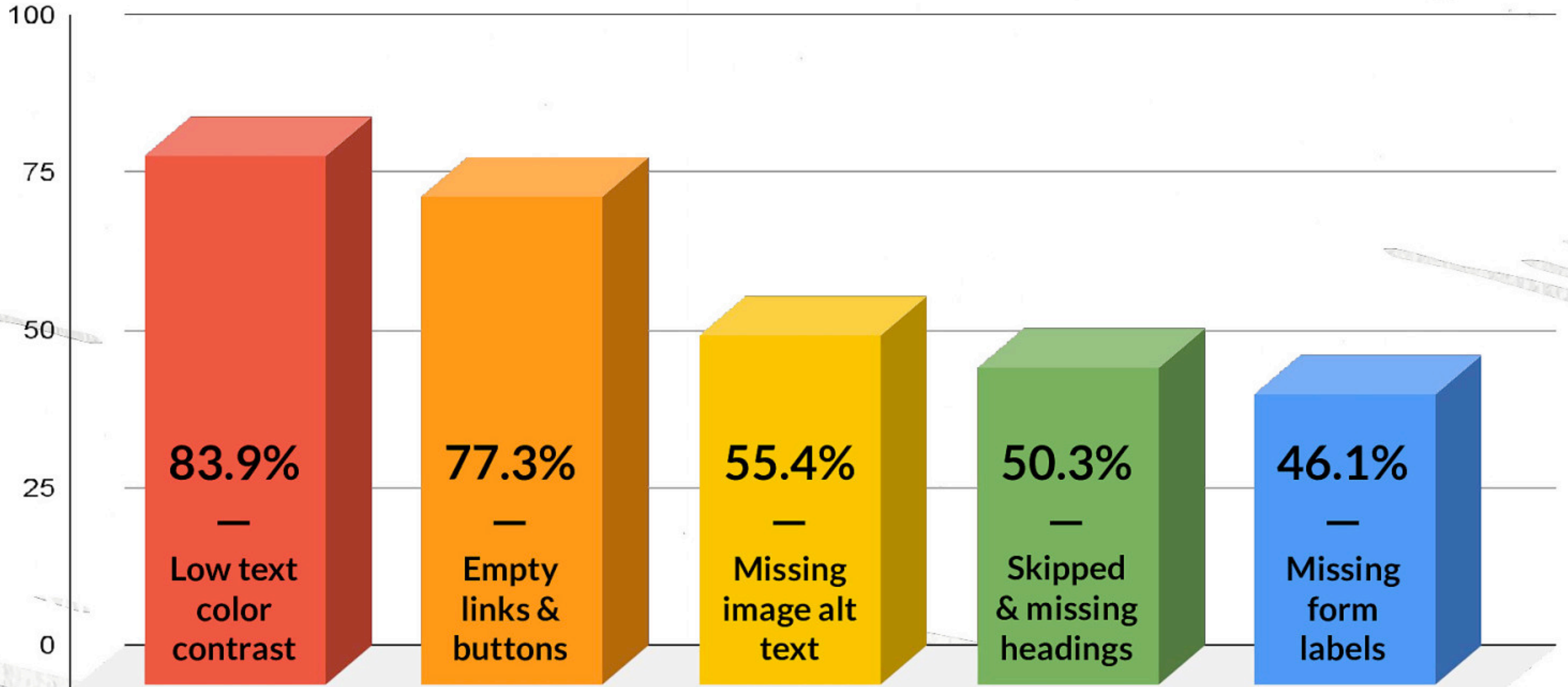
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再 ¥2,000 (税込) 税抜価格 ¥1,942 再 97.12.20まで

95・12・21 (75・8・25) (Y)

Top design-focused issues of 2022



Source: webaim.org/projects/million → noti.st/cariefisher/Bin4xT

Understanding SC 1.4.3:

Contrast (Minimum) (Level AA)

Success Criterion (SC)

The visual presentation of [text](#) and [images of text](#) has a [contrast ratio](#) of at least 4.5:1, except for the following:

Large Text

[Large-scale](#) text and images of large-scale text have a contrast ratio of at least 3:1;

Incidental

Text or images of text that are part of an inactive [user interface component](#), that are [pure decoration](#), that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.

