6 ways

to make your site more accessible

Hidde de Vries · 12.04.2019 · WordCamp, Rotterdam

moz://a

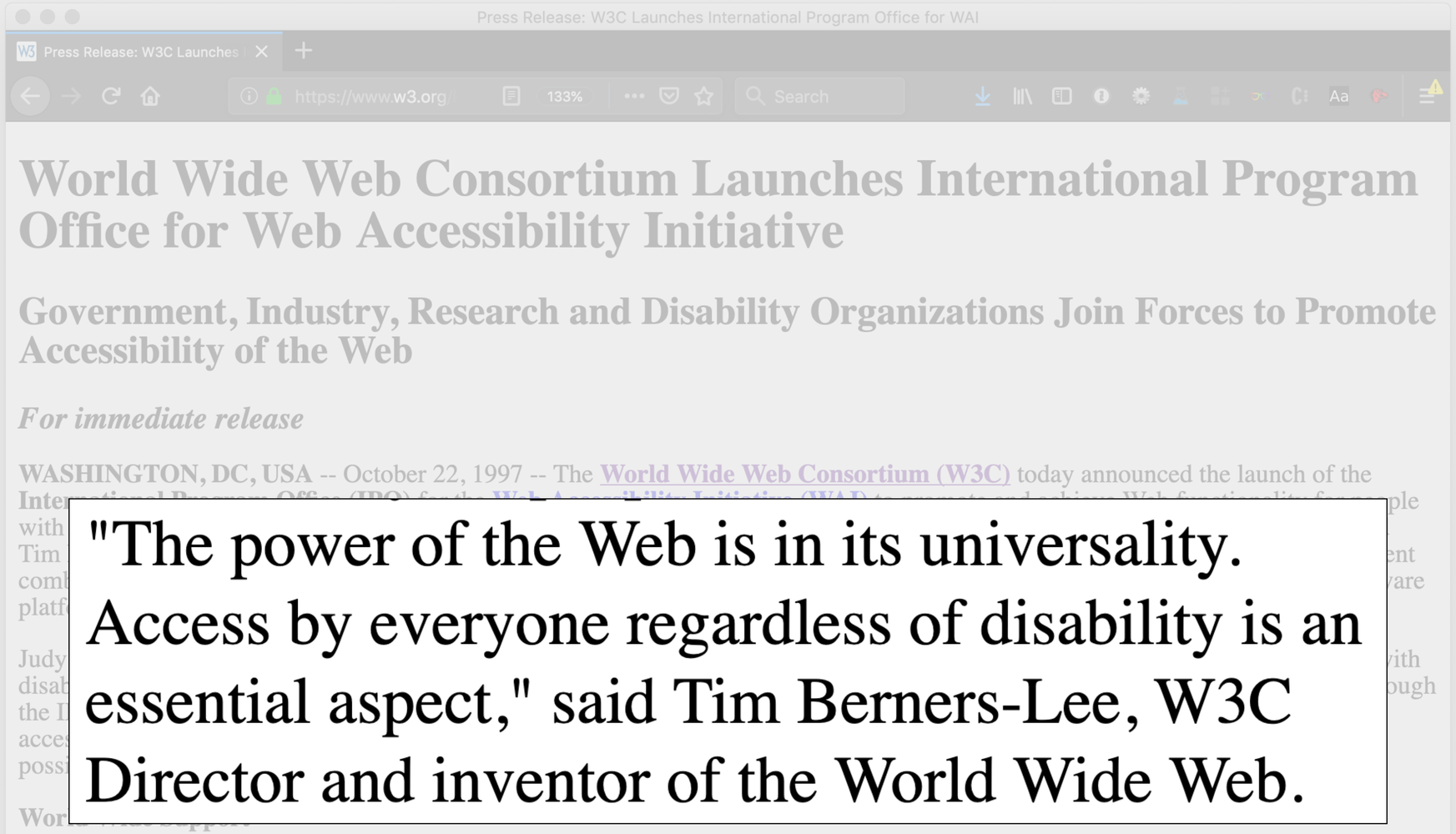
Den Haag

Hi, I'm Hidde.

Front-end developer.
Accessibility nerd.

