

• What the European Accessibility Act Means for Web Developers

By Louëlla Creemers



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Today

- European Accessibility Act (EAA).
- Web Content Accessibility Guidelines (WCAG).
- How to improve your JS application.



Louëlla Creemers

.NET (+ VueJS)

Microsoft MVP

Special interest: A11y

Spoiler alert

This session is all about thinking of others that might be different from us.



How many people live with a permanent disability?

A) 1 out of 6

B) 1 out of 20

C) 1 out of 40

How many people live with a permanent disability?

A) 1 out of 6







B) 1 out of 20







C) 1 out of 40

Super user

- Is technically very smart.
- Knows where to click and when.
- “They will learn”
- Has no disabilities.

But wait... there's more

	Permanent	Temporary	Situational
Touch			
	One arm	Arm injury	New parent
See			
	Blind	Cataract	Distracted driver

	Permanent	Temporary	Situational
Hear			
	Deaf	Ear infection	Bartender
Speak			
	Non-verbal	Laryngitis	Heavy accent

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What is the EAA?

- A directive set up by the European Union.
- Aimed to improve accessibility for everyone.
- Transposed into law 2 days ago.

Who needs to comply?

- Public sector websites (kind of).
- Private sector websites:
 - Banking
 - E-commerce
 - Media
 - Travel
 - Telephone- or TV services
- B2C.
- Over 10 employees.
- Over 2 million EUR turnover.

Failure to comply ⁺ •
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If you don't comply

- You can get sued.
- You can get fined.

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In Poland

- Locally introduces private-sector fines up to 10 % of annual turnover (or ~ PLN 80-90 k for small firms)

How to comply



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WCAG

- Web Content Accessibility Guidelines.
- Recommended to use as framework.
- W3C.

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Compliance level

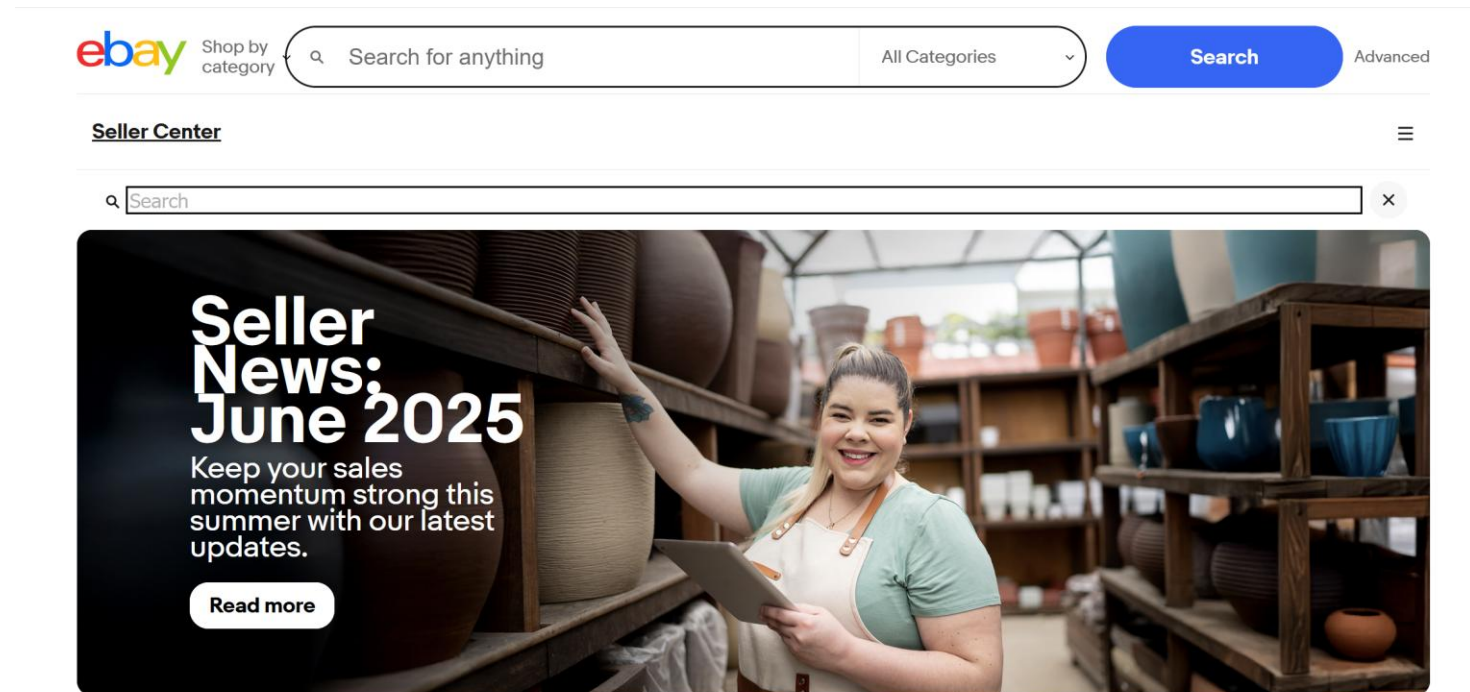
- A – Must have
- AA – Should have
- AAA – Great to have

