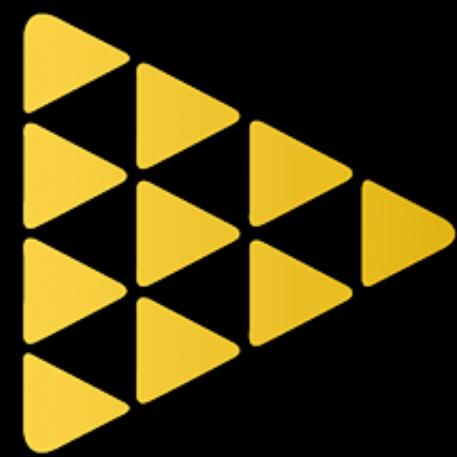


We can't use Angular

It will hurt our SEO



@



GDG DevFest
2015 Season

Prologue

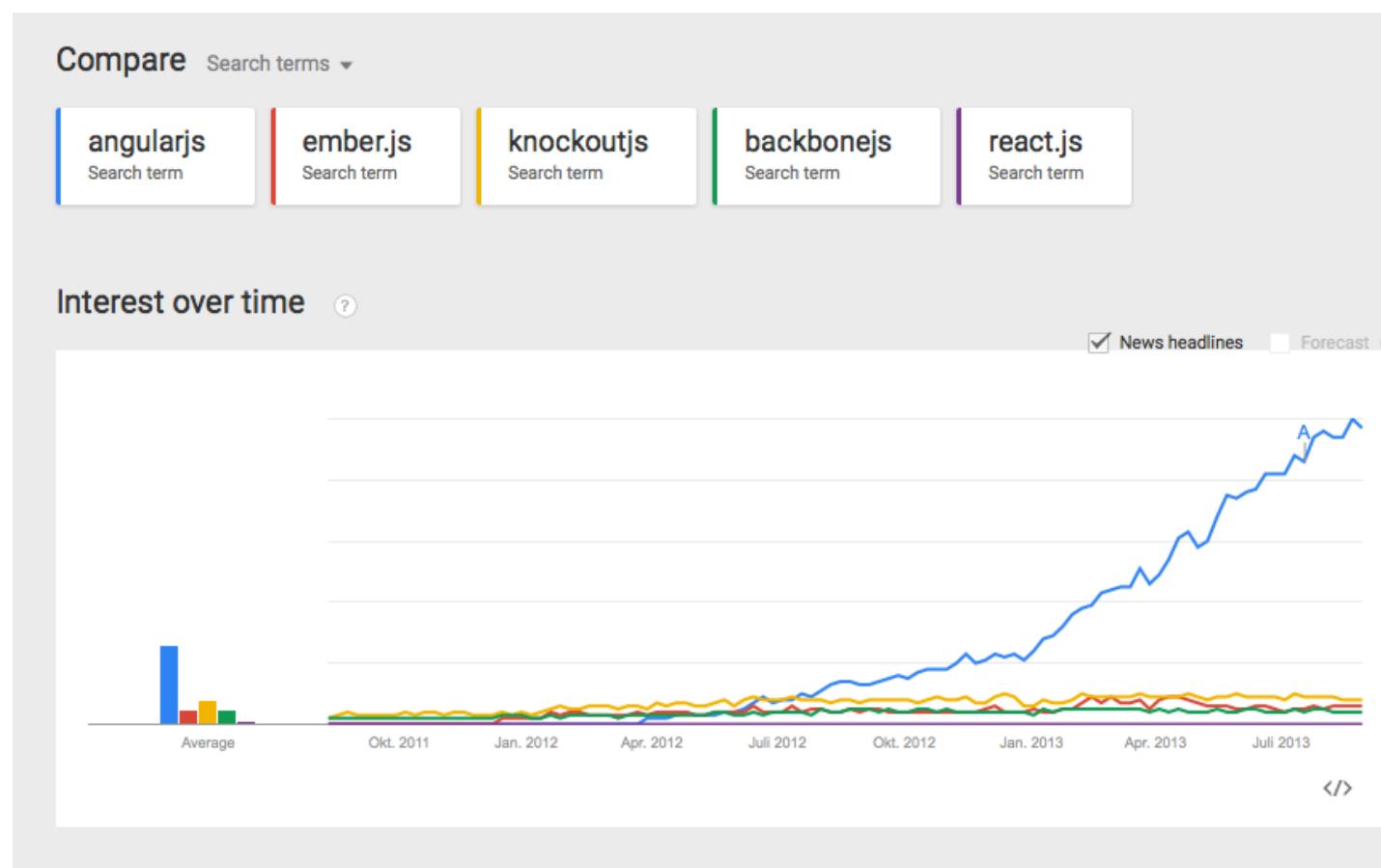
Thread 1

Crawling in the Dark

In 2009, Google created a framework called
AngularJS...



It would be quickly adopted worldwide with traction unlike any other framework before



ANGULAR ALL THE THINGS



But Google had one serious problem
with it...

They could not crawl it.



Google search results for "AngularJS Seo Tutorial". The search bar shows the query. Below it, the "Web" tab is selected, followed by "Videos", "News", "Images", "Shopping", "More", and "Search tools". A message indicates "About 23,600 results (0.37 seconds)". The first result is a link to the AngularJS documentation, titled "Developer Guide - AngularJS Documentation for index". The link URL is "docs.angularjs.org/guide/". The snippet below the title includes "AngularJS", "25+ items", and "Guide to AngularJS Documentation. Everything you need to ...". Below the snippet are several sub-links: "Animation", "Core concepts", "Angular Guide to i18n and l10n", "Animation in AngularJS 1.2", and "Creating multilingual support". A blue box highlights the title "Scotch Tutorial | {{seo.pageTitle}}".

AngularJS Seo Tutorial

Web Videos News Images Shopping More Search tools

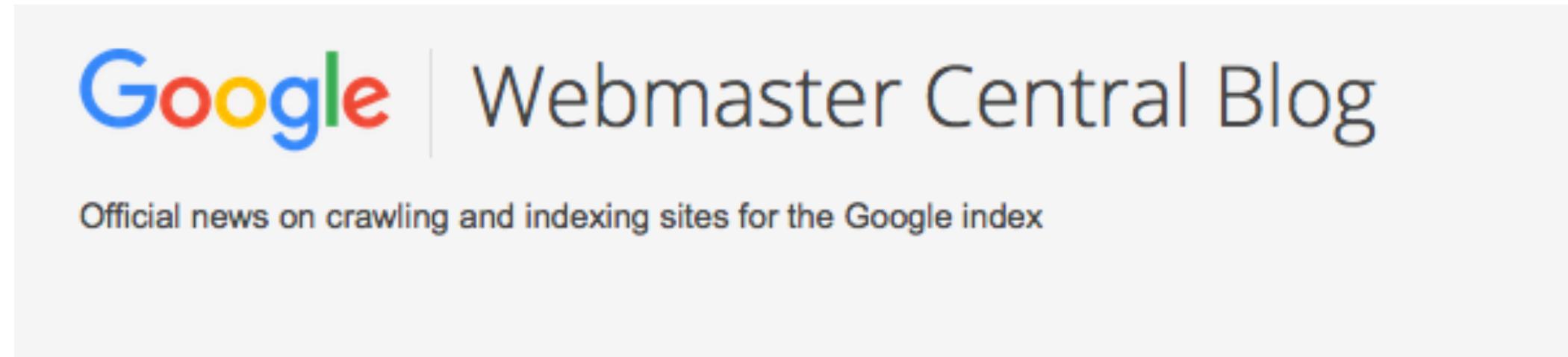
About 23,600 results (0.37 seconds)

[Developer Guide - AngularJS Documentation for index](https://docs.angularjs.org/guide/)
docs.angularjs.org/guide/ ▾ AngularJS ▾
25+ items - Guide to AngularJS Documentation. Everything you need to ...

