

Responsive web design



Redradix School 2015





“You can’t design something if you don’t truly understand how it works.”

– Matej Latin, <http://designmodo.com/designing-browser/>



Imprenta

Gutemberg, 1440



HTML

Berners-Lee y otros, 1991

```
!DOCTYPE html
html xmlns="http://www.w3.org/1999/xhtml">
head>
<meta name="T
<meta http-equiv="Content-Type" content="text/html; charset=gb2312"/>
<meta name="keywords" content="ASP.NET, C#"/>
<meta name="description" content="A simple ASP.NET application"/>
<meta name="author" content="Administrator"/>
<meta name="discription" content="A simple ASP.NET application"/>
<meta name="copyright" content="Copyright © 2008"/>
<meta name="generator" content="Visual Studio"/>
```



Cambios

CMYK

color

RGB

tipografía

mm

dimensiones

px

Lienzo

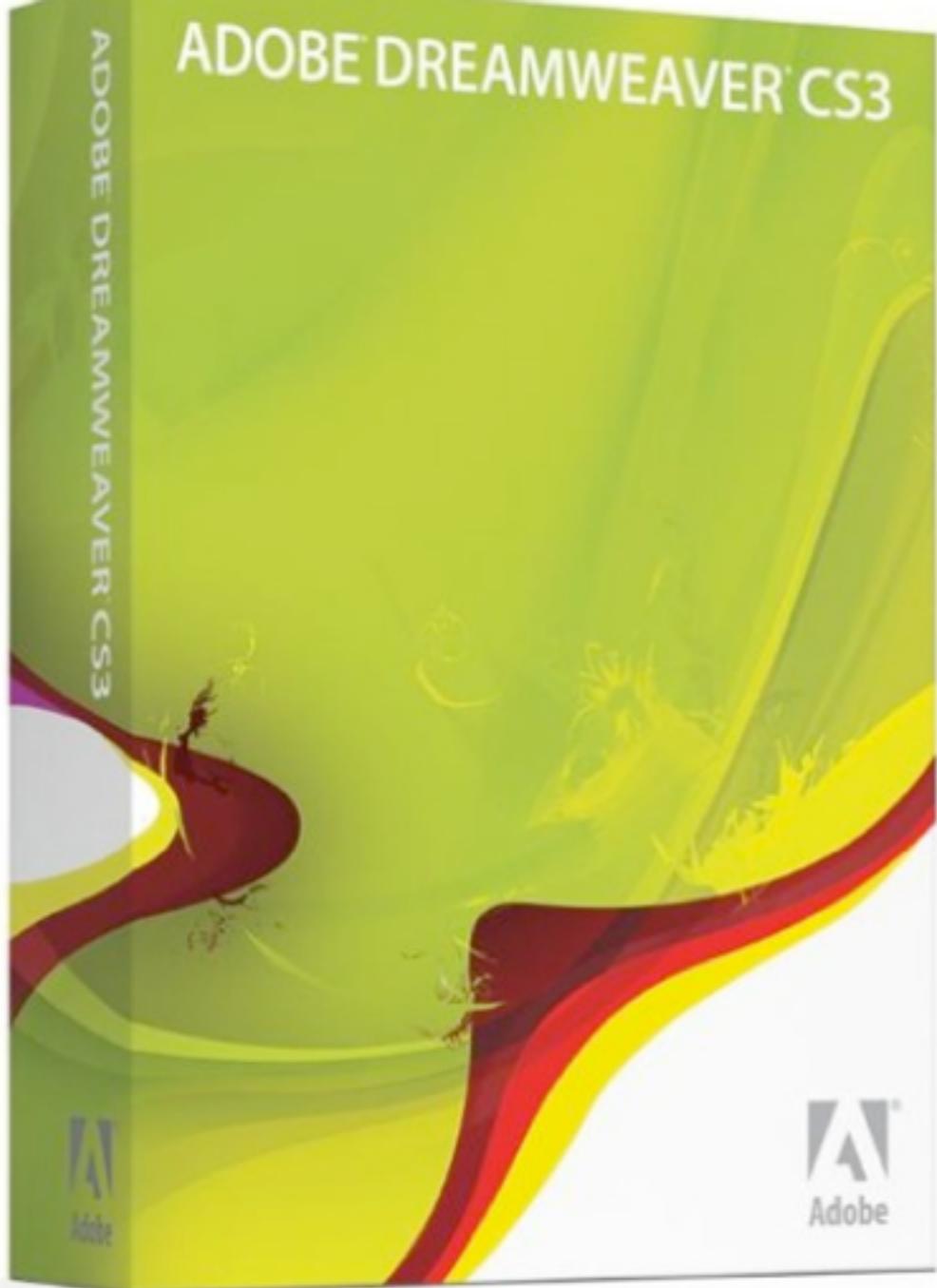
soporte

Pantalla



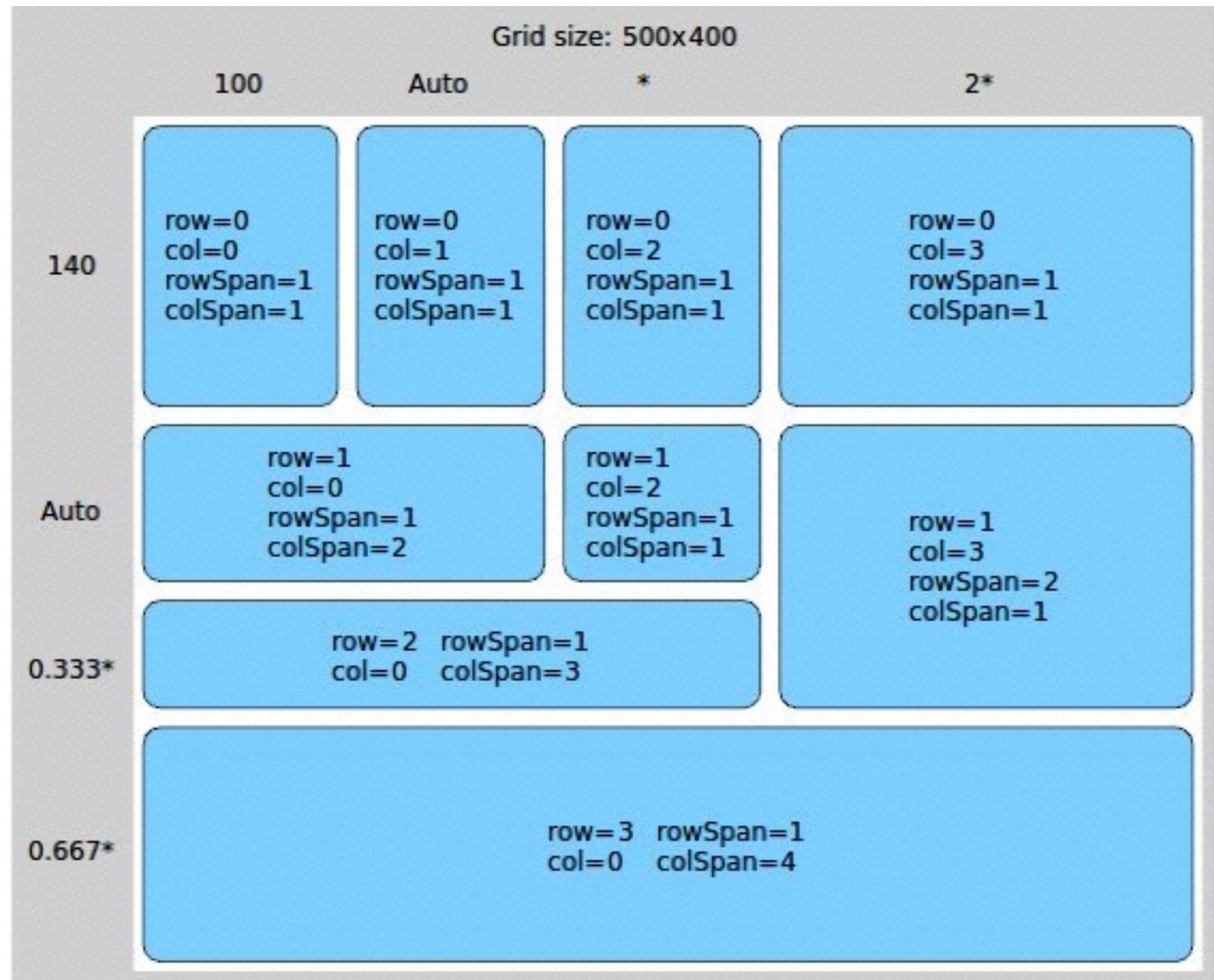
**Adaptarnos al
nuevo medio
empleando
técnicas viejas...**





WYSIWTF





Arrrrrrrggggh!!!!!!



Copiando el modelo

Pero seguimos con unas dimensiones cerradas en las que definir y estructurar el contenido

The Grid System

The ultimate resource in grid systems.

"The grid system is an aid It permits a number of personal style. But one n grid; it is an art that requ Josef Müller-Brockman

Articles

[Compose to a Vertical Rhythm](#)

On the Web, vertical rhythm is contributed to by three factors: font size, line height and margin or padding. All of these factors must be calculated with care in order that the rhythm is maintained.

04.Dec.2008

[Incremental leading](#)

In editorial design, there is a technique used for sidenotes and boxouts that aligns to the baseline grid, or vertical rhythm. It's called incremental leading.

03.Dec.2008

[Applying Divine Proportion to Your Web Designs](#)

This article explains what

Tools

[960 Grid System](#)

An effort to streamline web development workflow by providing commonly used dimensions, based on a width of 960 pixels. There are two variants: 12 and 16 columns, which can be used separately or in tandem.

04.Dec.2008

[Graph Paper by Konigi](#)

This graph paper is made for visual designers, interaction designers, and information architects. You'll find styles for wireframing, story boarding, plotting values and for drafting sitemaps.

03.Dec.2008

[Syncotype](#)

Syncotype is a simple tool to help align your text to a baseline grid. Enter your

Books

[Geometry of Design](#)

The book focuses on the classic systems of proportioning, such as the golden section and root rectangles, as well as systems such as the Fibonacci Series.

04.Dec.2008

[The Typographic Grid](#)

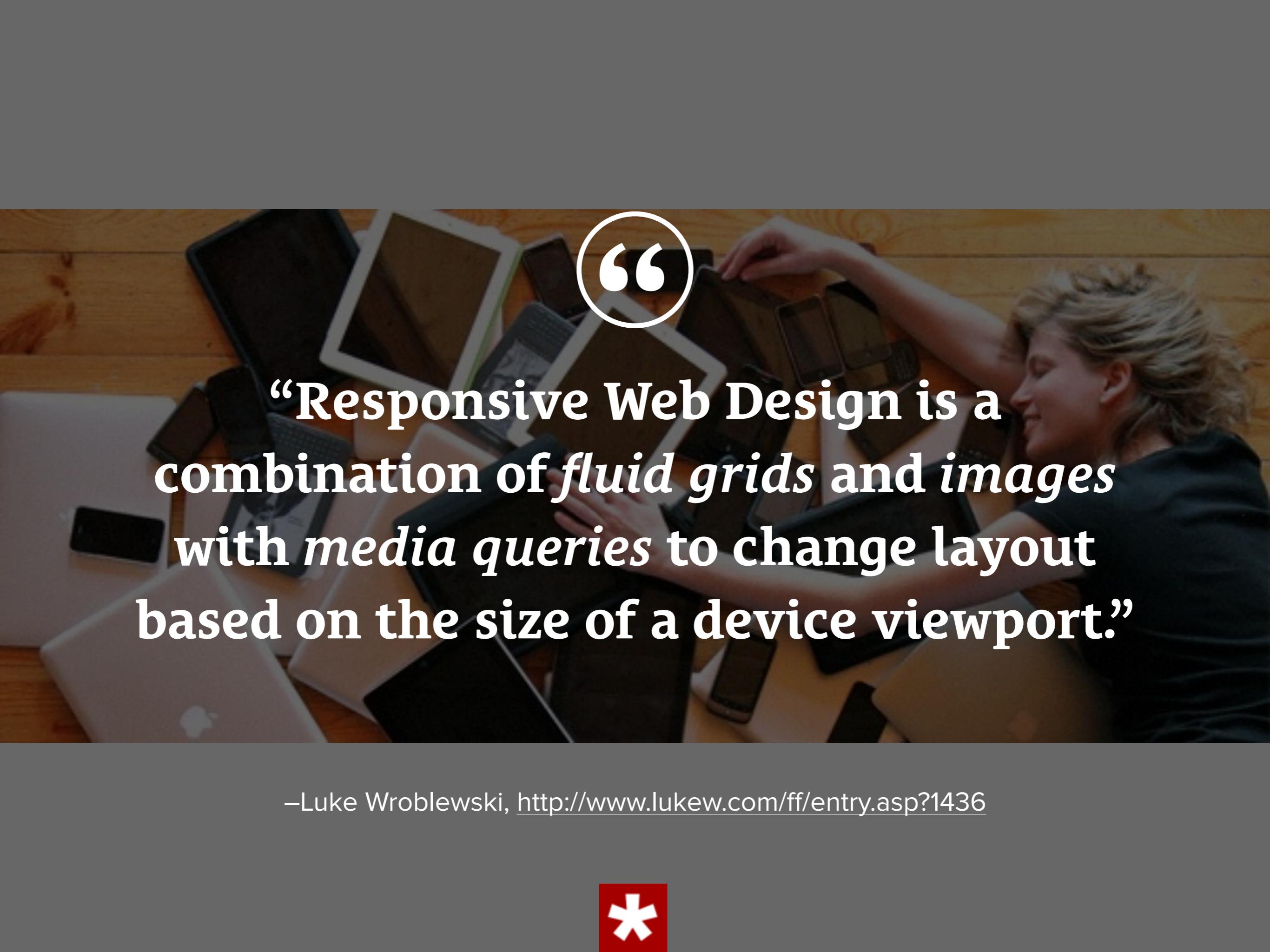
We consider this to be the academic part two to "Grid Systems." Hans Rudolf Bosshard tackles a deep understanding of the complex grid.

30.Nov.2008



**Adaptarnos a
todos los medios
empleando
técnicas nuevas**



A photograph of a woman with blonde hair, wearing a dark t-shirt, sitting at a light-colored wooden table. She is looking down at a stack of several mobile devices, including smartphones and tablets, which are arranged in a somewhat haphazard pile. The devices have various screens on, showing different content. The background is slightly blurred.

“

“Responsive Web Design is a combination of *fluid grids* and *images* with *media queries* to change layout based on the size of a device viewport.”

—Luke Wroblewski, <http://www.lukew.com/ff/entry.asp?1436>



responsive web design



UX London 2013, @uvmwebteam





**Pero antes de nada,
un pequeño secreto...**

(Y que nadie se entere o la liamos)





“There Is No Mobile Web”

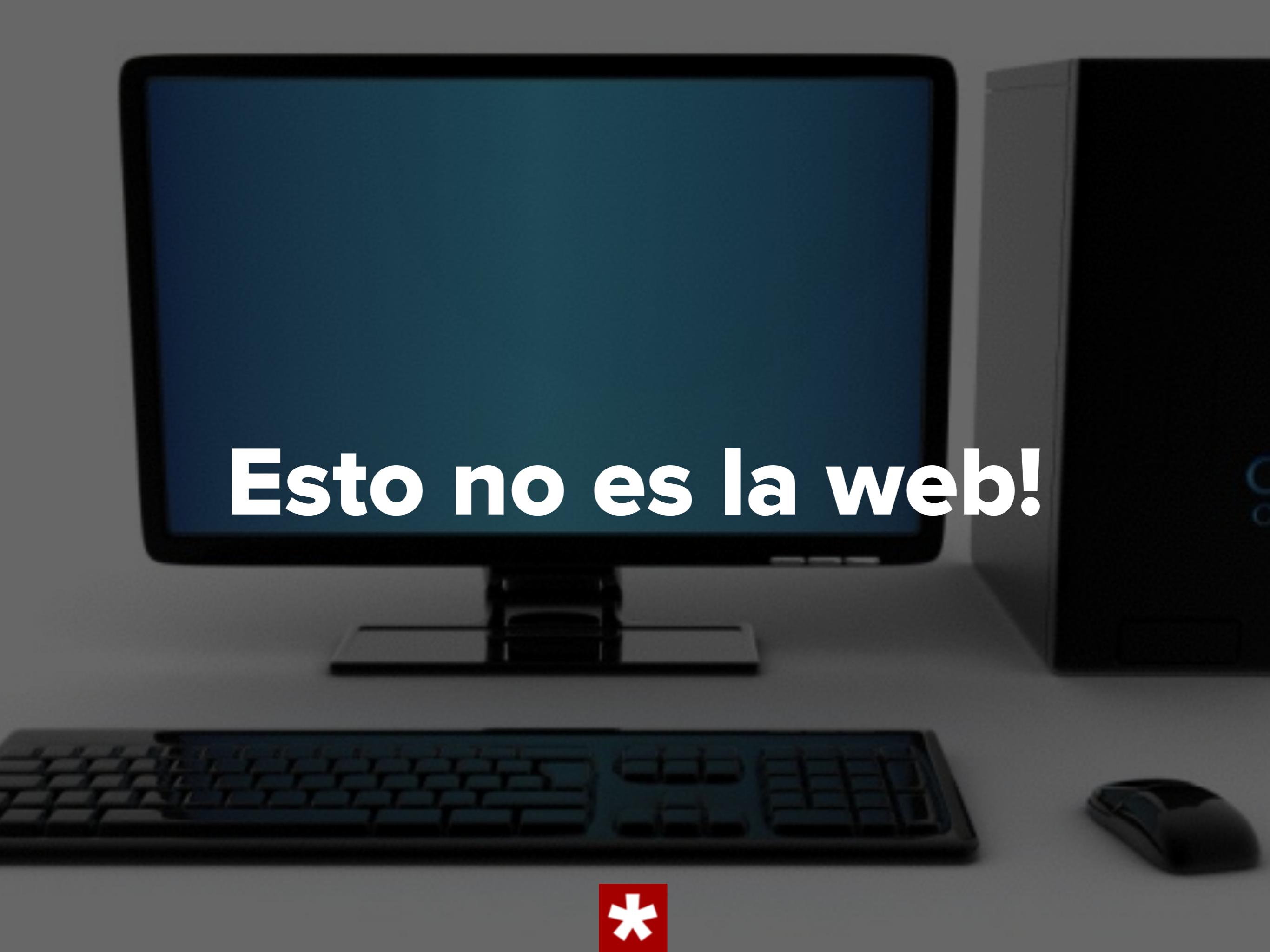
– Jeremy Keith, <https://adactio.com/articles/5826>





WTF?