WCAG versions

1998



2025



The Four Principles of Accessibility

Perceivable

The content must be available to users via sight, hearing, and/or touch.

Understandable

The content must be readable and predictable, with clear labels and instructions.



Operable

The product must be keyboard-accessible, navigable, and compatible with different input methods.

Robust

The product must work with a variety of assistive technologies, browsers, and devices.

Source:

<https://www.w3.org/TR/UNDERSTANDING-WCAG20/intro.html>

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WCAG

2.1.AA

- 4 principles (POUR).
- 50 different success criteria.

1.	Perceivable
1.1	Text Alternatives
1.1.1	Non-text Content
1.2	Time-based Media
1.2.1	Audio-only and Video-only (Prerecorded)
1.2.2	Captions (Prerecorded)
1.2.3	Audio Description or Media Alternative (Prerecorded)
1.2.4	Captions (Live)
1.2.5	Audio Description (Prerecorded)
1.2.6	Sign Language (Prerecorded)
1.2.7	Extended Audio Description (Prerecorded)
1.2.8	Media Alternative (Prerecorded)
1.2.9	Audio-only (Live)
1.3	Adaptable
1.3.1	Info and Relationships
1.3.2	Meaningful Sequence
1.3.3	Sensory Characteristics
1.3.4	Orientation
1.3.5	Identify Input Purpose
1.3.6	Identify Purpose
1.4	Distinguishable
1.4.1	Use of Color
1.4.2	Audio Control
1.4.3	Contrast (Minimum)
1.4.4	Resize Text
1.4.5	Images of Text
1.4.6	Contrast (Enhanced)
1.4.7	Low or No Background Audio
1.4.8	Visual Presentation
1.4.9	Images of Text (No Exception)
1.4.10	Reflow
1.4.11	Non-text Contrast
1.4.12	Text Spacing
1.4.13	Content on Hover or Focus

2.	Operable
2.1	Keyboard Accessible
2.1.1	Keyboard
2.1.2	No Keyboard Trap
2.1.3	Keyboard (No Exception)
2.1.4	Character Key Shortcuts
2.2	Enough Time
2.2.1	Timing Adjustable
2.2.2	Pause, Stop, Hide
2.2.3	No Timing
2.2.4	Interruptions
2.2.5	Re-authenticating
2.2.6	Timeouts
2.3	Seizures and Physical Reactions
2.3.1	Three Flashes or Below Threshold
2.3.2	Three Flashes
2.3.3	Animation from Interactions
2.4	Navigable
2.4.1	Bypass Blocks
2.4.2	Page Titled
2.4.3	Focus Order
2.4.4	Link Purpose (In Context)
2.4.5	Multiple Ways
2.4.6	Headings and Labels
2.4.7	Focus Visible
2.4.8	Location
2.4.9	Link Purpose (Link Only)
2.4.10	Section Headings
2.5	Input Modalities
2.5.1	Pointer Gestures
2.5.2	Pointer Cancellation
2.5.3	Label in Name
2.5.4	Motion Actuation
2.5.5	Target Size
2.5.6	Concurrent Input Mechanisms

3.	Understandable
3.1	Readable
3.1.1	Language of Page
3.1.2	Language of Parts
3.1.3	Unusual Words
3.1.4	Abbreviations
3.1.5	Reading Level
3.1.6	Pronunciation
3.2	Predictable
3.2.1	On Focus
3.2.2	On Input
3.2.3	Consistent Navigation
3.2.4	Consistent Identification
3.2.5	Change on Request
3.3	Input Assistance
3.3.1	Error Identification
3.3.2	Labels or Instructions
3.3.3	Error Suggestion
3.3.4	Error Prevention (Legal, Financial, Data)
3.3.5	Help
3.3.6	Error Prevention (All)
4.	Robust
4.1	Compatible
4.1.1	Parsing
4.1.2	Name, Role, Value
4.1.3	Status Messages

