

# Content Authoring for Responsive Design

PRESENTED BY

Mike Hamilton

V.P. Product Evangelism at MadCap Software

[mhamilton@madcapsoftware.com](mailto:mhamilton@madcapsoftware.com)



# AGENDA

- Responsive Design
- Core Components of Responsive Design
- The Role of Content Structure
- The Role of CSS
- The Role of Media Queries
- Responsive Design Strategies
- Short Term RD Techniques
- Long Term RD Plans
- The RD Missing Link – Future of RD

# WHAT IS RESPONSIVE DESIGN?

# WHAT IS RESPONSIVE DESIGN?

- A concept, first described by web designer Ethan Marcotte
- <http://alistapart.com/article/responsive-web-design>
- A design concept created to address “stress points”

# WHAT IS RESPONSIVE DESIGN?

Responsive Design is NOT:

- » A smaller version of your page
- » Removing content to fit
- » A separate version for each and every device out there

# WHAT IS RESPONSIVE DESIGN?

Responsive Design is:

- » A single version of your content
- » Delivered to your customer
- » In a way that is easily understood
- » No matter what device they are using

RESPONSIVE DESIGN  
THE EASY WAY  
(LET FLARE DO THE HARD WORK)

# CORE COMPONENTS OF RESPONSIVE DESIGN



# CORE COMPONENTS

- Document Structure
- CSS
- Media Queries

# DOCUMENT STRUCTURE

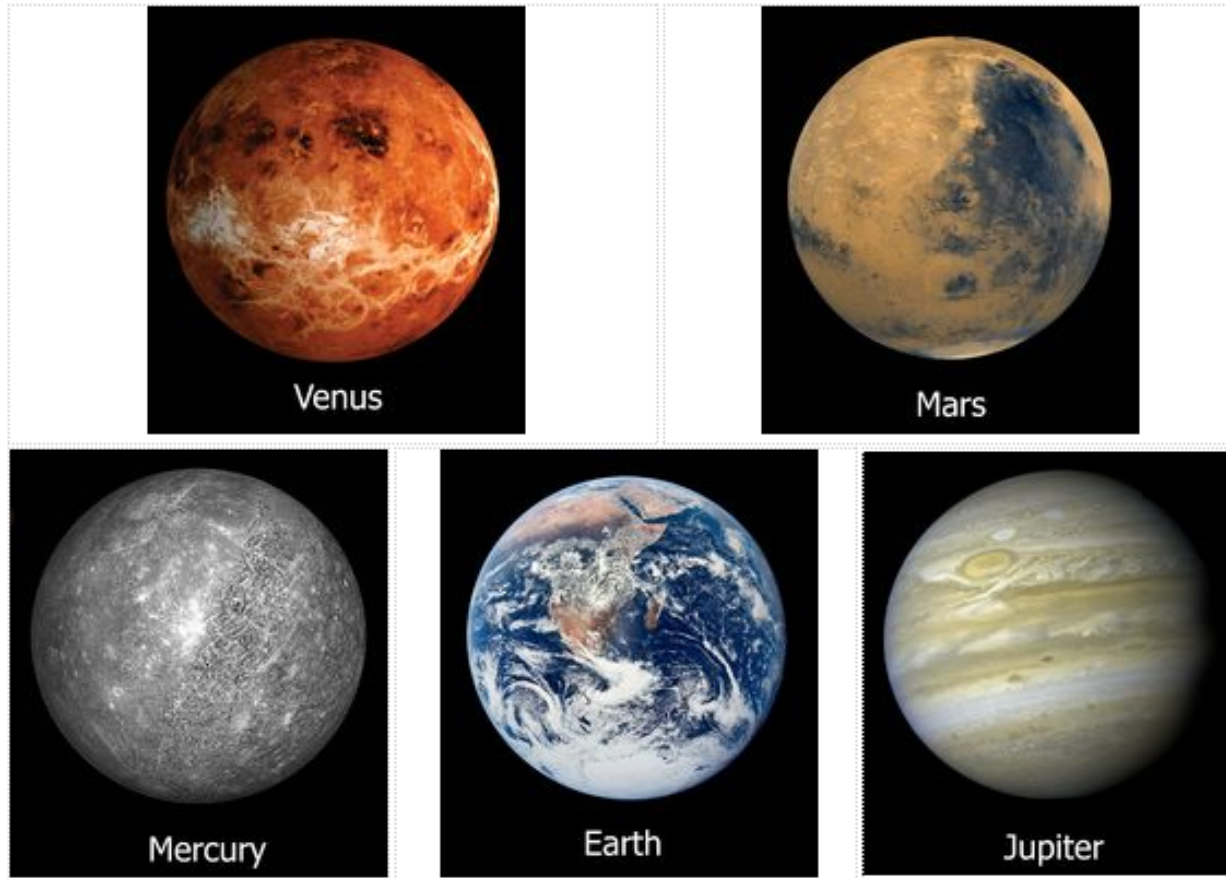
# DOCUMENT STRUCTURE

- In Responsive Design less is more
- Keep formatting out of the core document
- **EXAMPLE:** No more hidden tables

