6 ways

to make your site more accessible

Hidde de Vries · 12.09.2019 · Inclusive Design Meetup, Ghent

W3C®

Web Accessibility
Initiative   WAI

https://www.w3.org/WAI/standards-guidelines/ata

W3C® Web Accessibility Initiative WAI

Strategies, standards, resources to make the Web accessible to people with disabilities

Get Involved | About W3C WAI

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Standards/ Guidelines

- Standards Overview
- Web Content – WCAG
- **Authoring Tools – ATAG**
  - **At a Glance**
- User Agents – UAAG
- WAI-ARIA
- Evaluation – ACT & EARL
- Personalization
- Standards Harmonization is Essential
- W3C Process for Developing

ATAG at a Glance

Summary

This page provides a paraphrased summary of Authoring Tool Accessibility Guidelines (ATAG) 2.0. For the normative technical specification, see www.w3.org/TR/ATAG20.

To learn about ATAG 2.0, please see the ATAG Overview.

Part A: Make the authoring tool user interface accessible

A1 The authoring tool user interface follows applicable accessibility guidelines

- Ensure that web-based functionality is accessible
- Ensure that non-web-based functionality is accessible

A2 Editing-views are perceivable

- Make alternative content available to authors

6
ways
to make your site more accessible

1

Expose names

alternate pointing devices

braille bars

screen magnifiers

JAWSforWindows

screenreaders

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

(amongst others)

DOM tree

Accessibility tree

Roles, names, properties.

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

Accessibility tree

Platform APIs

AT

Your markup

DOM tree

Role	Name
	(@mozilla)"
statictext:	""
list:	""
listitem:	"Twitter (@mozilla)"
link:	"Twitter (@mozilla)"
text leaf:	" "
listitem:	"Instagram (@mozilla)"
text leaf:	" "
section:	""
heading:	"Firefox"

Turn Off Accessibility Features

Inspector   Accessibility

Properties

name: "Twitter (@mozilla)"
role: "link"
actions: [...]
value: *https://twitter.com/mozilla*
DOMNode: a.twitter ⚙
description: ""
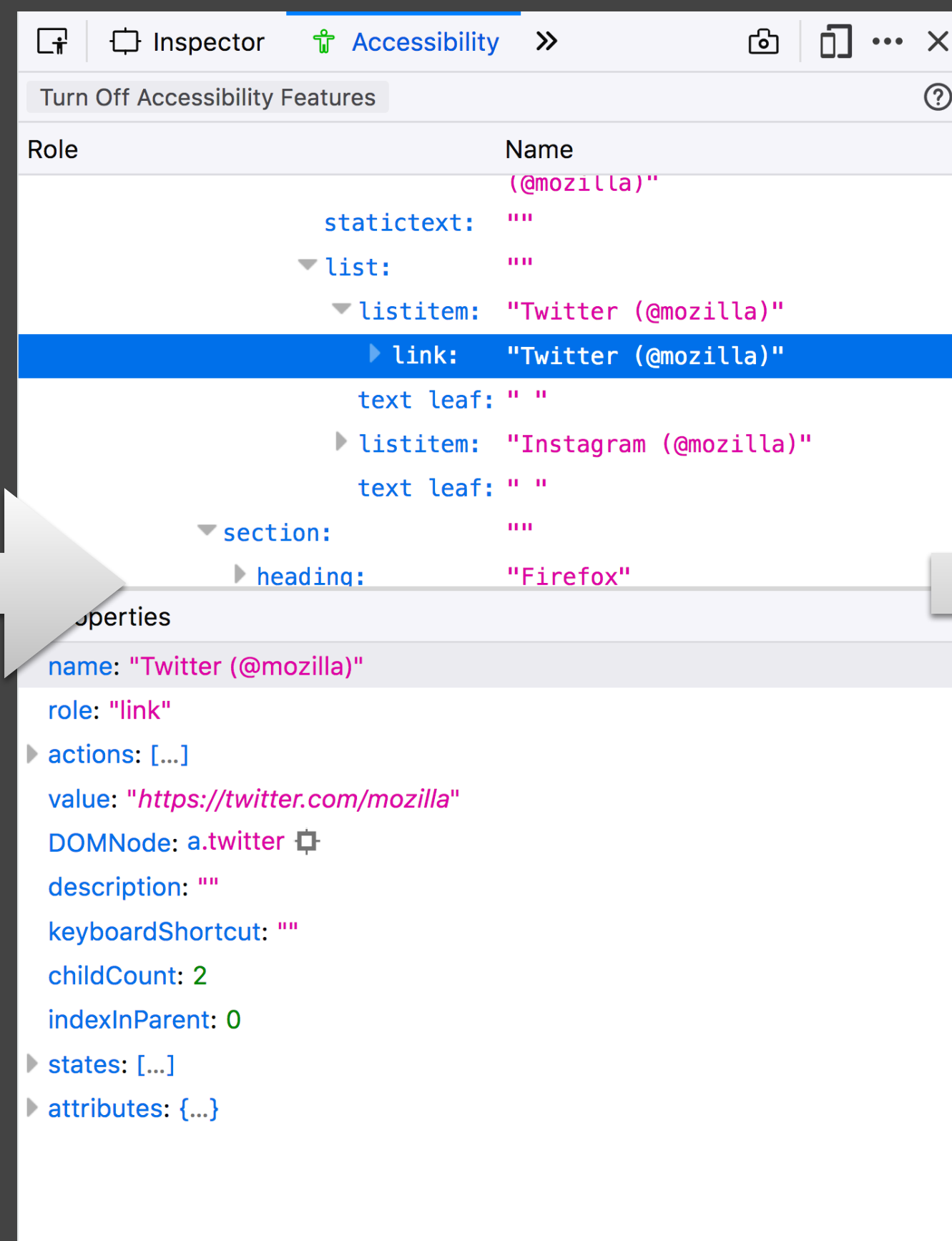keyboardShortcut: ""
childCount: 2
indexInParent: 0
states: [...]
attributes: {...}

