skillcrush WEEKEND WORKSHOP

RESPONSIVE DESIGN

with Kristina Zmaic & Angela Wyman

WELCOME!

We're glad you could join us for the Responsive Web Design Workshop.

To get the most out of this class it is important that **you're comfortable with HTML and CSS**. Familiarity with these basic languages is a must.

You'll Need:

- Something to Take Notes with.
- A text editor like **Sublime Text.**

I’M KRISTINA ZMAIC

I’m a creative director, designer & educator based in Brooklyn, New York. I build brands, research what makes people tick and craft things for web & print. Seeing design as elegant problem solving, I am constantly trying to figure out how things work and how to make them work ***better***.

CONNECT WITH ME

follow: **@KZmaic**

I’M ANGELA WYMAN

I’m an engaging NYC instructor with over 15 years of experience in design, art and technology. A graduate from Pratt Institute and Hunter College, I’m on a mission to make computer science a bit more intelligible to the average person.

CONNECT WITH ME

follow: **@AngelaWyman**

skillcrush WEEKEND WORKSHOP

RESPONSIVE DESIGN

AFTER COMPLETING THIS WORKSHOP

YOU'LL UNDERSTAND

1. How to plan and design your own responsive project by understanding best practices

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YOU'LL UNDERSTAND

1. How to plan and design your own responsive project by understanding best practices

2. How to trouble-shoot some common coding errors associated with developing for multiple devices

LET'S DO A REALLY QUICK

SELF ASSESSMENT

PLEASE WRITE DOWN YOUR ANSWERS SOMEWHERE

On a scale of 1-10

How Well Do You Feel Like You Could Explain Responsive Design To A Client?

1 2 3 4 5 6 7 8 9 10

On a scale of 1-10

How Well Do You Feel Like You Could <u>Explain</u> Responsive Design To A Client?

1 2 3 4 5 6 7 8 9 10

Responso Who?

I've dabbled and done some reading...

I've been designing & developing responsively for years. I know *all* the best practices.

On a scale of 1-10

How Confident Are You With Executing A Responsive Design Project?

1 2 3 4 5 6 7 8 9 10

On a scale of 1-10

How Confident Are You With Executing A Responsive Design Project?

1 2 3 4 5 6 7 8 9 10

Responso Who?

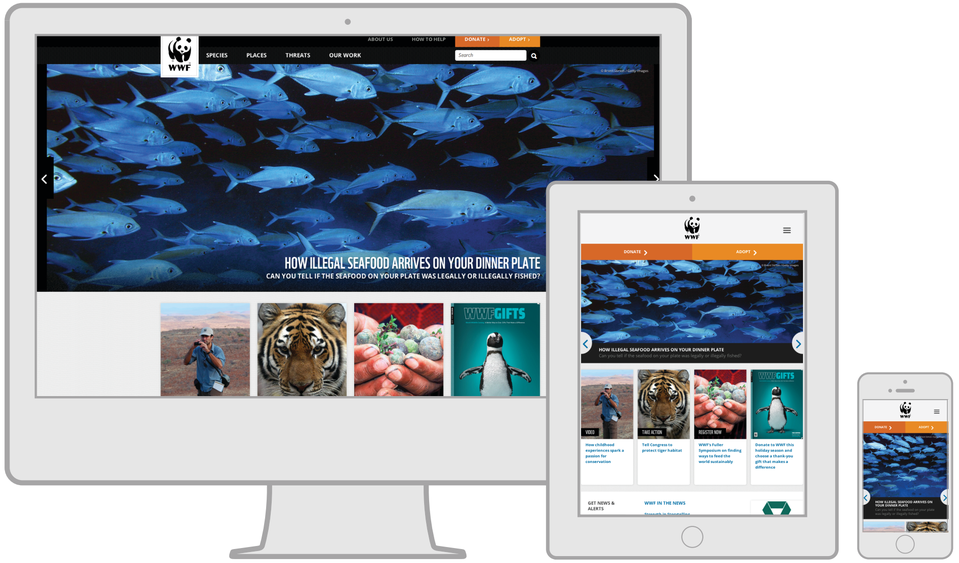
I've tried a few small projects.

I've been designing & developing responsively for years. I know *all* the best practices.

REMEMBER THOSE NUMBERS!

We'll need them later.

1. RESPONSIVE DESIGN & WHY IT'S IMPORTANT



RESPONSIVE WEB DESIGN

will fluidly change and respond to fit ***any*** screen or device size with minimal resizing, panning or scrolling.