Animation Core concepts Animation in AngularJS 1.2
Angular Guide to i18n and l10n Creating multilingual support

Scotch Tutorial | {{seo.pageTitle}}
www.scotch.io/angularjs-seo-tutorial
{{seo.pageDescription}}

(so one month later:)



A proposal for making AJAX crawlable

Posted: Wednesday, October 07, 2009



Webmaster level: Advanced

Still,

for a lot of people, it created additional confusion.

- Would (accidentally) different versions served be considered cloaking?
- How would you treat redirects and 404s?
- How do you know something's off with prerendering when the site is working fine?

Prologue

Thread 2

The SEO Situation

Compare

Search terms ▾

kaufda

Search term

+ Add term

Interest over time



News headlines

Forecast



2005

2007

2009

2011

2013

2015

</>



10178 Berlin
Standort ändern

kaufDA Berlin / Angebote / **mistgabel in Berlin**

mistgabel in Berlin

Aktuelle Angebote in Ihrer Umgebung



Möbel Kraft

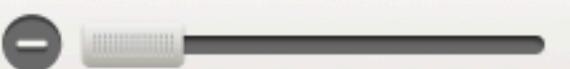


NP-Discount



REWE





Weitere Angebote

MÖBEL KRAFT
SENSATIONELLE AKTIONS-ANGEBOTE 19.10.-14.11.15

650:-

5:- 6:-

5:-



Hier erfüllen sich Ihre
Wohnwünsche

Mi, 04.11.15 bis So, 06.12.15

Noch 3 Wochen gültig

Filiale

in der Nähe von 10178 Berlin



Möbel Kraft
Sachsenstrasse 20
10829 Berlin

6,4 km



(030) 76 10 73 35



Mo-Sa: 10:00-20:00



[Weitere Filialen anzeigen](#)

HIER ERFÜLLEN SICH
IHRE WOHNWÜNSCHE

WOHNLANDSCHAFT
Bezug Stoff 2-farbig stone, ca. Schenkellänge 166x328x234 cm, 85 cm hoch, 92 cm tief
17409140

meinSofa Se wie ich es will. Pflegeleicht bei Lieferung

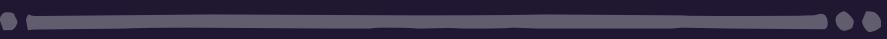
1 | 10

There had to be a better
way

Prologue



Thread 3



Facebook's Hybrid Disaster

Mark Zuckerberg: Our Biggest Mistake Was Betting Too Much On HTML5

Posted Sep 11, 2012 by Drew Olanoff (@drew)

4,471
SHARES



Next Story



VB

NEWS EVENTS RESEARCH

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MOBILE

Facebook's Zuckerberg: 'The biggest mistake we've made as a company is betting on HTML5 over native.'

Why Facebook Ditched its Hybrid App

Wednesday Jan 8, 2014



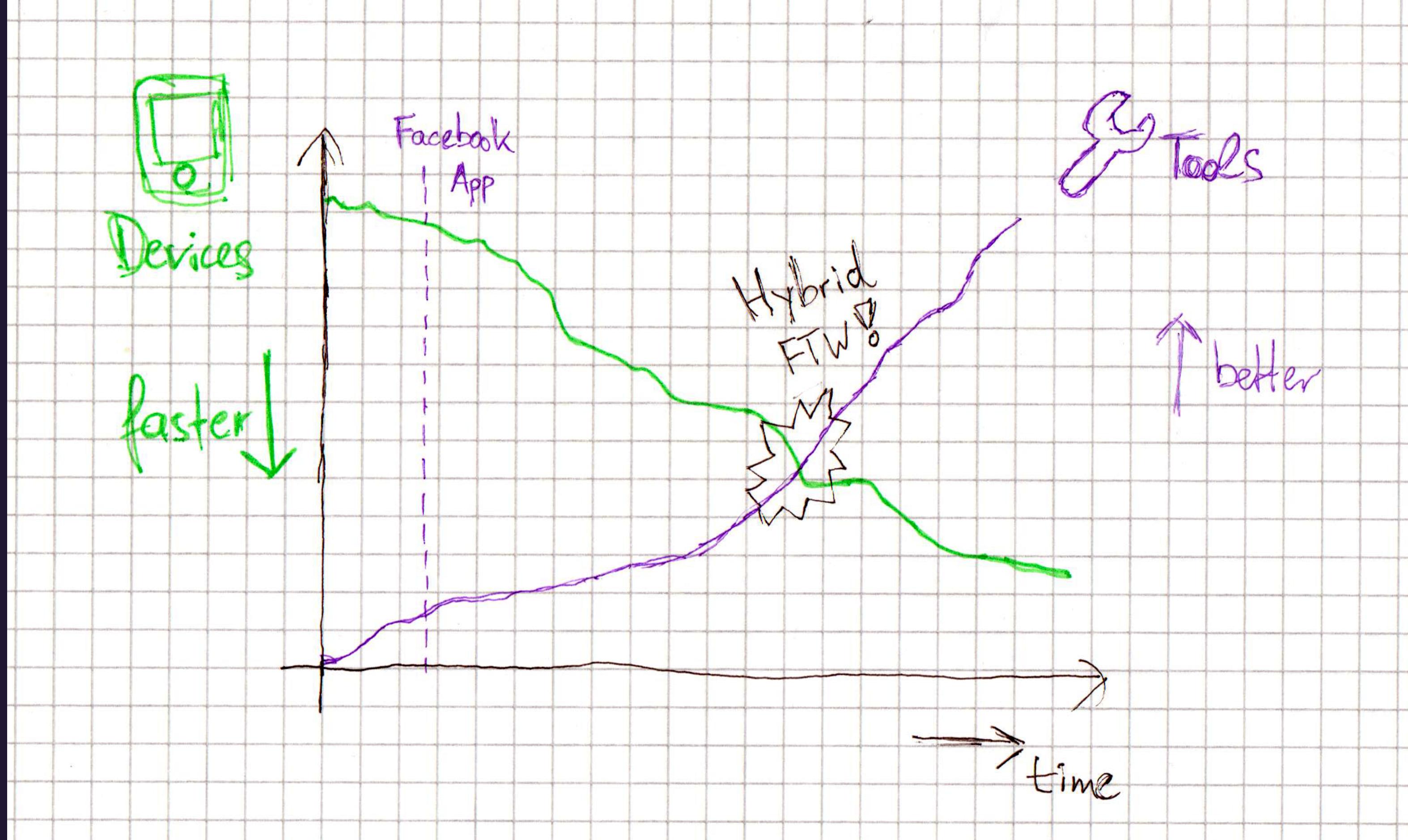
Kelly Rice

Follow @kellyrice88

About Informed news analysis every weekday

Facebook abandons HTML5 on iOS: A shift or exception?

