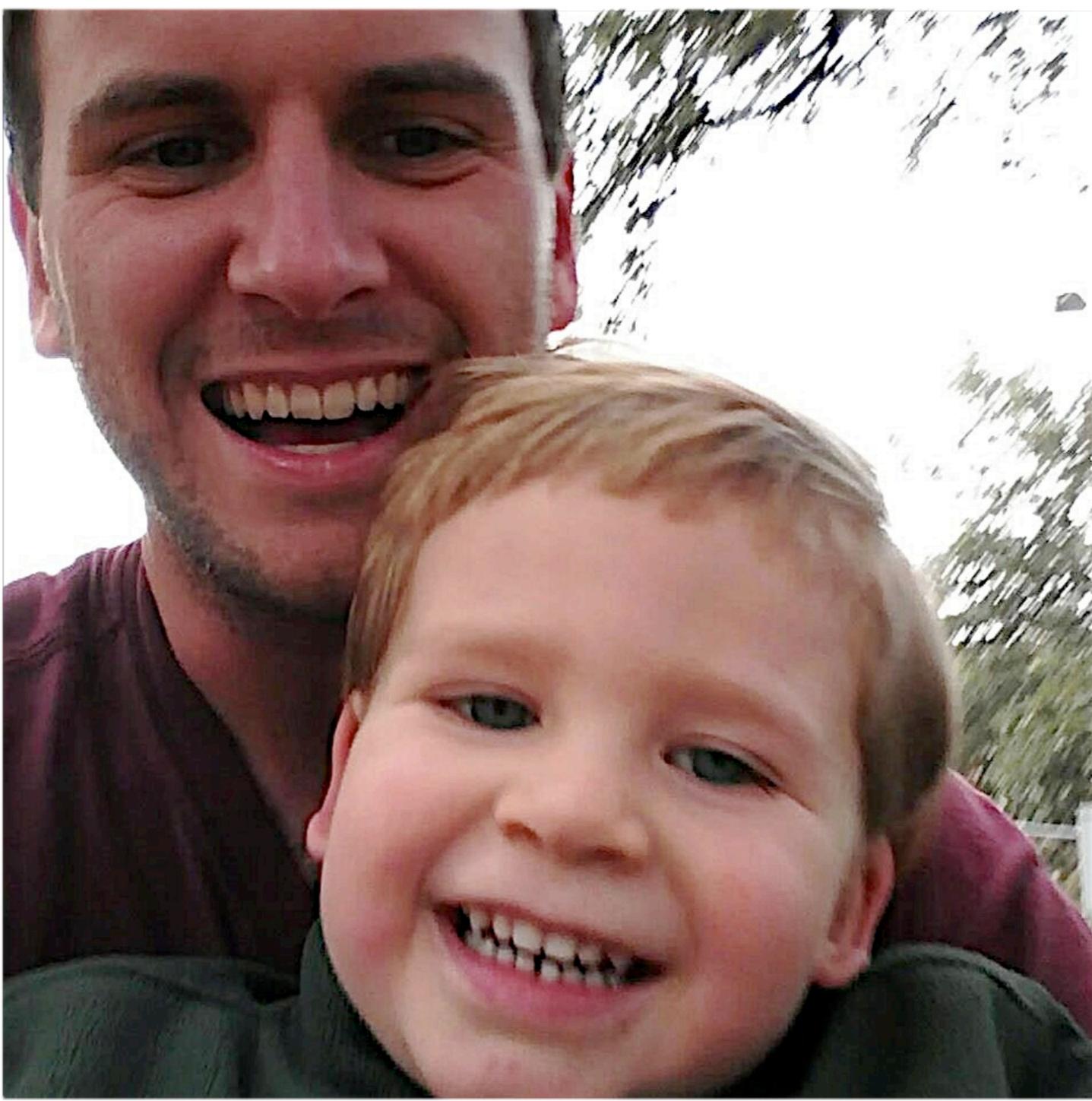


what HTML5 Means for web Accessibility

Kevin Lamping



@klamping

My Start

2007

Alcon Worldwide Site

Visit Alcon Country Websites

Health Care Professionals Patients & Family Investors & Media Careers at Alcon

The World of Eye Health About Alcon Products Research & Development Corporate Responsibility Contact Us Search Locations Go

Learn more about the Novartis and Alcon merger

Our Vision

To be the most trusted leader in eye care.



