



SHIFTING LEFT

*or: making accessibility
easier by doing it earlier*

HI, I'M HIDDE

developer relations at Sanity +
accessibility specialist

sanity.io
hidde.blog



ACCESSIBILITY, A BRIEF INTRO

WEB ACCESSIBILITY

to ensure people with disabilities
can use our site/app

WEB ACCESSIBILITY

to ensure people with disabilities
can buy our product

WEB ACCESSIBILITY

to ensure people with disabilities
can use our service

1-2%

blind/visually impaired

,

4%

colour blind

OOGVERENIGING (1 IN 12 MEN, 1 IN 250 WOMEN)

neurological
conditions

**THIS CONCERNS
A LOT OF PEOPLE**

motor
impairments

9%

deaf/heard of hearing

HOORWIJZER

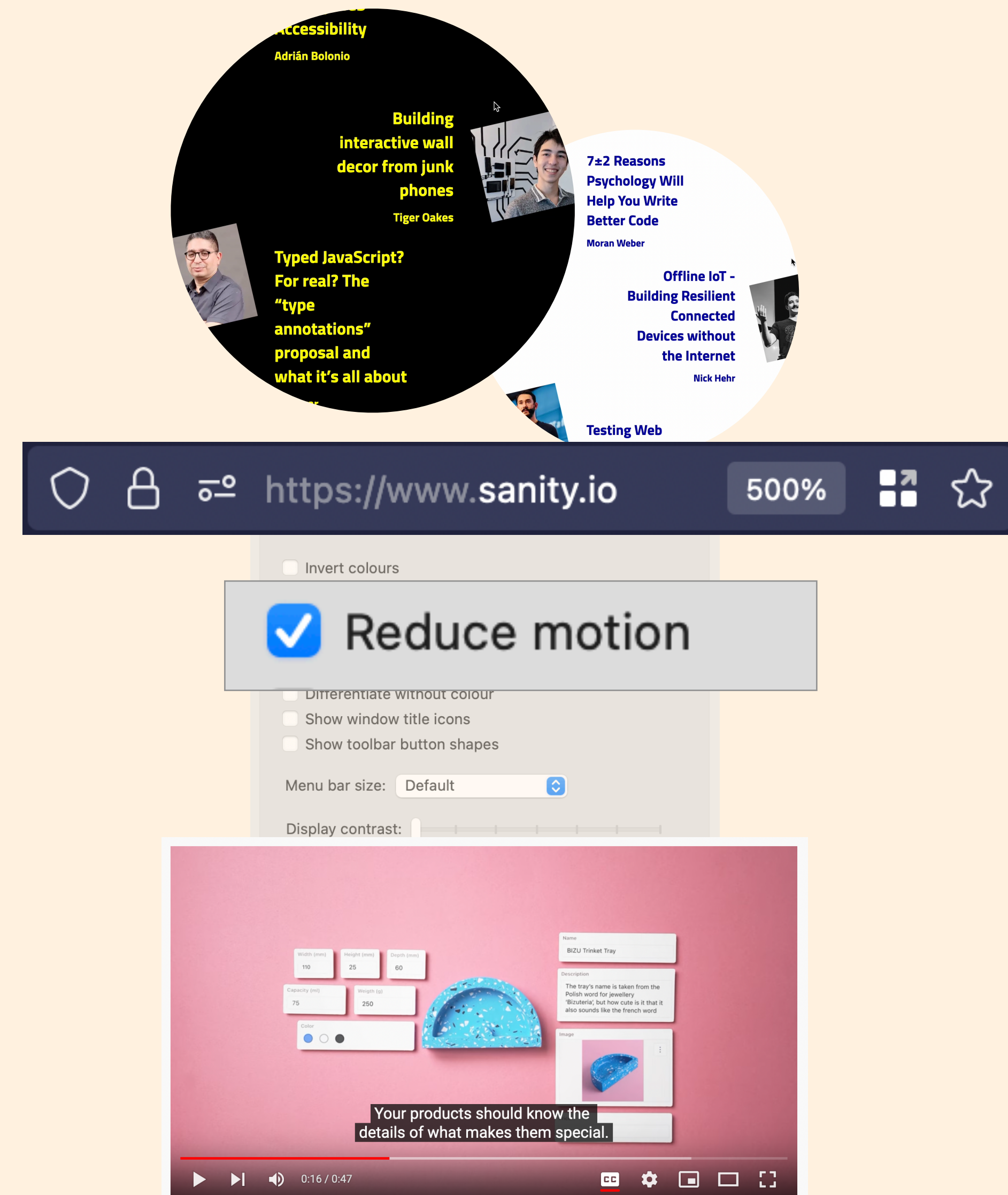
15%

low numerate / low literate

ALGEMENE REKENKAMER

A LOT OF PEOPLE

- zoom in web pages
- use high contrast modes
- have screenreader
- need audio/video transcribed
- do not use a mouse
- use voice recognition
- prefer reduced motion



**ASSUME LESS ABOUT
HOW PEOPLE USE
YOUR PRODUCT**

WHAT TO TEST?

ALLY
STANDARDS + **BEST**
PRACTICES + **USER**
TESTING

(You'll need all of the above)



(You'll need all of the above)

