HOW TO IMPROVE YOUR WEBSITE'S ACCESSIBILITY WITHOUT GOING CRAZY

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Following

This is for everyone #london2012 #oneweb #openingceremony @webfoundation @w3c

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11:08 PM - 27 Jul 2012

The Web is fundamentally designed to work for all people, whatever their hardware, software, language, culture, location, or physical or mental ability. When the Web meets this goal, it is accessible to people with a diverse range of **hearing**, **movement**, **sight**, *and* **cognitive** *ability.*

– *w3.org/accessibility*

Accessibility:

Make sure that people with disabilities can effectively interact with the web

"On the web, every decision I make can have a profound effect on hundreds of thousands (if not millions) of people's lives. I can make checking into a flight a breeze, or I can make it a living hell.

That's a lot of power. And to quote Stan Lee: 'With great power comes great responsibility.'"

– Aaron Gustafson (Foreword in: Sarah Horton. "A Web for Everyone.")

>1 BILLION

PERSONS WITH SOME FORM OF DISABILITY

— *WHO Report 2011*

15%

PERSONS WITH SOME FORM OF DISABILITY

— *WHO Report 2011*

one arm   arm injury   new parent

permanent ⟶ situational
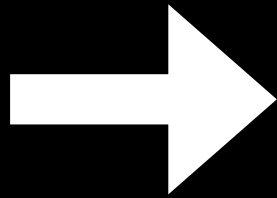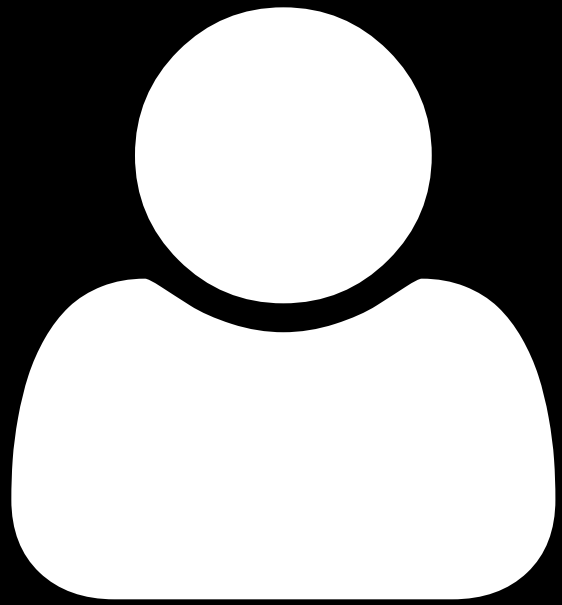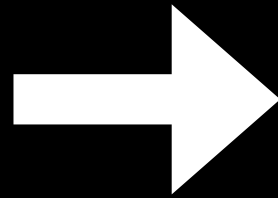
USERS **IS** PEOPLE

