DRUPALCON VIENNA

CSS-in-JS: unexpected lessons for Drupal component design

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Twittrz, etc: JohnAlbin

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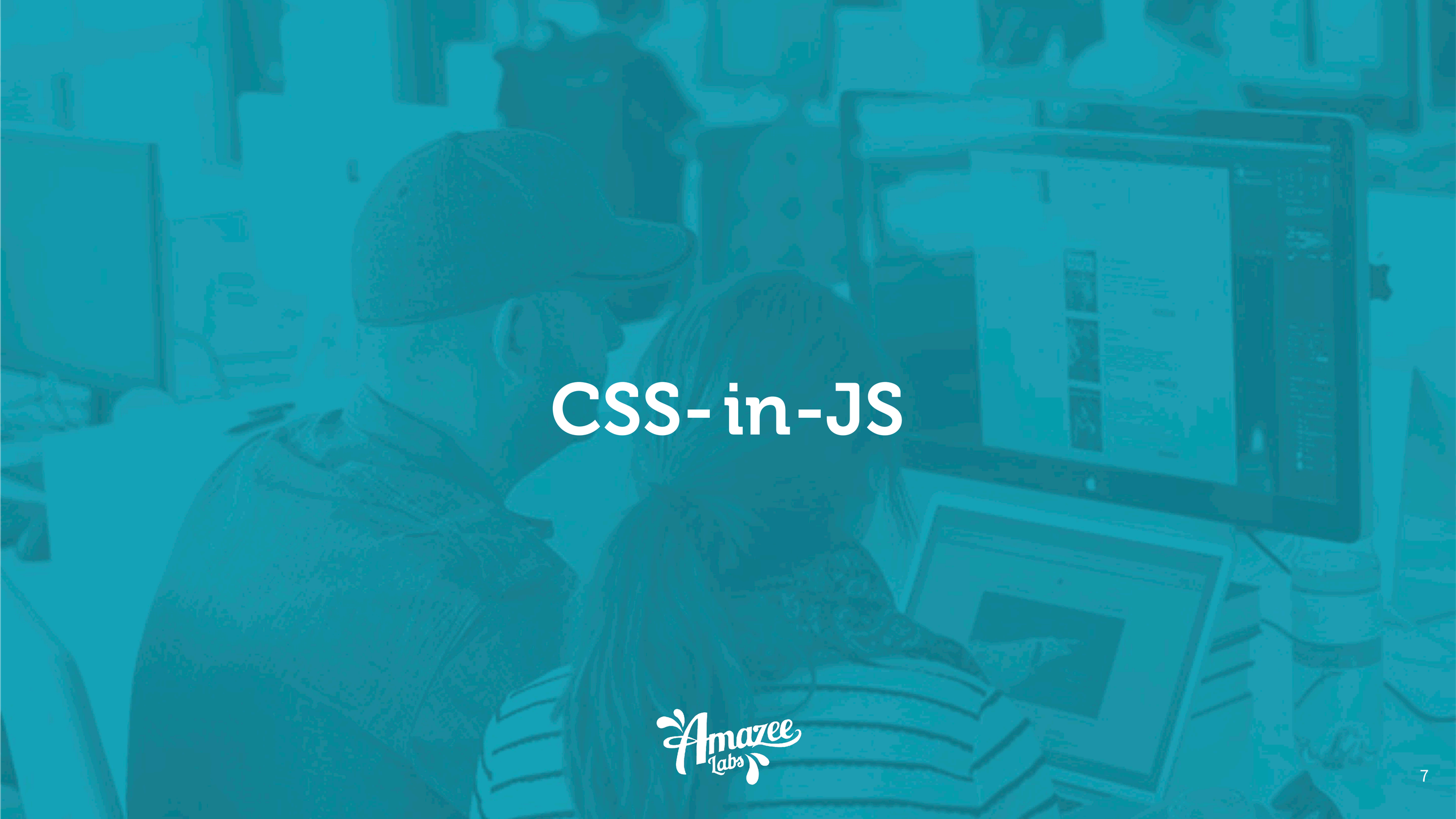
amazeelabs.com

