



# Modern and Mobile Front-End Web Design 2 - DGMD E-27

## Responsive Design Intro



Professor Jen Kramer

# It's all about mobile



[Photo back story](#)



**“I need a  
website  
and I want  
responsive  
design.  
How much  
will that  
cost?”**



**RESPONSIVE DESIGN**

**I DO NOT THINK IT MEANS  
WHAT YOU THINK IT MEANS**

# Responsive Design (Manager)



- **Make it work on my iPhone!**
- **Make it work on my iPad!**
- **If the website knows what device I'm using, it's responding, right?**

# Responsive Design (Geek)

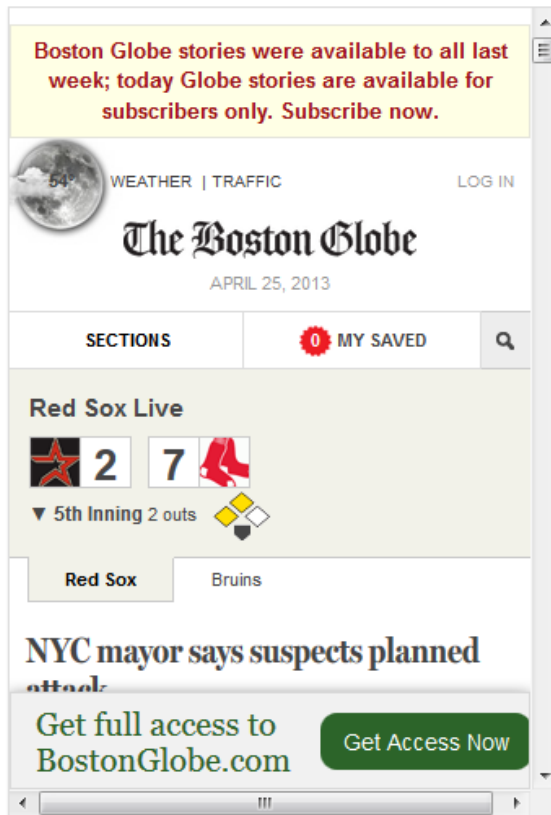


- **Defined by three characteristics**
  - ◆ Flexible grid-based layout
  - ◆ Images that resize
  - ◆ Media queries (CSS3)
- [www.alistapart.com/articles/responsive-web-design/](http://www.alistapart.com/articles/responsive-web-design/)
- **Example: [Boston Globe](#)**