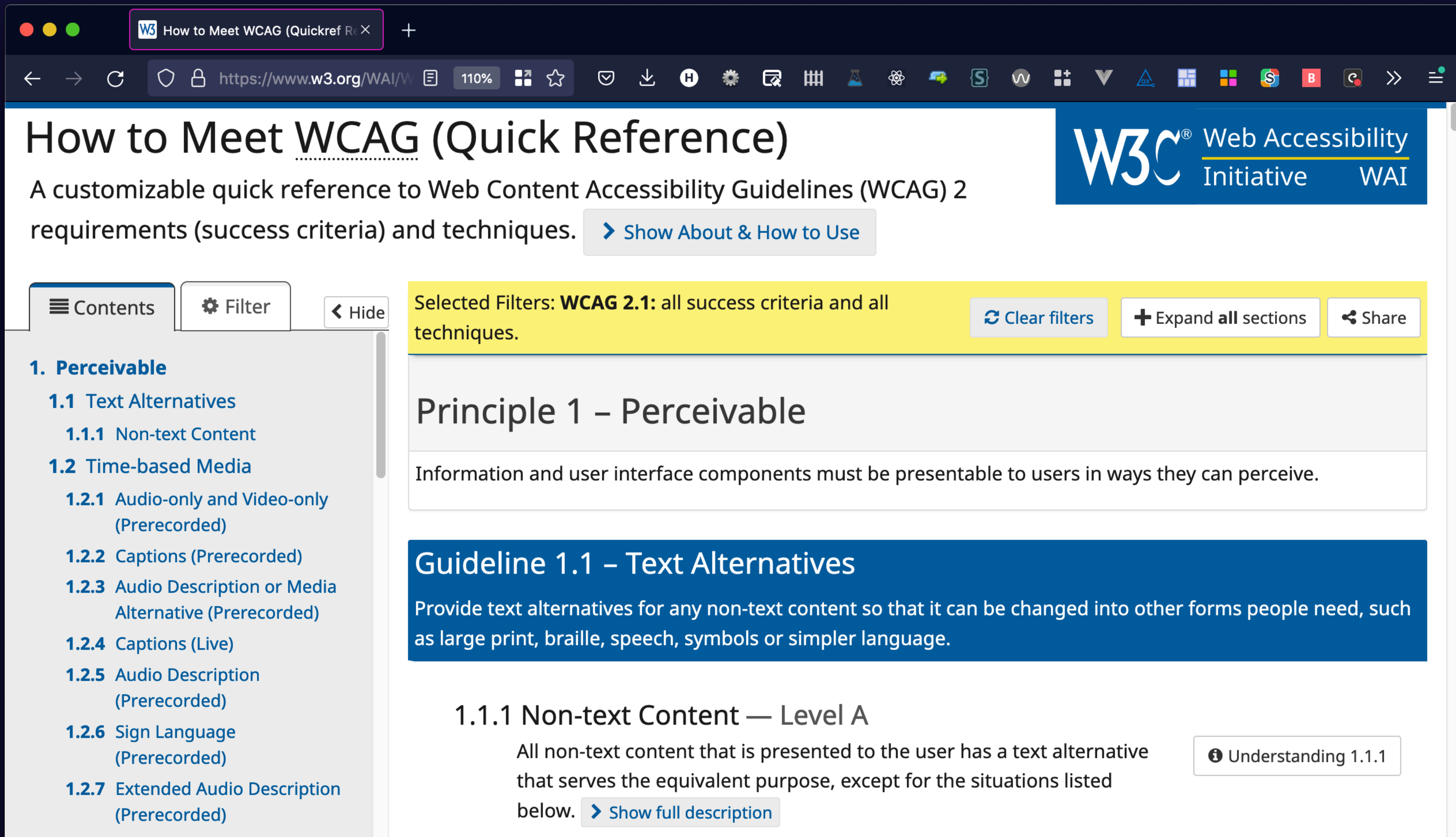
WCAG 2.1

[w3.org/TR/WCAG21](https://www.w3.org/TR/WCAG21)

WCAG: internationally implemented guidelines that provide a baseline for testing web accessibility

QUICK REFERENCE

w3.org/WAI/WCAG21/quickref/



THIS IS WCAG

thisiswcag.com

✓ This is WCAG

×

+

←

→

↺

🔒

https://thisiswcag.com

🗖

☆

📧

⬇

H

⚙

📄

📊

🧪

🔬

📁

S

📶

🗖

⏏

⋮

This is WCAG 2.1

all

content

custom-controls

forms-and-UI

audio-video

structure

colour

font-size

dynamic-content

keyboard

link

Total tests 103

showing 103 tests

filtered by forms

WCAG in plain language

Build and test against the Web Content Accessibility Guidelines (WCAG) consistently by understanding what is a failure against the success criteria.

These tests help you focus on the relevant criteria you need to apply and test against.

Disagree with any of the tests? put forward a change recommendation in the [project repository](#)

Notify me

Stay up to date whenever tests are added and updated.

Email address

We'll never share your email with anyone else.

Notify me

50 SUCCESS CRITERIA*

- about issues people with disabilities face
- testable (some by humans, some by machines)

EXAMPLES

2.4.2 Page Titled — Level A

Web pages have titles that describe topic or purpose.

➤ [Show techniques and failures for 2.4.2](#)

2.4.6 Headings and Labels — Level AA

Headings and labels describe topic or purpose.

➤ [Show techniques and failures for 2.4.6](#)

* counting Level A + AA criteria in WCAG 2.1

ALLY
STANDARDS + **BEST**
PRACTICES + **USER**
TESTING

(You'll need all of the above)

HOW TO TEST?

MANUAL VS AUTOMATED

You will need both!

MANUAL VS AUTOMATED

```

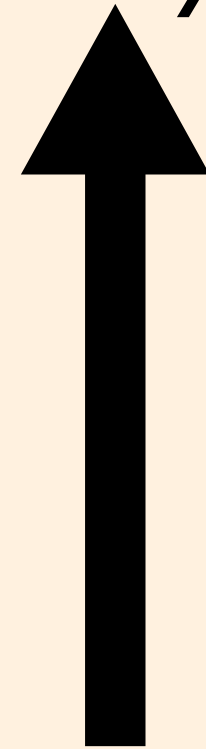
```



MANUAL VS AUTOMATED

```

```



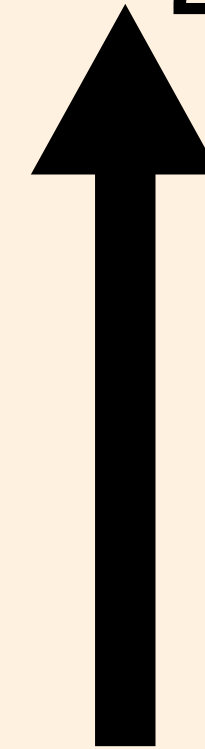
Problem: there is no alt
(machines can establish this)



MANUAL VS AUTOMATED

```

```



Problem: the alt does not
reflect what image says
(would require machine that
can do OCR, most
accessibility testing tools don't)