Developers balance HTML5's broad reach with the performance and specialty capabilities of native code



Also...

...the grass wasn't greener on the other side

It was getting clear we
had to bet it all
on one card.

1. Build the content as a single, fast API in Go
2. That can be used by scraper, CMS and apps
3. Build a web app in AngularJS
4. Make the web app SEO capable
5. Build a hybrid app from the same code base
6. World domination :)

Act I



SEO with Angular

Step One: Prerendering

So what's Prerendering anyway?



Products > Search > Webmasters > AJAX Crawling (Deprecated)

AJAX Crawling (Deprecated)

[HOME](#)[GUIDES](#)[SUPPORT](#)

This recommendation is officially deprecated as of October 2015.





DuckDuckGo





WTF?



DuckDuckGo





WTF?



DuckDuckGo





WTF?



DuckDuckGo



```
7  
8  .main { color:#wtf000 !important; }  
9  /* HACK for IE7: leave here until *&!* MS  
10 | died a long and slow death */  
11
```



Status



Billeder/video



Livsbegivenhed

<http://brianemilius.com/page/about-me>

{{ template.pageName }} - {{ template.siteName }}

BRIANEMILIUS.COM | AF {{ TEMPLATE.PAGEAUTHOR }}



Kun mig ▾

Slå op

dom 5:44 PM
you're my man!

<https://www.justwatch.com/uk/movie/the-internship>

JustWatch
The Internship - movie: watch streaming online
Is Netflix, Amazon, Now TV, ITV, iTunes, etc. streaming The Internship? Find where to watch movies online now! (64KB) ▾



vinceVAUGHN owenWILSON
The Internship



Dominik Raute shared a anchor.
Just Sailed · Berlin · 

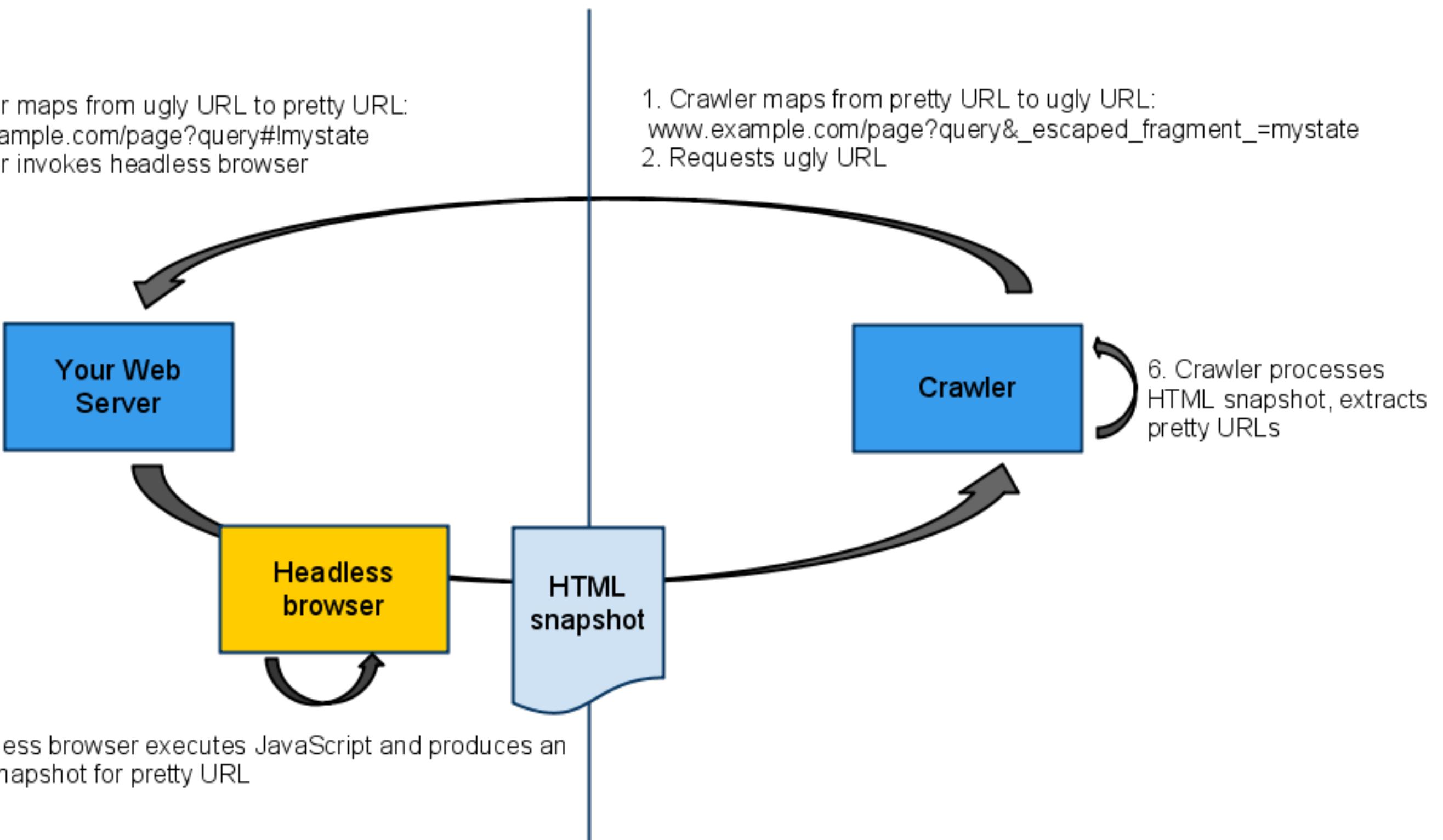
vinceVAUGHN owenWILSON
The Internship



JUSTWATCH.COM

Like Comment Share

Scrawl...  



https://www.justwatch.com/us?_escaped_fragment_= /us?_escaped_fragment_=

JustWatch NEW POPULAR

Welcome to JustWatch

We are glad you're here! On JustWatch you can easily find out where to watch your favorite movies (tv shows coming soon). JustWatch is easy and effective: Choose your favorite streaming providers and see what's new on Netflix and Co. Filter by genre and release year to find the perfect movie to stream tonight. Search for a specific movie or tv show to find out where to watch it legally online.

NETFLIX amazon Apple Google play amazon CRACKLE hulu h+ PlayStation VUDU realeyz MUBI

FILTERS Release year Genres × Reset

0 titles

0 titles

JustWatch | The Streaming Search Engine

© 2015 JustWatch

At least we knew we were in good company.

A screenshot of a Google search results page. The search query in the bar is "site:lyft.com". Below the search bar, there are navigation links for "Web" (which is underlined in red), "Bilder", "News", "Shopping", "Maps", "Mehr ▾", and "Suchoptionen". A status message at the top says "Seite 8 von ungefähr 5.560 Ergebnissen (0,26 Sekunden)". The main result is a snippet for a page from the URL "https://www.lyft.com/drivers/SONA944318". The snippet shows the meta description: "meta.description || 'Rideshare with Lyft. Lyft is your friend ...'" and the page title: "https://www.lyft.com/drivers/SONA944318 ▾ Diese Seite übersetzen". Below the snippet is a truncated preview of the page content: "meta.description || 'Rideshare with Lyft. Lyft is your friend with a car, whenever you need one. Download the app, and get a ride from a friendly driver within ...'".