*



Esto no es la web!





Esto es la web!





Esto será la web



**¡No existe
la web
mobile!**



Tres conceptos:

responsive web design

adaptive web design

progressive enhancement

- Trent Walton, <http://trentwalton.com/2014/03/10/device-agnostic/>



Responsive



Adaptive

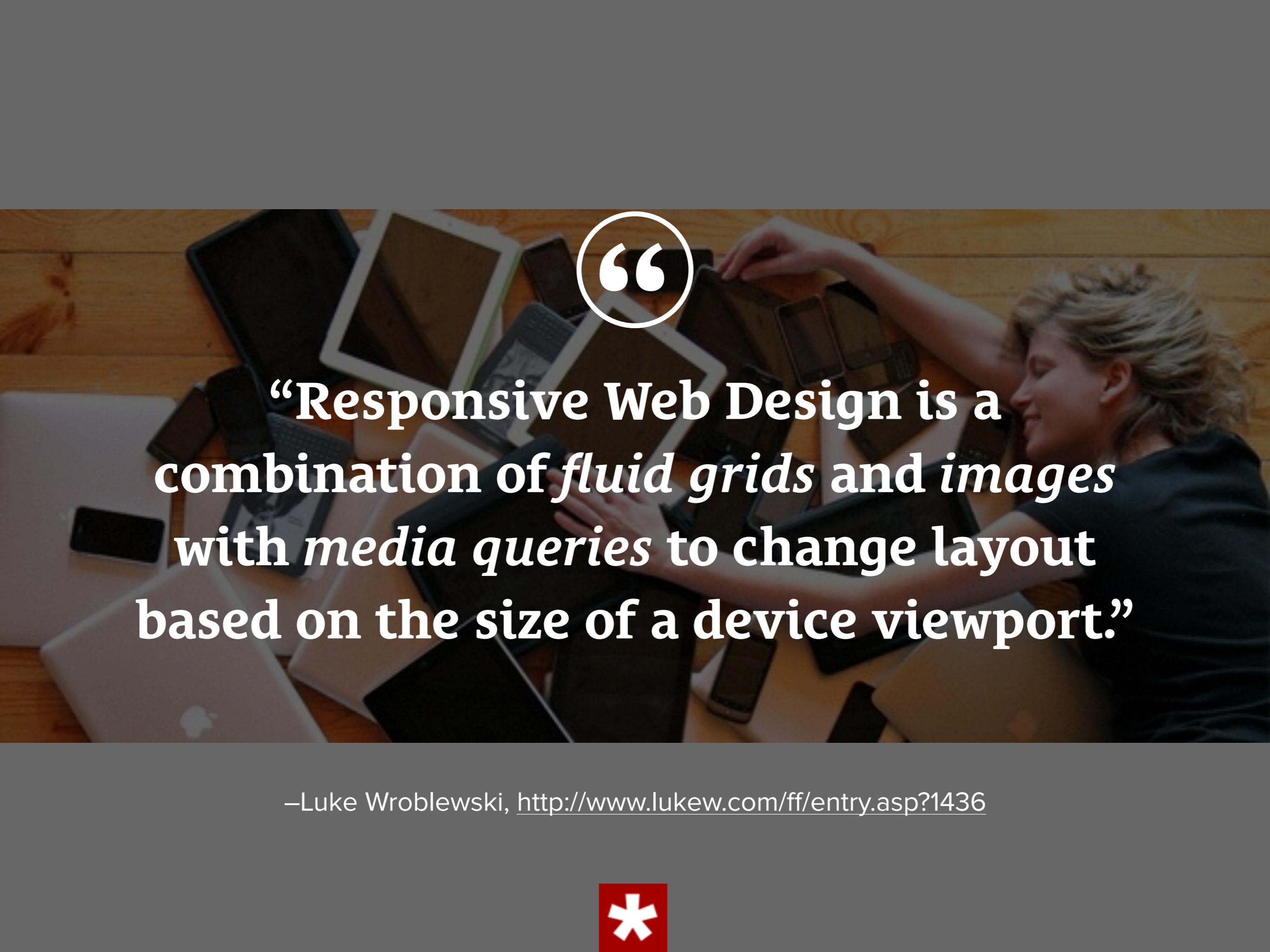


Responsive - Adaptive

Dos aproximaciones diferentes, las dos complementarias



@froontapp

A photograph of a woman with blonde hair, wearing a dark t-shirt, sitting at a light-colored wooden table. She is looking down at a stack of several mobile devices, including smartphones and tablets, which are arranged in a somewhat haphazard pile. The devices have various screens on, showing different content. The background is slightly blurred.

“

“Responsive Web Design is a combination of *fluid grids* and *images* with *media queries* to change layout based on the size of a device viewport.”

—Luke Wroblewski, <http://www.lukew.com/ff/entry.asp?1436>





Estructura fluida

Medios flexibles

Tipografías

MediaQueries

Viewport





CSS Estructura fluida

CSS Medios flexibles

CSS Tipografías

CSS MediaQueries

HTML Viewport





“Responsive design is **not** about “designing for mobile.” But it’s **not** about “designing for the desktop,” either. Rather, it’s about adopting a more **flexible, device-agnostic** approach to designing for the web.”

– Ethan Marcotte, <http://unstoppablerobotninja.com/entry/toffee-nosed/>



Device agnostic

Navegadores hostiles

Pantallas diminutas

Velocidades reducidas

Input Táctil

- Trent Walton, <http://trentwalton.com/2014/03/10/device-agnostic/>



Navegadores hostiles

Intentar hacer que todos los websites sean iguales en cada navegador es irrealista. Pero debemos aceptar que el uso de un navegador es siempre una decisión deliberada del usuario.

@TrentWalton



Pantallas diminutas

Ya que las ventas de smartphones y tabletas han superado a las de ordenadores, hay que considerar las pantallas “pequeñas” desde el primer momento del proceso de diseño.

@TrentWalton



A close-up photograph of a snail's head and shell against a dark background. The snail has a large, brownish-gold shell with prominent spiral ridges. Its body is a textured, mottled green-brown color. Two long, thin antennae extend from its head. The lighting highlights the texture of the shell and the body.

Velocidades reducidas

Las páginas lentas pierden usuarios. Punto



Input táctil

No hay correlación entre el tamaño de la pantalla y el método de input.

Debemos adoptar una filosofía “fat finger first” en nuestros diseños.

@TrentWalton



Mobile First!



**¡No existe
la web
mobile!**



Mobile first!
Content first!





Múltiples formatos el mismo contenido





Content first!

La visualización del contenido adaptada a cada posible
interfaz/dispositivo



Estructura: content-first

Claridad
Semántica
Rendimiento
Accesibilidad
Escalable

Estilo: mobile-first

Compartido primero
Menos código
Mantenible
Escalable

– Brad Frost, <http://bradfrost.com/blog/mobile/the-many-faces-of-mobile-first/>



Por dónde empezar



– Brad Frost, <http://bradfrost.com/blog/mobile/the-many-faces-of-mobile-first/>



Mobile first: de lo básico a lo complejo



```
/* Small (default) */

.columna {
    width: 100%;
    float: none;
    font-size: 1em;
}
```



```
/* Large (a partir de 1024px) */

@media (min-width: 64rem) {
    .columna {
        width: 50%
        float: left;
        font-size: 2em;
    }
}
```



9 principios básicos de responsive web design



Desktop first



Mobile first



Mobile first



@froontapp

Responsive



Adaptive



Responsive - Adaptive

Dos aproximaciones diferentes, las dos complementarias



@froontapp

Flow



Static

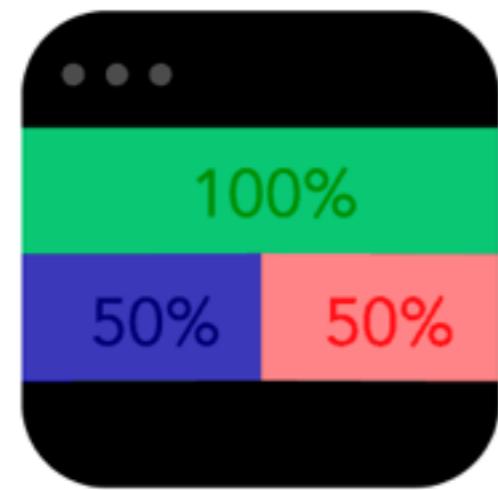


Ritmo



@froontapp

Relative Units



Static Units



Unidades relativas



@froontapp

px alto de la letra en pixeles CSS

em relativo al tamaño de fuente del elemento padre. 1em vale diferente según el contexto.

rem relativo al tamaño de fuente del elemento <html>. 1rem siempre vale lo mismo en todo el documento.



vw

vw: 1/100th viewport width

vh

vh: 1/100th viewport height

min

vmin: 1/100th del lado menor

vmax

vmax: 1/100th del lado mayor

Nota: IE9 usa vm como vmin. No soporta vmax.



Max width



No max width



Max y Min



@froontapp

```
/* Small screens (default) */

html { font-size: 100%; }

.page {

    width: 90%;

    max-width: 64rem;

}

/* Large screens (1024px) */

@media (min-width: 64rem) {

    html { font-size: 120%; }

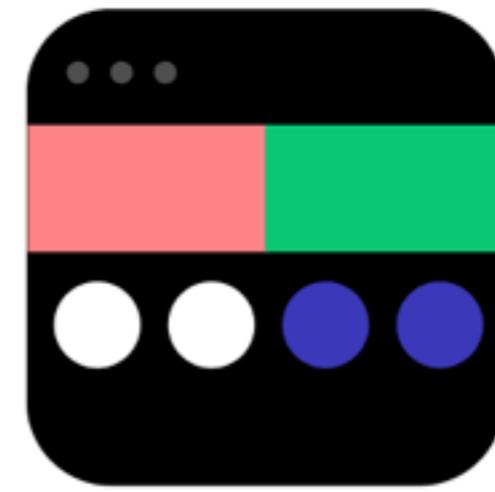
}
```



With Breakpoints



Without Breakpoints



Puntos de corte



[@froontapp](https://froontapp.com)

```
/* palm: for handheld devices (699px) */
@media only screen and (max-width: 43.749375em) {
    .main-header { background-color: #1AACF4; }
}

/* laptop: for tablets and netbooks and the like (700px-969px) */
@media only screen and (min-width: 43.75em) and (max-width: 60.624375em) {
    .main-header { background-color: #009045; }
}

/* desktop: for anything big enough to be deemed stationary (970px) */
@media only screen and (min-width: 60.625em) {
    .main-header { background-color: #bf0411; }
}

/* wide desktop: bigger displays (1140px) */
@media only screen and (min-width: 71.25em) {
    .main-header { background-color: #8d030d; }
}
```



Nested



Not Nested



Elementos anidados



[@froontapp](https://froontapp.com)

```
<html>  
  <body>  
    <div class="page-wrapper">  
      <header class="main-header"></header>  
      <div class="main-content"></div>  
      <footer class="main-footer"></footer>  
    </div>  
  </body>  
</html>
```



System fonts



Webfonts



Webfonts



@froontapp

```
@font-face {  
    font-family: "Century";  
    src: url('../fonts/Century-Regular.eot'); /*IE9 Compat Modes*/  
  
    src: url('../fonts/Century-Regular.eot?#iefix') format('embedded-  
opentype'), /* IE6-IE8 */  
  
    url('../fonts/Century-Regular.woff2') format('woff2'), /* Super Modern  
Browsers */  
    url('../fonts/Century-Regular.woff') format('woff'), //Pretty Modern  
Browsers  
    url('../fonts/Century-Regular.ttf') format('truetype'), //Safari,  
Android 2.2+, iOS  
  
    url('../fonts/Century-Regular.svg#Century') format('svg'); //Legacy iOS  
font-weight: normal;  
font-style: normal;  
font-stretch: normal;  
}  
*
```

```
@font-face {  
    font-family: "Century";  
    src:  
        url('../fonts/Century-Regular.woff') format('woff'),  
        /* Chrome 6+, Firefox 3.6+, IE 9+, Safari 5.1+, Andorid 4.4 */  
  
        url('../fonts/Century-Regular.ttf') format('truetype'),  
        /* Chrome 4+, Firefox 3.5, Opera 10+, Safari 3–5, Android 2.2+ */  
  
    font-weight: normal;  
    font-style: normal;  
    font-stretch: normal;  
}
```



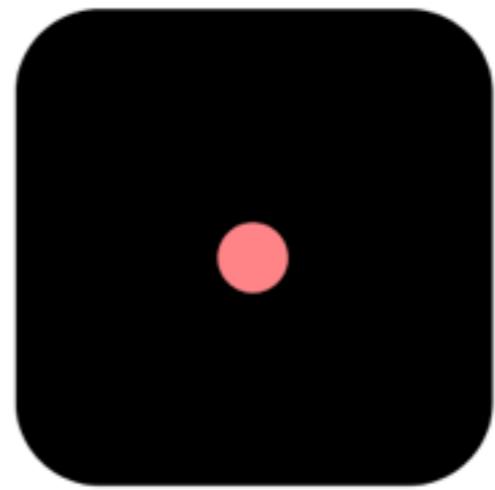
```
html {  
    font-size: 100%; /*16px*/  
}  
  
body {  
    font-size: 16px;  
    font-size: 1rem;  
    font-family: Century, Arial, sans;  
}  
  
  
p {  
    font-weight: normal;  
}  
  
  
h1,h2,h3,h4 {  
    font-weight: bold;  
}
```



Vectors



Images



Vectores vs Bitmaps



@froontapp

A photograph showing the lower bodies of several athletes in starting blocks on a running track. They are wearing athletic shoes and socks. The track has white lane markings on a red surface.

Comenzando





No todos los navegadores fueron creados iguales...

```
<link rel="stylesheet" href="/css/normalize.css">  
<link rel="stylesheet" href="/css/styles.css">
```



normalize.css

<http://necolas.github.io/normalize.css/>

```
/*-----*\n$NORMALIZE\n\*-----*/\narticle,\naside,\ndetails,\nfigcaption,\nfigure,\nfooter,\nheader,\nhgroup,\nnav,\nsection,\nsummary {\n    display: block; }\n\n* {\n    -webkit-box-sizing: border-box;\n    -moz-box-sizing: border-box;\n    box-sizing: border-box; }\n\nhtml {\n    font-family: sans-serif;\n    -webkit-text-size-adjust: 100%;\n    -ms-text-size-adjust: 100%; }\n\nbody {\n    margin: 0; }
```





Enemigo a la vista!

```
<!--[if lt IE 7]>
  <html class="no-js lt-ie9 lt-ie8 lt-ie7"> <![endif]-->
<!--[if IE 7]>
  <html class="no-js lt-ie9 lt-ie8"> <![endif]-->
<!--[if IE 8]>
  <html class="no-js lt-ie9"> <![endif]-->
<!--[if gt IE 8]> <html class="no-js"> <!--<![endif]-->
<html class="no-js"> <!--<![endif]-->
```





Detectando ‘features’

```
<html class=" svg no-ie8compat svgfilters video cssgradients opacity  
cssremunit rgba placeholder inlinesvg supports svgforeignobject smil  
fontface mediaqueries textshadow backgroundsize borderradius  
cssanimations bgsizecover boxshadow cssfilters flexboxlegacy no-  
flexboxtweener csstransforms csstransforms3d csstransitions" >
```



https://modernizr.com/



```
.modal {  
  box-shadow: 1px 2px 3px black;  
}  
  
/*html*/.no-boxshadow {  
  border-bottom: 3px solid gray;  
}
```





Viewport Meta tag

```
<meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">  
<meta name="viewport" content="width=device-width,initial-scale=1">
```



```
<head>

<meta charset="utf-8">

<title>Responsive Design demo 1</title>

<meta name="description" content="">

<meta http-equiv="X-UA-Compatible"
content="IE=edge,chrome=1">

<meta name="viewport" content="width=device-
width,initial-scale=1">

<link rel="stylesheet" href="/css/normalize.css">
<link rel="stylesheet" href="/css/styles.css">

</head>
```

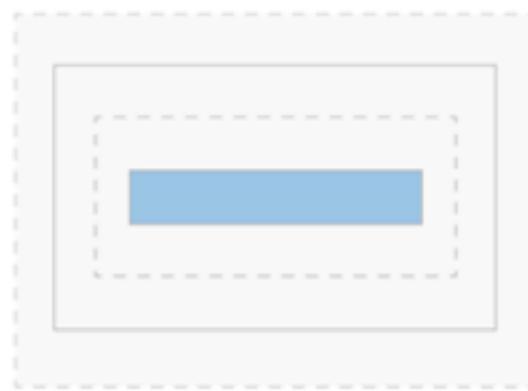




box-sizing: box-model

```
* , *:before, *:after {  
    -moz-box-sizing: border-box;  
    -webkit-box-sizing: border-box;  
    box-sizing: border-box;  
}
```