# DOCUMENT STRUCTURE

## Hidden Table

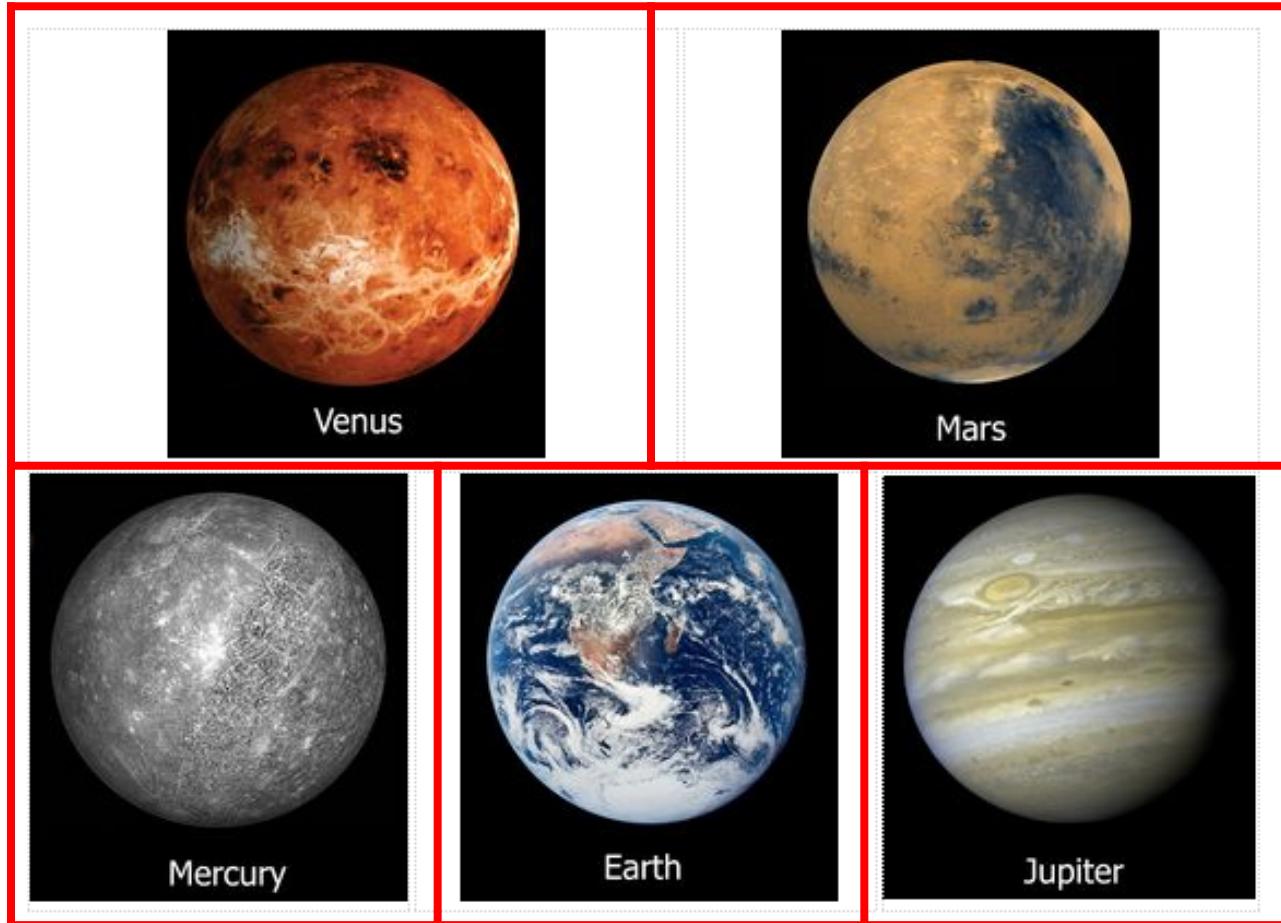
An old school web trick was to create the content layout that you wanted with a hidden table (a table with the border lines turned off).



