

ARIA: THE GOOD PARTS

Hidde
de Vries

20 June 2025
Pixel Pioneers, Bristol

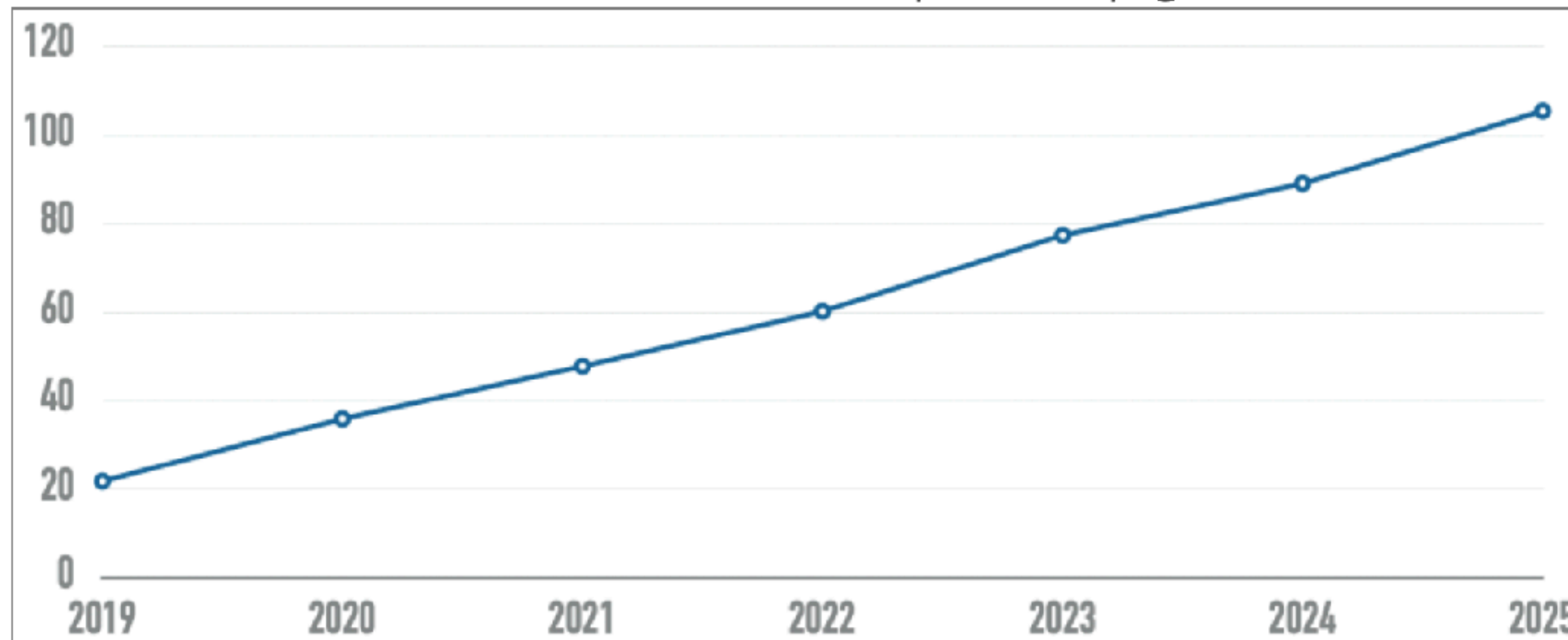
@hdv on
front-end.social



ARIA

105,509,338 ARIA attributes were detected—nearly 106 per page on average!
ARIA code usage increased 18.5% in just one year and is nearly 5 times higher than it was in 2019.

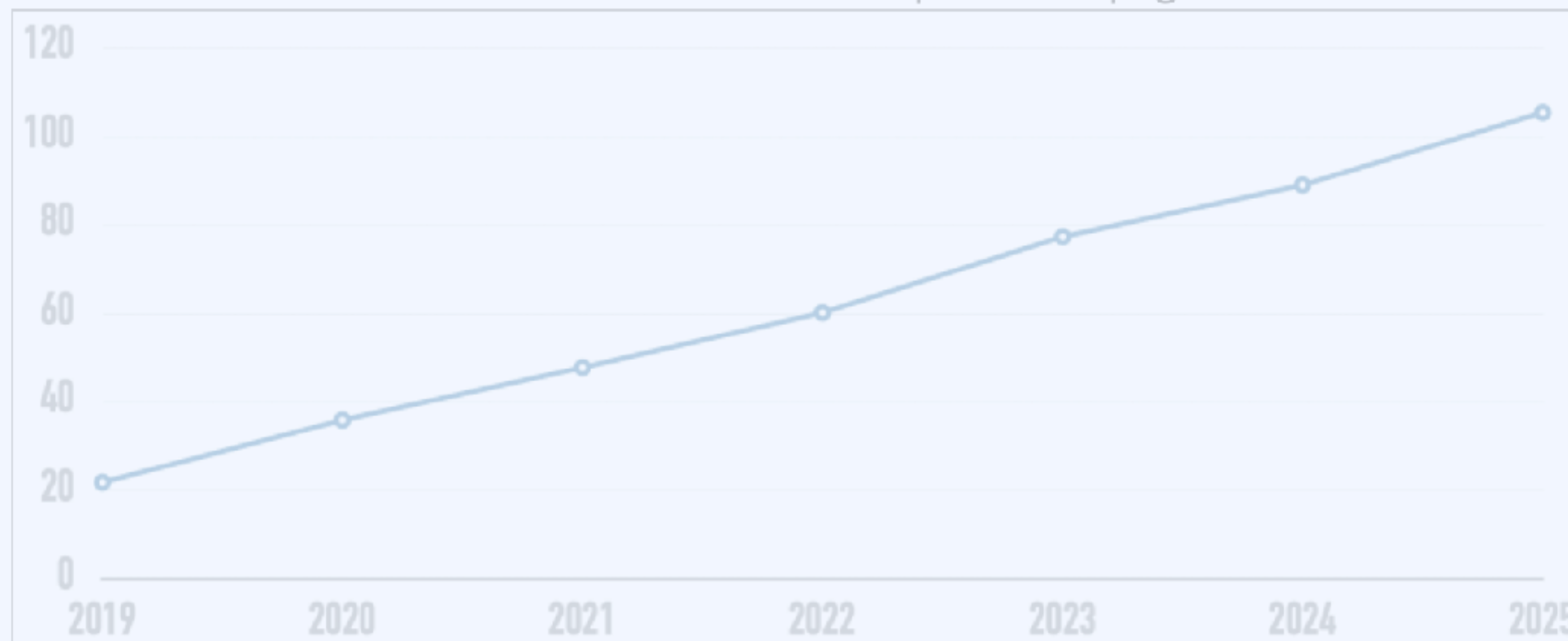
This chart shows the number of ARIA attributes per home page over time:



The prevalence of ARIA labels and descriptions increased 28% in just the last year. Home pages averaged 25 `aria-label`, `aria-labelledby`, or `aria-describedby` attributes.

79.4% of the one million home pages used ARIA (excluding ARIA landmark roles), up notably from 74.6% in 2024. **Home pages with ARIA present had over twice as many errors (57 on average) than pages without ARIA (27 on average).** While ARIA is intended to improve accessibility, one would expect to encounter an additional 30 potential

This chart shows the number of ARIA attributes per home page over time:



The prevalence of ARIA labels and descriptions increased 28% in just the last year. Home pages averaged 25 `aria-label`, `aria-labelledby`, or `aria-describedby` attributes.