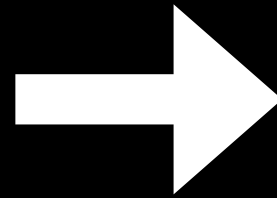# Q: HOW DO PEOPLE WITH DISABILITIES USE THE WEB?
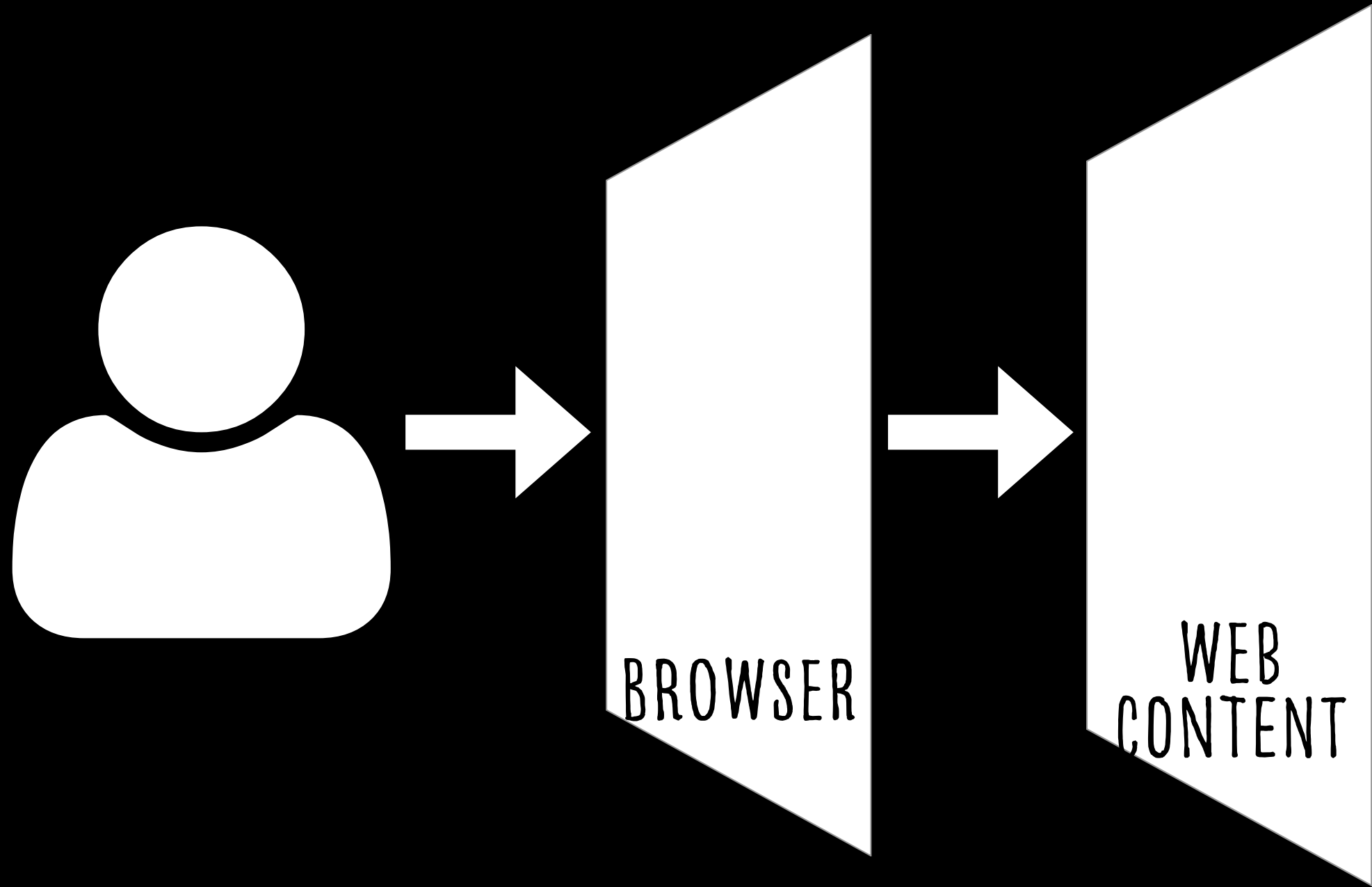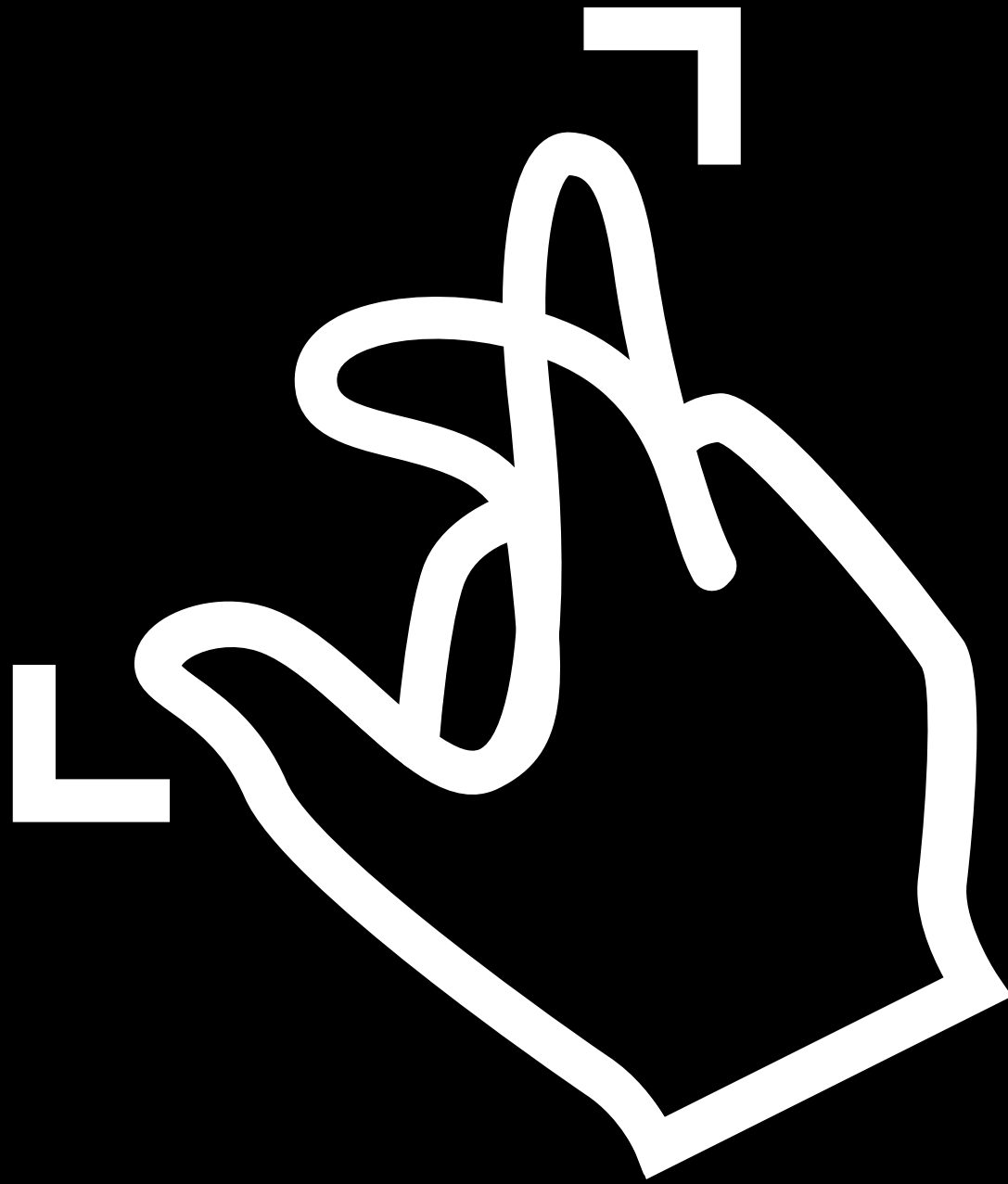
ASSISTIVE TECH