# DOCUMENT STRUCTURE

## Hidden Table

An old school web trick was to create the content layout that you wanted with a hidden table (a table with the border lines turned off).



# DOCUMENT STRUCTURE

In addition to hidden layout tables, other items to avoid:

- » Fixed size DIV containers
- » Fixed size images
- » Any inline formatting/sizing

# DOCUMENT STRUCTURE

It may feel like going backward,  
but, the more your pages look like  
this...

# DOCUMENT STRUCTURE

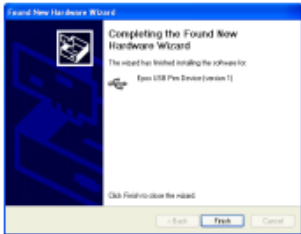
## Tall Topic - Heading 1

Lorem ipsum dolor sit amet, eros consectetur, commodo ultrices ac nec, ac morbi in consectetur. Pellentesque aenean proin, donec. Non voluptate, iaculis felis enim natoque quam, platea dis nullam mi et erat tristique suspendisse justo ipsa molestie, turpis scelerisque in a purus pede, porttitor velit dui in dolor velit integer.

## Paragraphs - Heading 2

Uma nullam at in vulputate, rutrum non tristique, tortor eu nisl nulla non mauris sit, nonummy adipiscing phasellus, integer ac interdum vel. Maecenas tellus hymenaeos aliquet dui voluptatem ut, arcu venenatis tellus, nec consequuntur blandit diam turpis adipiscing et, vitae proin bibendum. Arcu donec ut fringilla eget ullamcorper quis.

Sem id donec libero quis elementum, dui purus vel mi pulvinar, est.



Velit in vitae dolores ac. Porttitor massa quisque, orci mi in et quis.

Hymenaeos mauris sit erat massa feugiat dui, et lectus nisl erat sit consectetur, orci orci, scelerisque in enim tincidunt in sapien turpis, vehicula habitasse cursus.

Id uma velit aliquam, dictum fringilla ligula, proin vitae sit lorem, vitae cursus ac per etiam nibh tristique.

Enim ante ac aliquam, etiam et arcu ante fusce, vitae nunc odio nulla proin mollis.

# ...the easier Responsive Design will be.



# CSS

# CSS

The second leg of the RD stool is  
Cascading Style Sheets (CSS)

- » All look/feel/formatting
- » Block level (p, H1, H2, etc.)
- » Character level (span)
- » Grouping/formatting level

# CSS

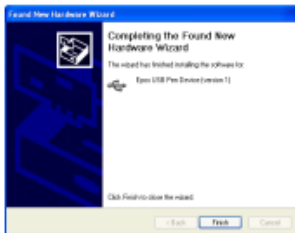
## Tall Topic - Heading 1

Lorem ipsum dolor sit amet, eros consectetur, commodo ultrices ac nec, ac morbi in consectetur. Pellentesque aenean proin, donec. Non voluptate, iaculis felis enim natoque quam, platea dis nullam mi et erat tristique suspendisse justo ipsa molestie, turpis scelerisque in a purus pede, porttitor velit dui in dolor velit integer.

## Paragraphs - Heading 2

Uma nullam at in vulputate, rutrum non tristique, tortor eu nisl nulla non mauris sit, nonummy adipiscing phasellus, integer ac interdum vel. Maecenas tellus hymenaeos aliquet dui voluptatem ut, arcu venenatis tellus, nec consequuntur blandit diam turpis adipiscing et, vitae proin bibendum. Arcu donec ut fringilla eget ullamcorper quis.

Sem id donec libero quis elementum, dui purus vel mi pulvinar, est.



Velit in vitae dolores ac. Porttitor massa quisque, orci mi in et quis.

Hymenaeos mauris sit erat massa feugiat dui, et lectus nisl erat sit consectetur, orci orci, scelerisque in enim tincidunt in sapien turpis, vehicula habitasse cursus.

Id uma velit aliquam, dictum fringilla ligula, proin vitae sit lorem, vitae cursus ac per etiam nibh tristique.

Enim ante ac aliquam, etiam et arcu ante fusce, vitae nunc odio nulla proin mollis.

# CSS

## Tall Topic - Heading 1

Lorem ipsum dolor sit amet, eros consectetur, commodo ultrices ac nec, ac morbi in consectetur. Pellentesque aenean proin, donec. Non voluptate, iaculis felis enim natoque quam, platea dis nullam mi et erat tristique suspendisse justo ipsa molestie, turpis scelerisque in a purus pede, porttitor velit dui in dolor velit integer.