ARIA, THE GOOD PARTS

There *must* be good parts



★★★★★
MIRROR ONLINE

★★★★★
EMPIRE

★★★★★
SUNDAY EXPRESS

★★★★★
SKY MOVIES

★★★★★
HEAT

★★★★★
TOTAL FILM

★★★★★
TIME OUT

★★★★★
THE GUARDIAN

★★★★★
GLAMOUR

★★★★★
OAZED

★★★★★
MTV

★★★★★
ATTITUDE

**"UNMISSABLE...
A BRITISH CLASSIC"**

HUFFINGTON POST BLOG

LEGEND

IN CINEMAS SEPT 9



Sign in

Subscribe

The Guardian
News website of the year

News Opinion Sport Culture Lifestyle

Film Music TV & radio Books Art & design Stage More

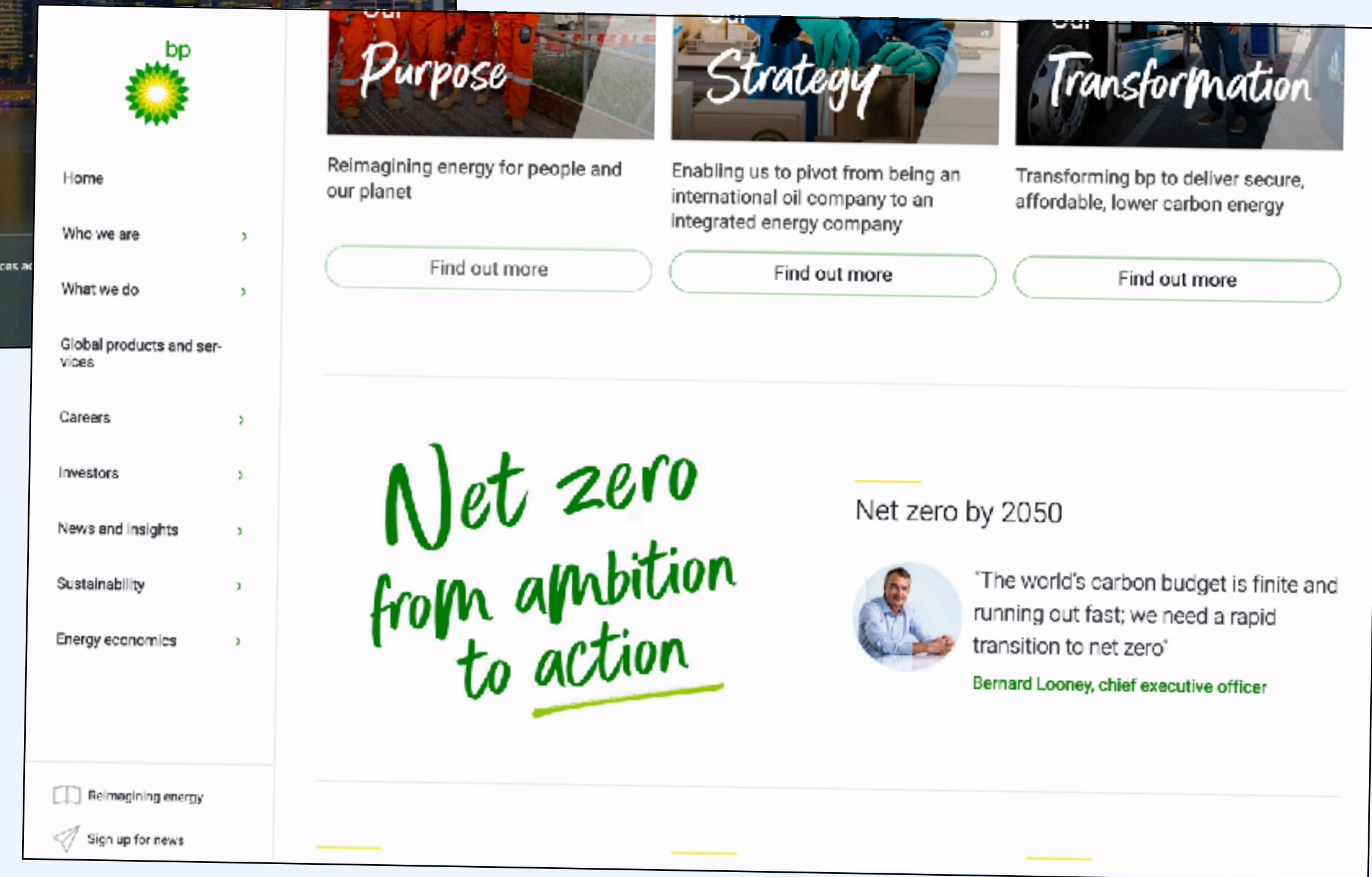
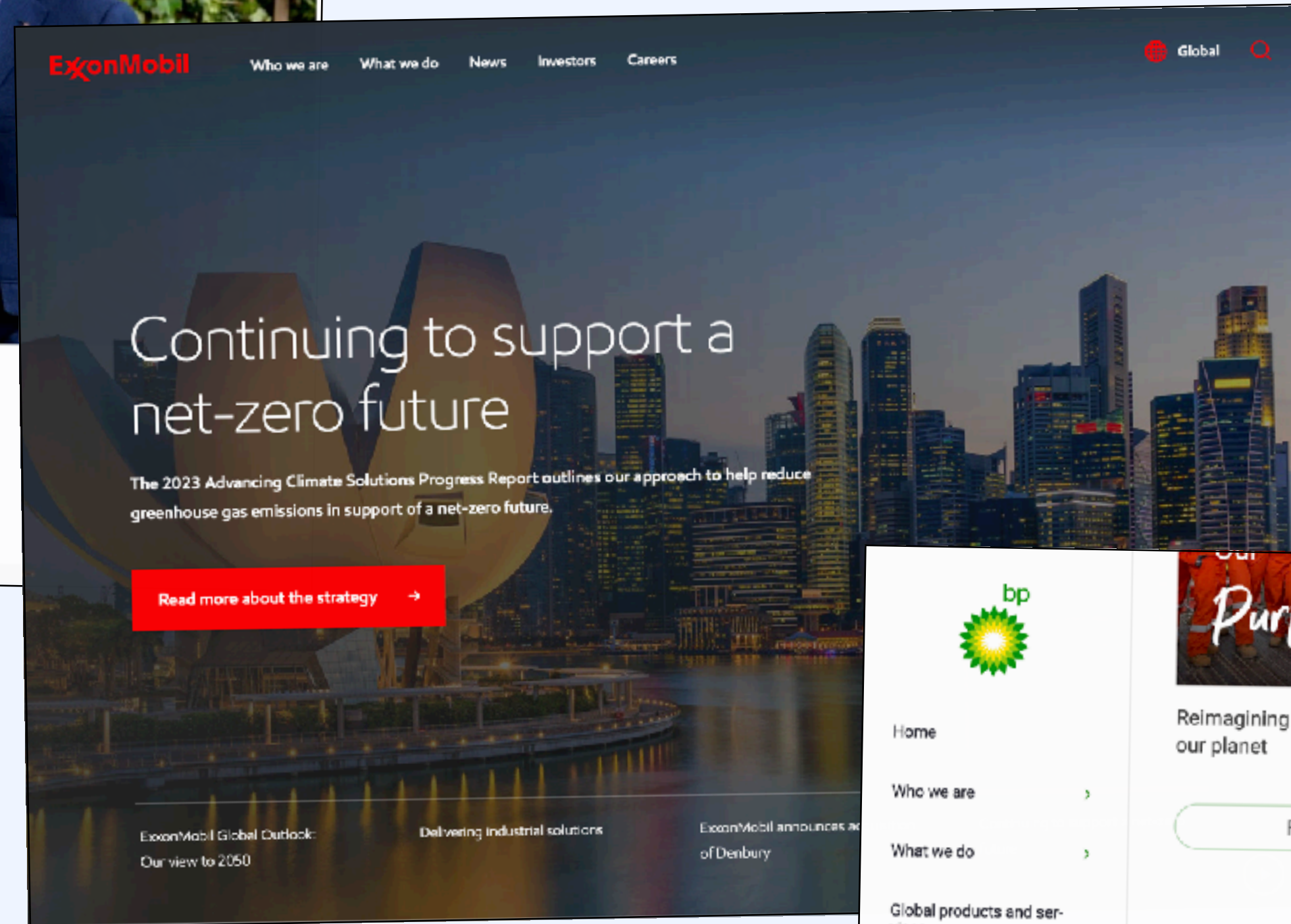
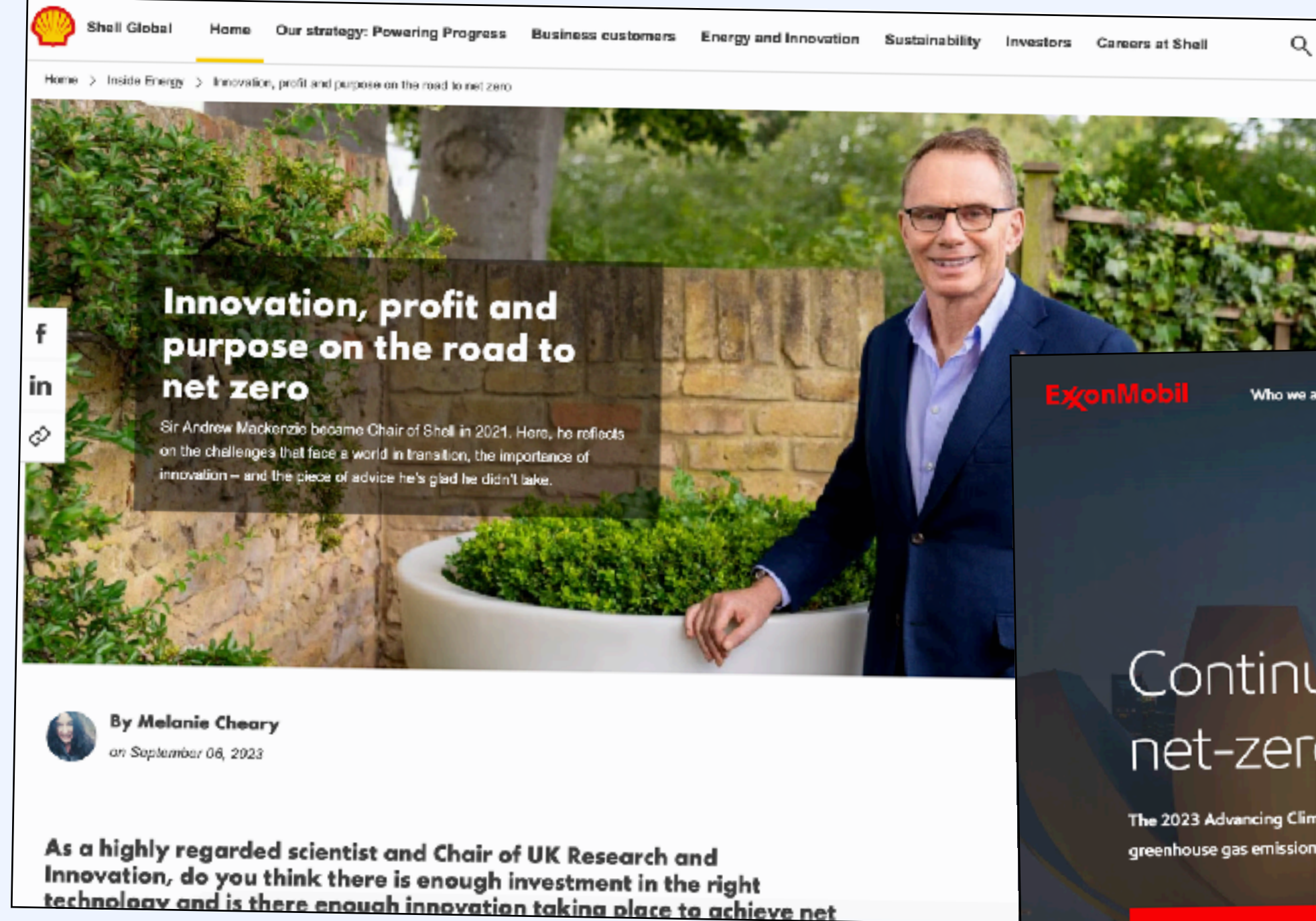


First look review

Legend review - Tom Hardy on double duty in cartoonish Krays biopic

★ ★ ☆ ☆ ☆

It's two thrags for the price of one actor and while flashes of brilliance emerge from his performance(s), Hardy is let down by disappointingly pedestrian surroundings



**1.
WHAT
AND
WHY**

**2.
THE
GOOD
PARTS**

**3.
THE
BAD
PARTS**

HI, I'M HIDDE

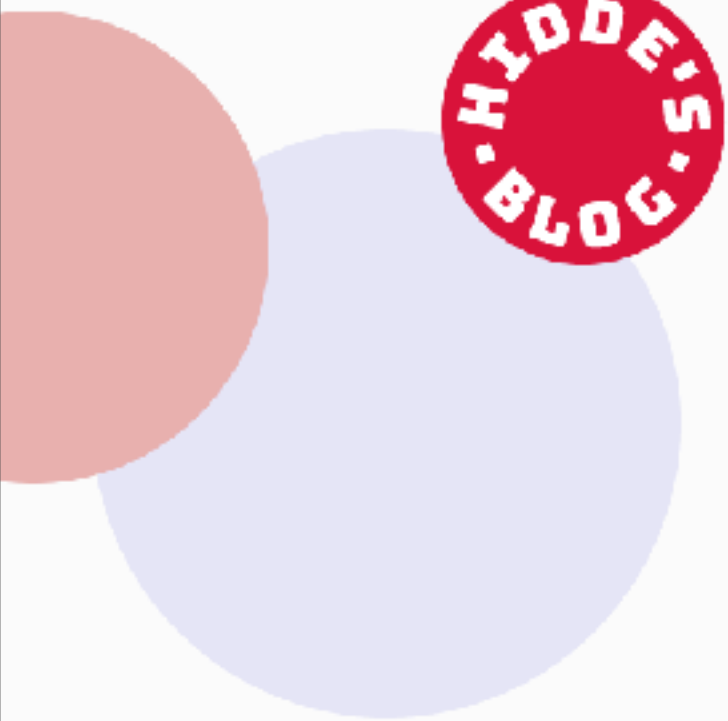
accessibility + front-end +
web standards specialist

participant at Open UI CG / ARIA WG

hidde.blog

LIKE &
SUBSCRIBE





[Blog](#)[Speaking](#)[About me](#)[Contact](#)

Blog

Posts about HTML, CSS, JavaScript, accessibility and browsers from the perspective of a curious front-end developer.

All 201 of them. For shorter writings, follow [@hdv@front-end.social](#) ([@hdv](#) [RSS](#)).

books (10)

events (44)

front-end (25)

industry (9)

security (2)

CSS (17)

performance (1)

Web Components (3)

design systems (2)

accessibility (38)

elsewhere (3)

personal (14)

ethics (6)

UX (1)

ai (3)

meta (5)

primers (3)

web platform (6)

privacy (2)

workflow (2)

media (3)

[▶ RSS \(full\)](#)

[▶ Blog roll](#)

My ideal accessible components resource is holistic, well tested and easy to use

on Wed Mar 08 2023

To improve accessibility of the web as it is today, I feel we dearly need accessibility guidance that is holistic, well tested and easy to use



THE WHAT AND WHY

THE WHAT

THE WHY

Web accessibility is about
how **people** use the web.

(which is outside our control as developers)