We figured prerendering was harder than we thought.

Quick quiz:

When has a Single Page App finished loading?

1. When DomReady has fired
2. When all resources from the page have loaded,
parsed and executed
3. When there is no change in DOM for 1 second
4. When there is no change in DOM for 10 seconds

Quick quiz:

When has a Single Page App finished loading?

1. When DomReady has fired
2. When all resources from the page have loaded,
parsed and executed
3. When there is no change in DOM for 1 second
4. When there is no change in DOM for 10 seconds
5. none of the above

We had to solve this ourselves.

```
<script>  
    window.prerenderReady = false;  
    window.willCallOnCaptureReady = true;  
</script>
```

Taking back control on when the page was rendered did the trick.

Monitoring.

<input type="checkbox"/>		netflix_escaped_fragment www.justwatch.com	HTTPS	2 d		549 ms 0 min	<input type="button" value="▼"/>
<input type="checkbox"/>		www.justwatch.com www.justwatch.com	HTTPS	1 mo		487 ms 0 min	<input type="button" value="▼"/>

Edit Check

X

 Check for string

Should contain

Netflix

Step Two: Routing

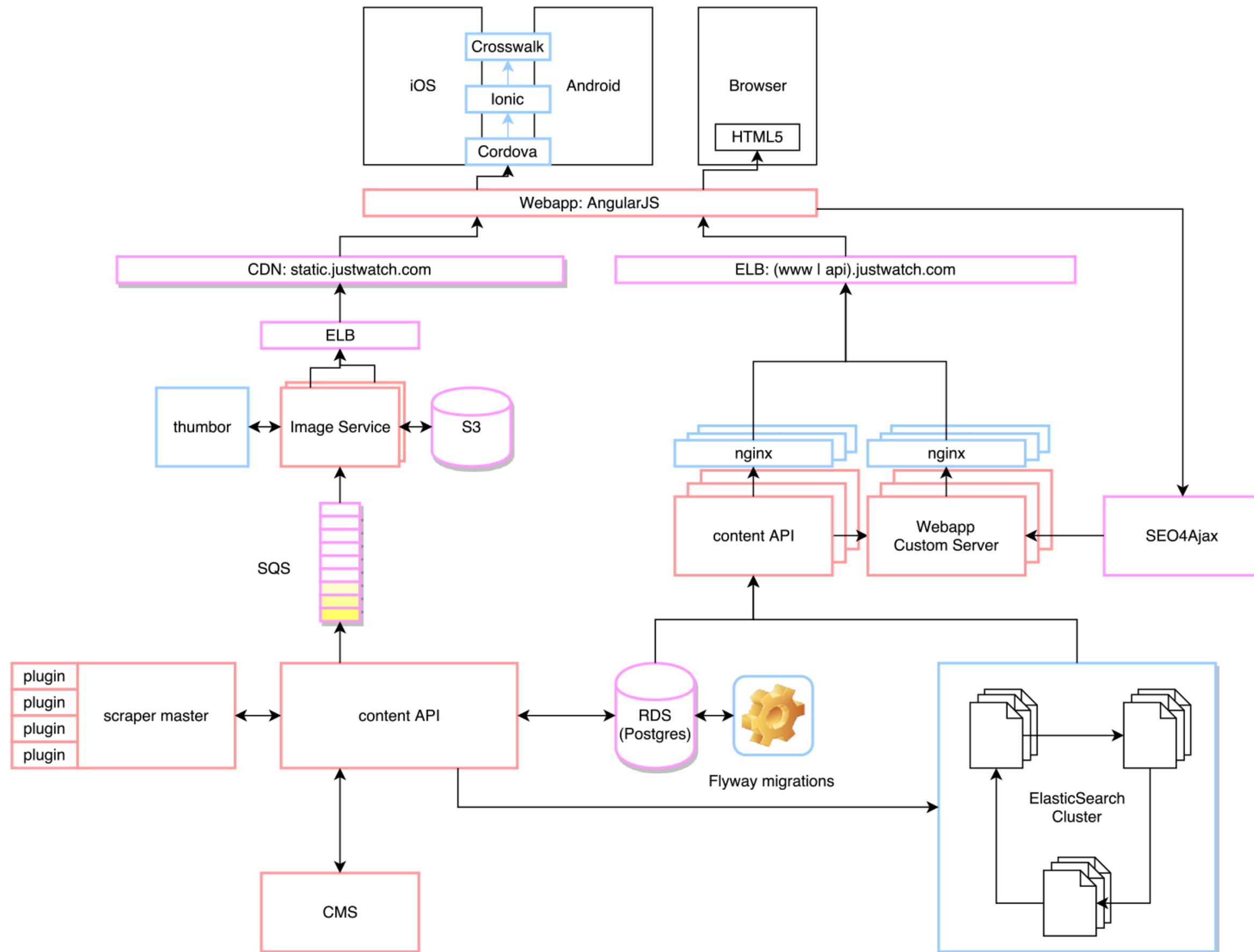
Routing

Strict crawl quality requirements:

- Duplicate content
- Sitemap generation
- Clean redirects / 404s
- Multilanguage linking (hreflang)

All pages are registered in API and
linked to a content object ID

(which is served by a custom web server with API access)



Step Three: Tech Signals

Technical signals

- HTTPS everywhere
- Mobile-friendly (actually mobile first)
- Speed!
 - Go API with heavy caching
 - Minimize requests
 - As many assets as possible on HTTP2 CDN
 - Responsive image resolution