BROWSER

WEB CONTENT

ZOOM

Pinch Out by Julie Muckensturm from the Noun Project
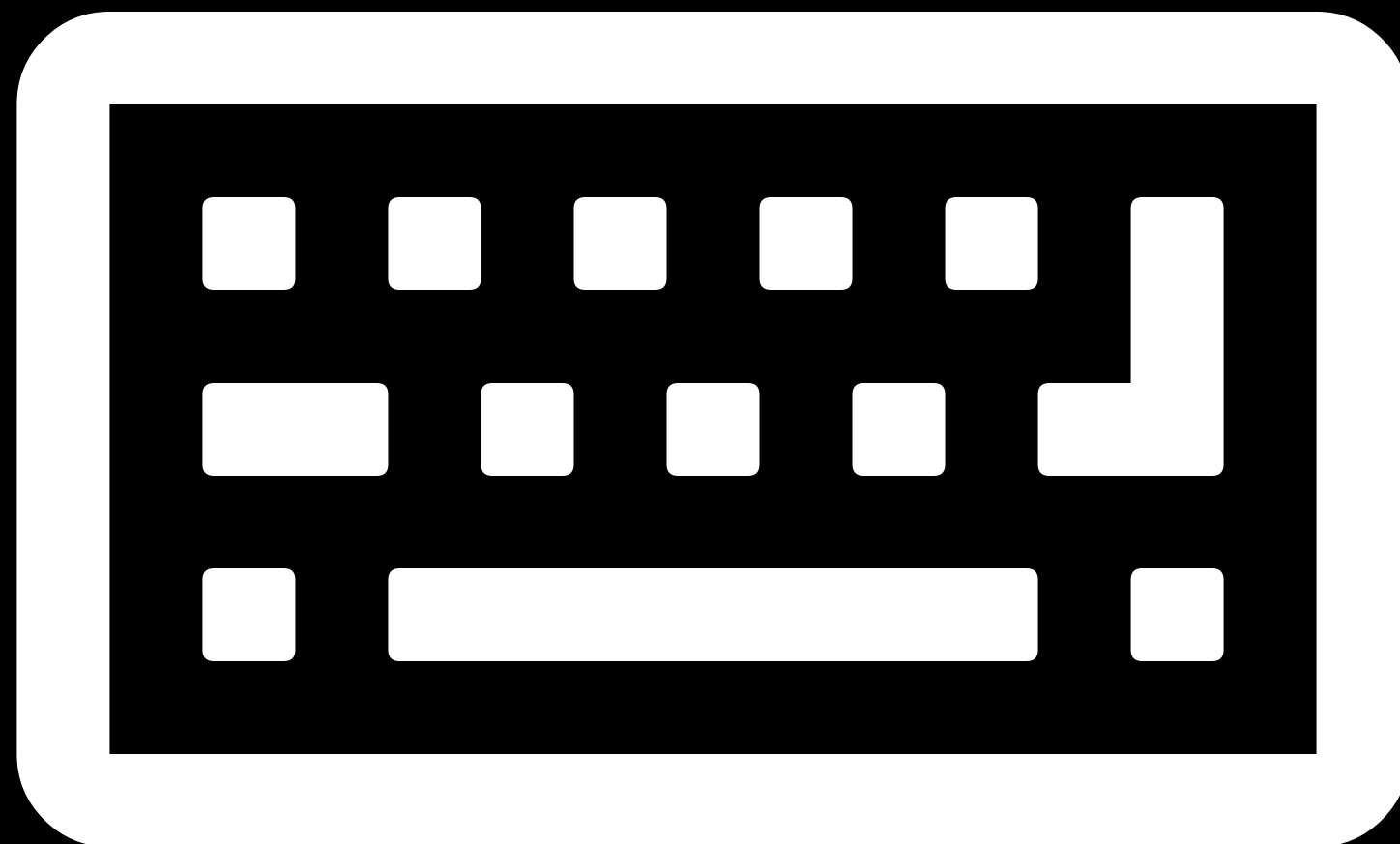
SINGLE SWITCH

