



**DrupalCon**

NASHVILLE **2018**  
APRIL 9-13



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# Core Accessibility: Building Inclusivity into the Drupal Project





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# What Is Accessibility and Why Does Drupal Need It?

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# Who Benefits from Web Accessibility?

People with...

- Visual impairments
- Deafness / Hard of hearing
- Motor disabilities
- Vestibular issues and Seizure disorders
- Cognitive disabilities

# How Do People with Disabilities Use the Web Differently?

- Keyboard and Screen reader accessibility
- Captions and Transcripts
- Color and Contrast
- Cognitive accommodations

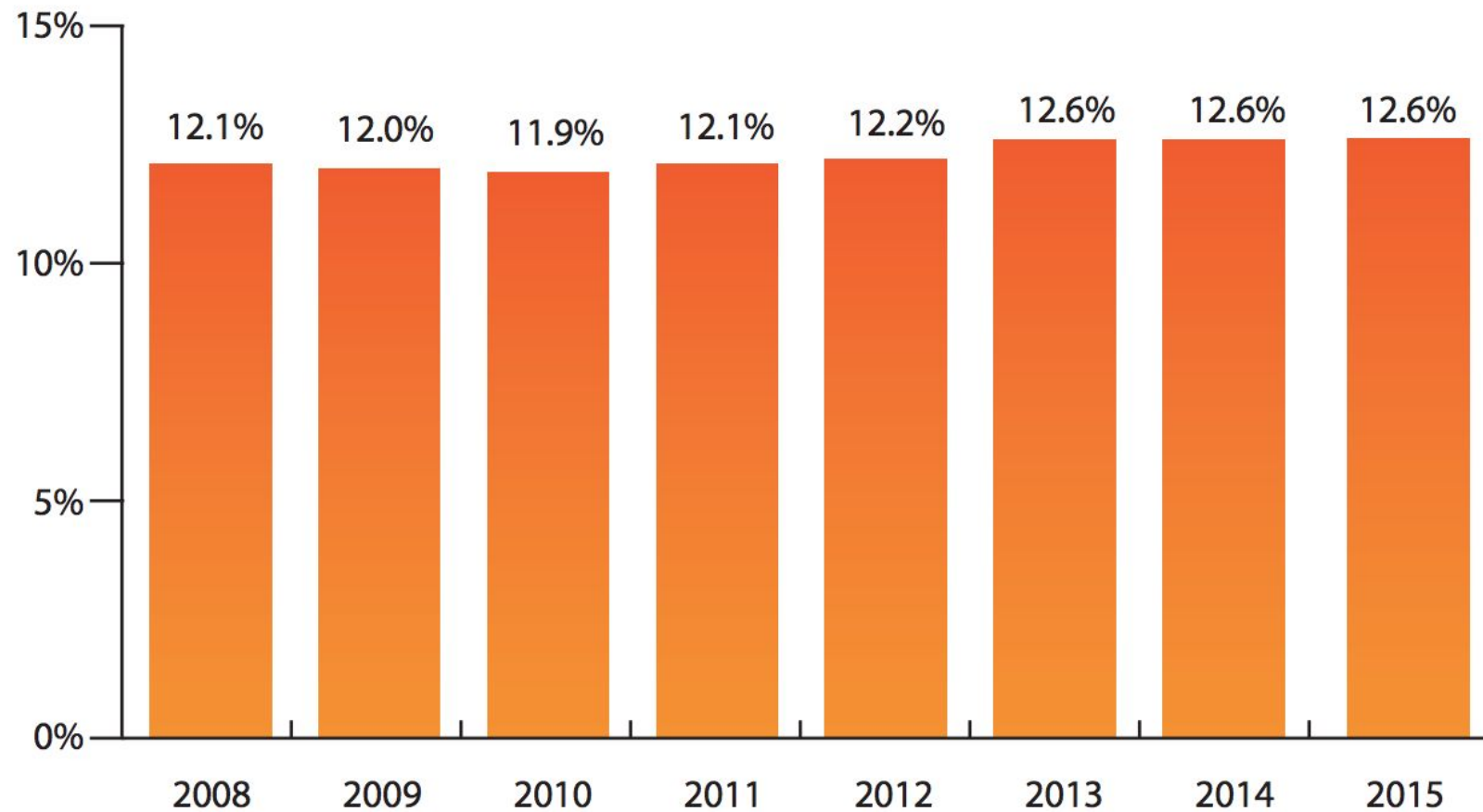
# Why Does Drupal Need Accessibility?