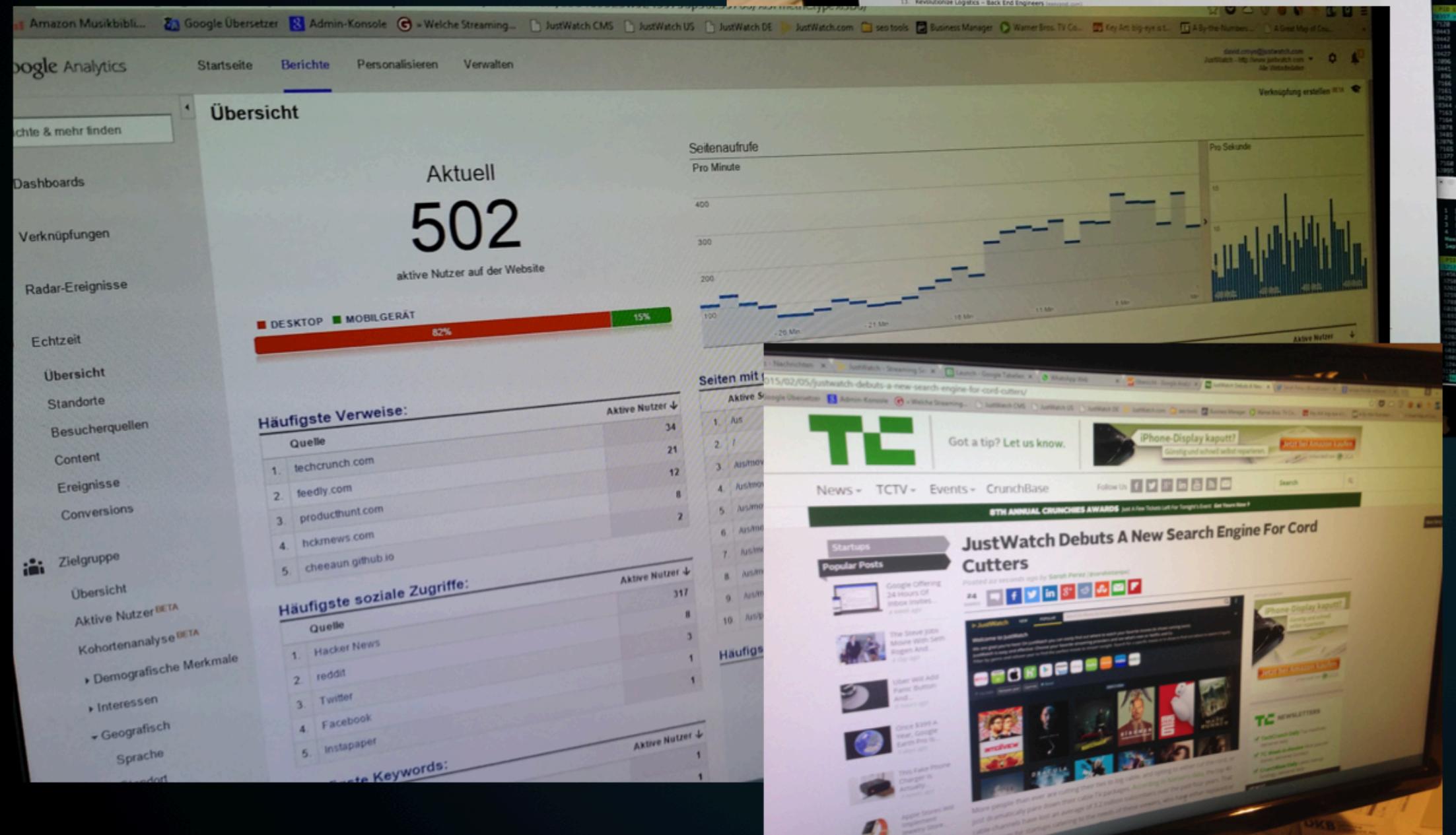
Step Four: Relevancy

Relevancy

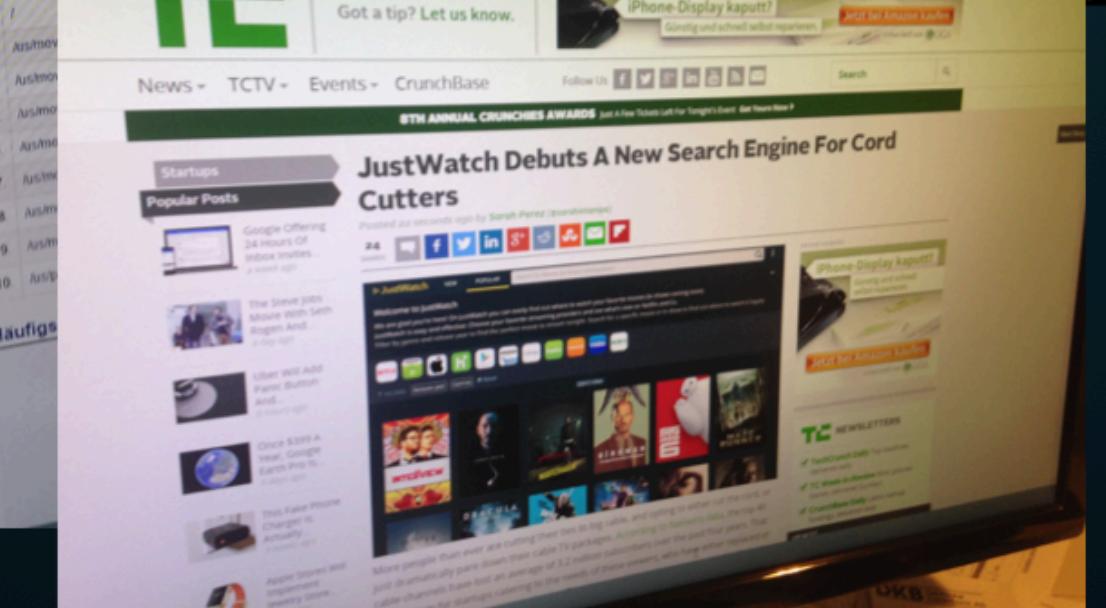
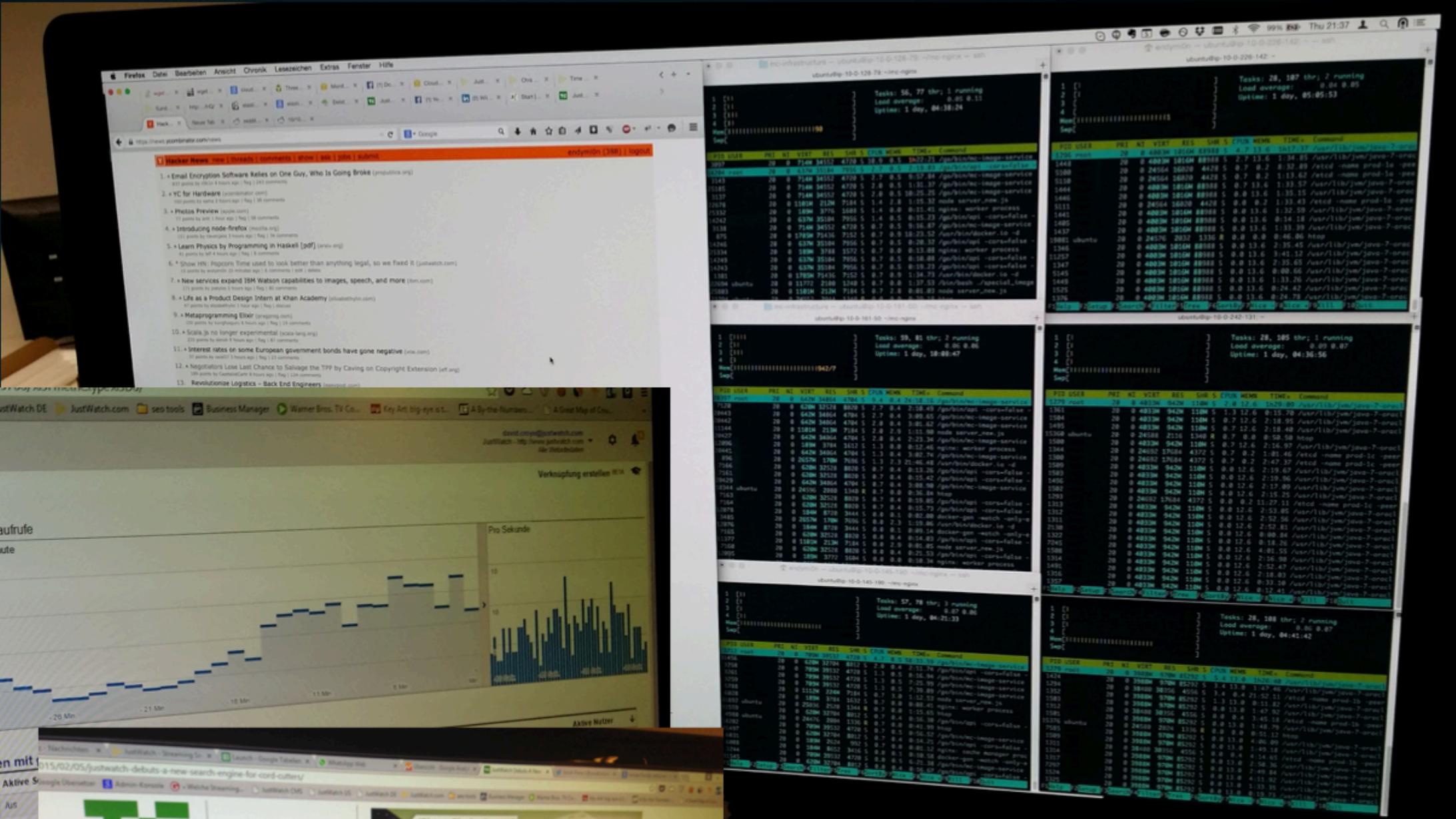
- Help Google understand your paradigms
- schema.org