Alcon's Commitment to Eye Care

Every day, we challenge ourselves with Alcon's mission – to provide innovative products that enhance quality of life by helping people see better. As the global leader in eye care, this mission means that we strive to make significant contributions in the fight to prevent and, one day, eliminate blindness. To that end, we are dedicated to providing the highest quality eye care products for treating various eye diseases and eye conditions.

In the Spotlight

Eye Health Marketplace: Alcon's Commitment to New and Existing Markets

Go

A Favor

? .com

Just Imagine

WCAG 2.0

Checklist 1: General

- Keyboard:** All content on page is keyboard accessible.
(2.1.1 Keyboard; 2.1.2 No keyboard required)
- Nothing on page requires a user to use a mouse.
- User can tab through content and select it.
- Sensory:** Understanding content does not require specific sensory characteristics of component.
(1.3.3 Sensory Characteristics)
Example: A green arrow in a message box does not require a user to have a color vision to understand it.
- Colour:** Colour is not used to indicate an action, prompt or link.
(1.4.1 Use of Colour)
Example: When an error is indicated, it is clearly visible and can be displayed, not just the code.
- Foreground and background contrast:** The contrast between foreground and background colour is at least 4.5:1.
(1.4.3 Contrast (Minimum))
- Seizure prevention:** No content causes seizures.
(2.3.1 Three flashes or below)
- Sufficient Time:** Users can take as much time as they need.
(2.2.1 Timing adjustable)
 - Page does not require a user to respond within a certain amount of time.
 - a way to extend the time limit.
 - a way to warn the user.

Checklist 2: Headings and Text

- Document structure:** Use proper heading structure.
(1.3.1 Info and Relationships)
 - H1...H6 are used to identify sections (i.e., no H3 headings used directly under H1).
must be H1 > H2 > H3
 - All lists or groups of links are presented with a list item.
- Sequence:** Content is presented in a meaningful sequence.
(1.3.2 Meaningful Sequence)
 - White space characters are used to separate text.
 - HTML <table> elements correctly represent the data (Content of tables must be presented in a logical reading order).
- Text Resize:** Text can be resized using Ctrl+ and Ctrl-. (1.4.4 Resize Text)
Example: Text can be resized using Ctrl+ and Ctrl-. (1.4.4 Resize Text)
- Contrast:** Minimum contrast is at least 4.5:1 for text less than 18pt (1.4.3 Contrast (Minimum))
 - If CSS is used to replace text with images, ensure the contrast is still at least 4.5:1.
 - Background images, if used, do not affect the contrast of text.
- Links:** The purpose of a link is clear from the text preceding the link text.
(2.4.4 Link Purpose)
 - Language of Parts:** Sections of the page have the "lang" attribute set to an appropriate language code in the HTML.
(3.1.2 Language of Parts)
Example:
<p xml:lang="es">Info</p>

Checklist 3: Images

- ALT Text:** All images use appropriate alternative text.
(1.1.1 Non-text content)
 - Alternative text provides a short but accurate description of the content.
 - CSS is not used to include images.
 - Images that should be ignored by screen readers, such as list bullets, should have a null alt attribute.
 - Set alt attributes for images used in forms.
- Images of text:** Text is used to convey information in the following three cases:
 1. Image of text is visually customized.
 2. Particular presentation of text is required for readability and requires use of an image to do so.
 3. Image of text is part of a logo or watermark.
- CSS:** CSS is used to control visual presentation of text.
- If CSS is used to replace text with images:** Ensure the contrast is still at least 4.5:1.