- **Drupal Users with Disabilities** - The end users who will use our websites.
- **Drupal Developers with Disabilities** - Our community members who build websites using Drupal.
- **Drupal Clients** - The businesses and agencies that Drupal developers build websites for.



# People with Disabilities Are Not an “Edge Case”

**FIG 1. Percentage of People in the US with Disabilities, 2008-2015**



\*- Other surveys have publicized other rates of disability. These rates are affected by survey question, method, and other factors. Each survey has strengths and weaknesses. Comparing disability data between surveys is discouraged by all survey organizations. We have used the ACS due to its larger sampling, consistent year to year questions, and multitude of variables to examine.

Source: <https://disabilitycompendium.org>

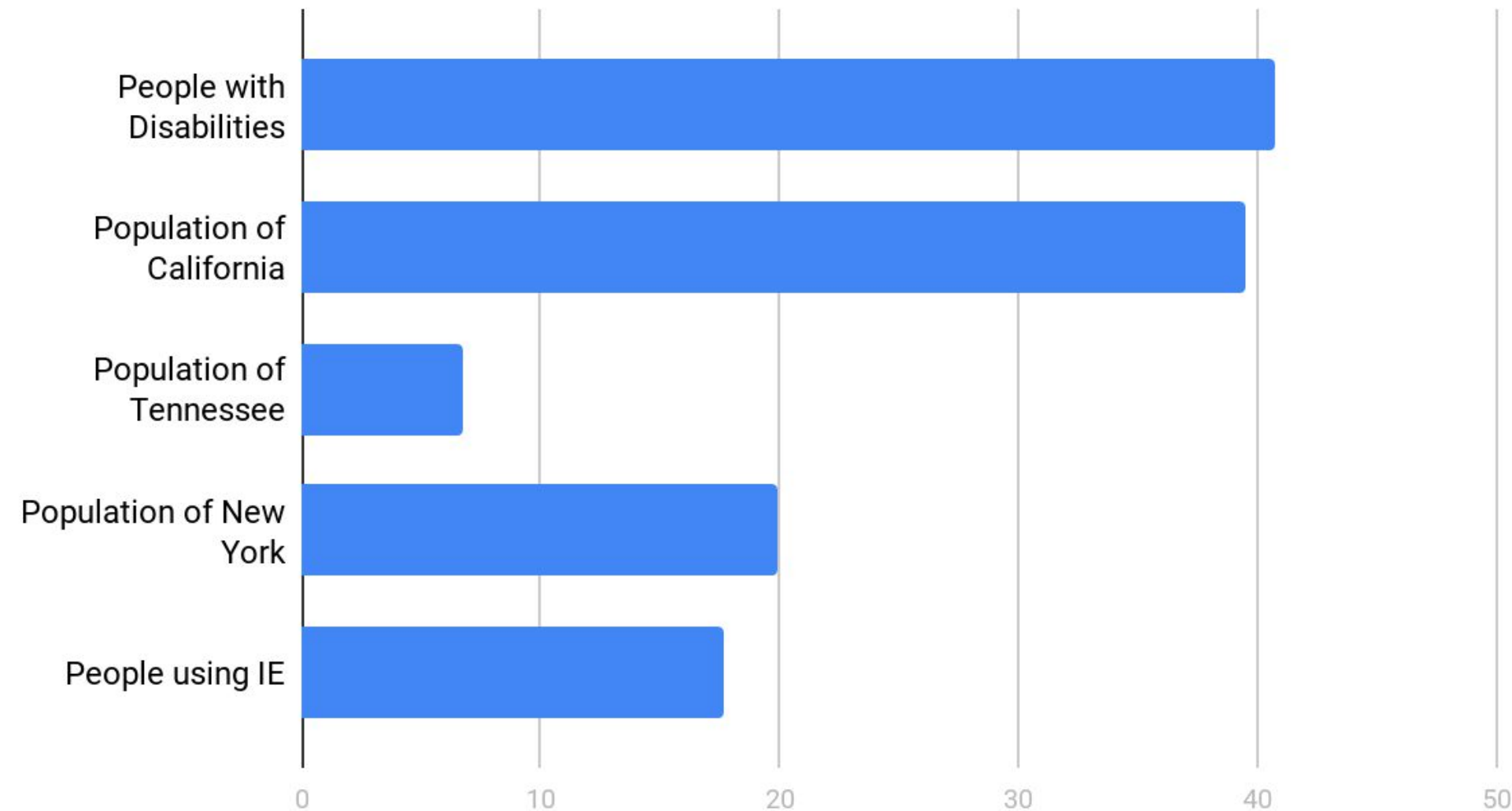
**Usage share of all browsers**

Source and date	StatCounter <sup>[20]</sup> February 2018	Wikimedia <sup>[21]</sup> January 2018
Chrome	57.46%	47.7%
Safari	14.39%	21.8%
UC	7.91%	0.5%
Firefox	5.5%	6.5%
Opera	3.69%	1.2%
IE	3.06%	8.1%
Samsung Internet	2.92%	N/A
Edge	1.86%	2.0%
Android	1.72%	1.2%
Others	1.47%	11%



# People with Disabilities Are Not an “Edge Case”

Total in US, by Millions