@hdv@front-end.social

A LOT OF PEOPLE



Zoom in
on web
pages

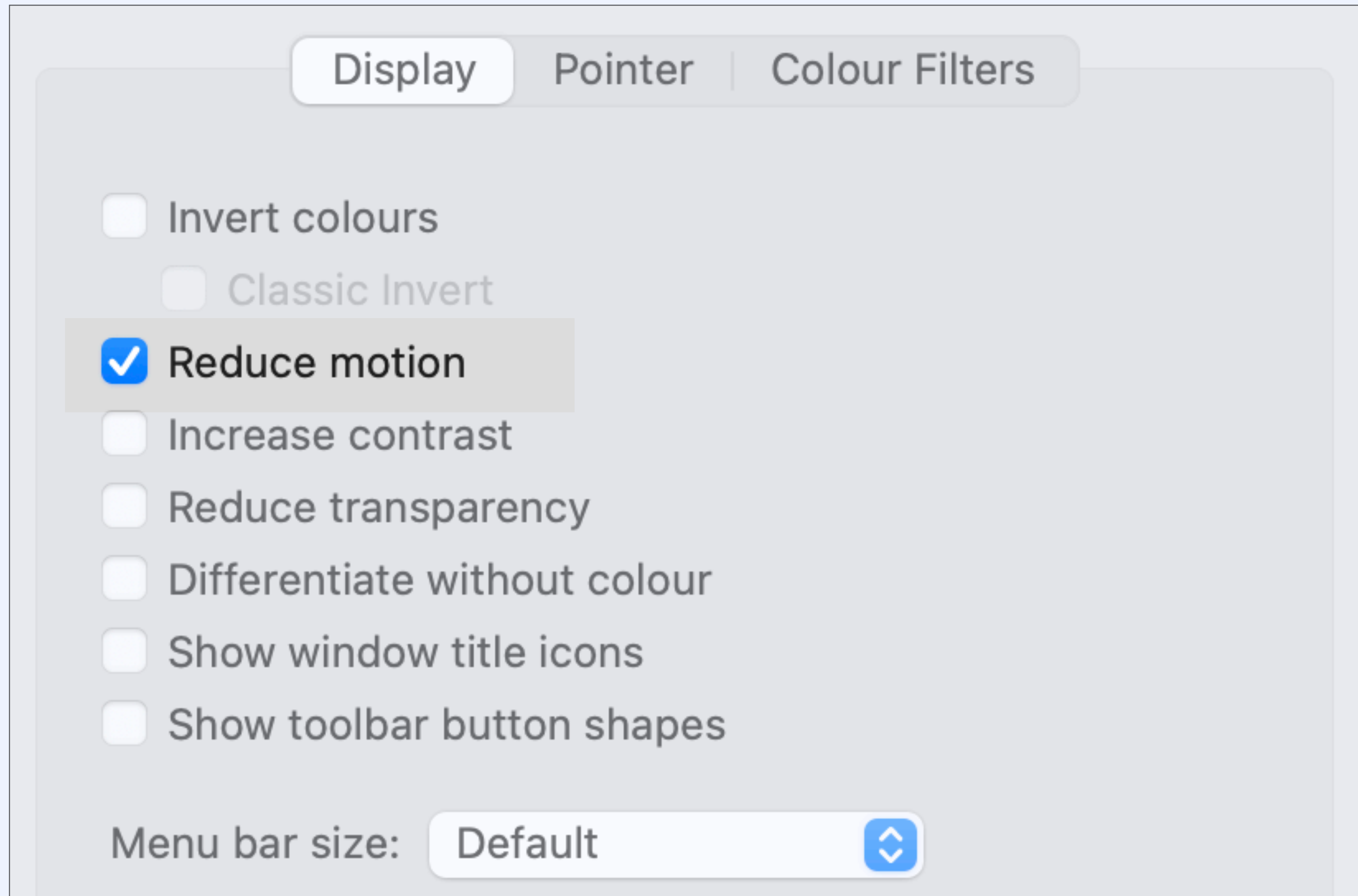
A LOT OF PEOPLE

Use high
contrast
modes



A LOT OF PEOPLE

Prefer
reduced
motion

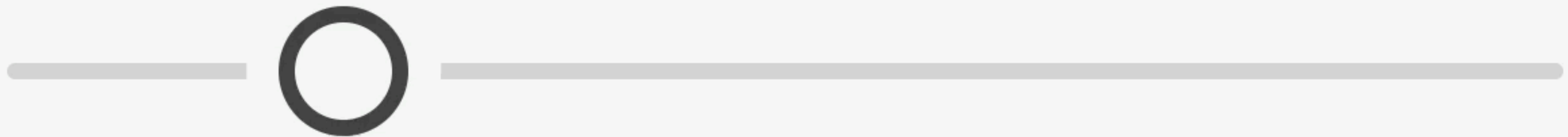


A LOT OF PEOPLE Do not use a mouse



Cookies to buy

19



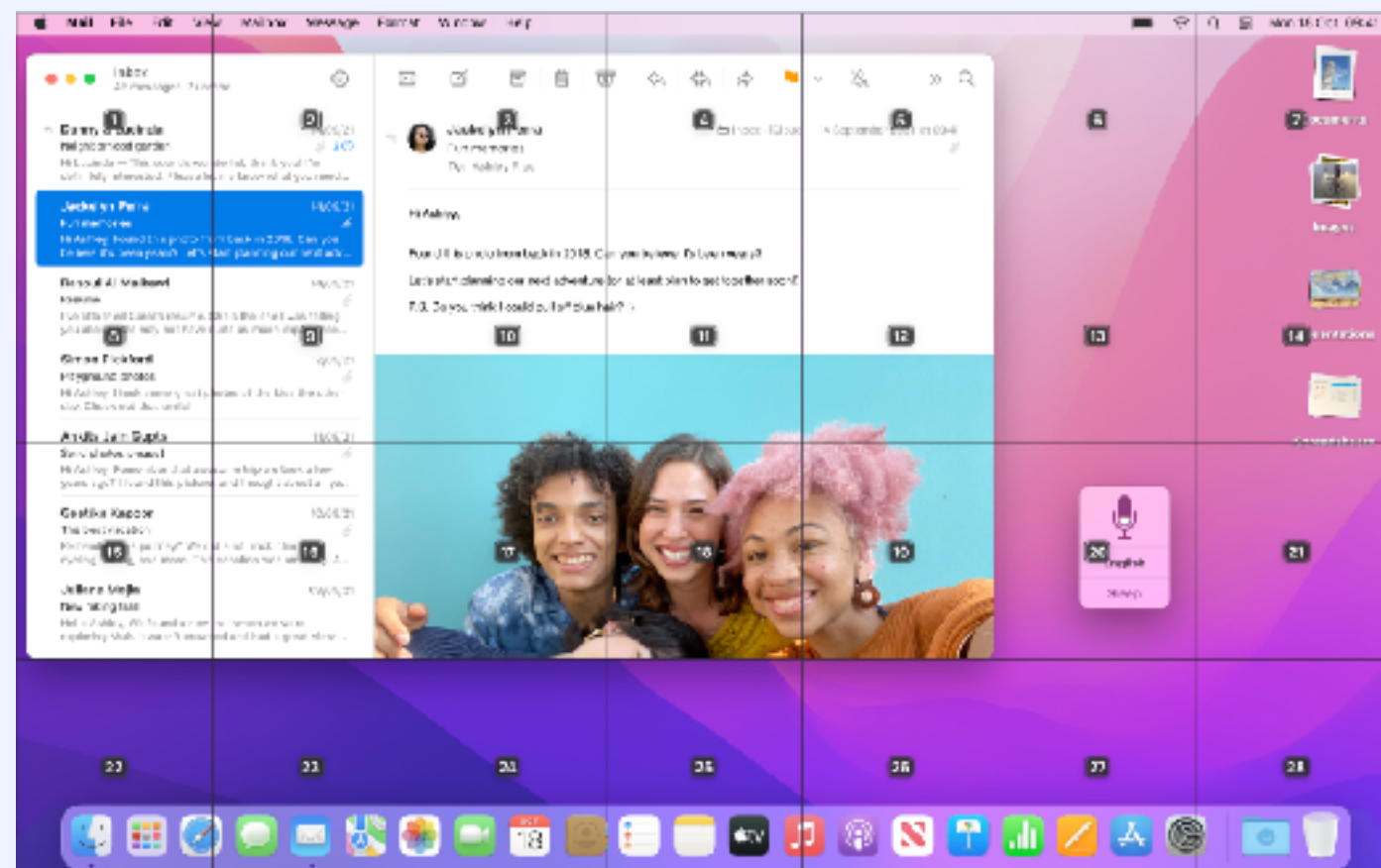
Cookies to buy

42



A LOT OF PEOPLE

Use assistive technologies



Assistive technologies
need to “understand” our
site well to convey it

Jimmy Buffett | France abaya school ban | American families leaving the US for Europe | Final call for boarding passes? |
Novak Djokovic at the US Open | Mohamed Al-Fayed

Burning Man attendees unable to leave desert

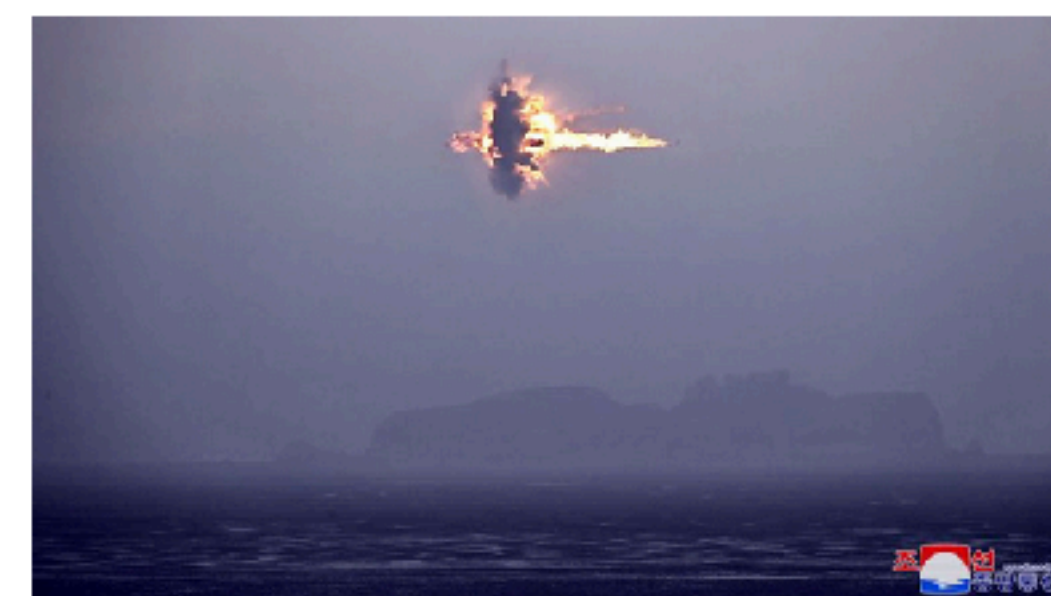


Tens of thousands of festival goers told to conserve water and food after heavy rains leave them stranded in Nevada



In this Asian country, the young find dating so hard their parents are doing it for them

- South Korea needs more babies and workers. It's hoping foreign housekeepers will fix that



North Korea says it has simulated a nuclear missile attack to warn US of 'nuclear war danger'

World Cup kiss scandal hasn't damaged Spanish brand, prime minister says

Typhoon Haikui expected to make landfall in Taiwan Sunday afternoon

Dr. Fauci responds to study that says masks didn't work



role: link

name: "World"

Burning Man attendees
unable to leave camp

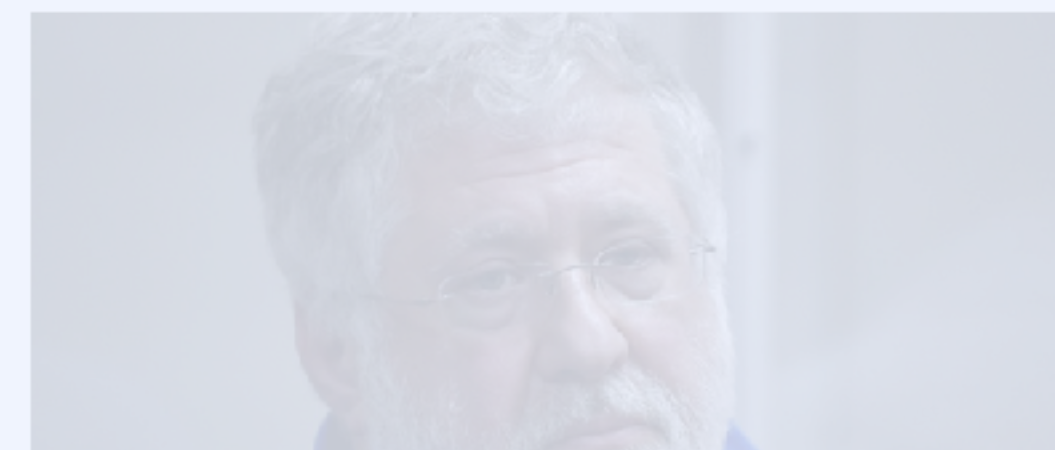


Tens of thousands of festival goers told to conserve water and food after heavy rains leave them stranded in Nevada



In this Asian country, the young find dating so hard their parents are doing it for them

- South Korea needs more babies and workers. It's hoping foreign housekeepers will fix that



North Korea says it has simulated a nuclear missile attack to warn US of 'nuclear war danger'

World Cup kiss scandal hasn't damaged Spanish brand, prime minister says

Typhoon Haikui expected to make landfall in Taiwan Sunday afternoon

Dr. Fauci responds to study that says masks didn't work



role: link

name: "US politics"

role: button

name: "Open menu"



Tens of thousands of festival goers told to conserve water and food after heavy rains leave them stranded in Nevada



In this Asian country, the young find dating so hard their parents are doing it for them

- South Korea needs more babies and workers. It's hoping foreign housekeepers will fix that



North Korea says it has simulated a nuclear missile attack to warn US of 'nuclear war danger'

World Cup kiss scandal hasn't damaged Spanish brand, prime minister says

Typhoon Haikui expected to make landfall in Taiwan Sunday afternoon

Dr. Fauci responds to study that says masks didn't work

All websites expose “accessibility meta information”.

All websites expose “accessibility meta information”. A developer's choices can directly influence the quality of it.

With WAI-ARIA, you can **set**
and **augment** accessibility meta
information



With WAI-ARIA, you can **set**
and **augment** accessibility meta
information



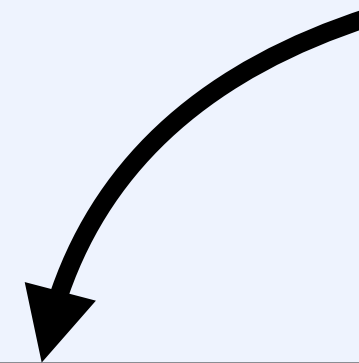
With **WAI-ARIA**, you can **set**
and augment accessibility met
formation.

With great power comes
great responsibility.



