

# 响应式设计 Responsive Web Design: Rebuild as Design

bennyzhai(翟东方) OMG  
One Piece 2013.6.7



## WDC, 腾讯微博用户体验设计中心 @weibodesign



Tencent Weibo Design Center,  
<http://e.t.qq.com/weibodesign>

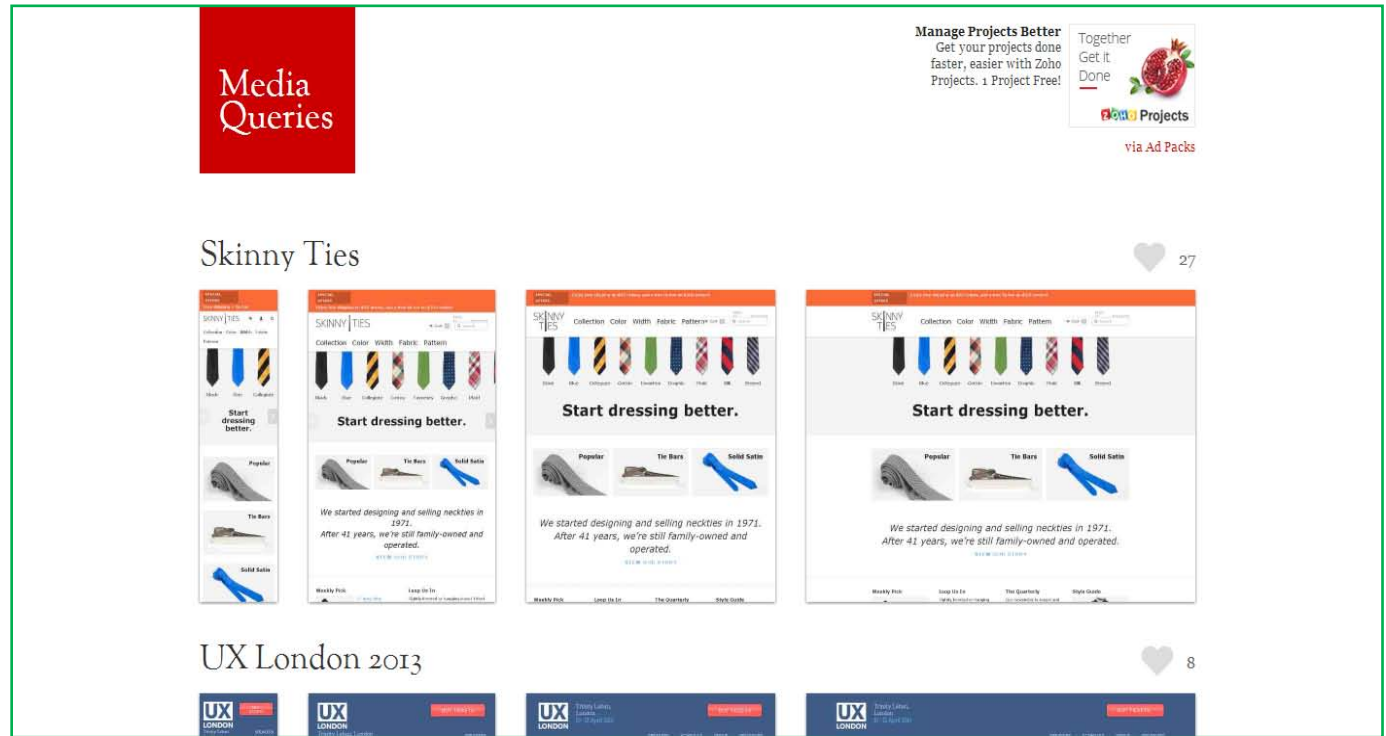
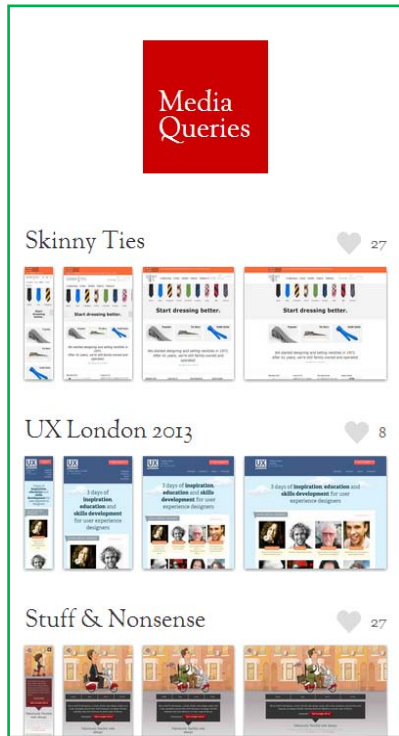
# Responsive Web Design 2010.5-2013.5



Happy Birthday! Then...WTF?



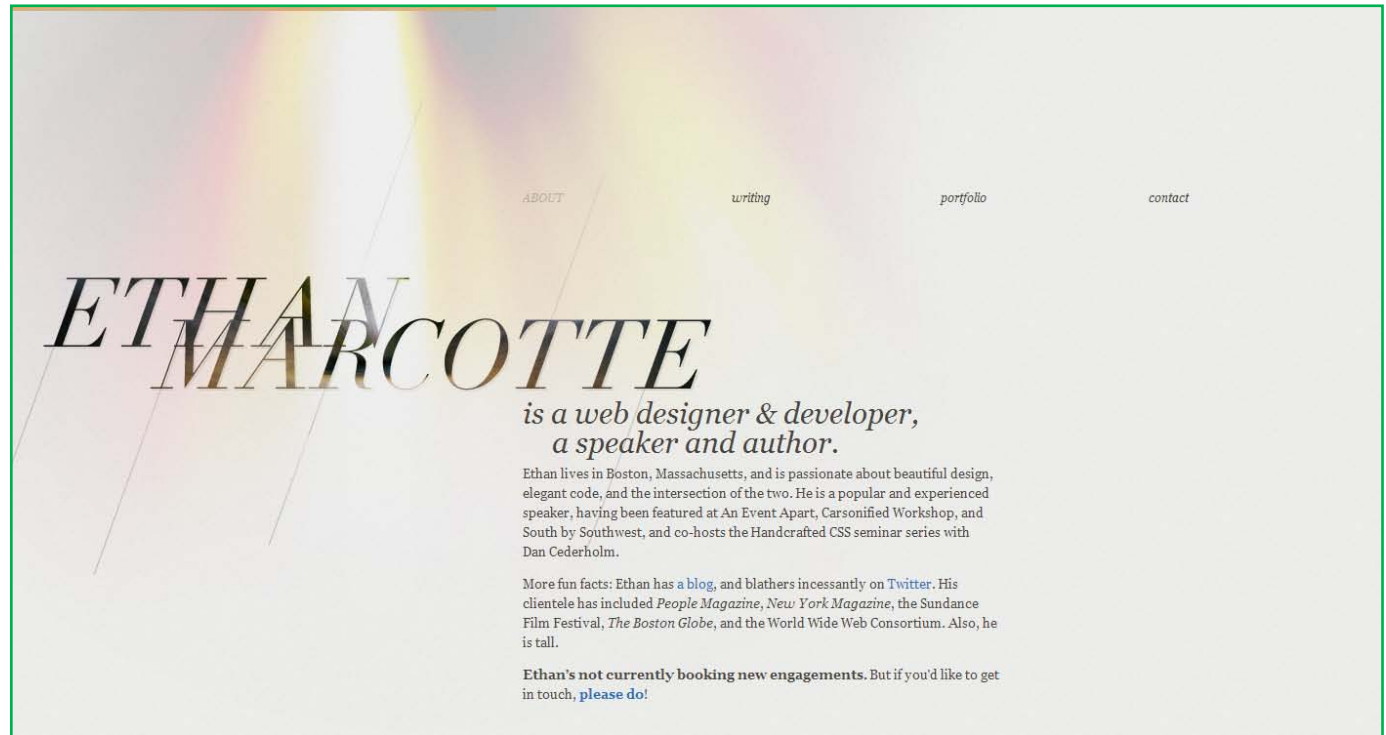
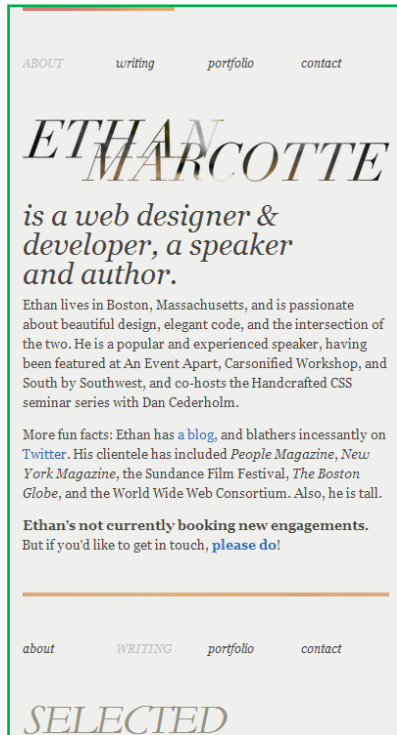
## Example