Appendix A: Checklist for Forms

- Form labels:** Label elements are used to label form controls and provide input.
(1.3.1 Info and Relationships)
 - Labels have same id attribute as the form control.
 - <fieldset> (with <legend>) is used to group form controls.
- Resize:** Form controls and input fields are resizable.
(1.4.4 Resize Text)
- Focus:** The context does not change when the focus moves (e.g., automatically submitting the form when a user tabs to the next field).
(3.2.1 On Focus)
- Input:** The context does not change when the user interacts with a form element (e.g., automatically submitting the form when a user tabs to the next field).
(3.2.2 On Input)
- Errors:** If an input error is automatic, it is communicated to the user in text.
(3.3.1 Error Identification)

Appendix B: Checklist for Audio and Video

- Label and Alternative Text (Audio and Video):** A label describes the purpose of the audio-only or video-only content and a descriptive name of the non-text content is provided in the alternative text.
(1.1.1 Non-text content)
- Pre-recorded audio:** A text transcript is provided that presents equivalent information.
(1.2.1 Audio-only and Video-only (Prerecorded))
- Audio Control:** If audio on a web page plays for more than 3 seconds a mechanism is provided to either:
 - pause or stop the audio; and/or,
 - control audio volume independently from the user's overall system volume level.
(1.4.2 Audio Control)
- Captions:** Either open (always visible) or closed captions are provided for live and pre-recorded audio content in synchronized media (e.g., a video with a synchronized audio track, or a webcast).
(1.2.2 Captions (Prerecorded); 1.2.4 Captions (Live))
- Pre-recorded video:** An audio description is provided for prerecorded video content by including either:
 - a second user-selected audio track containing descriptions; or,
 - providing the audio descriptions within the video itself.
(1.2.1 Audio-only and Video-only (Prerecorded); 1.2.3 Audio Description or Media Alternative (Prerecorded); 1.2.5 Audio Description (Prerecorded))

Your job

Access\$ibility

Good News

Bad News

Accessibility
is easy

**HTML
is mostly
accessible**



Alt Text



Labels



Semantics

Let's skip
that and
talk **HTML5!**

Accessibility
is hard...

**for
non-trivial
stuff**

Even simple
non-trivial
stuff

WCAG 2.0

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- CSS:** CSS is used to control visual presentation of text.
- If CSS is used to replace text:** If CSS is used to replace text where it is visually similar to the original text, it must be provided to switch back to the original text.
(1.4.5 Images of text)

Appendix A: Checklist for Forms

- Form labels:** Label elements are used to identify input fields.
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 - <fieldset> (with <legend>) is used to group related form controls.
- Resize:** Form controls and input fields are resizable.
(1.4.4 Resize Text)
- Focus:** The context does not change when the user focuses on a form element (e.g., automatically submitting the form when the user presses Enter while focused on a text input).
(3.2.1 On Focus)
- Input:** The context does not change when the user focuses on a form element (e.g., automatically submitting the form when the user presses Enter while focused on a text input).
(3.2.2 On Input)
 - CSS is used to control visual presentation of text.
- Errors:** If an input error is automatic, it is communicated to the user in text.
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 - providing the audio descriptions within the video itself.
(1.2.1 Audio-only and Video-only (Prerecorded); 1.2.3 Audio Description or Media Alternative (Prerecorded); 1.2.5 Audio Description (Prerecorded))

Support



Accessibility
is Frustrating

we forget
about it

we make
excuses

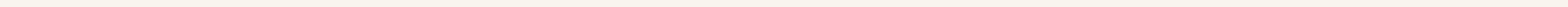
**we all need
forgiveness**

Bless me
father, for I
have sinned

It has been
days since

I last used a
screen reader

I am sorry for this
and all the sins of
my past life,
especially for



Amen

what's the
point?

You have a
choice

They don't

We're Zuul



Ghostbusters TM & © 2004 Columbia Pictures, Inc. All Rights Reserved

Accessibility
is good for
you

Accessibility Usability



“For my 1 year old
daughter a magazine is an
iPad that **doesn't work**”
- YouTube Video



“...people aren’t talking about how he made his [tech] **accessible**”

“a 15-year-old kid
can be playing
with Garage Band
and come up with
unbelievable ideas”

“He has leveled
the playing field.”