WAI-ARIA is an **ontology** for
accessibility meta information

**defined/standardised
naming structure**



WAI-ARIA is an **ontology** for
accessibility meta information

ROLES

STATES

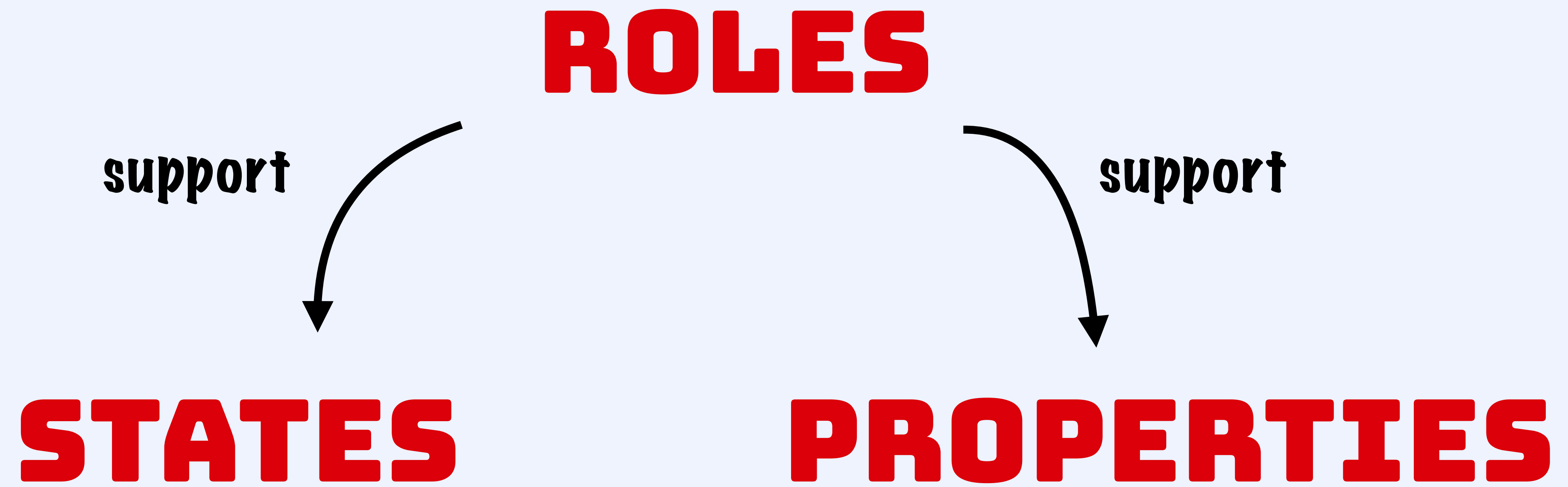
PROPERTIES

ROLES

STATES

PROPERTIES

**“semantics”
— WAI-ARIA**



ROLES, STATES, PROPERTIES

in our HTML

ROLES, STATES, PROPERTIES

*in our HTML
(or SVG, XML, JSX etc)*

ROLES, STATES, PROPERTIES

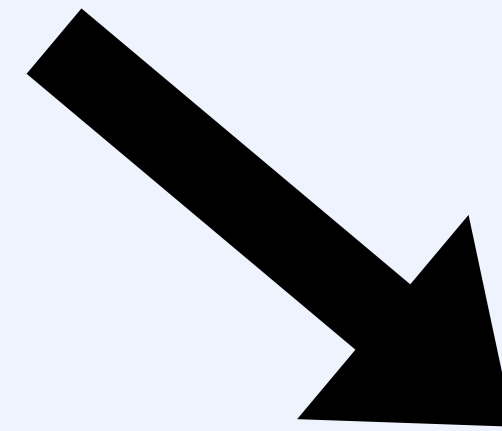
*in our HTML
(or SVG, XML, JSX etc)
(with or without ARIA attributes)*

ROLES, STATES, PROPERTIES

*in our HTML
(or SVG, XML, JSX etc)
(with or without ARIA attributes)
(sometimes impacted by our
HTML and/or CSS)*

ROLES, STATES, PROPERTIES

*in our HTML
(or SVG, XML, JSX etc)
(with or without ARIA attributes)
(sometimes impacted by our
HTML and/or CSS)*



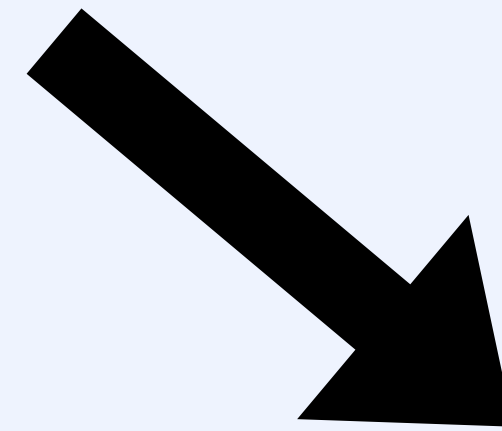
INTERFACE AFFORDANCES

*in our user's screenreader
(or switch, voice control etc)*

ROLES, PROPERTIES,

**CODE OF
YOUR
WEBSITE**

*in your HTML
(or SVG, XML, JSX etc)
(with or without ARIA attributes)
(sometimes impacted by your
HTML and/or CSS)*

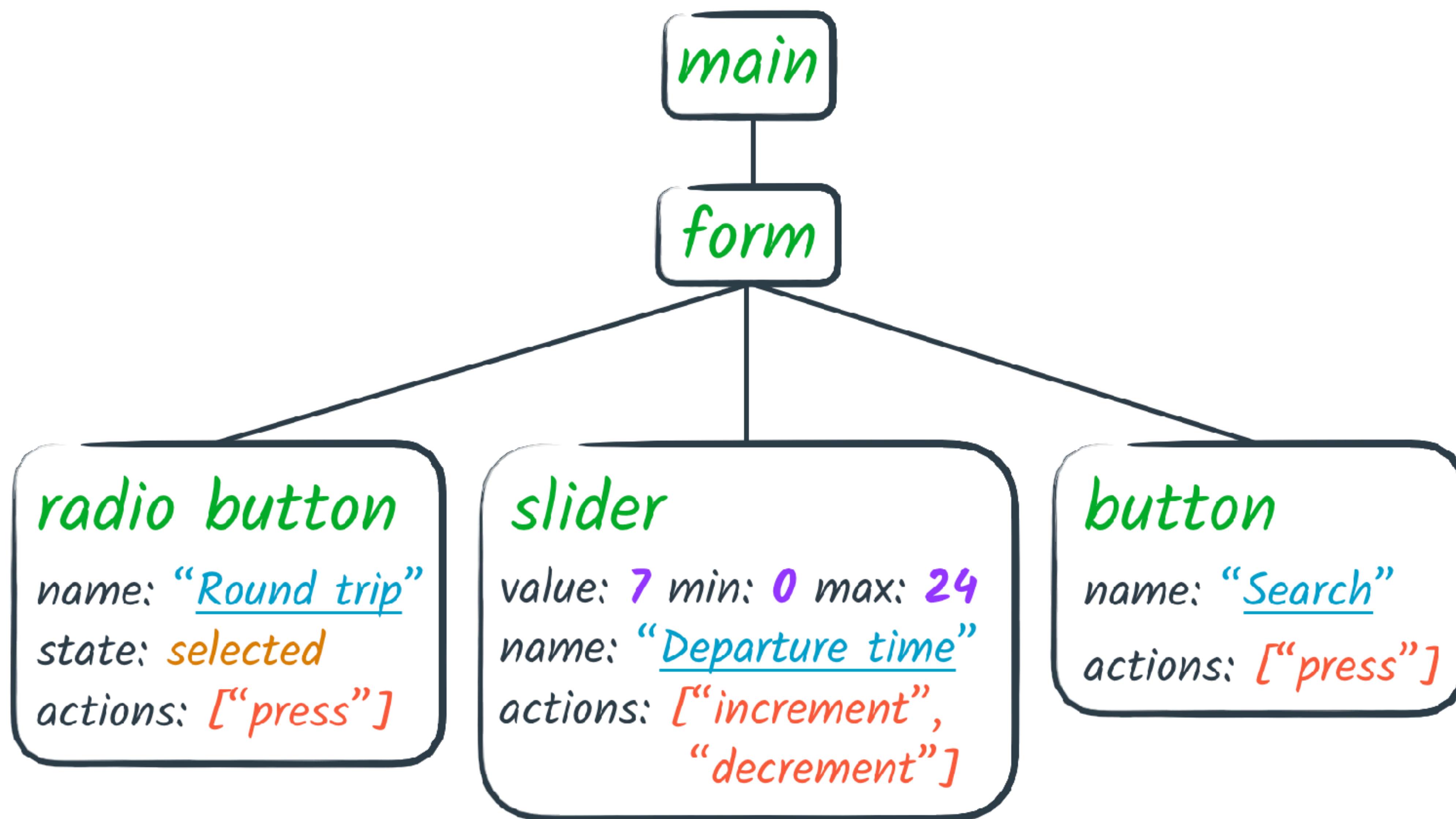


**IMPERATIVES,
ANALOGUES**

**USER'S
UI**

*in our screenreader
(or switch, voice control etc)*

**THERE ARE A LOT OF
DIFFERENT PEOPLE
AND TOOLS**



• Français

• English

• Español

• Deutsch

• Italiano

Sélectionnez
à l'aide du rouleau

Annulez ou refusez ici

Validez ou acceptez ici

WHAT IS ARIA?

Ontology for accessibility
meta information + way
for devs to augment it

WHAT IS ARIA?

Ontology for accessibility
meta information + way
for devs to augment it

HOW DOES IT AFFECT USERS?

Their AT can be better informed
about what's happening in site

WHAT IS ARIA?

Ontology for accessibility
meta information + way
for devs to augment it

HOW DOES IT AFFECT USERS?

Their AT can be better informed
about what's happening in site

Personalisation for users with
cognitive/learning disabilities

WHAT IS ARIA?

Ontology for accessibility
meta information + way
for devs to augment it

HOW DOES IT AFFECT USERS?

Their AT can be better informed
about what's happening in site

Personalisation for users with
cognitive/learning disabilities

WHY NOT ALL PARTS GOOD?

There's lots of nuance. That
nuance is often ignored.

THE GOOD PARTS

ARIA CAN ONLY BENEFIT USERS WHEN...

...the properties are well-supported

ARIA CAN ONLY BENEFIT USERS WHEN...

...the properties are **consistently supported**

ARIA CAN ONLY BENEFIT USERS WHEN...

**...it's used alongside other accessibility
requirements**

ARIA CAN ONLY BENEFIT USERS WHEN...

**...it's used alongside other accessibility
requirements**



```
<div role="button"></div>
```


ARIA CAN ONLY BENEFIT USERS WHEN...

...it's used alongside other accessibility
requirements

accessible names

Save

```
<div role="button">  
  Save  
</div>
```


ARIA CAN ONLY BENEFIT USERS WHEN...

...it's used alongside other accessibility
requirements

accessible names

color contrast

Save

```
<div role="button">  
  Save  
</div>
```

ARIA CAN ONLY BENEFIT USERS WHEN...

...it's used alongside other accessibility requirements

accessible names

color contrast

focus indication



```
<div role="button">  
  Save  
</div>
```


ARIA CAN ONLY BENEFIT USERS WHEN...

...it's used alongside other accessibility
requirements

accessible names

color contrast

focus indication

keyboard support



```
<div role="button"  
tabindex="0">  
  Save  
</div>
```

ARIA CAN ONLY BENEFIT USERS WHEN...

...it's used alongside other accessibility
requirements

accessible names

color contrast

focus indication

keyboard support

zoom support



```
<div role="button"  
tabindex="0">  
  Save  
</div>
```


ARIA CAN ONLY BENEFIT USERS WHEN...

...it's used alongside other accessibility
requirements

accessible names

color contrast

focus indication

keyboard support

zoom support

High Contrast
Mode support



```
<div role="button"  
tabindex="0">  
  Save  
</div>
```

Accessibility is **multi-faceted**.

ARIA helps with some facets.

Accessibility is **multi-faceted**.

ARIA helps with some facets.

Some of these don't require ARIA (eg we can often use just HTML with implicit ARIA).

THE GOOD PARTS

a.k.a. “adding these adds
some value for end users”

landmarks



registration

stage

toilets


```
<nav aria-labelledby="n">  
  <h2 id="n">On this Page</h2>  
  ...  
</nav>
```



```
<nav aria-labelledby="n">  
  <h2 id="n">On this Page</h2>  
  ...  
</nav>
```

```
<aside aria-labelledby="f">  
  <h2 id="f">Filters</h2>  
  ...  
</aside>
```

```
<nav aria-labelledby="n">
  <h2 id="n">On this Page</h2>
  ...
</nav>

<aside aria-labelledby="f">
  <h2 id="f">Filters</h2>
  ...
</aside>

/* other landmark elements
   are <header>, <footer>,
   <section>, <search>,
   <form> */
```



```
<nav aria-labelledby="n">
  <h2 id="n">On this Page</h2>
  ...
</nav>

<aside aria-labelledby="f">
  <h2 id="f">Filters</h2>
  ...
</aside>

/* other landmark elements
   are <header>, <footer>,
   <section>, <search>,
   <form> */
```

landmarks: how?

- only the most important ones
- most useful when they are labelled
- they all have HTML elements

```
<nav aria-labelledby="n">
  <h2 id="n">On this Page</h2>
  ...
</nav>

<aside aria-labelledby="f">
  <h2 id="f">Filters</h2>
  ...
</aside>

/* other landmark elements
   are <header>, <footer>,
   <section>, <search>,
   <form> */
```

landmarks: why?

- some users navigate by landmarks

aria-expanded

aria-expanded to say if tooltip opened or closed



**BIC/SWIFT codes are
used to identify banks and
financial institutions
globally.**

aria-expanded to convey meta data is expanded

HTML Accessibility API Mappings 1.0

W3C Working Draft 02 September 2023



► **More details about this document**

Copyright © 2015-2023 [World Wide Web Consortium](#). W3C[®] [liability](#), [trademark](#) and [permissive document license](#) rules apply.

Abstract

HTML Accessibility API Mappings (HTML-AAM) defines how *user agents* map HTML [HTML] elements and attributes to platform *accessibility application programming interfaces (APIs)*. It leverages and extends the [Core Accessibility API Mappings 1.2](#) and the [Accessible Name and Description Computation 1.1](#) for use with the HTML host language. Documenting these mappings promotes interoperable exposure of roles, states,

aria-expanded how?