It's cheaper online:
the web is accessible
by default.

Tim Berners-Lee
Web Developer



October 22, 1997

W3C announces program office for the Web Accessibility Initiative

https://www.youtube.com/watch?v=Ug6XAw6hzaw

THIS IS FOR EVERYONE

to make your site more accessible

hdv

Expose names

When you send markup to the browser, it generates two trees

(amongst others)

ahdv

DOM tree

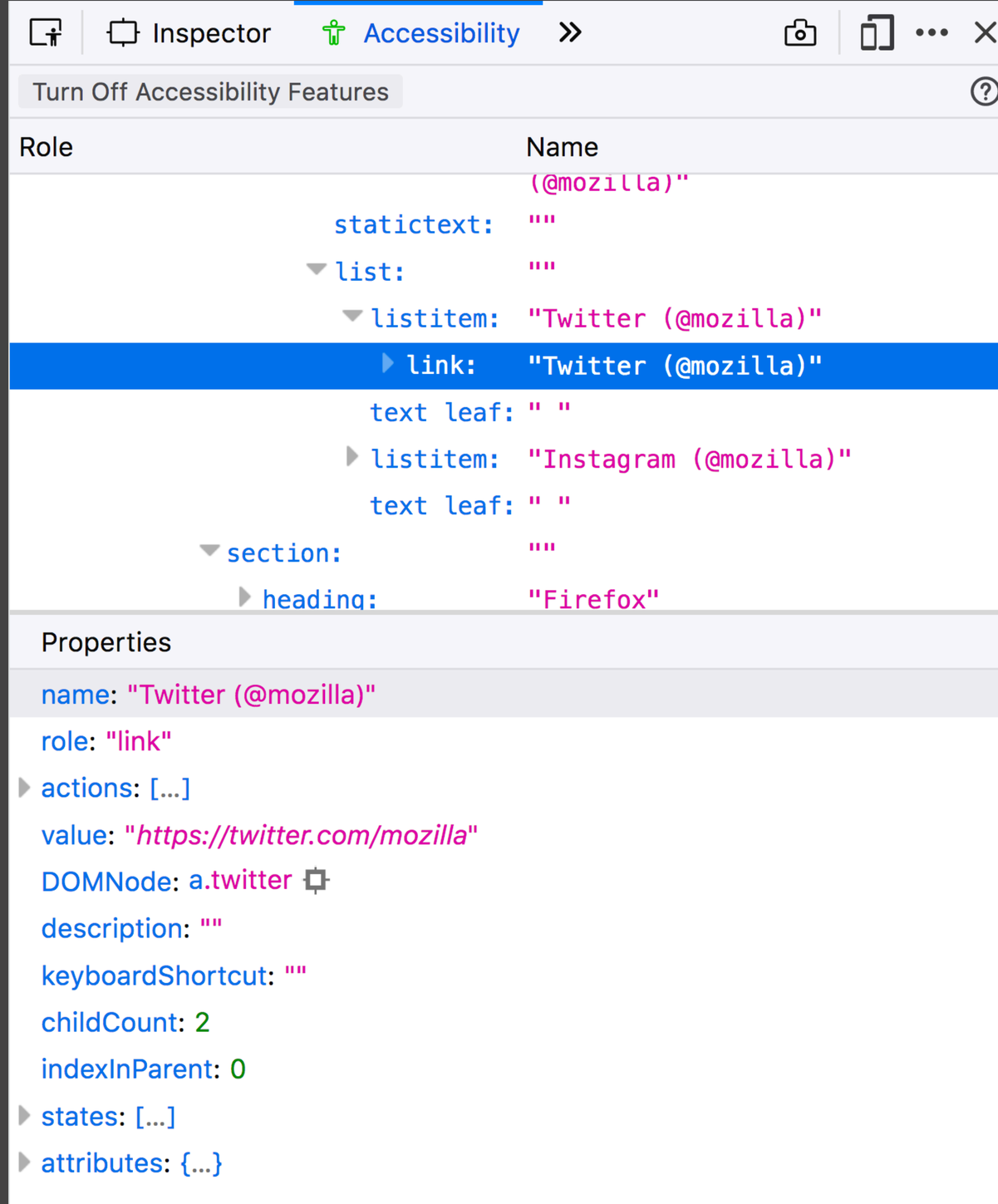
Inspector
Console
Debugger
Search HTML
aria-hidden="true"> ··· </nav>