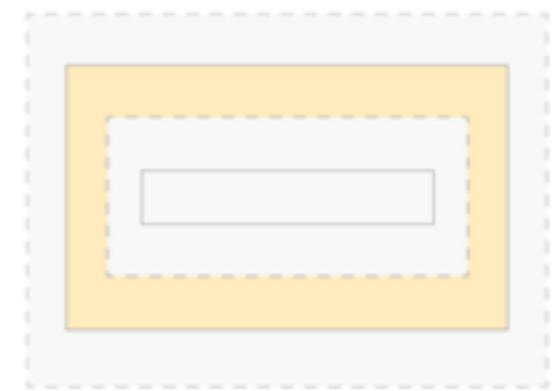




Content



Padding

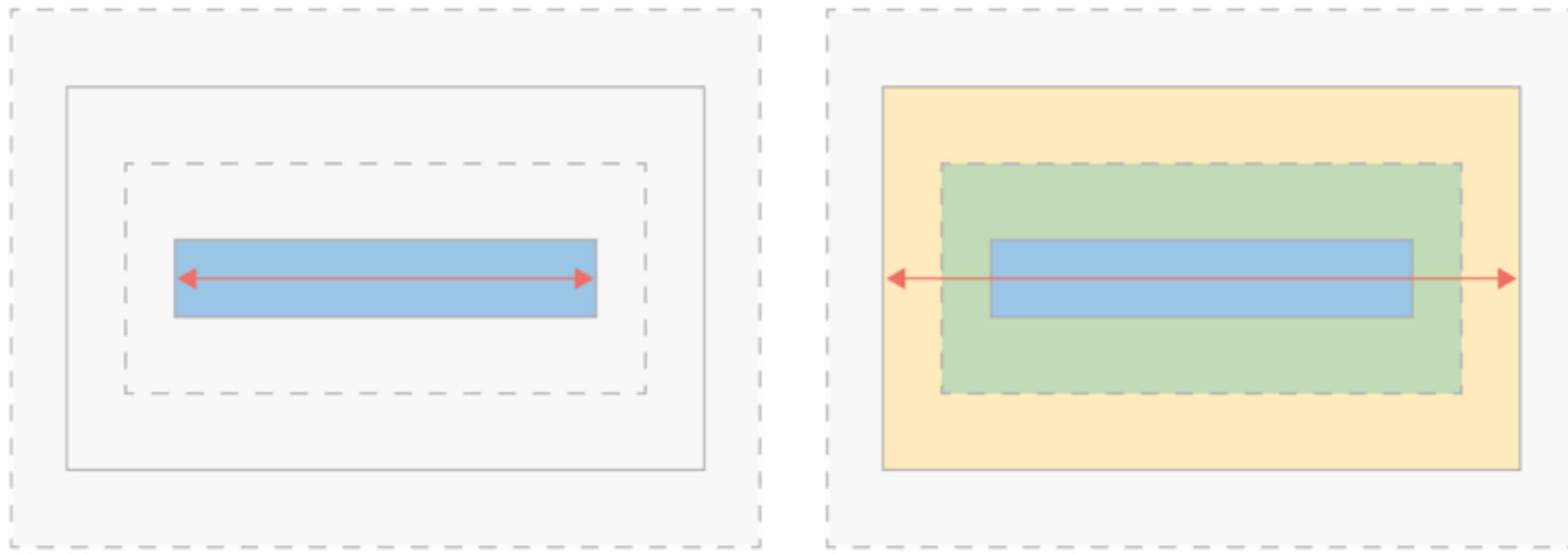


Border



Margin







Crea un contenedor

```
.page-wrapper {  
    margin: 0 auto;  
    max-width: 48rem;  
    width: 90%;  
}
```



```
<html>  
  <body>  
    <div class="page-wrapper">  
      <header class="main-header"></header>  
      <div class="main-content"></div>  
      <footer class="main-footer"></footer>  
    </div>  
  </body>  
</html>
```





Columnas

```
<div class="container">  
  <div class="column">  
    <!-- Aquí va el contenido -->  
  </div>  
</div>
```



```
<html>  
  <body>  
    <div class="page-wrapper">  
      <header class="main-header"></header>  
      <div class="main-content">  
        <div class="column"></div>  
      </div>  
      <footer class="main-footer"></footer>  
    </div>  
  </body>  
</html>
```





Ancho de columnas

```
<div class="container">  
    <div class="column half"></div>  
    <div class="column half"></div>  
</div>
```

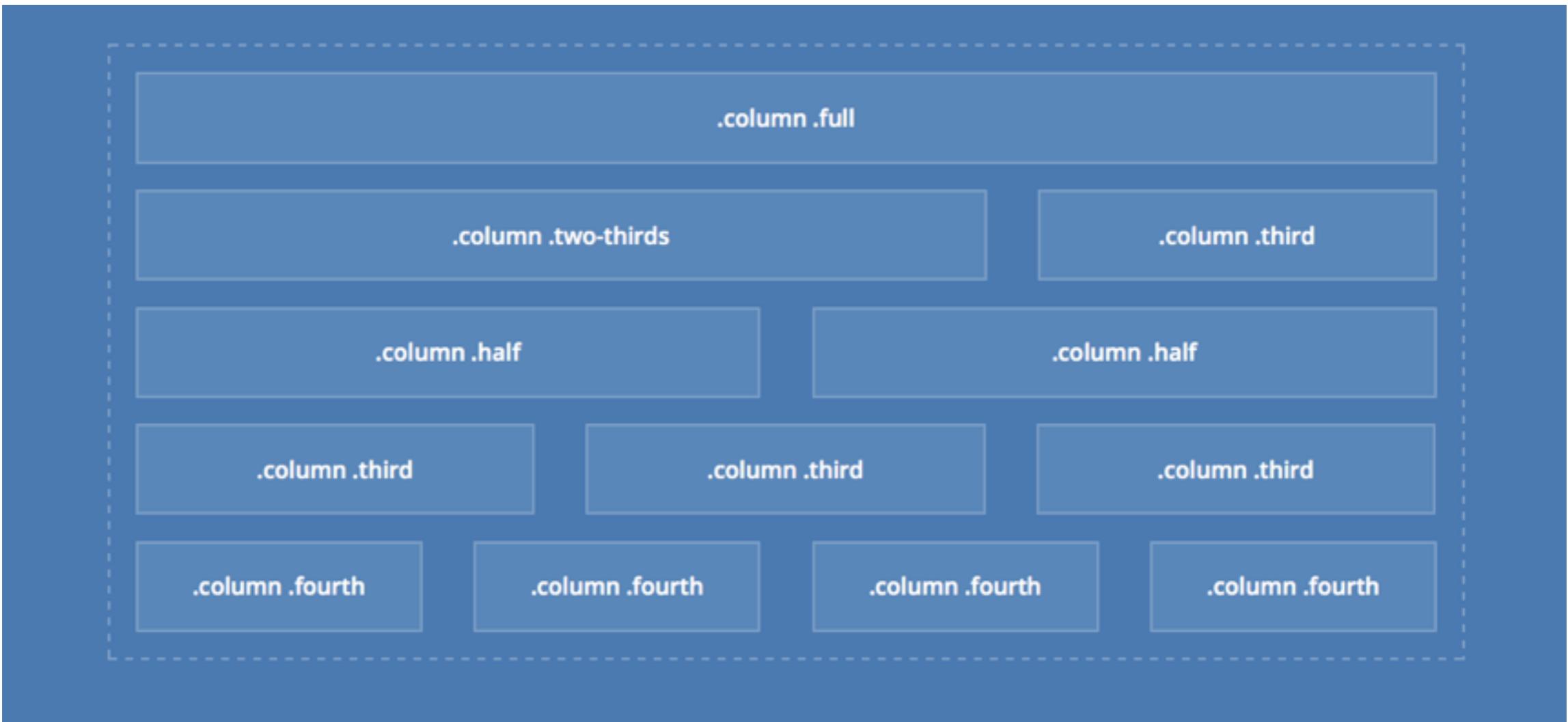


```
<html>  
  <body>  
    <div class="page-wrapper">  
      <header class="main-header"></header>  
      <div class="main-content">  
        <div class="column half"></div>  
        <div class="column half"></div>  
      </div>  
      <footer class="main-footer"></footer>  
    </div>  
  </body>  
</html>
```



```
@media (min-width: 40rem) {  
  .column {  
    float: left;  
    padding-left: 1rem;  
    padding-right: 1rem;  
  }  
  .column.full { width: 100%; }  
  .column.two-thirds { width: 66.7%; }  
  .column.half { width: 50%; }  
  .column.third { width: 33.3%; }  
  .column.fourth { width: 25%; }  
  .column.flow-opposite { float: right; }  
}
```







Filas

```
<div class="container">  
    <div class="column half"></div>  
    <div class="column half"></div>  
</div>
```



```
<html>  
  <body>  
    <div class="page-wrapper">  
      <header class="main-header"></header>  
      <div class="main-content">  
        <div class="row clearfix">  
          <div class="column half"></div>  
          <div class="column half"></div>  
        </div>  
        <div class="row clearfix">  
          <div class="column half"></div>  
          <div class="column half"></div>  
        </div>  
      </div>  
      <footer class="main-footer"></footer>  
    </div>  
  </body>  
</html>
```

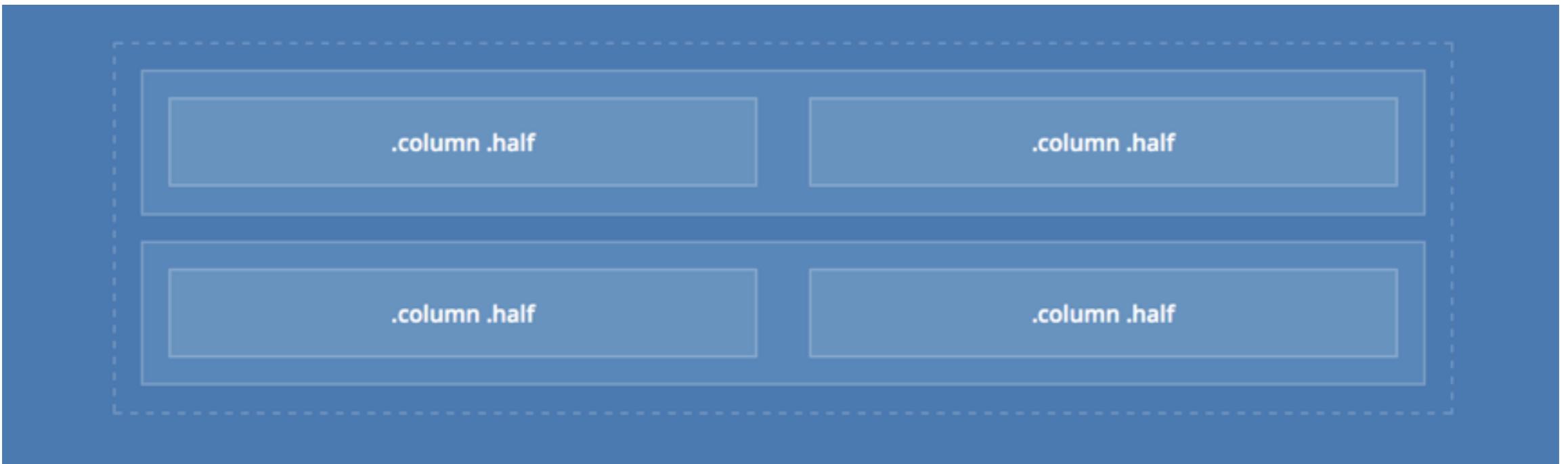


```
.clearfix:before,  
.clearfix:after {  
content: " ";  
display: table;  
}
```

```
.clearfix:after {  
clear: both;  
}
```

```
.clearfix {  
*zoom: 1;  
}
```







Cambia el flujo

```
<div class="container">  
    <div class="column half flow-opposite"></div>  
    <div class="column half"></div>  
</div>
```



```
<html>
  <body>
    <div class="page-wrapper">
      <header class="main-header"></header>
      <div class="main-content">
        <div class="row clearfix">
          <div class="column half flow-opposite"></div>
          <div class="column half"></div>
        </div>
        <div class="row clearfix">
          <div class="column half"></div>
          <div class="column half"></div>
        </div>
      </div>
      <footer class="main-footer"></footer>
    </div>
  </body>
</html>
```



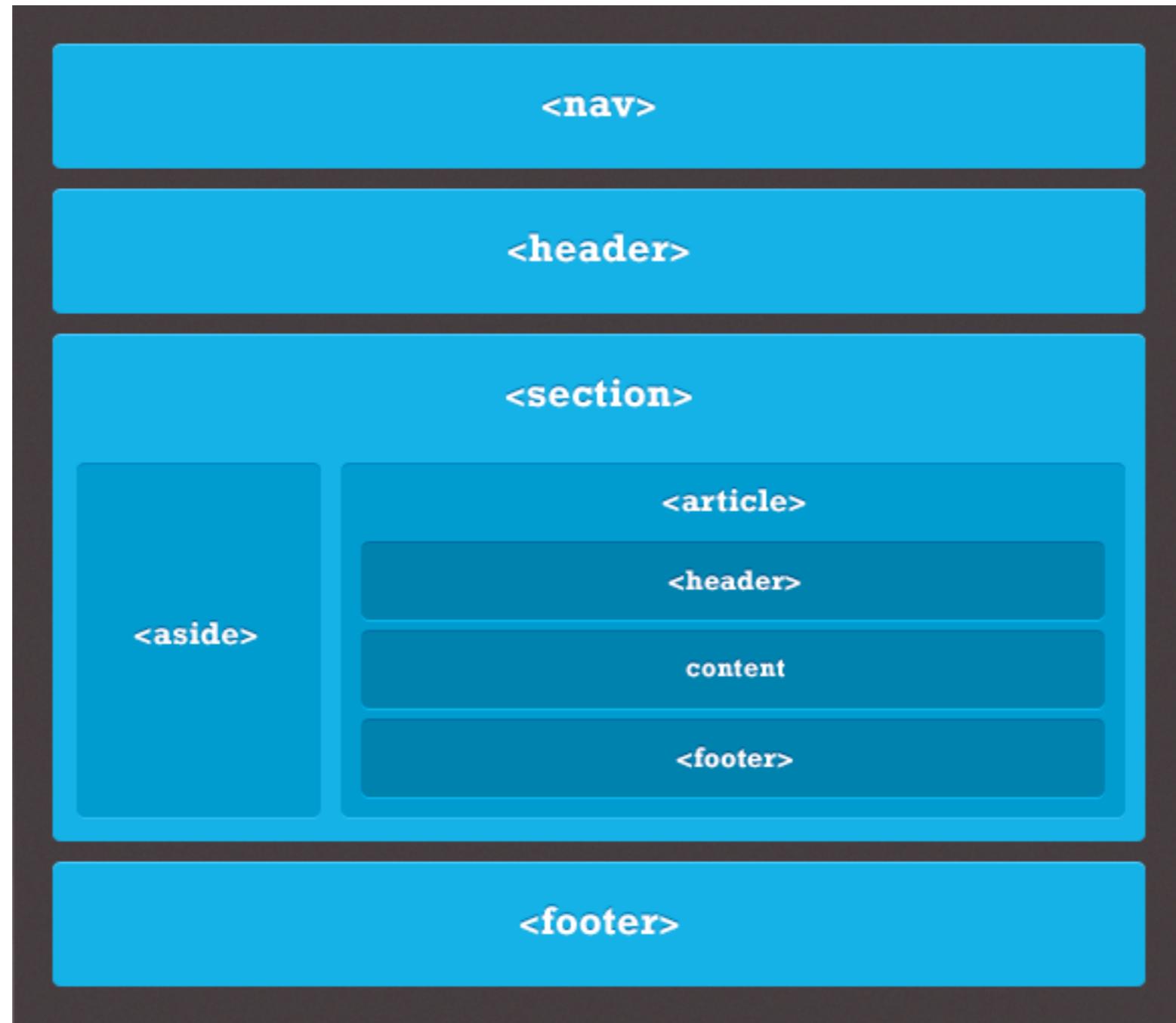
```
@media (min-width: 40rem) {  
  .column.flow-opposite { float: right; }  
}
```



.column .half

.column .half .flow-opposite





Resumiendo:



```

<!DOCTYPE html>
<!--[if IEMobile 7 ]> <html dir="ltr" lang="es-ES" class="no-js iem7"> <![endif]-->
<!--[if lt IE 7 ]> <html dir="ltr" lang="es-ES" class="no-js ie6 viejuno"> <![endif]-->
<!--[if IE 7 ]>    <html dir="ltr" lang="es-ES" class="no-js ie7 viejuno"> <![endif]-->
<!--[if IE 8 ]>    <html dir="ltr" lang="es-ES" class="no-js ie8 viejuno"> <![endif]-->
<!--[if (gte IE 9)|(gt IEMobile 7)|!(IE)]><!-->
<html dir="ltr" lang="es-ES" class="no-js"><!--<![endif]-->
<head>
  <meta charset="utf-8">
  <title>Responsive Design demo 1</title>
  <meta name="description" content="">
  <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
  <meta name="viewport" content="width=device-width,initial-scale=1">
  <link rel="stylesheet" href="css/normalize.css">
  <link rel="stylesheet" href="css/styles.css">
  <script src="js/modernizr.js"></script>
</head>
<body>

  <div class="page-wrapper">
    <header class="main-header">
      <nav class="main-menu">
        <ul>
          <li><a href="" class="menu-item"></a></li>
          <li><a href="" class="menu-item"></a></li>
        </ul>
      </nav>
    </header>
    <div class="main-content">
      <div class="row clearfix">
        <div class="column half flow-opposite"></div>
        <div class="column half"></div>
      </div>
    </div>
    <footer class="main-footer"></footer>
  </div>

  <!-- los scripts aquí -->
  <script src="js/jQuery.js" type="text/javascript" /></script>
  <script src="js/scripts.js" type="text/javascript"></script>
</body>
</html>

```



HTML5

<!DOCTYPE html >



Periodic Table of the Elements

html																			col	table										
head	span									div	fieldset	form	body	h1	section	colgroup	tr													
title	a								pre	meter	select	aside	h2	header	caption	td														
meta	rt	dfn	em	i	small	ins	s	br	p	blockquote	legend	optgroup	address	h3	nav	menu	th													
base	rp	abbr	time	b	strong	del	kbd	hr	ol	dl	label	option	datalist	h4	article	command	tbody													
link	noscript	q	var	sub	mark	bdi	wbr	figcaption	ul	dt	input	output	keygen	h5	footer	summary	thead													
style	script	cite	samp	sup	ruby	bdo	code	figure	li	dd	textarea	button	progress	h6	hgroup	details	tfoot													
																		img	area	map	embed	object	param	source	iframe	canvas	track*	audio	video	device*

Root element

Metadata and scripting

Embedding content

Text-level semantics

Grouping content

Forms

Document sections

Tabular data

Interactive elements



A composite image featuring four versions of the same man from the TV show Arrested Development. Each version has a different hairstyle and beard length. They are all sitting on a dark couch against a background of bookshelves filled with books.

Pero...

No todos los navegadores
fueron creados iguales

<http://caniuse.com/>



Navegadores HTML5

IE9+

Firefox 3.5+

Opera 9+

Safari 4+

Chrome 1+ (I think)

iPhone and iPad iOS1+

Android phone and tablets 2.1+

Blackberry OS6+

Windows 7.5+

Mobile Firefox

Opera Mobile

Navegadores HTML4

IE8-

Blackberry OS5-

Nokia S60 v6-

Nokia S40 (all versions)

All other Symbian variants

Windows 7 phone (pre-Mango)

y otros muchos...



https://modernizr.com/

```
<html class=" svg no-ie8compat svgfilters video cssgradients opacity  
cssremunit rgba placeholder inlinesvg supports svgforeignobject smil  
fontface mediaqueries textshadow backgroundsize borderradius  
cssanimations bgsizecover boxshadow cssfilters flexboxlegacy no-  
flexboxtweener csstransforms csstransforms3d csstransitions" >
```



```
if('querySelector' in document  
  && 'localStorage' in window  
  && 'addEventListener' in window) {  
  // nuestro moderno javascript, por ejemplo:  
  $( 'html' ).addClass( 'moderno-de-la-muerte' );  
  
}
```



Raiz y Metadata

<html> Raíz del documento

<head> Metadata y contenidos sobre el documento

<title> El título de documento

<base> define la url de origen para las URLs relativas

<link> Enlazar javascript y css externas al documento

<meta> metadata que no se puede expresar con otras etiquetas

<style> CSS inline



Scripts

<script> define un script interno o externo

<noscript> define contenido alternativo al script

<template> contenedor para contenido client-side



Etiquetas estructurales

<section> Contenido genérico estructurado

<article> Contenido estructural distribuible e independiente

<header> Contenido introductorio

<nav> Enlaces dentro del documento o de la página

<aside> Contenido secundario relacionado con el elemento

<footer> Contenido secundario no prescindible



Etiquetas

<figure> estructura de contenido independiente, imágenes, poemas, gráficos, vídeos etc. dentro del <article>

 <video> <audio> Contenido audiovisual

<figcaption> Leyenda o pie relativo al contenido del figcaption



Formularios

input type

email, tel, number, url, search, color, date, month, week, time, datetime, datetime-local, range

atributos

autofocus, required, max, min, placeholder

validación

:valid, :invalid

```
<input type="email" name="email" placeholder="email aquí" required>
```



A painting of a man with long dark hair and a full dark beard and mustache. He is wearing a dark tunic over a white shirt. He is holding a large, open book in his left hand and pointing with his right index finger towards the top left corner of the image. His expression is slightly smiling. The background is dark and textured.