Logotypes

Text that is part of a logo or brand name has no contrast requirement.

Page Contents

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Intent

The intent of this Success Criterion is to provide enough contrast between text and its background so that it can be read by

Rationale for the Ratios Chosen

A contrast ratio of 3:1 is the minimum level recommended by [\[\[ISO-9241-3\]\]](#) and [\[\[ANSI-HFES-100-1988\]\]](#) for standard text and vision. The 4.5:1 ratio is used in this provision to account for the loss in contrast that results from moderately low visual acuity, congenital or acquired color deficiencies, or the loss of contrast sensitivity that typically accompanies aging.

The rationale is based on a) adoption of the 3:1 contrast ratio for minimum acceptable contrast for normal observers, in the ANSI standard, and b) the empirical finding that in the population, visual acuity of 20/40 is associated with a contrast sensitivity loss of roughly 1.5 [\[\[ARDITI-FAYE\]\]](#). A user with 20/40 would thus require a contrast ratio of $3 * 1.5 = 4.5$ to 1. Following analogous empirical findings and the same logic, the user with 20/80 visual acuity would require contrast of about 7:1.

Hues are perceived differently by users with color vision deficiencies (both congenital and acquired) resulting in different colors and relative luminance contrasts than for normally sighted users. Because of this, effective contrast and readability are different for this population. However, color deficiencies are so diverse that prescribing effective general use color pairs (for contrast) based on quantitative data is not feasible. Requiring good luminance contrast accommodates this by requiring contrast that is independent of color perception. Fortunately, most of the luminance contribution is from the mid and long wave receptors which largely overlap in their spectral responses. The result is that effective luminance contrast can generally be computed without regard to specific color deficiency, except for the use of predominantly long wavelength colors against darker colors (generally appearing black) for those who have protanopia. (We provide an advisory technique on avoiding red on black for that reason). For more information see [\[\[ARDITI-KNOBLAUCH-1994\]\]](#) [\[\[ARDITI-KNOBLAUCH-1996\]\]](#) [\[\[ARDITI\]\]](#).

Note

Some people with cognitive disabilities require color combinations or hues that have low contrast, and therefore we allow and encourage authors to provide mechanisms to adjust the foreground and background colors of the content. Some of the combinations that could be chosen may have contrast levels that will be lower than those those specified here. This is not a violation of this Success Criterion, provided there is a mechanism that will return to the required values set out here.

The contrast ratio of 4.5:1 was chosen for level AA because it compensated for the loss in contrast sensitivity usually experienced by users with vision loss equivalent to approximately 20/40 vision. (20/40 calculates to approximately 4.5:1.) 20/40 is commonly reported as typical visual acuity of elders at roughly age 80. [\[\[GITTINGS-FOZARD\]\]](#)

contrast ratio

$(L1 + 0.05) / (L2 + 0.05)$, where

- L1 is the [relative luminance](#) of the lighter of the colors, and
- L2 is the [relative luminance](#) of the darker of the colors.

Note

Contrast ratios can range from 1 to 21 (commonly written 1:1 to 21:1).

Note

Because authors do not have control over user settings as to how text is rendered (for example font smoothing or anti-aliasing), the contrast ratio for text can be evaluated with anti-aliasing turned off.

Note

For the purpose of Success Criteria 1.4.3 and 1.4.6, contrast is measured with respect to the specified background over which the text is rendered in normal usage. If no background color is specified, then white is assumed.

Note

Background color is the specified color of content over which the text is to be rendered in normal usage. It is a failure if no background color is specified when the text color is specified, because the user's default background color is unknown and cannot be evaluated for sufficient contrast. For the same reason, it is a failure if no text color is specified when a background color is specified.