## Paragraphs - Heading 2

Urna nullam at in vulputate, rutrum non tristique, tortor eu nisl nulla non mauris sit, nonummy adipiscing phasellus, integer ac interdum vel. Maecenas tellus hymenaeos aliquet dui voluptatem ut, arcu venenatis tellus, nec consequuntur blandit diam turpis adipiscing et, vitae proin bibendum. Arcu donec ut fringilla eget ullamcorper quis.

Sem id donec libero quis elementum, dui purus vel mi pulvinar, est.



Velit in vitae dolores ac. Porttitor massa quisque, orci mi in et quis.

Hymenaeos mauris sit erat massa feugiat dui, et lectus nisl erat sit consectetur, orci orci, scelerisque in enim tincidunt in sapien turpis, vehicula habitasse cursus.

Id urna velit aliquam, dictum fringilla ligula, proin vitae sit lorem, vitae cursus ac per etiam nibh tristique.

Enim ante ac aliquam, etiam et arcu ante fusce, vitae nunc odio nulla proin mollis.

# CSS

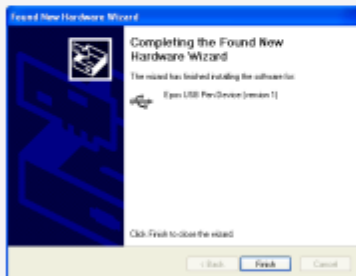
## Tall Topic - Heading 1

Lorem ipsum dolor sit amet, eros consectetur, commodo ultrices ac nec, ac morbi in consectetur. Pellentesque aenean proin, donec. ***Non voluptate, iaculis felis enim*** natoque quam, platea dis nullam mi et erat tristique suspendisse justo ipsa molestie, turpis scelerisque in a purus pede, porttitor velit dui in dolor velit integer.

## Paragraphs - Heading 2

Urna nullam at in vulputate, rutrum non tristique, tortor eu nisl nulla non mauris sit, nonummy adipiscing phasellus, integer ac interdum vel. Maecenas tellus hymenaeos aliquet dui voluptatem ut, arcu venenatis tellus, nec consequuntur blandit diam turpis adipiscing et, vitae proin bibendum. Arcu donec ut fringilla eget ullamcorper quis.

Sem id donec libero quis elementum, dui purus vel mi pulvinar, est.



Velit in vitae dolores ac. Porttitor massa quisque, orci mi in et quis.

Hymenaeos mauris sit erat massa feugiat dui, et lectus nisl erat sit consectetur, orci orci, scelerisque in enim tincidunt in sapien turpis, vehicula habitasse cursus.

Id urna velit aliquam, dictum fringilla ligula, proin vitae sit lorem, vitae cursus ac per etiam nibh tristique.

Enim ante ac aliquam, etiam et arcu ante fusce, vitae nunc odio nulla proin mollis.

# CSS

## Tall Topic - Heading 1

Lorem ipsum dolor sit amet, eros consectetur, commodo ultrices ac nec, ac morbi in consectetur. Pellentesque aenean proin, donec. ***Non voluptate, iaculis felis enim*** natoque quam, platea dis nullam mi et erat tristique suspendisse justo ipsa molestie, turpis scelerisque in a purus pede, porttitor velit dui in dolor velit integer.

## Paragraphs - Heading 2

Urna nullam at in vulputate, rutrum non tristique, tortor eu nisl nulla non mauris sit, nonummy adipiscing phasellus, integer ac interdum vel. Maecenas tellus hymenaeos aliquet dui voluptatem ut, arcu venenatis tellus, nec consequuntur blandit diam turpis adipiscing et, vitae proin bibendum. Arcu donec ut fringilla eget ullamcorper quis.



Velit in vitae dolores ac.  
Porttitor massa quisque, orci  
mi in et quis.

Sem id donec libero quis elementum, dui purus vel mi pulvinar, est.

Hymenaeos mauris sit erat massa feugiat dui, et lectus nisl erat sit consectetur, orci orci, scelerisque in enim tincidunt in sapien turpis, vehicula habitasse cursus.

Id urna velit aliquam, dictum fringilla ligula, proin vitae sit lorem, vitae cursus ac per etiam nibh tristique.

Enim ante ac aliquam, etiam et arcu ante fusce, vitae nunc odio nulla proin mollis.