Buenas prácticas

HTML de buen rollo!



Uso el tipo de documento correcto

```
<!doctype html>
```



Usa minúsculas

Mal <SECTION>
 <P>This is a paragraph.</P>
 </SECTION>

Muy Mal <Section>
 <P>This is a paragraph.</p>
 </SECTION>

Bien <section>
 <p>This is a paragraph.</p>
 </section>



Cierra los elementos

Mal <section>

 <p>This is a paragraph

 <p>This is a paragraph.

 </section>

Bien <section>

 <p>This is a paragraph.</p>

 <p>This is a paragraph.</p>

 </section>



Cierra los elementos varios

Mejorable <meta charset="utf-8">

Mucho mejor <meta charset="utf-8" />



Escribe bien los atributos

Mal <div CLASS="menu">
 <table class=table striped>

Bien <div class="menu">
 <table class="table striped">



Completa los atributos de las imágenes

```

```

...

```
.thumbnail {  
    height: 128px;  
    width: 128px;  
}
```



No uses estilos inline

Mal `<h1 style="color:blue;">Seguro?</h1>`

Bien `<h1 class="destacado">Mejor</h1>`

...

```
.destacado {  
    color:blue;  
}
```



Espacios y símbolos

Aceptado <link rel = "stylesheet" href = "styles.css">

Mejor <link rel="stylesheet" href="styles.css">



Interlineado e indentación

No añadas líneas en blanco sin razón. No es necesario separar elementos cortos o relacionados entre sí.

Añade líneas en blanco para separar bloques de código largos o lógicos. Así facilitas la lectura.

Añade dos espacios de indexación, no uses TAB.

No hace falta indentar todos los elementos, intenta para marcar jerarquías.



Espacios y símbolos

Innecesario

```
<body>
```

```
<h1>Famous Cities</h1>
```

```
<h2>Tokyo</h2>
```

```
<p>
```

Tokyo is the capital of Japan, the center of the Greater Tokyo Area, and the most populous metropolitan area in the world. It is the seat of the Japanese government and the Imperial Palace, and the home of the Japanese Imperial Family.

```
</p>
```

```
</body>
```



Espacios y símbolos

Mejor

```
<body>
```

```
<h1>Famous Cities</h1>
```

```
<h2>Tokyo</h2>
```

```
<p>Tokyo is the capital of Japan, the center of  
the Greater Tokyo Area,  
and the most populous metropolitan area in the  
world.
```

```
It is the seat of the Japanese government and the  
Imperial Palace,  
and the home of the Japanese Imperial Family.</p>
```

```
</body>
```



El <title> es obligatorio en HTML5

<title>HTML5: Algunos Consejos</title>



Define idioma y codificación

```
<!DOCTYPE html>

<html lang="en-US">

<head>

<meta charset="UTF-8">

<title>HTML5: Algunos consejos</title>

</head>
```



Comentarios bien estructurados

```
<!-- Esto es un comentario -->
```

```
<!--
```

Esto es un ejemplo de comentario largo. Esto es un ejemplo de comentario largo.

Esto es un ejemplo de comentario largo. Esto es un ejemplo de comentario largo. Esto es un ejemplo de comentario largo.

```
-->
```



Sintaxis sencilla para las CSS

No hace falta usar el atributo type

```
<link rel="stylesheet" href="styles.css">
```



Usa correctamente el <header>

Mal

```
<article>
  <header>
    <h1>Encabezado Excesivo</h1>
  </header>
</article>
```

Bien

```
<article>
  <h1>Encabezado</h1>
</article>
```



Usa correctamente el <header>

Bien

```
<article>
  <header>
    <h1>Encabezado</h1>
    <p>Texto introductorio, subtítulo</p>
  </header>
</article>
```



Navegaciones organizadas

```
<nav class="main-nav">
  <h1 class="nav-title">Menu</h1>
  <ul>
    <li class="nav-item">
      <a href="home.html" class="nav-link">Link 1</a>
      <a href="one.html" class="nav-link">Link 2</a>
      <a href="two.html" class="nav-link">Link 2</a>
    </li>
  </ul>
</nav>
```

...

```
<nav class="article-nav">
  <a href="#section-1" class="nav-link">Link 1</a>
  <a href="#section-2" class="nav-link">Link 2</a>
  <a href="#section-3" class="nav-link">Link 2</a>
</nav>
```



Tablas Sencillas

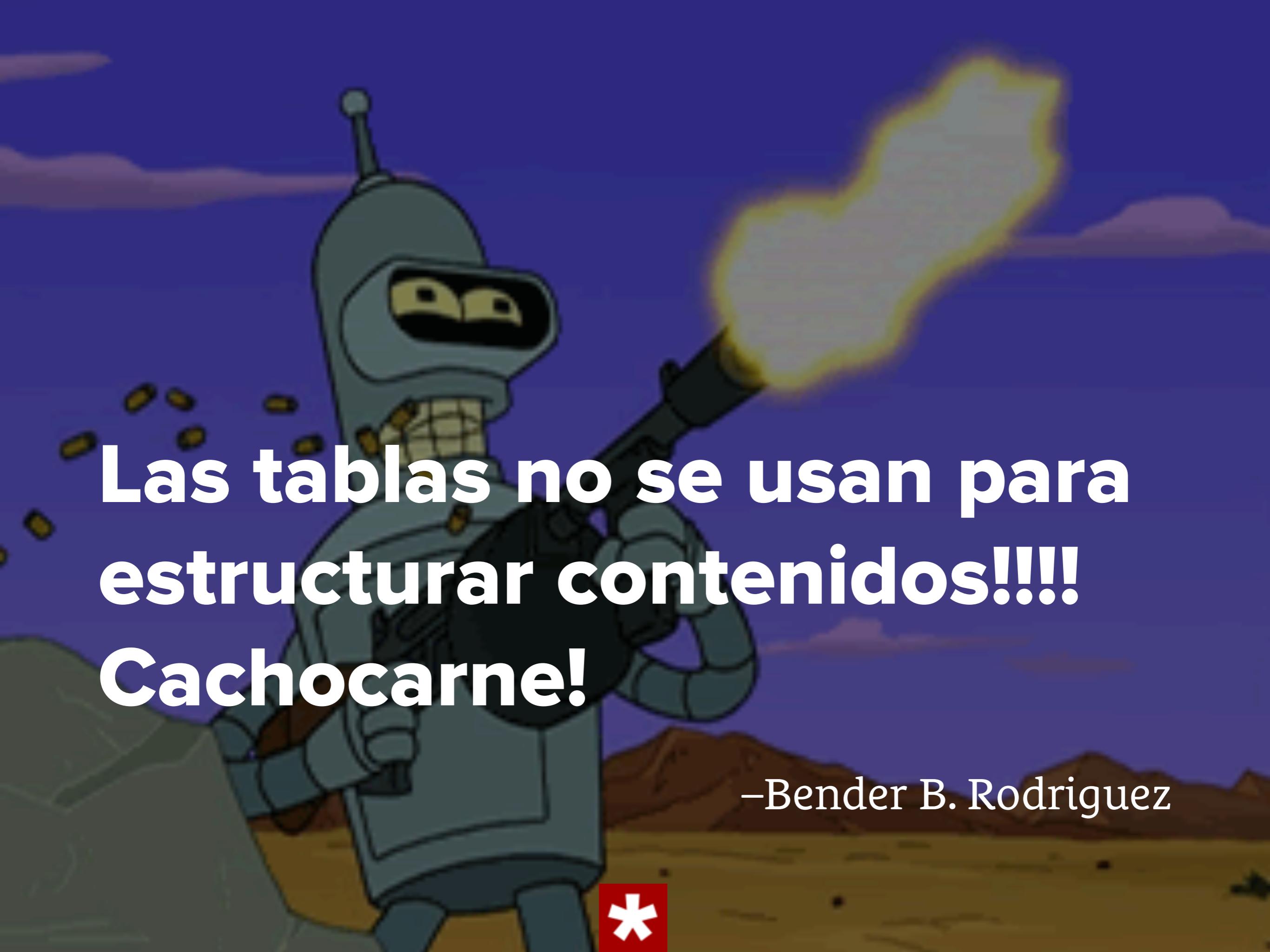
```
<table>
  <tr>
    <th>Name</th>
    <th>Side</th>
    <th>Role</th>
  </tr>
  <tr>
    <td>Obi Wan Kenobi</td>
    <td>Light</td>
    <td>Jedi</td>
  </tr>
  <tr>
    <td>Greedo</td>
    <td>South</td>
    <td>Scumbag</td>
  </tr>
</table>
```



Tablas semánticas

```
<table>
  <caption>Aquí añadimos información de cabecera.</caption>
  <colgroup />
  <colgroup span="2" title="title" />
  <thead>
    <tr>
      <th scope="col">Name</th>
      <th scope="col">Side</th>
      <th scope="col">Role</th>
    </tr>
  </thead>
  <tfoot>
    <tr>
      <td>Darth Vader</td>
      <td>Dark</td>
      <td>Sith</td>
    </tr>
  </tfoot>
  <tbody>
    <tr>
      <td>Obi Wan Kenobi</td>
      <td>Light</td>
      <td>Jedi</td>
    </tr>
    <tr>
      <td>Greedo</td>
      <td>South</td>
      <td>Scumbag</td>
    </tr>
  </tbody>
</table>
```



A cartoon illustration of Bender B. Rodriguez, a silver robot with a single eye and a speech bubble, standing in a desert landscape with a purple sky and yellow clouds. He is holding a large, glowing yellow bone or cigarette in his hand.

**Las tablas no se usan para
estructurar contenidos!!!!
Cachocarne!**

–Bender B. Rodriguez



Usa atributos completos

Mejorable

```
<label for="item">Label</label>  
<input name="item" id="item" type="checkbox"  
checked required />
```

Mejor

```
<label for="item">Label</label>  
<input name="item" id="item" type="checkbox"  
checked="checked" required="required" />
```



Usa tabindex

```
<input type="text" tabindex="2" />  
<input type="text" tabindex="1" />  
<input type="text" tabindex="3" />
```



Define accesskey si es necesario

```
<label for="search">Buscar <span class="shortcut">[ s ]</span></label>

<input type="text" name="s" id="search" acceskey="s" />
```



Formularios sencillos

```
<form method="post" action="index.php">

    <form method="post" action="index.php">

        <label for="name">Name:</label>

        <input id="name" autofocus placeholder="Your name here">

        <label for="emailaddy">Email:</label>

        <input id="emailaddy" type="email" placeholder="Your email here"
required>

        <label for="message">Message:</label>

        <textarea id="message" placeholder="Your comments here"></textarea>

        <input id="submit" type="submit" value="Submit">

    </form>
```



Formularios complejos

```
<div class="form-group is-required">  
  <label class="form-label" for="name">Input field Required</label>  
  
  <input type="text" class="form-control" placeholder="Input field required" name="name" id="name" value="" tabindex="1" required>  
  
  <p class="form-info">  
    <span class="helper">Some info about this field</span>  
  
    <span class="helper-error"><b>Error:</b> Some info about an error with this field</span>  
  </p>  
</div>
```



Formularios complejos

```
<div class="form-group check-group">  
    <label class="form-label">Radio Button Choice</label>  
    <div class="check-group">  
        <label class="check-group-item" for="radio-choice-1">  
            <input type="radio" name="radio-choice-1" id="radio-choice-1"  
tabindex="1" value="choice-1" />  
            <b>Choice 1</b>  
        </label>  
        <label class="check-group-item" for="radio-choice-2">  
            <input type="radio" name="radio-choice-1" id="radio-choice-2"  
tabindex="2" value="choice-2" />  
            <b>Choice 2</b>  
        </label>  
    </div>  
</div>
```



Listas más versátiles

```
<ol class="ordered-list">

<li class="list-item">Esto es una lista ordenada.</li>

<li class="list-item">

<b class="list-title">Este es el segundo ítem, que contiene una sub-lista</b>

<ol class="sub-list">

<li class="list-item">Esta es la sublista, también está ordenada.</li>

<li class="list-item">Tiene dos ítems.</li>

</ol>

</li>

<li class="list-item">Este es el tercer ítem de la lista.</li>

</ol>
```



Listas de definiciones

```
<dl>
```

```
  <dt>Esto es un término.</dt>
```

```
  <dd>Esta es la descripción de ese término.</dd>
```

```
  <dt>Este es otro término.</dt>
```

```
  <dd>Y también tiene su definición, que es esta.</dd>
```

```
  <dt>Este es un término que comparte definición con el término  
siguiente.</dt>
```

```
  <dt>Otro término.</dt>
```

```
  <dd>Los dt pueden aparecer solos, sin necesidad de acompañar a un dd,  
pero en ese caso comparten descripciones con el siguiente dt disponible. No  
puedes tener un dd sin un padre dt.</dd>
```

```
</dl>
```



<figure> bien formulado

```
<div class="example">  
  <figure>  
      
    <figcaption>  
      <h4>Título de la imagen</h4>  
      <p>Esta es la descripción de la imagen</p>  
    </figcaption>  
  </figure>  
</div>
```



<figure> para más cosas que imágenes

```
<div class="example">  
  <figure>  
    <p>  
      Un viejo estanque<br>  
      Una rana salta:<br>  
      el sonido del agua.  
    </p>  
    <figcaption>  
      <p>  
        <cite>Nozarashi Kiko <i>(野ざらし紀行)</i>. </cite>Matsuo Bashō, 1644–94  
      </p>  
    </figcaption>  
  </figure>  
</div>
```



Address y Time

```
<div class="vcard">Escrito por:  
  <address class="author"><em class="fn">Randolph Carter (<a  
title="Randolph Carter en Twitter" href="http://twitter.com/  
randolphcarter">@randolphCarter</a>)</em></address>  
  
  el  
  
  <time datetime="1919-12-18" class="published updated">18 de  
Diciembre de 1919</time>  
</div>
```



Fallbacks para <audio>

```
<audio controls>

    <source src=sound.ogg type=audio/ogg>

    <source src=sound.mp3 type=audio/mp3>

    <!-- fallback content: -->

    <a href=sound.ogg>Ogg</a>

    <a href=sound.mp3>MP3</a>

</audio>
```



Fallbacks para <video>

```
<video controls>

    <source src=video.webm type=video/webm>

    <source src=video.mp4 type=video/mp4>

    <!-- fallback content: -->

    <iframe width="480" height="360" src="#"  
frameborder="0" allowfullscreen>/<iframe>

</video>
```



Accesibilidad con ARIA

```
<div id="billing">Billing Address</div>

<div>

  <label id="name">Name</label>

  <input type="text" aria-labelledby="name billing"/>

</div>

<div>

  <div id="address">Address</div>

  <input type="text" aria-labelledby="address billing"/>

</div>
```

<http://w3c.github.io/html-reference/aria/aria.html>

<https://developer.mozilla.org>



Accesibilidad con ARIA:roles

```
<div id="radio_label">My radio label</div>

<div role="radiogroup" aria-labelledby="radio_label">

    <input type="radio" role="radio" />

    <input type="radio" role="radio" />

    <input type="radio" role="radio" />

</div>
```

<http://dev.w3.org/html5/spec-author-view/wai-aria.html>



CSS3



<http://caniuse.com/>



CSS

Global
HD

Módulos CSS3

Selectores

Modelo de caja (Box Model)

Fondos y bordes

Media queries

Efectos de texto

Transformaciones 2D/3D

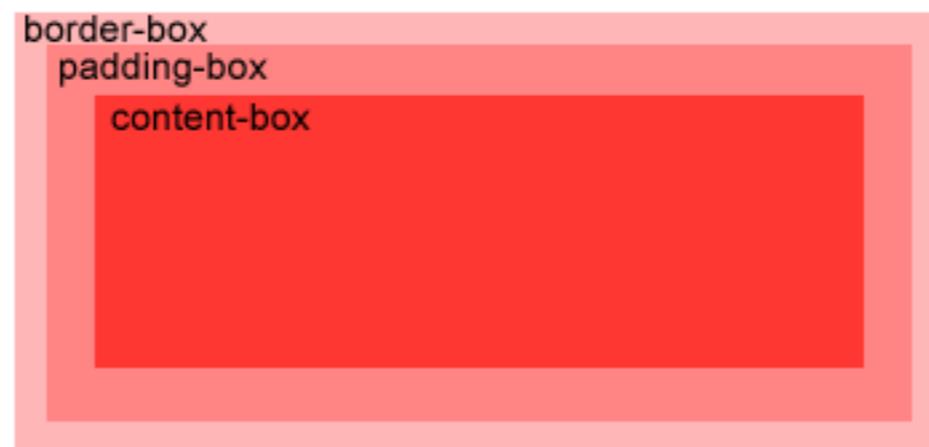
Animaciones

Estructura de columnas (Multiple Column Layout)

Interfaz de usuario



Modelo de caja



`box-sizing: border-box;`



Selectores

a[target]	a:first-child
a[target="_blank"]	a:last-child
a[title~="flower"]	a:first-of-type
input:required	a:last-of-type
input:focus:invalid	a:nth-child(n)
textarea:required:invalid	a:nth-of-type(n)
textarea:valid	

http://www.w3schools.com/cssref/css_selectors.asp



Pseudo elementos

```
a:before {  
    content:"&";  
}  
  
a:after {  
    content:"?";  
}
```

http://www.w3schools.com/cssref/css_selectors.asp



Bordes

```
border-radius: 25px;
```

```
box-shadow: 10px 10px 5px #888888;
```

```
border-image: url(border.png) 30 30 round;
```