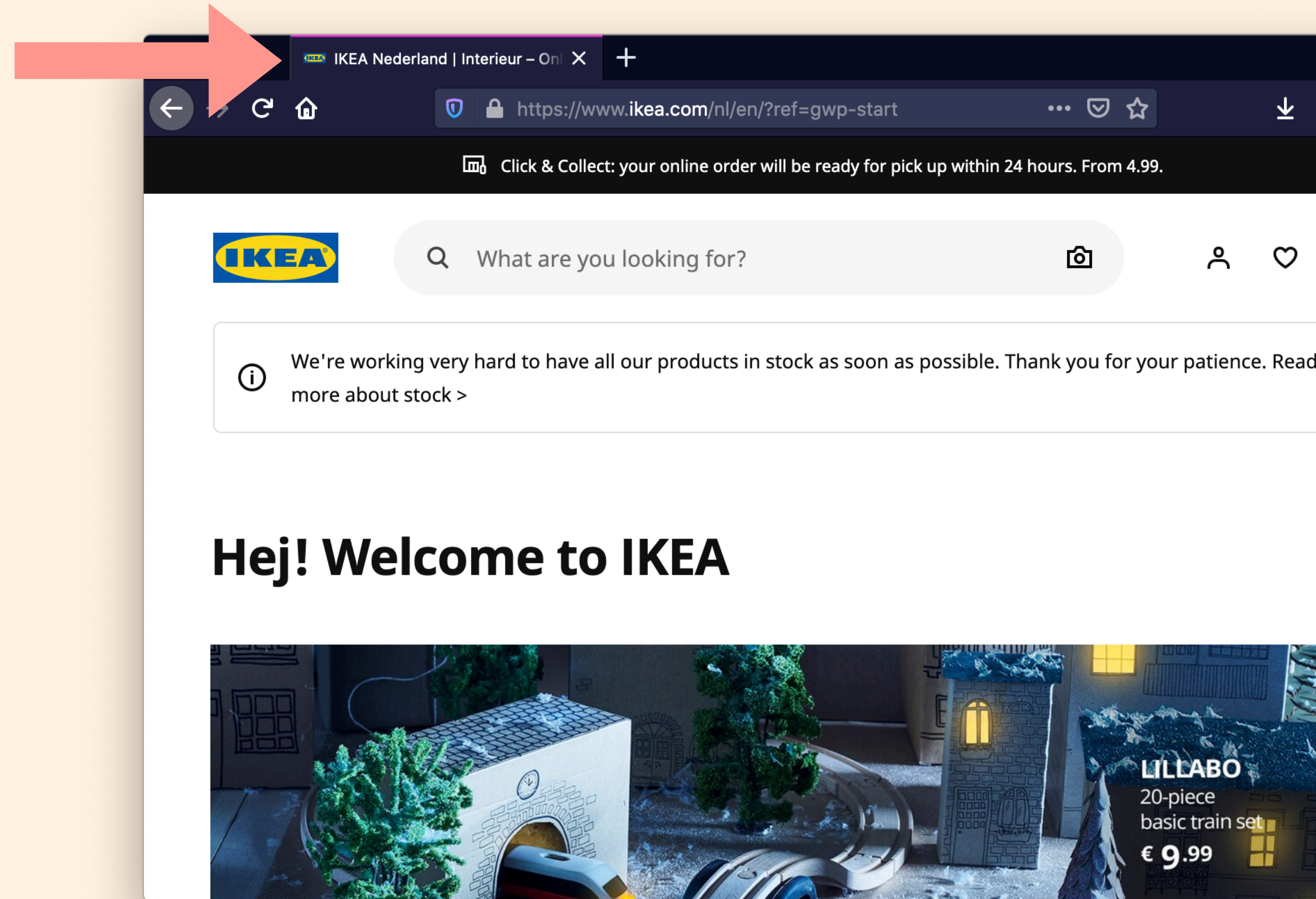


MANUAL TESTING

Tests that most people on the team can do periodically

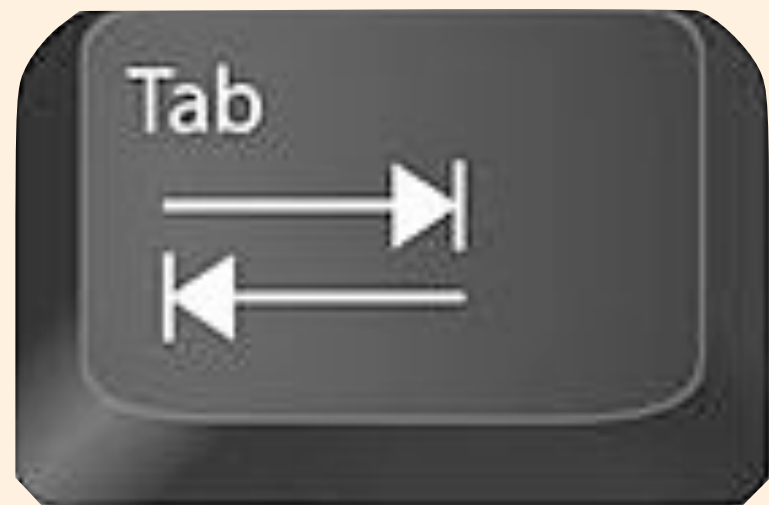
MANUAL: PAGE TITLE

Is there a title? Does
it describe the page?



MANUAL: KEYBOARD

Can I get to all
interactive elements?



`<details>`

`<select>`

`<input>`

`<textarea>`

`<a>`

`<button>`

MANUAL: KEYBOARD

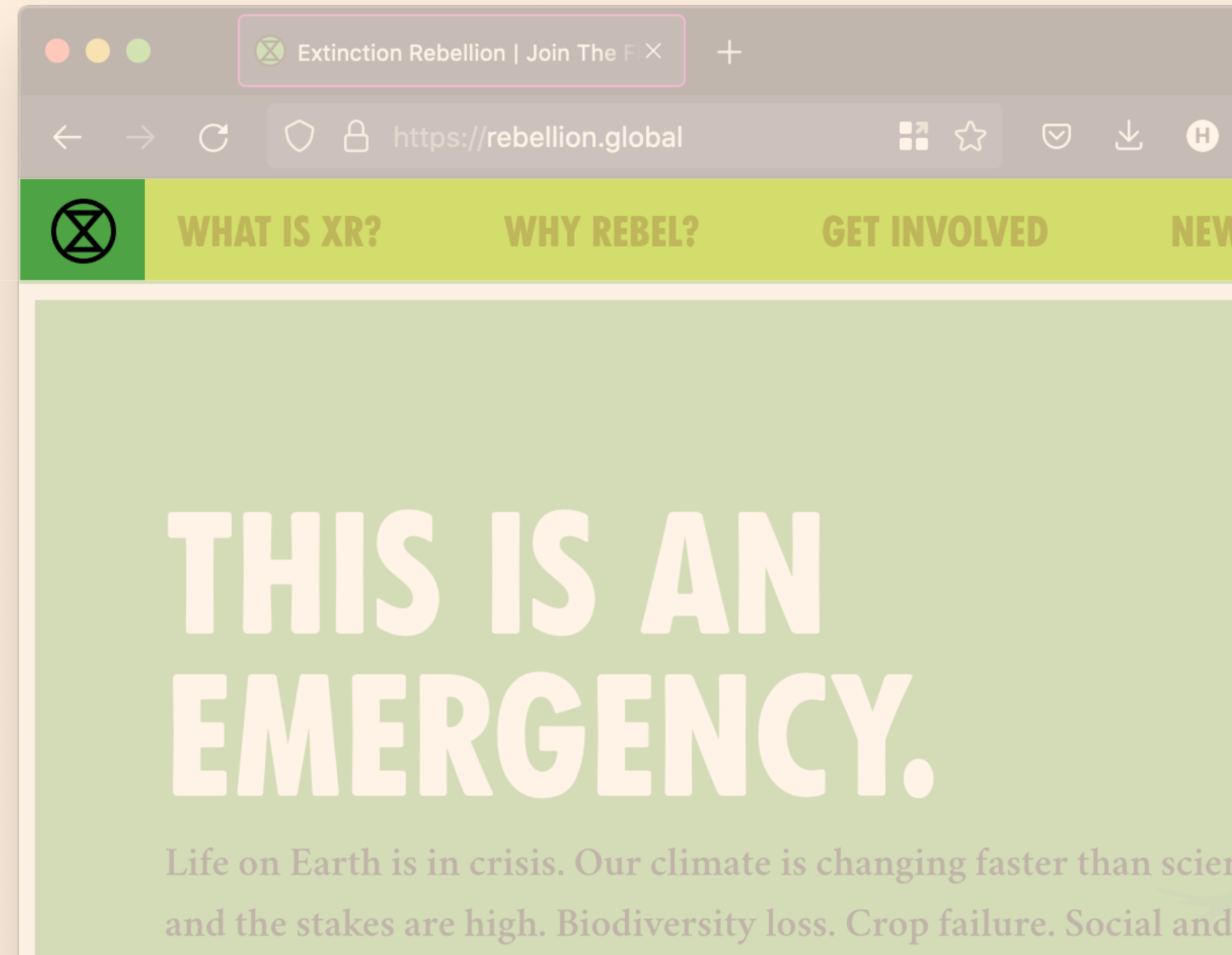
Can I see where I am?

Leverage agile frameworks to provide a robust synopsis for high level overviews. Iterative approaches to corporate strategy foster collaborative thinking to further the overall value proposition. Organically grow the holistic world view of disruptive innovation via workplace diversity and empowerment.

Bring to the table win-win survival strategies to ensure proactive domination. At the end of the day, going forward, a new normal that has evolved from generation X is on the runway heading towards a streamlined cloud solution. User generated content in real-time will have multiple touchpoints for offshoring.

MANUAL: IMAGES

Is the image the only thing in a link? The alt is now the link's name.