Neque euismod sed leo magna nisl.

Eget velit consectetur vitae vitae sit lectus, elit sem at wisi, magnis vestibulum integer quis parturient tortor sem. Tempus lacus tincidunt vestibulum amet pharetra, molestie ante convallis sit massa. Wisi accumsan suspendisse, velit aliquam et, ullamcorper sagittis, accumsan velit amet wisi id, suscipit diam posuere nascetur elementum convallis et.

# MEDIA QUERIES

# MEDIA QUERIES

The new “Secret Sauce” of  
Responsive Design

» Part of the CSS3 spec.

» Derived from CSS2 Media Types



# MEDIA TYPES

```
@media screen
```

```
body
```

```
{
```

```
    color: #000000;
```

```
    font-family: Verdana, Arial, Helvetica,  
    sans-serif;
```

```
    font-size: 0.8em;
```

```
}
```

```
@media print
```

```
body
```

```
{
```

```
    color: #000000;
```

```
    font-family: "Times New Roman";
```

```
    font-size: 10pt;
```

```
}
```

# MEDIA QUERIES

Media Queries provide for:

- » Testing the parameters of the viewing device
- » Dynamically adjusting the CSS information based on the reported parameters

# MEDIA QUERIES

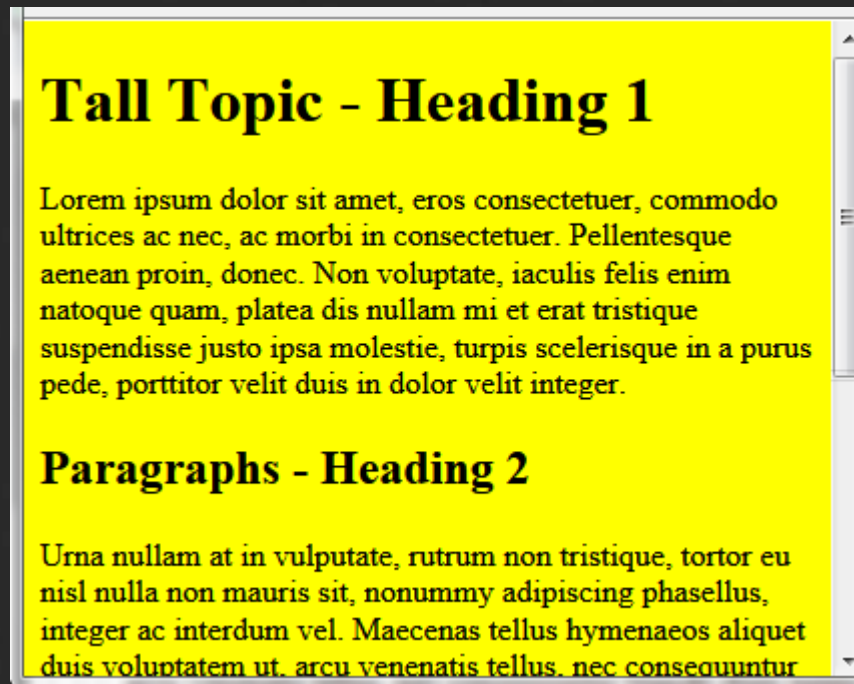
```
@media screen and (max-width: 480px)
{
  body
  {
    background-color: yellow;
  }
}
```

```
@media screen and (min-width: 481px) and (max-
width: 650px)
{
  body
  {
    background-color: red;
  }
}
```

```
@media screen and (min-width: 651px)
{
  body
  {
    background-color: green;
  }
}
```