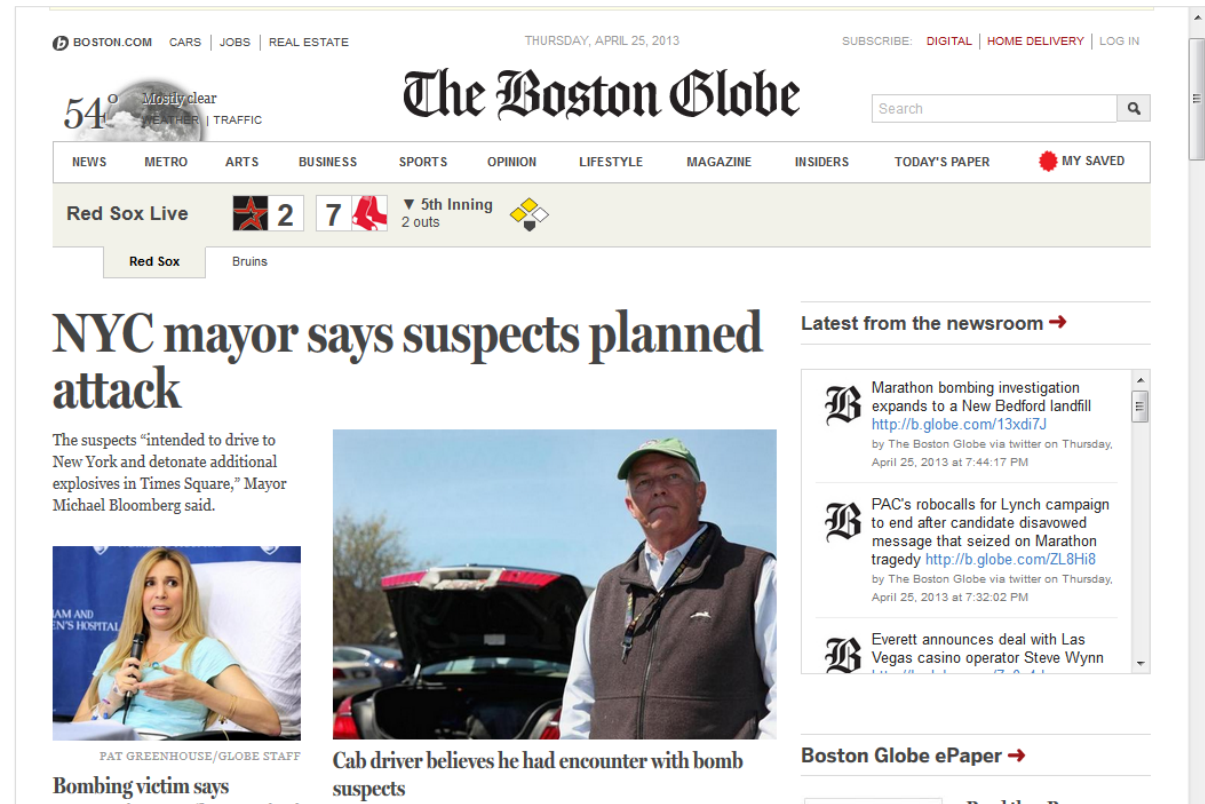
# Responsive design is client side



## ▼ Mobile portrait (320x480)



## ▼ Tablet landscape (1024x768)



[www.bostonglobe.com](http://www.bostonglobe.com)

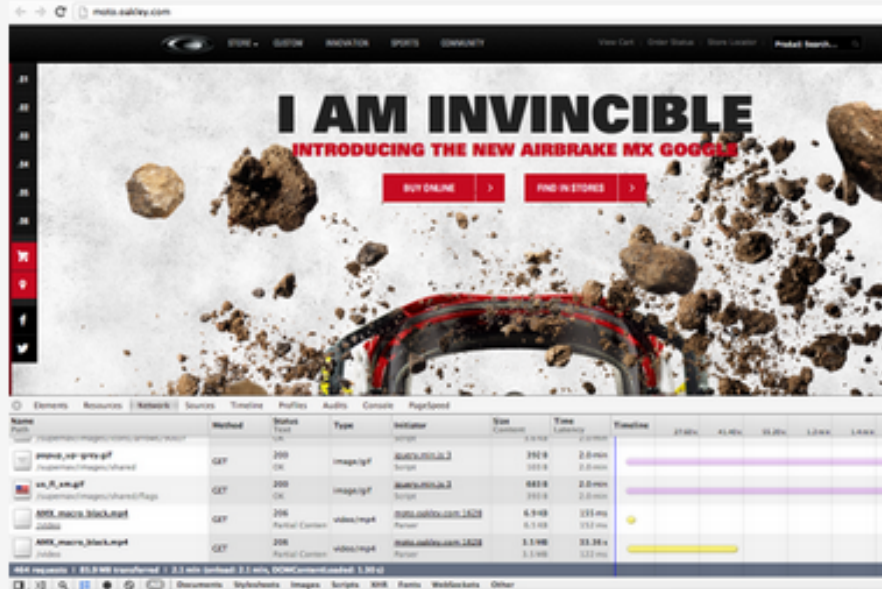




**Brad Frost** @brad\_frost

22 Apr

LADIES AND GENTLEMEN: I present to you a website that weighs 85.9MB. WTF. W. T. F. [pic.twitter.com/yUfStWf63](http://pic.twitter.com/yUfStWf63)  
Details



286

RETWEETS

97

FAVORITES



3:52 PM - 22 Apr 13 from Pittsburgh, PA · Details

Flag media



**Scott Vinkle** @svinkle

22 Apr

@brad\_frost Only 27.6 MB for small screen devices...

Details

More info: <http://hawksworx.com/blog/oakleys-monster-page-of-baubles/>





**Scott Jehl**

@scottjehl



Follow

Hmm.