The “CSS-in-JS” Session Disclaimer

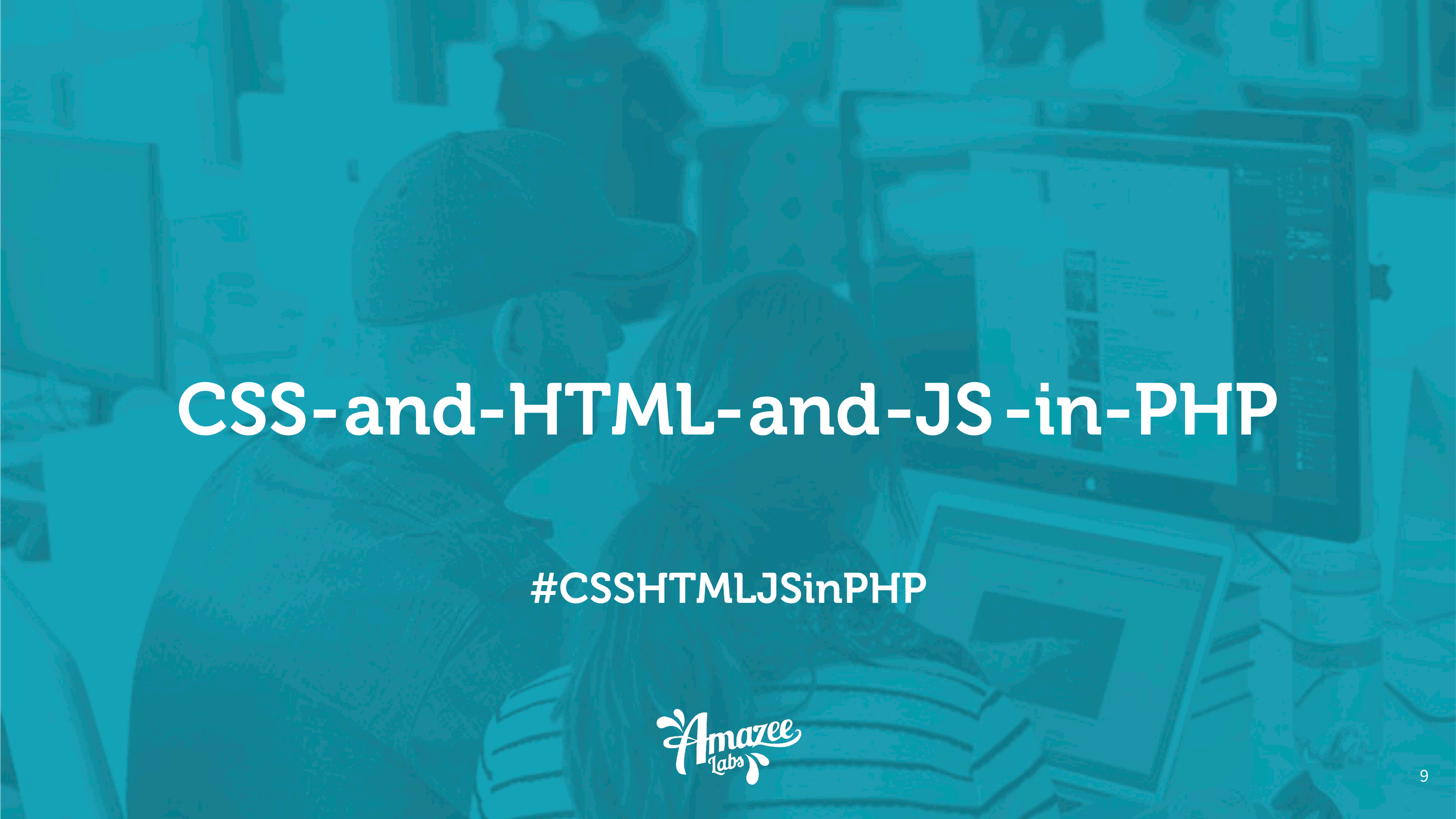
- Lots of JS examples: Don't panic.
- This is a beginners' session.
- I will go fast, but there are lots of URLs.
- No funny Morten slides.

Building Components in Drupal



CSS-in-JS

CSS-and-HTML-in-JS



CSS-and-HTML-and-JS-in-PHP

#CSSHTMLJSinPHP

Amazee Labs

A typical JavaScript developer

A typical CSS developer

1st generation of CSS-in-JS

```
const buttonStyles = {
  backgroundColor: "#990101",
  color: "black",
  border: "1px solid black",
  borderRadius: "5px",
};

return <a styles={buttonStyles}>Bye!</a>;
```

1st generation of CSS-in-JS

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  backgroundColor: "#990101",
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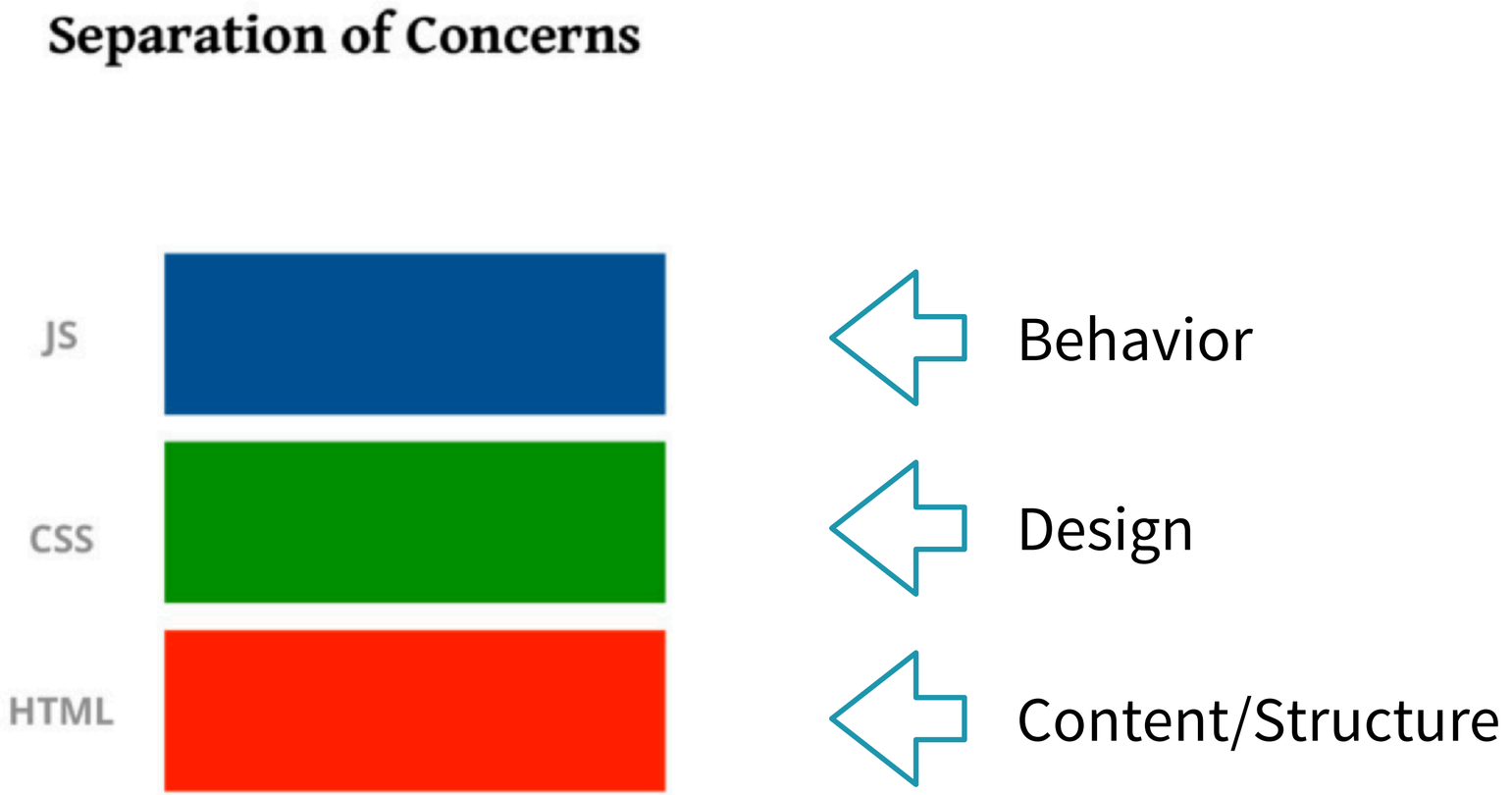
First Lesson Learned