BRAILLE
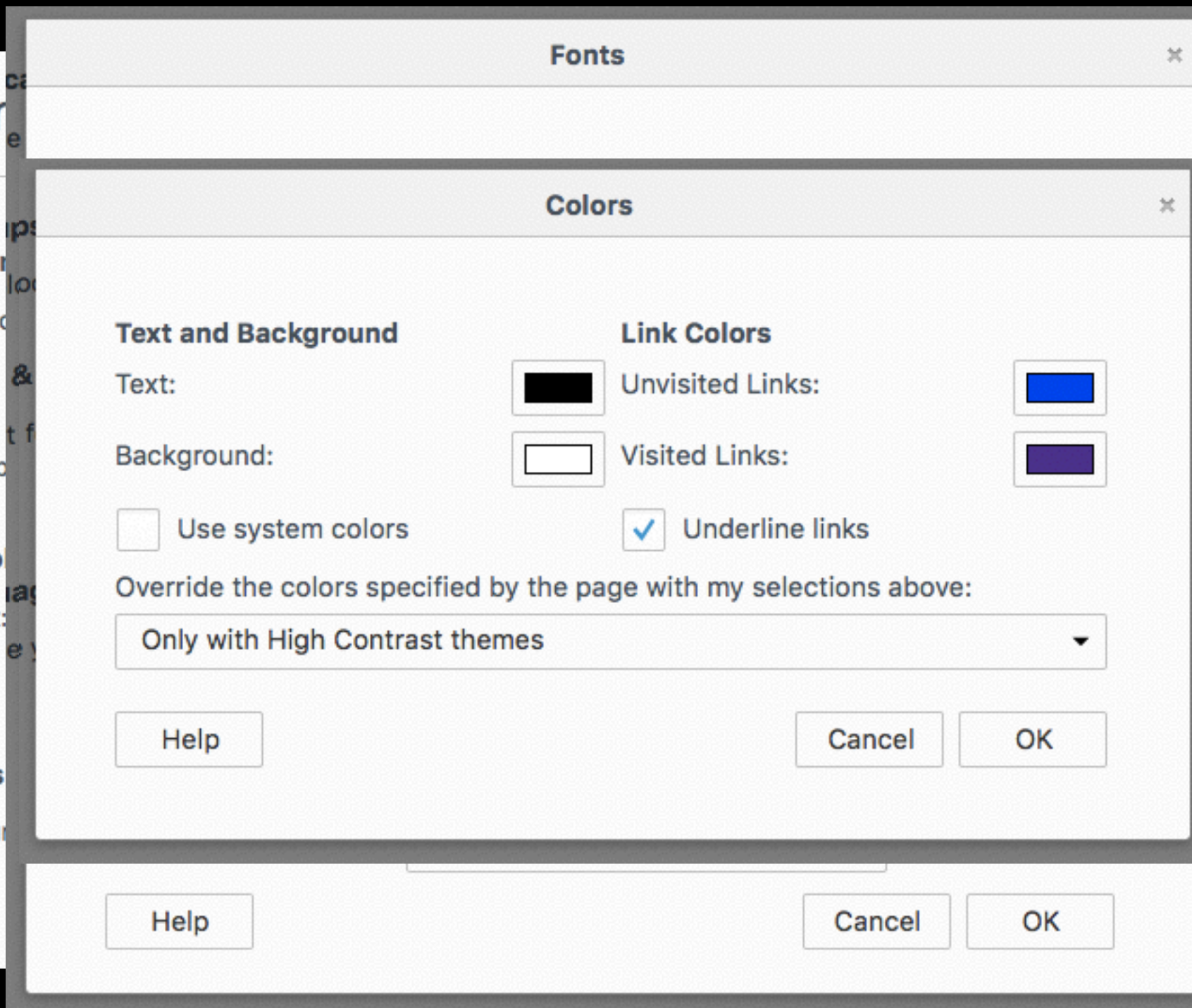
CUSTOMIZATIONS

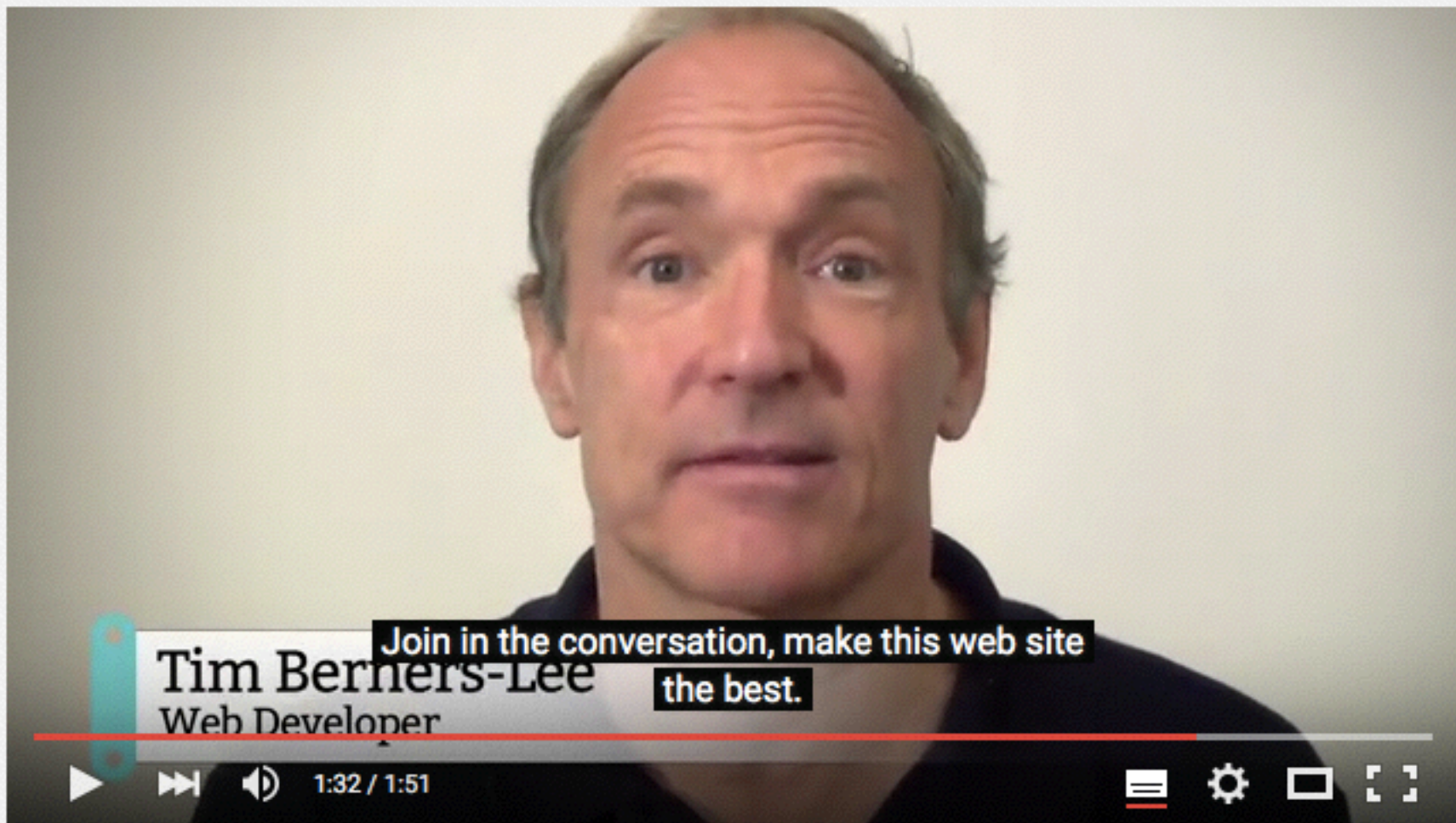# CAPTIONS

RESOURCE:
HOW PEOPLE WITH DISABILITIES USE THE WEB

w3.org/WAI/intro/people-use-web/

Q: ACCESSIBILITY SOUNDS COMPLICATED.

Q: HOW DO I **START** WITH ACCESSIBILITY?

DESIGNERS
CONTENT CREATORS
DEVELOPERS

Tips for Getting Started with Web Accessibility

Get started with accessibility. These tips introduce some basic considerations for making your website more accessible to people with disabilities, and provide links to additional guidance. Tips are grouped by activity; information relevant to your work might be in more than one page.

Designing
for Web Accessibility

Tips for user interface and visual design.

Writing
for Web Accessibility

Tips for writing and presenting content.

Developing
for Web Accessibility

Tips for markup and coding.

Write meaningful text alternatives for images

For every image, write alternative text that provides the information or function of the image. For purely decorative images, there is no need to write alternative text.

