Extending RWD with Lightweight Client-side Device Detection

JetBRAINS Dino Esposito

Responsive Web Design

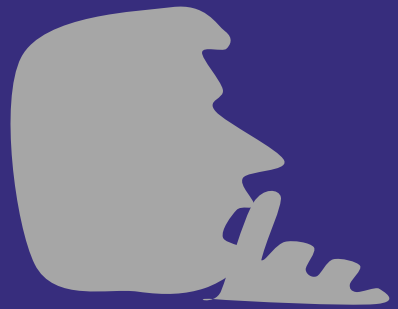
Can I Ask You a Question?

Why Do You Do RWD?

How Much Do You Care About DEVICES?

Can I Share a Secret With You?

RWD ignores devices!



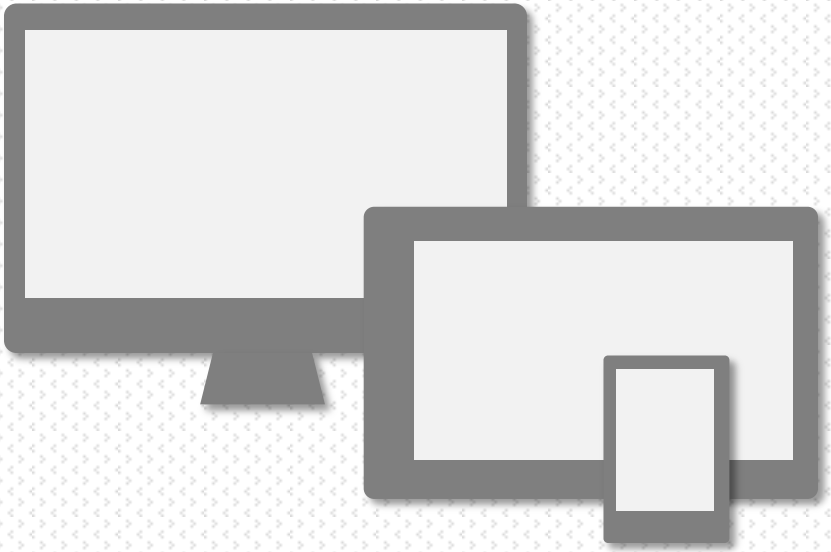
Let me give it a try...

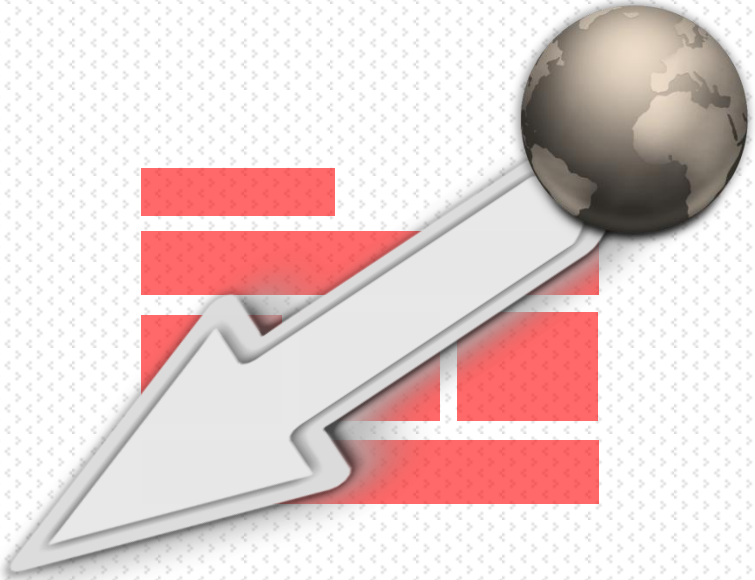
Typically...

Detecting devices is hard?

Don't do that. Be smart and let the browser do the job. Through CSS.

RWD at a Glance…





Same content downloaded to just any user agents

No distinction whatsoever

- Regardless of the requesting URL
- Regardless of the requesting user agent string
- Regardless of the hosting platform
- Regardless of the actual capabilities of the requesting device