- Avg. website size: 1.4mb
- iPhone w/ Verizon's basic plan: \$80/mo for 300mb
- Number of website visits for \$80: 215
- \$0.37 per visit

 Reply  Retweet  Favorite  More

**216**

RETWEETS

**74**

FAVORITES



10:53 AM - 10 May 13

# Responsive Design is as good as its designer



## Six Revisions

Useful Information for Web Developers & Designers

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### Responsive Web Design is Not the Future

Apr 1 2013 by [Josh Chan](#) | [55 Comments](#)



In 2000, [The FWA](#) (a popular website awards program) gave their prestigious Site of the Year award to [Look and Feel New Media](#), shown below. Visit the site for some context of what I'll be discussing, but turn down your speakers or headphones because it has background music.





#### Search

Google Custom Search

Search

#### Topics

[AJAX](#)

[CSS](#)

[Design Showcase / Inspiration](#)

[Flash](#)

[Freebies](#)

[Graphic Design](#)

## A Response to 'Responsive Web Design is Not the Future'

I fundamentally disagree with [this entire article](#). Let's address each point:

### 1. Web Performance

The fact that the author references Tim Kadlec's [Blame the Implementation Not the Technique](#) article and still makes these claims is pretty amazing.

A large, faint red crest watermark is centered in the background of the slide. It is identical in design to the small crest in the top right corner, featuring the word "VERITAS" on a banner, two open books, a central chevron, and a chalice at the bottom.

**Alternative: Mobile site**

# Separate sites are server side



## Same data from the database

The screenshot shows the Southwest Airlines website. At the top is the Southwest logo and a search bar. Below the logo is a navigation bar with links for Air, Hotel, Car, Vacations, Travel Guide, and Rapid Rewards. The main content area features a large banner for "Spring OR Fall PERSON?" with a "Book Now" button. To the left of the banner is a search filter box with options for Round Trip, One-Way, Departure City, Arrival City, Depart, Return, and Promo Code. Below the banner are sections for "Get A Roundtrip Flight" and "Cinco de Fly-O! Mexico & The Caribbean On Sale".

## Served up with different themes

The screenshot shows the Southwest Airlines mobile app. At the top is the Southwest logo and a search bar. Below the logo is a navigation bar with links for Air, Hotel, Car, Vacations, Travel Guide, and Rapid Rewards. The main content area features a "Travel Advisory" section with a link to "Learn more about these alerts as they may affect your travel plans." Below this is a list of services, each with an icon and a link: Air Reservations, Flight Check In, Flight Status, Flight Schedules, Rapid Rewards, Car Reservations, Contact Southwest, View Full Site, Help, and More. At the bottom is a copyright notice: "©2013 Southwest Airlines Co. All Rights Reserved."



Choose Site

www.careerjunction.co.za

Google



Hi! You are using a mobile device. Visit our...

→ [Mobile](#) site

→ [Full](#) site



**WHICH IS BETTER?**



**IT DEPENDS**

# Positives/Advantages



## Responsive Design

- Static or data-driven sites OK
- Same content served in any environment
- Can work at any screen dimension if coded well
- Same URLs for content

## Mobile Site

- Data-driven backend required
- Can serve different content to desktop and mobile if required

# Negatives/Disadvantages



## Responsive Design

- If front-end developer doesn't know what they are doing, this can be a slow data-hog. Need a talented front-end developer who can weigh requirements and tradeoffs to make this technique work optimally.
- Is your content mobile-friendly?