Background

```
background: url(img_tree.gif),  
url(img_flwr.gif);
```

```
background-size: 100% 100%;
```

```
background-repeat: no-repeat;
```

```
background-origin: content-box;
```



@media queries

all	Para todos los dispositivos
aural	Para sintetizadores de voz y sonido
braille	Para dispositivos táctiles Braille
embossed	Para impresoras Braille
handheld	Para dispositivos pequeños portátiles
print	Para impresoras
projection	Para proyectores de presentaciones
screen	Para pantallas de ordenador
tty	Para dispositivos con medidas de texto fijas, como teletipos
tv	Para dispositivos tipo televisión



por ejemplo...

```
@media only screen  
and (min-device-width : 375px) // o 213.4375em  
and (max-device-width : 667px) // o 41.6875em  
and (width : 375px) // o 23.4375em  
and (height : 559px) // o 34.9375em  
and (orientation : portrait)  
and (device-aspect-ratio : 375/667)  
and (aspect-ratio : 375/559)  
and (device-pixel-ratio : 2)  
and (-webkit-min-device-pixel-ratio : 2)  
  
{ /* estilos específicos para iPhone6 en vertical aquí */ }
```



Degradados

```
#grad {  
  
    background: -webkit-linear-gradient(left top, red , blue); /* For  
Safari 5.1 to 6.0 */  
  
    background: -o-linear-gradient(bottom right, red, blue); /* For  
Opera 11.1 to 12.0 */  
  
    background: -moz-linear-gradient(bottom right, red, blue); /* For  
Firefox 3.6 to 15 */  
  
    background: linear-gradient(to bottom right, red , blue); /*  
Standard syntax */  
  
}
```



Transformaciones 2D/3D

translate()

rotate()

scale()

skew()

matrix()

rotateX();

rotateY();

```
div {  
  transform: rotate(30deg);  
  transform-origin: 20% 40%;  
}
```



Transiciones

transition-property: width;

transition-duration: 1s;

transition-timing-function: linear;

transition-delay: 2s;

transition: width 2s, height 2s, transform 2s;



Animaciones

```
div {  
    animation: myfirst 5s;  
}
```

```
@keyframes myfirst {  
    from {background: red;}  
    to {background: yellow;}  
}
```



Animaciones

```
animation-name: myfirst;  
animation-duration: 5s;  
animation-timing-function: linear;  
animation-delay: 2s;  
animation-iteration-count: infinite;  
animation-direction: alternate;  
animation-play-state: running;
```

```
animation: myfirst 5s linear 2s infinite alternate;
```



Animaciones

```
@keyframes myfirst {  
    0%   {background: red; left:0px; top:0px;}  
    25%  {background: yellow; left:200px; top:  
0px;}  
    50%  {background: blue; left:200px; top:  
200px;}  
    75%  {background: green; left:0px; top:200px;}  
    100% {background: red; left:0px; top:0px;}  
}
```



iconos



sprites

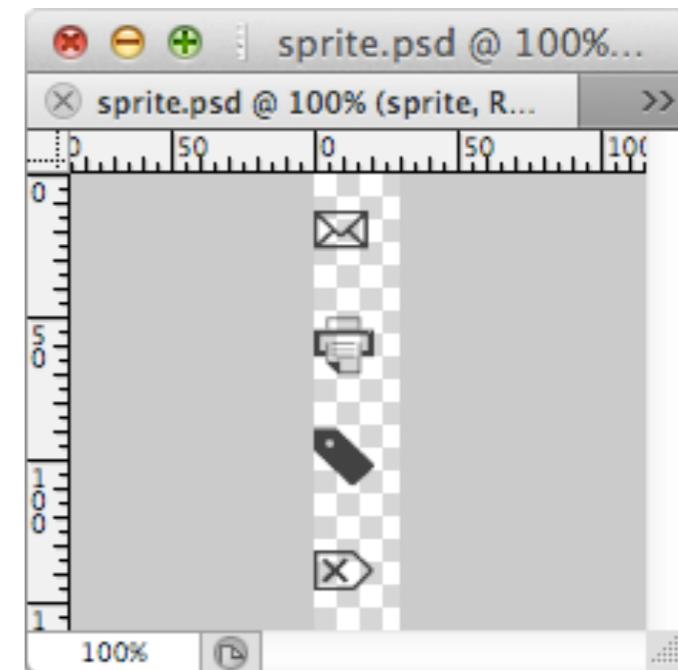




```
<div class="actions">  
    <a class="a-share" href="#">Share</a>  
    <a class="a-print" href="#">Print</a>  
    <a class="a-tag" href="#">Tag</a>  
    <a class="a-delete" href="#">Delete</a>  
</div>
```



```
.actions {  
    display: block;  
    overflow: auto;  
}  
  
.actions a {  
    background-image: url('sprite.png');  
    background-repeat: no-repeat;  
    background-color: #ccc;  
    border-radius: 5px;  
    display: block;  
    float: left;  
    color: #444;  
    font-size: 16px;  
    font-weight: bold;  
    line-height: 20px;  
    text-decoration: none;  
    text-shadow: 0 -1px 2px #fff;  
    padding: 10px 20px 10px 40px;  
    margin-right: 5px;  
}  
  
.a-share { background-position: 10px 0; }  
.a-print { background-position: 10px -40px; }  
.a-tag { background-position: 10px -80px; }  
.a-delete { background-position: 10px -120px; }
```



Pero si ampliamos...



Pero si ampliamos...



Share



Print



escalable es mejor...



Share



Ventajas

Fáciles de usar si no quieres hacer nada complejo

Soporte amplio (Incluso IE6!)

Desventajas

Son bitmaps, no escalan, hay que crear una versión (y sus posicionamientos) para cada resolución...

No se pueden controlar, hay que hacer cada estado y tamaño de cada ícono.

Un sprite complejo puede pesar mucho, mucho

No podemos cambiar el tamaño del contenedor o se verán los iconos de los lados



escalable es mejor...



Share



Icon fonts



```
@font-face {
  font-family: "appIcons";
  src: url("../fonts/icons.woff") format("woff"),
  url("../fonts/icons.woff") format("truetype");
  font-weight: normal;
  font-style: normal;
  font-stretch: normal;
}
```



```
.icon {  
    display: inline-block;  
    vertical-align: middle;  
    font-family: 'appIcons';  
    font-weight: normal;  
    font-style: normal;  
    font-variant: normal;  
    text-transform: none;  
    line-height: 1;  
    speak: none;  
    -webkit-font-smoothing: antialiased;  
    -moz-osx-font-smoothing: grayscale;  
}  
  
.ico-mail:before {  
    content: "\e600";  
}
```

```
<button class="btn" title="Send eMail">  
    <i aria-hidden="true" class="icon ico-mail"></i>  
</button>
```



Ventajas

Son vectores. Escalan.

Puedes controlar tamaño, color, sombras, rotación, vía CSS

Fáciles de usar

Soporte amplio (Incluso IE6!)

Desventajas

Los navegadores las consideran texto. Antialias y borrosos a veces.

Posicionarlos a veces es frustrante: line-height, vertical-align, letter-spacing, word-spacing...

Monocolor

Fallos raros: la tipo no se carga, el código unicode ya está asignado en el sistema...

Cargamos todos los iconos independientemente de si los usamos o no.

Algunos navegadores no soportan @font-face (Opera Mini, UC Browser...)

Puede que una hoja de estilos fuerce otra tipografía sobre la nuestra.



SVG sprites



```
body { font-size: 100%; }

.actions {
  display: block;
  overflow: auto;
}

.actions a {
  font-size: 1em;
  line-height: 1.25em;
  padding: 0.625em 1.25em 0.625em 2.5em;
  margin-right: 0.3125em;
  border-radius: 0.3125em;
  background-image: url('sprite.svg');
  -webkit-background-size: 1.875em 10em;
  -o-background-size: 1.875em 10em;
  -moz-background-size: 1.875em 10em;
  background-size: 1.875em 10em;
  background-repeat: no-repeat;
  background-color: #ccc;
  color: #444;
  display: block;
  float: left;
  text-decoration: none;
  text-shadow: 0 -1px 2px #fff;
}

.actions-em .a-share { background-position: 0.625em 0; }
.actions-em .a-print { background-position: 0.625em -2.5em; }
.actions-em .a-tag { background-position: 0.625em -5.0em; }
.actions-em .a-delete { background-position: 0.625em -7.5em; }
```



Ventajas

Son vectores.

Optimizados pesan mucho menos que una imagen bitmap

NO se ven afectados por la resolucion

Fáciles de usar

Desventajas

Las mismas que los sprites

Tenemos que crear todos los estados y tamaños de cada icono

Un sprite puede llegar a pesar mucho

Cargamos todos los iconos independientemente de si los usamos o no.



SVG inline



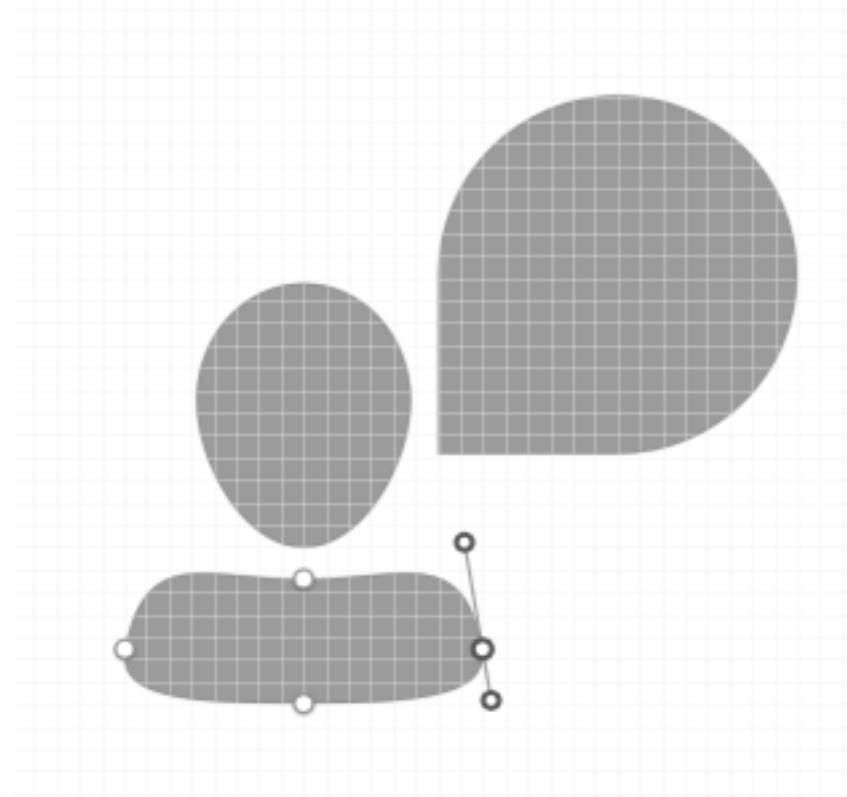
```
.btn .icon {
  height: 24px;
  width: 24px;
  fill: red;
}

.no-svg .icon svn {
  display: none;
}

.no-svg .icon-ok {
  background-image: url(ico-ok.png);
}

<button class="btn" title="Send eMail">
  <i class="icon icon-ok check" aria-hidden="true">
    <svg version="1.1" xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://
    www.w3.org/1999/xlink" width="12" height="12" viewBox="0 0 16 16">
      <path d="M3 6l-3 3 6 6 10-10-3-3-7 7z" fill="#FFFFFF"></path>
    </svg>
  </i></button>
```





```
<svg version="1.1" id="Layer_1" xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink" x="0px" y="0px" width="24px" height="24px" viewBox="0 0 24 24" enable-background="new 0 0 24 24" xml:space="preserve">
<g>
<path
d="M7.356,16.287c-2.048,0-3.778-1.689-3.778-3.69c0-1.655,1.065-3.507,2.491-3.507c0.276,0,0.512,0.224,0.5,0.5
c-0.007,0.175-0.273,0.425-0.382,0.425c-0.671,0-1.609,1.231-1.609,2.582c0,1.458,1.272,2.69,2.778,2.69
c1.139,0,2.143-0.741,2.499-1.844c0.085-0.263,0.366-0.408,0.629-0.322c0.263,0.084,0.407,0.367,0.322,0.629
C10.317,15.268,8.93,16.287,7.356,16.287z"/>
<path
d="M13,23H1.89c-0.136,0-0.267-0.056-0.361-0.154c-0.094-0.098-0.144-0.23-0.139-0.366c0.133-3.261,2.792-5.814,6.055-5.814
c3.262,0,5.921,2.554,6.055,5.814c0.006,0.136-0.045,0.269-0.139,0.366C13.267,22.944,13.137,23,13,23z M2.437,22h10.016
c-0.353-2.469-2.46-4.335-5.008-4.335C4.897,17.665,2.789,19.531,2.437,22z"/>
</g>
<path
d="M13.5,15.5c-0.057,0-0.115-0.01-0.17-0.029C13.132,15.398,13,15.211,13,15v-2.569c-3.217-0.568-6.75-3.198-6.75-6.015
c0-3.207,3.778-5.917,8.25-5.917c4.411,0,8,2.654,8,5.917c0,3.21-2.559,5.678-6.248,6.062l-2.367,2.842
C13.787,15.437,13.646,15.5,13.5,15.5z
M14.5,1.5c-3.93,0-7.25,2.251-7.25,4.917c0,2.405,3.451,4.75,6.309,5.087
C13.811,11.533,14,11.747,14,12v1.61911.615-1.939c0.086-0.103,0.211-0.167,0.344-0.178c3.263-0.266,5.541-2.357,5.541-5.085
C21.5,3.706,18.359,1.5,14.5,1.5z"/>
</svg>
```



Ventajas

Son vectores.

Se controlan con CSS y con propiedades SVG

Muy fáciles de usar (pegamos el código y listo)

Forma parte del DOM, podemos actuar sobre sus partes.

Semánticamente son imágenes. Buena accesibilidad (title, desc y aria-labelledby)

Sólo utilizamos los que necesitamos en cada página

Soporte relativamente bueno

Desventajas

El código va directamente en el HTML, puede ser complicado de mantener y de visualizar en el caso de iconos complejos.

Algunos problemas de renderizado y manipulación en ie8 y Android 2.3

No se cachean





**Las cosas hay que
hacerlas bien!**

Los iconos tienen que ser accesibles



Iconos accesibles

A tener en cuenta:

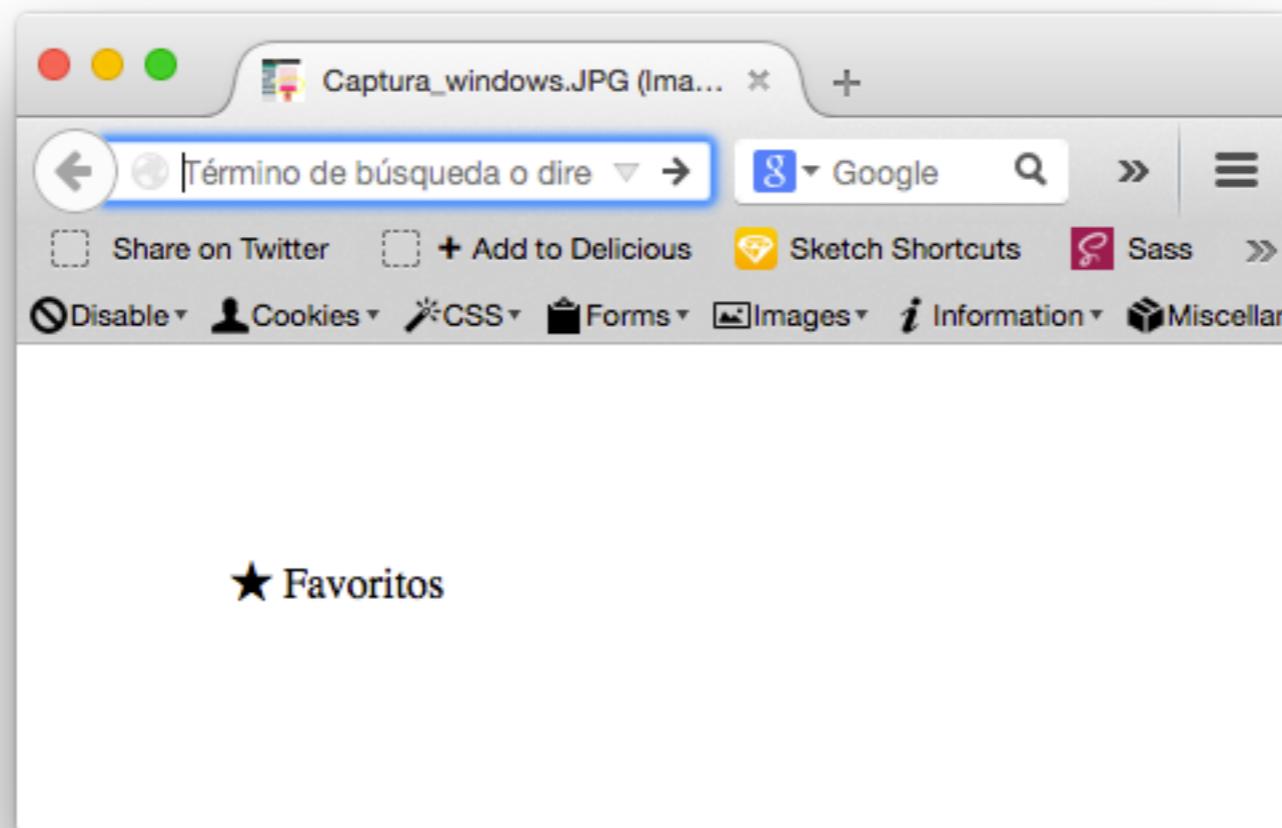
Iconos decorativos

Iconos críticos



```
<span class="icon-star" aria-hidden="true">Favorite</span>
```

```
.icon-star:before { content: "★ "; }
```



<http://www.digitalmediaminute.com/reference/entity/index.php>



**como es meramente decorativo,
si el icono no se ve**

no pasa nada!