@Mediaqueries

<http://mediaqueri.es>

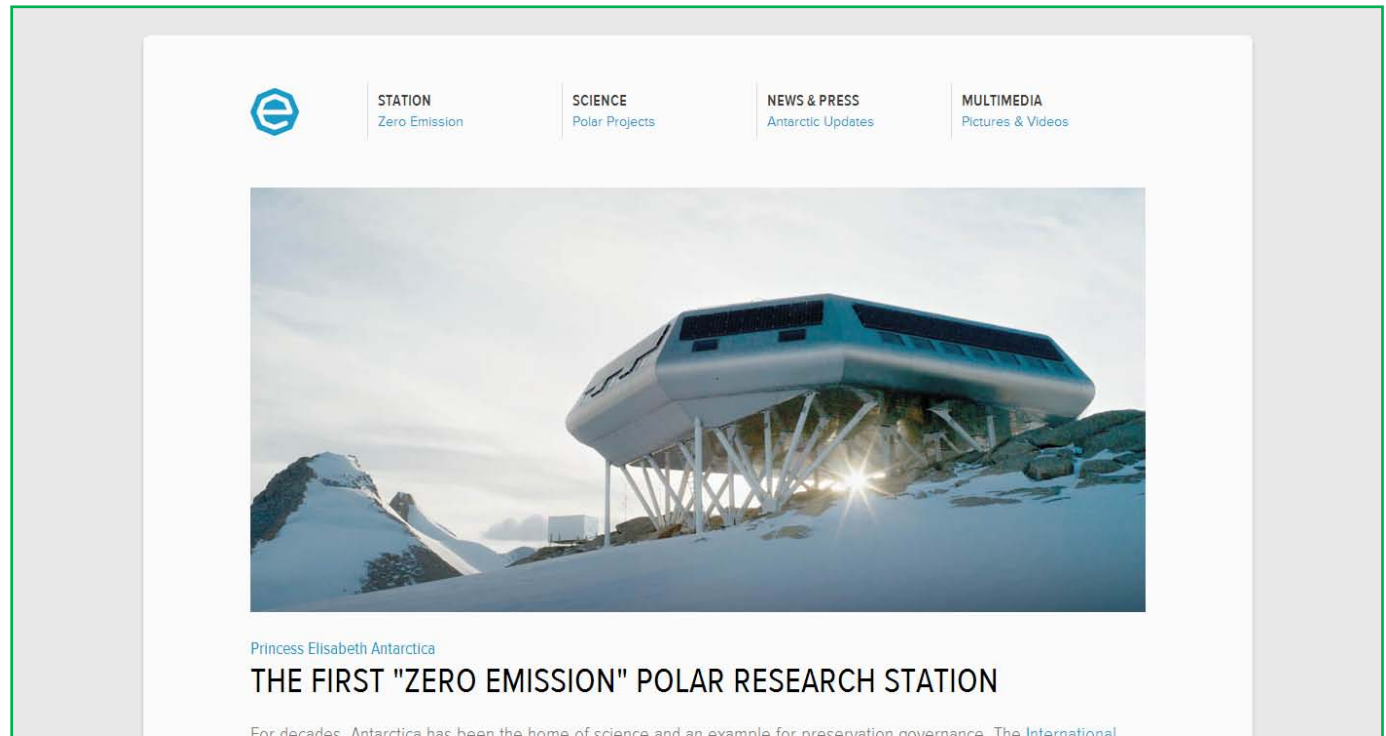
## Example



Ethan Marcotte

<http://ethanmarcotte.com>

## Example



## Example

触盟 Wetouch  
互联专家联盟 企业触网联盟  
TALKTO@WETOUCH.CN

OUR STORY  
我们的故事

看《陆贞传奇》  
赚5元话费

THINK  
想法

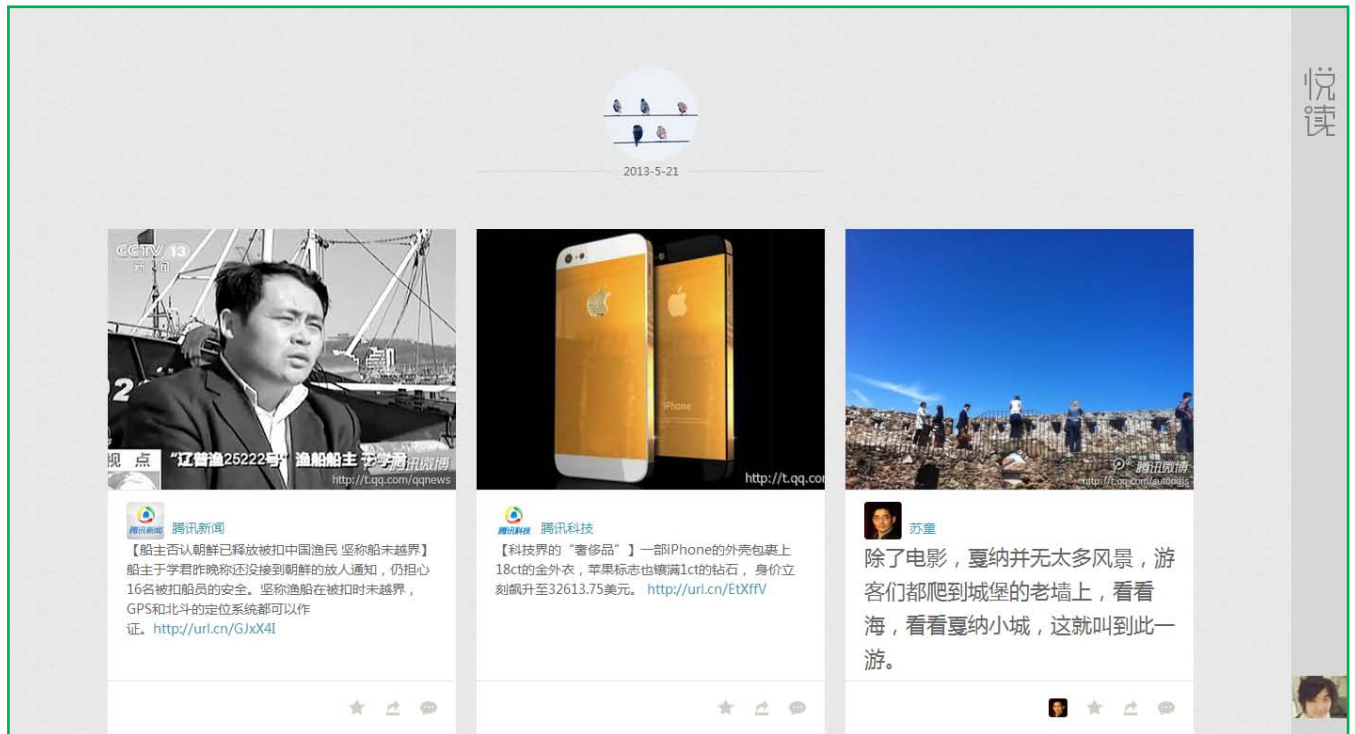
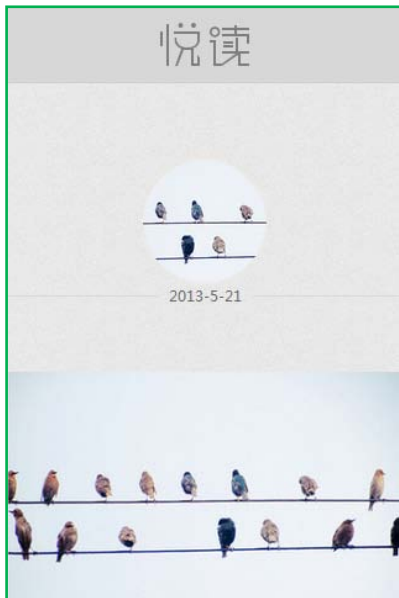
我们的故事 想法 盟友 Blog

触盟 Wetouch  
互联专家联盟 企业触网联盟  
TALKTO@WETOUCH.CN

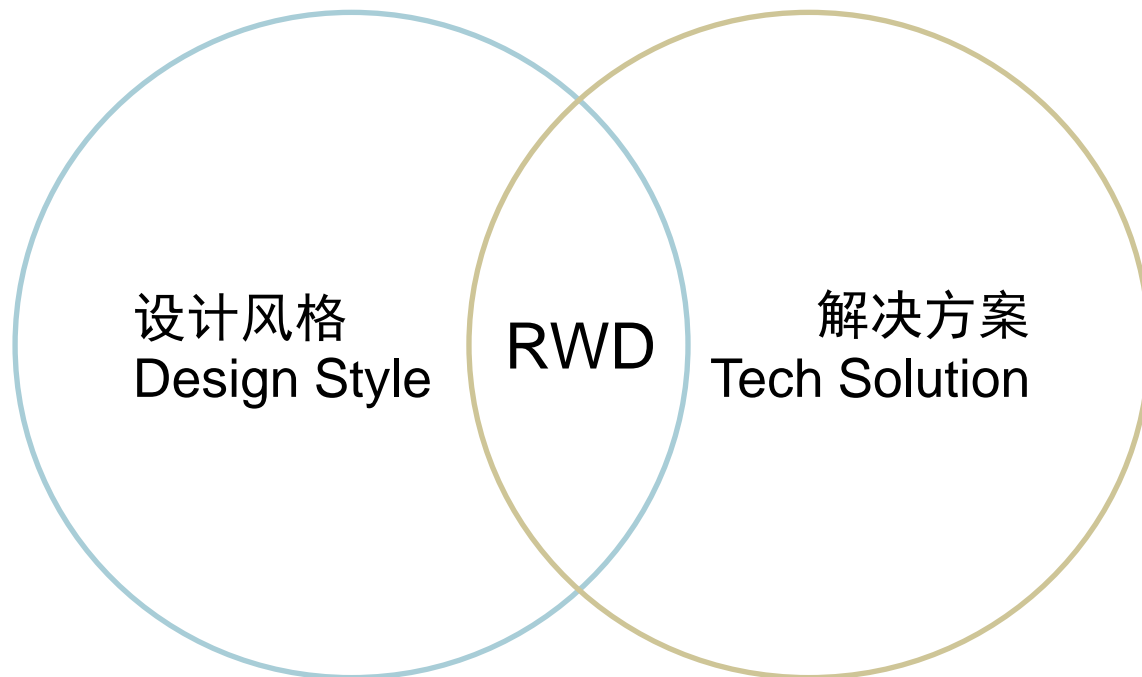
OUR STORY  
我们的故事



## Example



## Essential



1. Base on Flexibility: RWD充分利用了web设计的灵活特性；
2. Solution: RWD是利用现有技术解决多终端兼容问题的一种方案；
3. Style: RWD由重构环节推动设计流程，本身形成了一种设计风格。

# History



## History: 2000, Web is Flexible -Web的灵活性是可以利用的



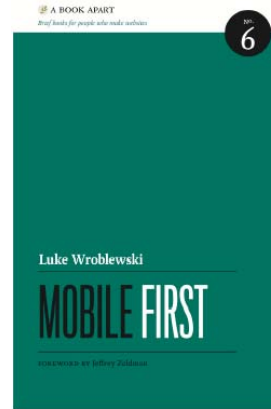
“网页和打印介质的不同在于它具有打印介质没有的灵活性，我们应该接受这种灵活性并且利用它。”

*“The control which designers know in the print medium, and often desire in the web medium, is simply a function of the limitation of the printed page. We should embrace the fact that the web doesn’t have the same constraints, and design for this flexibility. But first, we must “accept the ebb and flow of things.”*

John Allsopp, 2000.4.7, *“A Dao of Web Design”*,  
<http://alistapart.com/article/dao>

History: 2009, Mobile First 重视移动端体验

**LUKEW**  
IDEATION + DESIGN



1. Mobile is exploding
2. Mobile forces you to focus
3. Mobile extends your capabilities

Luke Wroblewski, 2009.11.3, "Mobile First",  
<http://www.lukew.com/ff/entry.asp?933>

## History: 2010, Theory and Practice 理论和实践

No. 306

ARTICLES • TOPICS • ABOUT • CONTACT • CONTRIBU

MAY 25, 2010

### Responsive Web Design

by **ETHAN MARCOTTE**

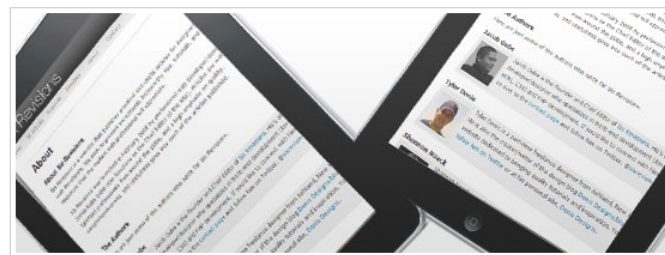
Published in: [CSS](#), [Layout](#), [User Interface Design](#), [Mobile](#),  
[Mobile Design](#), [Mobile Development](#)

[Discuss this article »](#) [Share this article »](#)



### Mobile Web Design: Best Practices

Aug 18 2010 by [Alexander Dawson](#) | [38 Comments](#)



The explosion in user adoption of mobile devices has revolutionized the web. Though designing for the Mobile Web follow similar principles to designing websites, we must consider some notable differences.

For one, current mobile device networks don't run in the same speed as broadband devices.

In addition, there are also a myriad of ways our mobile web designs are displayed in, from touch screens to netbooks, which make even the smallest desktop monitors look like giants.

Ethan Marcotte, 2010.5.25, *"Responsive Web Design"*,

<http://alistapart.com/article/responsive-web-design>

Alexander Dawson, 2010.8.18, *"Mobile Web Design: Best Practices"*,

<http://sixrevisions.com/web-development/mobile-web-design-best-practices>

## History: 2011, Performance 注意性能

**LUKEW**  
IDEATION + DESIGN



"Science arose from poetry... when times change the two can meet again on a higher level as friends."—**Johann Goethe**

**IIX** \$200 off UX Immersion.

ABOUT

WRITINGS

PRESENTATIONS

### RESS: Responsive Design + Server Side Components

by Luke Wroblewski

September 12, 2011

There's no shortage of debate about the best way to develop Web sites that work well across many **networked devices**. Some teams favor a client-side approach while others lean towards server-side solutions. But I'm increasingly interested in solutions that try to bring together the best of both worlds. RESS (Responsive Web Design + Server Side Components) is one such proposal.

Luke Wroblewski, 2011.9.12, "RESS: Responsive Design + Server Side Components", <http://www.lukew.com/ff/entry.asp?1392>

## History: 2012, Workflow 工作流程的讨论



Mark Boulton, 2012.2.24, "*Responsive Summit: Workflow*",  
<http://www.markboulton.co.uk/journal/responsive-summit-workflow>



## History: 2013, Performance, Optimization, Workflow



### CSS & Mobile Performance 10am CT

by *Estelle Weyl*, Author of HTML5 and CSS3 in the Real World



### Optimizing Media Queries 2pm CT

by *Kimberly Blessing*, Director at Think Brownstone



### The New Responsive Web Design Workflow 10am

CT

by *Trent Walton*, Founder & 1/3 of Paravel Inc.