Once the content is on the client …

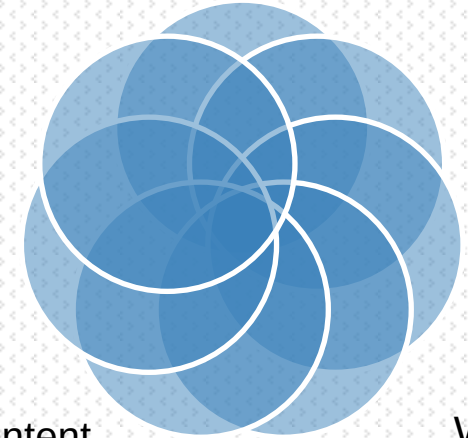
What CSS Can Do For You

Show/Hide elements

Reposition HTML elements

Playing with relative and absolute positioning

Omit height to enable vertical scrolling

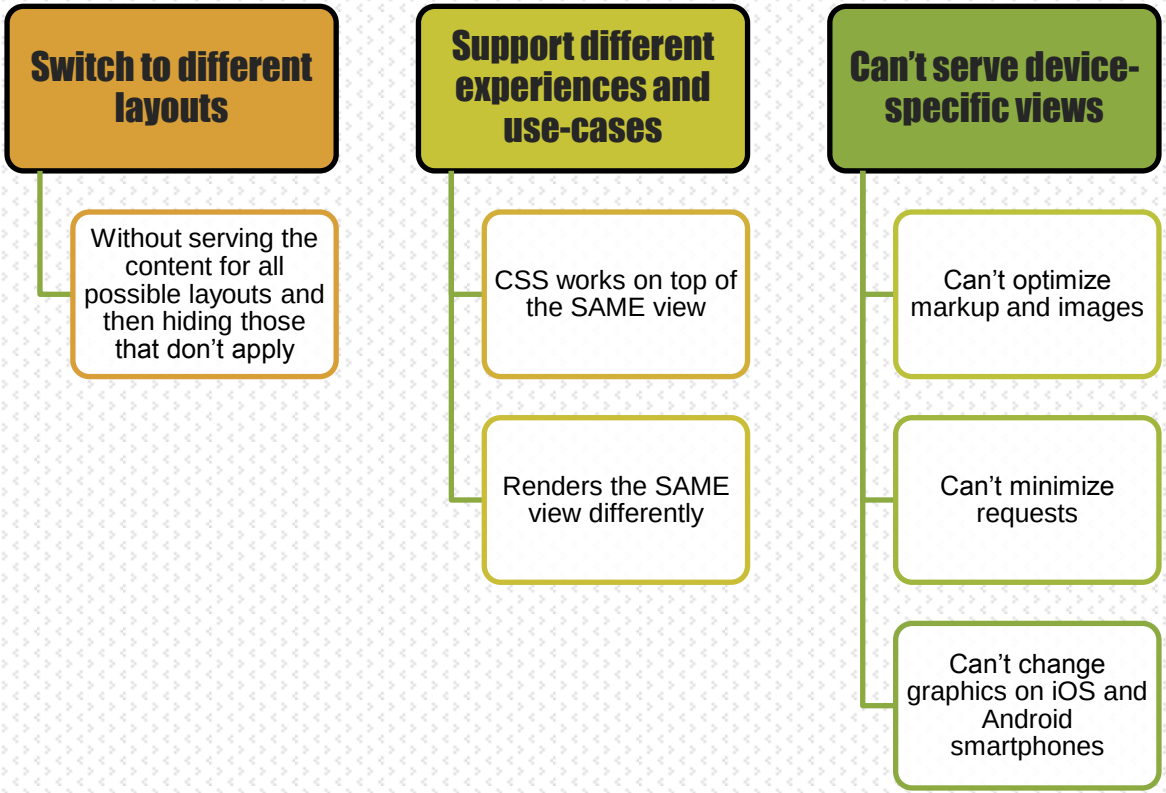


Playing with the **float** attribute

Bounce content that exceed horizontal boundaries

Width of containers as a percentage of the parent's width

What CSS Can't Do for You



- Conditional CSS style sheets
- http://www.w3.org/TR/css3-mediaqueries

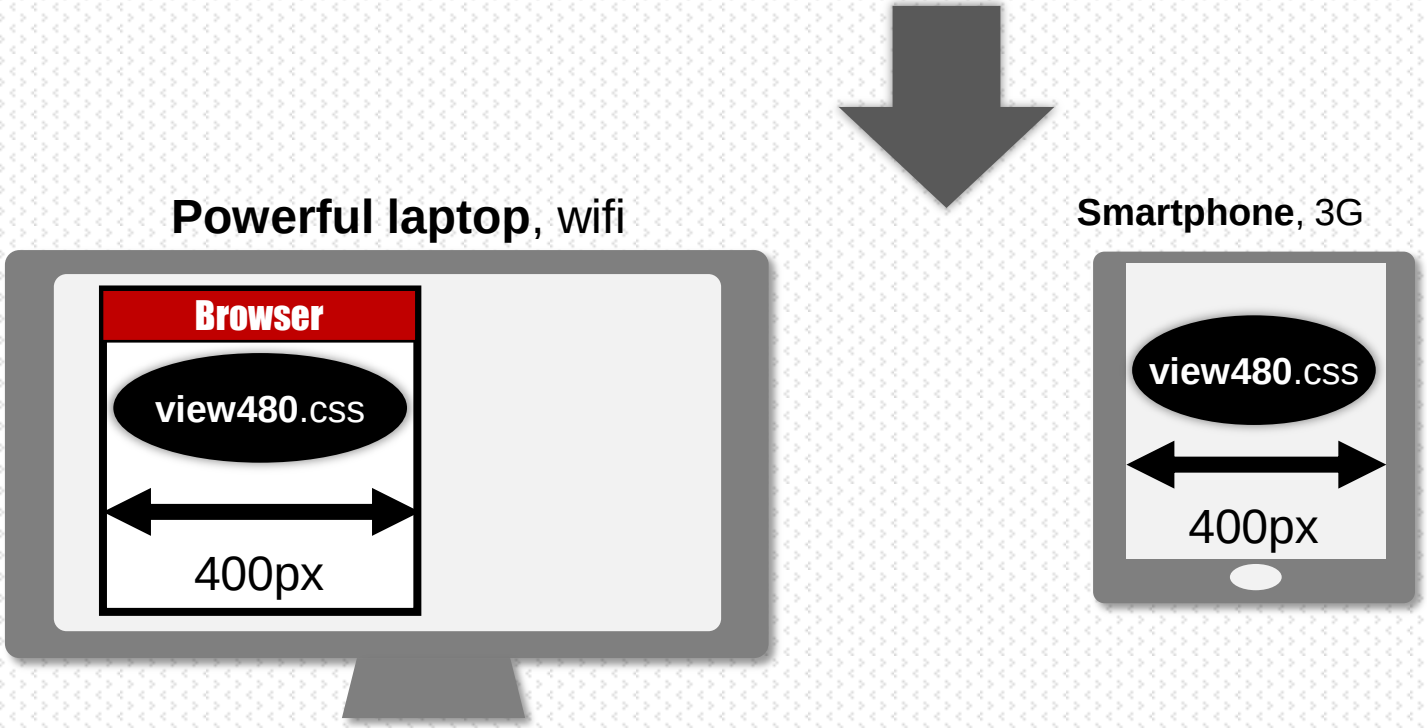
- Newer draft in the works

CSS Media Queries

```
<link type="text/css"
  rel="stylesheet"
  href="view480.css"
  media="only screen and (max-width: 480px)">

<link type="text/css"
  rel="stylesheet"
  href="view800.css"
  media="only screen and (max-width: 800px)">
```

Same amount of content

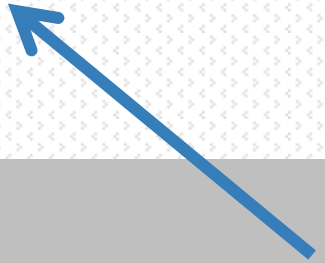


RWD Core Issues

Images

Use-cases

Pixel density for
high resolution displays



```
<picture alt="">
  <source media="(min-width: 992px)" srcset="large-1.jpg 1x, large-2.jpg 2x">
  <source media="(min-width: 640px)" srcset="med-1.jpg 1x, med-2.jpg 2x">
  <source srcset="small-1.jpg 1x, small-2.jpg 2x">
  <img src="small-1.jpg">
</picture>
```

Choose a thumbnail

WURFL Image Tailor (WIT)

- **Server-side tool** acting as a proxy
  - Detect device and resize given image appropriately
  - Can crop and resize to given dimensions
- **WIT vs. PICTURE**
  - WIT is available today: http://web.wurfl.io
  - WIT lets you focus on a single image
  - Treats smartphones differently from resized browsers

```
<img src="//wit.wurfl.io/http://www.yoursite.com/images/img.jpg">
```

WURFL.JS

- Device information injected in your code
  - Real device detection out-of-the-box
- Get to know
  - Form-factor: smartphone, tablet, desktop, Xbox
  - Operating system: iOS, Android

DEMO

http://web.wurfl.io

That's All Folks!

FOLLOW @despos

facebook.com/naa4e

dino.esposito@jetbrains.com

software2cents.wordpress.com

Copyright **Dino Esposito** 2015