# Why Do Drupal Clients Need Accessibility?

- **Improved Access to Customers** - Missing 12.6% of the market is a financial travesty for any business.
- **Legal Safety** - Being sued is bad.

SECTION 508



# Why Do Drupal Clients Need Accessibility?

## SECTION 508

All orgs who receive federal funding must comply. Including state and local agencies.

The Section 508 was updated in January, the first time in 20 years, dubbed 'Section 508 Refresh'

**Adopts WCAG 2.0 as the new standard.**

## WCAG 2.0

Formed by the Web Accessibility Initiative after the passage of Section 508 as a technologically-neutral set of best practices for **web content accessibility**.

Provides developers, product managers with the "why" and techniques for conformance.  
**P.O.U.R. Acronym**

## TITLE III of ADA

Americans with Disabilities Act of 1990: Title III — Accommodations

In 2017, digital spaces became the legal responsibility for most organizations to provide accommodation: just like physical spaces.

# Why Does Drupal Need Accessibility?

Because Drupal is for everyone.

SECTION 508





# What Are Some Recent Drupal Core Accessibility Improvements?

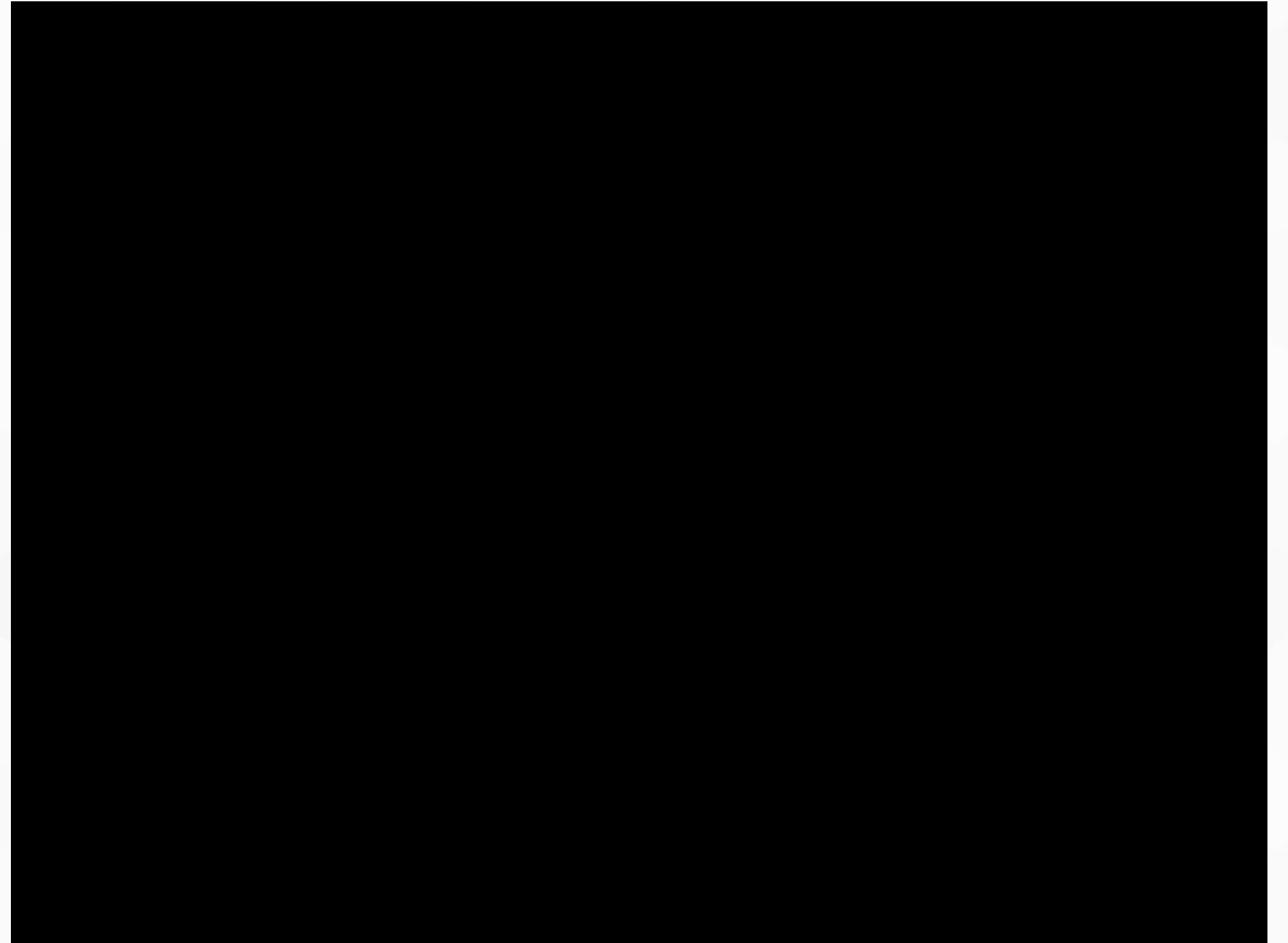
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# Important Drupal 8 Wins