Topics on RWD SUMMIT 2013,

<http://environmentsforhumans.com/2013/responsive-web-design-summit>

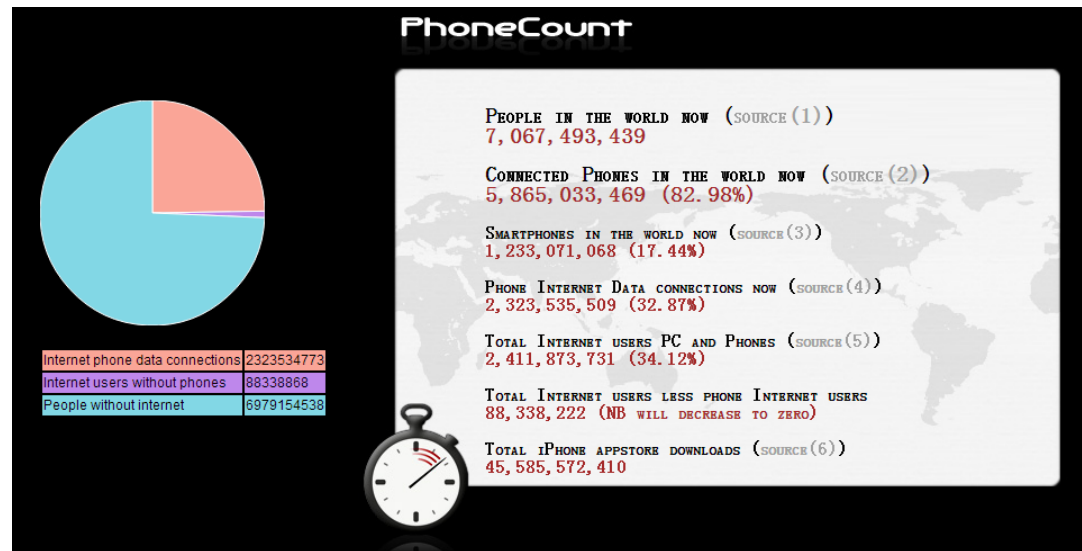
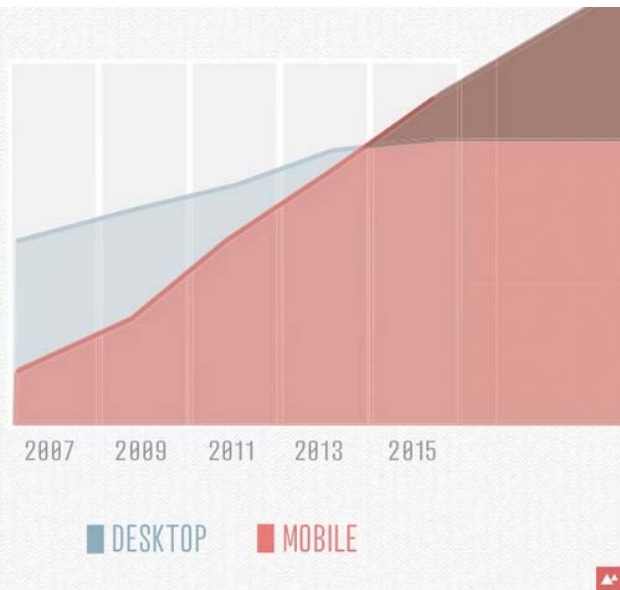
Okay, Intro is over, engine start!



1. Aim: RWD能解决什么问题
2. Problem: RWD本身的问题和争议
3. Rules: 需要遵循的原则
4. Method: 实现RWD的方法
5. Workflow: 工作流程

# Aim: RWD能解决什么问题

## Pain Exist: Mobile Increase



Sara Cannon, 2012.5.7, "Responsive Design",

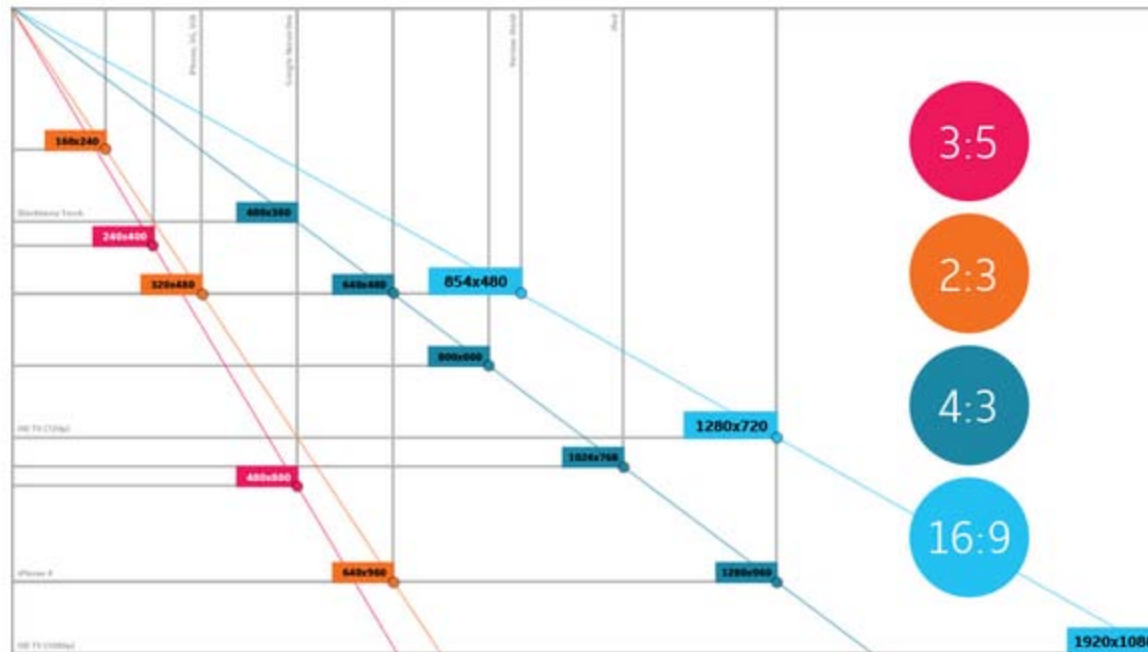
[http://www.slideshare.net/saracannon/responsive-design-12837964?from\\_search=2](http://www.slideshare.net/saracannon/responsive-design-12837964?from_search=2)

Phone Count,

<http://phonecount.com/pc/count.jsp>

# Aim: RWD能解决什么问题

## Pain Exist: Various Resolution & Client



Andy Gilliland, 2011.4.1, "Pixel Proliferation: A Toolset For Managing Screen Resolutions",  
<http://punchcut.com/perspectives/expanding-universe-toolset-managing-screen-resolutions>

# Aim: RWD能解决什么问题

## Pain Exist: High Cost of Separate Versions

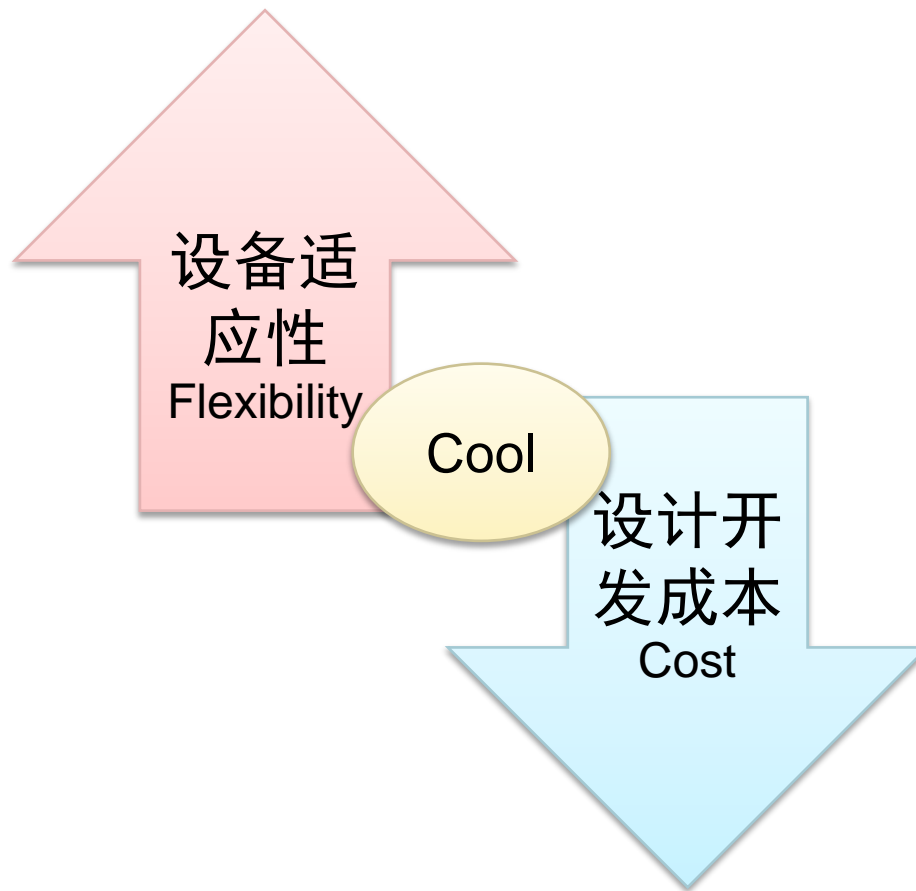


Thomas Byttebier, 2011.11, "Responsive web design",

[http://www.slideshare.net/bytte/responsive-web-design-10389263?from\\_search=3](http://www.slideshare.net/bytte/responsive-web-design-10389263?from_search=3)

# Aim: RWD能解决什么问题

Essential: 2 Targets, 1 Bonus



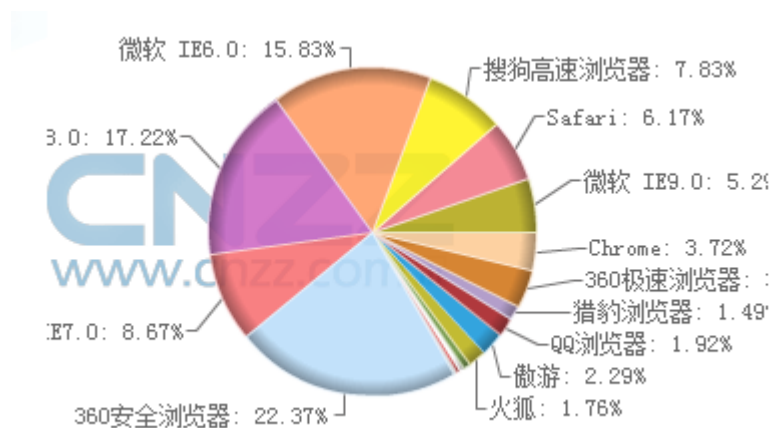
1. Aim: RWD能解决什么问题
2. Problem: RWD本身的问题和争议
3. Rules: 需要遵循的原则
4. Method: 实现RWD的方法
5. Workflow: 工作流程



# Problem: RWD本身的问题和争议

## Browser Data 浏览器兼容(2013.4)

2013	Total	IE 10	IE 9	IE 8	IE 7	IE 6
April	12.7 %	2.0 %	4.4 %	5.3 %	0.8 %	0.1 %
March	12.9 %	1.3 %	5.2 %	5.5 %	0.8 %	0.2 %
February	13.5 %	0.9 %	5.7 %	5.8 %	0.9 %	0.2 %
January	14.3 %	0.8 %	5.9 %	6.4 %	1.0 %	0.3 %



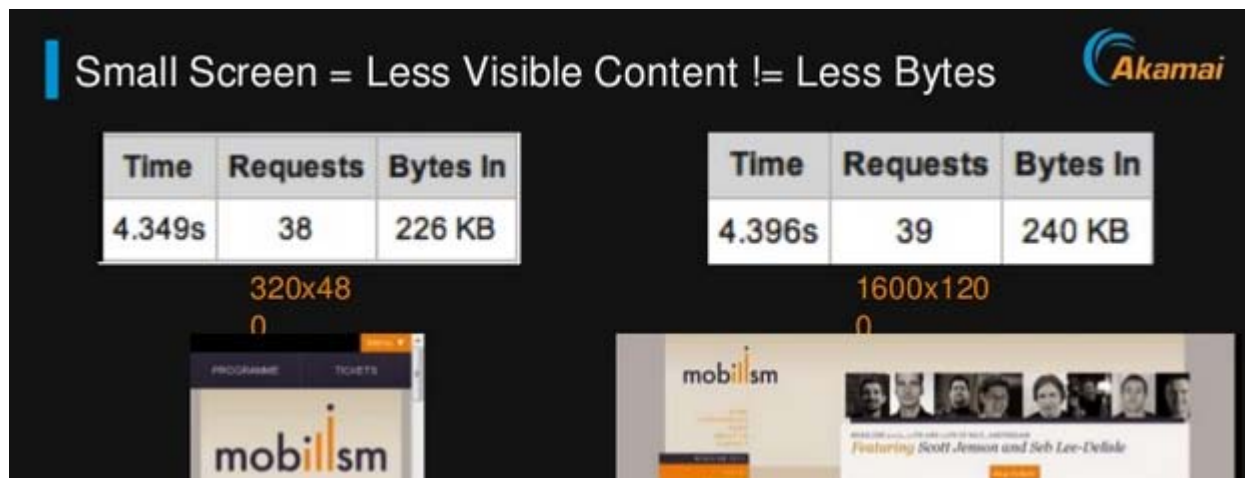
1. IE8: ~~media queries~~
2. IE6: ~~max(min)-width~~
3. Graceful Degradation  
降级方案

