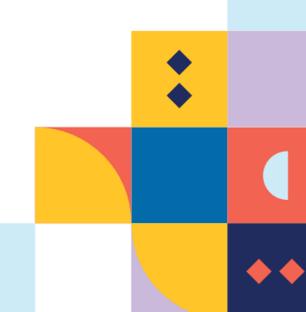
Declarative Shadow DOM

and the future of Drupal Theming



Sept 25, 2025
John Albin Wilkins
Drupal & React Frontend Developer



Warning:

This presentation is highly speculative





Who is JohnAlbin?

- Web developer since 1993
- Drupal dev since 2004
- Drupal core dev since 2006
- MAINTAINERS.txt since 2010
- 70+ presentations and keynotes in 4 continents
- Lives in Taiwan; moving to California?



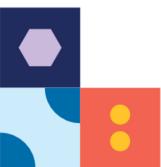


Why now?

This is my **2nd** web components presentation.

The first was in 2014.









<a>Baseline



Limited availability



Newly available August 5, 2024



Widely available February 5, 2027

Everything Old is *new*

Old School:

PHP server-side renders

New School:

React.js' new Server Components and Client Components







1.Server part
(with no client-side JavaScript)

2.**Client part**(with client-side JavaScript)

Split components (2023)



React.js

Web Components

Server Components

no solution

Client Components

vanilla JavaScript

Split components (2024)



React.js

Web Components

Server Components

vanilla HTML w/

Declarative Shadow DOM

Client Components

vanilla JavaScript



Web components 95% working LIVE DEMO!

- 1. Templates
- 2. Custom elements
- 3. Shadow DOM





customElements.define()



means no more
Drupal.behaviors or
Drupal.once()







Shadow DOM components

- 1. Templates
- 2. Custom elements
- 3. Shadow DOM











Light DOM components

- 1. Templates
- 2. Custom elements
- 3. Shadow DOM



Split components



Shadow DOM Components

Light DOM Components

vanilla HTML w/ Declarative Shadow DOM vanilla HTML w/ custom elements only

vanilla JavaScript

vanilla JavaScript
w/ customElements.define()



Single Directory Web Components

using

Light DOM Web Components

Oľ

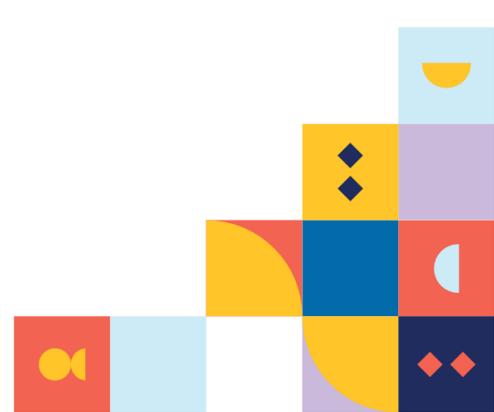
Declarative Shadow DOM Components





THANK YOU!





QUESTIONS?

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