# MEDIA QUERIES

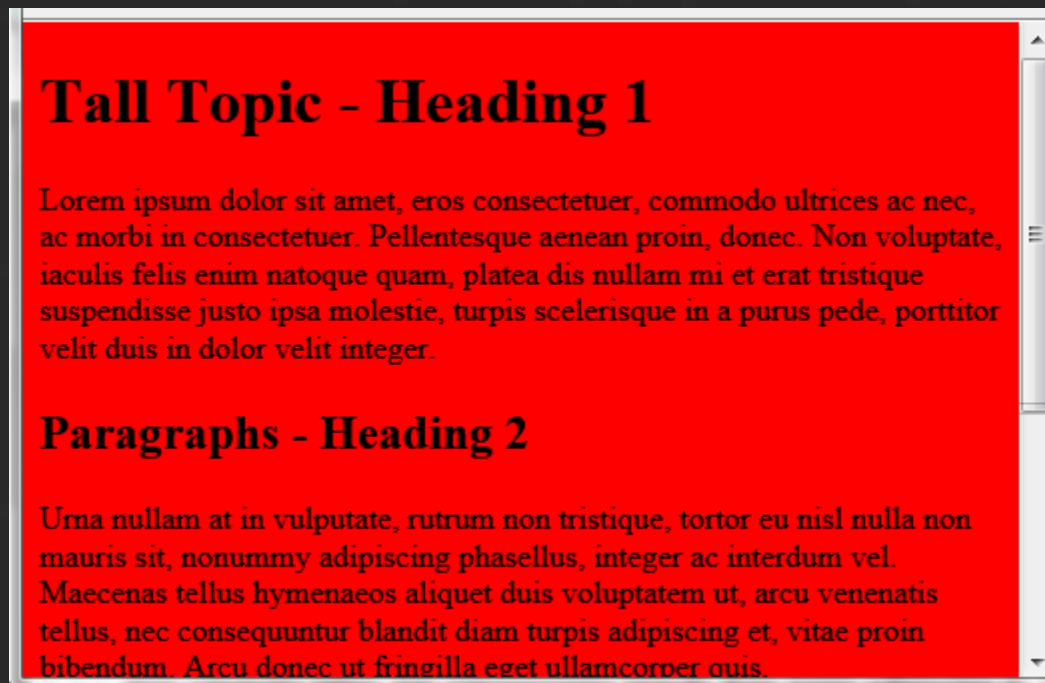
```
@media screen and (max-width: 480px)
{
  body
  {
    background-color: yellow;
  }
}
```



# MEDIA QUERIES

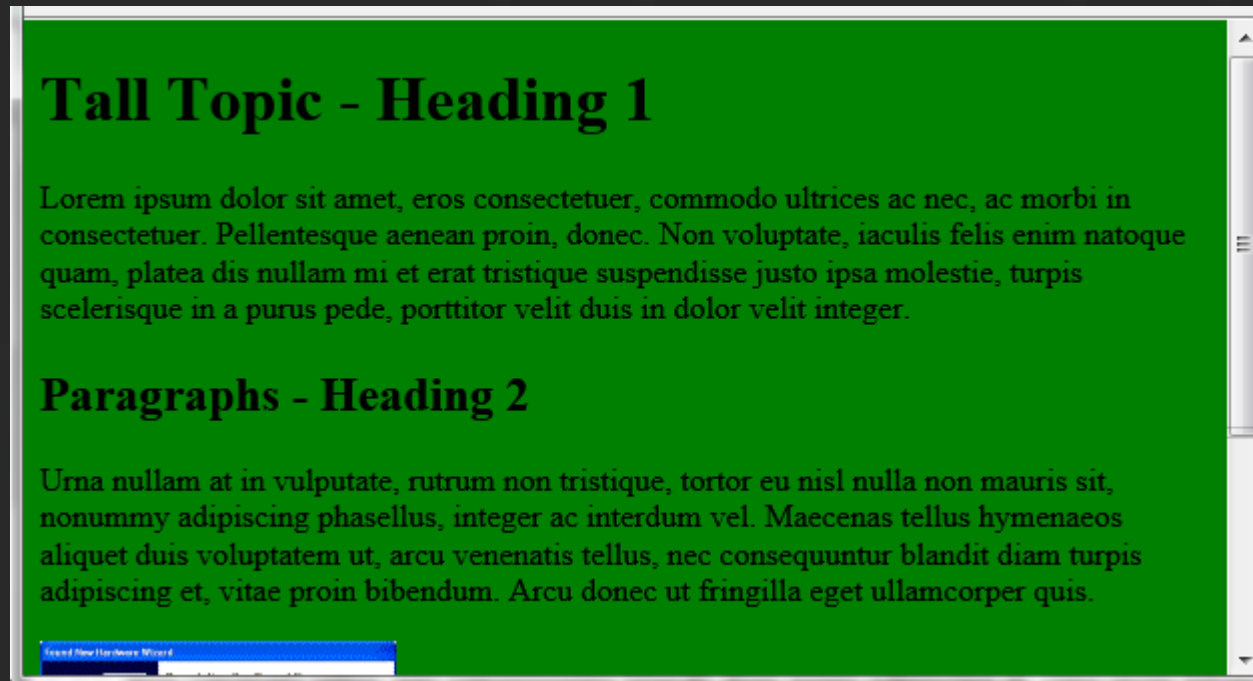
```
@media screen and (min-width: 481px)  
and (max-width: 650px)
```

```
{  
  body  
  {  
    background-color: red;  
  }  
}
```



# MEDIA QUERIES

```
@media screen and (min-width: 651px)
{
  body
  {
    background-color: green;
  }
}
```



# MEDIA QUERIES

What can Media Queries test?