Note

relative luminance

the relative brightness of any point in a colorspace, normalized to 0 for darkest black and 1 for lightest white

Note

For the sRGB colorspace, the relative luminance of a color is defined as $L = 0.2126 * \mathbf{R} + 0.7152 * \mathbf{G} + 0.0722 * \mathbf{B}$ where **R**, **G** and **B** are defined as:

- if $R_{sRGB} \leq 0.04045$ then $\mathbf{R} = R_{sRGB}/12.92$ else $\mathbf{R} = ((R_{sRGB}+0.055)/1.055) ^ 2.4$
- if $G_{sRGB} \leq 0.04045$ then $\mathbf{G} = G_{sRGB}/12.92$ else $\mathbf{G} = ((G_{sRGB}+0.055)/1.055) ^ 2.4$
- if $B_{sRGB} \leq 0.04045$ then $\mathbf{B} = B_{sRGB}/12.92$ else $\mathbf{B} = ((B_{sRGB}+0.055)/1.055) ^ 2.4$

and R_{sRGB} , G_{sRGB} , and B_{sRGB} are defined as:

- $R_{sRGB} = R_{8bit}/255$
- $G_{sRGB} = G_{8bit}/255$
- $B_{sRGB} = B_{8bit}/255$

The "^" character is the exponentiation operator. (Formula taken from [\[\[SRGB\]\]](#).)


Note


Before May 2021 the value of 0.04045 in the definition was different (0.03928). It was taken from an older version of the specification and has been updated. It has no practical effect on the calculations in the context of these guidelines.

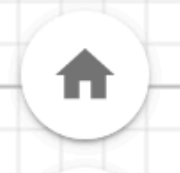
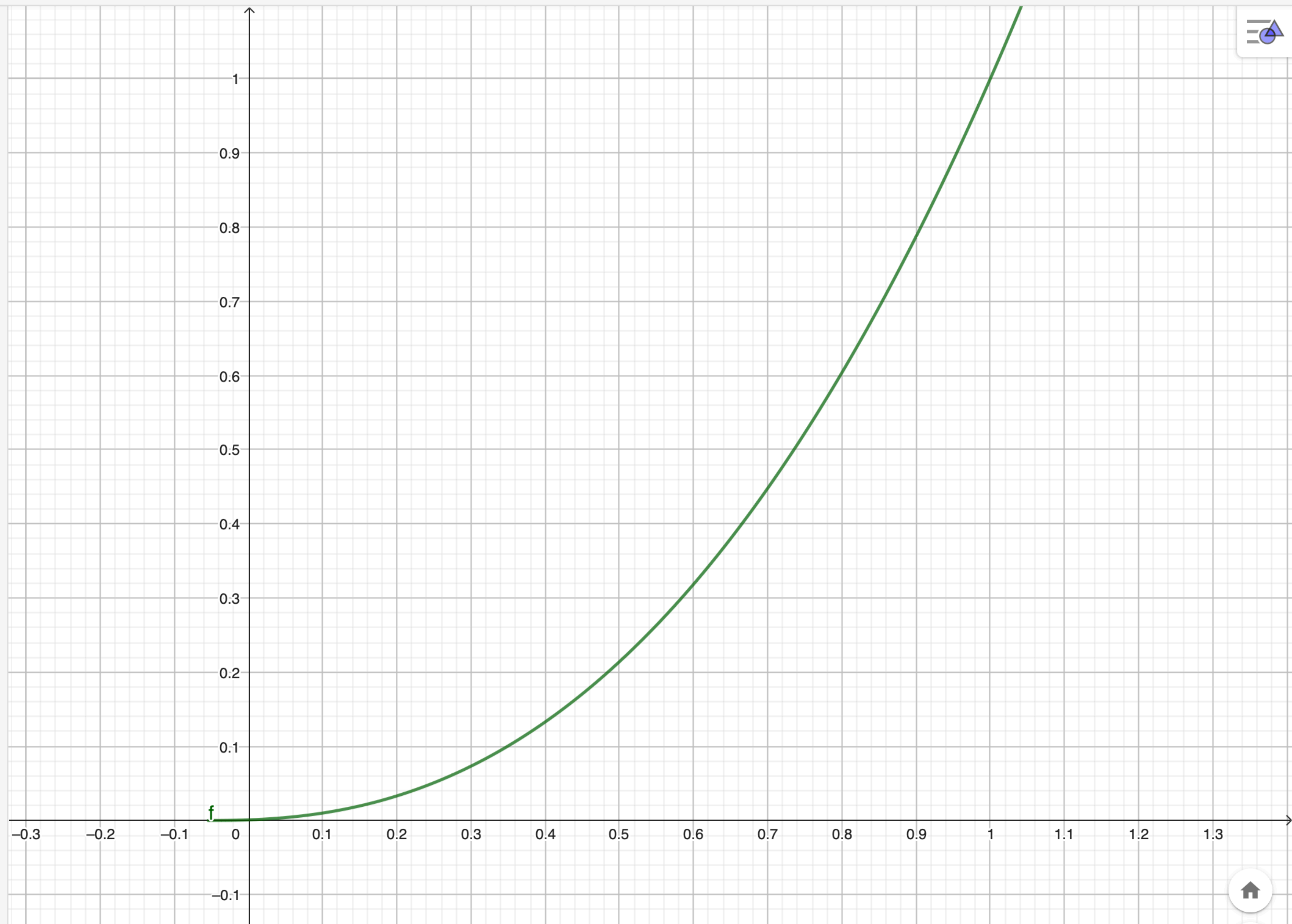
Note

