

<https://github.com/rachidmrاد/DCWW>

- **respond.js** - simple, used by Bootstrap.
- **css3-mediaqueries.js** - more robust, allows height-based queries.

<https://code.google.com/p/cvlib-mex-for-its-jit/>
<https://github.com/its-jit/cvlib-mex-for-its-jit>

- <http://cssmediaqueries.com/>
- <http://css-tricks.com/snippets/css/retina-display-media-query/>
- <http://stephen.io/mediaqueries/>

```
/* iPads (portrait) ----- */
@media only screen
and (min-device-width: 768px)
and (max-device-width: 1024px)
and (orientation: portrait) {
```

- Mobile browsers create a virtual viewport that is 980px wide.
- `<meta name="viewport" content="width=device-width, initial-scale=1">`

<https://doi.org/10.1016/j.jmb.2019.04.001>

```

nav {
  nav a {
    nav a::after { type: 71; }
    border-top: dashed 1px #333;
    border-bottom: dashed 1px #333;
    border-right: none;
    border-left: none;
  }
}
@media only screen and (min-width: 600px) {

```

"71% of mobile users expect mobile websites to load as fast, if not faster, than desktop websites, and 74% of mobile visitors will abandon a website if it takes more than 5 seconds to load."-Brad Frost

<http://moodle.org/mod/forum/discuss.php?d=10000>

- Responsive vs. Adaptive
- Responsive vs. Separate Mobile (or one site vs. dual sites)
- Native Apps vs. Web Apps

(1) Falsafsky, Igor, "The True Factors of a 'One-Size-Fits-All' Approach: Responsive vs. Adaptive," <http://www.mediaworkshop.com/2012/02/the-true-factors-of-a-one-size-fits-all-approach-responsive-vs-adaptive/>

(2) Williams, Tanya, "The Difference between responsive and adaptive web design," <http://www.williamsdesign.com/blog/2012/02/20/the-difference-between-responsive-and-adaptive-web-design/>

- RWD Concepts
- Speed
- Frameworks
- Navigation and UI Components
- Code Examples + Dev Considerations
 - (Queries, IE, Testing, Detect Mobile, Greensock, ...)
- Future of UI
 - (AR, next OS)

```
<nav>
  <a href="/index.html">Home</a>
  <a href="/#">Link</a>
  <a href="/0">Link</a>
</nav>
```

www.mallin-sparks.com/
twitter.com/mallin-sparks
www.mallin-sparks.com/
www.mallin-sparks.com/policies/privacy-policy/
www.mallin-sparks.com/
www.mallin-sparks.com/
www.mallin-sparks.com/

- **Twitter Bootstrap**
<http://getbootstrap.com/getting-started/>

- **Foundation.js**
<http://foundation.zurb.com/templates/workspace.html>

<http://lib.ugr.es/imv/index.html>

- **Action Bar** - highlight important functionalities
- **Dashboard** - highlight important features/elements
- **Drill Downs** - usually combined with lists and stepping - move through various amounts of content
- **Expandable Lists** - move through content
- **Tabs** - move through content
- **Header Effects** - for anchor-based navigation
- **Scrollable Pages** - move through content
- **Stepping** - move through content

- Simple List Nav
- Mobile First
- CSS3 Selectors

Try adding a nav anchor

- As seen in common Framework templates
- Mobile First
- Single Markup juggling CSS and JS

(Except for the extra markup controlling hover)

- JS Animation
- Backward Compatibility
- Modular library
- More power than jQuery, more control than CSS3

Twee nits: twee opzetten, één afgeleid van 'het' en één afgeleid van 'de'.

- Desktop First
- Extra Markup
- Simplified Tier 2 Nav

Try changing the Nav's position from off-screen left to off-screen right

```
menuButton.onclick = function() { toggleSlide(); };
function toggleSlide() {
  if (toggleState == 0) {
    TweenMax.to(slideNavigation, 0.5, {left: '25%'});
    toggleState = 1;
  } else {
    TweenMax.to(slideNavigation, 0.7, {left: '100%'});
    toggleState = 0;
  }
}
```

Overview

- **RWD Concepts**
- **Speed**
- **Frameworks**
- **Navigation and UI Components**
- **Code Examples + Dev Considerations**
 - (Queries, IE, Testing, Detect Mobile, Greensock...)
- **Future of UI**
 - (AR, next OS)

Responsive Web Design (RWD) Concepts

- **Responsive vs. Adaptive**
- **Responsive vs. Separate Mobile (or one site vs. dual sites)**
- **Native Apps vs. Web Apps**

(1) Faletsky, Igor. "The Two Flavors of a 'One Web' Approach: Responsive vs. Adaptive."