**pero si el ícono es crítico para
la aplicación...**

Hay que dar alternativas



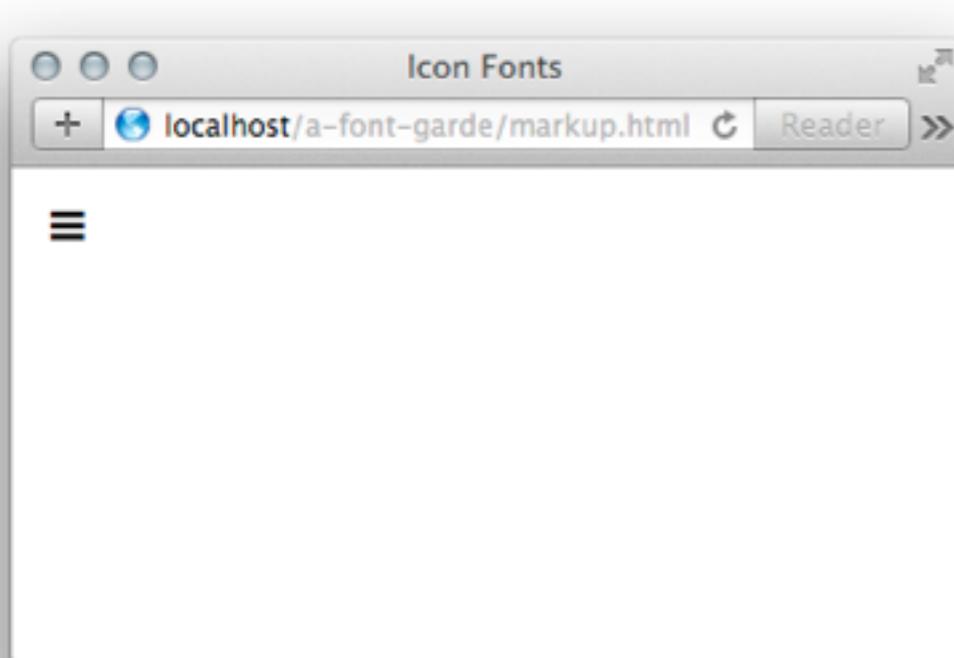
```
<span class="icon-fallback-text">
  <span class="icon icon-menu" aria-hidden="true"></span>
  <span class="text">Menú</span>
</span>

.icon-fallback-text .icon {
  display: none;
}

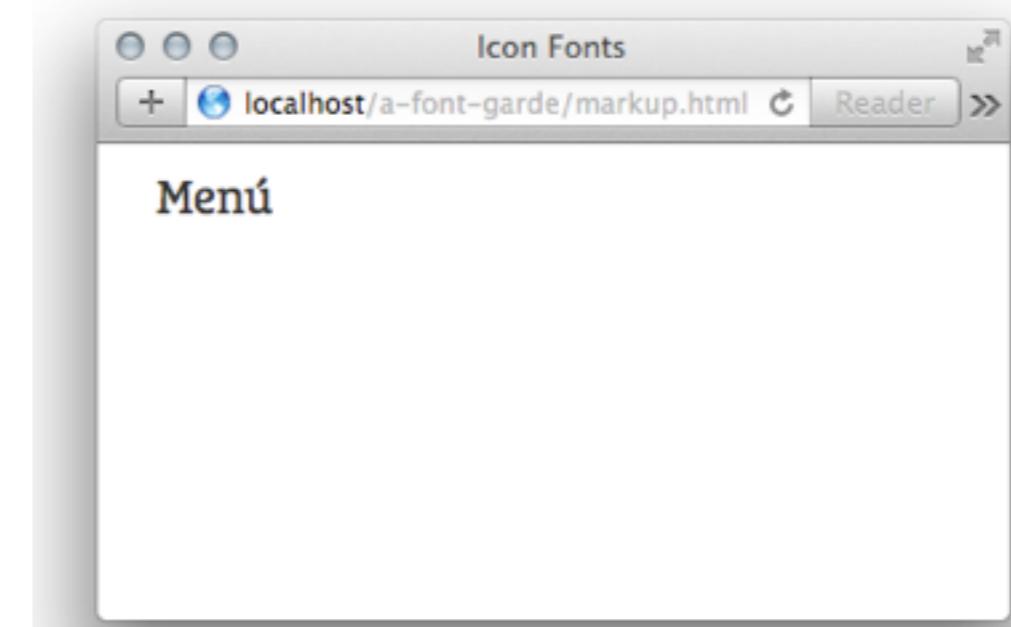
.supports-fontface.supports-generatedcontent.icomoon .icon-fallback-text .icon
{
  display: inline-block;
}

.supports-fontface.supports-generatedcontent.icomoon .icon-fallback-text .text
{
  /* ocultamos el texto pero sigue siendo accesible a lectores de pantalla
  (h5bp.com) */
  clip: rect(0 0 0 0);
  overflow: hidden;
  position: absolute;
  height: 1px;
  width: 1px;
}
```