“His company
made it accessible
without screaming,

‘This is for the
blind, this is for
the deaf’”

“I’m just hoping
his life [will]
challenge those to
do what he has
done”

“you just make it
one of your apps.
That will create a
world accessible to
anyone”

“Thanks”

- Stevie Wonder

All you
need is love

what does
HTML5
mean for web
accessibility?

article, aside,
footer, header,
nav, section

<header>

<header>



== <div>

<header>



== <section>

<header>



= <header>

<header>



== <div>

<header>



= <header>

html5accessibility.
com

<footer>

Unsupported



Supported

<footer>



Unsupported



Supported



Disclaimer

what does
“supported”
really mean?



Talks to



Listens to



Support needed here



Talks to

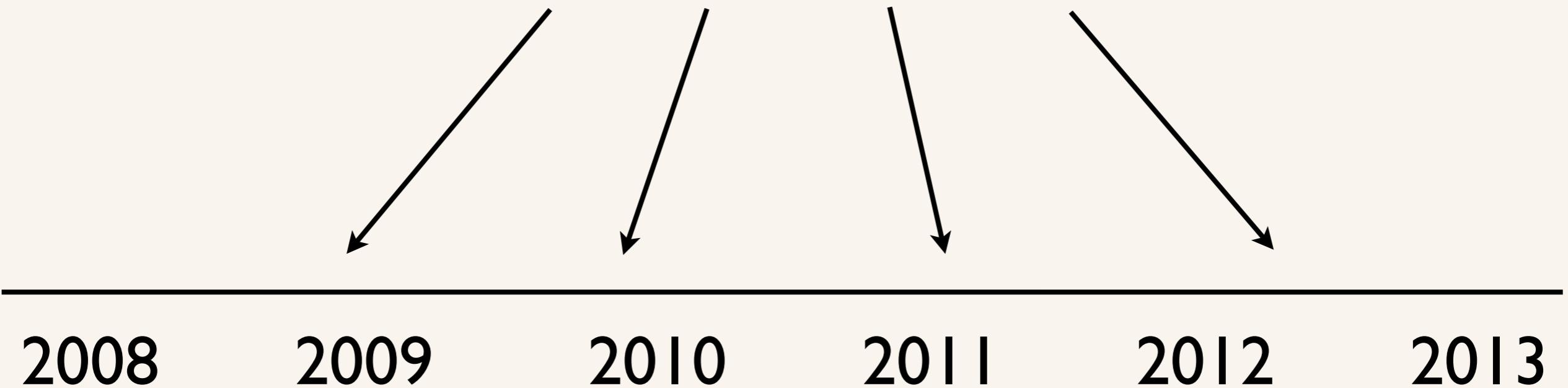


and here

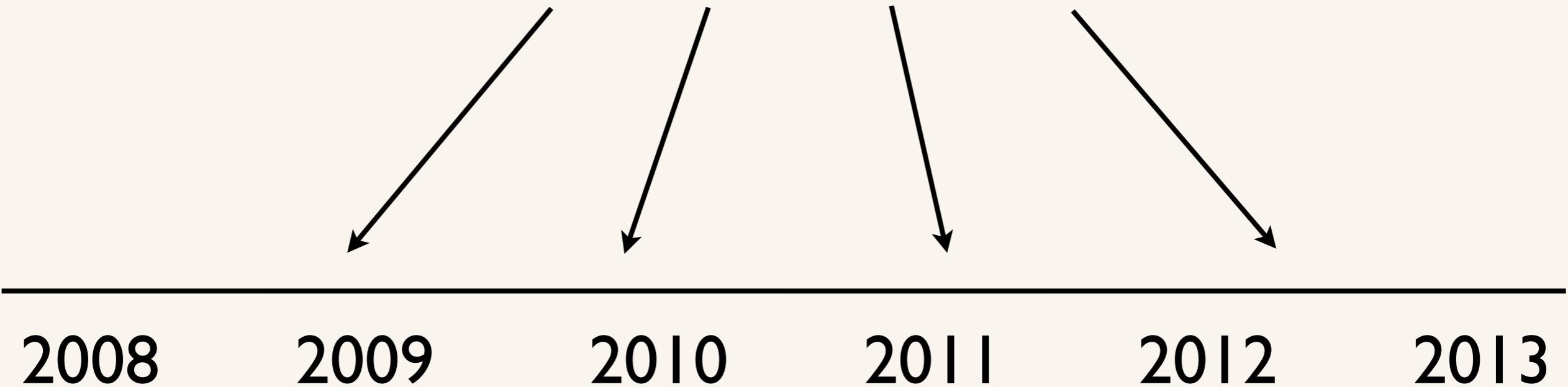
Listens to



Users are here



**Support is
Users are here**



Is there any
hope?

Belt



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article, aside,
footer, header,
nav, section

It ain't over till
the fat lady
sings an ARIA

ARIA


```
<header  
role="banner">
```

```
<footer  
role="contentinfo">
```

```
<nav  
role="navigation">
```

```
<aside  
role="complementary">
```

```
<article  
role="article">
```

```
<section role="???">
```

```
<main role="main">
```

Can you
improve?

<audio>
<video>

Keyboard Support

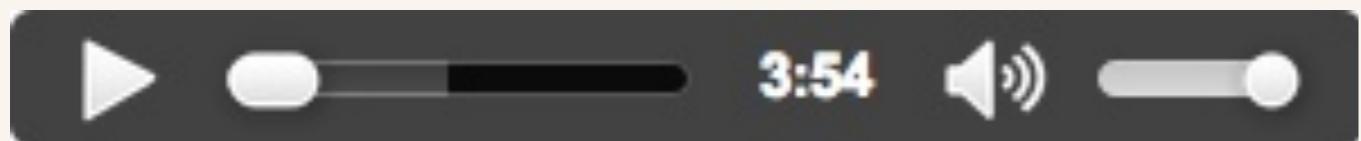
It's not just for