- **Inline Form Errors** is stable.
- **Drupal.announce()** & **Drupal.tabbingManager** - extended coverage to more dynamic content.
- **Umami Out-of-the-box** theme/demo complete with accessibility features baked-in.
- **Point Release** to allow for continual innovation and improvement.



# Drupal.announce() Demo



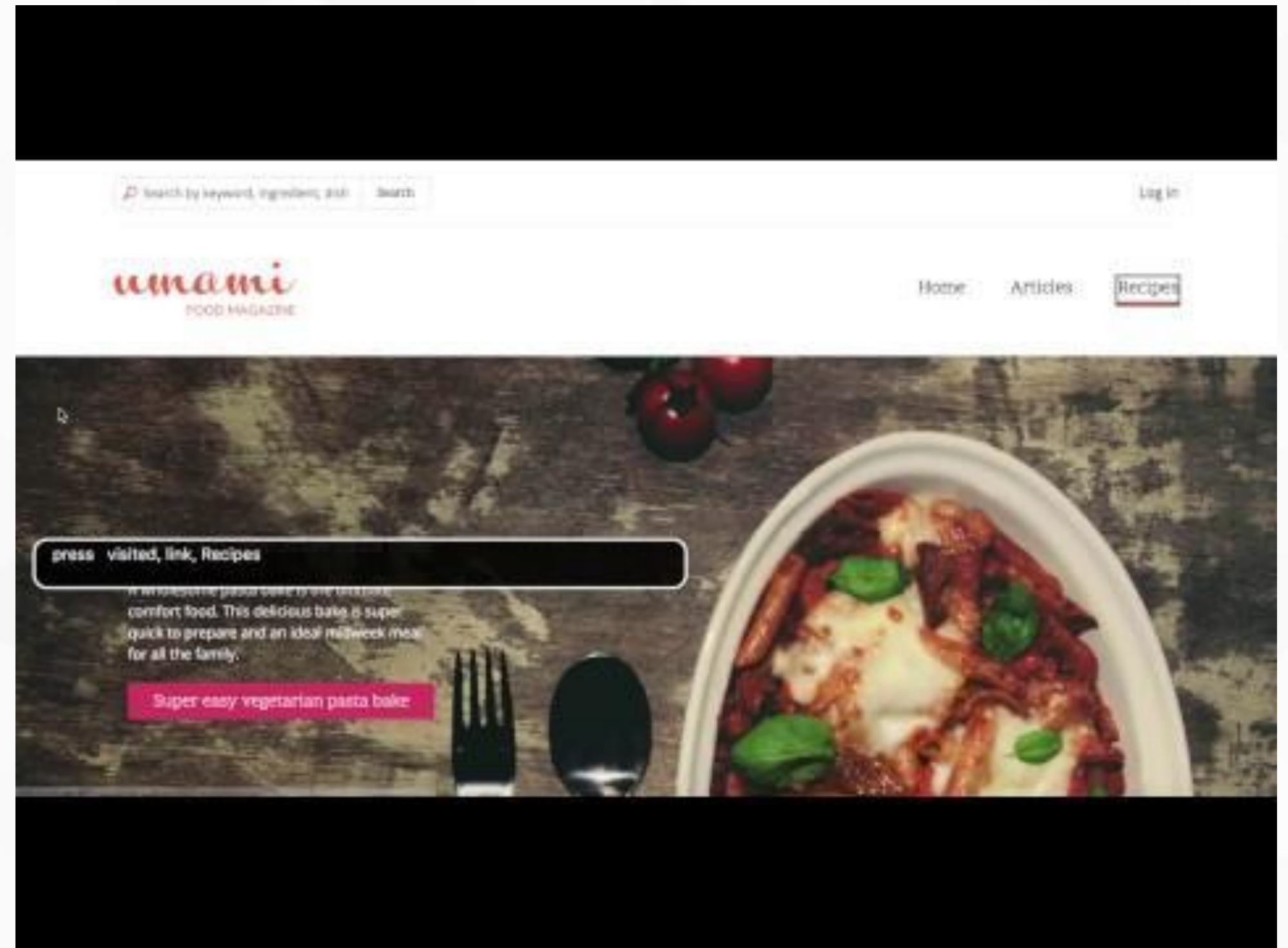
# Continued Efforts

- Why are we missing it in Drupal Core? There are more options where we haven't applied it and should.
- How do we make sure that modules and themes are using it if appropriate?
- Do module/theme maintainers even know it is there and how it should be used?



# Umami Accessibility

- Menu accessibility
- Primary tab theming updates
- Heading structures
- Alt text for images



# Umami Open Issues

- Color Contrast Ratio updates
- Redundant Links / Wrapping a card as 1 link
- Message / Error Status State(s) indicated with color AND icons
- Issues with Layout Builder



# What Accessibility Initiatives Are We Working on Currently in Drupal 8?

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# Quick Note on Notation

Just like in the issue queue:

**[#2857808]**

means:

<https://www.drupal.org/node/2857808>

*This should be a Drupal conference default.*

# Automated Accessibility Testing

- How do we bring automated testing into Drupal Core?
- QuailJS and the Drupal 8 Test Swarm - dealing with false positives
- DrupalCI: Drupal.org Testing Infrastructure
- Looking ahead: aXe-core 3, pa11y, Asqatasun and/or Tenon.io?
- What is our strategy for user testing, automated tests, functional JS?