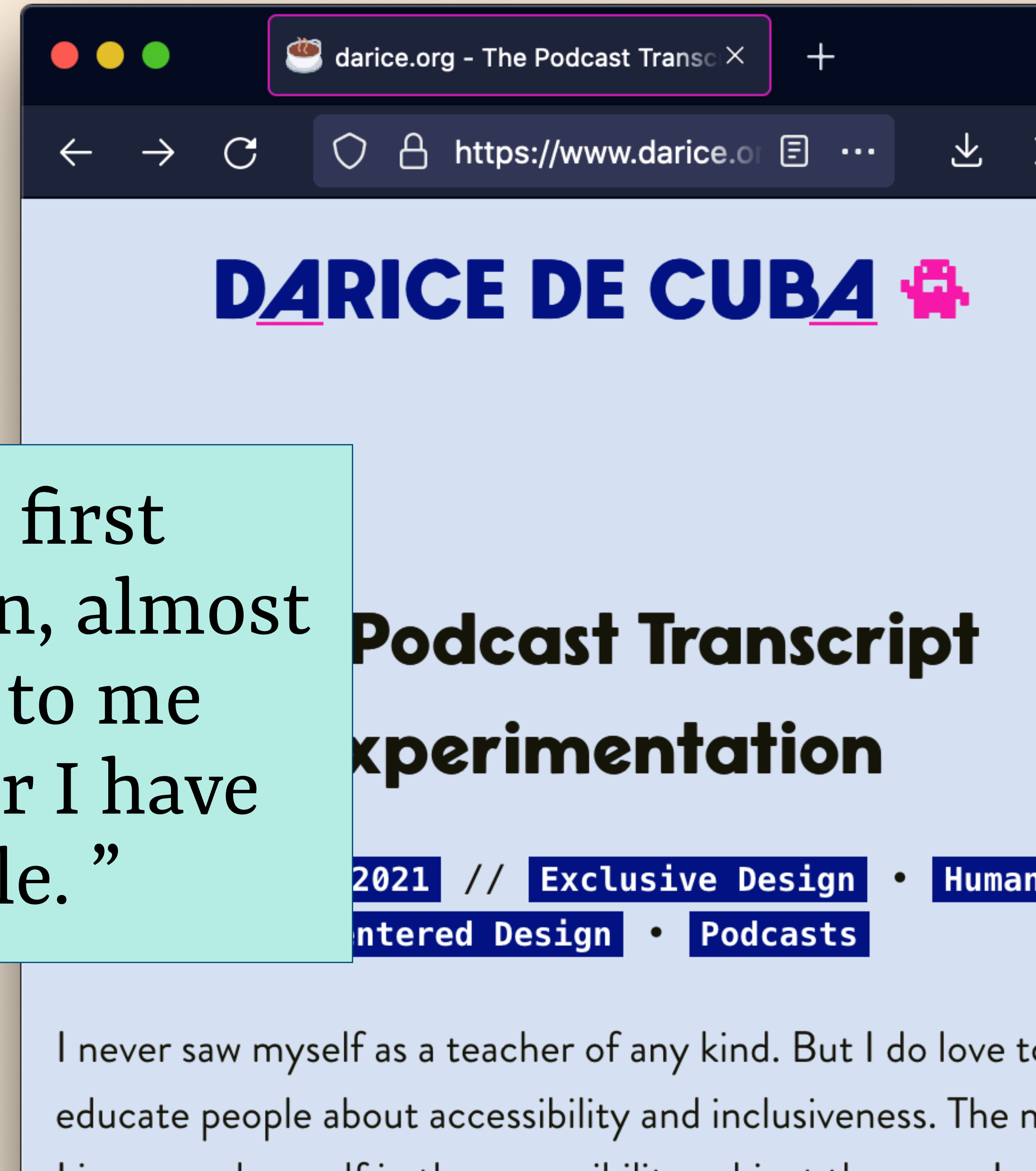


MANUAL: AUDIO

Is everything in the audio
available as text?

“[podcasts] really boomed during the first months of lockdown. As a deaf person, almost all of these podcasts are inaccessible to me because they don’t have transcripts or I have to wait weeks before they are available.”

Darice de Cuba, *The Podcast Transcript Experimentation*



MANUAL: HEADINGS

Do headings describe the
section they're a heading of?

MANUAL: HEADINGS

Is everything that looks like a heading marked up with a hx tag?

```
<div class="text-5xl font-medium text-green-600">Our products</div>
```

MANUAL: ZOOM

When you zoom in (up to 400%),
does everything still work?

- text should not overlap
- text should not be cut off
- all controls should be usable
- no horizontal and vertical scrolling



MANUAL: TIMING

Are time limits over 20hrs or
can they be turned off?

You've been
logged out
automatically

MANUAL: COLOR MODES

Can everything be used with
Windows High Contrast Mode on?