<http://www.webmonkey.com/2013/05/the-two-flavors-of-a-one-web-approach-responsive-vs-adaptive/>

(2) Williams, Tanya. "The difference between responsive and adaptive web design."

<http://www.responsys.com/blogs/nsm/cross-channel-marketing/difference-responsive-adaptive-web-design/>

Speed

"71% of mobile users expect mobile websites to load as fast, if not faster, than desktop websites, and 74% of mobile visitors will abandon a website if it takes more than 5 seconds to load."—Brad Frost

Frost, Brad. "Separate Mobile Website Vs. Responsive Website."

<http://mobile.smashingmagazine.com/2012/08/22/separate-mobile-responsive-website-presidential-smackdown/>

Frameworks

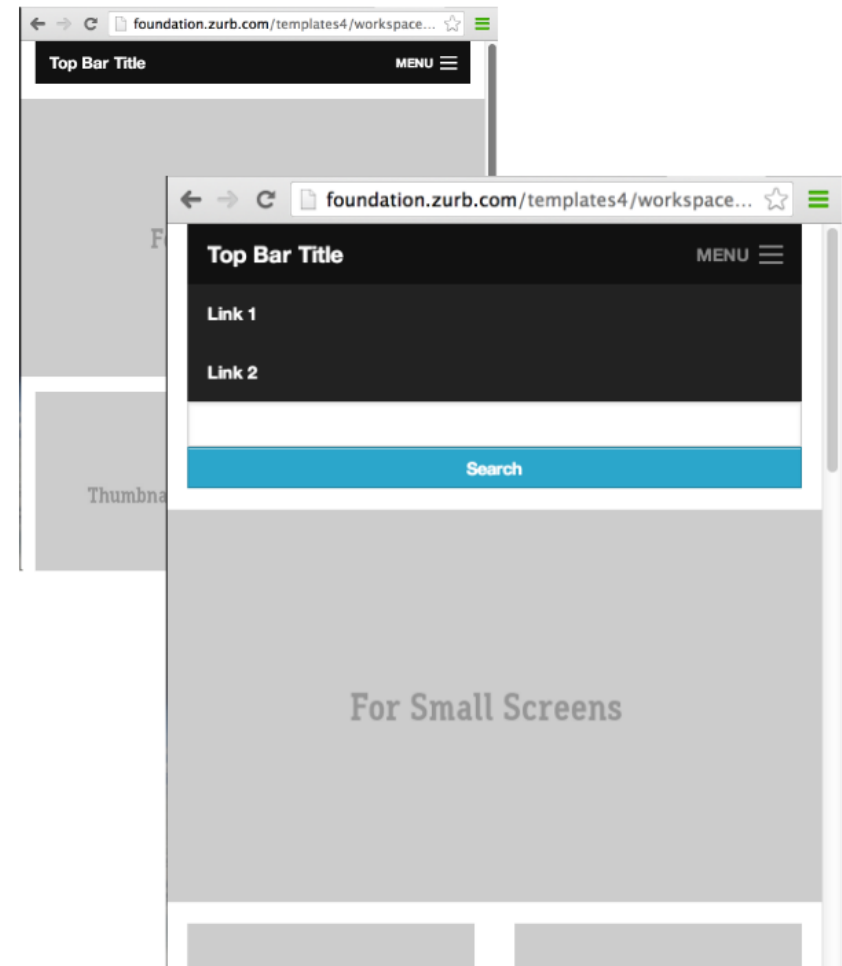
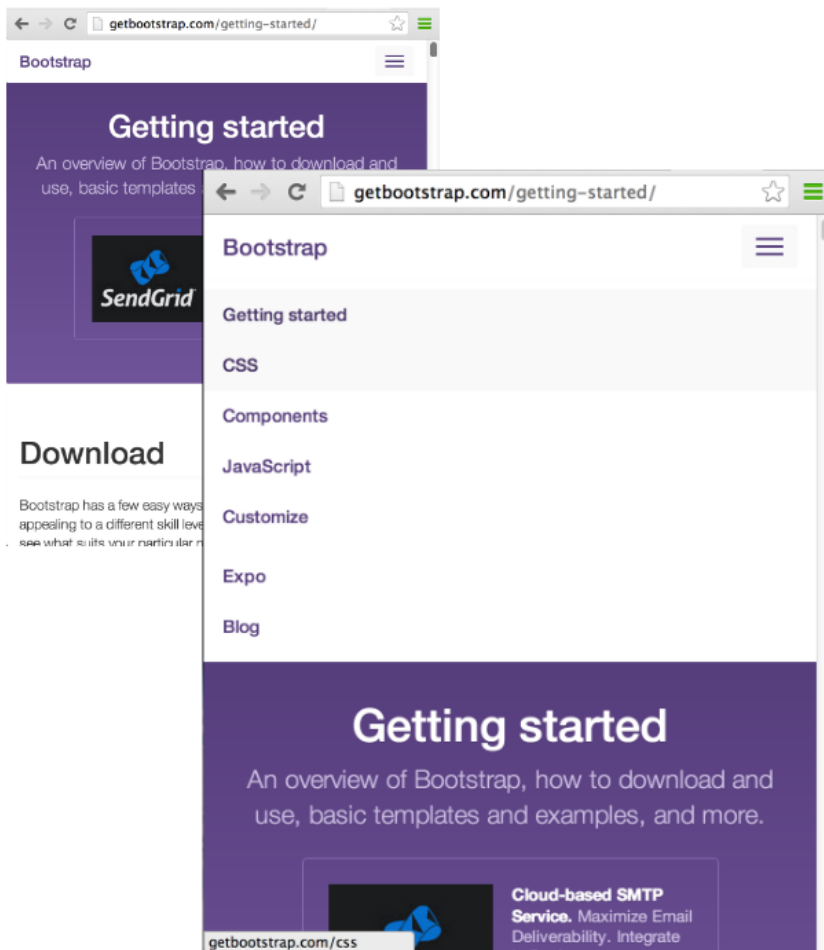
- **Twitter Bootstrap**