- only on elements that *toggle*
- the browser manages this for **popover** and **<details>/<summary>**

The screenshot shows the top portion of a W3C Working Draft document titled "HTML Accessibility API Mappings 1.0". A vertical blue bar on the left side contains the text "W3C Working Draft". The main title is in large blue font, with the subtitle "W3C Working Draft 02 September 2023" below it. The W3C logo is in the top right corner. A black speech bubble with a white question mark icon points to the title. The speech bubble contains the text: "BIC/SWIFT codes are used to identify banks and financial institutions globally." Below the title, there is a button that says "More details about this document". A copyright notice follows: "Copyright © 2015-2023 World Wide Web Consortium. W3C® liability, trademark and permissive document license rules apply." The "Abstract" section begins with the text: "HTML Accessibility API Mappings (HTML-AAM) defines how *user agents* map HTML [HTML] elements and attributes to platform *accessibility application programming interfaces (APIs)*. It leverages and extends the *Core Accessibility API Mappings 1.2* and the *Accessible Name and Description Computation 1.1* for use with the HTML host language. Documenting these mappings promotes interoperable exposure of roles, states, properties, and events implemented by accessibility APIs and helps to ensure that this information appears in a manner consistent with author intent." At the bottom left, there are navigation icons: a vertical double-headed arrow and a right-pointing arrow.

W3C Working Draft

HTML Accessibility API Mappings 1.0

W3C Working Draft 02 September 2023

W3C®

More details about this document

Copyright © 2015-2023 World Wide Web Consortium. W3C® liability, trademark and permissive document license rules apply.

Abstract

HTML Accessibility API Mappings (HTML-AAM) defines how *user agents* map HTML [HTML] elements and attributes to platform *accessibility application programming interfaces (APIs)*. It leverages and extends the *Core Accessibility API Mappings 1.2* and the *Accessible Name and Description Computation 1.1* for use with the HTML host language. Documenting these mappings promotes interoperable exposure of roles, states, properties, and events implemented by accessibility APIs and helps to ensure that this information appears in a manner consistent with author intent.

aria-expanded why?

- conveys visual state programmatically



BIC/SWIFT codes are used to identify banks and financial institutions globally.

HTML Accessibility API Mappings 1.0

W3C Working Draft 02 September 2023



► More details about this document

Copyright © 2015-2023 World Wide Web Consortium. W3C® liability, trademark and permissive document license rules apply.

Abstract

HTML Accessibility API Mappings (HTML-AAM) defines how *user agents* map HTML [HTML] elements and attributes to platform *accessibility application programming interfaces (APIs)*. It leverages and extends the *Core Accessibility API Mappings 1.2* and the *Accessible Name and Description Computation 1.1* for use with the HTML host language. Documenting these mappings promotes interoperable exposure of roles, states, properties, and events implemented by accessibility APIs and helps to ensure that this information appears in a manner consistent with author intent.



aria-pressed

aria-pressed to make a button to toggle mute



aria-pressed to make a button to toggle liked status

Live every moment,
Laugh every day,
Love beyond words.



Like



Comment



Repost



Send

aria-pressed how?

- toggle between true/false

Live every moment,
Laugh every day,
Love beyond words.



Like



Comment



Repost



Send

aria-pressed why?

- convey visual state programmatically

Live every moment,
Laugh every day,
Love beyond words.



Like



Comment



Repost



Send

aria-label/
aria-labelledby



unnecessary.

§ 2.5 Fifth Rule of ARIA Use

All interactive elements must have an accessible name.

An interactive element only has an accessible name when its *Accessibility API accessible name* (or equivalent property) has a value.

For example, the `input type=text` in the code example below has a visible label 'user name', but no accessible name:

```
user name <input type="text">
```

or

```
<span>user name</span> <input type="text">
```


aria-label / aria-labelledby to label stuff



[? Help](#) [United Kingdom](#) [Hidde de Vries](#)

Trains 

Train + Hotel 

Hotels 

Destinations

Travelling with Eurostar

Frequent travellers

Manage booking

London St Pancras Int'l

 To

 Tue 26 Sept

Add return

1 adult



Search

[Explore all trains](#)

[Find lowest fares](#)

[Groups 10+](#)

 Live train information 



See more of Europe with Eurostar

aria-label / aria-labelledby to label stuff

The image is a screenshot of the Eurostar website's search interface. At the top, the Eurostar logo is on the left, and navigation links for 'Help', 'United Kingdom', and a user profile 'Hidde de Vries' are on the right. Below this is a horizontal menu with 'Trains' (selected), 'Train + Hotel', and 'Hotels'. Further right are links for 'Destinations', 'Travelling with Eurostar', 'Frequent travellers', and 'Manage booking'. The main search area features a form with a 'From' field containing 'London St Pancras Int'l', a 'To' field, and a 'Search' button. A callout box highlights the 'To' field, which contains a double-headed arrow icon. A black arrow points from this callout to a text box in the bottom right corner that reads 'has no visible label, needs name'. The background of the website shows a stylized illustration of a Eurostar train, wind turbines, and a starburst graphic.

eurostar

Help United Kingdom Hidde de Vries

Trains Train + Hotel Hotels Destinations Travelling with Eurostar Frequent travellers Manage booking

London St Pancras Int'l To Search

Explore all trains

Information

See more of Eurostar

has no visible label, needs name

aria-label / aria-labelledby to label stuff (not all)

W3C Recommendation

← → ↺

🛡️ 🔒 🔍 https://www.w3.org/TR/wai-aria-1.2/#namefromprohibited

☰ 120% 🗑️

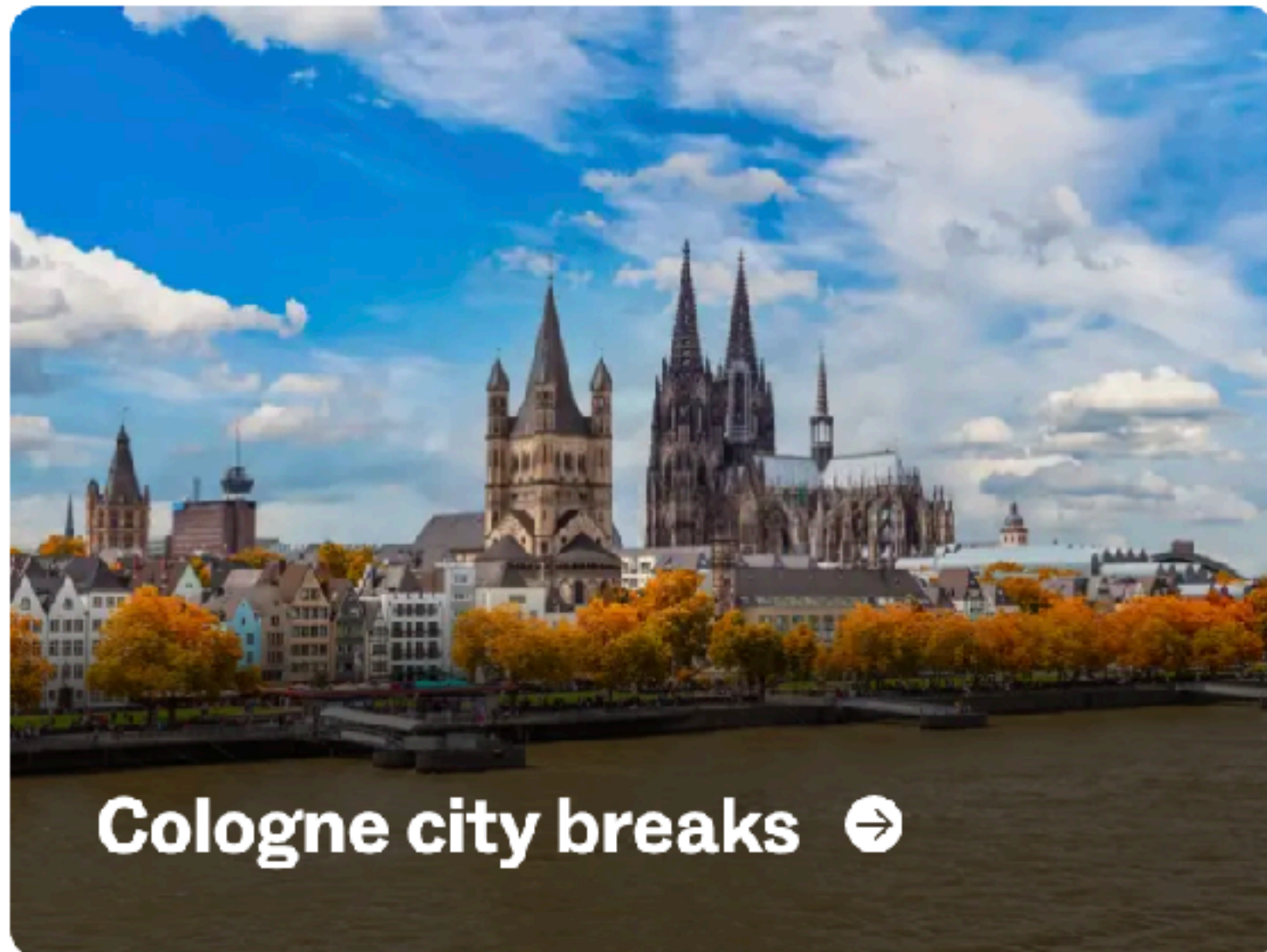
§ 5.2.8.6 Roles which cannot be named (Name prohibited)

- [caption](#)
- [code](#)
- [deletion](#)
- [emphasis](#)
- [generic](#)
- [insertion](#)