Screen Readers



```
<audio src="a.ogg"  
type="audio/ogg">
```

```
<video src="v.ogg"  
type="video/ogg">
```

Chrome Audio Controls



Firefox Video Controls



Custom Audio Controls



```
<button  
class="audio-play">
```

```
<track  
  kind="subtitles"  
  srclang="en"  
  src="track.vtt" />
```

```
<video src="v.ogv">  
  <track...></track>  
</video>
```





VIDEOJS
HTML5 Video Player

SETUP

CUSTOMIZE

SOURCE CODE

DOCS

HELP »

HTML5 Video, Now Available Everywhere

Same HTML/CSS skin and JavaScript API for HTML5 and Flash Video



[more tech](#)



Tube **CSS**

[more skins](#)

<figure>
<figcaption>

Edan Patrick Lamping Born



Katie Lamping

My Son: 7lbs 14oz, 20in, Edan (meaning: perfect), Patrick (after Aunt Patty, St. Patrick's Day, and our friend Patrick)

```
<figure>

<figcaption>My Son...
</figcaption>
</figure>
```

```
<figure role="group">
  
  <figcaption id="c">
    </figcaption>
</figure>
```

```
<figure role="group">
  
  <figcaption>My Son...
  (photo 1).</figcaption>
</figure>
```

<canvas>

it's complicated

```
<canvas>
```

```
<h2>Shapes</h2>
```

```
<p>A circle and  
<a ...>box</a>.  
</p>
```

```
</canvas>
```

[http://is.gd/
OTCv0X](http://is.gd/OTCv0X)

Support







Two things
about
Mobile
Accessibility

Test for it.

Use HTML5
elements

They're natively
supported

Test Test Test Test

N

!=



!=



!=



Does HTML5
improve web
accessibility or
make it worse?