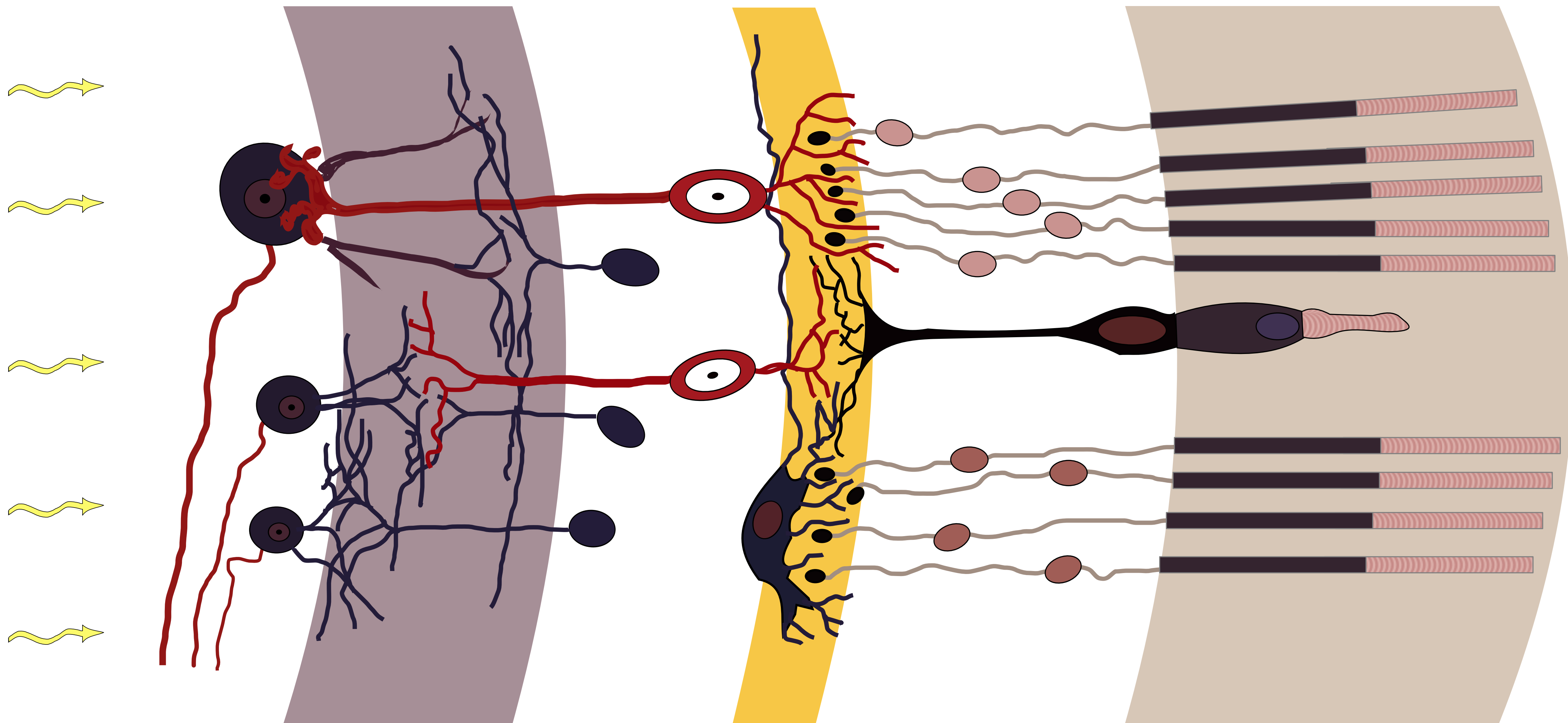
Almost all systems used today to view Web content assume sRGB encoding. Unless it is known that another color space will be used to process and display the content, authors should evaluate using sRGB colorspace. If using other color spaces, see [Understanding Success Criterion 1.4.3](#).