Example: Using alternative text to communicate important information
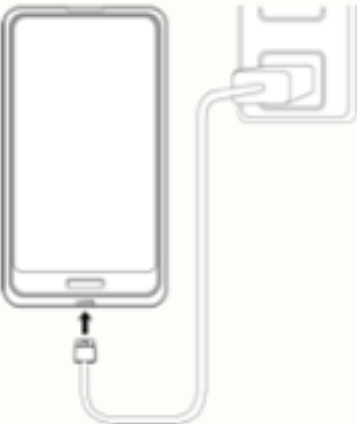
✖ Uninformative	✔ Informative
Charging the phone: Connect the phone to a power outlet using the cable and power adaptor provided. **Alternative text for image:** "Charging phone"	Charging the phone: Connect the phone to a power outlet using the cable and power adaptor provided. **Alternative text for image:** "Plug cable into the bottom edge of the phone."

Alternative text is usually not visible; it is included in this example just so you can see what it is.

For more information

- **WCAG**
  - Non-text Content 1.1.1 (Understanding 1.1.1)
- **Tutorial**
  - Images
- **User Story**
  - Describes the value of text alternatives to a blind user

Use headings and spacing to group related content

Use whitespace and proximity to make relationships between content more apparent. Style headings to group content, reduce clutter, and make it easier to scan and understand.