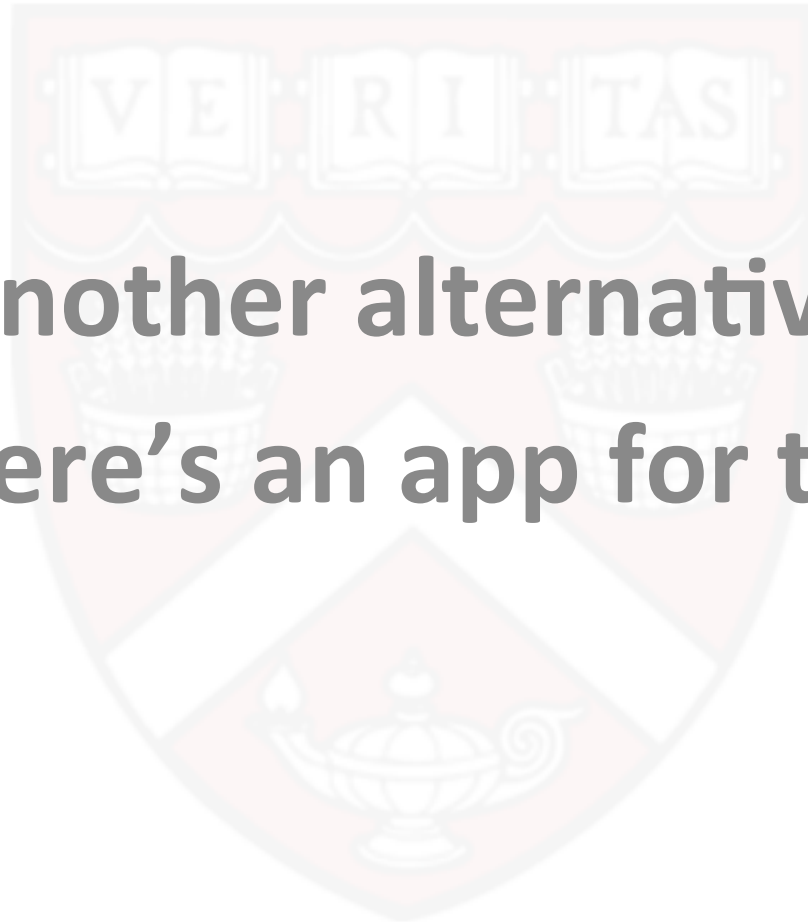
## Mobile Site

- What if user wants to see the "full site" version?
- What happens if the user has a device that's not one of the defined widths?
- May have different URLs for mobile vs desktop content
- Talented back-end team who can serve up two (or more) sites with different themes/templates





**Another alternative:  
There's an app for that**



# What makes a site and an app different?



## Website that's mobile-compatible

- Runs in the browser, so it will run on any mobile phone with a suitable browser
- May be cheaper to develop
- Generally will use responsive design or a separate mobile website
- Can pull info from a database on the web

## Mobile app

- Runs as an application, so a separate app must be coded for iOS and Android (and Windows).
- May be more expensive to develop and maintain
- Can look/function however you want, within the parameters of the operating system
- Can pull info from the web or web-based database

**WHICH IS BETTER?**



**IT DEPENDS**

# Which should I use when?



## Website that's mobile-compatible

- Use for any website.

## Mobile app

- Use only if needed.
- When do you need an app?
  - ◆ You have TONS of content that might need to be read on specific devices
  - ◆ Your visitors come back EVERY DAY
  - ◆ The browser is too limiting for what the user needs to complete.
- Some industries seem to standardize on apps, like banking



# My app does what your site can't



# If you build it, will they come?



**“German mobile analytics firm Adeven says that nearly two-thirds of software in iOS App Store are ‘zombies’ — thanks to a new tool that has counted 400,000 apps which get no downloads, are invisible to users and have no ranking.” [source](#)**



A large, faded red crest centered in the background. It features a shield with a white chevron. Above the chevron are three open books with the word 'VERITAS' written across them. Below the chevron is a silver chalice.