<main>
<header class="main-page-heading"> ··· </header>
<section id="download-firefox-primary-cta" class="dow
firefox-primary-cta"> ··· </section>
<section id="download-firefox-sticky-cta" class="down
firefox-sticky-cta"> ··· </section>
 ···
 ···
</main>
<script type="application/ld+json"> ··· </script>
<footer class="mzp-c-footer mzp-has-lang-switcher">

<nav class="mzp-c-footer-primary">
 ···
<section class="mzp-c-footer-section"> ··· </section
<section class="mzp-c-footer-section">
<h5> ··· </h5>
 ···
</section>
::after
</nav>
<nav class="mzp-c-footer-secondary"> ··· </nav>
/#home.html-ltr. > div#outer-wrapper > footer.mzp-c-footer.mzp-has-la
Rules
Layout
Computed
Animations
Fonts
Filter Styles

Accessibility tree

Roles, names, properties.



The accessibility tree
is how your page gets
exposed to assistive tech

braille bars

screen magnifiers

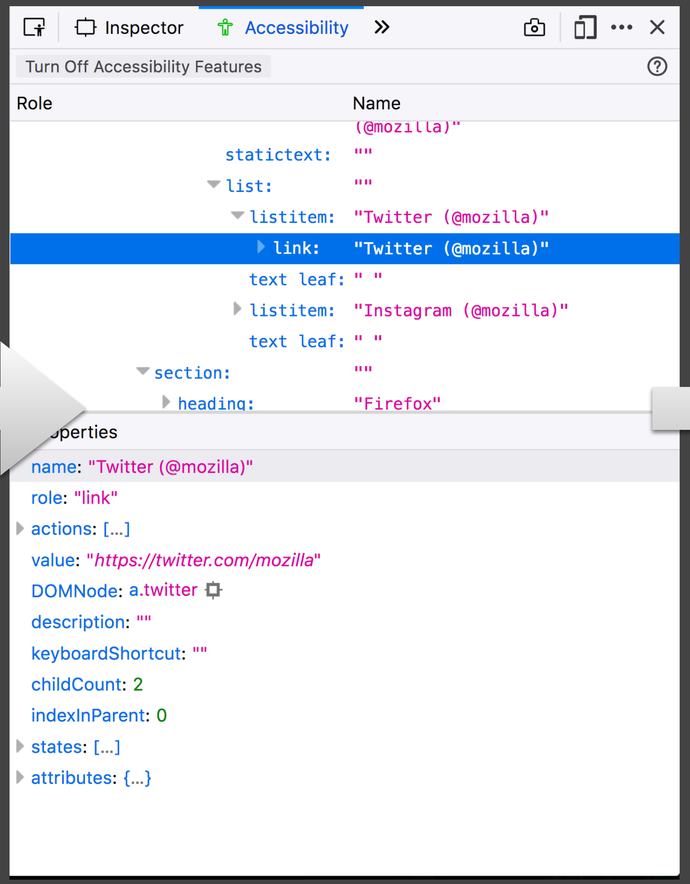
alternate pointing devices

screenreaders

Your markup

DOM tree

Accessibility tree



Platform APIs

Microsoft

Microsoft Active Accessibility
Microsoft User Interface Automation
MSAA

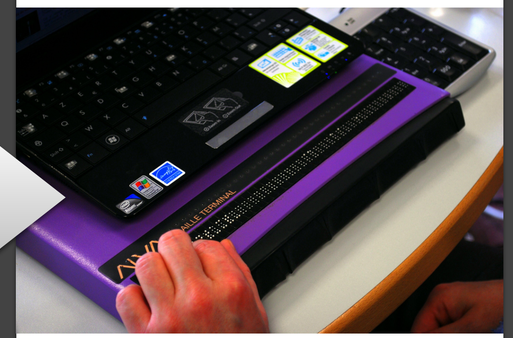
Mac OS X Accessibility Protocol

THE LINUX FOUNDATION
GNOME DEVELOPER

Linux/Unix Accessibility Toolkit
IAccessible2

AT

JAWS for Windows



text-to-speech
screen magnifiers
alternate pointing devices

Role

What kind of thing is it?