[http://www.w3schools.com/browsers/browsers\\_explorer.asp](http://www.w3schools.com/browsers/browsers_explorer.asp)

<http://brow.data.cnzz.com>

# Problem: RWD本身的问题和争议

## Performance 性能



1. DOM先下载后隐藏的问题；
2. 图片先下载后缩小的问题；
3. 下载额外的样式的问题
4. 优化方案

Guy Pod, 2012.4.16, "Performance Implications of Mobile Design",  
<http://www.slideshare.net/guypod/performance-implications-of-mobile-design>

1. Aim: RWD能解决什么问题
2. Problem: RWD本身的问题和争议
3. Rules: 需要遵循的原则
4. Method: 实现RWD的方法
5. Workflow: 工作流程

# Rules: 需要遵循的原则

## 内容策略 Content Strategy



# Rules: 需要遵循的原则

## 移动优先 Mobile First



Image by Thomas Byttebier, 2011.11, *"Responsive web design"*,  
[http://www.slideshare.net/bytte/responsive-web-design-10389263?from\\_search=3](http://www.slideshare.net/bytte/responsive-web-design-10389263?from_search=3)

# Rules: 需要遵循的原则

适应是响应的基础 Responsive base on Flexible



Photo©Franco Andreone <http://www.francoandreone.it>  
[http://www.cites.org/gallery/species/reptile/short-horned\\_chameleon.html](http://www.cites.org/gallery/species/reptile/short-horned_chameleon.html)

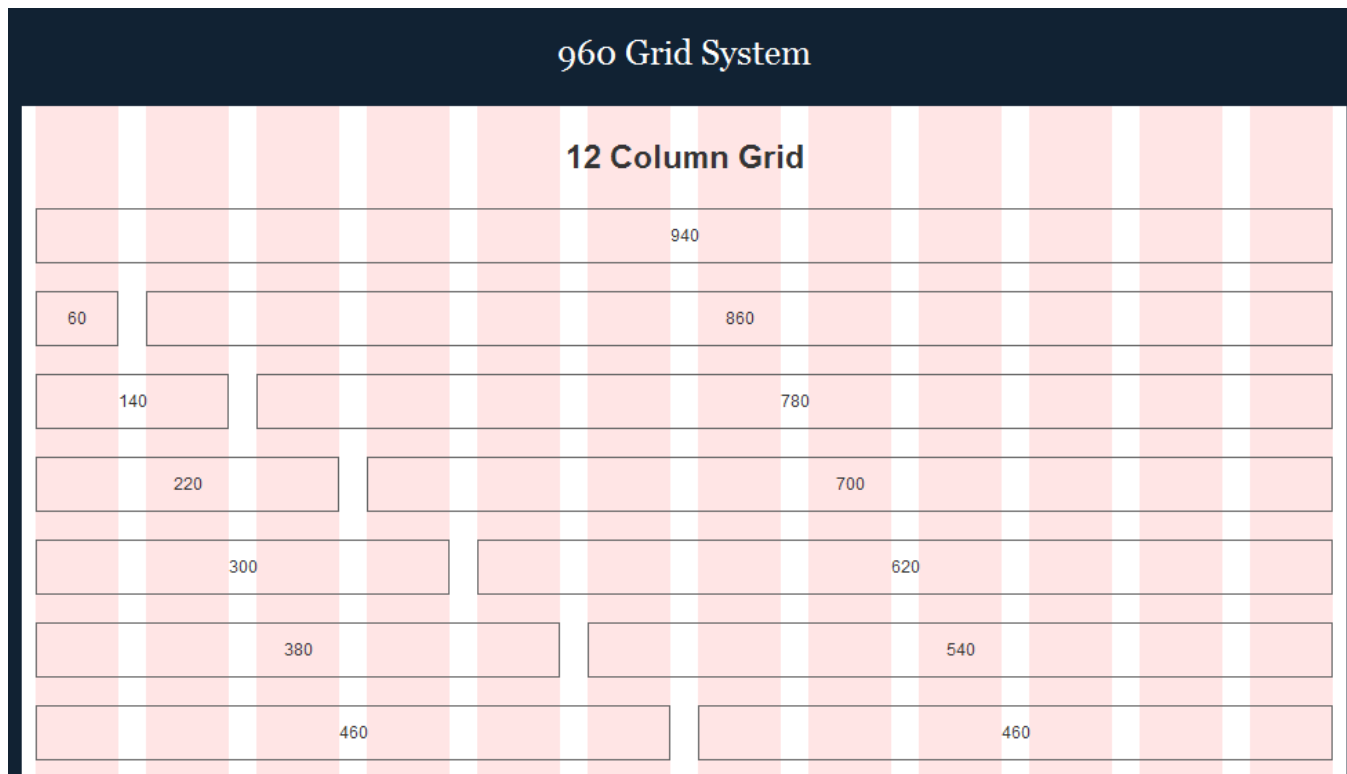
1. Aim: RWD能解决什么问题
2. Problem: RWD本身的问题和争议
3. Rules: 需要遵循的原则
4. Method: 实现RWD的方法
5. Workflow: 工作流程

## Mobile First: Viewport设置

```
<meta name="viewport"  
content="width=device-width,  
initial-scale=1.0, minimum-scale=1.0, maximum-scale=1.0,  
user-scalable=no" />
```



## Fixed Grid System 固定栅格系统



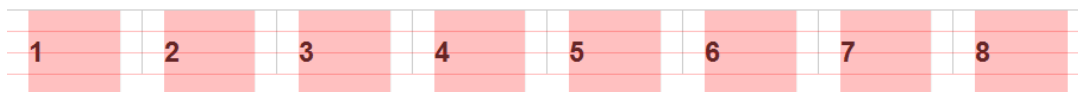
```
.container_12 .grid_1 {  
  width: 60px;  
}  
  
.container_12 .grid_11 {  
  width: 860px;  
}
```

## Fluid Grids 流动栅格系统

### FluidGrids

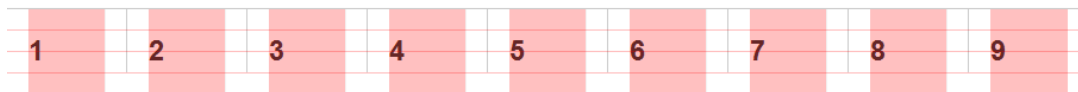
Hide grids

#### 8-Column Grid



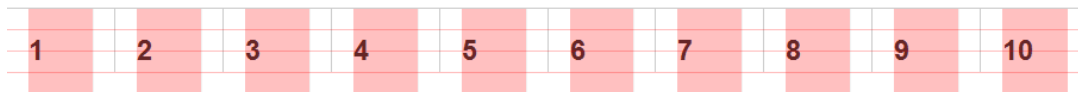
```
media="all"  
.collof8 {  
  width: 12.5%;  
}
```

#### 9-Column Grid



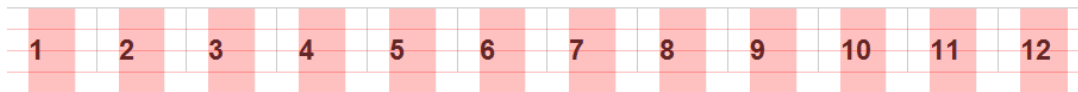
```
media="all"  
.collof9 {  
  width: 11.111111111%;  
}
```

#### 10-Column Grid



```
media="all"  
.collof10 {  
  width: 10%;  
}
```

#### 12-Column Grid



```
media="all"  
.collof12 {  
  width: 8.333333333%;  
}
```

# Method: 实现RWD的方法

## Flexible Images 弹性图片

### Responsive Images Test Page

In supported browsers, the following image will load either small or large version depending on screen resolution, making a single 1kb request before requesting the appropriate size.



Photo credit (CC): Cia de Foto [Flickr Creative Commons](#)

### Responsive Images Test Page

In supported browsers, the following image will load either small or large version depending on screen resolution, making a single 1kb request before requesting the appropriate size.



Photo credit (CC): Cia de Foto [Flickr Creative Commons](#)

**Max-width:100%**

<http://filamentgroup.com/examples/responsive-images>

## Media Queries 媒体查询

```
E{display:none}
```

breakpoint

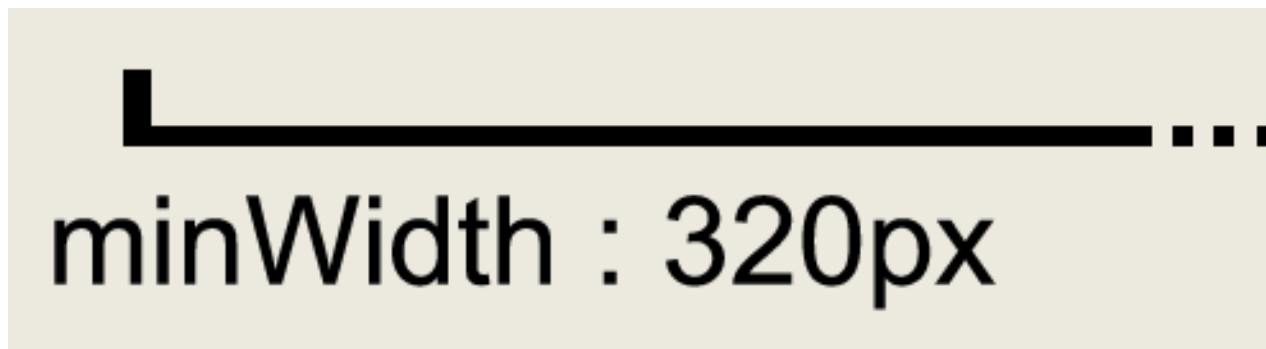
```
@media only screen and (min-width: 522px) {  
E{ display:block; margin-bottom:30px}  
}
```

```
@media only screen and (min-width: 982px) {  
E{ margin-bottom:50px}  
}
```

breakpoint

## Method: 实现RWD的方法

Media Queries 媒体查询 breakpoint的设置 从320px开始



跨平台设计需要适应的宽度范围是一个半开放区间，  
最小宽度(**minWidth**)为320px(iPhone3GS)。

Media Queries 媒体查询 breakpoint的设置 响应的临界值



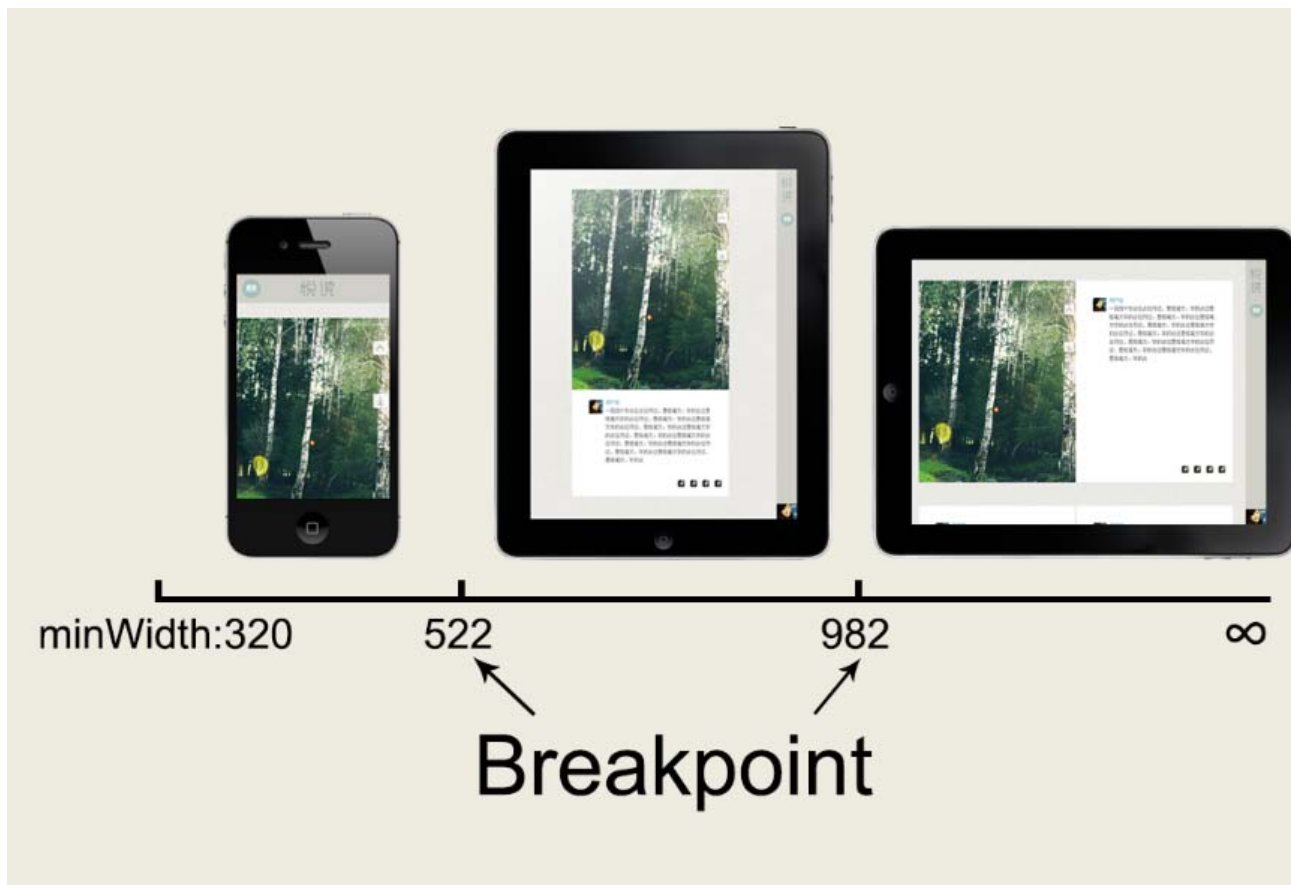
1. Breakpoint指从minWidth向上设置的若干个发生视觉突变(响应)的临界值;
2. Breakpoint划分了若干区间;
3. 页面在区间内的变化为**适应变化**;
4. 跨区间的变化为**响应变化**。