Kudos to Cristiano Rastelli

https://speakerdeck.com/didoo/let-there-be-peace-on-css?slide=58

CSS Zen Garden

CSS class name “Semantics”

Content semantics vs. Design semantics

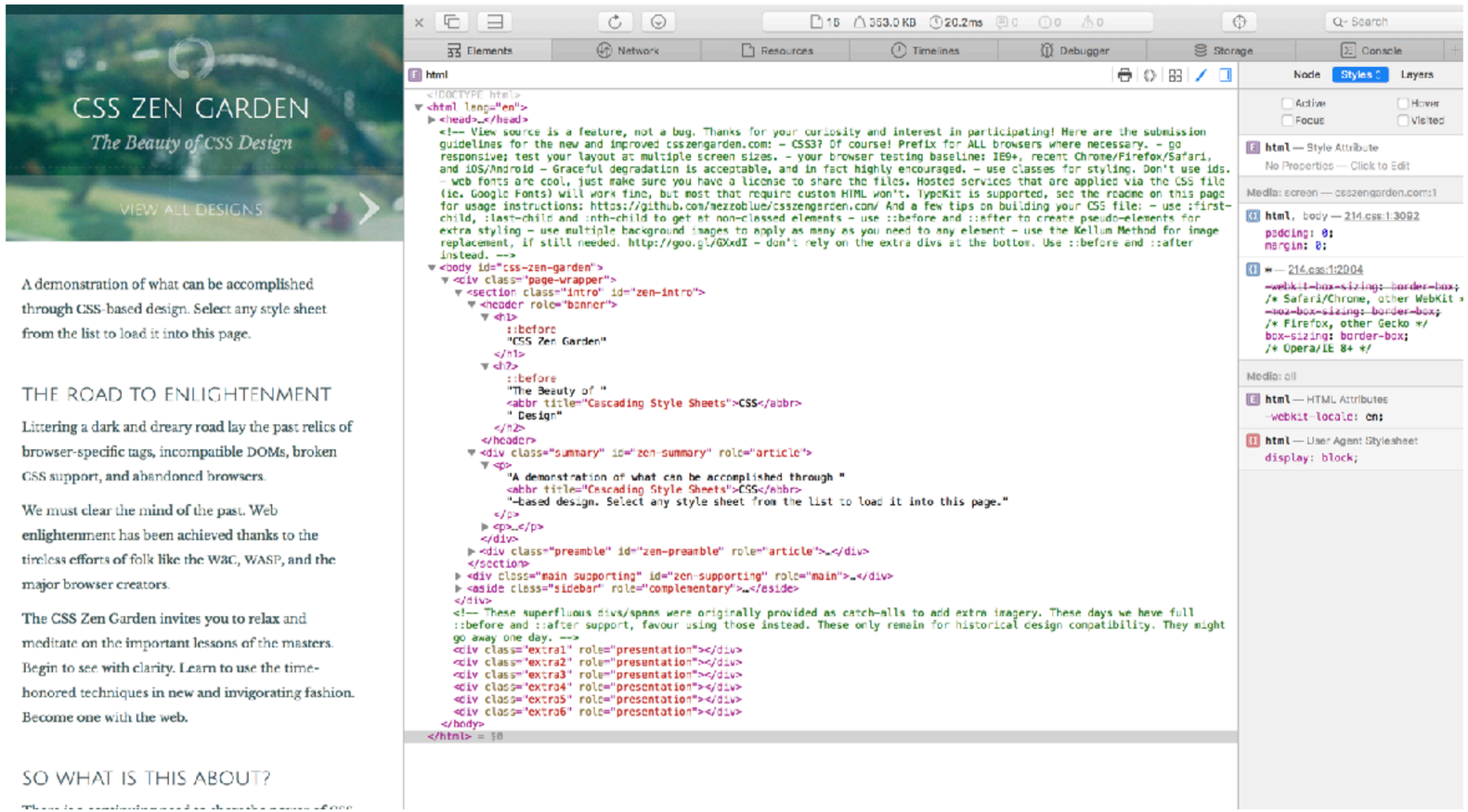
```
<a class="article-link"
  href="#">Content</a>
```