Microsoft

Microsoft Active Accessibility
Microsoft User Interface
Automation
MSAA

Mac OS X Accessibility Protocol

THE LINUX FOUNDATION   **GNOME DEVELOPER**

Linux/Unix Accessibility Toolkit
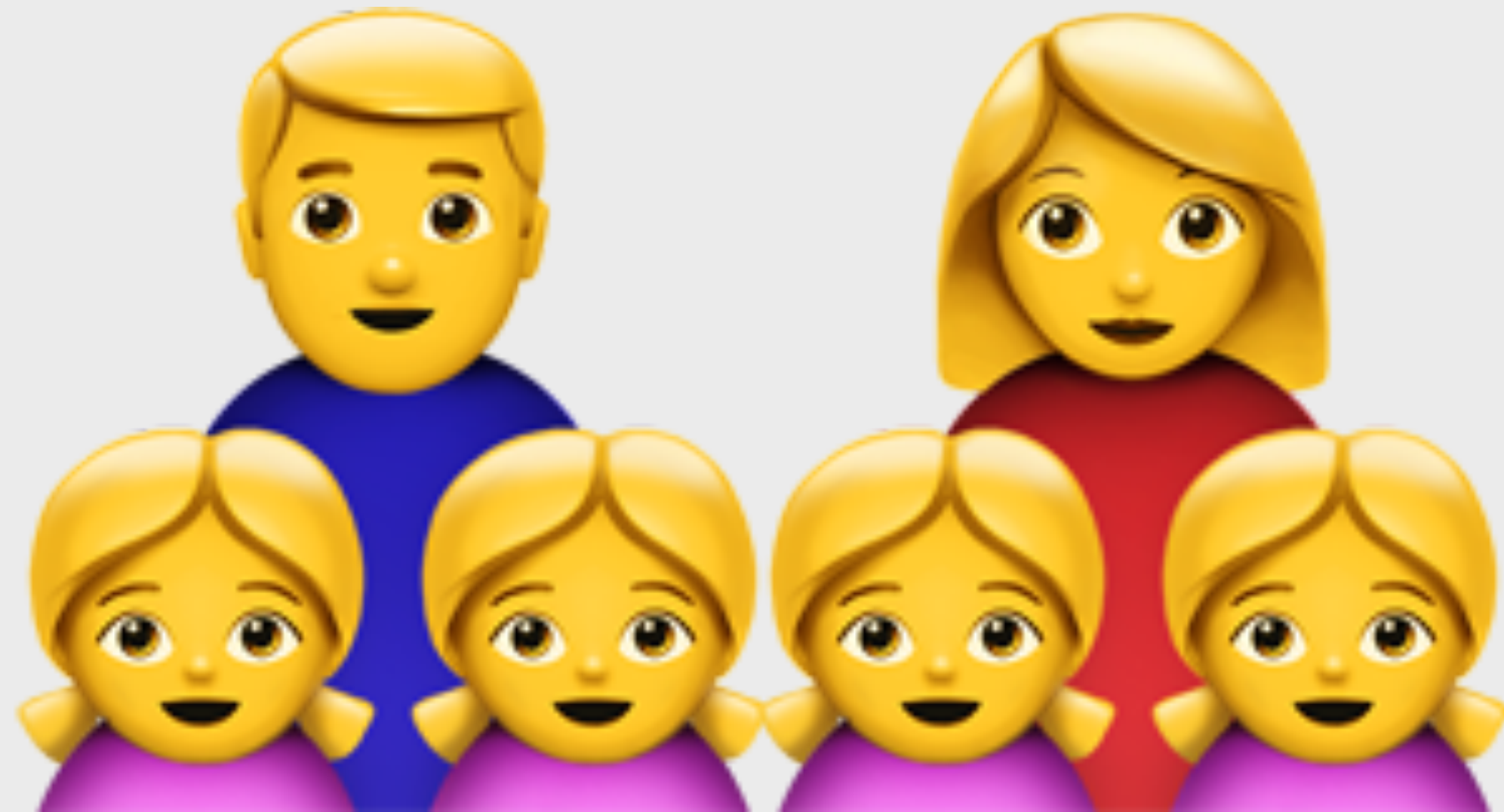IAccessible2