Name

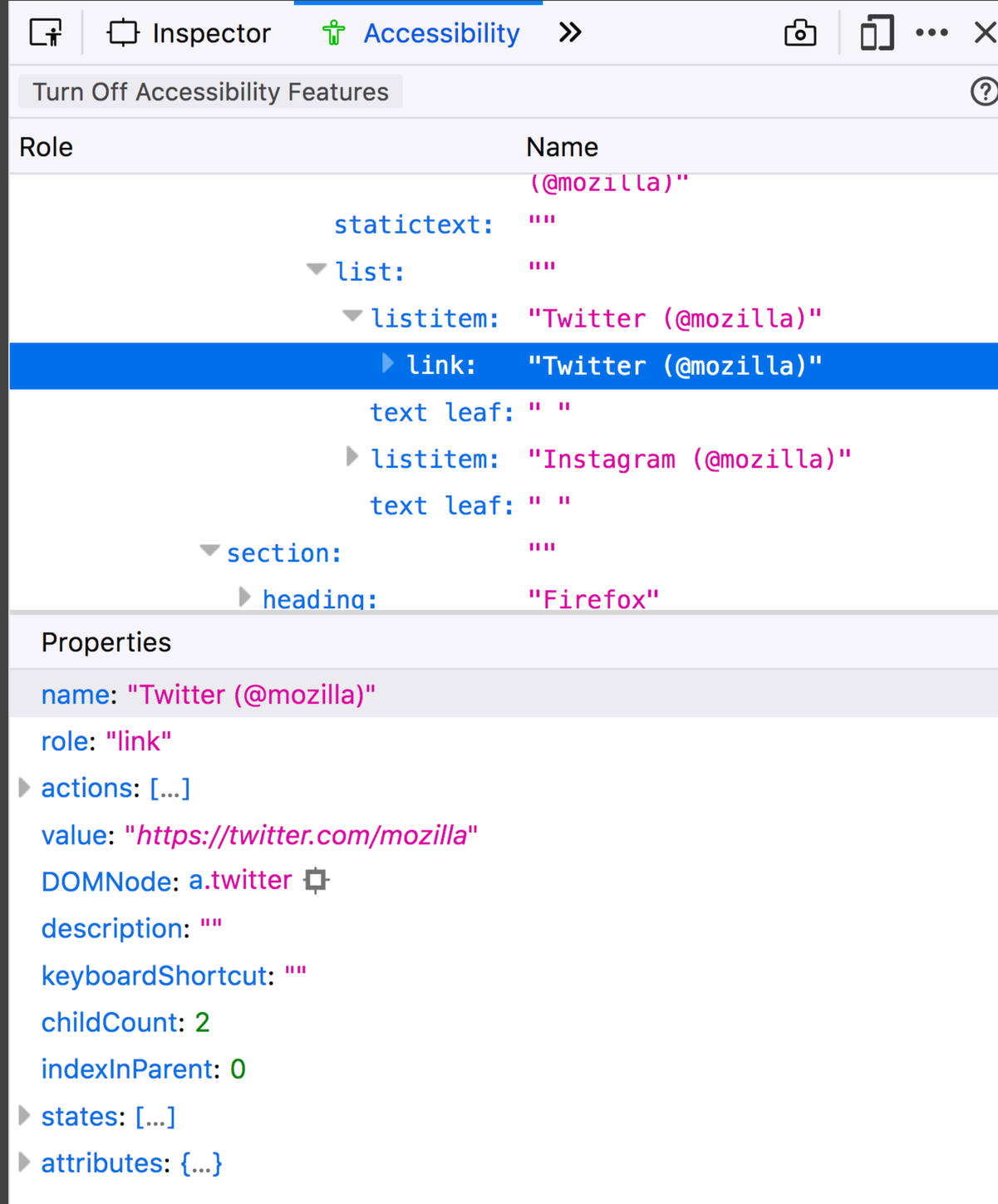
How should we refer to it?