<http://getbootstrap.com/getting-started/>

- **Foundation.js**

<http://foundation.zurb.com/templates/workspace.html>

<http://designinstruct.com/roundups/html5-frameworks/>



Mobile Navigation

- **Action Bar** - highlight important functionalities.
- **Dashboard** - highlight important functionalities.
- **Drill Down** (possibly combined with lists and stepping) - move through vast amounts of content.
- **Expandable List** - move through content.
- **Tabs** - move through content.
- **Header Effects** - for unobtrusive navigation.
- **Scrollable Rows** - move through content.
- **Stepping** - move through content.

UI Mood Boards

- <http://www.mobile-patterns.com/>
- <http://pttrns.com/>
- <http://inspired-ui.com/>
- <http://www.mobilepatterns.com/>
- <http://www.mobiledesignpatternngallery.com/mobile-patterns.php>
- <http://www.lovelyui.com/>
- <http://androidux.com/>
- http://www.androidpatterns.com/uap_category/navigation

Example 1: Simple List

- Simple List Nav
- Mobile First
- CSS3 Selectors

Try adding a nav anchor

Example 1: Markup

```
<nav>  
  <a href="index.html">Home</a>  
  <a href="#">Link</a>  
  <a href="#">Link</a>  
</nav>
```

Example 1: CSS

```
nav {...}
```

```
nav a {...}
```

```
nav a:nth-of-type(2) {  
  border-top: dashed thin #3C2415;  
  border-bottom: dashed thin #3C2415;  
  border-right: none;  
  border-left: none;  
}
```

```
@media only screen and (min-width : 650px) {...}
```

Viewport Meta

- Mobile browsers create a virtual viewport that is 980px wide.
- `<meta name="viewport" content="width=device-width, initial-scale=1">`

<https://developer.apple.com/library/ios/documentation/AppleApplications/Reference/SafariWebContent/UsingtheViewport/UsingtheViewport.html>

Media Queries

```
/* iPads (portrait) ----- */  
@media only screen  
and (min-device-width : 768px)  
and (max-device-width : 1024px)  
and (orientation : portrait) {  
  
...  
}
```