what it *is*

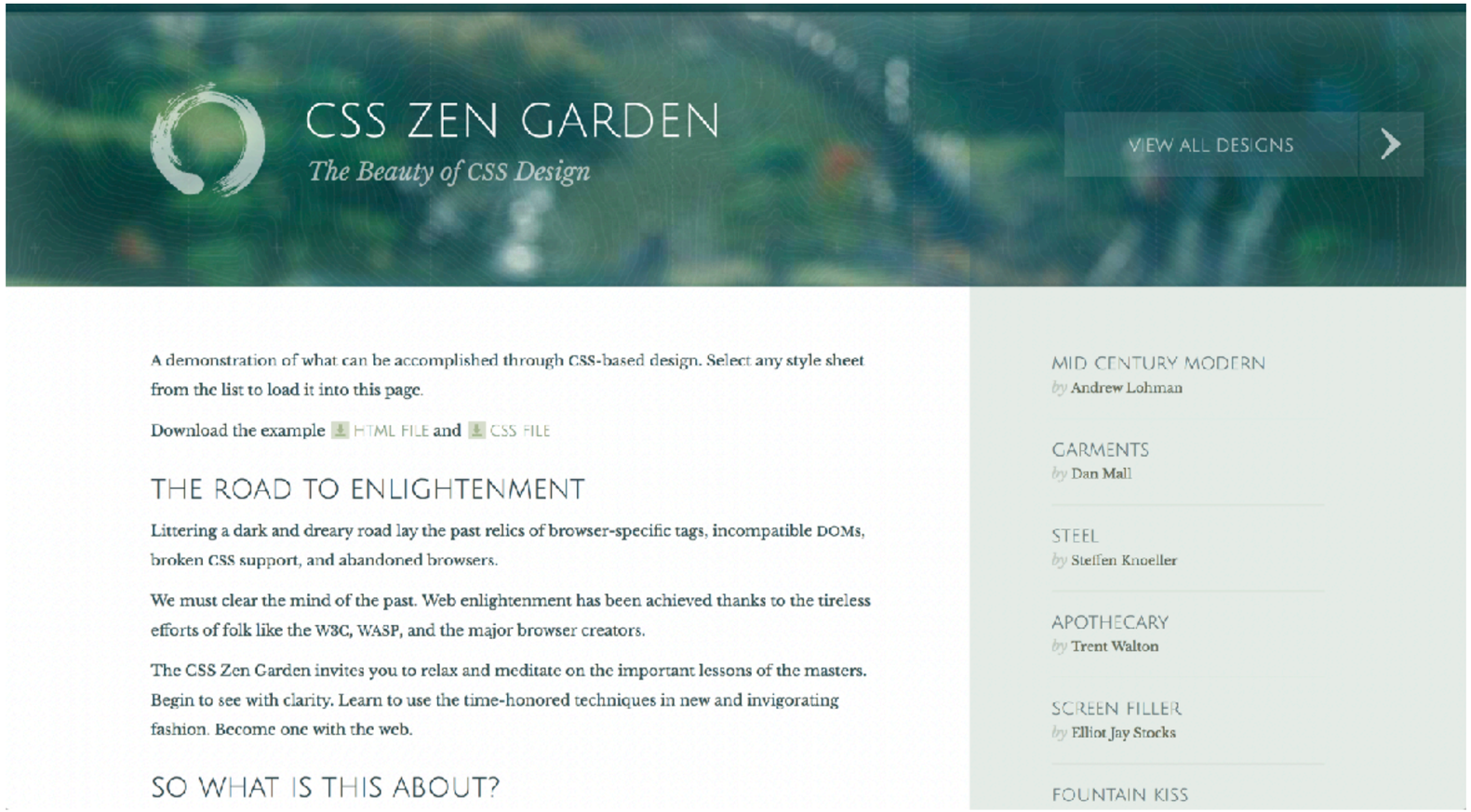
```
<a class="green-button"
  href="#">Design</a>
```