Step Five: Get some Buzz

Users: OVER 9000



Server Load: AVG 3%



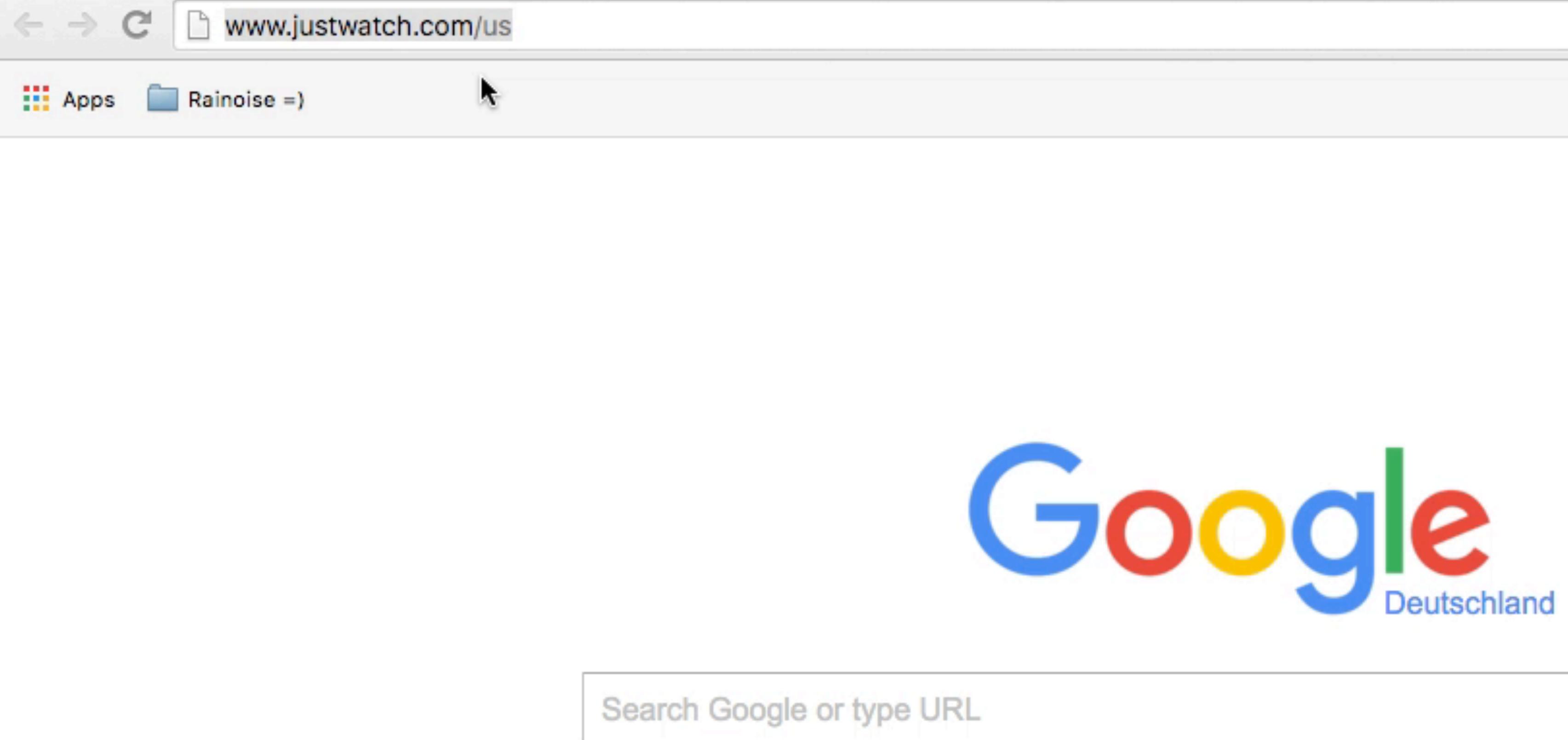
 JustWatch

So was it still worth all this hassle to
build a SPA?



Results time.

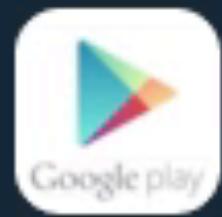
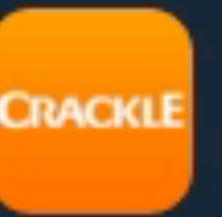
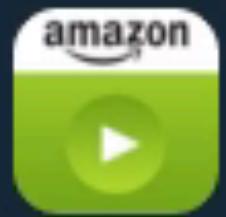
New Tab



Search Google or type URL

New and recently added movies and tv shows

Choose your favorite streaming providers and never miss when new movies or episodes of your favorite genre or release year. Our Watchbar will remember your settings.

 Movies TV Shows

FILTERS

Release year

Genres

Price

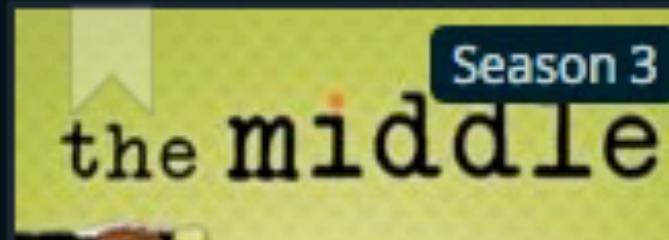
Rating

Reset

Today



175 titles



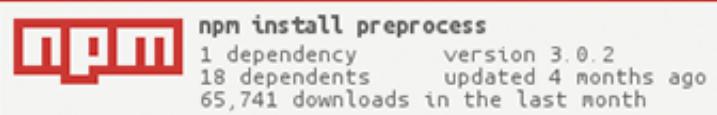
Act II



Going hybrid

★ preprocess public

Preprocess directives in HTML, JavaScript, etc directives based off variable context



Linux build passing Windows build passing coverage 98% dependencies up-to-date devDependencies up-to-date