WebAIM Million Report 2024

56.8 errors per homepage



WebAIM Million Report 2024

Home pages with most common WCAG 2 failures

WCAG Failure Type	% of home pages
Low contrast text	81.0%
Missing alternative text for images	54.5%
Missing form input labels	48.6%
Empty links	44.6%
Empty buttons	28.2%
Missing document language	17.1%

96.4% of all errors detected fall into these six categories.
These most common errors have been the same for the last **5 years**.

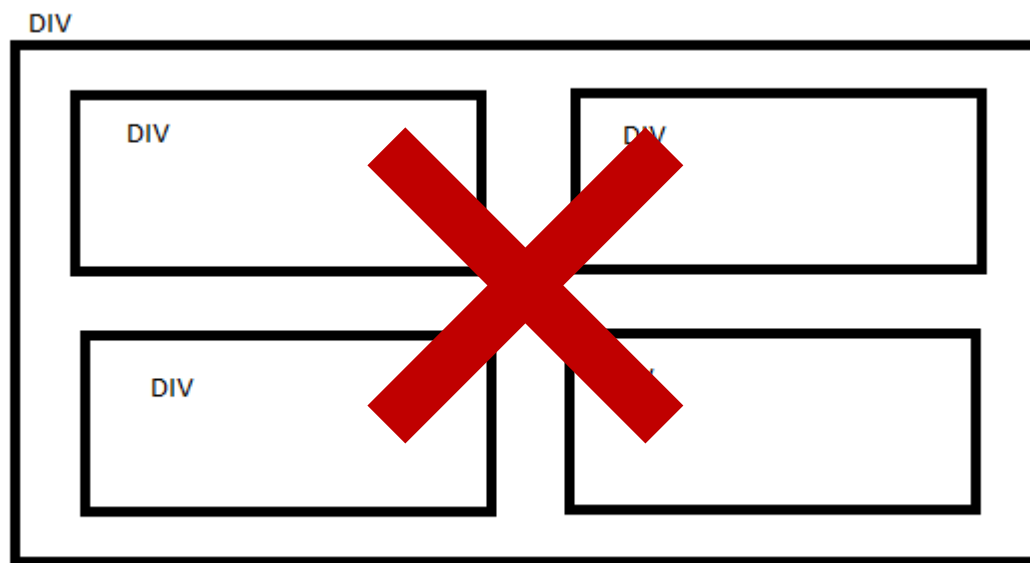
Polish government monitor

- 98 048 public sites scanned automatically + 100 sites tested manually.
- 0 fully compliant, 75 partially compliant, 25 non-compliant websites.