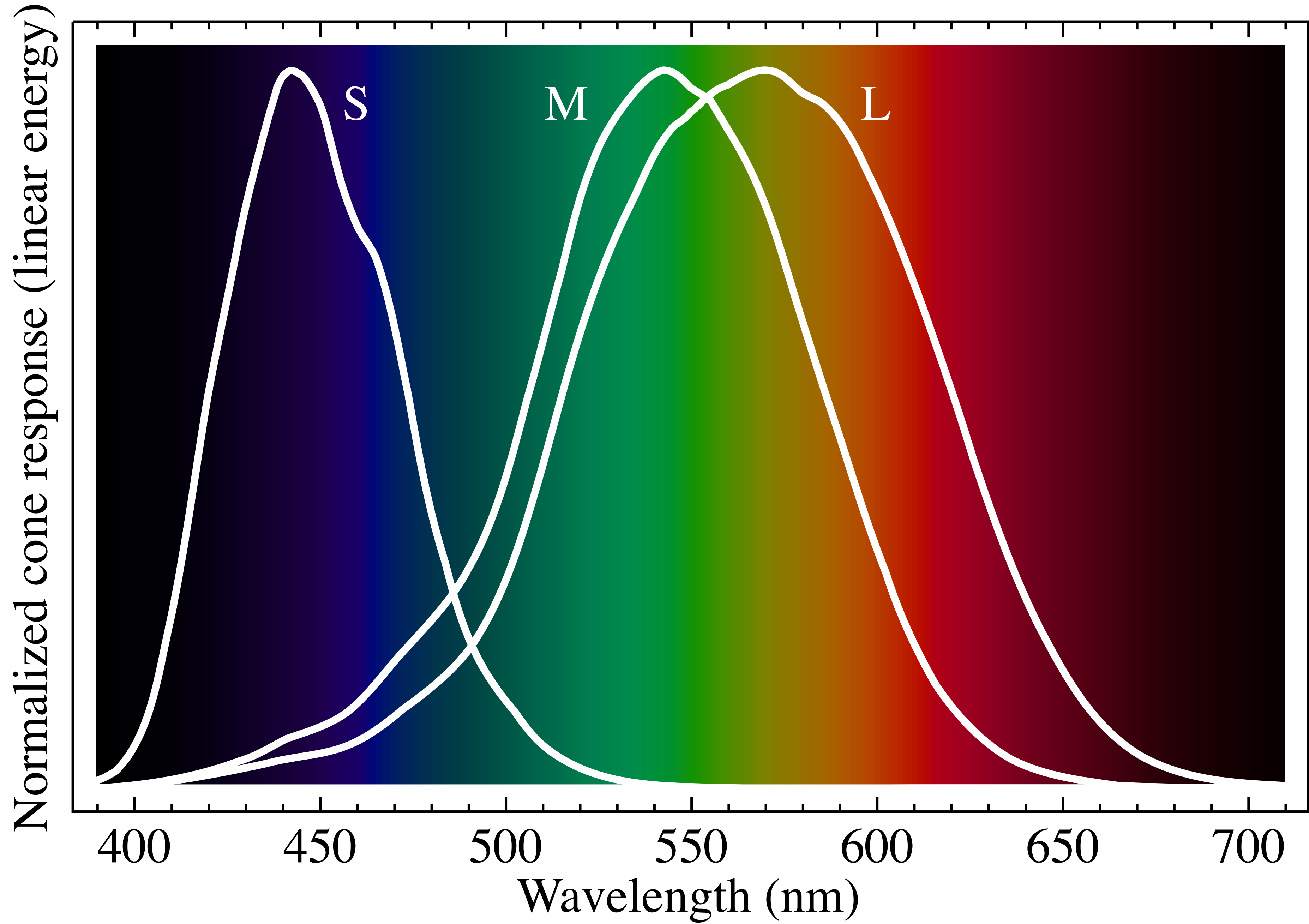
 $f(x) = \left(\frac{x + 0.06}{1.06}\right)^{2.4}$