ETHAN MARCOTTE

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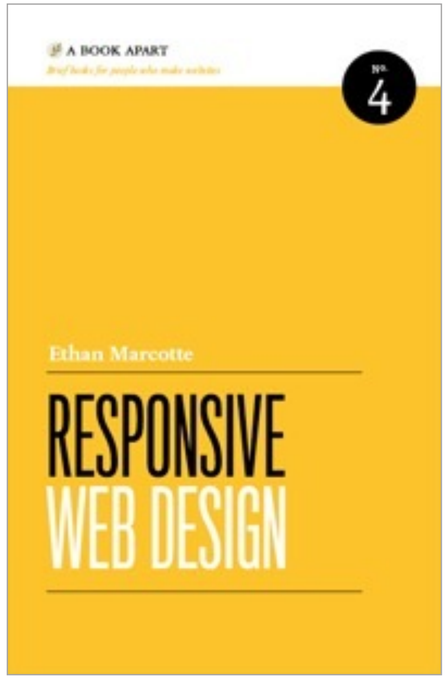

WE NEED TO ADAPT TO OUR ENVIRONMENT

95.5% OF THE WORLD HAS A MOBILE SUBSCRIPTION

Source: http://mobiforge.com/

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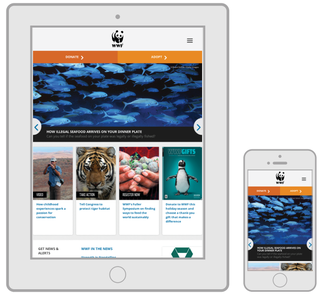
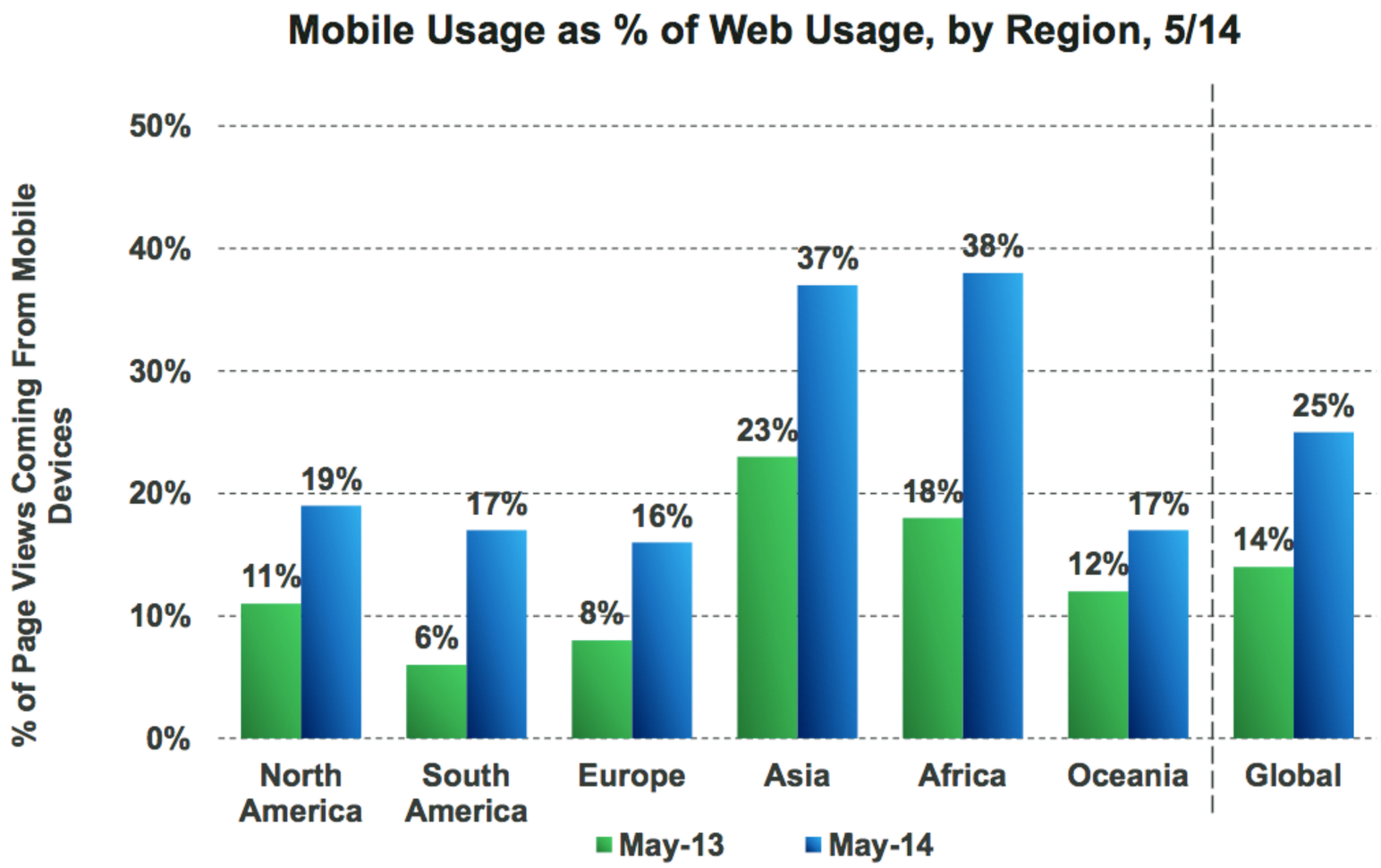


Mobile devices outnumber desktop devices across the world, even **more so** in developing countries.