SEMI-AUTOMATED TESTING

Tests that remove some of the manual work so you can make decisions quicker



FIREFOX DEV TOOLS

- Visualise tabbing order

1

English

383 000+ articles

2

日本語

1 292 000+ 記事

3

Русский

1 756 000+ статей

4

Deutsch

2 617 000+ Artikel

5

Español

1 717 000+ artículos

6

Français

2 362 000+ articles

7

中文

1 231 000+ 條目

8

Italiano

718 000+ voci

9

Português

1 074 000+ artigos

10

Polski

1 490 000+ hasel

11

EN ▾

12

13

14

Read Wikipedia in your language ▾

15

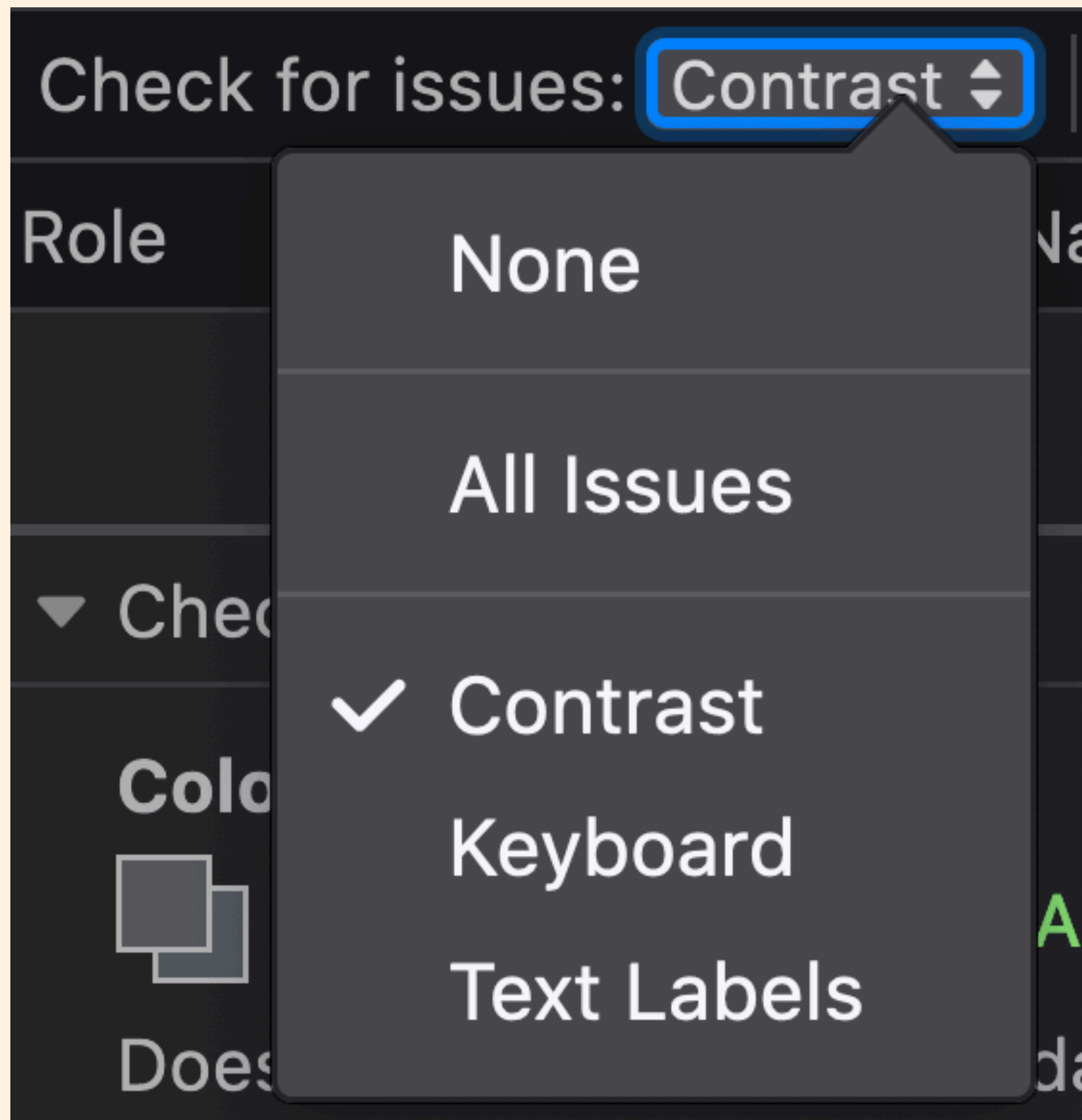
Accessibility >>

Check for issues: None | ☒ Show Tabbing Order

Role	Name
Checks	
No checks for this node.	
Properties	
name:	"Wikipedia"
role:	"document"
actions:	[...]
value:	""
DOMNode:	#document
description:	""
keyboardShortcut:	""
childCount:	22

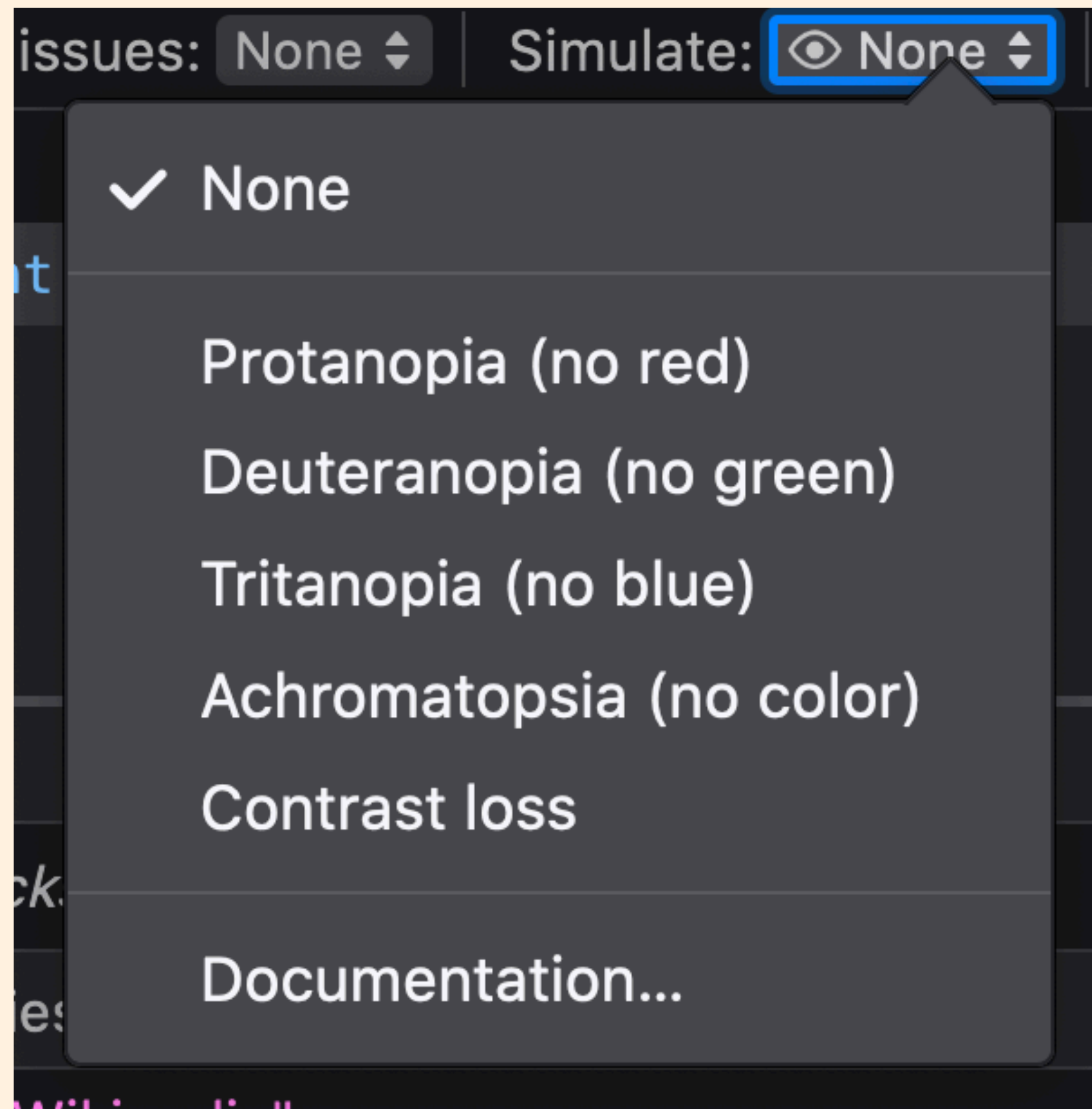
Filter Output

Errors Warnings Logs Info Debug CSS XHR



FIREFOX DEV TOOLS

- Visualise tabbing order
- Test Contrast, Keyboard and Text Labels on a page



FIREFOX DEV TOOLS

- Visualise tabbing order
- Test Contrast, Keyboard and Text Labels on a page
- Simulate colour vision deficiencies / contrast loss

HTML VALIDATOR

validator.nu

Validation results for https://theguardian.com

Validator Input

Address

Encoding

Schemas

Preset

Parser

XMLNS Filter

☐ Be lax about HTTP Content-Type

☐ Show Image Report

☐ Show Source

☐ Show Outline

Group Messages

- Warning:** Content-Security-Policy HTTP header: Bad content security policy: The child-src directive is deprecated as of CSP level 3. Authors who wish to regulate nested browsing contexts and workers SHOULD use the frame-src and worker-src directives, respectively.
https://theguardian.com/
- Warning:** The document is not mappable to XML 1.0 due to two consecutive hyphens in a comment

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International edition

The Guardian
For 200 years

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World UK Coronavirus Climate crisis Environment Science Global development Football Tech Business Obituaries

Headlines

Tuesday 18 January 2022

Leeuwar...
Now 5°C 13:00 7°C 16:00 7°C 19:00 5°C View full forecast

Tonga volcano /
First pictures show
islands blanketed in
ash, as two deaths
confirmed



A New Zealand defence force surveillance flight has returned from Tonga. Pictures show land and trees coated in ash

