



DrupalCon
NASHVILLE 2018
APRIL 9-13

A farewell to Twig

DrupalCon Nashville
April 10, 2018



Lauri Eskola • Matt Grill • Preston So



Lauri Eskola • lauriii

Lauri Eskola is a Software Engineer currently based in Bangkok. He is working for Acquia in the Office of the CTO. He is also a Drupal frontend framework manager and a theme system maintainer.

When not working, Lauri enjoys travelling, playing badminton and studying Thai language.





Matt Grill • drupal

Engineer @ Acquia, JavaScript Subsystem maintainer for Drupal 8, JavaScript Modernization initiative. <3 emoji and gifs.

When Matt is not writing JavaScript, he's crashing his bike.

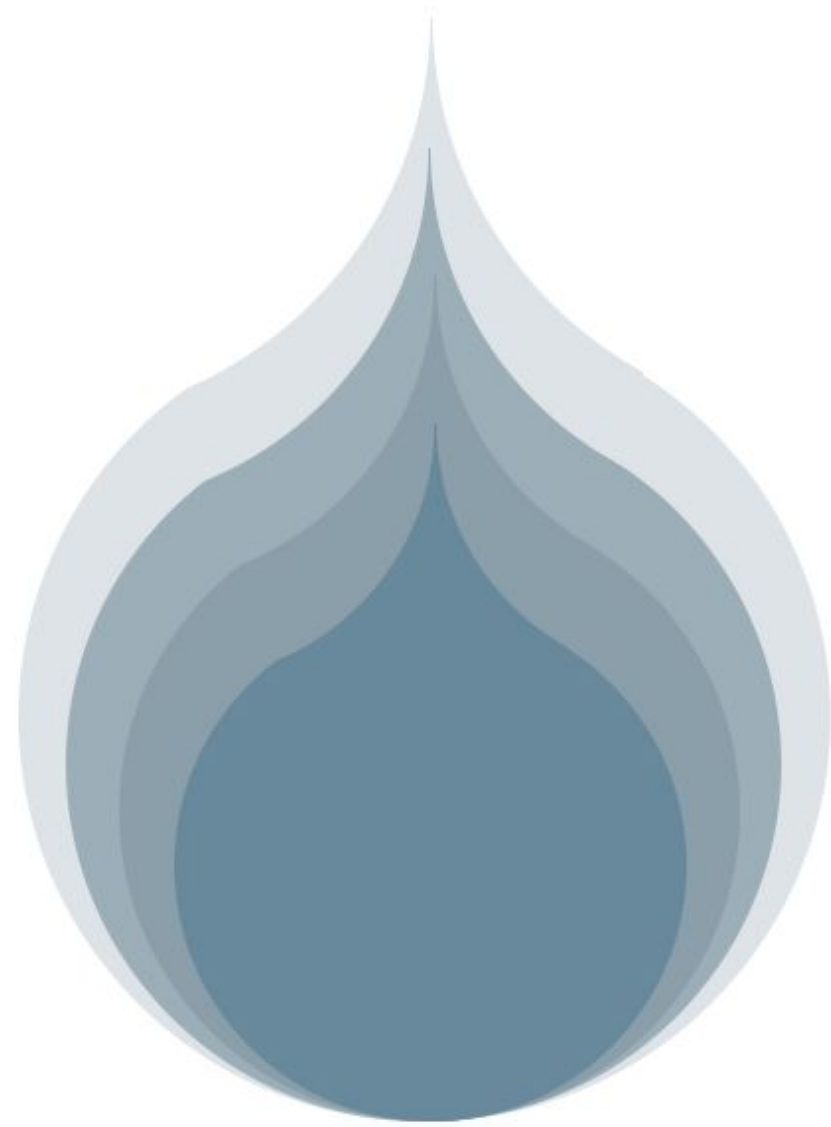




Preston So • prestonso

Preston So usually has too long of a bio. Instead here is a GIF.





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What we'll cover

A few questions

- Should we as a community put more focus on decoupling than trying to create a monolithic application that could solve all different aspects of front-end development?
- If Drupal is being used for decoupled purposes, there is quite some unnecessary complexity that comes from the subsystems that are not required for decoupling. How could we reduce that complexity?
- Is not decoupling even an option? Do we believe that there would be one solution that could work for everyone?

What problem spaces are we trying to solve?

A few issues

- We want to have a unified way to render on both client and server side.
 - Why do we need both types of rendering?
- What aspects of Drupal's front end do we need to share across client and server?
 - Shared routing?
 - Shared rendering?
 - Shared templating?
- Do we need to have a unified way to serialize and deserialize data on client vs. server?
 - Currently, the way we provide data to Twig templates is totally different from what happens on the client side.



THE KEY
QUESTION

Is Twig the **right way forward?**



“

Share templates across
client and developer—
that's **universal!**

”

LET'S DO IT WITH TWIG!

EVERY JS DEV EVER IN 2015-16

The problem with Twig

Do templating systems have a client-side component?