 Eingabe...





based on a drawing by Ramón y Cajal, 1911
by Anka Friedrich, vectorisation by chris 論, CC BY-SA 3.0



arithmetic mean

$$\bar{x} = \frac{R + G + B}{3}$$

$$\bar{x} = 0.3333 R + 0.3333 G + 0.3333 B$$

weighted arithmetic mean

$$\bar{x} = 0.2126 R + 0.7152 G + 0.0722 B$$

relative luminance

$$L = 0.2126 R + 0.7152 G + 0.0722 B$$

contrast ratio

$$\frac{L_1 + 0.05}{L_2 + 0.05} \quad \text{where } L_1 \geq L_2$$

Contrast Checker

[Home](#) > [Resources](#) > Contrast Checker

Foreground

Hex Value
#

Color Picker Alpha

Luminance

Background


Hex Value
#

Color Picker

Luminance

Contrast Ratio
3.03:1

[permalink](#)

 Related Resources

- [Contrast and Color Accessibility](#)
- [Quick Reference: Testing Web Content for Accessibility](#)
- [WebAIM Auditing & Evaluation Services](#)
- [Web Accessibility for Designers](#)
- [Link Contrast Checker](#)
- [Contrast Checker Bookmarklet](#)

Normal Text

WCAG AA: **Fail**
WCAG AAA: **Fail**

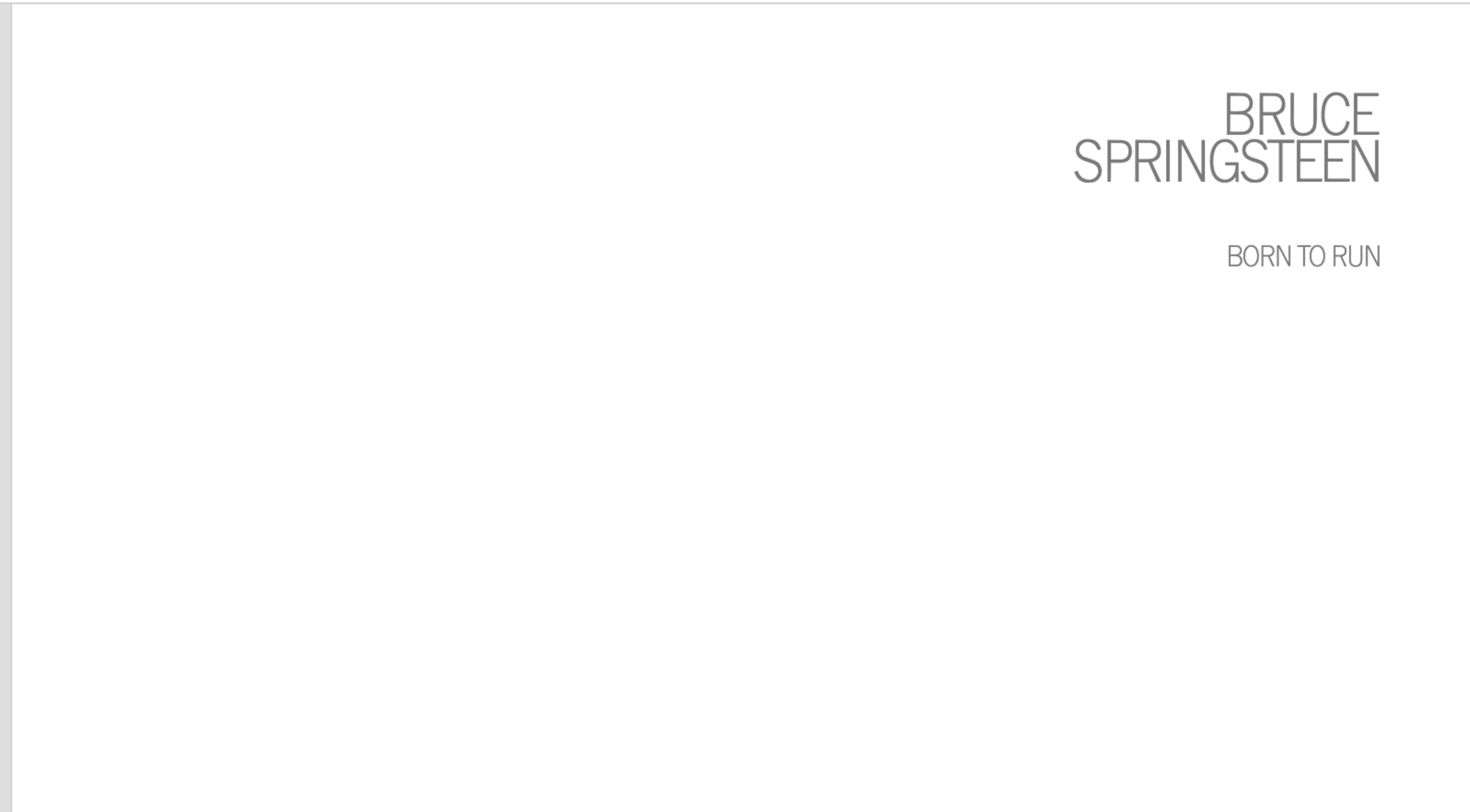
The five boxing wizards jump quickly.

Large Text

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

The five boxing wizards jump quickly.

```
HTML
CSS
15
16 .artist, .album {
17   color: gray;
18   letter-spacing: -0.05em;
19 }
20
21 .artist {
22   font-size: 2rem;
23   width: min-content;
24 }
25
26 .album {
JS
```



```
Elements Recorder Performance insights Console Sources Network
...
<span class="artist">Bruce Springsteen</span>
<i class="album">Born to Run</i> == $0
</h1>
<script src="https://cpwebassets.codepen.io/assets/com
on/stopExecutionOnTimeout-2c7831b...js"></script>
</body>
</html>
</iframe>
<div id="editor-drag-cover" class="drag-cover" style="display:
none;"></div>
</div>
```

Styles

Filter

.artist, .album {
color: gray;
letter-spacing: -0.05em;
}

i {
font-size: 2em;
}

Inherited from

#7a7a7a

COLOR
CONTRAST