Leaked images New Zealand military photos show scale of

Communications Damaged undersea cable could cut off nation

Visual guide The eruption and its aftermath



Russia / Moscow
moves troops to
Belarus for joint
exercises near Ukraine
border

Ukraine Russia would pay 'high price' for attack, says German

WAVE
wave.webaim.org

AUTOMATED TESTING

Tests you can run against a website automatically (eg in CI/CD)

```
hdv ~/Projects ➤ axe https://dequeuniversity.com/rules/axe/4.1/image-alt
Running axe-core 4.1.1 in chrome-headless

Testing https://dequeuniversity.com/rules/axe/4.1/image-alt ... please wait, thi
s may take a minute.
0 violations found!

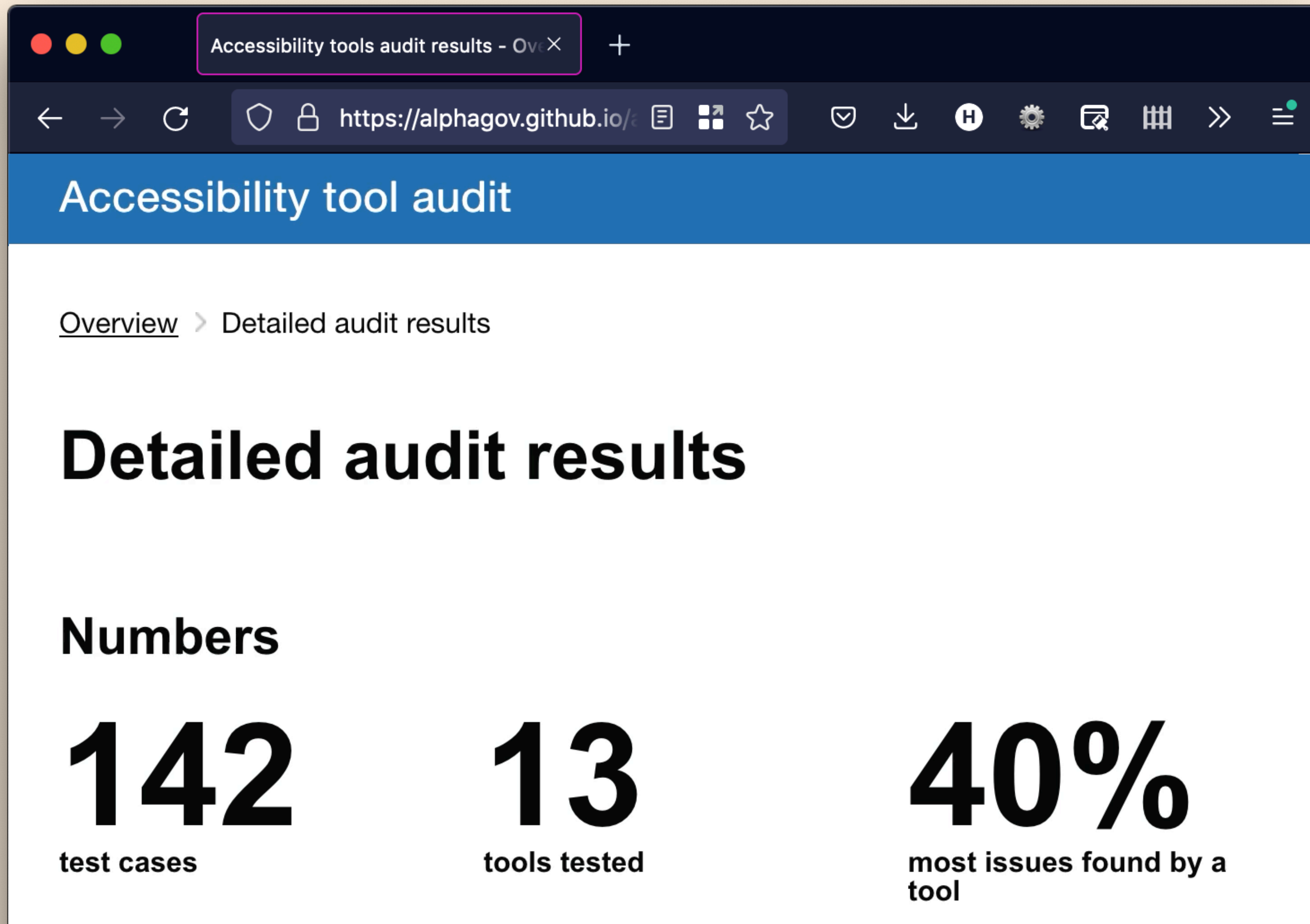
Please note that only 20% to 50% of all accessibility issues can automatically b
e detected.
Manual testing is always required. For more information see:
https://dequeuniversity.com/curriculum/courses/testingmethods
```

AUTOMATED TESTING



Most of these integrate with your CI/CD and can export to interoperable data formats

AUTOMATED TESTING



**IT'S EASIER WHEN YOU
DO IT EARLIER**

FIND BARRIERS IN YOUR SITE BEFORE IT DEPLOYS

**IT'S EASIER WHEN
YOU DO IT EARLIER**

IT'S EASIER WHEN YOU DO IT EARLIER

Eg, pick a CMS that supports accessibility

IT'S EASIER WHEN YOU DO IT EARLIER

Eg, pick a CMS that supports accessibility,
check designs before building

IT'S EASIER WHEN YOU DO IT EARLIER

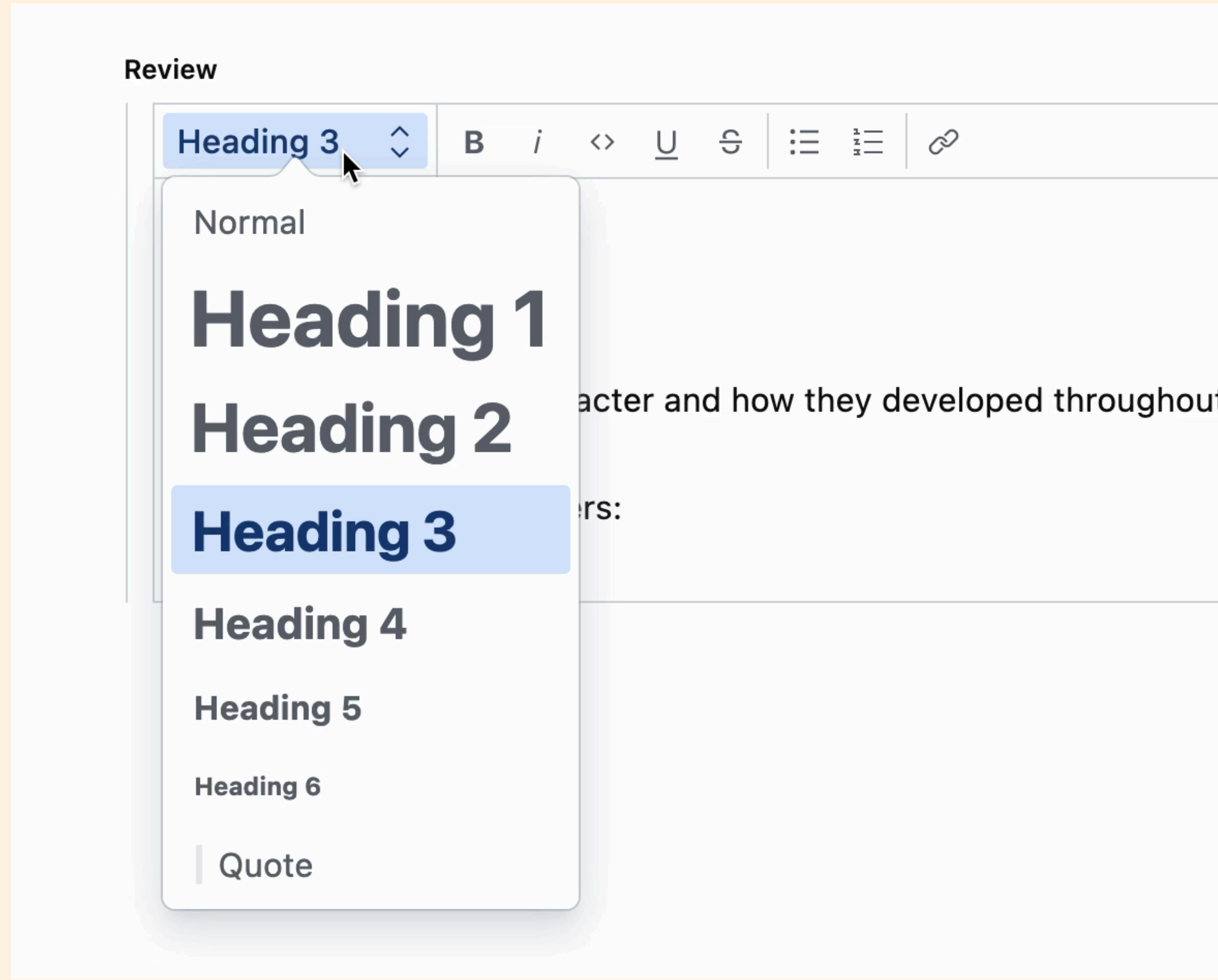
Eg, pick a CMS that supports accessibility,
check designs before building, **check**
builds before merging