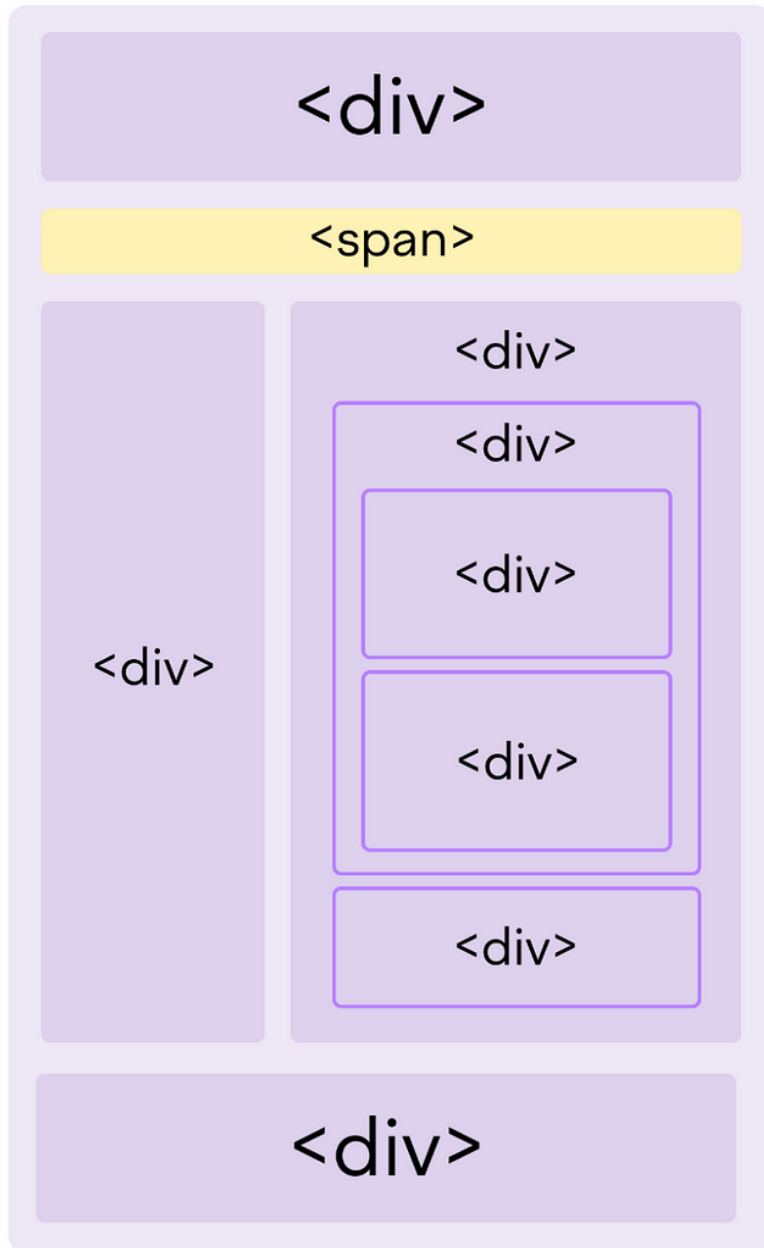
How to discover your own issues

- Research by a panel.
- Audit by an external.
- Doing it yourself!

