Fake Your WebComponents!

Daniel Spitzer

@dnsp

Presentation overview

▸ WebComponents

 ▸ Brief overview

▸ Tradeshift UI

 ▸ Quick intro

▸ CoolCat Component

 ▸ WebComponents

 ▸ Tradeshift UI

Fake Your WebComponents!

TRADESHIFT

WebComponents

WebComponents

- HTML Templates

    - `<template />`

- HTML Imports

    - Reusing HTML documents

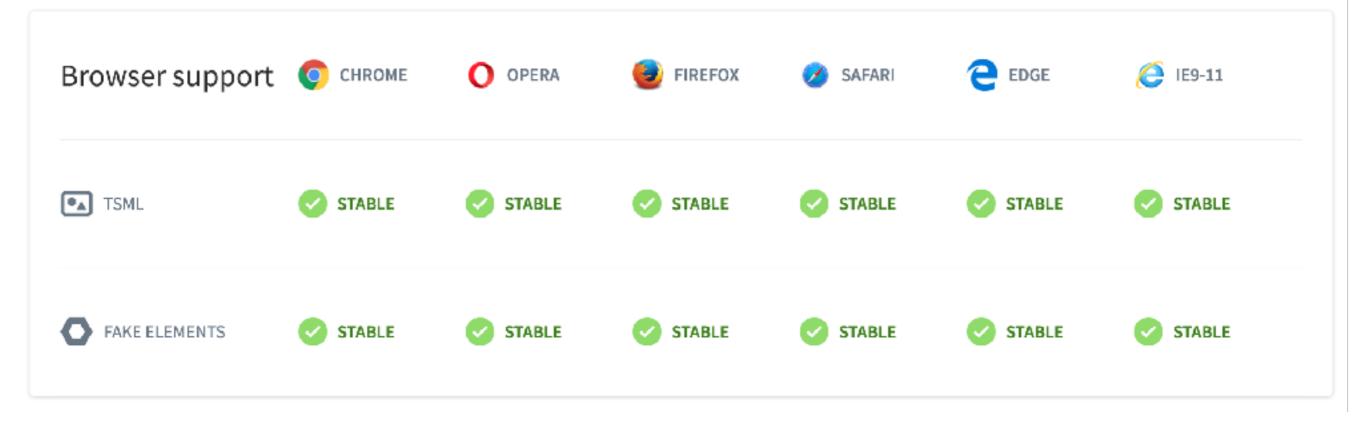# WebComponents

- Custom Elements

  - Lifecycle events (connect, disconnect)

  - Can bind via element or attribute

    - `<my-tag />,<button is="my-tag" />`

  - API using element attributes and Custom DOM Events

- Shadow DOM

  - DOM and CSS encapsulation

WebComponents

Browser support	CHROME	OPERA	FIREFOX	SAFARI	EDGE
TEMPLATES	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE
IMPORTS	✓ STABLE	✓ STABLE	✓ POLYFILL • ON HOLD	✓ POLYFILL • ON HOLD	✓ POLYFILL • CONSIDERING
CUSTOM ELEMENTS	✓ STABLE	✓ STABLE	✓ POLYFILL • DEVELOPING	✓ POLYFILL • DEVELOPING	✓ POLYFILL • CONSIDERING
SHADOW DOM	✓ STABLE	✓ STABLE	✓ POLYFILL • DEVELOPING	✓ STABLE	✓ POLYFILL • CONSIDERING

TRADESHIFT

Tradeshift UI

Tradeshift UI

▸ Framework-agnostic JavaScript library

   ▸ Injects CSS boilerplate

   ▸ Reusable UI components

   ▸ Cohesive UX throughout the Tradeshift web platform

      ▸ 1st party internal apps

      ▸ 3rd party apps

Tradeshift UI

▸ TSML Templates

    ▸ JS with native HTML support!

▸ "Custom Elements"

    ▸ Even more lifecycle events (configure, attach, enter, **ready**, async, detach, destruct)

    ▸ Can bind via any CSS selector(s) (`.something > .else + my-tag[cool=true]`)

    ▸ Helper plugins for DOM, CSS/styling, events, etc.

    ▸ API

        ▸ Element attributes and Custom DOM Events

        ▸ Singleton JS API (`ts.ui.TopNavigation.blink()`)

        ▸ Get instance from DOM and call JS API (`ts.ui.get('.button').blink()`)

▸ How does it work?

  ▸ Decorating native DOM mutation methods (appendChild, insertBefore, etc.)

  ▸ Crawling the DOM on all updates and match elements to CSS selectors

    ▸ It's not lightning fast, but faster than Angular v1 or jQuery plugins

▸ So is this another polyfill for WebComponents?

  ▸ No because the syntax is different and it was made before the spec existed

  ▸ However it's running synchronously like WebComponents

    ▸ Unlike most polyfills

Tradeshift UI

Browser support	![Chrome] CHROME	![Opera] OPERA	![Firefox] FIREFOX	![Safari] SAFARI	![Edge] EDGE	![IE] IE9-11
▣▲ TSML	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE
⬡ FAKE ELEMENTS	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE	✓ STABLE

WebComponents vs Tradeshift UI

TRADESHIFT

`<cool-cat />`

- Simple component

  - Shows an image

  - Moves the image around the screen

    - CSS transforms

    - requestAnimationFrame

github.com/sampi/fake-your-webcomponents

ui.tradeshift.com

Thank you!