State/properties

What else should we know?

Accessibility tree

In Firefox Dev Tools, Accessibility Panel

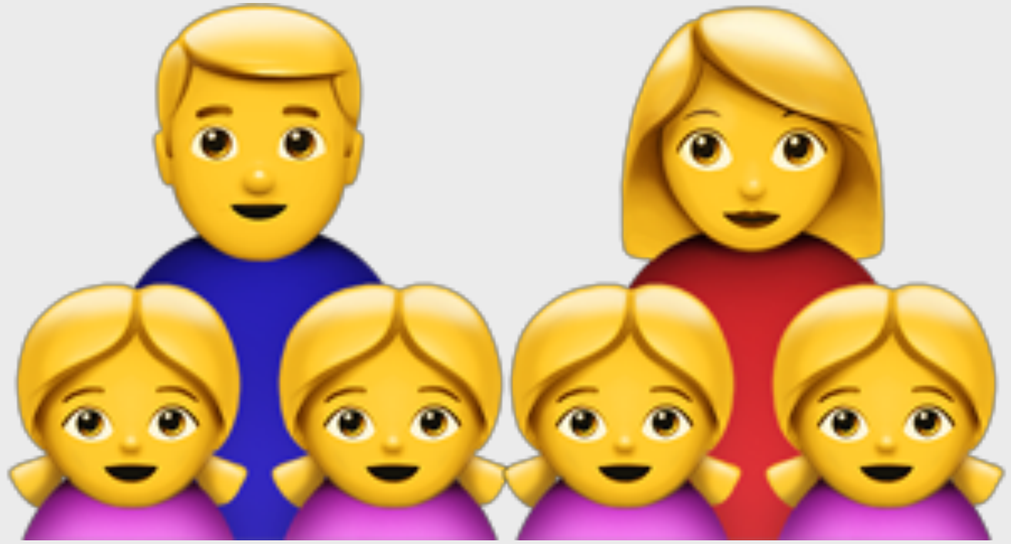


Let's look at naming things

names a link

<a>

@hdv



Alice Alice Alice Alice

ahdv

Leverage agile frameworks to provide a robust synopsis for high level overviews.

READ MORE

Organically grow the holistic world view of disruptive innovation via workplace diversity.

READ MORE

Iterative approaches to corporate strategy foster collaborative thinking to further the overall value proposition.

READ MORE

At the end of the day, going forward, a new normal that has evolved from generation X is on the runway

READ MORE

hdv

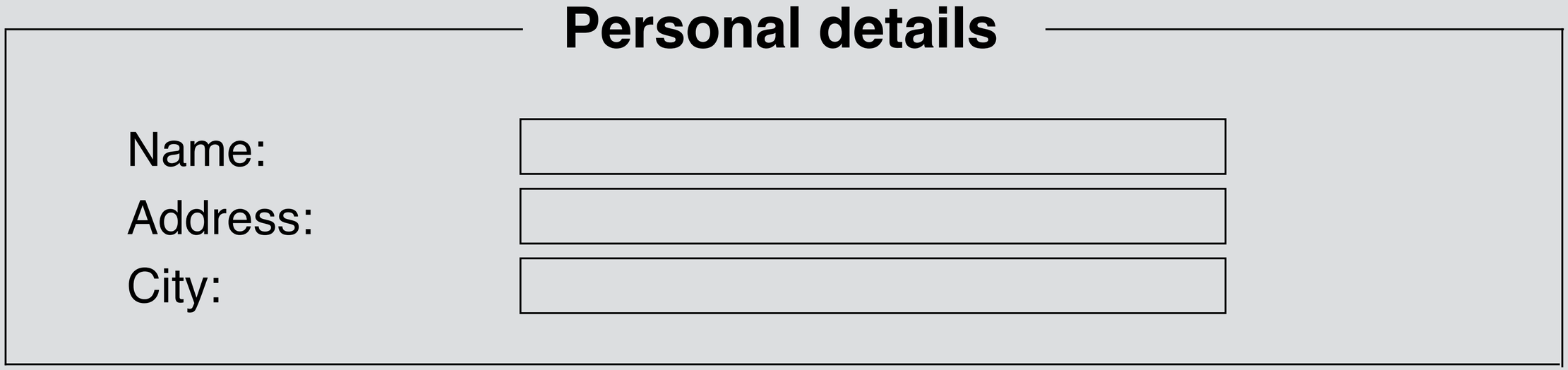
> ***“24.4% of pages had links with ambiguous link text, such as ‘click here’, ‘more’, ‘continue’, etc”.***
>
> — WebAIM, *The WebAIM Million*