**So what is responsive design?**

# Responsive Design



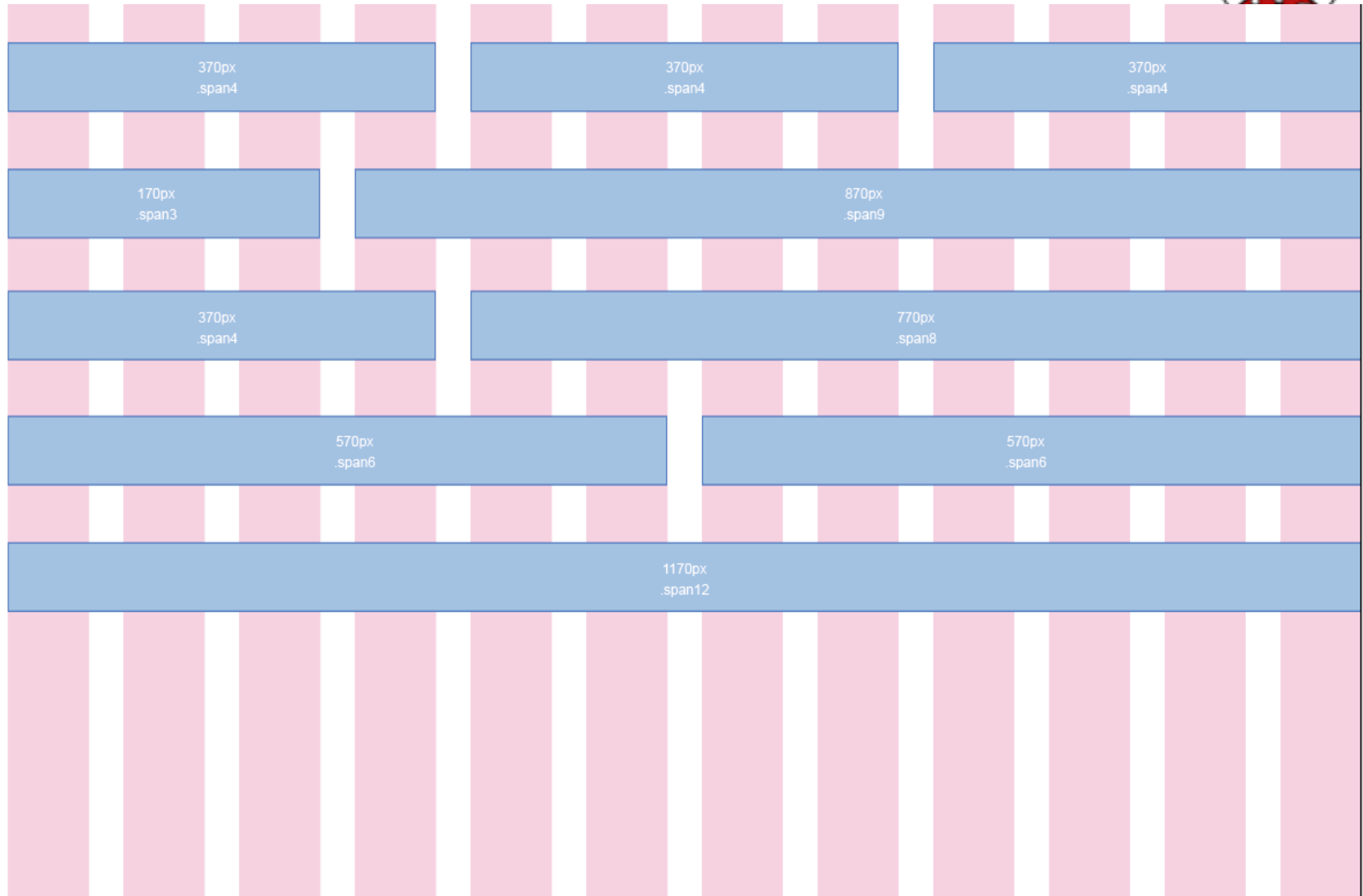
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# Grid-based layout



30px





# Grid-based layout



Product Index

Contact

Travel Suppliers

Corporations

Government

Product Index

number of proven booking tools to fit your exact needs.

## Header 2

Credibly visualize integrated experiences through vertical best practices. At base level, this just comes down to systemized, monitored programming.

### Header 3

Enthusiastically generate empowered technology and holistic total linkage. The solution can only be balanced modular processing. Forward-looking companies invest in synchronized monitored alignment.

#### Header 4

- Embrace innovative metrics
- Maximize one-to-one action-items
- Empower e-Business definition link
- Synergized contextually-based external link

Plan	Sabre GDS	Setup Fee
data		

Plan	Sabre GDS	Setup Fee	Monthly Fee	Agents	Contract Term
Nexion	Included	\$1,250	\$10 - \$500**	Unlimited**	Month-to-Month
	Not Included	\$1,250	\$10 - \$500**	Unlimited**	Month-to-Month

Increase Revenue

Reduce Costs

Customer Service Tools

Manage Your Business

Development Tools

Do That Thing You Do

Source

# CSS3 Media Queries



- Browser reports screen resolution
- Based on current width, serve a stylesheet with layout for that width
- No JavaScript involved



# Images that resize



- Images should change size, based on screen resolution
- Solutions are still being developed, but they are:
  - ◆ Client-side
  - ◆ Server-side
  - ◆ 3<sup>rd</sup> party
  - ◆ Free
  - ◆ Paid



# Responsive design is friends with...



- **Static HTML (really? In 2017?)**
- **Content management systems**
- **Server-side technologies**



# Responsive Design Frameworks



**Jen's Smashing Magazine article from 2014**

**Responsive Design Frameworks: Just Because You Can, Should You?**

**(new Smashing Magazine article to come shortly!)**