Templating system	Server side	Client side
Twig (Drupal)	Twig in PHP (Drupal)	Twig.js?
JSX (React)	JSX with React SSR	JSX
Handlebars (Ember)	Handlebars with Fastboot	Handlebars.js
Angular (in HTML)	renderModuleFactory in Angular Universal	Angular directives

The problem with Twig

All other templating systems have one thing in common

Templating system	Server side	Client side
Twig (Drupal)	Natively server-side	Natively client-side
JSX (React)	Server-side implementation of client-side rendering	Natively client-side
Handlebars (Ember)	Server-side implementation of client-side rendering	Natively client-side
Angular (in HTML)	Server-side implementation of client-side rendering	Natively client-side

In other words, Twig is hindered because it cannot be executed **identically** or **isomorphically** across client and server



MISSION
STATEMENT

Drupal should treat client-side rendering as a **first-class citizen**



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What about rendering JavaScript
server-side with PHP?

”

NO RECENT UPDATES TO [php-v8js](#)

US, 2 YEARS AGO



“

Why don't we use Twig for other client-side templating libraries?

”

TWIG.JS IS COMPLETELY DIFFERENT FROM SERVER-SIDE TWIG

PEOPLE TODAY

Twig problems

"Stick"-y issues

- Drupal's Twig implementation is too tightly coupled with the front end
 - *Solution:* Use web services as bridge between back end and front end instead
- Front-end developers can't choose to work with what they want
 - *Solution:* Move to a rendering layer that allows us to render both on client and server
- Therefore, it's too complicated to make it work with every JavaScript framework
 - *Solution:* Ship with only One True Front End™ in Drupal but enable people to build other implementations

One React to rule them all

"They're taking the hobbits to JSX"

- React has been adopted for experimentation by Drupal core as of DrupalCon Vienna
- React server-side rendering (SSR) allows you to render what you have built in either client or server
- React's JSX would allow us to move to a rendering layer that is agnostic to its rendering location
- The added benefit of our API-first initiative is that other rendering layers can be placed on top of Drupal's web services that cater to other technologies — but React would be the canonical core rendering layer





Shouldn't we explore pairing
Twig with React first?

Combining Twig with React

BC wins, DX loses

- The theory of being able to use Twig as the template in a React component is an interesting idea, but in practice, no one knows how precisely that would work
- In any case, a translation layer would need to be added, increasing the level of complexity and challenge



Should we abandon templating
languages altogether?

No templating language altogether?

BC loses, DX wins

- There is no well-reasoned approach for bringing Twig into Drupal's use of React due to limited benefits
- React's most powerful idea is Virtual DOM; once you use Twig, you lose the benefits of performant on-the-fly rerendering
- What happens to modules that are using JSX?

Emerging solutions

From the community

- **twig-graphql**: Allows for GraphQL queries to be issued from Twig templates
- **waterwheel.js**: Can this type of generic JavaScript library solely focused on retrieving content be abstract enough to handle all JavaScript framework use cases?
- **js-drupal**: We're in the process of building an administrative interface right now and we are dealing with these issues at the moment
- **react-twig**: React wrapper-component for Twig. Can be used to render templates inside a react component



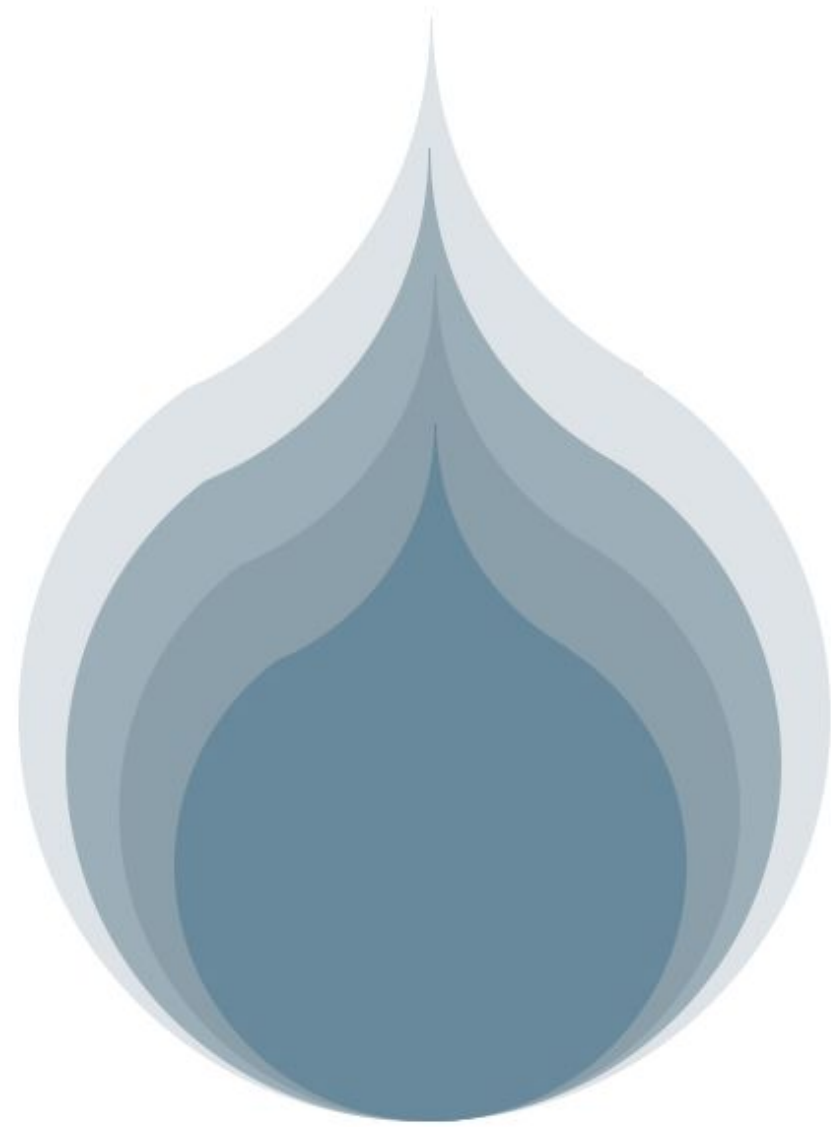
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Help out JS modernization with jsdrupal!