[#2857808]

# Layout Builder

- Experimental module introduced in 8.5.x.
- Was added without passing a accessibility review.
- Identification of a best practice was needed [#2920006].
- Unclear who is responsible for addressing these limitations.



# What Are We Looking At Now?

- WCAG 2.1 issues need be addressed [#2864791].
- WAI-ARIA 1.1 Best Practices [#2893640].
- **Migrate** - clean up HTML and highlight problems with the migration.
- **Media** - 8.0.x addressed ATAG 2.0, as of 8.4.x much of that needs to be revised (managing video captions + transcripts) [#2786785].
- **Umami** - still lots more we can do, especially as more content is added [#2847582].

# Supporting Strategic Initiatives

- Theme component library - Building in best practices.
- JavaScript modernization - Error messages [[#77245](#)].
- Experimental admin UI - JavaScript Admin Theme.
- Outside-In - Testing exposed components.



# How Can the Community Help Improve Accessibility in Drupal?





# What Are Some of the Accessibility Challenges?

- Not enough accessibility understanding or expertise.
- Automatic accessibility testing catches roughly 20-40% of all issues.
- Manual accessibility testing can take a long time and be difficult.
- Accessibility is a moving target between changing accessibility standards, laws, browsers, assistive technology devices (ATs), and users.

# Why Should You Help?

**Organizations** - increase/diversify user base, improve conversions, support PWD employees, comply with the law, save time and money.