what it *looks like*

CSS Zen Garden



CSS Zen Garden



CSS Zen Garden

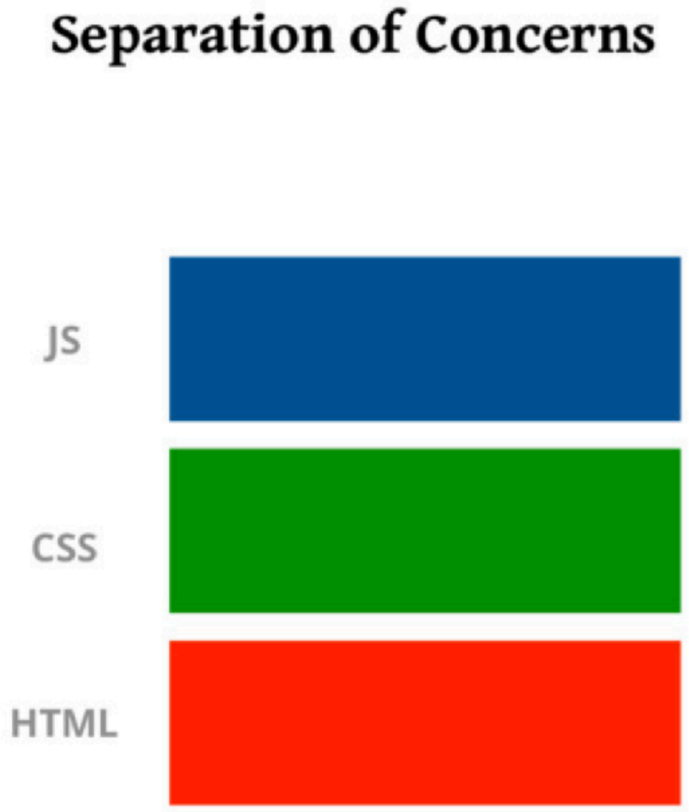
CSS Zen Garden

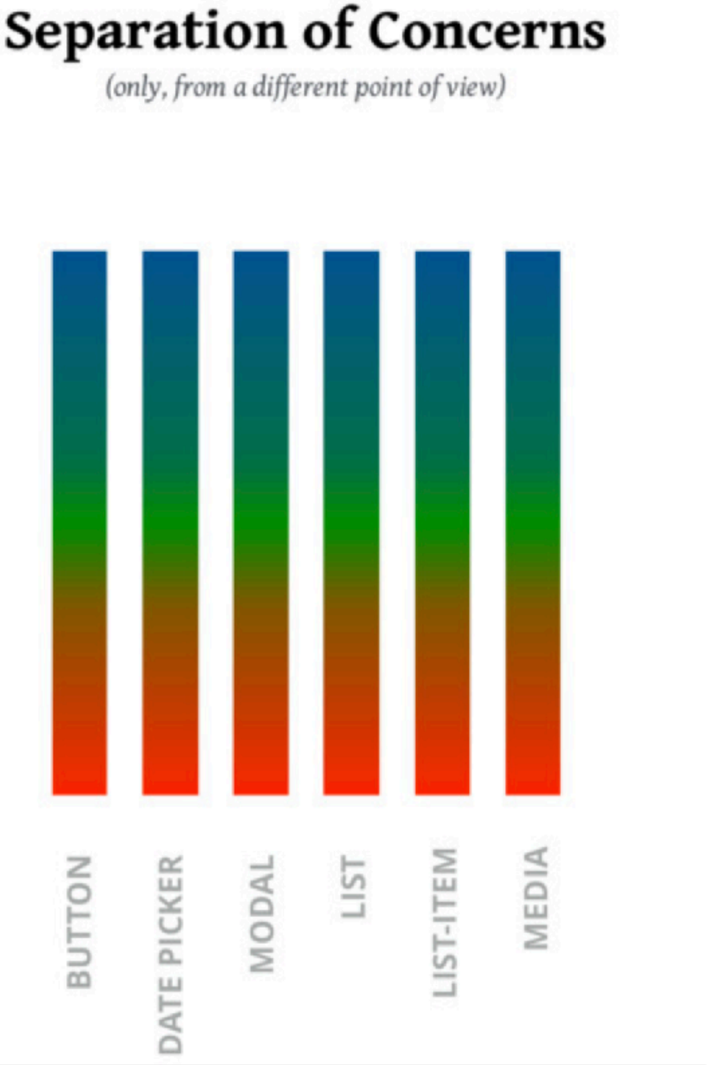
Drupal's “content semantics” problem

```
.title { }

.block .title { }

.node .title { }

.node-37 .node .title { }
```