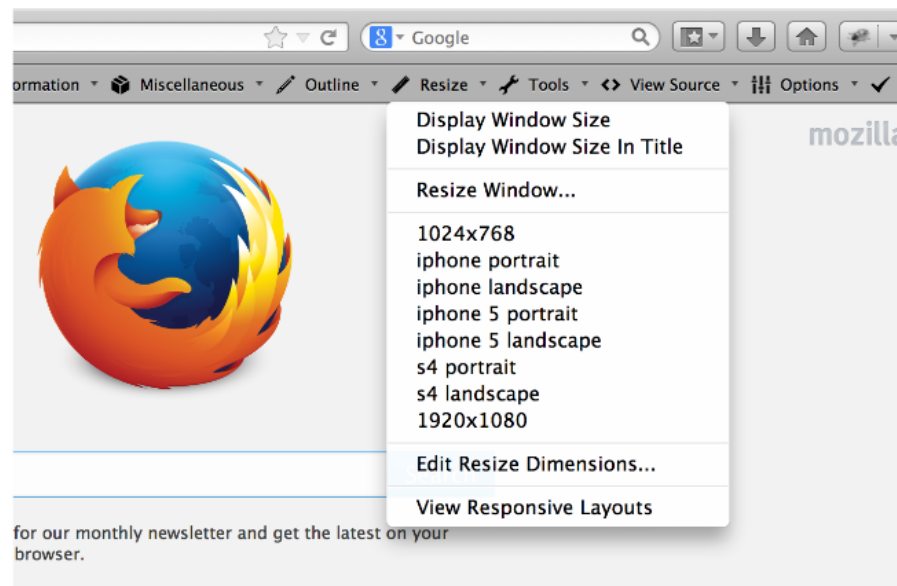
<http://css-tricks.com/snippets/css/media-queries-for-standard-devices/>

Media Queries Resources

- <http://cssmediaqueries.com/>
- <http://css-tricks.com/snippets/css/retina-display-media-query/>
- <http://stephen.io/mediaqueries/>

Testing

- Firefox Web Developer
- Xcode



Forget IE... or Not?

- **respond.js** - simple, used by Bootstrap.
- **css3-mediaqueries.js** - more robust, allows height-based queries.

<https://code.google.com/p/css3-mediaqueries-js/>

<https://github.com/scottjehl/Respond>

Example 2: Tiered Content

- Simple List Nav
- CSS3 animate
- Mobile only
- Detect Mobile and Redirect

JS Detect Mobile

jQuery.browser.mobile
(<http://detectmobilebrowser.com/>)

jQuery.browser.mobile will be true if the browser is a mobile device

Redirect

```
if (jQuery.browser.mobile == true)
{
    var filename =
window.location.href.substr(window.location.href.lastIndexOf("/") + 1);
    window.location.href = "project folder" + filename;
}
```

Example 3: Expandable List

- As seen in common Framework templates
- Mobile First
- Single Markup Juggling CSS and JS
(Except for the extra markup controlling hover)

Try adding a transitional state

GreenSock

- JS Animation
- Backward Compatibility
- Modular library
- More power than JQuery, more control than CSS3

```
TweenLite.to(wrapper, foo, {height: bar + 'px' });
```

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

IOS Reorientation Bug

- **Fixed in IOS7**

```
if (navigator.userAgent.match(/iPhone/i) || navigator.userAgent.match(/iPad/i)) {  
    var viewportmeta = document.querySelector('meta[name="viewport"]');  
    if (viewportmeta) {  
        viewportmeta.content = 'width=device-width, minimum-scale=1.0, maximum-scale=1.0, initial-scale=1.0';  
        document.body.addEventListener('gesturestart', function () { viewportmeta.content =  
'width=device-width, minimum-scale=0.25, maximum-scale=1.6'; }, false);  
    }  
}
```