### Media Queries 媒体查询 breakpoint的设置 Tips

1. 一般来说，breakpoint设置2个即可，将场景划分为小(phone)、中(pad)、大(desktop)三种分辨率的设备；
2. Breakpoint的设置不依赖设备分辨率；
3. Breakpoint的设置依赖于视觉设计稿，没有视觉稿的情况下设定breakpoint是空谈。

# Method: 实现RWD的方法

Media Queries 媒体查询 breakpoint的设置 一个例子





## Source Order

我们的故事 想法 盟友 Blog

FRIENDS  
盟友



触盟 Wetouch

互联专家联盟 企业触网联盟  
TALKTO@WETOUCH.CN

OUR STORY  
我们的故事

我们的故事

想法

盟友

Blog

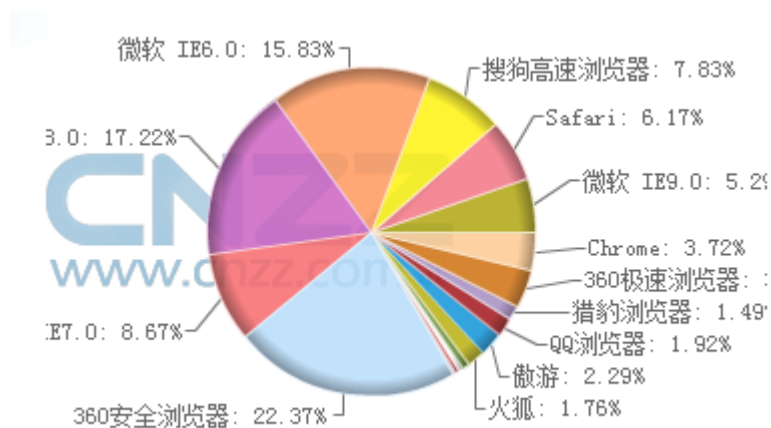
```
media="screen"  
.m_nav {  
  z-index: 100;  
  ms flex order: 4;  
  moz box ordinal group: 4;  
  -webkit-box-ordinal-group: 4;  
  box ordinal group: 4;  
  width: 100%;  
}
```

```
element.style {  
  display: table-footer-group;  
}
```

1. Flexbox调整容器顺序;
2. Display:table调整容器顺序

## About Browser Data 关于浏览器兼容

2013	Total	IE 10	IE 9	IE 8	IE 7	IE 6
April	12.7 %	2.0 %	4.4 %	5.3 %	0.8 %	0.1 %
March	12.9 %	1.3 %	5.2 %	5.5 %	0.8 %	0.2 %
February	13.5 %	0.9 %	5.7 %	5.8 %	0.9 %	0.2 %
January	14.3 %	0.8 %	5.9 %	6.4 %	1.0 %	0.3 %



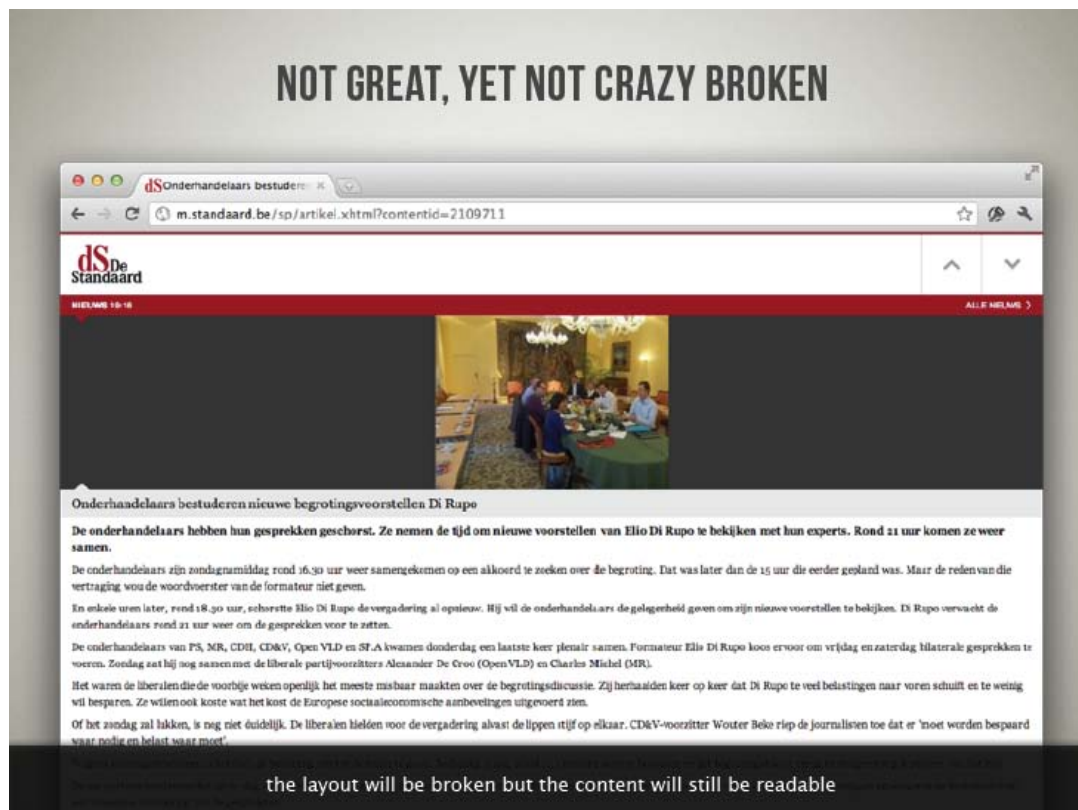
1. IE8: ~~media queries~~
2. IE6: ~~max(min)-width~~
3. Graceful Degradation  
降级方案

[http://www.w3schools.com/browsers/browsers\\_explorer.asp](http://www.w3schools.com/browsers/browsers_explorer.asp)

<http://brow.data.cnzz.com>

# Method: 实现RWD的方法

## Fix IE: Content Strategy降级法

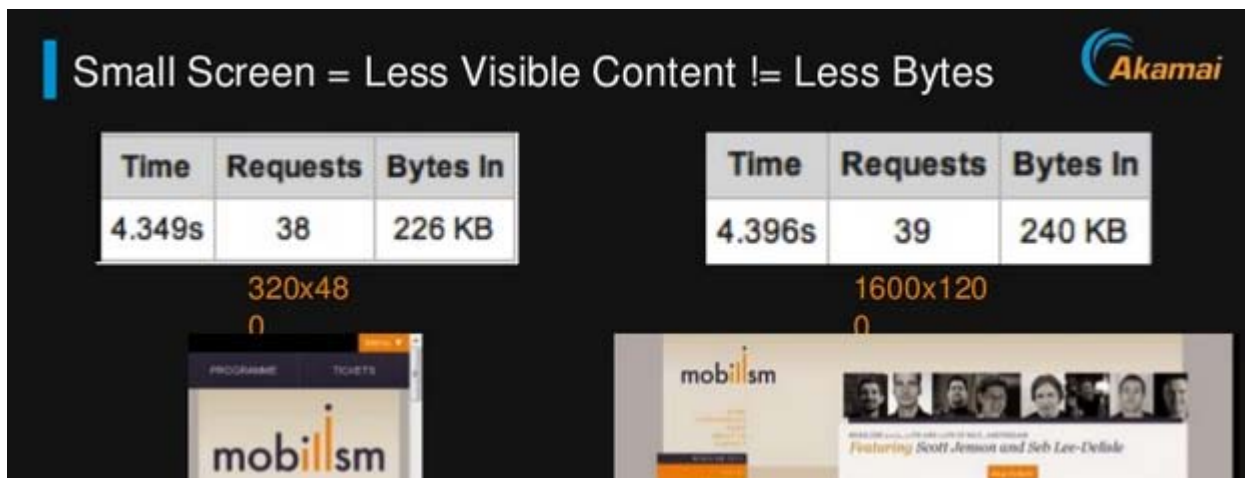


Thomas Byttebier, 2011.11, "Responsive web design",  
[http://www.slideshare.net/bytte/responsive-web-design-10389263?from\\_search=3](http://www.slideshare.net/bytte/responsive-web-design-10389263?from_search=3)

## Fix IE: Pixel-fixed降级法

```
<!--[if lte IE 8]>  
<link type="text/css" rel="stylesheet" media="screen"  
href="style.ie.css" />  
<![endif]-->
```

## About Performance 关于性能



1. 结构：DOM先下载后隐藏的问题；
2. 样式：下载额外的样式的问题；
3. 资源：图片先下载后缩小的问题；
4. 优化方案

## RESS: Responsive Design + Server Side Components



Anders M. Andersen, 2012.5.9, "Getting started with RESS",  
<http://www.netmagazine.com/tutorials/getting-started-ress>

## RESS: Responsive Design + Server Side Components

LUKEW  
IDEATION + DESIGN



"Science arose from poetry... when times change the two can meet again on a higher level as friends."—Johann Goethe

IV \$200 off UX Immersion.

ABOUT

WRITINGS

PRESENTATIONS

### RESS: Responsive Design + Server Side Components

by Luke Wroblewski

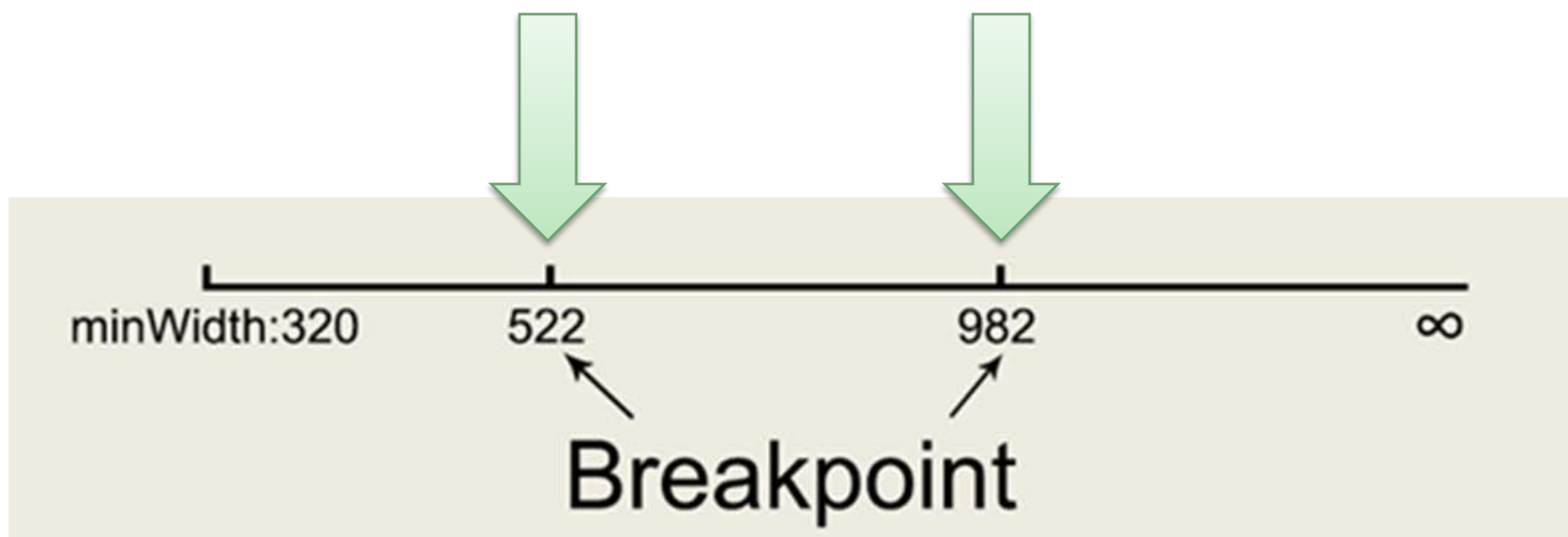
September 12, 2011

There's no shortage of debate about the best way to develop Web sites that work well across many **networked devices**. Some teams favor a client-side approach while others lean towards server-side solutions. But I'm increasingly interested in solutions that try to bring together the best of both worlds. RESS (Responsive Web Design + Server Side Components) is one such proposal.