CSS SPECIFICITY WARS

First Lesson Learned





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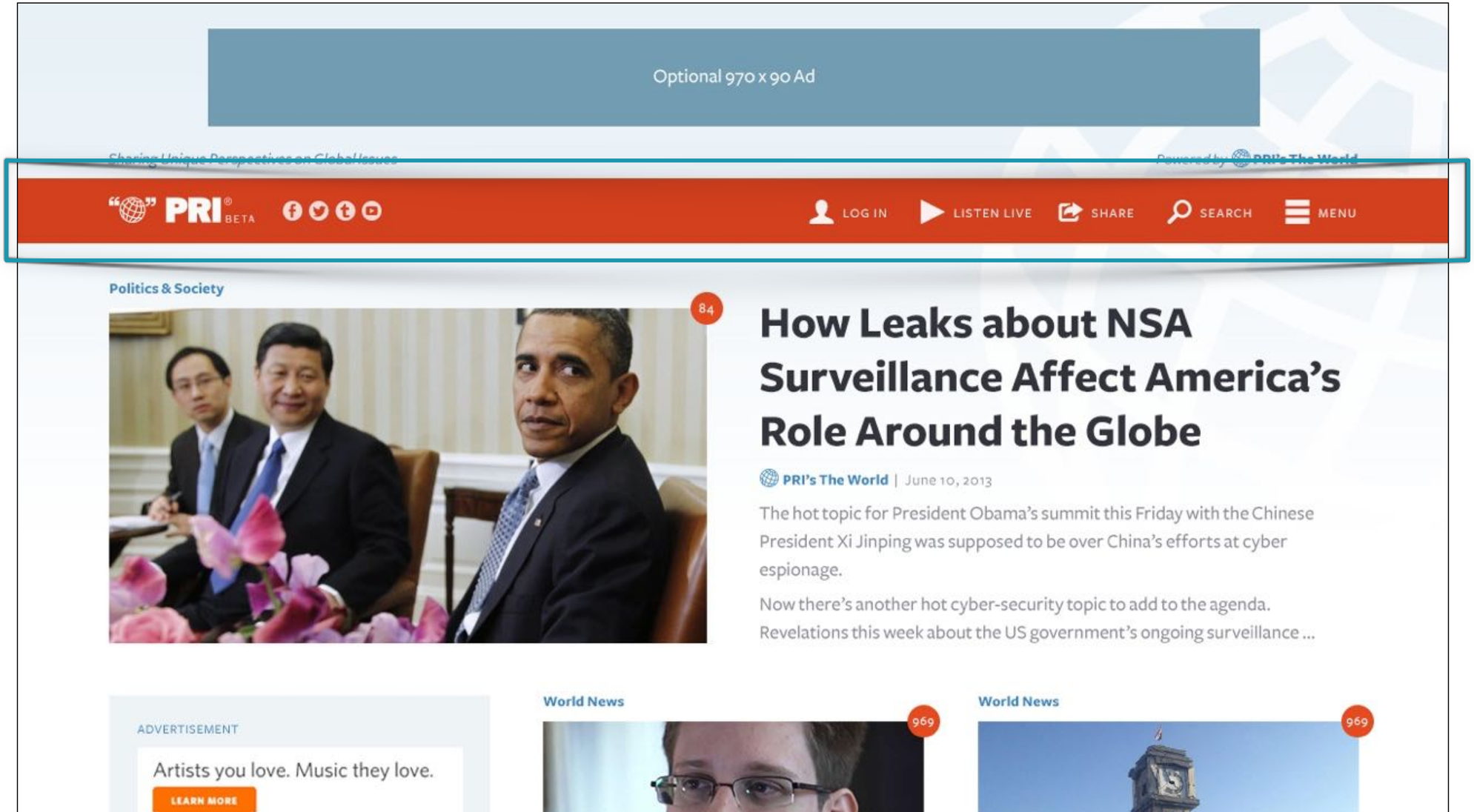
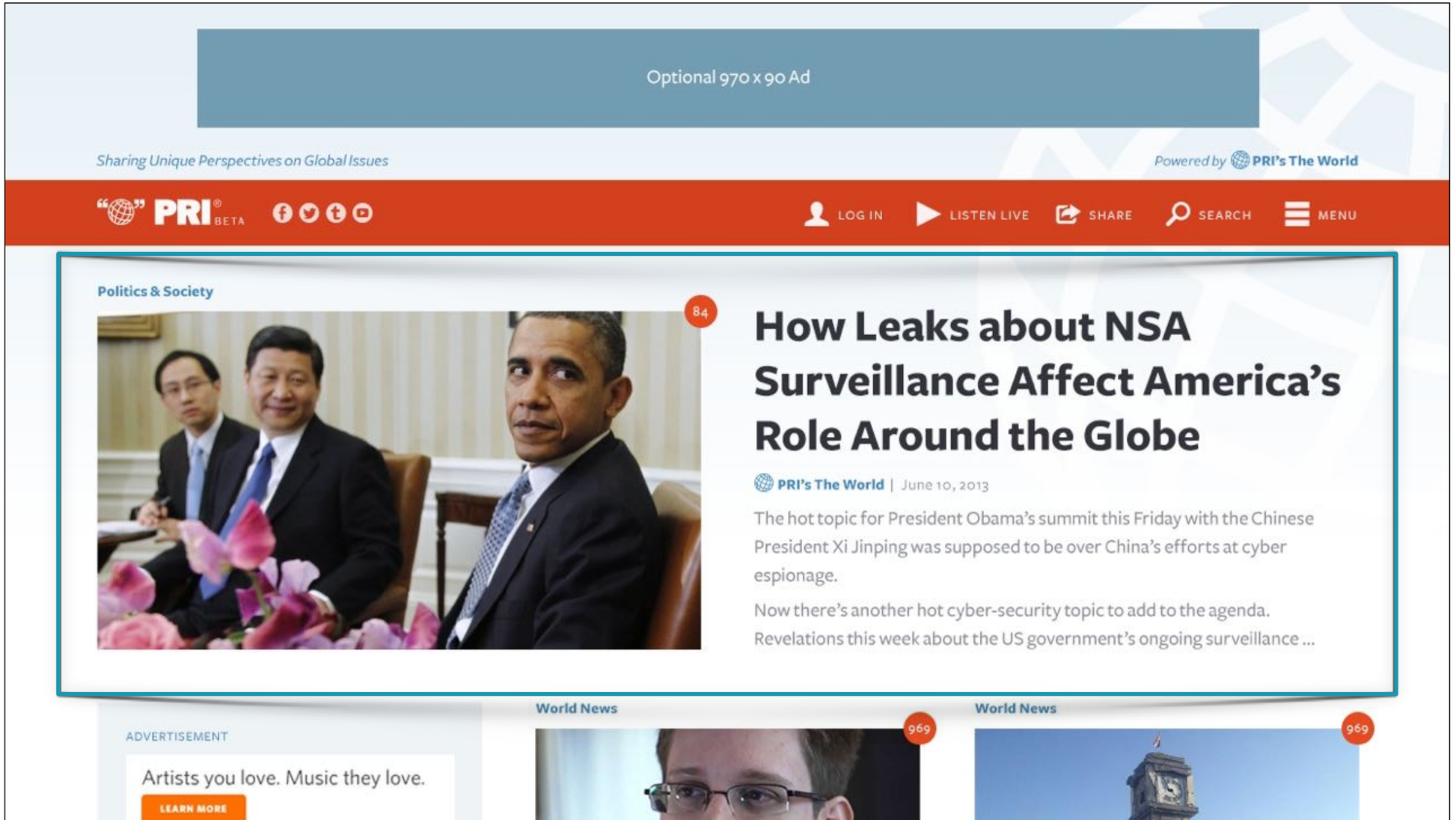
More Component Examples



More Component Examples



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The hot topic for President Obama's summit this Friday with the Chinese President Xi Jinping was supposed to be over China's efforts at cyber espionage.

Now there's another hot cyber-security topic to add to the agenda. Revelations this week about the US government's ongoing surveillance ...

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What is a component?