#notAllElements

aria-label / aria-labelledby to label stuff

Ideas for your next trip



Cologne city breaks ➞



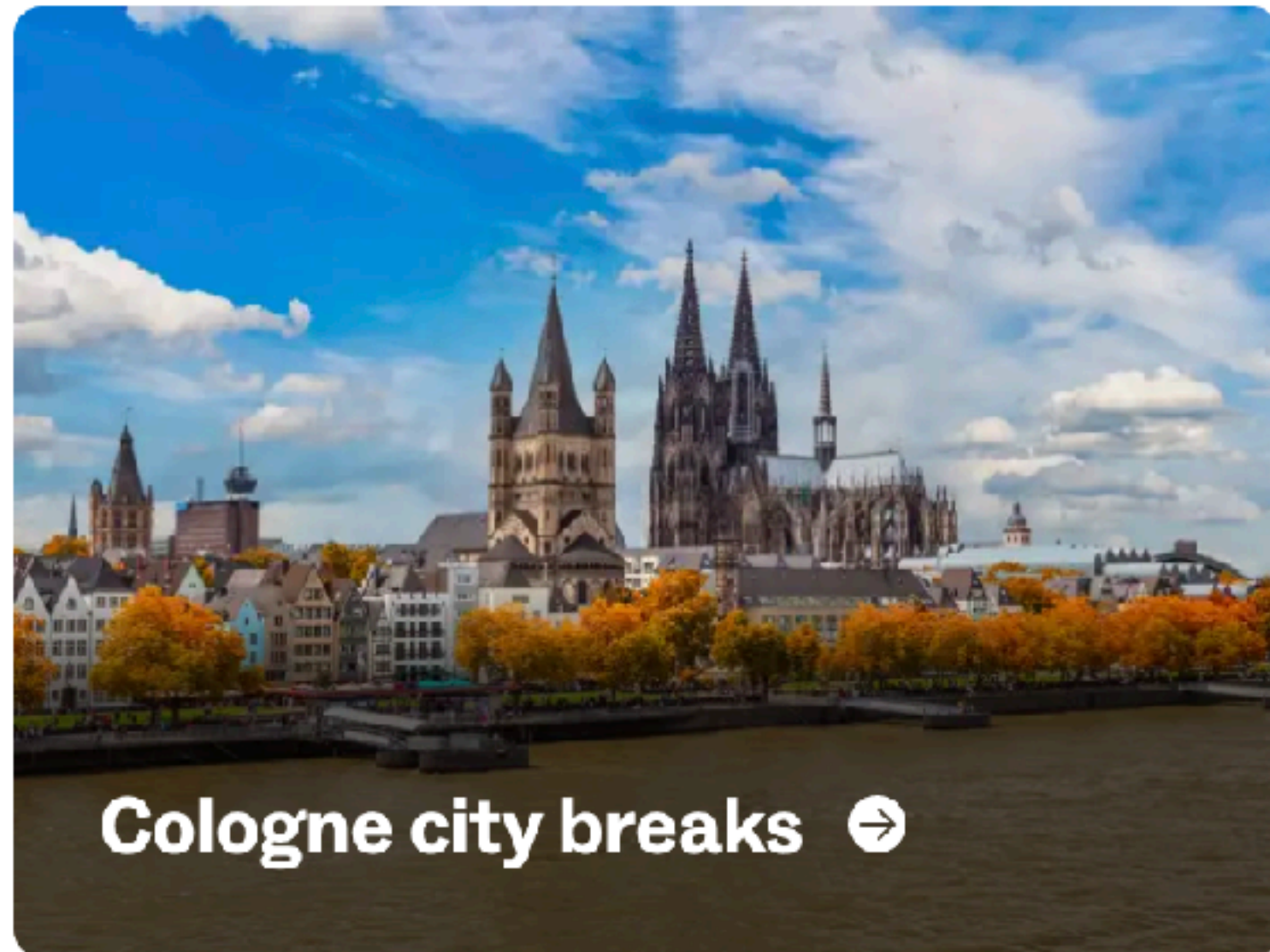
Disneyland holidays ➞



Beautiful Bruges ➞

aria-label / aria-labelledby to label stuff

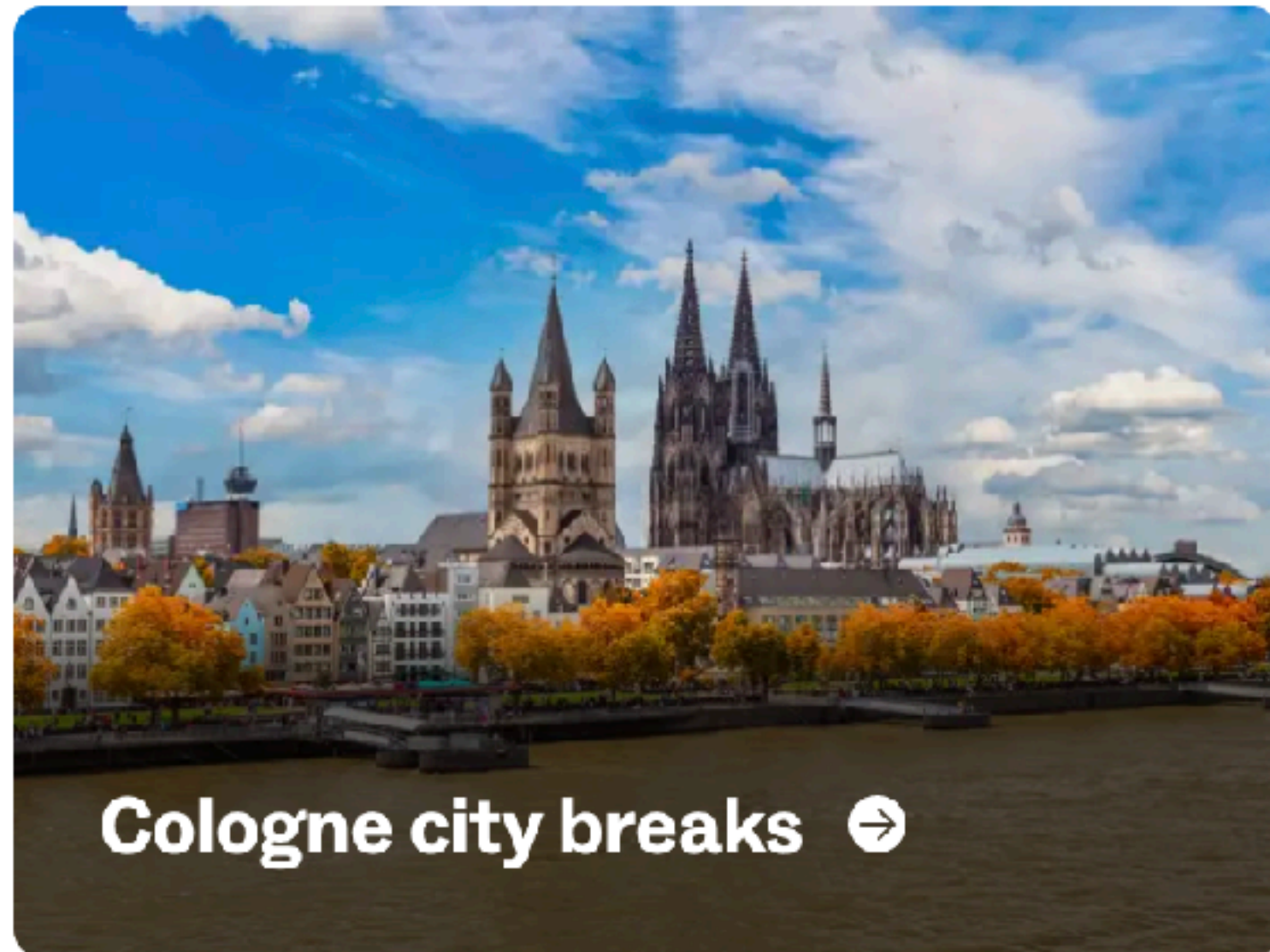
Ideas for your next trip



```
<section>
  <h2>Ideas for your next trip</h2>
  ...
</section>
```


aria-label / aria-labelledby to label stuff

Ideas for your next trip



Cologne city breaks ➞



Disneyland holidays ➞



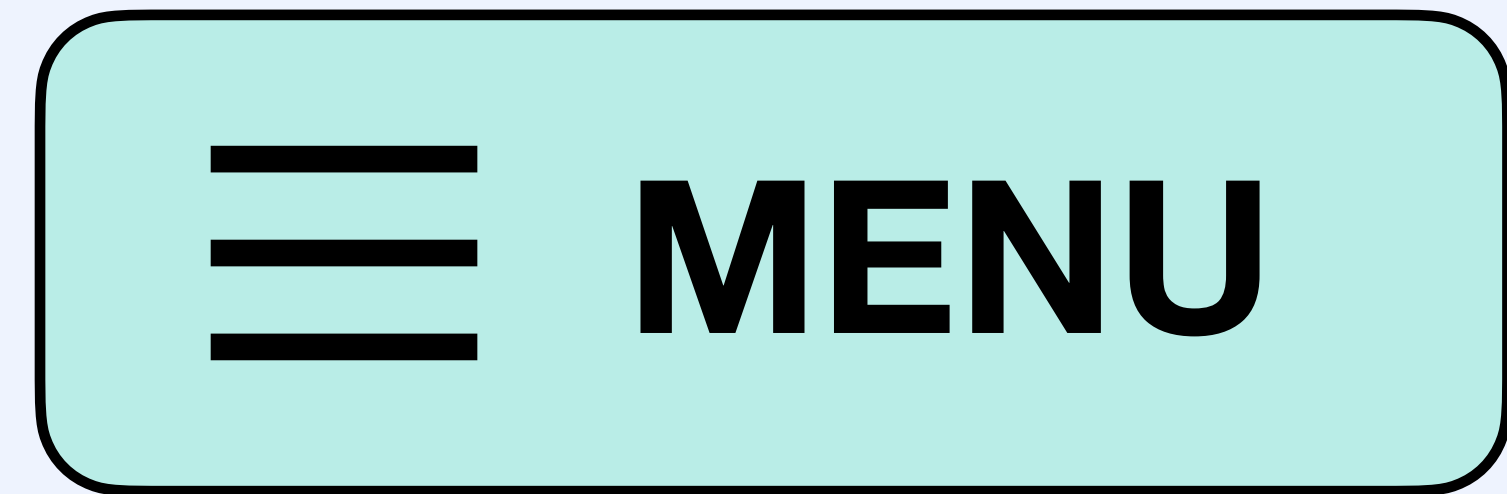
Beautiful Bruges ➞

```
<section aria-labelledby="ideas">  
  <h2 id="ideas">Ideas for your next trip</h2>  
  ...  
</section>
```

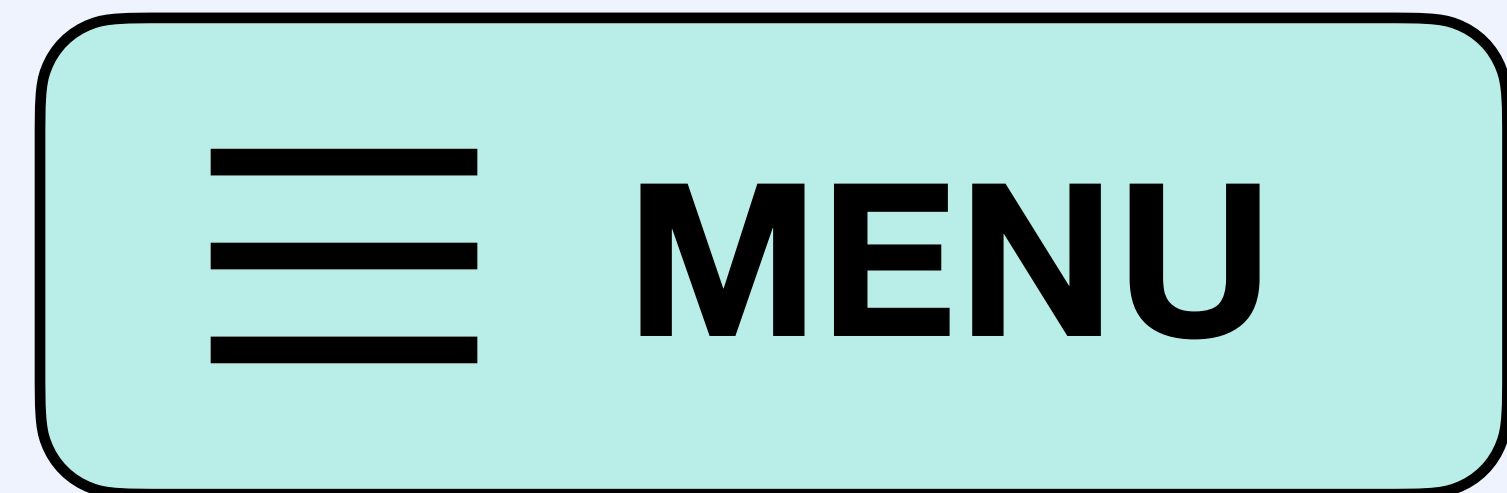

ARIA labels how?

- when we've ran out of other labeling techniques
- use unique, to the point names
- avoid difference in ARIA label and visual label

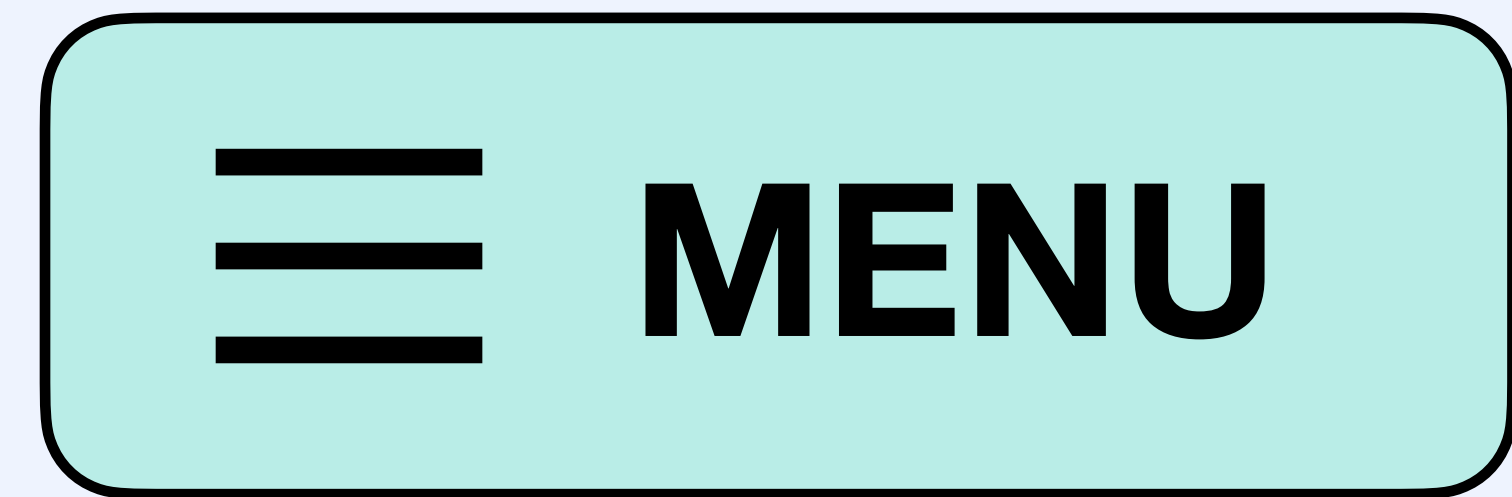
```
<button type="button">  
  <svg>...</svg>  
  MENU  
</button>
```




```
<button  
  type="button"  
  aria-label=  
    "Open my hamburger plz">  
  <svg>...</svg>  
  MENU  
</button>
```



```
<button  
  type="button"  
  aria-label=  
    "Open my hamburger plz">  
  <svg>...</svg>  
  MENU  
</button>
```



**mismatch between aria-label
and visual fails "Label In Name"**

ARIA labels why?

- because users can navigate much more easily if things have (unique + useful) names

aria-describedby

aria-describedby to relate error message to field(set)

National Insurance number

It's on your National Insurance card, benefit letter, payslip or P60. For example, 'QQ 12 34 56 C'.

Enter a National Insurance number in the correct format

with field

When was your passport issued?

For example, 27 3 2007

The date your passport was issued must be in the past

Day

Month

Year

6

3

2076

with fieldset

aria-current

aria-current

Home Products About us Contact

Home / About us / Team

◀ previous

1

2

3

next ▶

aria-current why?



makes visual state
programmatically
available

aria-current why?



makes visual state
programmatically
available

better than visually
hidden “(current)”
(i18n, standardised)

aria-current why?



makes visual state
programmatically
available

better than visually
hidden “(current)”
(i18n, standardised)

well supported

aria-live

aria-live

for session time out warnings

English



MijnOverheid

Home

Berichtenbox

Lopende zaken

Identiteit

Financiën

Werk

Gezondheid

Wonen

H.A. de Vries

[Uitloggen](#)

Wilt u uw sessie verlengen?

Uw sessie is mogelijk verlopen. Als u te lang niks hebt gedaan, wordt u uit veiligheidsoverwegingen uitgelogd.

Kies "Ja" om uw sessie te verlengen, mogelijk moet u dan opnieuw inloggen.

[Uitloggen](#)

[✓ Ja, verlengen](#)

n na uw overlijden wel of niet

[Ga naar Donorregister](#)

are you looking for?