1. RESS为解决性能问题而生
2. 服务器端设备侦测；
3. 给出需要的结构、样式、资源
4. 前端分段进行RWD

Luke Wroblewski, 2011.9.12, "RESS: Responsive Design + Server Side Components",  
<http://www.lukew.com/ff/entry.asp?1392>

RESS: Responsive Design + Server Side Components



不要设置过大的**适应变化**范围，  
RESS不建议一套代码兼容所有设备，而是分段处理



# Method: 实现RWD的方法

## RESS: Responsive Design + Server Side Components



```
1 <body>
2   {{>header}}
3
4   [...document content...]
5
6   {{>footer}}
7 </body>
```

index.html  
header.html  
mobile\_header.html  
footer.html  
mobile\_footer.html

## RESS对结构(Source Order)的优化

## RESS: Responsive Design + Server Side Components

```
<?php
    // grab the cookie value
    $screenWidth = $_COOKIE['RESS'];

    // set the img path var
    if ($screenWidth <= 320) {
        $imgPath = "320";
    } else if ($screenWidth < 960) {
        $imgPath = "640";
    } else {
        $imgPath = "960";
    }

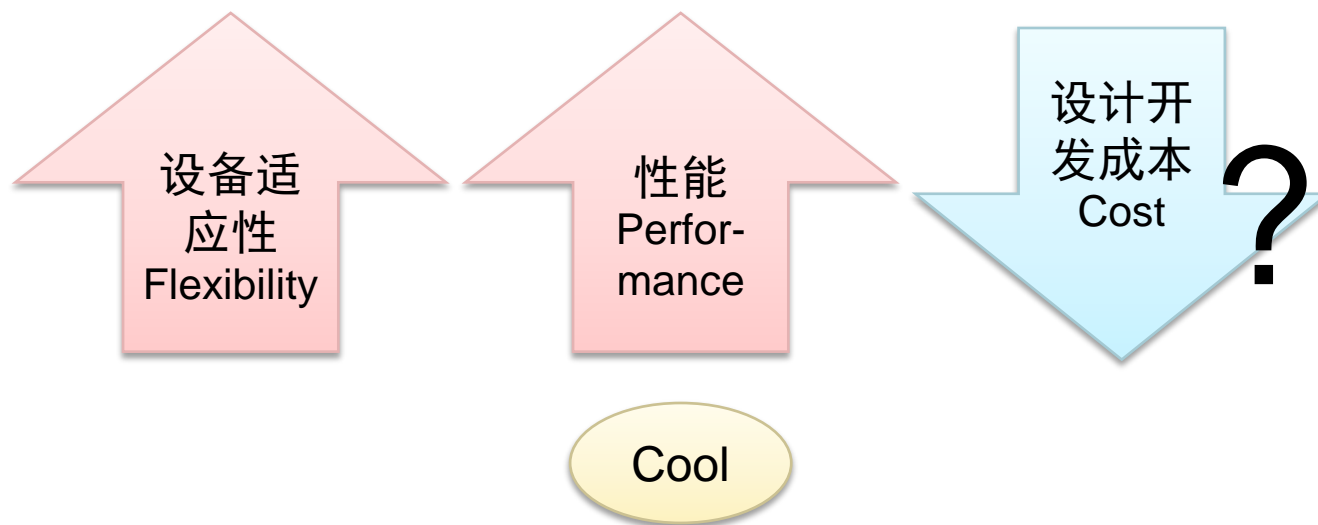
    // print out our image link
    print "<img src='/rwd/images/" . $imgPath . "/car.jpg' alt='Car' />";
?>
```

RESS对资源的优化

# RESS: Responsive Design + Server Side Components

RESS **isn't** a silver bullet.

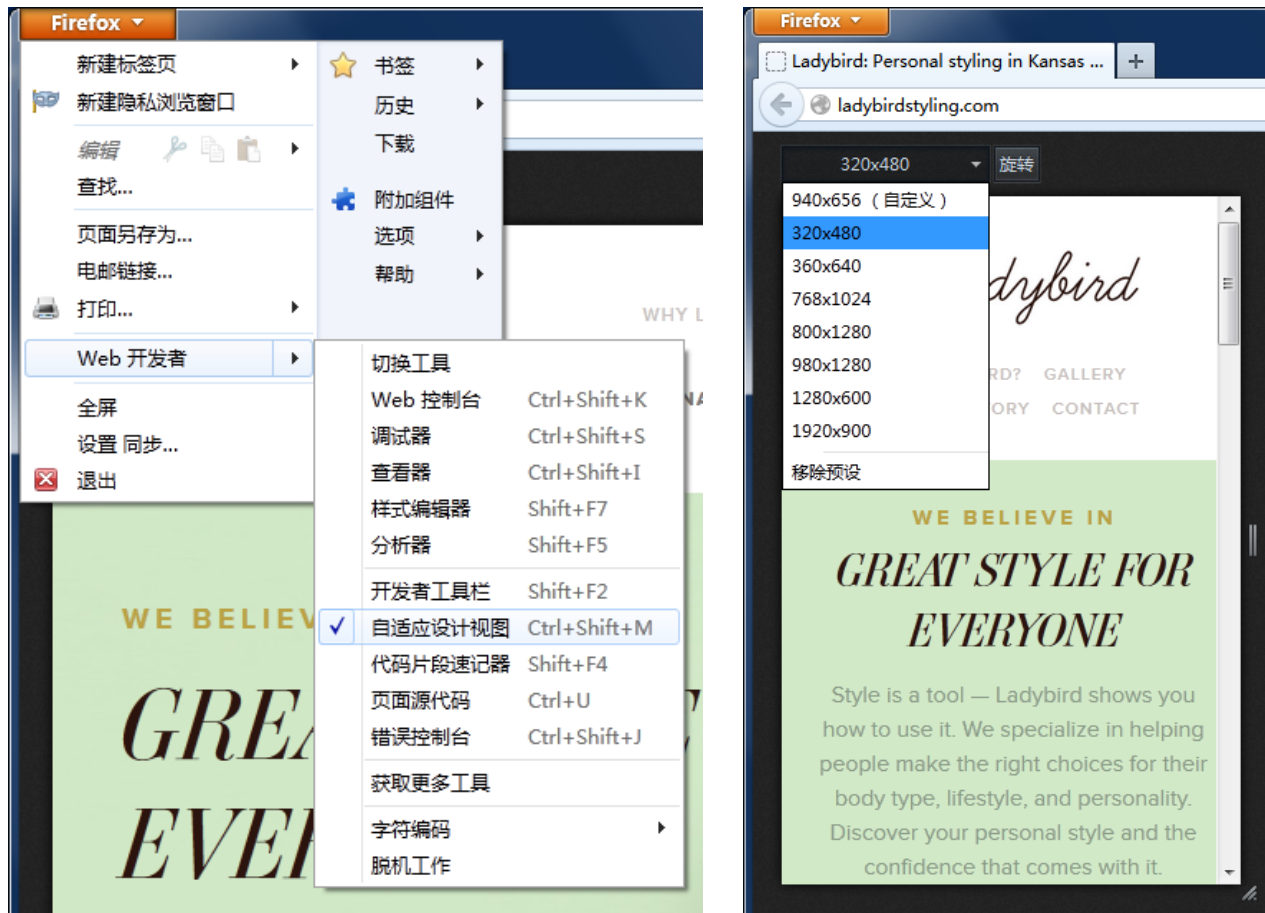
### RESS: Responsive Design + Server Side Components