- ✓ Chunk of HTML, CSS, JS and images
- ✓ Unique, separate responsibility
- ✓ Repeatable
- ✓ Nestable
- ✓ Can have design variations

2nd generation of CSS-in-JS

button.css file:

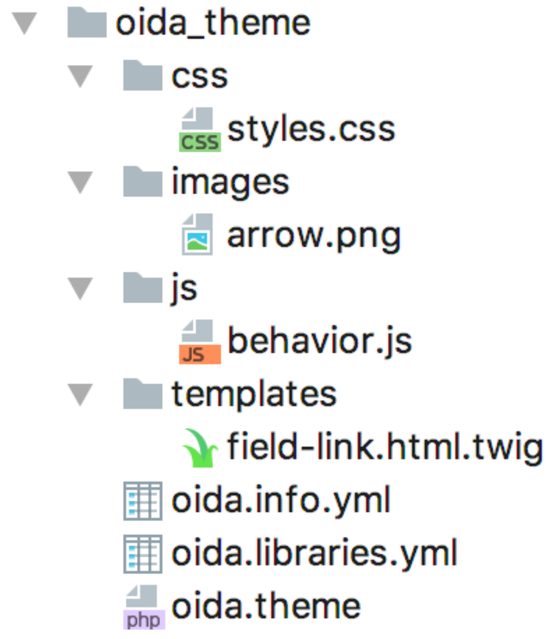
```
.button {
  background-color: #990101;
  color: black;
  border: 1px solid black;
  border-radius: 5px;
}
```

button.js file:

```
import styles from 'button.css';
return <a className={styles.button}>Bye!</a>;
```

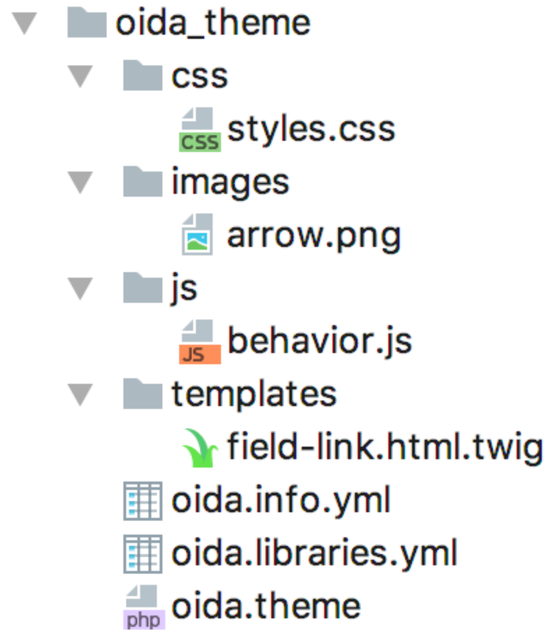
2nd Lesson: Organize your Theme by Components

Old way:

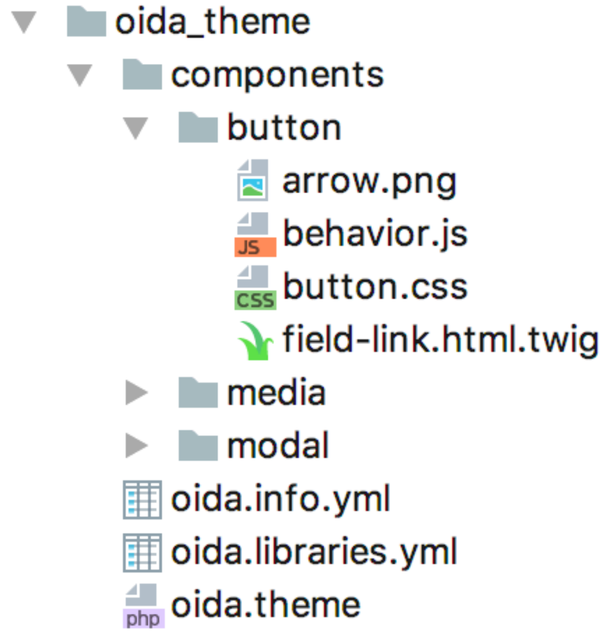


2nd Lesson: Organize your Theme by Components

Old way:



"Components" way:



3rd generation of CSS-in-JS

```
const Button = styled.a`
  background-color: #990101;
  color: black;
  border: 1px solid black;
  border-radius: 5px;
`;

const Icon = styled.img`
  padding-left: 10px;
`;
```

```
return (
  <Button href="#">
    Add
    <Icon src="add.svg" />
  </Button>
);
```

3rd generation of CSS-in-JS

```
const Button = styled.a`
  background-color: #990101;
  color: black;
  border: 1px solid black;
  border-radius: 5px;
`;

const Icon = styled.img`
  padding-left: 10px;
`;

return (
  <Button href="#">
    Add
    <Icon src="add.svg" />
  </Button>
);
```

```
<style>
  ._23_aKvs-b8bW2Vg3fwHozO {
    background-color: #990101;
    color: black;
    border: 1px solid black;
    border-radius: 5px;
  }
  ._56_jWru-g3f8bW2VOwHozb {
    padding-left: 10px;
  }
</style>

<a class="_23_aKvs-b8bW2Vg3fwHozO" href="#">
  Add
  <img class="_56_jWru-g3f8bW2VOwHozb"
    src="add.svg" />
</a>
```

3rd Lesson: # Scope locally, not globally

```
.title { }
```

Too generic. Applies globally.

```
._23_aKvs-b8bW2 { }
```

Very specific. Applies locally.

4th Lesson: Prevent unused CSS

- When you add a component to a page,
  it adds the HTML, CSS, JS, etc. to the page.

- When you DO NOT add a component to a page,
  the HTML, CSS, JS, etc. is NOT added to the page.

4th Lesson: Prevent unused CSS

Drupal 7:

- Make one giant CSS file.
- Make one giant JS file.