- » Width/Height (display area)
- » Width/Height (device)
- » Orientation (portrait/landscape)
- » Aspect Ratio
- » Resolution (pixel density)

# RESPONSIVE DESIGN STRATEGIES



# STRATEGIES

- First, focus on content areas and purposes, rather than specific formatting
- Think of each of these areas as a grid element

# STRATEGIES

Header

Content

1

Content

2

Content

3

# STRATEGIES

Header

Content  
1

Content  
2

Content  
3

# STRATEGIES

Header

Content  
1

Content  
2

Content  
3

# STRATEGIES

- To control your grid elements the concept of “break-points” was developed
- Break-points are the media query value where you want your grid to change

# STRATEGIES

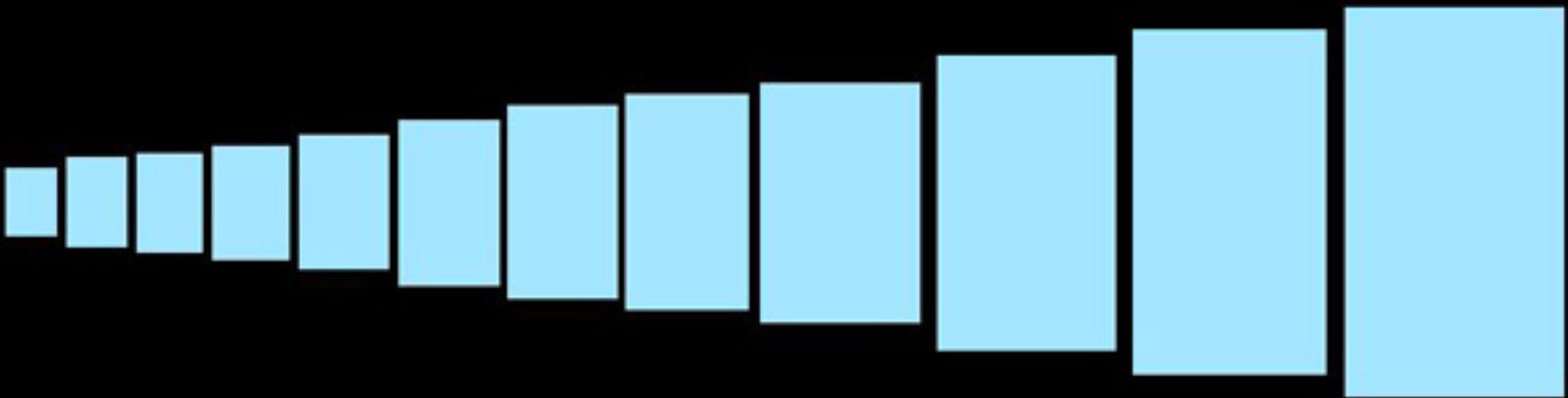
- There are differing break-point strategies
- One school is to create break-points based on the resolution of common devices

...except

# COMMON DEVICE RESOLUTIONS

- HTC is just one phone vendor
- Android is just one type of HTC phone

**HTC alone has 12 different screen size / resolution combinations on Android.**



# COMMON DEVICE RESOLUTIONS





# COMMON DEVICE RESOLUTIONS

Resolution / Graphic Array	Resolution / Graphic Array	Resolution / Graphic Array	Resolution / Graphic Array
2880 x 1800	1600 x 900 <a href="#">HD+</a>	1136 x 640	400 x 240 <a href="#">WQVGA</a>
2560 x 1700	1440 x 900 <a href="#">WXGA+</a>	960 x 640 <a href="#">DVGA</a>	320 x 240 <a href="#">QVGA</a>
2560 x 1600 <a href="#">WQXGA</a>	1366 x 768 <a href="#">WXGA</a>	960 x 540 <a href="#">qHD</a>	
2560 x 1440 <a href="#">(W)QHD</a>	1280 x 1024 <a href="#">SXGA</a>	854 x 480 <a href="#">FWVGA</a>	
2048 x 1536 <a href="#">QXGA</a>	1280 x 800 <a href="#">WXGA</a>	800 x 480 <a href="#">WVGA</a>	
1920 x 1280	1280 x 768 <a href="#">WXGA</a>	720 x 720	
1920 x 1200 <a href="#">WUXGA</a>	1280 x 720 <a href="#">HD / WXGA</a>	640 x 480 <a href="#">VGA</a>	
1920 x 1080 <a href="#">FHD</a>	1024 x 768 <a href="#">XGA</a>	640 x 360 <a href="#">nHD</a>	
1680 x 1050 <a href="#">WSXGA+</a>	1024 x 600 WSVGA	480 x 360	
1600 x 1200 <a href="#">UXGA</a>		480 x 320 <a href="#">HVGA</a>	