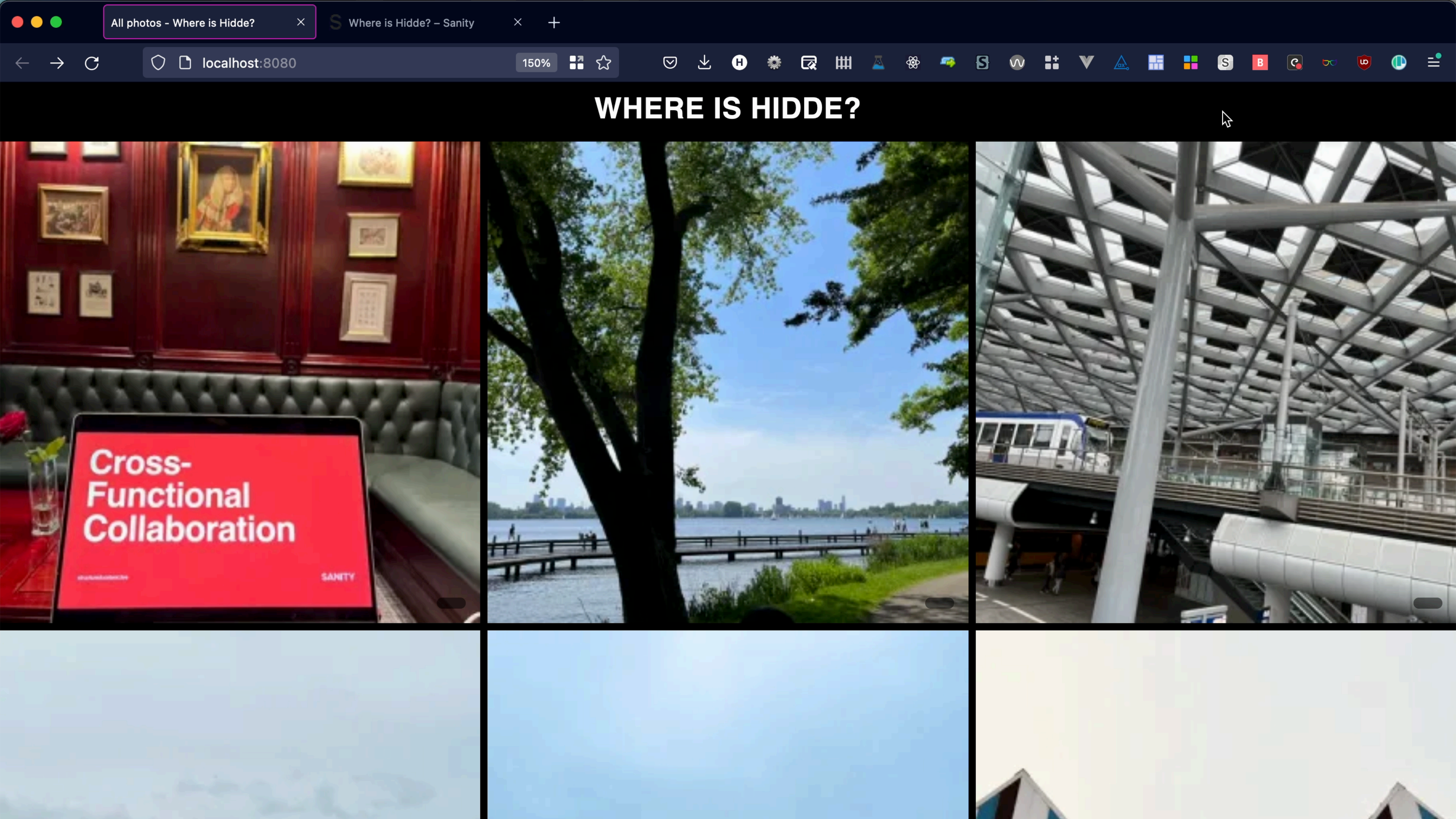
IT'S EASIER WHEN YOU DO IT EARLIER

Eg, pick a CMS that supports accessibility,
check designs before building, check
builds before merging, **check merged code
before shipping, etc**