Preprocess HTML, JavaScript, and other files with directives based off custom or ENV configuration

```
1 angular.module('mc-webapp', [  
2   // @if ENV='mobile'  
3   'ionic',  
4   'angulartics.google.analytics.cordova',  
5   // @endif  
6  
7   'ui.router',  
8   'ui.bootstrap',  
9   'pascalprecht.translate',  
10  'isoCurrency',  
11  ...  
12 ])  
13  
14 )  
15
```

Configuration

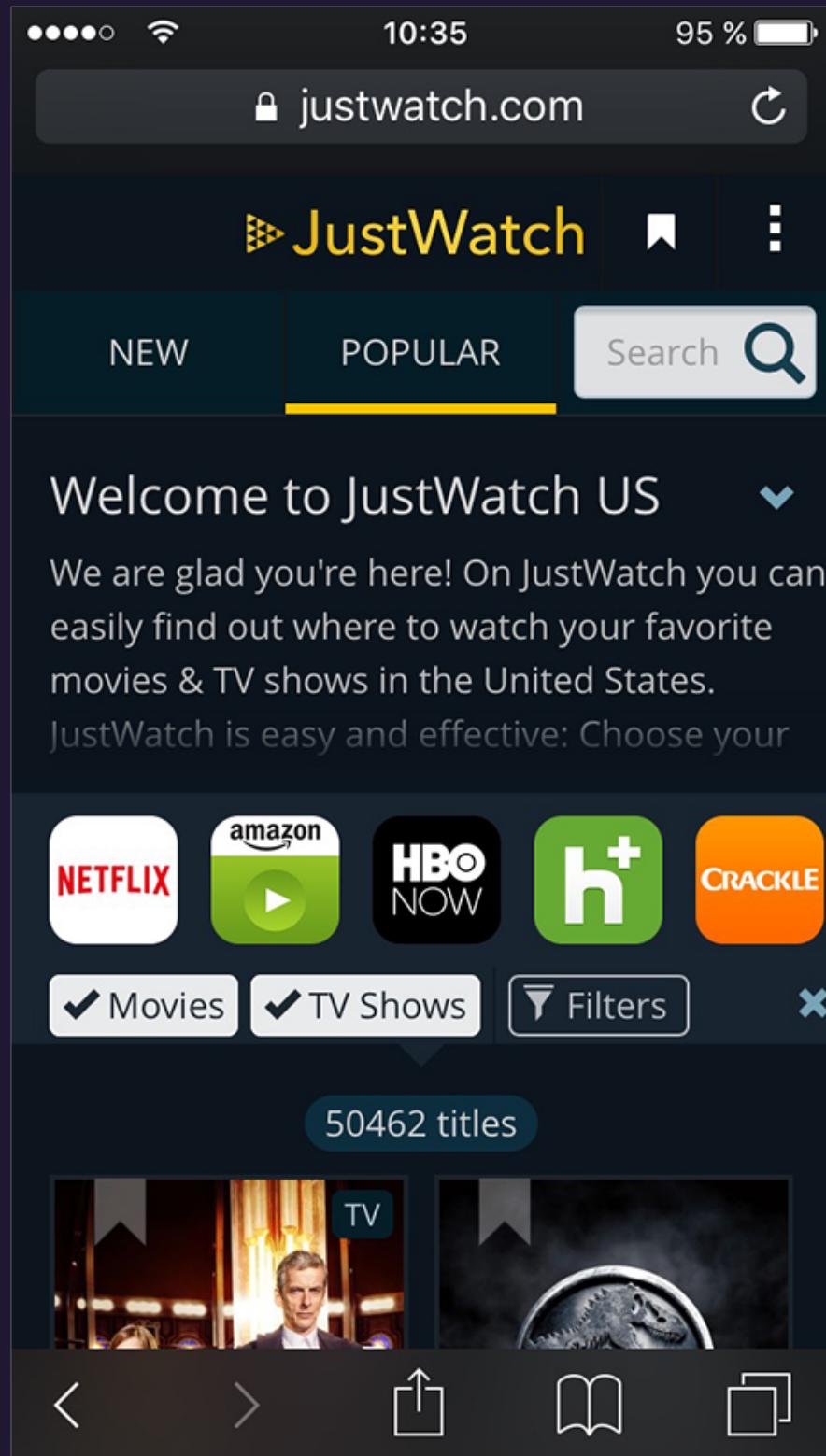
Install via npm:

```
$ npm install --save preprocess
```

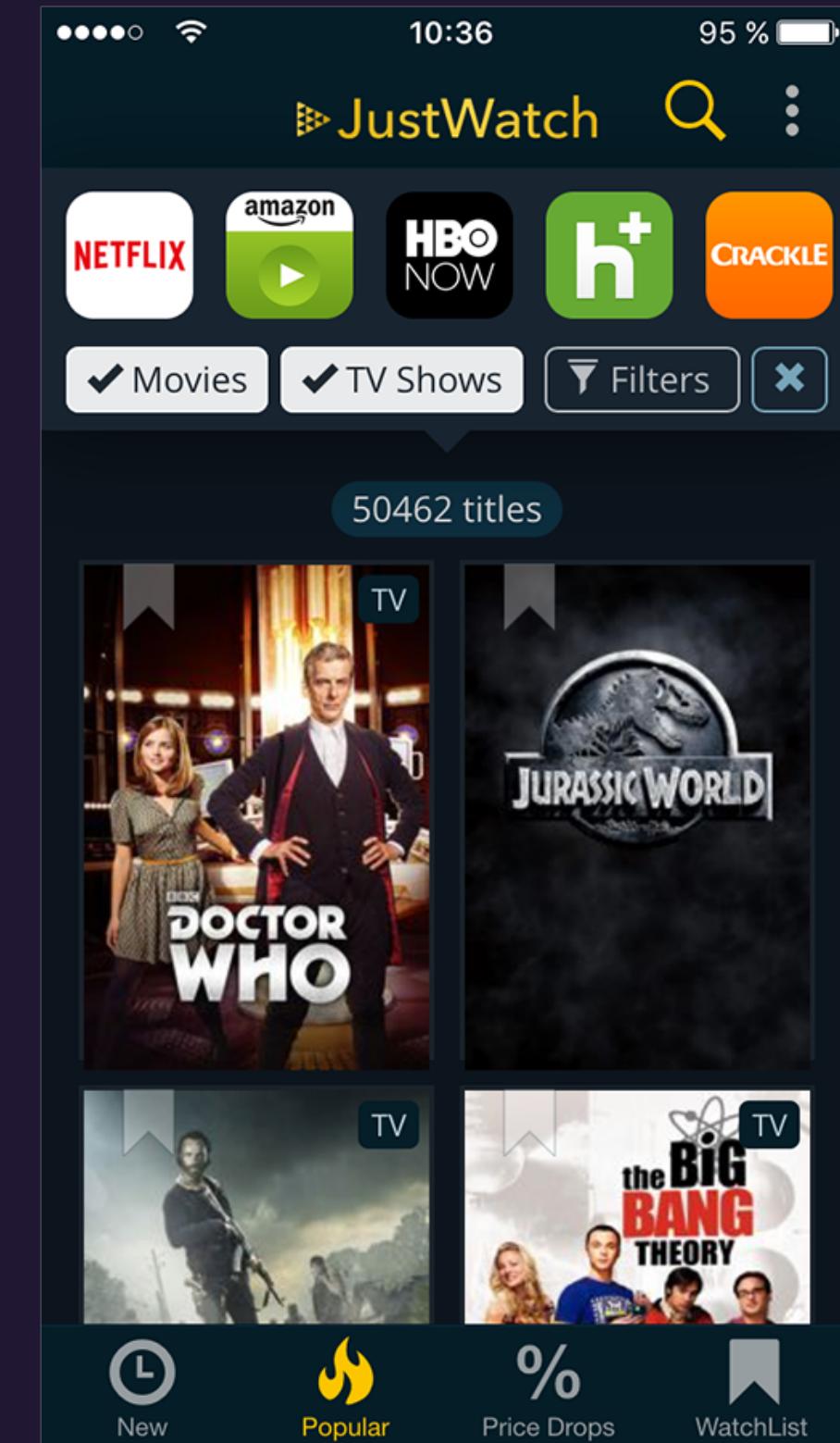
What does it look like?

```
<head>  
  <title>Your App</title>  
  
  <!-- @if NODE_ENV='production' -->  
  <script src="some/production/lib/like/analytics.js"></script>  
  <!-- @endif -->  
  
</head>  
<body>  
  <!-- @ifdef DEBUG -->  
  <h1>Debugging mode - <!-- @echo RELEASE_TAG --> </h1>  
  <!-- @endif -->  
  <p>  
    <!-- @include welcome_message.txt -->  
  </p>  
</body>
```