JAWS for Windows
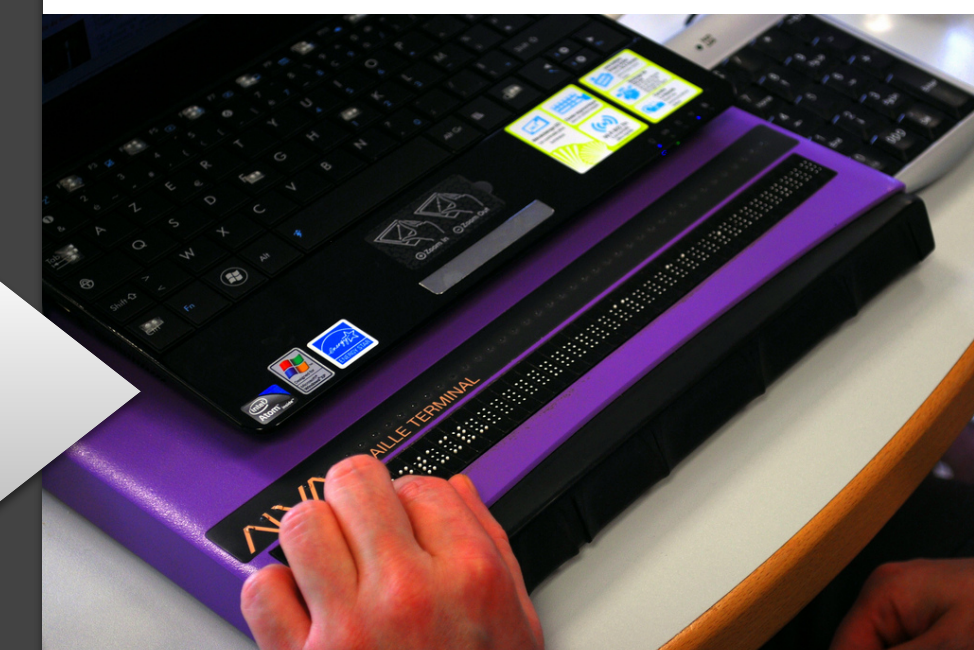
text-to-speech
screen magnifiers
alternate pointing devices

Let's look at naming

Alice   Alice   Alice   Alice

@hdv

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

names a link

<a>

> **"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*

Personal details

Name:

Address:

City:

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

Personal details

Name:

Address:

City:

```html
<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

Financial results 2018

Fixed assets	210,000
Current Assets	4,532
Creditors	23,003
Capital and reserves	50,500

```html
<table>
  <caption>Financial results 2018</caption>
  <tbody>(…)</tbody>
</table>
```

Personal details

Name:

Address:

City:

```
<form>
  <fieldset>
    <legend>Personal details</legend> (…)
  </fieldset>
</form>
```

2

Choose your markup

<a>
vs
<button>

<a>

goes

somewhere

vs

<button>

does

something

@hdv

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

```html
<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

HTML: The Living Standard

Developer's Edition — Last Updated 18 September 2017

Search. Press '/'

TABLE OF CONTENTS

@hdv

3
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

Headings are like your table of contents for assistive tech

Assistive technology

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 inst

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

4

Specify language

`<html lang="en">`

Los Pollos Hermanos,
where something delicious
is always cooking.


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

Linking to translations with `hreflang`

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

Linking to translations with `hreflang` (2)

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

5

Text alternatives

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

Pasta

@hdv

The web is mostly **text**

copy-pasteable

selectable

The web is mostly **text**

enlargeable

Google Translate-able

screenreader-ready

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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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)

Front-End Performance: The Dark Side by Mathias Bynens

Mathias Bynens
Front-End Performance:
The Dark Side

▶ 00:00 / 20:04

This is the third talk in *a set of three talks on Technical Performance* delivered on April 1, 2016 at *Fronteers Spring Conference in Amsterdam*

* Watch high quality video on Vimeo
* Download audio (MP3, 23MB)

6
Test with a keyboard

<details>

<select>

<input>

<textarea>

The interactive elements

<a>

<button>

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

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.

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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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@hdv

YOU WOULDN'T
STEAL THEIR
CURSOR

Laura Carvajal
@lc512k

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