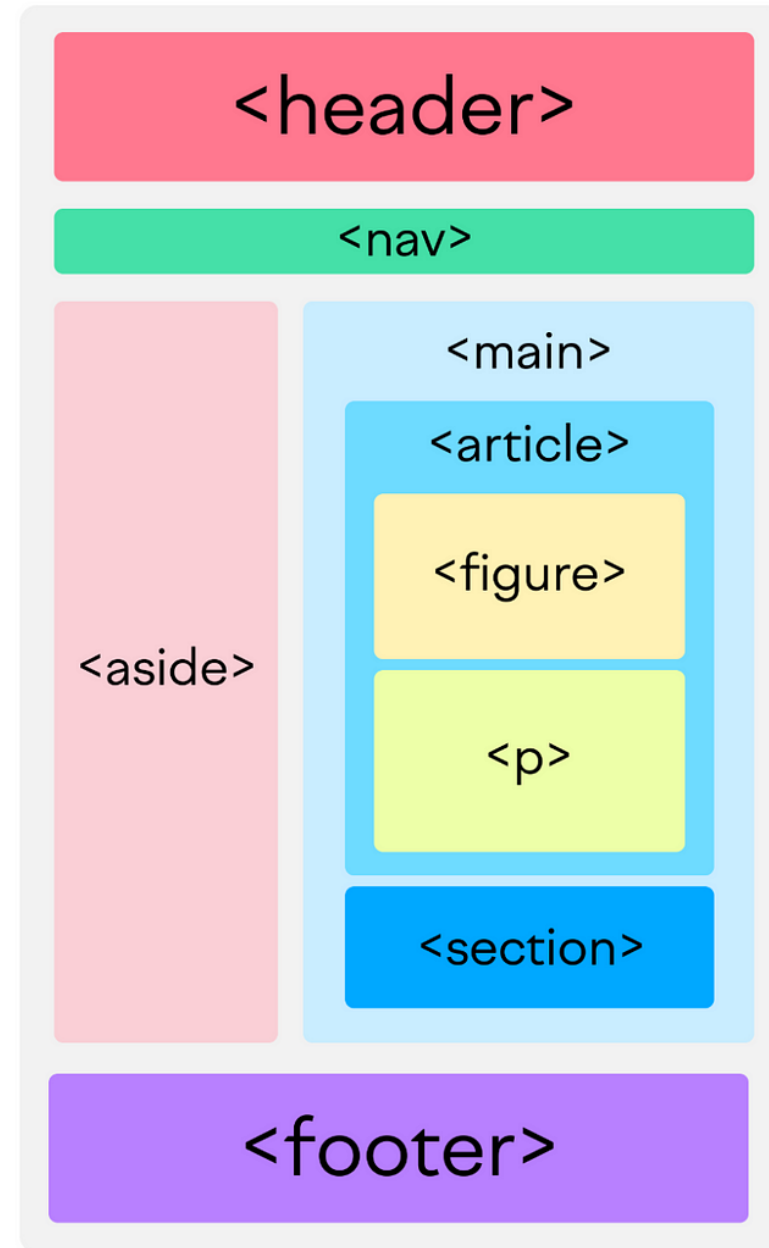
• + Semantic HTML



Non-Semantic HTML



Semantic HTML



Accessibility

Web accessibility (also known as a11y) refers to the practice of creating websites that can be used by anyone — be that a person with a disability, a slow connection, outdated or broken hardware or simply someone in an unfavorable environment. For example, adding subtitles to a video would help both your deaf and hard-of-hearing users and your users who are in a loud environment and can't hear their phone. Similarly, making sure your text isn't too low contrast will help both your low-vision users and your users who are trying to use their phone in bright sunlight.

Ready to start but aren't sure where?

Checkout the [Planning and managing web accessibility guide](#) provided by [World Wide Web Consortium \(W3C\)](#)

vuejs.org/guide/best-practices/accessibility

+ ◦ • Low contrast text



WebAIM Color Contrast Checker

Contrast Checker

[Home](#) > [Resources](#) > Contrast Checker

Foreground
Hex Value
#0000FF
Color Picker
Alpha
1
Lightness

Background
Hex Value
#FFFFFF
Color Picker
Lightness

Contrast Ratio
8.59:1
[permalink](#)

Normal Text

WCAG AA: **Pass**

WCAG AAA: **Pass**

The five boxing wizards jump

Large Text

WCAG AA: **Pass**

WCAG AAA: **Pass**

The five boxing wizards jump

Graphical Objects and User Interface Components

WCAG AA: **Pass**



Text Input

Normal Text

WCAG AA: **Fail**
WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Large Text

WCAG AA: **Fail**
WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Graphical Objects and User Interface Components

WCAG AA: **Fail**

★
Text Input

Normal Text

WCAG AA: **Fail**
WCAG AAA: **Fail**

[Permalink](#)

The five boxing wizards jump quickly.

Large Text

WCAG AA: **Fail**
WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Graphical Objects and User Interface Components

WCAG AA: **Fail**



Text Input



Images



Alt text

- Decorative? => alt=""
- Functional? => describe the action
- Informative? => short description of the info
- Complex? => alt text about info + longer info nearby

Alt text

- Keep it in the context.
- Keep it short.
- Skip “picture of”
- Use page language



- “Cat sitting on doorstep”




• ‘Silent’ controls



ARIA

- Accessible Rich Internet Applications
- ``
- `aria-hidden="true"`



Enable / Disable	Delete
<input checked="" type="checkbox"/> <input type="checkbox"/>	
<input checked="" type="checkbox"/> <input type="checkbox"/>	
<input checked="" type="checkbox"/> <input type="checkbox"/>	

Silent controls

- `<input>?` => always a `<label for="">`
- Layout button? => replace with `span`
- Icon-only links & buttons? => add ARIA label with description



Keyboard + Screen reader



Screen readers

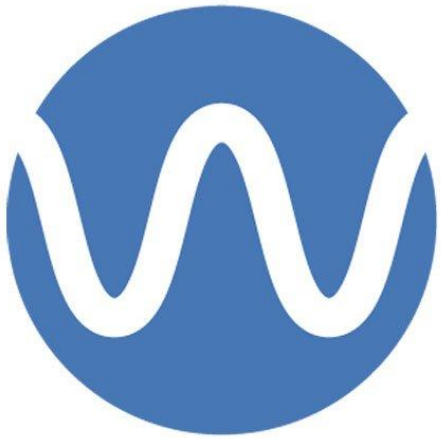


MacOS: VoiceOver



Windows: NVDA

Browser plugins



Wave



Axe



Lighthouse

Unit testing



Jest
AXE



Vitest-AXE

E2E testing



Playwright



Time for demos



Resources

- Law description EU (<https://shorturl.at/cqGCj>)
- WCAG 2.1 document (<https://w3.org/TR/WCAG21/>)
- Microsoft Inclusive Design (<https://inclusive.microsoft.design/>)
- NVDA (<https://www.nvaccess.org>)
- WebAIM Million report (<https://webaim.org/projects/million/>)

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