github.com/jsdrupal/drupal-admin-ui



Open discussion



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Join us for contribution sprints

Friday, April 13, 2018

Mentored Core sprint

9:00-12:00
Room: Stolz 2

First time sprinter workshop

9:00-12:00
Room: Stolz 2

General sprint

9:00-12:00
Room: Stolz 2

#drupalsprint



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Locate this session at the DrupalCon Nashville website:

<http://nashville2018.drupal.org/sessions/farewell-twig>

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Thank you!



Thank you!



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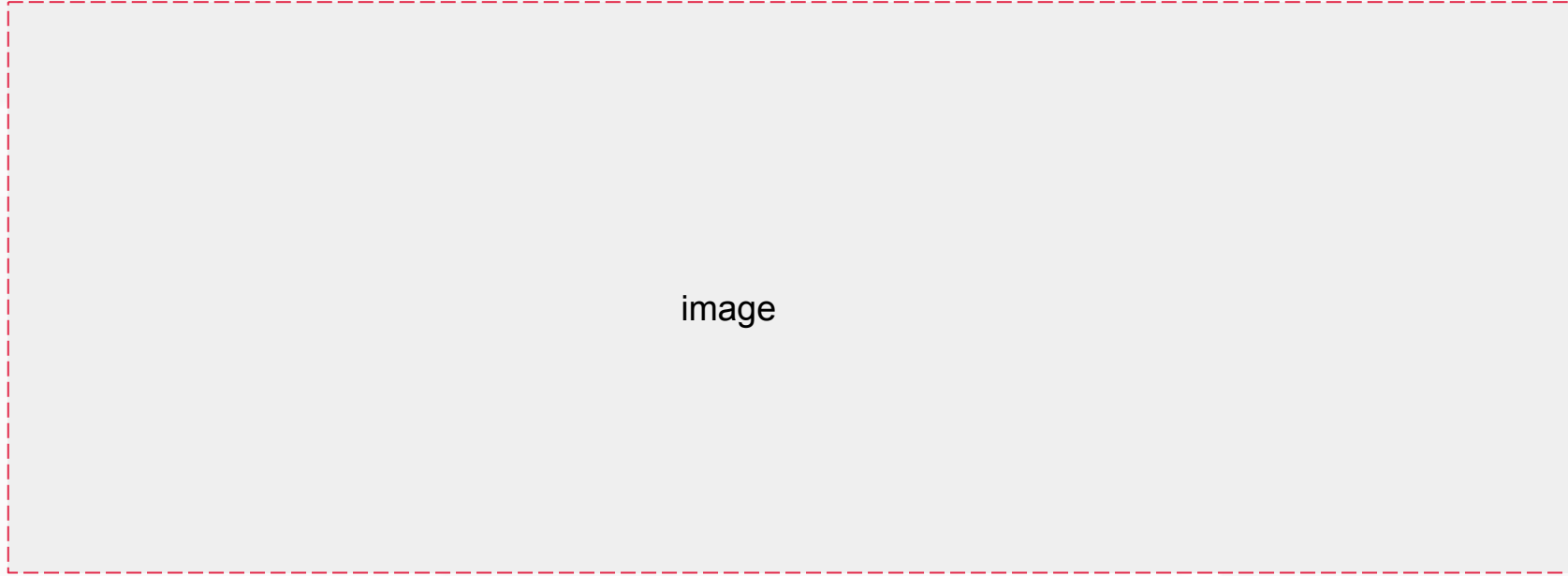
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This will be a quote about something or someone

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