NL



@hdv@front-end.social

105,79 excl. VAT

128,-

✓ **Delivered tomorrow**

☐ Compare to other products



Tefal OptiGrill Elite GC7508

★★★★☆ 470 reviews

Removable plates | 4 sandwiches | Included plates ribbed

165,29 excl. VAT

200,-

✓ **Delivered tomorrow**

☐ Compare to other products



Sage the BBQ and Press

★★★★★ 14 reviews

Removable plates | 4 sandwiches | Included plates Ribbed, Smooth

154,55 excl. VAT

187,-



aria-live
for successful shopping
cart additions

aria-live how?

- with aria-live
or we can use an `<output>` element for a
name-able polite region that mostly works

aria-live pitfalls?

- don't focus the live region
- don't trigger announcements multiple times, too much is annoying

aria-live why?

- status updates and warnings are often clearly marked **visually**, live regions add it **programmatically**

aria-hidden

aria-hidden how?

- not on focusable elements!
- avoid confusing sighted screenreader users

aria-hidden why?

- to remove redundant content from AT (this is likely rare)

aria-hidden is not the
same as role=presentation
(which only removes
default role)

landmarks, aria-expanded, aria-pressed
aria-label/aria-labelledby, aria-describedby,
aria-current, aria-live, aria-hidden

landmarks, aria-expanded, aria-pressed
aria-label/aria-labelledby, aria-describedby,
aria-current, aria-live, aria-hidden

vs

more complex widgets

Avoid inventing your own patterns, find out what the expected patterns are instead.



TIPSY



TAPIOCA

TAPIOCA

BOOZY BOBA

TIPSY TAPIOCA

BOOZY BOBA

TIPSY TAPIOCA

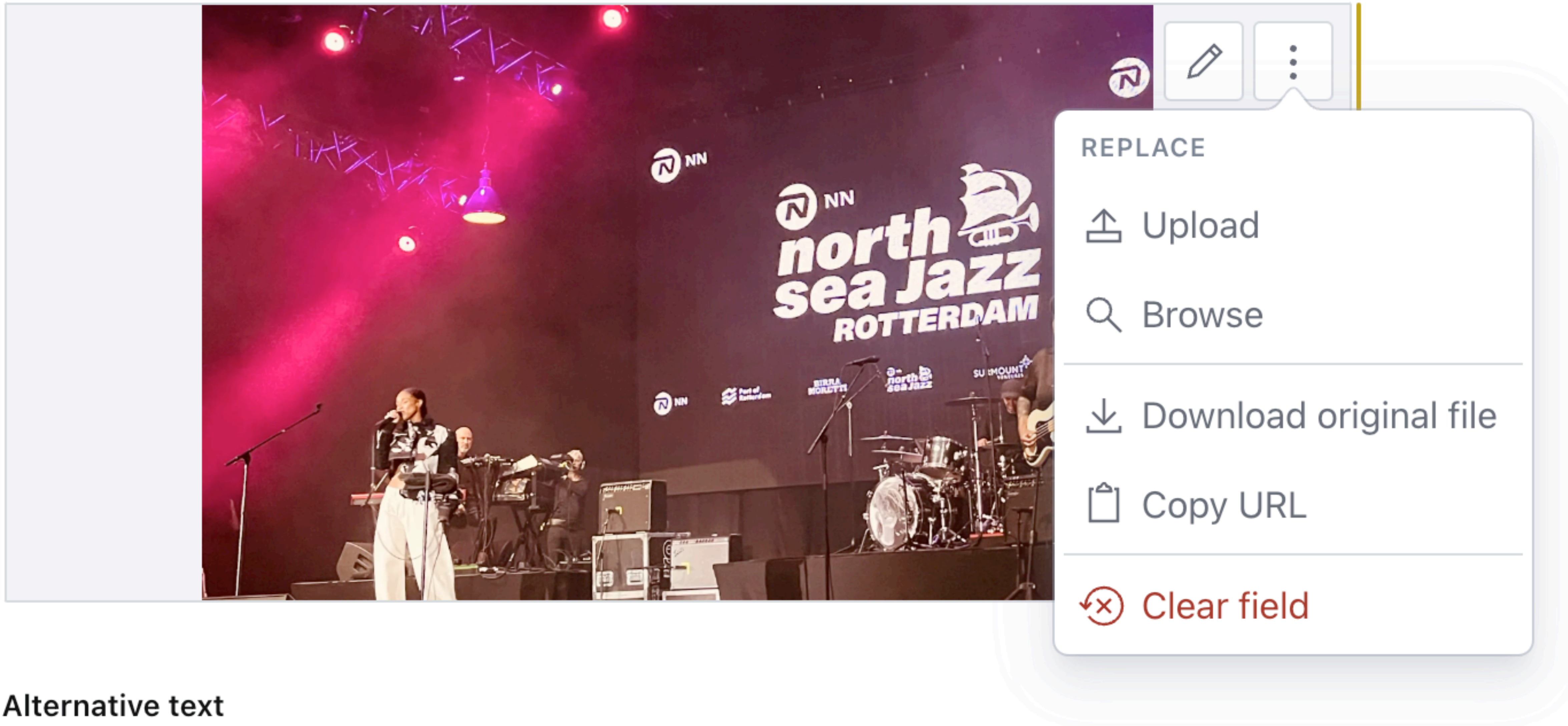
BOOZY



**“TALK TO YOUR
KIDS ABOUT ARIA
BEFORE IT'S TOO
LATE.”**

—*Sarah Higley*

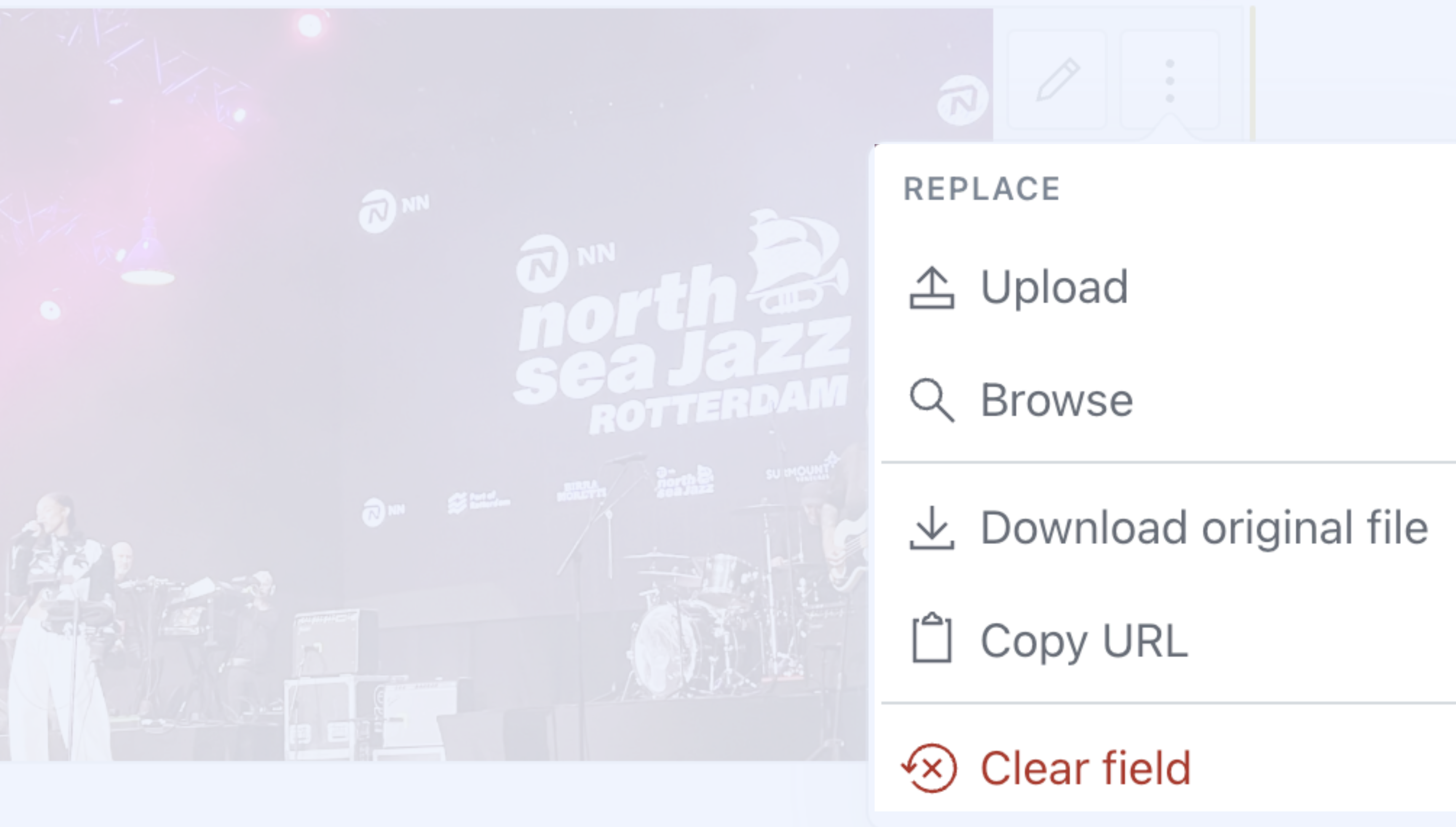
menu to build menus (*not navigations*)



Alternative text

What's on this picture?

menu to build menus (*not navigations*)



role=menu

menu to build menus (*not navigations*)

role=menuitem

REPLACE

📁 Upload

🔍 Browse

⬇️ Download original file

📋 Copy URL

🗑️ Clear field

role=menu

menu to build menus (*not navigations*)

role=menuitem

roving tabindex

REPLACE

📁 Upload

🔍 Browse

⬇ Download original file

📋 Copy URL

🗑 Clear field

role=menu

menu to build menus (*not navigations*)

role=menuitem

roving tabindex

**usable with
arrow keys**

REPLACE

📁 Upload

🔍 Browse

⬇ Download original file

📋 Copy URL

🗑 Clear field

role=menu

menu to build menus (*not navigations*)

role=menuitem

roving tabindex

**usable with
arrow keys, Escape,
Enter, Home, End, Tab,
Space & all printable chars**

REPLACE

📁 Upload

🔍 Browse

⬇️ Download original file

📋 Copy URL

🔄 Clear field

role=menu

menu to build menus (*not navigations*)

It's a **navigation** if the user navigates somewhere (it has links)

It's a **menu** if the user picks an action (it has buttons). Use with care.

THE BAD PARTS

~~THE BAD
PARTS~~

THE COMMON
PITFALLS

docs pitfalls

These are standards:

WCAG

WAI-ARIA

ATAG

UAAG

These are “not normative”:

ARIA Authoring Practices

COGA Guidance

Understanding docs

Techniques

These are standards:

WCAG
WAI-ARIA
ATA
UAAG

Docs on using
specific standards,
not docs on best
accessibility

These are “not normative”:

ARIA Authoring Practices
COGA Guidance
Understanding docs
Techniques

These are standards:

WCAG
WCAG
WCAG
WCAG
WCAG

Extra context with
WCAG, not
required for
conformance

These are “not normative”:

ARIA Authoring Practices
COGA Guidance
Understanding docs
Techniques

These are standards:

WCAG

WAI

ATAG

UAAG

How to best use
ARIA if you want to
solve it with ARIA

These are “not normative”:

ARIA Authoring Practices

COGA Guidance

Understanding docs

Techniques

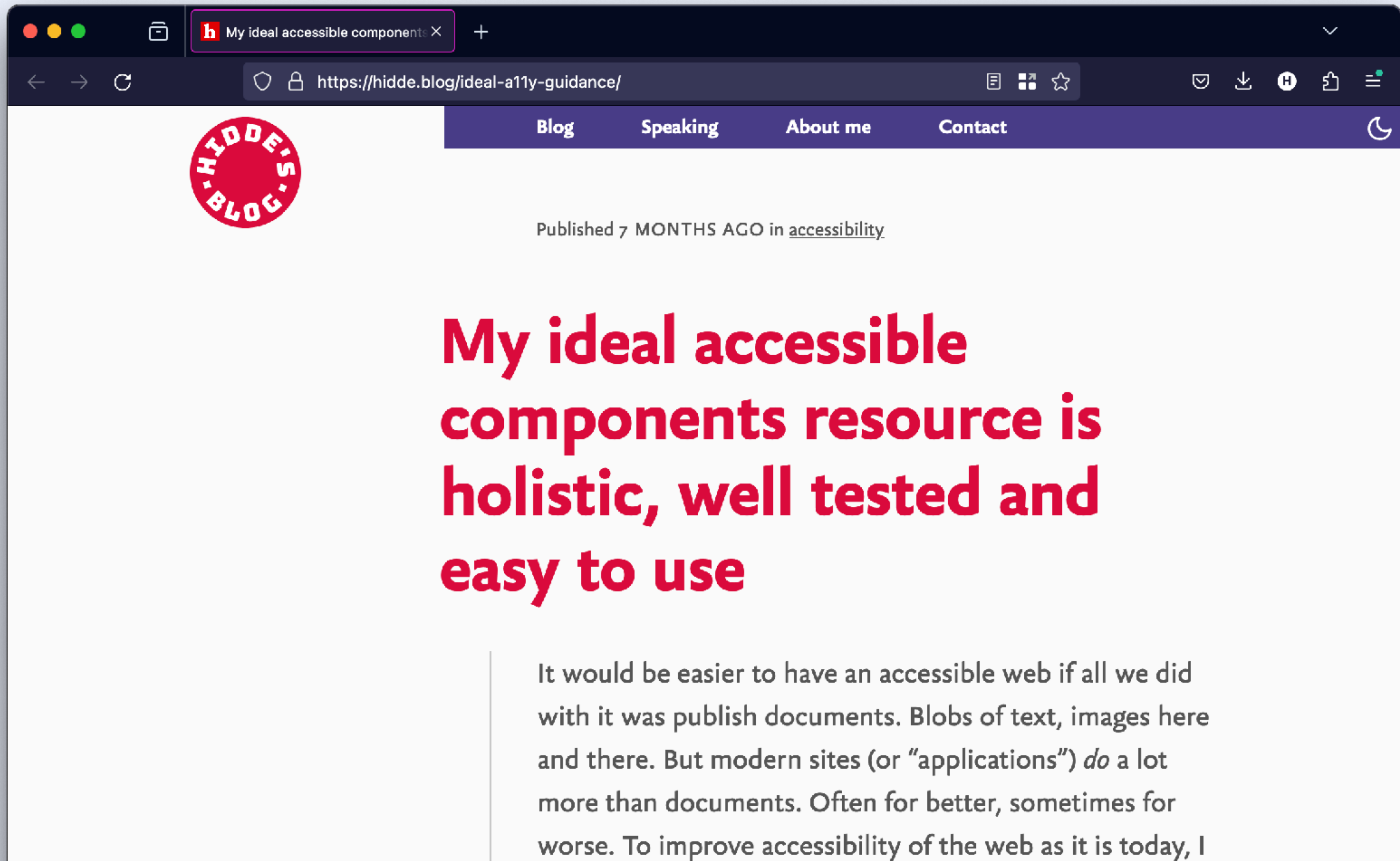
Web accessibility is about
how **people** use the web.

Web accessibility is about
how **people** use the web.

Websites impact this
through code

Web accessibility is about
how **people** use the web.

Websites impact this
through code:
HTML, CSS, SVG,
WAI-ARIA, JavaScript



website pitfalls

HTML VS ARIA

More and more HTML elements provide accessibility meta information so that we don't need to add ARIA to our HTML

HTML VS ARIA

More and more HTML elements provide accessibility meta information so that we don't need to add ARIA to our HTML

Open popover

I am popover
content

HTML VS ARIA

More and more HTML elements provide accessibility meta information so that we don't need to add ARIA to our HTML

aria-details
relationship
(if apt)

Open popover

aria-expanded state

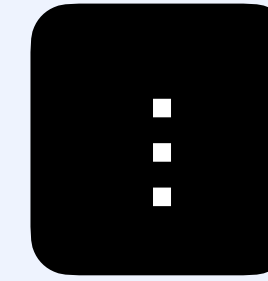
I am popover
content

group fallback
role (if apt)

STATE <-> UI CONFLICTS

When state attributes aren't updated or wrong on page load

**menu is not actually
opened / expanded**



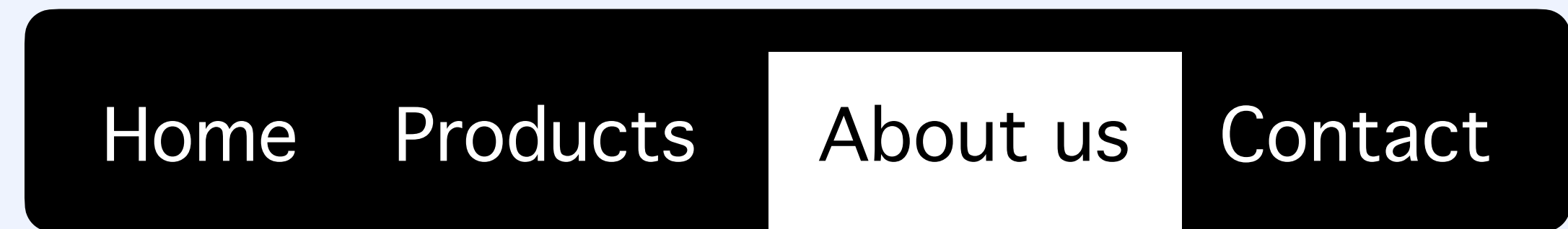
but DOM says it is open

```
<button aria-expanded="true">  
  Open menu  
</button>
```



```
<nav>
  <ul>
    <li>
      <a href="/">Home</a>
    </li>
    <li>
      <a href="/" aria-
current="page">Products</a>
    </li>
    <li>
      <a href="/">About us</a>
    </li>
    <li>
      <a href="/">Contact</a>
    </li>
  </ul>
</nav>
```

current page is About us



but DOM says it is "Products"

DISAPPEARING FOCUS

When an element disappears, focus should go to a **logical** element

DISAPPEARING FOCUS

When an element disappears, focus should go to a **logical** element



BIC/SWIFT codes are used to identify banks and financial institutions globally.

DISAPPEARING FOCUS

When an element disappears, focus should go to a **logical** element



BIC/SWIFT codes are used to identify banks and financial institutions globally.

OK

DISAPPEARING FOCUS

When an element disappears, focus should go to a **logical** element



BIC/SWIFT codes are used to identify banks and financial institutions globally.

OK

DISAPPEARING FOCUS

When an element disappears, focus should go to a **logical** element



SCREENREADER INSTRUCTIONS

Don't write a message to screenreader
users in labels/descriptions

adrianroselli.com/2019/10/stop-giving-control-hints-to-screen-readers.html

```
<button aria-label="hi if you are on a screenreader  
  this is a special message for you">  
  Open dialog  
</button>
```

role=application

stops screenreader from
intercepting shortcut keys

almost never appropriate

can in cases create barriers and
a confusing user experience

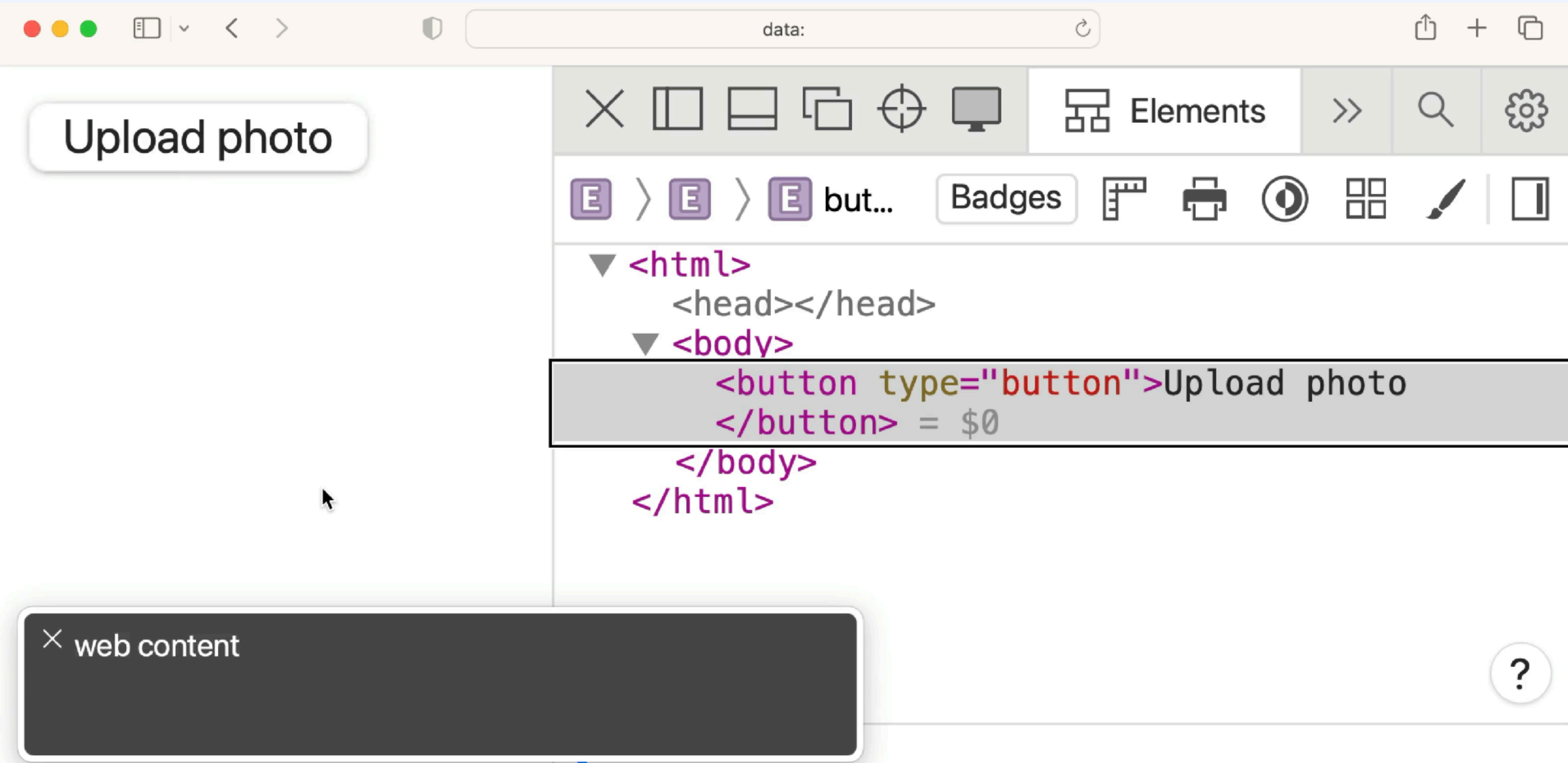
marcozehe.de/if-you-use-the-wai-aria-role-application-please-do-so-wisely
tink.uk/using-the-aria-application-role

aria-roledescription

no auto-translation

can easily increase verbosity

can make things very confusing
if we remove role info



aria-relevant

The screenshot shows a web browser window displaying a GitHub issue page. The browser's address bar shows the URL `https://github.com/w3c/aria/issues/712`. The page header includes the GitHub logo, the repository name `w3c / aria`, and navigation links for `Code`, `Issues` (with a count of 353), `Pull requests` (with a count of 33), `Discussions`, and `Actions`. The issue title is `aria-relevant: find real-world use cases, consider deprecating it #712`, and it is marked as `Open`. The issue was opened by `aleventhal` on April 9, 2018, and has 17 comments. A comment from `aleventhal` is visible, asking for examples of `aria-relevant` being used in shipping software and expressing concerns about the attribute. The comment text is partially visible: "Does anyone know of any examples of aria-relevant being used in a helpful way in shipping software? I have concerns about this attribute. The PFWG originally added it to ARIA because theoretically a screen reader should be informed about any changes and be able to receive hints on whether those changes". The right sidebar shows the `Assignees` section with `jnurthen` assigned, and the `Labels` section with `needinfo` applied.

aria-relevant: find real-world use cases, consider deprecating it #712

New issue

Open aleventhal opened this issue on Apr 9, 2018 · 17 comments

aleventhal commented on Apr 9, 2018 Member

Does anyone know of any examples of aria-relevant being used in a helpful way in shipping software?

I have concerns about this attribute. The PFWG originally added it to ARIA because theoretically a screen reader should be informed about any changes and be able to receive hints on whether those changes

Assignees

jnurthen

Labels

needinfo

OTHER PARTS

aria-controls

no consensus on how it is supposed to be conveyed to screenreader users

JAWS exposes it but it is off by default, hidden deep in config

however... this could be used for AT to help users jump into a controlled element?

aria-owns

support (inconsistent; missing in iOS/macOS + VoiceOver)

complex as there are many ways owner or child could be invalid, ways to create cycles or multiple owners

however... it could be useful for AT to know about relationships?

TAKEAWAYS

- **1. The importance of data-driven decision making**
- **2. The role of technology in business operations**
- **3. The impact of globalization on the economy**
- **4. The challenges of managing a diverse workforce**
- **5. The importance of customer feedback**
- **6. The role of innovation in business growth**
- **7. The importance of financial literacy**
- **8. The impact of social media on marketing**
- **9. The importance of employee training and development**
- **10. The role of ethics in business**

TAKEAWAYS

ARIA adds semantics, but not behaviour

Incorrect use is often worse than no use

Going the ARIA route can yield *subtle* bugs in support or consistency of support

There are a couple of things that are safe to use and helpful to end users

THANK YOU!

Questions

@hdv on most platforms

Slides/resources

talks.hiddedevries.nl

Thanks

Eric Eggert, Jules Ernst, Mu-An Chiou, Patrick H. Lauke,
Lotte Bijl, James Scholes, Katherine Badger, Scott O'Hara

THANK YOU!

Sources

WAI-ARIA 1.2

Sarah Higley, *Roles and relationships*

Scott O'Hara, *output: HTML's native live region element*

Jon Whiting, *To ARIA! The Cause of, and Solution to, All Our Accessibility Problems*

Re: role=application

Léonie Watson, *Using the ARIA application role*

Re: aria-owns

Aaron Leventhal, *How Blink implements aria-owns*

Webkit bug: aria-owns doesn't reorder accessibility tree