ANGULAR VS REACT

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JOHN PTACEK

JPtacek.com

@jptacek

JPtacek

johnptacek

Skyline Technologies

@SkylineTweets

AGENDA

History

High Level Compare

Getting Started

Angular Things

React Things

Feelings

START OF A CONVERSATION

HISTORY

A quick history of JavaScript from my non-historian eyes

1995

JavaScript lauched

Created by and at Netscape

Originally called LiveWire

JUNE 1997

ECMAScript standard approved

2005

Microsoft introduced in late 90s with XMLHttpRequest

Google adopts for Gmail and Maps in 2004/2005

Jesse James Garret coins Ajax in paper **Ajax: A New Approach to Web Applications**

2005/2006

The Libraries and Frameworks are coming...

Dojo - Cross platform widgets

ProtoType - Emerged as Rails tool for HTTP

jQuery - The One That Changed Everything

JUNE 2009

ECMAScript 5 approved Introduced JSON support

JSON is its own standard

2010

Initial Release of AngularJS 1.0 by Miško Hevery and Adam Abrons at Brat Tech

Released as Open Source Hevery moved to Google, still develops and maintains

2011

React Created by Jordan Walke

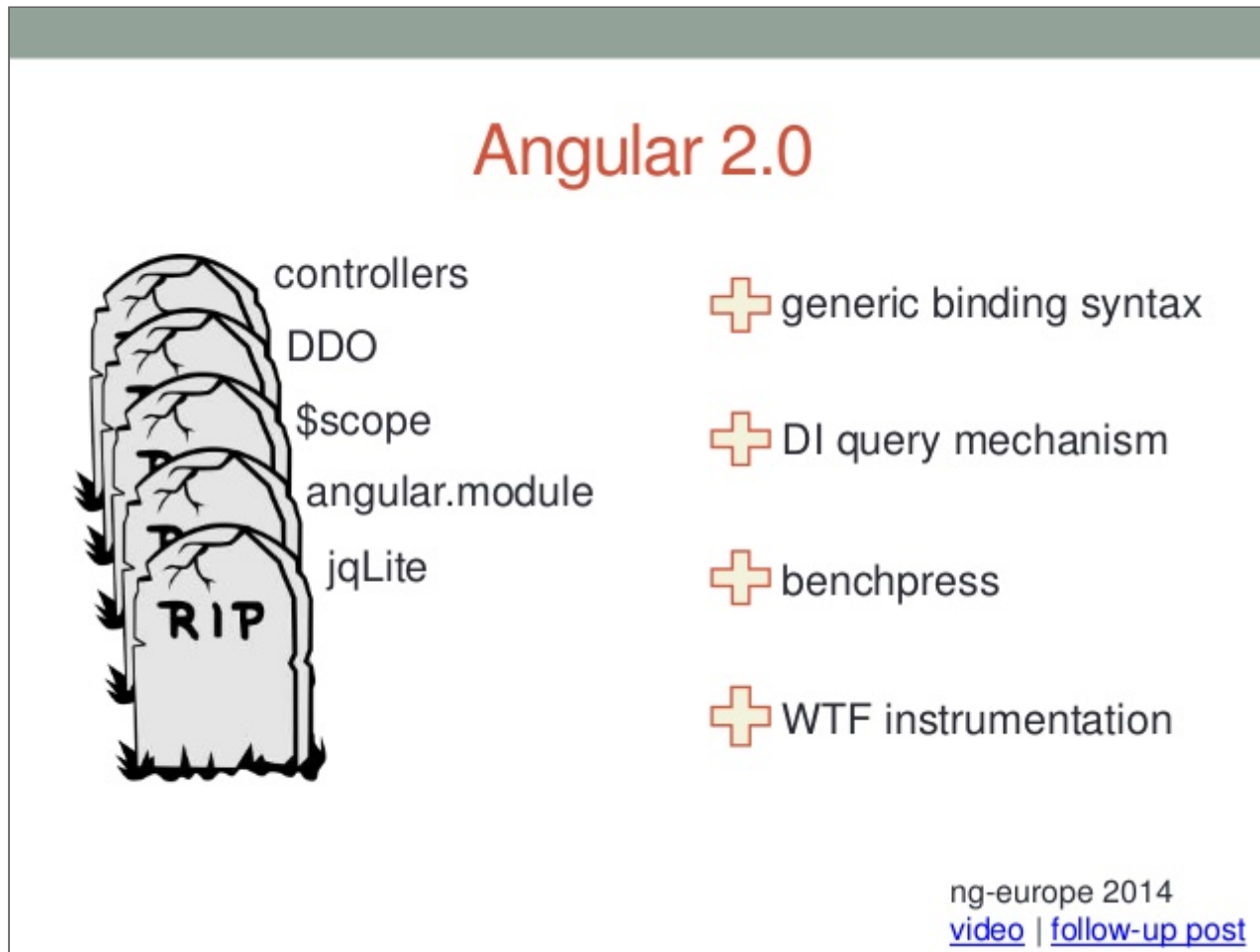First deployed to drive FaceBooks's News feed