WYSIWYM

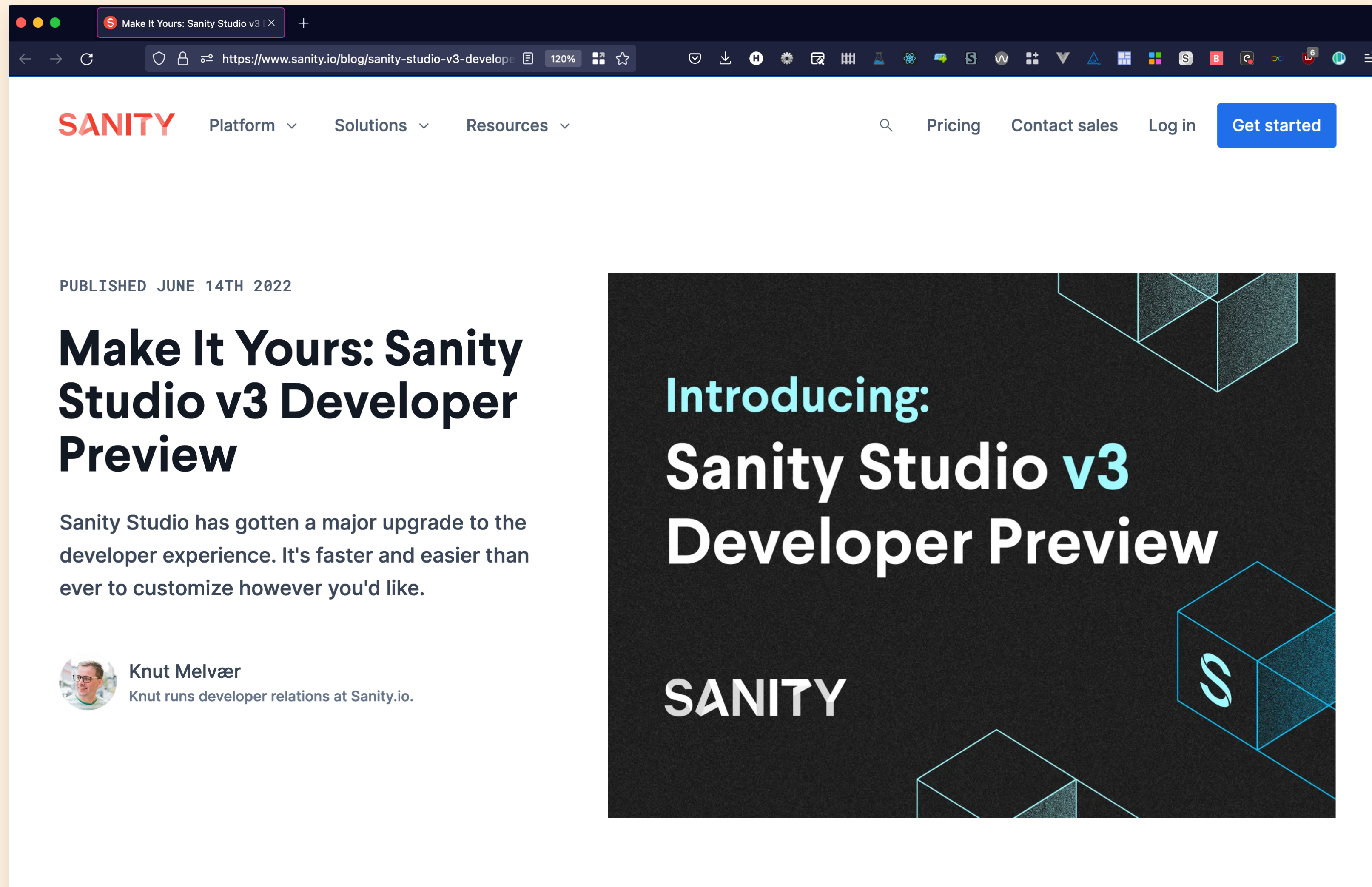
What you
see is what
you mean





“MAKE IT YOURS”

<https://www.sanity.io/blog/sanity-studio-v3-developer-preview>



Books



Norwegian wood



Norwegian wood



Current version 

Book title

Norwegian wood

Review

Normal



B

i

It was a fantastic book!

Details

Really liked the main character and how they developed throughout the book.

I also liked these characters:

- Alice
- Bob

Example: transition.tk

NEWS
消息

MUSIC
音樂

ABOUT
關於

CONTACT
聯絡

TRANSITION
前進樂團

GET OUR
ALBUM!

買我們的 新
專輯

Inspector

Console

Debugger

Network

Search HTML

<!DOCTYPE html>

<html>

</html>

</div>

lang="en">

</nav>

ent page-content-news">

tent">

<h2>

Transition Introduction

樂團介紹

html > body.home

Rules

Layout

Computed

Changes

Compatibility

Fonts

Anim

Filter Styles

:hov .cls

+

☀

🌙

📄

element {

}

body.home {

background-color: transparent;

}

@media (min-width: 50em)

body.home {

styles.css:58

styles.css:54

PORTABLE TEXT

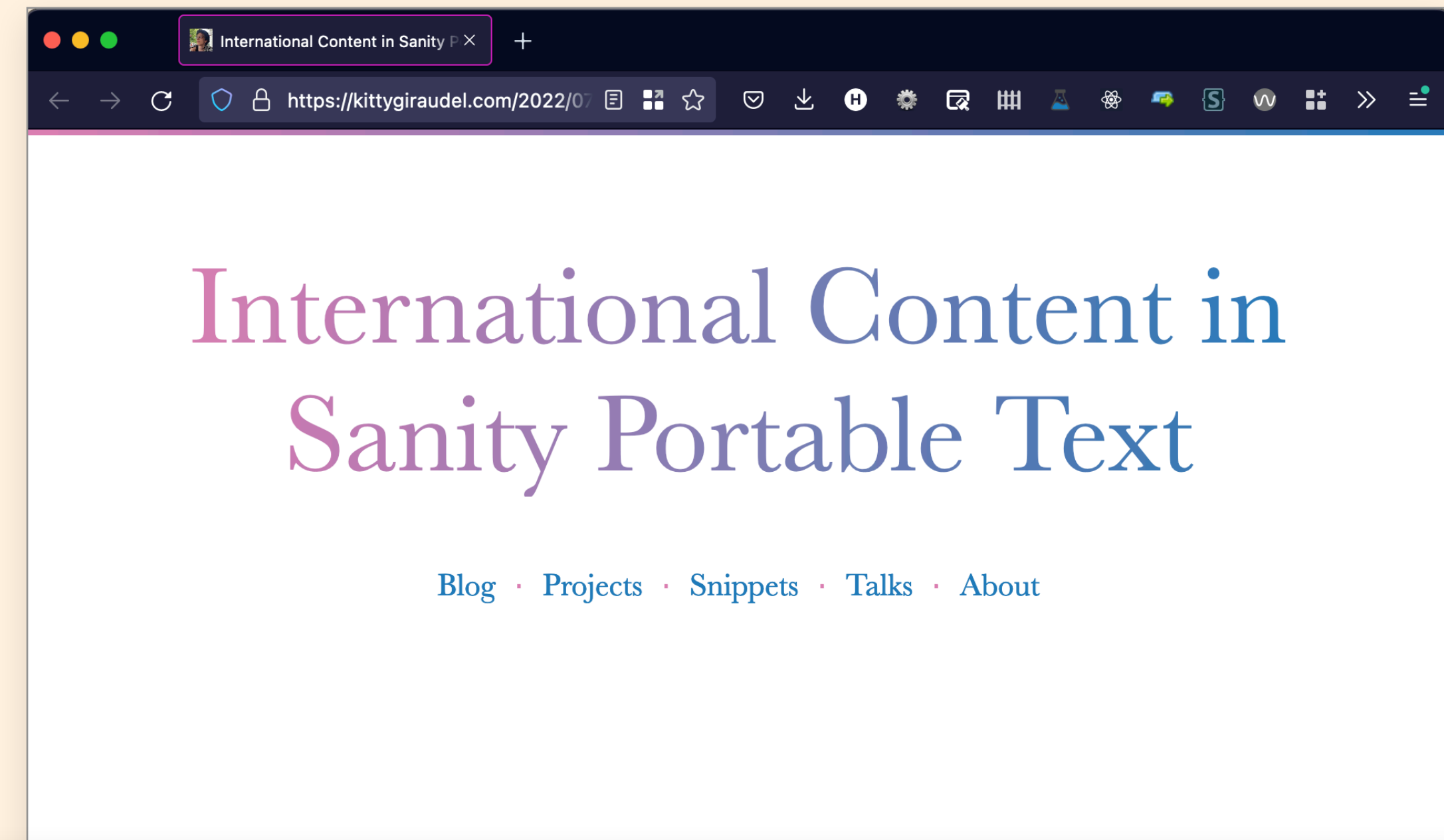
Custom annotations



PORTABLE TEXT

Custom annotations

<https://kittygiraudel.com/2022/07/25/international-content-with-sanity-portable-text/>



```
import { PortableText } from '@portabletext/react'
```

```
const COMPONENTS = {  
  /* All your component definitions ... */  
  marks: { lang: Lang },  
}
```

```
const Lang = props => <span lang={props.value.tag}>{props.value}
```

```
const RichText = props => <PortableText value={props.content} components={COMPONENTS} />
```

Content

Language switch

Normal



B Strong



Language switch

He maintained that the DDR (German Democratic Republic) was just a
'Treppenwitz der Weltgeschichte'.

WHAT?

Accessibility standards
Best practices
User testing

HOW?

Manual checks
Browser tools
CLI tools

WHEN?

Early, eg with right CMS, auto checks etc
Often, during development
Periodically, with audits and user tests

THANK YOU!

QUESTIONS?

Contact/resources

talks.hiddedevries.nl

@hdv or hidde@sanity.io

Typefaces

Bungee by David Jonathan Ross (DJR)

Rasa by Anna Giedryś, David Březina (Rosetta)