1. RESS并未消解RWD的本质，只是提出了性能的要求
2. RESS是介于SeparateVersions和OneVersionFixAll间的折中方案
3. RESS需要后端介入设计，比传统的RWD需要更紧密的沟通

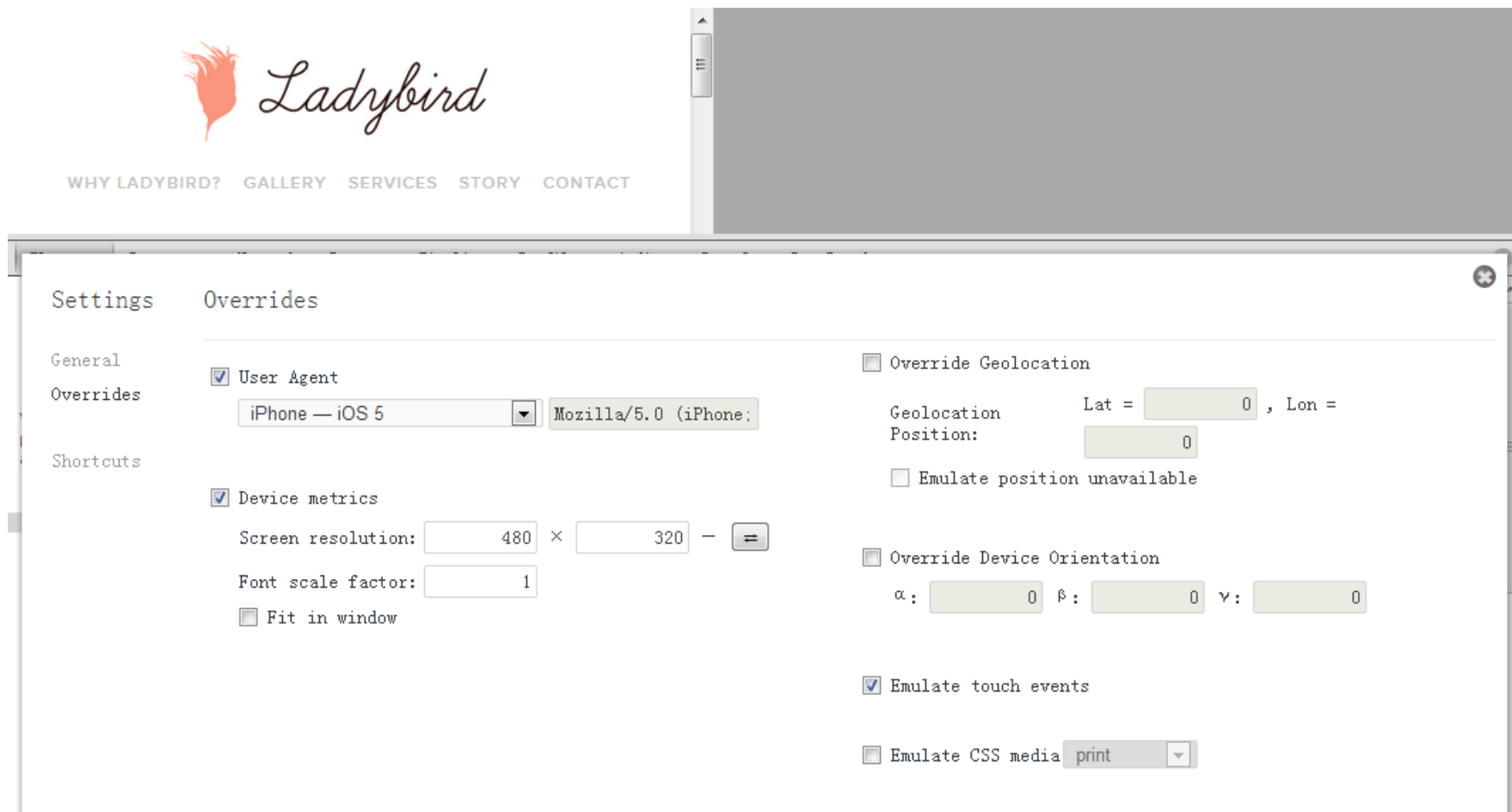
# Method: 实现RWD的方法

## 工具 Tools: Firefox(v15+)自适应视图



# Method: 实现RWD的方法

## 工具 Tools: Chrome developer tools



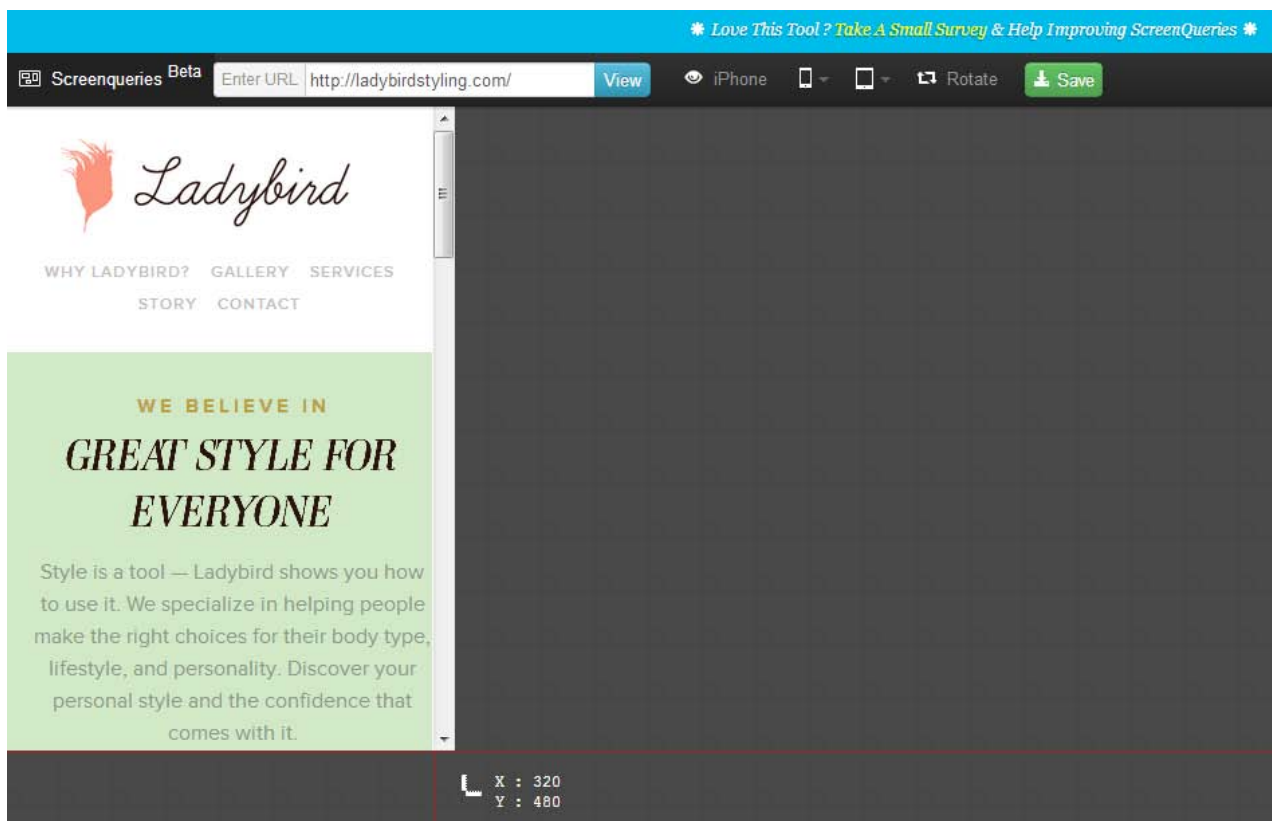
The image shows a browser window displaying the Ladybird website. The website has a logo with a red bird and the text "Ladybird" in a script font. Below the logo is a navigation menu with links: "WHY LADYBIRD?", "GALLERY", "SERVICES", "STORY", and "CONTACT".

Overlaid on the bottom of the browser window is the Chrome DevTools interface, specifically the "Settings" panel with the "Overrides" tab selected. The "Overrides" panel is divided into several sections:

- General**
- Overrides**
  - User Agent
    - Device: iPhone — iOS 5 (dropdown)
    - User Agent String: Mozilla/5.0 (iPhone;
  - Device metrics
    - Screen resolution: 480 × 320
    - Font scale factor: 1
    - Fit in window
  - Override Geolocation
    - Geolocation Position: Lat = 0, Lon = 0
    - Emulate position unavailable
  - Override Device Orientation
    - α: 0 β: 0 γ: 0
  - Emulate touch events
  - Emulate CSS media: print (dropdown)
- Shortcuts**

# Method: 实现RWD的方法

## 工具 Tools: ScreenQueries



ScreenQueries

<http://screenqueri.es>

1. Aim: RWD能解决什么问题
2. Problem: RWD本身的问题和争议
3. Rules: 需要遵循的原则
4. Method: 实现RWD的方法
5. Workflow: 工作流程



## Module List 模块清单

### CONTENT INVENTORY AND PRIORITIZATION

**Current website content**

**Content inventory**

#	Content	On current site	New site
1	Utility links	✓	✓
2	Profile information*	✓	✓
3	Primary navigation	✓	✓
4	Login button	✓	✓
5	My Events	✓	✓
6	My approach	✓	✓
7	Video of advisor	✓	✓
8	Qualifications	✓	✓
9	Areas of focus	✓	✓
10	Market watch	✓	✗
11	Files for download	✓	✗
12	Footer	✓	✓
13	Recent activity	✗	✓

*\* Profile information had a separate content inventory*

**Mobile content reference diagram**

*Linear design: think of content devoid of an interface*

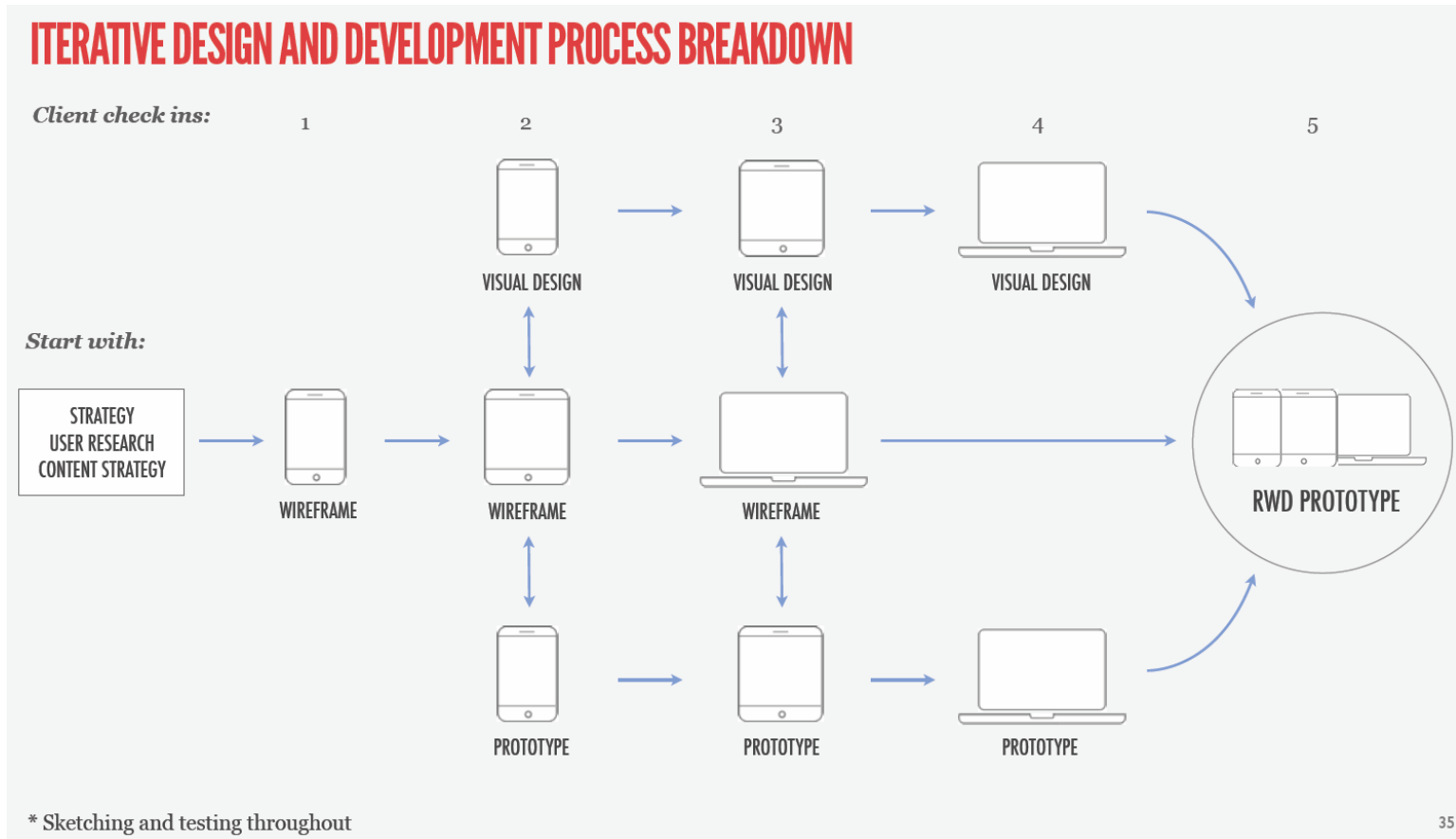
Pon Kattera, 2012.1.21, "Design Process in the Responsive Age",  
<http://www.slideshare.net/pkattera/design-process-for-responsive-web-design>

## Module List 模块清单



模块名	窄(手机) 320px<width<522px	中(ipad竖屏) 522px<width<982px	宽(desktop) width>982px
1控制面板 LOGO	有	有	有
2控制面板 控制台	有	有	有
3控制面板 登录态	待定	有	有
4内容面板	有	待定	有
5客厅 视觉区域	有	有	有
6客厅 广播区域	有	有	有
7客厅 图片组区域	有	有	有
8客厅 长文区域	有	有	有
9书房 广播框	有	有	有
10书房 长文正文	有	有	有

## Workflow



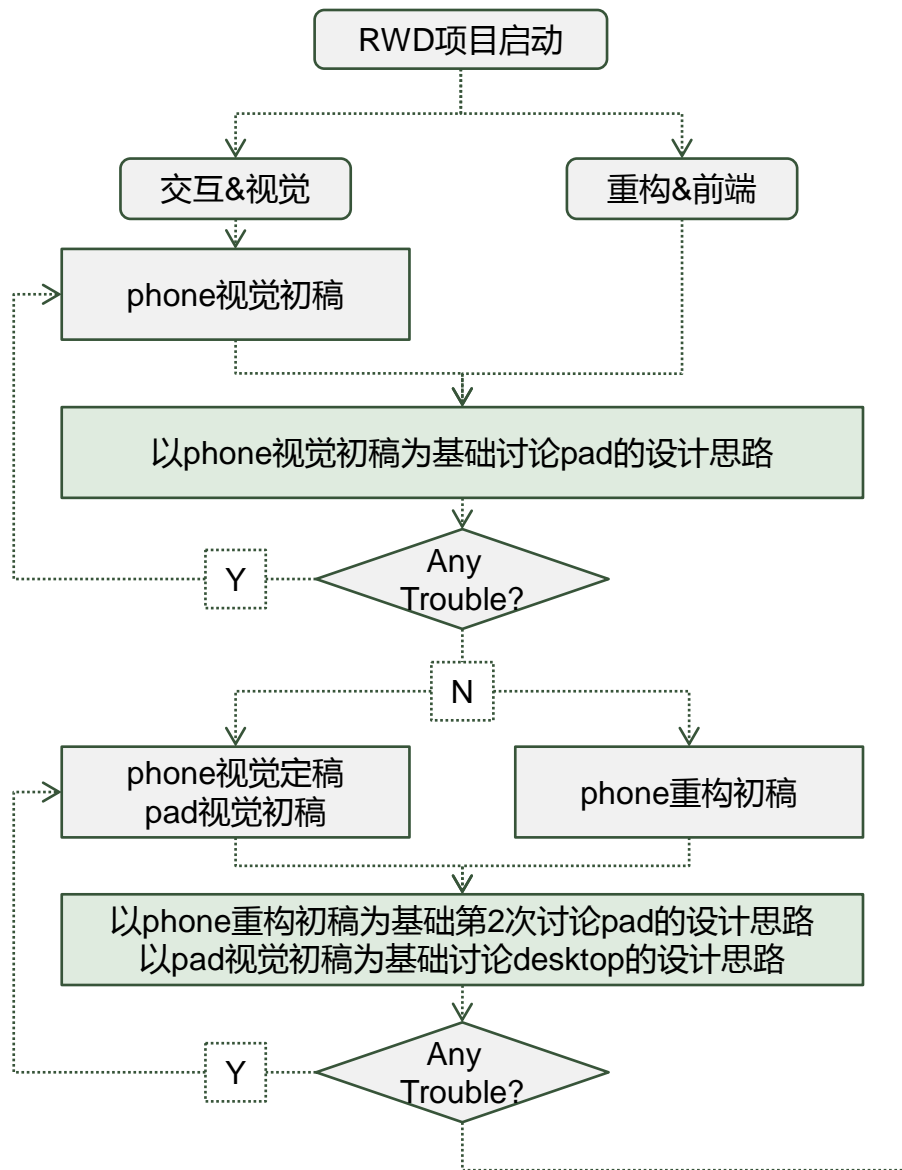
Pon Kattera, 2012.1.21, "Design Process in the Responsive Age",  
<http://www.slideshare.net/pkattera/design-process-for-responsive-web-design>