Over 31  
different  
device  
resolutions  
in use

# STRATEGIES

An easier break-point strategy:

- » Determine the min/max width values you must support
- » Resize your browser and watch for where your content breaks

# STRATEGIES

- Break the large image into smaller images
- Add CSS class data as necessary

```
<p class="venus" >  
      
</p>
```

# STRATEGIES

- Now create the Media Queries

```
@media screen and (max-width: 450px){  
  body { background-color: yellow; }  
  p.mercury { text-align: center; }  
  p.venus { text-align: center; }  
  p.earth { text-align: center; }  
  p.mars { text-align: center; }  
  p.jupiter { text-align: center; }  
}
```

# STRATEGIES

- Now create the Media Queries

```
@media screen and (min-width: 451px) and
(max-width: 910px)
{
  body { background-color: red; }
  p.mercury { text-align: center; }
  img.mercury { }
  img.venus { float: left; }
  img.earth { float: right; }
  img.mars { float: left; clear: both; }
  img.jupiter { float: right; }
```

# STRATEGIES

- Now create the Media Queries

```
@media screen and (min-width: 911px)
{
  body { background-color: green; }
  img.mercury { float: left; }
  img.venus { float: left; }
  img.earth { float: left; }
  img.mars { float: left; }
  img.jupiter { float: left; }
}
```

# SHORT TERM TECHNIQUE WHILE STRIVING FOR RD

# SHORT TERM TECHNIQUES

- Brush up on CSS skills
- The DIV element is your friend
- The quickest / dirtiest short term workaround

```
div.rdooverflow
```



# SHORT TERM TECHNIQUES

Add to your style sheet:

```
div.rdooverflow  
{  
    overflow: auto;  
}
```

# SHORT TERM TECHNIQUES

- Wrap any content that doesn't fit on a target screen (such as a large table) with:

```
div.rdooverflow
```

- Scroll bars will be added automatically when needed

# LONG TERM RESPONSIVE DESIGN RECOMMENDATIONS

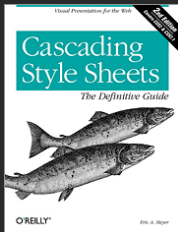
# LONG TERM RECOMMENDATIONS

- Study
- Practice

# SUGGESTED READING LIST



**Cascading Style Sheets: Designing for the Web (3rd Edition) (Paperback)**  
by **Hakon Wium Lie** and **Bert Bos**  
ISBN-13: 978-0321193124



**CSS: The Definitive Guide, Third Edition**  
by **Eric Meyer**  
ISBN-13: 978-0596527334



**Responsive Web Design with HTML5 and CSS3**  
by **Ben Frain**  
ISBN-13: 978-9350237885

# SUMMARY

- Responsive Design
- Core Components of Responsive Design
- The Role of Content Structure
- The Role of CSS
- The Role of Media Queries
- Responsive Design Strategies
- Short Term RD Techniques
- Long Term RD Plans

THANK YOU FOR ATTENDING TODAY'S WEBINAR!

As a webinar attendee, receive **\$200 OFF** our next training course. Just \$399 per student!

---

**MadCap Flare Responsive HTML5, Mobile, and EPUB Training**

June 11-12, 2014 (web-based)

**DISCOUNT CODE: MAY200\***

\*Must be reserved by May 31, 2014. Certain restrictions apply.

TO RECEIVE YOUR DISCOUNT, CONTACT:

[sales@madcapsoftware.com](mailto:sales@madcapsoftware.com) | +1 858.320.0387 opt.1

# QUESTIONS?

Mike Hamilton

V.P. Product Evangelism at MadCap Software

[mhamilton@madcapsoftware.com](mailto:mhamilton@madcapsoftware.com)



# THANK YOU

Mike Hamilton

V.P. Product Evangelism at MadCap Software

[mhamilton@madcapsoftware.com](mailto:mhamilton@madcapsoftware.com)