Soporta



Degrada



Recursos para fuentes y vectores

<http://icomoon.io>

<http://www.fontsquirrel.com/>

<https://fontawesome.github.io/Font-Awesome/>

<http://www.google.com/fonts>

<http://thenounproject.com/>



Patrones y estructuras multi-dispositivo

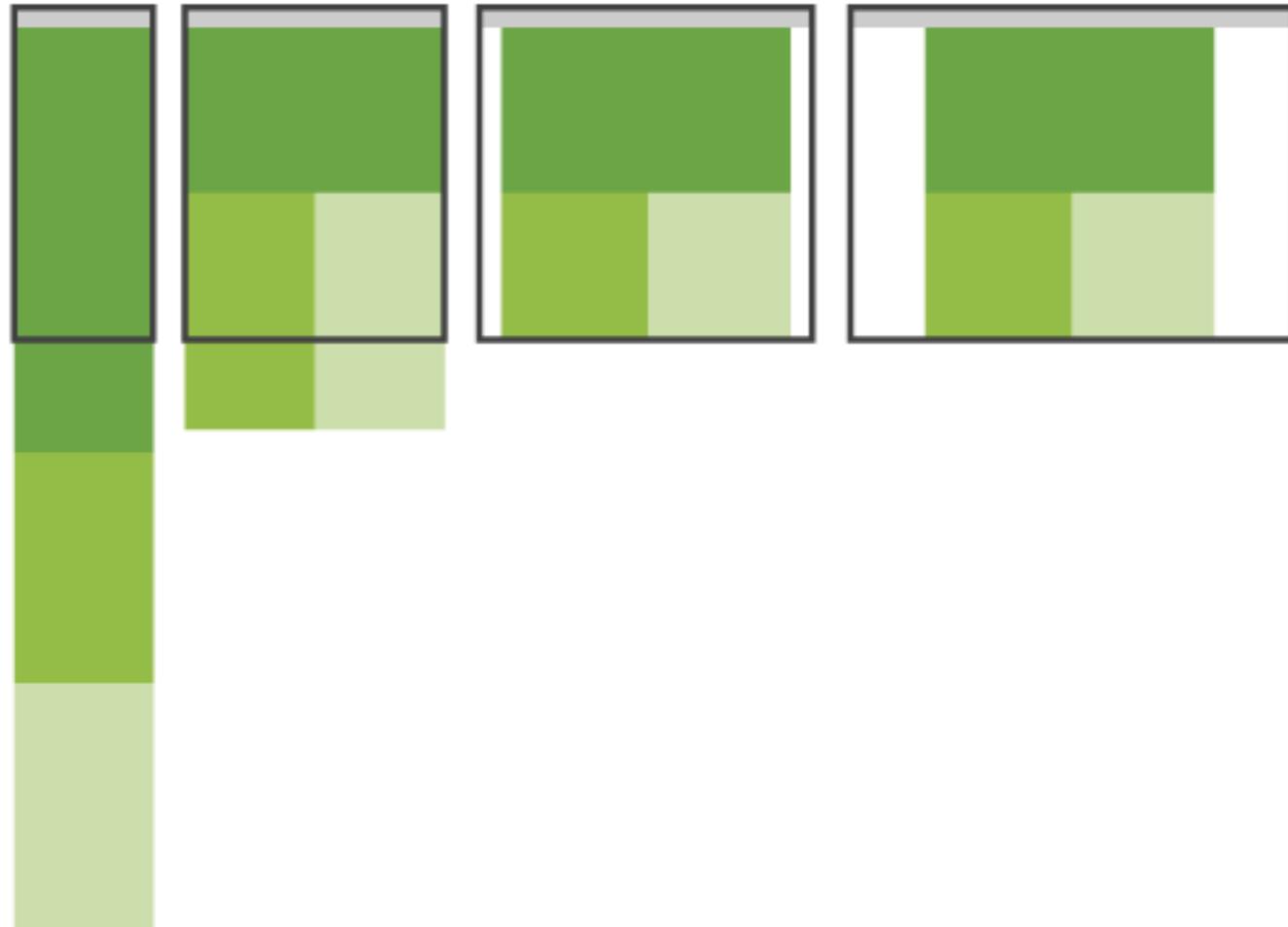




Ajustes mínimos



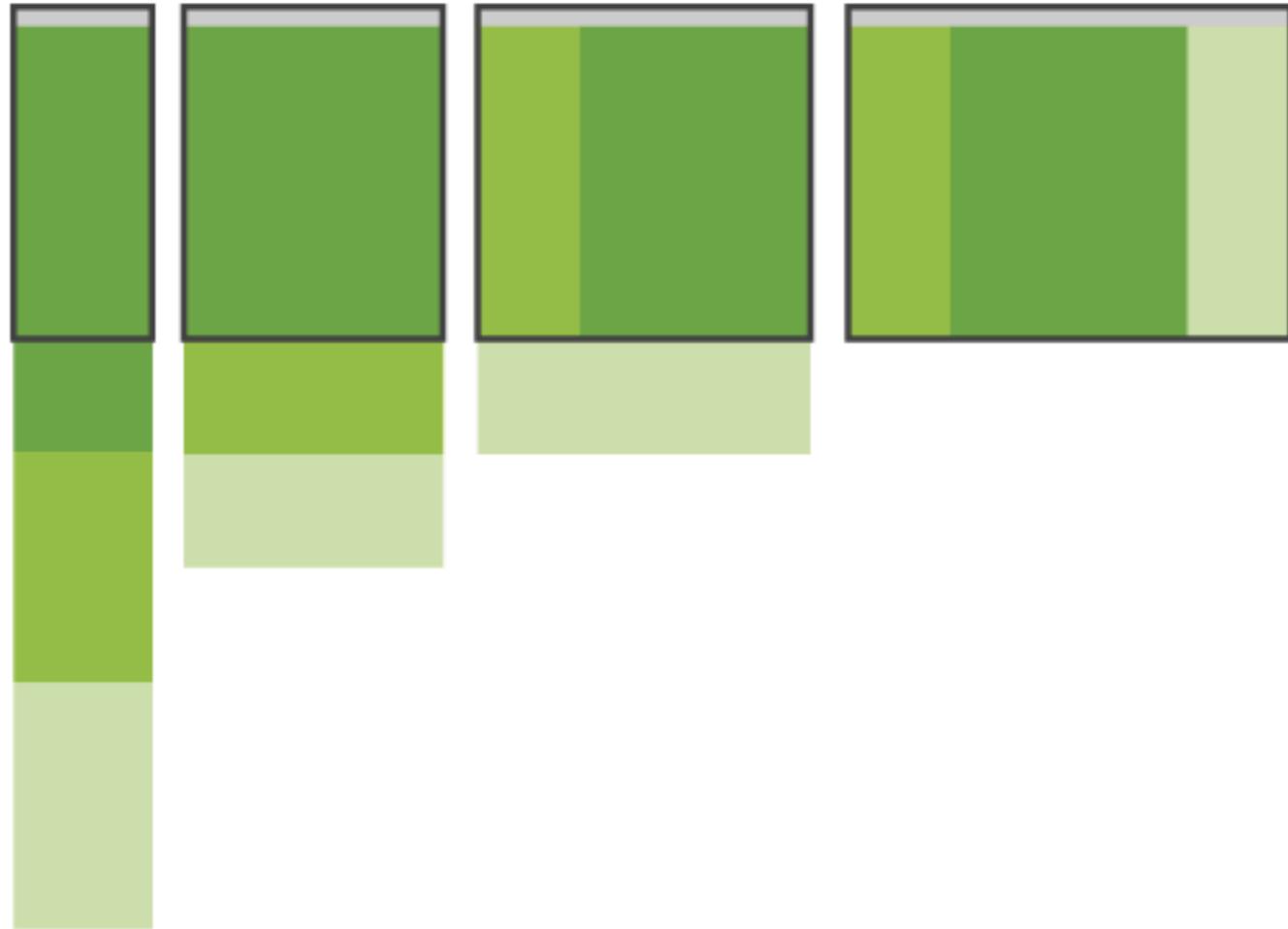
@lukew



(casi)Fluida



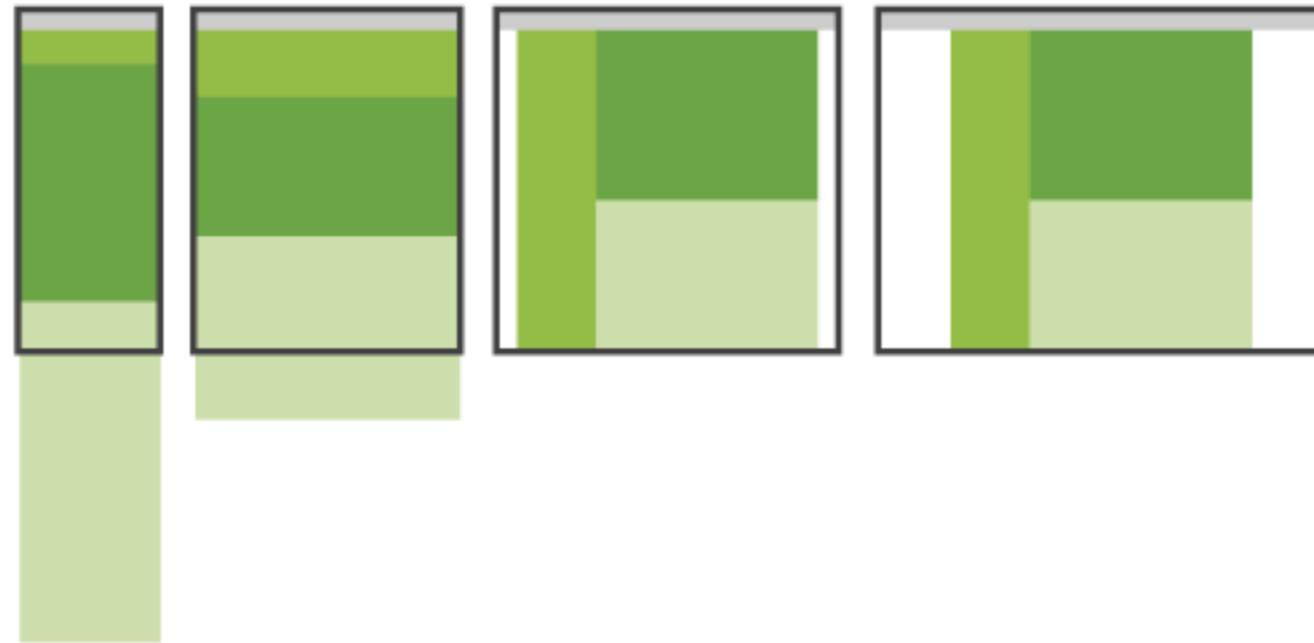
@lukew



Columna en cascada



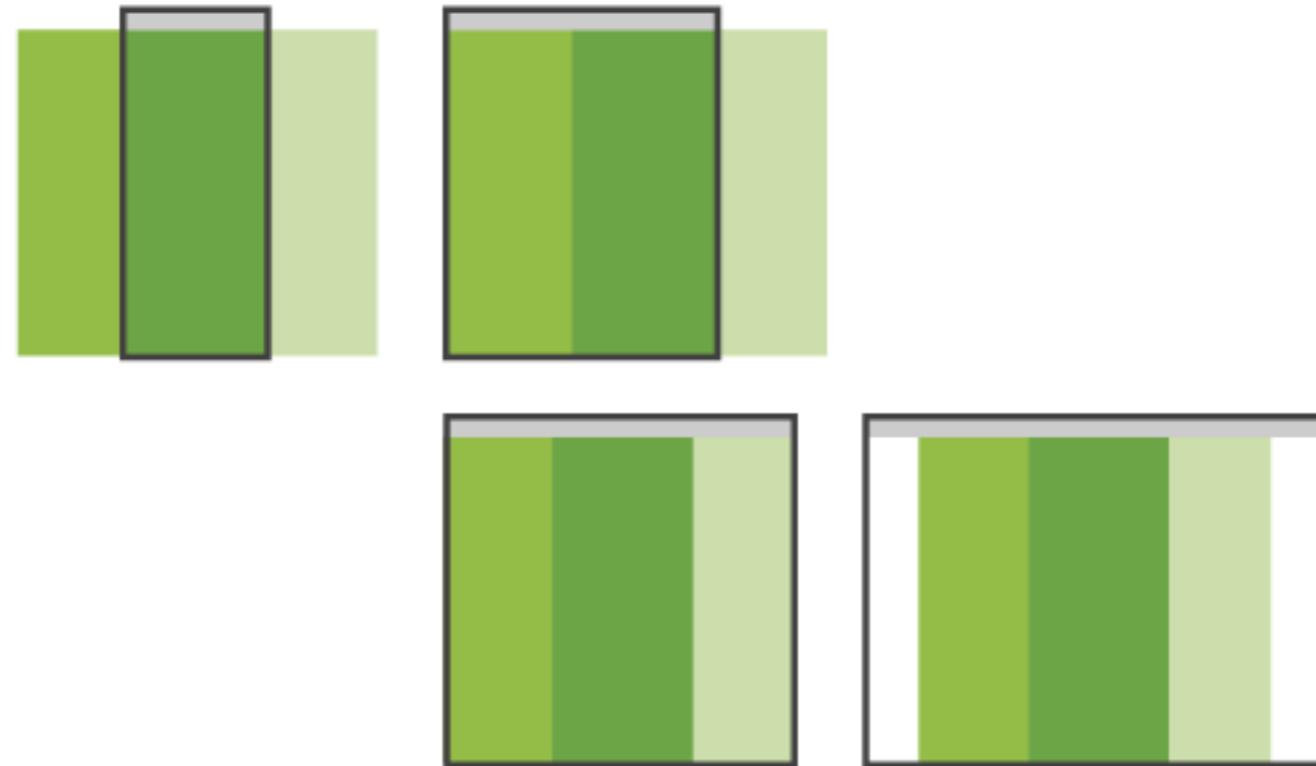
@lukew



Estructura cambiante



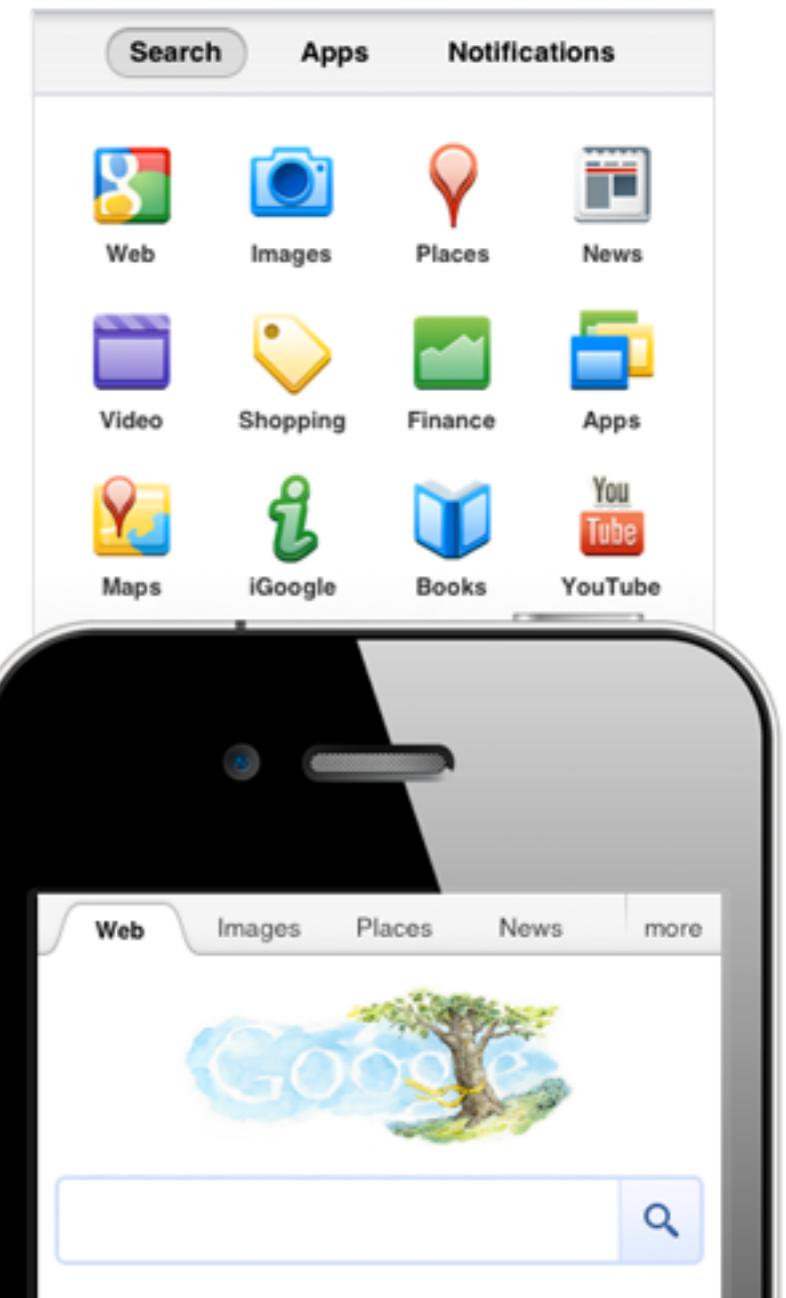
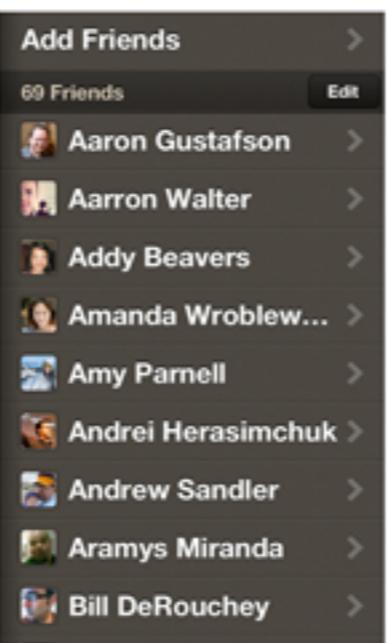
@lukew



Fuera de marco



@lukew



Navegación



home archives feed twitter
contact

TimKadlec.com
musings of a random nature

February 21st, 2012 ∞
tagged: media queries, mobile, performance, responsive

Media Query & Asset Downloading Tests

When you're building a responsive site, there will undoubtedly be times when you need to change a background image, or when you need

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musings of a random nature

February 21st, 2012 ∞
tagged: media queries, mobile, performance, responsive
0 Comments

Media Query & Asset Downloading Tests

When you're building a responsive site, there will undoubtedly be times when you need to change a background image, or when you need to hide an image for a specific resolution range. Unfortunately if you're not careful, this can lead to multiple images being downloaded even when they aren't being used. A few people—including Jason Grigsby, Greg Rewis and Aaron Mentele—have done some excellent testing about how images are downloaded when media queries are involved. So far, the tests have been conducted using manual methods. There is absolutely nothing wrong with that, but I wanted to find a way to make the testing more

Top nav

También conocida como “No hagas nada”



@lukew

Ventajas:

Fácil de implementar

Sin dependencias de JS

Sin CSS complicado

No hay que modificar la estructura

Desventajas:

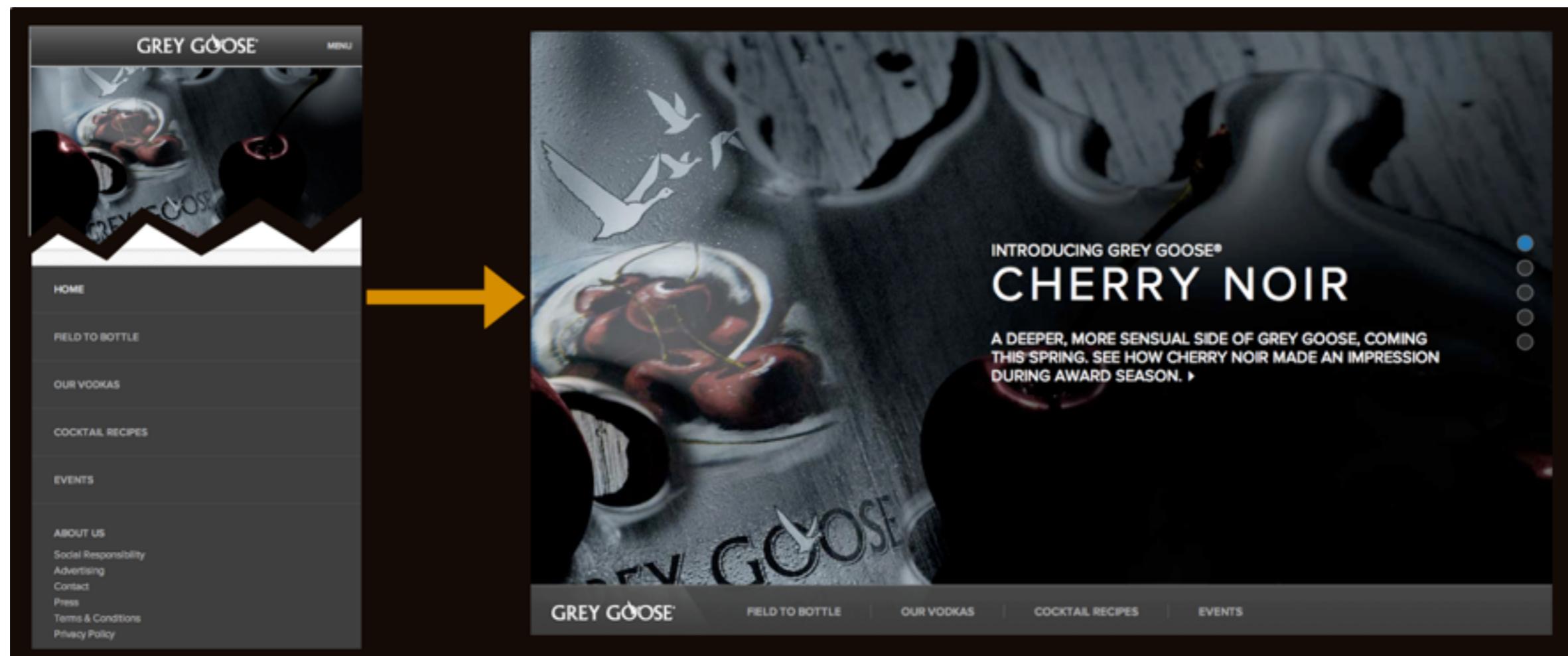
Problemas de altura

No es escalable

“Fat fingers”

Problemas entre dispositivos





Ancla en el pie



@lukew

Ventajas:

Fácil de implementar

Sin dependencias de JS

Sin CSS complicado

Un único botón en la cabecera

Desventajas:

Desorientación

No es elegante





Menú <select>

Transformamos una lista de enlaces en un <select>



@lukew

Ventajas:

Libera espacio

Mantiene las interacciones en la cabecera

Fácilmente reconocible

Usa controles nativos

Desventajas:

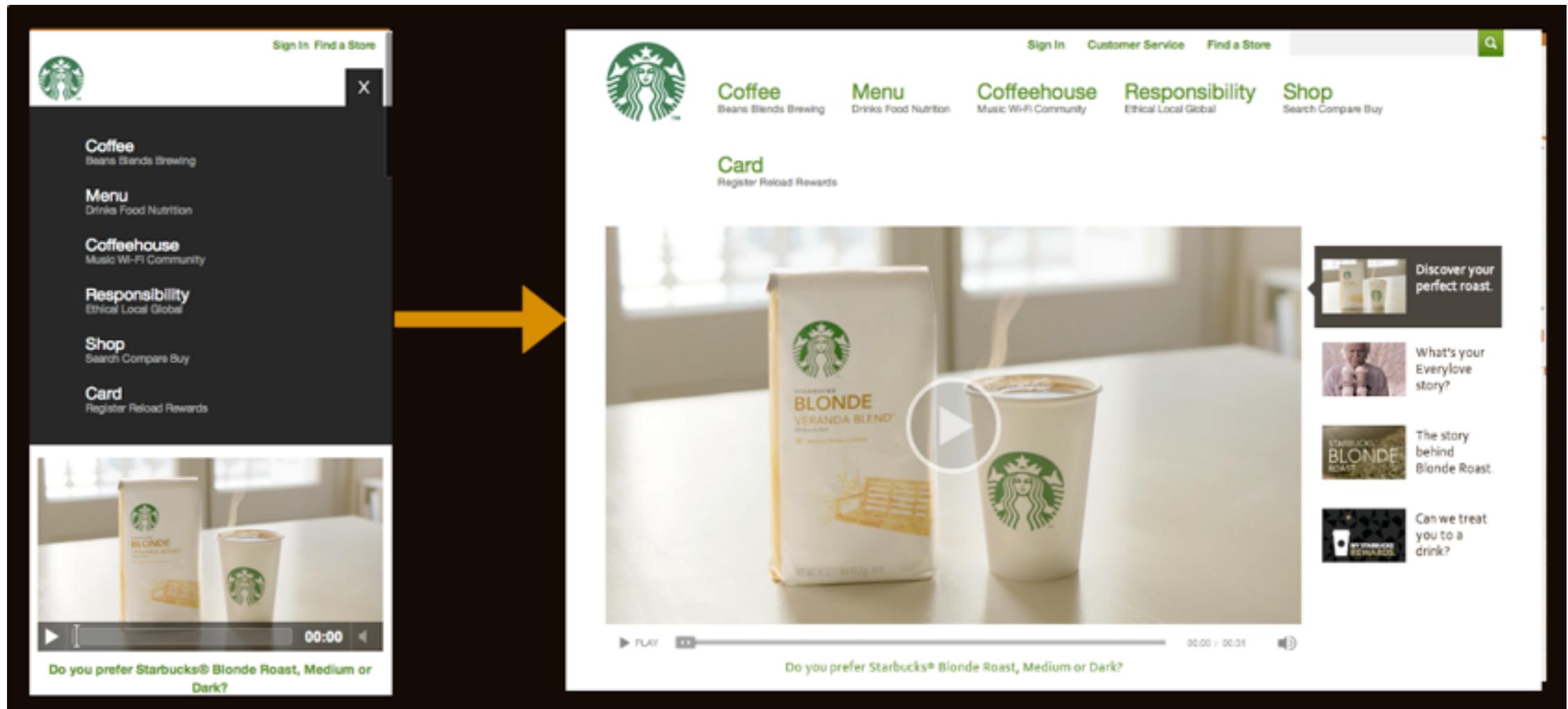
No hay control de los estilos

Potencialmente confuso

Manejar elementos de submenús

Dependencia de JS





Toggle show/hide

Ocultamos y mostramos el menú en la cabecera



@lukew

Ventajas:

Mantiene al usuario en su sitio

Elegante

Fácilmente escalable

Desventajas:

Rendimiento de la animación

Dependencia de JS





Deslizante

El menú aparece, se desplaza el contenido



@lukew

Ventajas:

Mucho espacio

Bonito

Facebook convencional

Desventajas:

Avanzado

No escala bien

Potencialmente confuso



Sólo el pie

Content-first! Nav-second!



@lukew

Ventajas:

No necesita JS

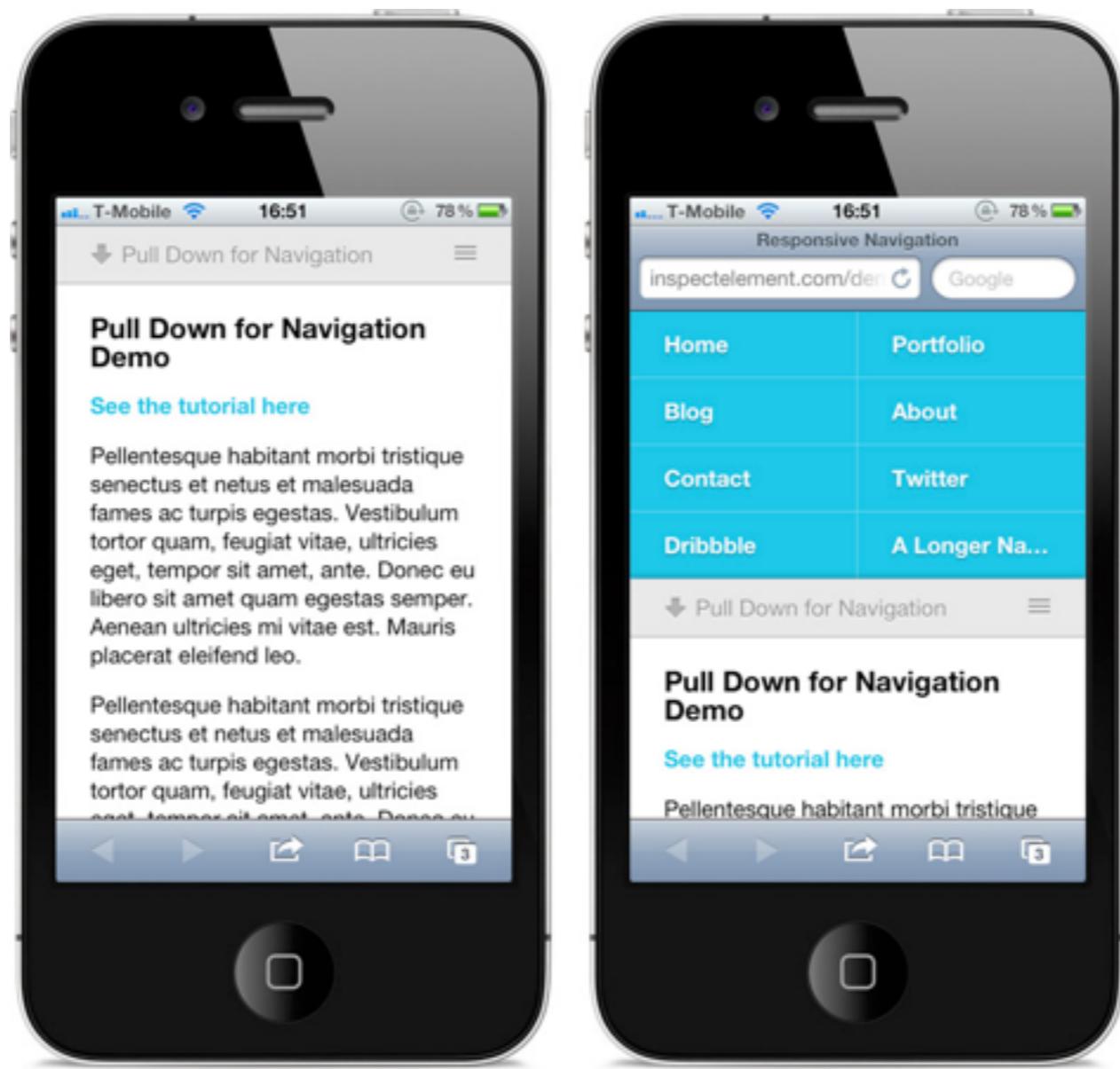
Mucho espacio para el contenido
pero...

Desventajas:

Difícil de descubrir

Difícil de acceder





Pull down

Nada como un gesto para “mostrar más”

<http://inspectelement.com/tutorials/pull-down-for-navigation-a-responsive-solution/>



Ventajas:

Muy atractivo

Libera espacio

Utiliza una convención típica de smartphones para “mostrar más”

Desventajas:

Potencialmente confuso

Relativamente avanzado

Precisa instrucciones



un ejemplo...



```
<nav class="main-menu">
  <a href="#main-content" class="skip-link">Skip Navigation</a>
  <ul>
    <li class="nav-item"><a href="#">item 1</a></li>
    <li class="nav-item"><a href="#">item 2</a></li>
    <li class="nav-item">
      <span>submenu</span>
      <ul class="subnav">
        <li class="nav-item"><a href="#">sub-item 1</a></li>
        <li class="nav-item"><a href="#">sub-item 2</a></li>
        <li class="nav-item"><a href="#">sub-item 3</a></li>
      </ul>
    </li>
    <li class="nav-item"><a href="#">item 4</a></li>
    <li class="nav-item"><a href="#">item 5</a></li>
  </ul>
  <span class="close-menu-link">Cerrar menú</span>
</nav>
```



```
.menu {  
  position: fixed;  
  left: 0;  
  right: 0;  
  top: -200em;  
}  
.menu .menu-item {  
  display: block;  
}  
  
.menu-is-on .menu, .no-js .menu {  
  top: 0;  
}  
@media only screen and (min-width: 800px) {  
  .menu {  
    position: static;  
  }  
  .menu .menu-item {  
    float: left;  
  }  
  .menu-link {  
    display: none;  
  }  
}
```



SASS



SASS...

Es 100% compatible con CSS3.

Permite usar variables, anidamiento de estilos y mixins.

Incluye funciones para manipular con facilidad colores y otros valores.