## Workflow

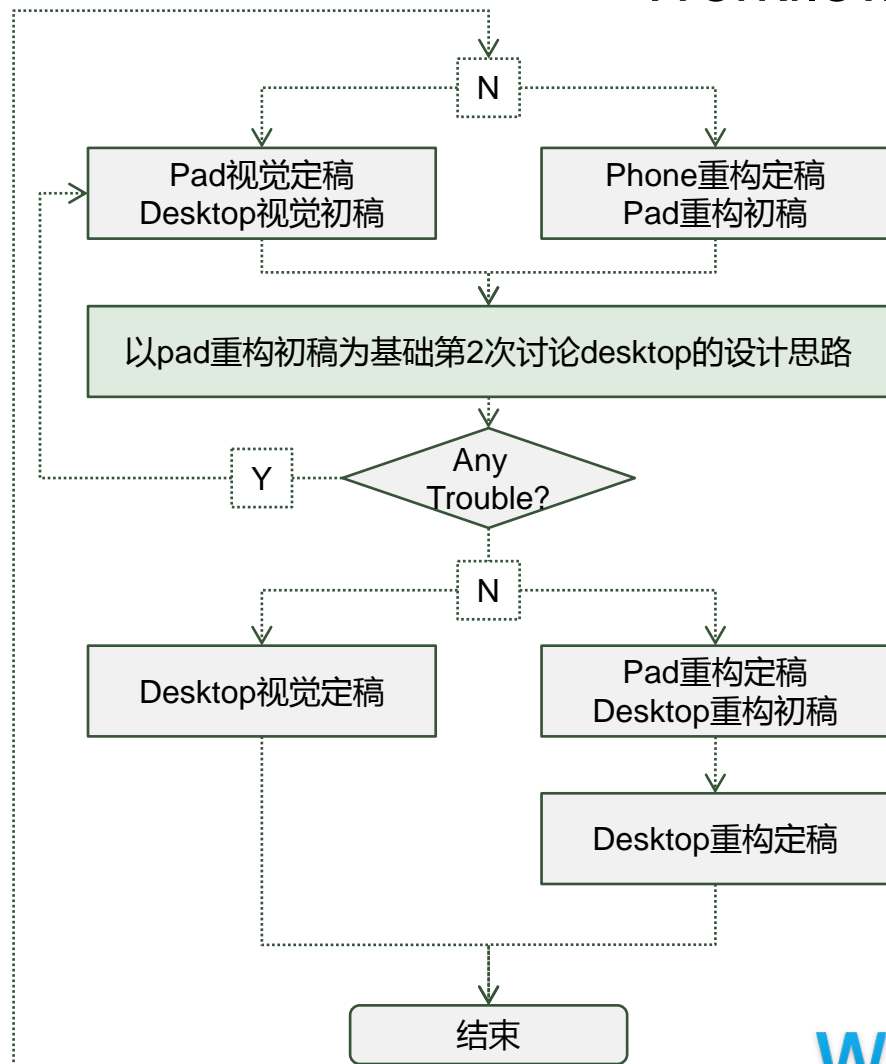
1. 依照分辨率小、中、大的顺序设计；
2. 视觉稿分初稿和定稿：初稿要确定模块的位置和尺寸；
3. 较小分辨率下的初稿确定后，交付重构制作，同时设计与重构沟通大一级分辨率下的设计思路；
4. 较小分辨率下的视觉定稿与大一级分辨率下的视觉初稿同时设计，较小分辨率下的重构定稿与大一级分辨率下的重构初稿同时制作；
5. 每一级讨论后如无异议，将模块写入模块清单。



# Workflow: 工作流程



# Workflow



# Responsive Web Design 2010.5-2013.5



## Q1：响应式设计是什么？

1. 响应式设计充分利用了web的灵活性；
2. 它是一种设计风格；
3. 它更是一种解决方案。

## Q2：响应式设计要解决什么问题？

1. 如何适应分辨率层出不穷的移动设备和终端；
2. 如何降低设计开发成本。

## Q3：响应式设计的好处？

1. 一次性产出适应所有设备的prototype；
2. 在提高设备适应性，降低开发成本的基础上让网站变得更酷。

## Q4：使用响应式设计的顾虑？

1. IE8（含）以下IE浏览器对某些相关css属性支持不好，需要选择适合的降级方案；
2. 注意结构、样式、资源处理不当带来的性能问题。



## Q5：如果使用响应式设计，要遵循的原则？

1. 内容策略
2. 移动优先
3. 适应是响应的基础

## Q6：实现响应式设计的方法？

1. 流动栅格
2. 弹性图片和媒体
3. 媒体查询

## Q7：关于响应式设计的协作？

1. 紧密沟通
2. 及时更新模块清单
3. 小屏幕优先的设计流程

— OCTOBER 4, 2012 —

## Blame the Implementation, Not the Technique



Tim Kadlec, 2012.10.4, *"Blame the Implementation, Not the Technique"*,  
<http://timkadlec.com/2012/10/blame-the-implementation-not-the-technique>

## 关于Rebuilder

作为设计团队中的重构工程师应该：

1. 及时发现和捕捉web设计的潜能；
2. 主动从web的适应性和性能的角度去影响设计环节；
3. 结合技术和团队一起拓展设计方法；
4. 带动整个团队的设计进步。

## 附录1：一些应用了RWD的网站

1. <http://bradfrostweb.com/>
2. <http://elliottjaystocks.com/>
3. <http://ethanmarcotte.com/>
4. <http://www.facebookstories.com/>
5. <http://www.antarcticstation.org/>
6. <http://www.lib.jjay.cuny.edu/>
7. <http://ladybirdstyling.com/>
8. [http://www.nascar.com/en\\_us/sprint-cup-series.html](http://www.nascar.com/en_us/sprint-cup-series.html)
9. <http://www.openroad.ca/>
10. <http://www.responsivewebdesign.co.uk/>
11. <http://www.sequencejs.com/>
12. <http://www.rachelandrew.co.uk/>
13. <http://www.nytimes.com/skimmer/#/Top+News>
14. <http://www.gorilla-webdesign.be/>
15. <http://mediaqueri.es/>
16. <http://socialdriver.com/2012/07/20-best-responsive-websites/>
17. <http://mashable.com/>

## 附录2：国内关于RWD的一些文章

1. 神飞：2010.7.6，《*media type与media query*》，"<http://www.qianduan.net/media-type-and-media-query.html>"
2. 张克军：2011.6.24，《*聊聊响应性设计和开发*》，"<http://hikejun.com/blog/2011/06/24/聊聊响应性设计和开发>"
3. c7210：2011.10.1，《*什么是响应式Web设计？怎样进行？*》，"<http://beforweb.com/node/6>"
4. 神飞：2011.11.2，《*响应式网页设计*》，"<http://www.qianduan.net/responsive-web-design.html>"
5. 张克军：2012.8.30，《*一次响应性开发实践*》，"<http://hikejun.com/blog/2012/08/30/一次响应性开发实践>"

# 參考文獻 References

1. RWD Wikipedia [http://en.wikipedia.org/wiki/Responsive\\_web\\_design](http://en.wikipedia.org/wiki/Responsive_web_design)
2. John Allsopp, 2000.4.7, "A Dao of Web Design", <http://alistapart.com/article/dao>
3. Luke Wroblewski, 2009.11.3, "Mobile First", <http://www.lukew.com/ff/entry.asp?933>
4. ETHAN MARCOTTE, 2010.5.25, "Responsive Web Design", <http://alistapart.com/article/responsive-web-design>
5. Alexander Dawson, 2010.8.18, "Mobile Web Design: Best Practices", <http://sixrevisions.com/web-development/mobile-web-design-best-practices>
6. Luke Wroblewski, 2011.9.1, "Why Separate Mobile & Desktop Web Pages?", <http://www.lukew.com/ff/entry.asp?1390>
7. Luke Wroblewski, 2011.9.12, "RESS: Responsive Design + Server Side Components", <http://www.lukew.com/ff/entry.asp?1392>
8. Yiibu, 2011.9.13, "Adaptation: Why responsive design actually begins on the server", <http://www.slideshare.net/yiibu/adaptation-why-responsive-design-actually-begins-on-the-server>
9. Thomas Byttebier, 2011.11, "Responsive web design", [http://www.slideshare.net/bytte/responsive-web-design-10389263?from\\_search=3](http://www.slideshare.net/bytte/responsive-web-design-10389263?from_search=3)
10. Anders M. Andersen, 2011.11.9, "RESS - Responsive Design + Server Side Components", <http://www.slideshare.net/4nd3rsen/ress-responsive-design-server-side-components-10084972>
11. Pon Kattera, 2012.1.21, "Design Process in the Responsive Age", <http://www.slideshare.net/pkattera/design-process-for-responsive-web-design>
12. Mat Marquis, 2012.1.31, "Responsive Images: How they Almost Worked and What We Need", <http://alistapart.com/article/responsive-images-how-they-almost-worked-and-what-we-need>
13. Dave Olsen, 2012.2.21, "RESS, Server-Side Feature-Detection and the Evolution of Responsive Web Design", <http://dmolsen.com/2012/02/21/ress-and-the-evolution-of-responsive-web-design>
14. Mark Boulton, 2012.2.24, "Responsive Summit: Workflow", <http://www.markboulton.co.uk/journal/responsive-summit-workflow>
15. Guy Pod, 2012.4.16, "Performance Implications of Mobile Design", <http://www.slideshare.net/quypod/performance-implications-of-mobile-design>
16. Sara Cannon, 2012.5.7, "Responsive Design", [http://www.slideshare.net/saracannon/responsive-design-12837964?from\\_search=2](http://www.slideshare.net/saracannon/responsive-design-12837964?from_search=2)
17. Anders M. Andersen, 2012.5.9, "Getting started with RESS", <http://www.netmagazine.com/tutorials/getting-started-ress>
18. Dave Olsen, 2012.5.15, "RESS: An Evolution of Responsive Web Design", <http://www.slideshare.net/dmolsenwvu/ress-an-evolution-of-responsive-web-design>
19. Viljami Salminen, 2012.5.28, "RESPONSIVE WORKFLOW", <http://viljamis.com/blog/2012/responsive-workflow>
20. Tim Kadlec, 2012.10.4, "Blame the Implementation, Not the Technique", <http://timkadlec.com/2012/10/blame-the-implementation-not-the-technique>
21. Tim Kadlec, 2012.12.5, "Responsive Responsive Design", <http://24ways.org/2012/responsive-responsive-design>
22. Brad Frost, 2013.1.21, "The Post-PSD Era", <http://bradfrostweb.com/blog/post/the-post-psd-era>
23. Brad Frost, 2013.1.28, "Performance As Design", <http://bradfrostweb.com/blog/post/performance-as-design>
24. Josh Chan, 2013.4.1, "Responsive Web Design is Not the Future", <http://sixrevisions.com/mobile/responsive-web-design-not-the-future>
25. Brad Frost, 2013.4.1, "A Response to 'Responsive Web Design is Not the Future'", <http://bradfrostweb.com/blog/post/a-response-to-responsive-web-design-is-not-the-future>
26. Dave Olsen, 2013.4.16, "Measuring Web Performance", <http://www.slideshare.net/dmolsenwvu/measuring-web-performance-18921979?ref=http://www.dmolsen.com/2013/04/06/going-old-school-with-command-line-interfaces>



谢谢!



RTX:bennyzhai

@bienfantaisie

bienfantaisie@gmail.com