Use unique link text that makes sense out of context

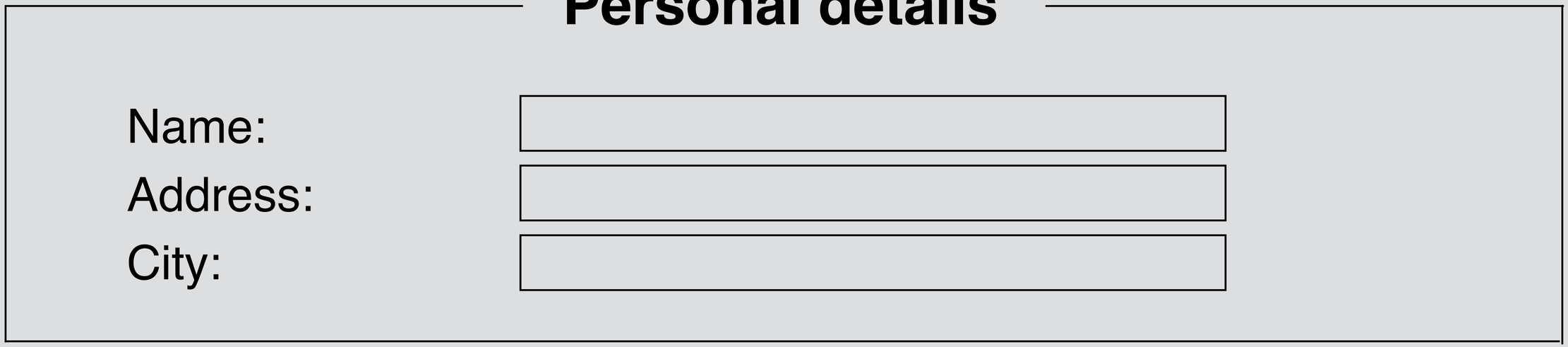
names a form field

<label>

> ***“59% of form inputs were not properly labeled.”.***
>
> — WebAIM, *The WebAIM Million*




```
<div>Name</div>
<input type="text" id="name" />
```




```
<label for="name">Name</label>
<input type="text" id="name" />
```