Example: Spacing highlights relationship between content

✖ Little spacing and unclear relationship

Main heading

Sub heading

Sub heading

✔ More spacing and clearer relationship

Main heading

Sub heading   Sub heading
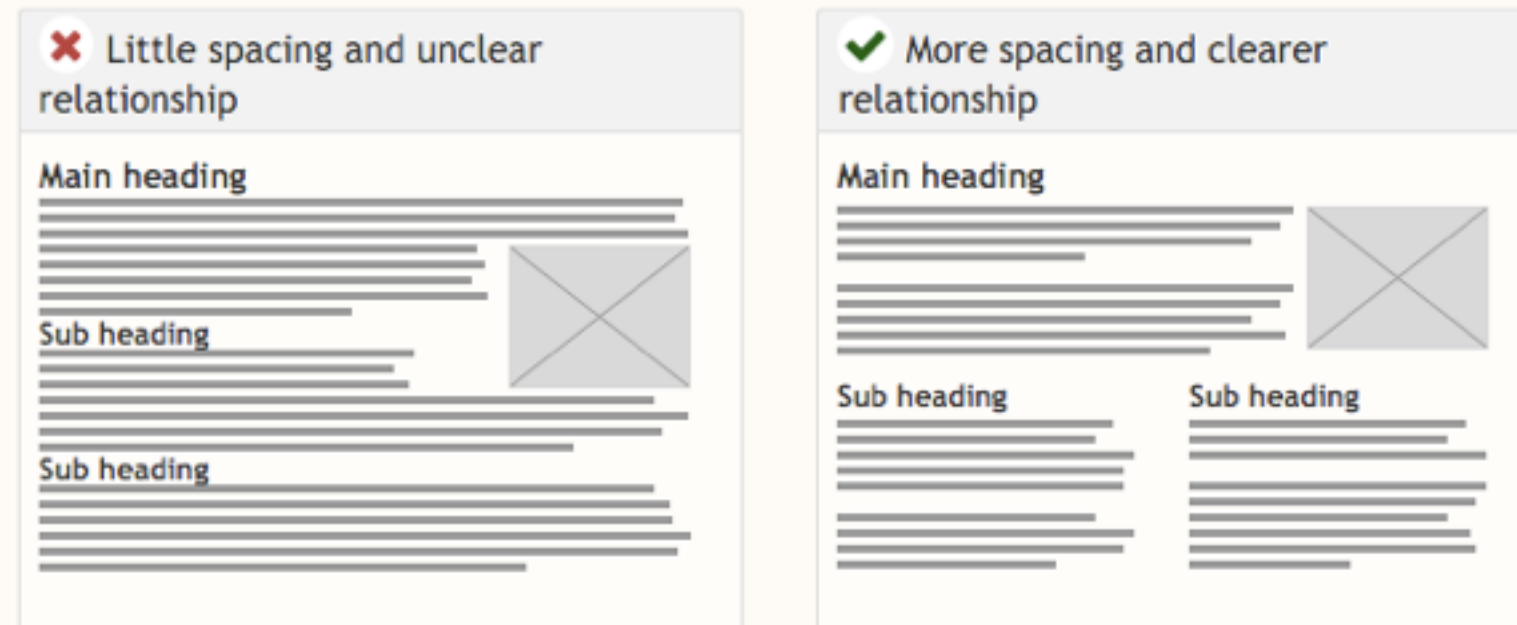
For more information

- **WCAG**
  - Headings and Labels 2.4.6 (Understanding 2.4.6)
  - Section Headings 2.4.10 (Understanding 2.4.10)
- **Tutorial**
  - Headings
- **User Story**
  - Describes how headings can be helpful for navigation

Provide sufficient contrast between foreground and background
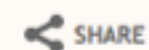
Foreground text needs to have sufficient contrast with background colors. This includes text on images, background gradients, buttons, and other elements. This does not apply for logos, or incidental text, such as text that happens to be in a photograph. The links below provide more information on the minimum contrast ratio as required by the WCAG and how to check contrast. "Contrast ratio" is a short version of the more technically correct term "luminance contrast ratio".

Example: Contrast ratio

✖ Insufficient	✔ Sufficient
Some people cannot read text if there is not sufficient contrast between the text and background. For others, bright colors (high luminance) are not readable; they need low luminance.	Some people cannot read text if there is not sufficient contrast between the text and background. For others, bright colors (high luminance) are not readable; they need low luminance.

For more information

- **WCAG**
  - Contrast (Minimum) 1.4.3 (Understanding 1.4.3)
- **User Story**
  - How a user with "color blindness" experiences the Web
- **Easy Check**
  - How to check contrast ratio
- **Support Tools**
  - List of tools to help determine contrast ratio

Write code that adapts to the user's technology

SHARE

Use responsive design to adapt the display to different zoom states and viewport sizes, such as on mobile devices and tablets. When font size is increased by at least 200%, avoid horizontal scrolling and prevent any clipping of content. Use progressive enhancement to help ensure that core functionality and content is available regardless of technology being used.