MAY 2013

React **<u>Open Sourced</u>** at React Conf

SEPT 2014

AngularJS 2.0 **announced** at NG-Europe

Begin the freak out

JUNE 2015

ECMAScript 2015 (ES6) is launched

ECMAScript 2016 (ES7) just came out this June

WHY HISTORY?

Things are changing MUCH quicker than before!

ANGULARJS LEVEL SET

From the fine folks at Google

AngularJS 1.x – Google JavaScript library for development

AngularJS 2.x – Called Angular

Angular is a Framework

Angular is opinionated

Angular has code in your markup

Angular is HTML centric

REACT LEVEL SET

From the fine folks at Facebook

React is a Library (View)

React is not opinionated

React has markup in your code

React is JavaScript centric

NOT THE SAME

ANGULAR IS A FRAMEWORK. REACT IS A LIBRARY

PROJECT SETUP

THE NEW JAVASCRIPT

Angular "QuickStart"

React "QuickStart"

PROJECT SETUP

GOOD NEWS!

Angular Command Line - https://github.com/angular/angular-cli

```
ng new FOO
```

React Command Line https://github.com/facebookincubator/create-react-app

```
create-react-app FOO
```

WHY UPGRADE FROM ANGULARJS?

Mobile First

Standards focused

Performance (Virtual DOM!)

Web Components

NOT THE SAME

ANGULAR IS A FRAMEWORK. REACT IS A LIBRARY

PERIODIC TABLE APP

Angular Version

React Version

COMPONENTS

React and Angular based on components

Angular Gateway to HTML components

ANGULAR COMPONENT

```typescript
import { Component } from 'angular2/core';
@Component({
    selector: 'foo-Div',
    templateUrl: 'app/foo.html',
    styleUrls: [ 'app/foo.css' ]
})

export class Foo {
    public message = 'Foo!';
}
```

REACT COMPONENT

```
import React from 'react';
export default class Foo extends React.Component {
        constructor(props) {
                super(props);
                this.state = { message: 'foo!' };
        }
        render() {
                return (
                        <div>
                                <p>{this.state.message}</p>
                        </div>
                        );
                }
        }
```

TEMPLATES AND DATABINDING

Templates and Databinding

React HTML is in render method

JSX allows for HTML like

ANGULAR DATA BINDING

Angular has one way

```
{{element.name}}
```

Angular has two way data binding

```
<input type="text" [(ngmodel)]="inputFieldName" id="id1">
```

REACT DATA BINDING

React is stateless, no two way binding

This.state.inputFieldName

WHY ANGULAR

AngularJS populartiy

Framework means less JavaScript fatigue

TypeScript

Less Churn

Web Component

You like JavaScript in your HTML

WHY REACT

JSX

Fails Better

You LOVE JavaScript

You like HTML in your JavaScript

FEELINGS

$30,000 Logout CSRF
@tqbf

@jptacek boooooo angular booooooooooooo

9:38 PM - 31 Aug 2016 · Austin, Chicago, United States

Angular is a framework = bigger

- React allows you to choose
- 566K Angular vs 139K for React+Redux

React is a library, best of breed

Stweet Christmas! JavaScript churn is killing me

Angular has forced consistency

Angular2 is a path to web components

React/JSX allows you to fail early

React is JavaScript

Angular is more HTML, but not HTML

Angular

```
(click) = "onSelect(myOject)"
```

React

```
onClick ={ this.onSelect.bind(this,myObject)}
```

What is Google Doing!?!!?

- Polymer
- Web Components

DoubleClick uses Angular

YouTube Gaming, Google Patents (and SalesForce) uses Polymer

JSX can trail in tooling on Microsoft stack

Typescript, blessing or curse

Mobile performance with Angular file size

- React mix and match approach

To learn React, learn JavaScript; to learn Angular, learn Angular

- Angular starts quick, can get finicky soon after

RECOMMENDATIONS

Wait/Do Nothing

Angular for Enterprises

Reactfor JavaScript strong organizations/devs

QUESTIONS?

JOHN PTACEK

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@jptacek

JPtacek

johnptacek

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