Example 4: Fly-out Sidebar

- Desktop First
- Extra Markup
- Simplified Tier 2 Nav

Try changing the Nav's position from off-screen left to off-screen right

Example 4: JS

```
menuButton.onclick = function() { toggleSlide(); };  
function toggleSlide() {  
  if (toggleState === 0) {  
    TweenMax.to(slideNavigation, 0.5, {left: '35%'});  
    toggleState = 1;  
  } else {  
    TweenMax.to(slideNavigation, 0.7, {left: '100%'});  
    toggleState = 0;  
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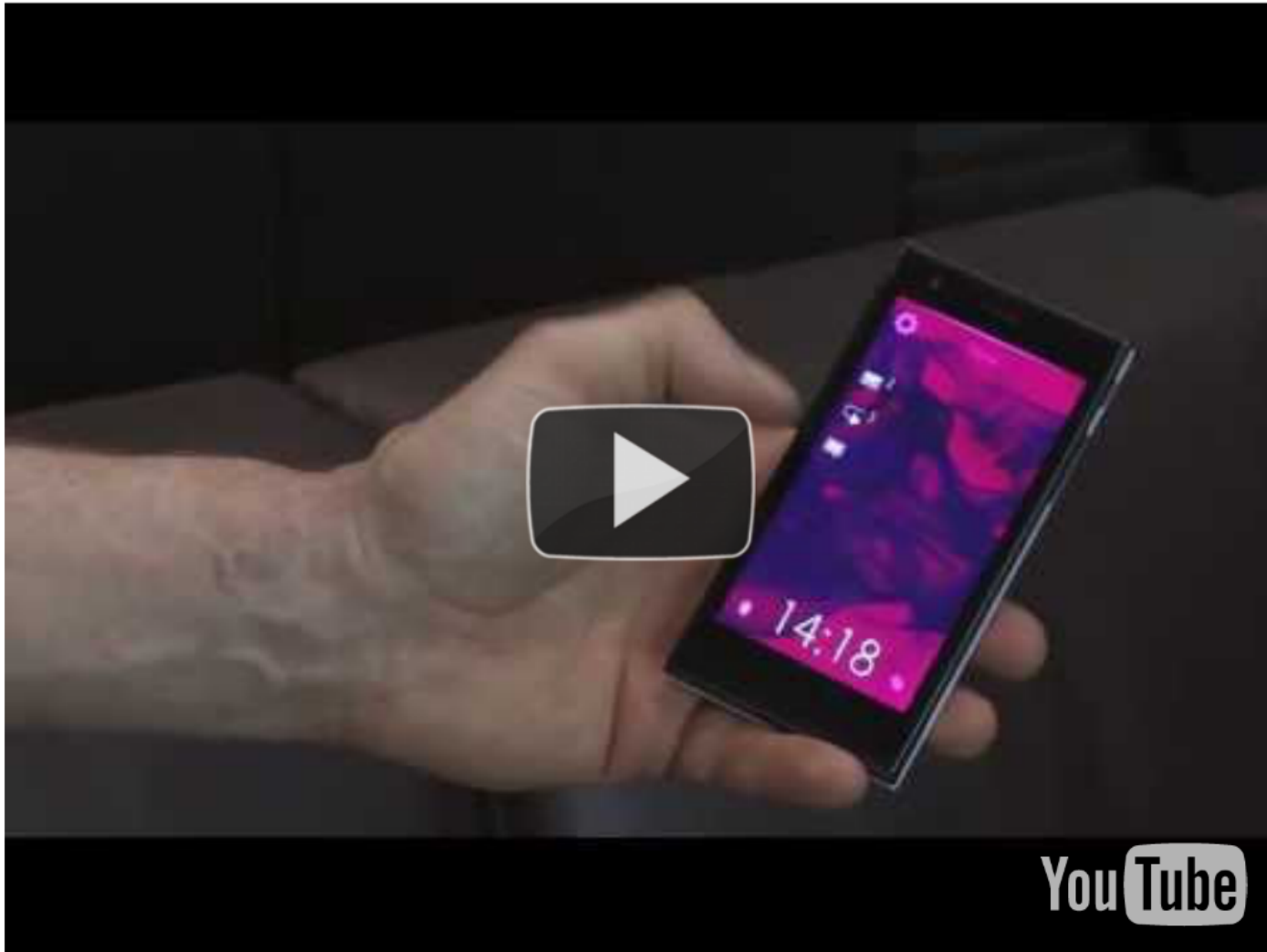
Example 5: Fly-out Sidebar FB Style

- Mobile Only
- Calculate distances and reset on resize to solve orientation
- Change IOS Safari scroll behavior

Try changing the Nav's position from off-screen left to off-screen right

What's Next?

- **Augmented Reality (AR)**
 - Google Glass
 - In-Browser Creators: Layar
- **New Mobile OS**
 - Jolla (Sailfish OS)
 - Firefox OS
 - Ubuntu



Thank You! | Questions?

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www.mallin-sparks.com/
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www.mallin-sparks.com/policy
www.mallin-sparks.com/
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Three nits to a wrapper, five, (bright bar + 'w') 1.

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