Example: Using media queries to adapt navigation

```
/* On narrow viewports, make the navigation full width */
@media screen and (min-width: 25em) {
  #nav {
    float: none;
    width: auto;
  }
  #main {
    margin-left: 0;
  }
}
```

```
/* On wider viewports, put the navigation on the left */
@media screen and (min-width: 43em) {
  #nav {
    float: left;
    width: 24%;
  }
  #main {
    margin-left: 27%;
  }
}
```

For more information

- **WCAG**
  - Resize text 1.4.4 (Understanding 1.4.4)
  - Consistent Identification 3.2.4 (Understanding 3.2.4)
- **Background**
  - Small Screen Size
- **User Story**
  - Describes how alternative views of zoomed pages can be helpful

RESOURCE:
TIPS FOR GETTING STARTED WITH WEB ACCESSIBILITY

w3.org/WAI/gettingstarted/tips/

Q: HOW DO I MAKE SURE MY WEBSITE IS ACCESSIBLE?

RESOURCE:
WEB CONTENT ACCESSIBILITY GUIDELINES (WCAG) 2.0

w3.org/TR/WCAG/

PRINCIPLES:

PERCEIVABLE

OPERABLE

UNDERSTANDABLE

ROBUST

PERCEIVABLE:
MEANINGFUL SEQUENCE

PERCEIVABLE:
TEXT ALTERNATIVES

```
<button>
  <span class="icon icon-pencil">
  </span>
</button>
```

```
<button title="Edit">
  <span class="icon icon-pencil">
  </span>
</button>
```

```
<button title="Edit">
  <span class="icon icon-pencil-kaput“>
  </span>
</button>
```

📖 **w3c** / **wai-wcag-quickref**   ☰

📖 **_help** / **1-about.md**   ⓡ

title
About

This tool provides a customizable view on different Web Content Accessibility Guidelines (WCAG) 2.0 resources including:

- Web Content Accessibility Guidelines (WCAG) 2.0 web standard
- Techniques for WCAG 2.0 implementation guidance
- Understanding WCAG 2.0 supporting information

More background on these resources is provided in WCAG Overview and The WCAG 2.0 Documents.

IMAGES

```html
<button>
  <img src="pencil.png" alt="Edit">
</button>
```

```
<button>
  <img src="pencil.svg" alt="Edit">
</button>
```

RESOURCE:
IMAGE TUTORIAL

w3.org/WAI/tutorials/images/

`<aside>`

RESOURCE:
WEB ACCESSIBILITY
TUTORIALS

w3.org/WAI/tutorials/

PAGE STRUCTURE (DRAFT)

MENUS (DRAFT)

IMAGES

TABLES

FORMS

CAROUSELS (DRAFT)

`</aside>`

VISIBLE TEXT LABELS

```
<button>
  <span class="icon icon-pencil">
  </span>
  Edit
</button>
```

PERCEIVABLE:
COLOR CONTRAST

OPERABLE:

USABLE WITH A KEYBOARD

OPERABLE:
ABILITY TO BYPASS BLOCKS

OPERABLE:
PROPER HEADINGS
and LABELS

UNDERSTANDABLE:
PAGE LANGUAGE

UNDERSTANDABLE:
CONSISTENT NAVIGATION

UNDERSTANDABLE:
INDICATE ERRORS

ROBUST:
COMPATIBILITY

Q: HOW DO I MAKE SURE THAT THE USER EXPERIENCE IS ACCESSIBLE?

YOU ARCHIVE THE BEST RESULTS WHEN...

ACCESSIBILITY IS
NOT AN AFTERTHOUGHT

SMOOTH USE OF YOUR PRODUCT

EVERYTHING FEELS COHERENT

NO COMPROMISES

NO NEED TO REBUILD

ACCESSIBILITY IS
AN OPPORTUNITY

REACH MORE PEOPLE

MAKES YOUR WEB PROJECT EASY TO UNDERSTAND

CONSISTENT LAYOUT and NAVIGATION

ACCESSIBILITY IS
A CREATIVE OUTLET

PRODUCE THE BEST VIDEO PLAYER UI

CONSIDER THE ORDER OF THE CONTENT

TAKE THE AVAILABLE DATA AND DO SOMETHING NO ONE EXPECTS

THANK YOU.

ERIC EGGERT

W3C/WEB ACCESSIBILITY INITIATIVE

EE@W3.ORG & @YATIL