**Agency** - attract employees, attract clients, sell Drupal easier, build site faster, foster inclusivity, give back to open source.

**Community** - develop skills, improve empathy, enjoy camaraderie, help Drupal stay relevant, an easy way to give back.

**Leadership** - grow involvement, increase diversity, improve software, help project succeed, make Drupal benchmark in the world of accessibility.

# How Can You Help?

**Organizations** - increase accessibility expertise, allow contributions, provide resources, sponsor events.

**Agency** - give employees time, make it part of a client contract/budget, provide resources, sponsor events, run trainings.

**Community** - educate yourself, attend a meet-up/camp, join in chats, participate in a sprint, join groups outside of Drupal, find a mentor.

**Leadership** - find a mentee, write blogs/documentation, give webinars and talks, organize events, tag issues, provide help in channels.



# Contribute and Connect

**Code** - Drupal.org, various GitHub projects, and other open source projects.  
[https://drupal.org/project/issues/search?issue\\_tags=Accessibility](https://drupal.org/project/issues/search?issue_tags=Accessibility)

**Documentation** - there is documentation on accessibility for D8 core and contrib modules, but could always use more.

**Meetups** - our Drupal group started a monthly accessibility meetup that features a guest speaker from the larger international community #AllyTalks

**Connections** - there are many ways to get involved including W3C slack, Twitter, various companies/blogs doing accessibility tasks/writing/projects



# Resources

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# General Resources

- **WCAG 2.1** - [www.w3.org/TR/WCAG21](http://www.w3.org/TR/WCAG21)
- **ATAG 2.0** - [www.w3.org/TR/ATAG20](http://www.w3.org/TR/ATAG20)
- **ARIA Authoring Practices 1.1** - [www.w3.org/TR/wai-aria-practices-1.1](http://www.w3.org/TR/wai-aria-practices-1.1)
- **General Checklist** - [a11yproject.com/checklist.html](http://a11yproject.com/checklist.html)
- **Accessibility Evaluation Tools** - [webaim.org/articles/tools](http://webaim.org/articles/tools)
- **Accessibility Courses List** - [github.com/mgifford/a11y-courses](https://github.com/mgifford/a11y-courses)



# Drupal Resources

- **Accessibility Statement** - [drupal.org/about/features/accessibility](https://drupal.org/about/features/accessibility)
- **Accessibility Best Practices (D8)** - [drupal.org/docs/8/accessibility](https://drupal.org/docs/8/accessibility)
- **Accessibility Features (D8)** -  
[drupal.org/docs/8/accessibility/drupal-8-accessibility-features](https://drupal.org/docs/8/accessibility/drupal-8-accessibility-features)
- **Contributed Accessibility Modules (D8)** -  
[drupal.org/docs/8/accessibility/contributed-modules-for-extending-accessibility-in-drupal-8](https://drupal.org/docs/8/accessibility/contributed-modules-for-extending-accessibility-in-drupal-8)

# Community Resources

- **Drupal Slack Channel** - [drupal.org/slack](https://drupal.org/slack) (Accessibility group)
- **W3C Slack Channel** - [web-a11y.herokuapp.com](https://web-a11y.herokuapp.com)
- **Accessibility Drupal Group** - [groups.drupal.org/accessibility](https://groups.drupal.org/accessibility)
- **Accessibility Drupal Meetup** - [#A11yTalks](https://groups.drupal.org/accessibility)
- **Accessibility Style Guide** - <http://a11y-style-guide.com/style-guide>
- **Accessibility People/Company List** - [github.com/joe-watkins/top-people-to-follow-in-web-accessibility](https://github.com/joe-watkins/top-people-to-follow-in-web-accessibility)



“

The power of the Web is in its universality.  
Access by everyone regardless of disability  
is an essential aspect.

”

Tim Berners-Lee - W3C Director &  
Inventor of the World Wide Web







# More accessibility opportunities!

## Accessibility BoF Right after this talk!

Tuesday  
17:00-18:00  
Room: 102A

## The Accessible Editor

Wednesday  
10:45-11:45  
Room: 205C

## A Smarter Way to Test Accessibility

Wednesday  
12:00-13:00  
Room: 205AB



# What did you think?

Locate this session at the DrupalCon Nashville website:

<http://nashville2018.drupal.org/schedule>

Take the Survey!

<https://www.surveymonkey.com/r/nashville>

**Thank you!**