<caption>
vs
<legend>

labels a table

<caption>

vs

<legend>

labels a group
of form fields

hdv

2 Choose your markup

<a>

vs

<button>

hdv

goes somewhere

<a>

vs

<button>

does something

ahdv

If your `href` is empty,
consider `<button>`

ahdv

```
<button type="button">Save</button>
```

Save

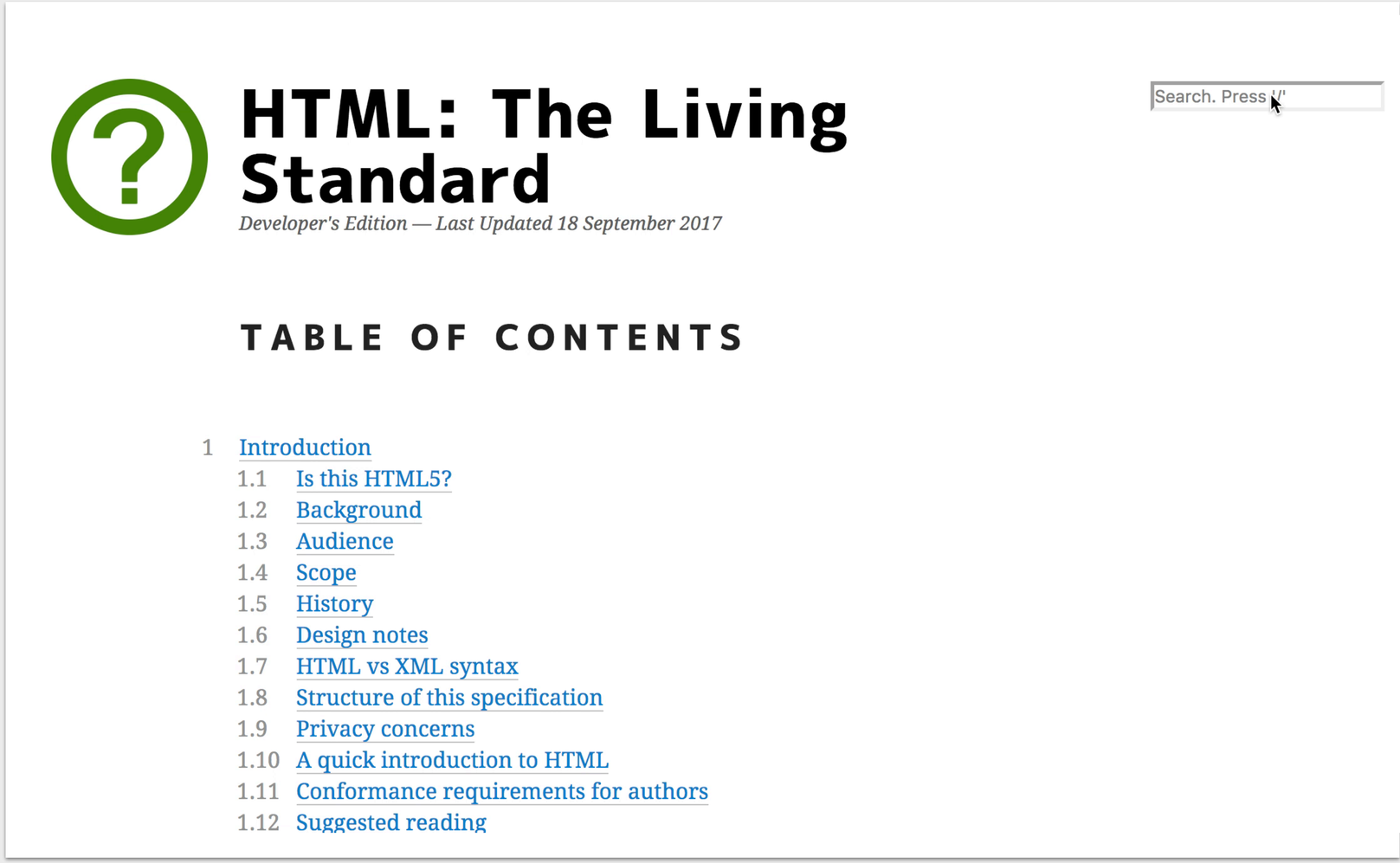
```
<button type="button">Save</button>
```

Included for FREE:

* can tab to it
* works with keyboard (ENTER)
* is announced as ‘button’
* gets the correct cursor

When in doubt, consult the spec

developers.whatwg.org



Provide structure

Give pages unique <title>s

> ***[The <title>] is still the first guarantee or first confirmation that you've ended up on the page that you intended to reach.***
>
> — Léonie Watson, accessibility expert and screenreader user

h1
h2
h3
h4
h5
h6

Headings are like your table of contents for assistive tech

hdv

Assistive technology

From Wikipedia, the free encyclopedia
(Redirected from Assistive technologies)

Assistive technology is an umbrella term that includes assistive, adaptive, and rehabilitative devices for people with disabilities while also including the process used in selecting, locating, and using them. People who have disabilities often have difficulty performing activities of daily living (ADLs) independently, or even with assistance. ADLs are self-care activities that include toileting, mobility (ambulation), eating, bathing, dressing and grooming.

aring aid

"reduce ins

Headings

1: Assistive technology
2: Contents
2: Adaptive Technology [edit]
2: Mobility impairments [edit]
3: Wheelchairs [edit]
3: Transfer devices [edit]
3: Walkers [edit]
3: Prosthesis [edit]
2: Visual impairments [edit]
3: Screen readers [edit]
3: Braille and braille embossers [edit]
3: Refreshable braille display [edit]
3: Desktop video magnifier [edit]
3: Screen magnification software [edit]
3: Large-print and tactile keyboards [edit]