It's kinda
both

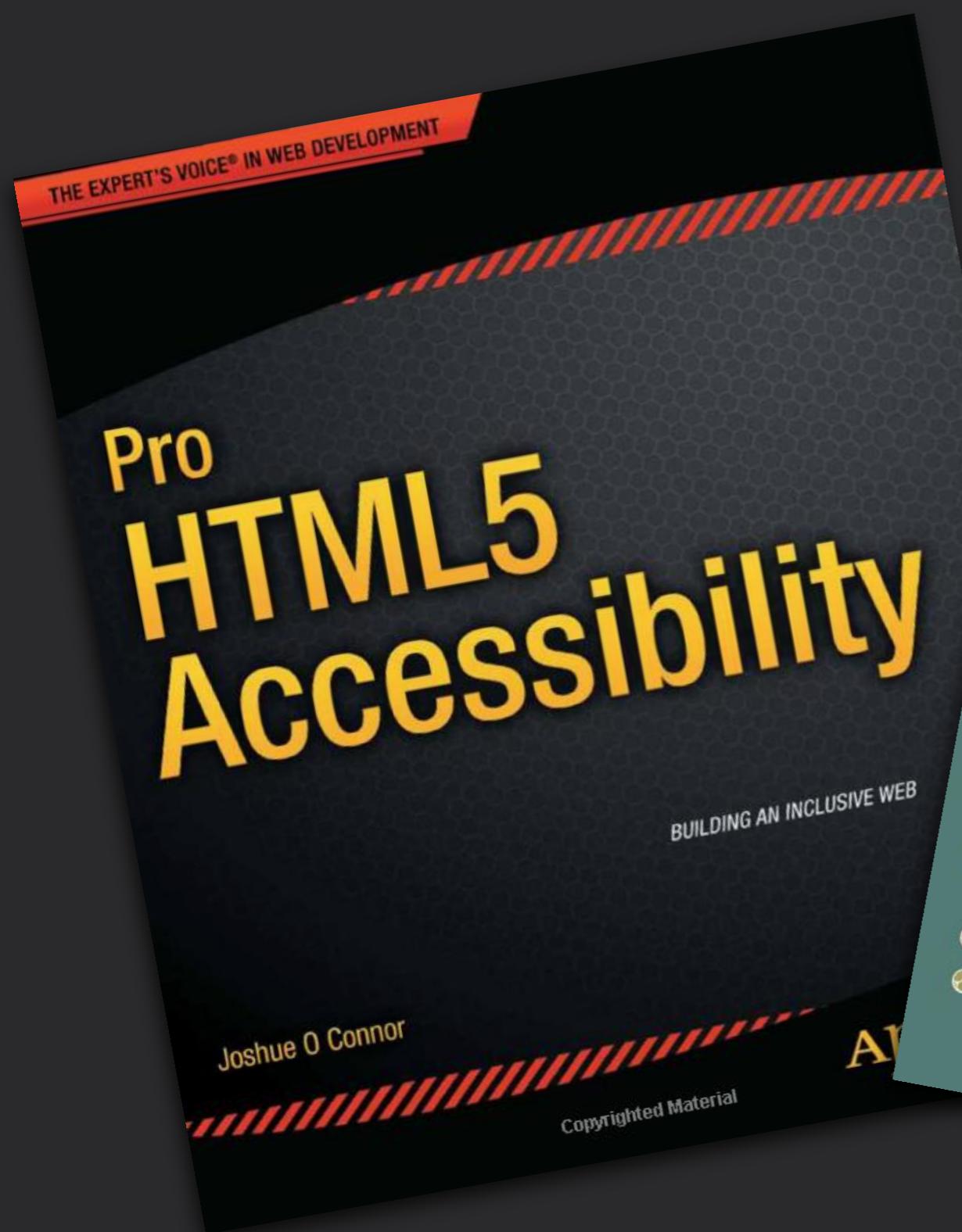
How have
screen readers
adapted?

It's getting
better all
the time

Does HTML5
remove the
need for
accessibility
testing?

No. Not at all.
Test your stuff

The only
constant is
change



Credits

<http://www.flickr.com/photos/oakleyoriginals/7944244598/>

<http://www.flickr.com/photos/seandreilinger/2137302514/>

<http://www.iconarchive.com/show/scrap-icons-by-deleket/Magnifying-Glass-2-icon.html>

<http://www.clarissapeterson.com/2012/11/html5-accessibility>

github.com/

klamping/

html5tx-a11y

@klamping