Drupal 8:

- Add a component's CSS and JS to a “library” used only by component.
- Add library from the Twig file.
- Rikki Bochow found this *halved* the CSS

  https://www.previousnext.com.au/blog/performance-improvements-drupal-8-libraries

Let's build a Drupal 8 component

Create a Theme using a .info.yml file

themes/oida/oida.info.yml:

```
name: Oida!
type: theme
description: 'A Drupalcon Vienna theme'
core: 8.x
libraries:
  - oida/html-element-styles
base theme: classy
regions:
  etc: Etc
```

https://www.drupal.org/docs/8/theming-drupal-8/defining-a-theme-with-an-infoyml-file

Create a component's library

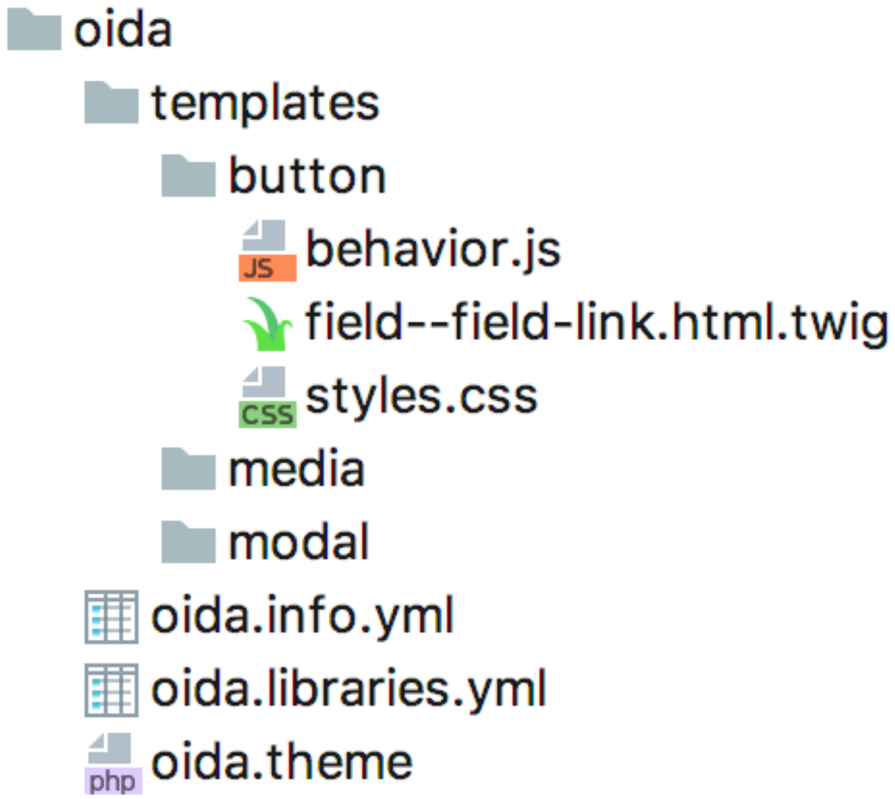
themes/oida/oida.libraries.yml:

```
button:
  css:
    component:
      templates/button/styles.css: {}
  js:
    templates/button/behavior.js: {}
```

This creates a "oida/button" library.

https://www.drupal.org/node/2216195

Create a component's directory



https://www.drupal.org/docs/8/theming-drupal-8/drupal-8-theme-folder-structure

Create a component's twig file

themes/oida/templates/button/field--field-link.html.twig:

```
{{ attach_library('oida/button') }}

{% for item in items %}
  <div{{ attributes }}>{{ item.content }}</div>
{% endfor %}
```

This uses the "oida/button" library.

https://www.drupal.org/docs/8/theming/twig/twig-template-naming-conventions

https://www.drupal.org/docs/8/theming-drupal-8/adding-stylesheets-css-and-javascript-js-to-a-drupal-8-theme#attach

Intermediate-level component theming

When Drupal adds more CSS than you want…

learn about `libraries-override` in the .info.yml file:

https://www.drupal.org/node/2216195#override-extend

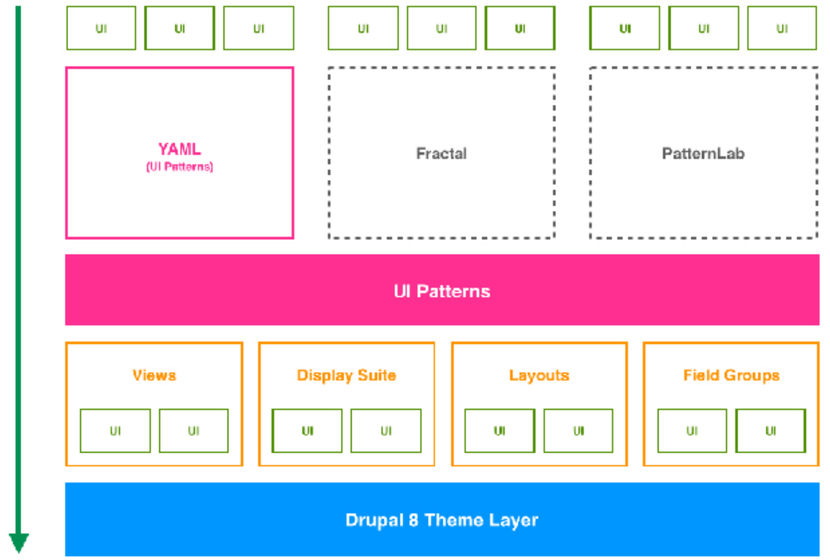
Intermediate-level component theming

UI Patterns

View | Version control | View history | Automated testing

Posted by ademarco on *5 January 2017*, updated *15 April 2017*

Define and expose self-contained UI patterns as Drupal plugins and use them seamlessly as drop-in templates for panels, field groups, views, Display Suite field templates, paragraphs, nodes or any other entity types.

The module generates a pattern library page to be used as documentation for content editors or as a showcase for business and clients.

The UI Patterns module also integrates with with tools like PatternLab or modules like Component Libraries thanks to definition overrides.