4 Personal emergency response systems
5 Accessibility software

Have a sensible HTML structure

Trick: turn off the CSS

Specify language

```
<html lang="nl">
```

Los Pollos Hermanos,
where something delicious
is always cooking.

```
<html lang="en">…
  <p><span lang="es">Los Pollos Hermanos</span>,
  where something delicious is always cooking.</p>
…</html>
```

Linking to translations with `hreflang`

```
<h2>Other languages</h2>
<ul>
  <li><a href="/zh-TW" hreflang="zh-TW">Chinese</a></li>
</ul>
```

Linking to translations with `hreflang` (2)

```
<h2>Other languages</h2>
<ul>
  <li><a href="/zh-TW" hreflang="zh-TW"
  lang="zh-TW">中文</a></li>
</ul>
```

5

Text alternatives

Producten online bestellen |

https://www.ah.nl/producten

Producten Bonus Allerhande box Recepten Winkels

Aardappel, groente, fruit

Verse kant-en-klaar maaltijden, salades

Zuivel, eieren

Bakkerij

Wijn

Bier, sterke drank, aperitieven

The web is
mostly **text**

selectable

copy-pasteable

The web is mostly **text**

enlargeable

Google Translate-able

screenreader-ready

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Text lets us have a lot of accessibility **automatically**

Make sure there's text or (useful) text alternatives

```
<img src="promo.png" alt="30% off your next purchase" />
```

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BIJLAGEDETAILS

img_8841.jpg
7 april 2019
2 MB
4032 bij 3024 pixels
Afbeelding bewerken
Permanent verwijderen

URL

Titel

IMG_8841

Onderschrift

Alt-tekst

Omschrijving

hdv

Google Accessibility

@googleaccess

Follow

Coming later this year: Screen reader users can ask Chrome to get automatic image descriptions from Google when an image is missing alt text. Get a sneak preview now using Chrome Canary, just open the context menu! #a11y #CSUNATC19

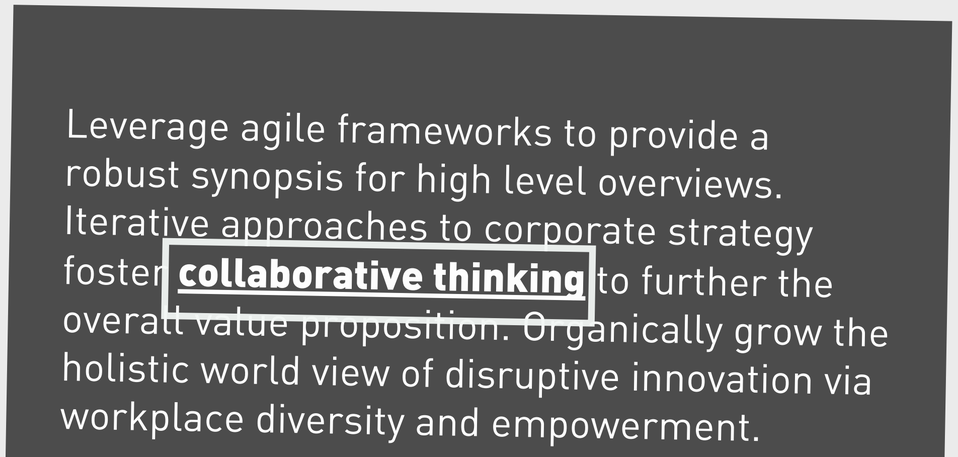
10:35 AM - 14 Mar 2019

Transcripts with <audio> and <video>

Subtitles with video (<track> ftw)

Test with a keyboard

People who don't use a mouse, use focus styles to see where they are



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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.

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<details>

<select>

<input>

<textarea>

The interactive elements

<a>

<button>

ahdv
Street lights

Laura Carvajal at Fronteers Conference, Amsterdam (2018)

Try if you can get to all your links, buttons and forms with a keyboard

1 Names

2 Markup

3 Structure

4 Language

5 Text alternatives

6 Keyboard

Thanks for listening!

Contact
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Twitter
@hdv

Slides on Notist
https://talks.hiddedevries.nl