Web App



Hybrid App



} Safari

} Webapp Nav
(commented out)

} SEO Text
(commented out)

} Filter Bar
(same as Hybrid)

} Content Area
(same as Hybrid)

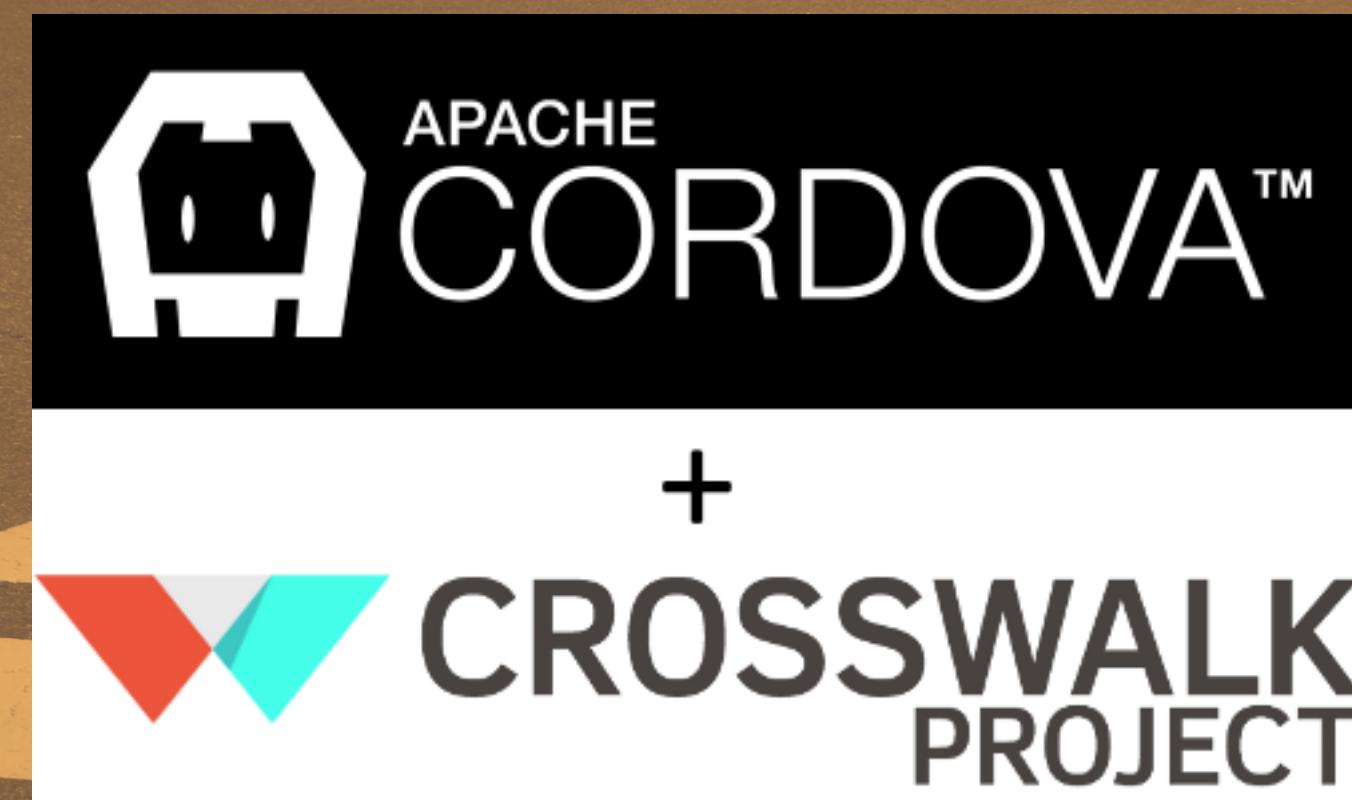
} Safari

} Ionic Native UI

} Filter Bar
(same as Web)

} Content Area
(same as Web)

} Ionic Native UI



Tips:

- Have a solid build workflow
- Use one-time bindings extensively.
- Kill watchers. Then kill some more.
- Cordova plugins (follow the stars!)
- API proxy when you have CORS issues
- Newton's law: Instant reaction (don't lock the UI)

Benefits in practice

- One single engineer can release three platforms within minutes (plus 7-14 days of iOS review...)
- Just roundabout 30% more effort per feature
- Exactly the same features, tracking, deeplinks
- Performance tweaks go back to web app
- Only drawbacks: APK size, initial setup time

Featured



Submit

A showcase of the most beautiful apps built with Ionic

[TOP APPS](#) [NEWEST](#) [ARCHIVE](#)



Viceversa

By Jonathan Widawski



Moodle Mobile

By Moodle Pty Ltd



JustWatch

By JustWatch



Songhop

By Eric Simons

Cordova App Showcase

See other apps that use Cordova

The Pacifica app icon is a green square with a white stylized "C" shape.

Pacifica - Stress and Anxiety Relief

Daily tools for stress, anxiety and depression based on Cognitive Behavioral Therapy and Mindfulness.

The Sworkit app icon is a white square with an orange stopwatch icon and the letters "SWORKIT" vertically.

Sworkit - Personal Workout Trainer

Sworkit delivers on-demand, personalized video exercises to millions of users to help them stay fit.

The FanReact app icon is a green square with a white silhouette of a person with arms raised.

FanReact - Sports Fans Social App

Sports only social app for fans to share their experiences.

The JustWatch app icon is a dark blue square with a yellow play button containing a grid of yellow triangles. Below the icon, the word "JustWatch" is written in white.

JustWatch - Streaming Search Engine

JustWatch is the easiest way to see if your favorite movies or TV shows are available on any streaming provider.

Takeaways

- SEO with single page apps isn't just possible, but can be a boon if you use it right - though they can be quite a hassle if you're not using isomorphic JS
- Hybrid Apps are viable and performant enough for a lot of use cases in 2015 - and they can peacefully coexist with a single page web app in a single repo



TL;DR: Thx!