Puede usar elementos básicos de programación como las directivas de control y las librerías.

Genera archivos CSS bien formateados.

Facilita crear una arquitectura para las CSS.



Usando SASS

En la consola de comandos

Como módulo de Ruby

Como plugin de un framework (Merb, Ruby on Rails...)

Con un compilador (Codekit, Prepros, Koala, SimpleLess...)



Reglas anidadas

```
//Sass
.content p {
  color: #00ff00;
  width: 97%;

.redbox {
  background-color: #ff0000;
  color: #000000;
}

/*
CSS */
.content p {
  color: #00ff00;
  width: 97%;
}

.content p .redbox {
  background-color: #ff0000;
  color: #000000;
```



Selectores padre

```
//Sass
a {
  font-weight: bold;
  text-decoration: none;
  &:hover { text-decoration: underline; }
  body.e8 & { font-weight: normal; }
}

/* CSS */
a {
  font-weight: bold;
  text-decoration: none;
}
a:hover {
  text-decoration: underline;
}
body.e8 a {
  font-weight: normal;
}
```



Comentarios

```
/* Este comentario ocupa varias líneas,  
 * y utiliza el formato tradicional de CSS.  
 * Su contenido aparecerá en el archivo CSS compilado. */  
  
body { color: black; }  
  
// Estos comentarios ocupan una sola línea cada uno  
// Todos estos comentarios se eliminan al generar el  
// archivo CSS y por tanto, el usuario no podrá verlos  
a { color: green; }
```



Variables

```
$width: 5em;

.content {
    width: $width;

    &.extended {
        width: ($width * 2);
    }
}

/* CSS */
.content {
    width: 5em
}
.content.extended {
    width: 10em
}
```



Operadores

```
$width: 1000px;  
$font: 16px;  
  
p {  
    // El carácter '/' se interpreta como código CSS normal  
    font: 14px/16px;  
    font: 14px/#{$font}; //La variable encerrada con #{ }  
  
    // El carácter '/' se interpreta como una división  
    width: $width/2;          // Uno de los operandos es una variable  
    width: round(1.5)/2;      // Uno de los operandos es el resultado de una función  
    height: (500px/2);        // Los paréntesis encierran la expresión  
    margin-left: 5px + 8px/2px; // El '+' indica que es una expresión matemática  
}  
  
/* CSS */  
p {  
    font: 10px/8px;  
    width: 500px;  
    height: 250px;  
    margin-left: 9px;  
}
```



Funciones

```
$grey: #CCC;  
  
.content {  
    background: rgba($grey, 0.6)  
}  
  
/* CSS */  
  
.content {  
    background: rgba(204,204,204, 0.6);  
}
```



@extend

```
//SASS                                     /* CSS */  
  
%button {  
  display: inline-block;  
  cursor: pointer;  
}  
  
.btn {  
  @extend %button;  
  background: gray;  
}  
  
.btn-primary {  
  @extend %button;  
  background: red;  
}  
  
.btn, .btn-primary {  
  display: inline-block;  
  cursor: pointer;  
}  
  
.btn {  
  background: gray;  
}  
  
.btn-primary {  
  background: red;  
}
```





```
/* CSS */  
//SASS  
$type: monster;  
p {  
  @if $type == ocean {  
    color: blue;  
  } @else if $type == matador  
{  
  color: red;  
} @else if $type == monster  
{  
  color: green;  
} @else {  
  color: black;  
}  
}
```





```
//SASS                                     /* CSS */  
  
@for $i from 1 through 3 {  
  .item-#{$i} { width: 2em *  
$i; }  
}  
  
.item-1 {  
  width: 2em;  
}  
  
.item-2 {  
  width: 4em;  
}  
  
.item-3 {  
  width: 6em;  
}
```



mixins

```
//  Inline-block fix          /* CSS */\n\n@mixin inline-block-fix {\n    font-size: 0;\n\n    > * {\n        font-size: 16px;\n    }\n}\n\n.row {\n    @include inline-block-fix;\n}
```

```
.row {\n    font-size: 0;\n}\n\n.row > * {\n    font-size: 16px;\n}
```



mixins

```
// Box shadow          /* CSS */  
  
@mixin box-shadow($shadows...) {  
  -moz-box-shadow: $shadows;  
  -webkit-box-shadow: $shadows;  
  box-shadow: $shadows;  
}  
.item {  
  @include box-shadow(0px 4px  
  5px #666, 2px 6px 10px #999);  
}
```

```
.item {  
  -moz-box-shadow: 0px 4px 5px #666,  
  2px 6px 10px #999;  
  -webkit-box-shadow: 0px 4px 5px  
  #666, 2px 6px 10px #999;  
  box-shadow: 0px 4px 5px #666, 2px  
  6px 10px #999;  
}
```



Y cómo lo hago...

...sin que nos quede un desastre?



Con algunas buenas prácticas...

Se constante con las indexaciones, los espacios y los guiones

Un Selector por línea, una Regla por línea

Agrupa las propiedades relacionadas

Planea los nombres de clases por anticipado

NO USES ID's (#esundrama)





...y planificación!



styles.css.scss

```
// GLOBALS
@import "globals/settings";
@import "globals/mixins";

// BASE
@import "base/normalize";
@import "base/grid";
@import "base/base";

// OBJECTS
@import "objects/icons";
@import "objects/headings";
@import "objects/texts";
@import "objects/buttons";

// // LIB
// @import "lib/";

// MODULES
@import "modules/header";
@import "modules/footer";
@import "modules/articles";
@import "modules/header";
```



Primero los @extends

```
.weather {  
    @extends %module;  
    ...  
}
```



Después los estilos “normales”

```
.weather {  
  @extends %module;  
  
  background: LightCyan;  
  
  ...  
}
```



Al final los elementos anidados...

```
.weather {  
  
  @extends %module;  
  
  background: LightCyan;  
  
  @include transition(all 0.3s ease);  
  
  > h3 {  
  
    border-bottom: 1px solid white;  
  
    @include transform(rotate(90deg));  
  
  }  
  
}
```



Los vendors con @mixins

```
@mixin transform($transforms) {  
  -moz-transform: $transforms;  
  -o-transform: $transforms;  
  -ms-transform: $transforms;  
  -webkit-transform: $transforms;  
  transform: $transforms;  
}  
  
.weather {  
  @include transition(all 0.3s ease);  
}
```



http://prefixr.com/

Aún mejor:

Autoprefixer

https://css-tricks.com/autoprefixer/



Como mucho tres niveles de anidados!

```
.weather {  
  
.cities {  
  
    li {  
  
        // Y ni uno más!  
  
    }  
  
}  
  
}  
  
.weather .cities li { }
```



A man in a flight suit and goggles is looking through a telescope. He is wearing a blue flight suit with a name tag that reads "PRES". The background is dark and out of focus.

Y ni uno mas!!!



Utiliza variables

```
$font: 'Raleway', Helvetica, Arial, sans-serif;  
$base-lineHeight: normal;  
  
$light: 300;  
$normal: 400;  
$medium: 500;  
$semibold: 600;  
$bold: 700;  
  
$font-base: 18;  
$document-font-size: ($font-base / 16) * 100%;
```



TODOS los colores en variables

```
$primary: #FF6600;  
$primaryDark: #C54931;  
$secondary: #2d2d2d;  
$black: #000000;  
$white: #ffffff;  
  
$baseBg: $white;  
  
$text: $grayDark;  
$textLight: $gray;  
  
$error: #bf0411;      //red  
$success: #009045;    //green  
$info: #1AACF4;       //light blue  
$warning: #F4C427;    //yellow
```



Anidamos y renombramos las media queries

```
@mixin media-query($media-query){  
  @if $media-query == desktop{  
    @media only screen and (min-width: 1000px )  
      { @content; }  
  }  
}  
  
.content{  
  width: 100%;  
  @include media-query(desktop){  
    max-width: 90%;  
  }  
}
```





Mixins, mixins!!!



@font-face

```
// font-face  
// Use:  
// @include font-face('Gotham', 'GothaHTFLig', 200);  
  
@mixin font-face($font-family, $font-filename, $font-weight : normal,  
$font-style :normal, $font-stretch : normal) {  
  @font-face {  
    font-family: "#{$font-family}";  
    src: url("../fonts/#{$font-filename}.woff") format("woff"), //Chrome  
6+, Firefox 3.6+, IE 9+, Safari 5.1+, Android 4.4  
        url("../fonts/#{$font-filename}.ttf") format("truetype"); //  
Chrome 4+, Firefox 3.5, Opera 10+, Safari 3–5, Android 2.2+,  
    font-weight: $font-weight;  
    font-style: $font-style;  
    font-stretch: $font-stretch;  
  }  
}
```



Font-size en rem

```
// font-size to rem  
// Use:  
// @include font-size(20);  
  
@mixin font-size($sizeValue: 16 ) {  
    font-size: $sizeValue + px;  
    font-size: ($sizeValue / $font-base) + rem;  
}
```



Font-size en rem

```
// font-size to rem  
// Use:  
// @include font-size(20);  
  
@mixin font-size($sizeValue: 16 ) {  
    font-size: $sizeValue + px;  
    font-size: ($sizeValue / $font-base) + rem;  
}
```



Conversor em's

```
// EM conversor
//use:
// .element{
//   height: em(50, 16);
// }
// First value is the desired font-size (in pixels)
// Second value is the context (parent) font-size; default size is base font-
size

@function em($target, $context: $font-base){
  @if ($target == 0){
    @return 0;
  }
  @else{
    @return #{$target / $context}em;
  }
}
```



Conversor rem's

```
// REM conversor  
//use:  
// .element {  
//   height: rem(50);  
// }  
// value equals desired font-size in pixels  
  
@function rem($size){  
  @return #{$size / $font-base}rem;  
}
```



Tamaños en rem y px

```
// remSize: Sizes in rem with fallback for pixels
// use:
// .element {
//   @include rem('border', 1 solid red);
//   @include rem('padding', 10 20 10);
// }
@mixin remSize($property, $values) {
  // If there is only one (numeric) value, return the property/value line for it.
  @if type-of($values) == "number" {
    #{$property}: $values + px;
    #{$property}: rem($values);}

  @else {
    // Create an empty list that we can dump values into
    $rem-values: unquote("");
    $px-values: unquote("");
    @each $value in $values {
      // If the value is zero or a string or a color, return unchanged input
      @if $value == 0 or type-of($value) == "string" or type-of($value) == "color" {
        $px-values: append($px-values, $value);
        $rem-values: append($rem-values, $value);
      }
      @else {
        $convert-rem: rem($value);
        $convert-px: $value + px;
        $rem-values: append($rem-values, $convert-rem);
        $px-values: append($px-values, $convert-px); } }
    // Return the property and its list of converted values
    #{$property}: $px-values;
    #{$property}: $rem-values;
  }
}
```



Clearfix

```
// clearfix  
// use: @include clearfix;  
  
@mixin clearfix(){  
  &:after{  
    clear: both;  
    content: '';  
    display: table;  
  }  
}
```



Texto oculto accesible

```
// Accessible & seo-friendly hidden content  
// use: @include hide-content;
```

```
@mixin hide-content {  
  display: table;  
  text-indent: 100%;  
  white-space: nowrap;  
  overflow: hidden;  
}
```



Texto oculto accesible 2

```
// Hidden text accesible for text-readers
// use: @include reader-only;
@mixin reader-only {
  clip: rect(0 0 0 0);
  overflow: hidden;
  position: absolute;
  height: 1px;
  width: 1px;
}
```



Texto cortado

```
// Truncated text with ellipsis
// use: @include truncate;

@mixin truncate {
  white-space: nowrap;
  overflow: hidden;
  text-overflow: ellipsis;
}
```



Fix para columnas con inline-block

```
// Inline-block fix
// Solution to avoid those annoying white spaces between inline-block elements,
// mainly cols
// Use: @include inline-block-fix;

@mixin inline-block-fix {
  font-size: 0;
  > * {
    @include font-size($font-base);
  }
}
```



Position abreviada

```
// Shorthand position
/// use:
///   .foo {
///     @include position(absolute, $top: 10px, $left: 10px);
///   }
/// Result:
///   .foo {
///     position: absolute;
///     left: 10px;
///     top: 10px;
///   }

@mixin position($type, $top: null, $right: null, $bottom: null, $left: null) {
  position: $type;
  top: $top;
  right: $right;
  bottom: $bottom;
  left: $left;
}
```



Opacidad

```
// Opacity  
// Use:  
// @include opacity(0.8);  
  
@mixin opacity($opacity) {  
  opacity: $opacity;  
  $opacity-ie: $opacity * 100;  
  filter: alpha(opacity=$opacity-ie); //IE8  
}
```



Box-shadow

```
//Box Shadow  
  
// Use:  
// @include box-shadow(0 4px 4px -5px black inset);  
  
@mixin box-shadow( $value ) {  
  -webkit-box-shadow: $value;  
  -moz-box-shadow: $value;  
  box-shadow: $value;  
}
```



Text-shadow

```
// Text Shadow  
  
// Use:  
// @include text-shadow(0 1px 2px black);  
  
@mixin text-shadow( $value ) {  
    -webkit-text-shadow: $value;  
    -moz-text-shadow: $value;  
    text-shadow: $value;  
}
```



Degradados

```
// Gradients
// First value: origin color
// Second value: end color
// Third value: direction
// Use:
// @include gradient(white, black, left);

@mixin gradient($fromColor, $toColor, $direction: bottom) {
  background-color:$fromColor;
  background-image: linear-gradient(to $direction, $fromColor 0%, $toColor 100%);
}
```



Transiciones

```
// Transitions
// use:
// a {
//   color: gray;
//   @include transition(color .3s ease);
//   &:hover {
//     color: black;
//   }
// }

@mixin transition($args...) {
  -webkit-transition: $args;
  -moz-transition: $args;
  -ms-transition: $args;
  -o-transition: $args;
  transition: $args;
}
```



Transforms 1

```
// generic transform
// Use:
// @include transform(translateX(25px));

@mixin transform($transforms) {
  -moz-transform: $transforms;
  -o-transform: $transforms;
  -ms-transform: $transforms;
  -webkit-transform: $transforms;
  transform: $transforms;
}
```



Transforms 2

```
// rotate
@mixin rotate ($deg) {
  @include transform(rotate(#{$deg}deg));
}

// scale
@mixin scale($scale) {
  @include transform(scale($scale));
}

// translate
@mixin translate ($x, $y) {
  @include transform(translate($x, $y));
}

// skew
@mixin skew ($x, $y) {
  @include transform(skew(#{$x}deg, #{$y}deg));
}
```



Transforms 3

```
//transform origin  
// Use:  
// @include transform-origin(50%, 50%);  
  
@mixin transform-origin ($origin) {  
    moz-transform-origin: $origin;  
    -o-transform-origin: $origin;  
    -ms-transform-origin: $origin;  
    -webkit-transform-origin: $origin;  
    transform-origin: $origin;  
}
```



Animaciones

```
// CSS3 ANIMATIONS
// Use:
// @include keyframes(slide-down) {
//   0% { opacity: 1; }
//   90% { opacity: 0; }
// }
// .element {
//   width: 100px;
//   height: 100px;
//   background: black;
//   @include animation('slide-down 5s 3');
// }
@mixin keyframes($animation-name) {
  @-webkit-keyframes #{$animation-name} {
    @content;
  }
  @-moz-keyframes #{$animation-name} {
    @content;
  }
  @-ms-keyframes #{$animation-name} {
    @content;
  }
  @-o-keyframes #{$animation-name} {
    @content;
  }
  @keyframes #{$animation-name} {
    @content;
  }
}
@mixin animation($str) {
  -webkit-animation: #{$str};
  -moz-animation: #{$str};
  -ms-animation: #{$str};
  -o-animation: #{$str};
  animation: #{$str};
}
```



Media Queries

```
// Use:  
// @include media-query(palm) {  
//   background: red;  
// }  
  
@mixin media-query($media-query){  
  @if $media-query == palm{  
    @media only screen and ( max-width: em($palm-end, 16) ) { @content; }  
  }  
  
  @if $media-query == lap-and-up{  
    @media only screen and (min-width: em($lap-start, 16) ) { @content; }  
  }  
  
  @if $media-query == desk{  
    @media only screen and (min-width: em($desk-start, 16) ) { @content; }  
  }  
  
  @if $media-query == desk-wide{  
    @media only screen and (min-width: em($desk-wide-start, 16) ) { @content; }  
  }  
  
  @if $media-query == hi-res {  
    @media only screen and (min--moz-device-pixel-ratio: 1.3),  
          (-o-min-device-pixel-ratio: 2.6/2),  
          (-webkit-min-device-pixel-ratio: 1.3),  
          (min-device-pixel-ratio: 1.3),  
          (min-resolution: 1.3dppx) { @content; }  
  }  
}
```



Optimizar





Dos frentes

Cliente vs Servidor



Cliente

sprites

@font-face / sag

reducir peticiones

CSS3

compactar archivos (minimizar)



El código minificado es mejor...

```
@charset "UTF-8";
/*-----\
   $VARIABLES
\-----*/
/*-----\
   $HELPERS
   -> Extends, Functions, Mixins, Animations
\-----*/
/*-----\
   $NORMALIZE
\-----*/
article,
aside,
details,
figcaption,
figure,
footer,
header,
hgroup,
nav,
section,
summary {
  display: block;
}
```

```
@charset
"UTF-8";article,aside,details,figcaption
,figure,footer,header,hgroup,nav,section
,summary{display:block}{-webkit-box-
sizing:border-box;-moz-box-
sizing:border-box;box-sizing:border-box}
html{font-family:sans-serif;-webkit-
text-size-adjust:100%;-ms-text-size-
adjust:100%}body{margin:0}a{background:0
}a:focus{outline:dotted thin}
a:active,a:hover{outline:
0}::selection{background:#F60;color:#FFF
}::-moz-
selection{background:#F60;color:#FFF}
img{border:0;vertical-align:middle;max-
width:100%;height:auto}iframe{max-width:
100%}figure{margin:0}table{border-
collapse:collapse;border-spacing:0}
@media only screen and (min-width:
43.75em){.one-whole{width:100%}.one-
half,.two-quarters{width:50%}.one-
third{width:33.333%}.two-thirds{width:
66.666%}.one-quarter{width:25%}.three-
quarters{width:75%}}
```



Servidor

cachear assets

GZIP

páginas estáticas

emplear CDN



A portrait of Zach Galifianakis, a man with long, wavy brown hair and a full, reddish-brown beard. He is looking directly at the camera with a neutral expression. He is wearing a light-colored, button-down shirt. The background is a soft-focus indoor setting.

Thank you.