Source: http://mobiforge.com/



Source: http://kpcb.com/

THE “MOBILE ONLY” CULTURE

A growing segment of the population — individuals and entire cultures — who only interact and access the internet via their mobile device.

WHAT EXACTLY IS MOBILE?

9:41 AM
100%
Messages
Calendar
Photos
Camera
Weather
Clock
Maps
Videos
Notes
Reminders
Stocks
Game Center
Newsstand
iTunes Store
App Store
iBooks
Health
Passbook
Settings
Phone
Mail
Safari
Music

Start
Sheila
Marchand
Regina Roberts
9
Wednesday
68°
Los Angeles
Sunny

Finder File Edit View Go Window Help
Mon 10:50 AM
MacBook Air

BACK
START
X
Y
B
A

Back
Home
FAV
Help
27°F
3:32 PM
Connected
Eric
Hang Up
Enter Number
Mute Call
Phone
Speed
0
MPH
FAV
SOURCE
BACK
INFO
TONE
CONFIG
AUTO
FRONT
REAR
A/C
MENU
SET/CLR
VEHICLE INFO

MOBILE IS VAST.

Not JUST smartphones & tablets anymore.

Responsive Design:

DESIGNING FOR DEVICES THAT DON’T EVEN EXIST YET.

Our Goal:

PROVIDE THE BEST EXPERIENCE NO MATTER WHAT THE DEVICE.

SECTION 1: Responsive Design Overview

WHAT WE'VE LEARNED

1. Responsive Design fluidly changes and responds to fit ***any*** screen or device size with minimal resizing, panning or scrolling.

2. Most of the WORLD owns a mobile device & uses it as their primary means to accessing the internet verses a desktop computer.

3. Mobile is more than JUST tablets & mobile phones these days, it includes gaming systems, laptops, cars and anything else that can remotely access the internet.

2. MOBILE FIRST

& WHY CONTENT IS KING

LUKE WROBLEWSKI

LUKE WROBLEWSKI

One of the first to bring the concept of Mobile First to the forefront.

LUKEW IDEATION + DESIGN

"If a site is perfectly usable but it lacks an elegant and appropriate design style, it will fail." —Curt Cloninger, 2001

50% off my video course on Mobile Web Design. Use discount code AUTHD.

ABOUT | WRITINGS | PRESENTATIONS

Mobile First

by Luke Wroblewski — November 2, 2009

More often than not, the mobile experience for a Web application or site is designed and built after the PC version is complete. Here's three reasons why Web applications should be designed for **mobile first** instead.

1. Mobile is exploding

Though the Web has been accessible on mobile devices for years, today's smart phones are driving huge use of networked applications and Web content. Consider that AT&T, the exclusive carrier for Apple's iPhone, has seen a 4,932% increase in mobile traffic data in the past three years. And that's just the start.

- Heavy mobile data users are projected to triple to one billion by 2013. (source)
- Mobile internet adoption has outpaced desktop internet adoption by eight times. (source)
- Smartphone sales will surpass worldwide PC sales by the end of 2011 . (source)
- Over half of Android and iPhone users spend more than 30 minutes per day using mobile applications. (source)

Building mobile first ensures companies have an experience available to this extremely fast growing user base widely considered to be the next big computing

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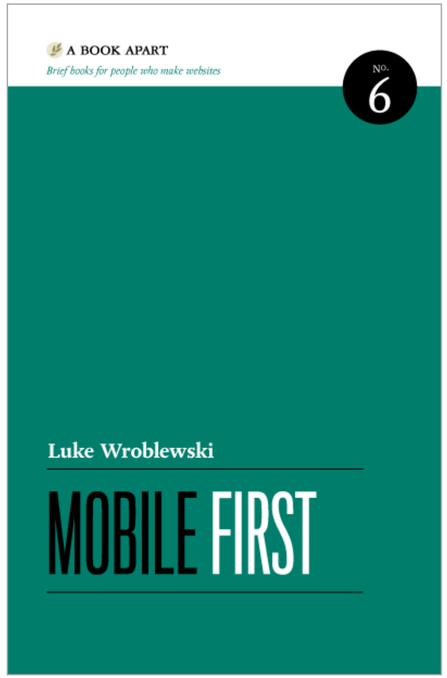

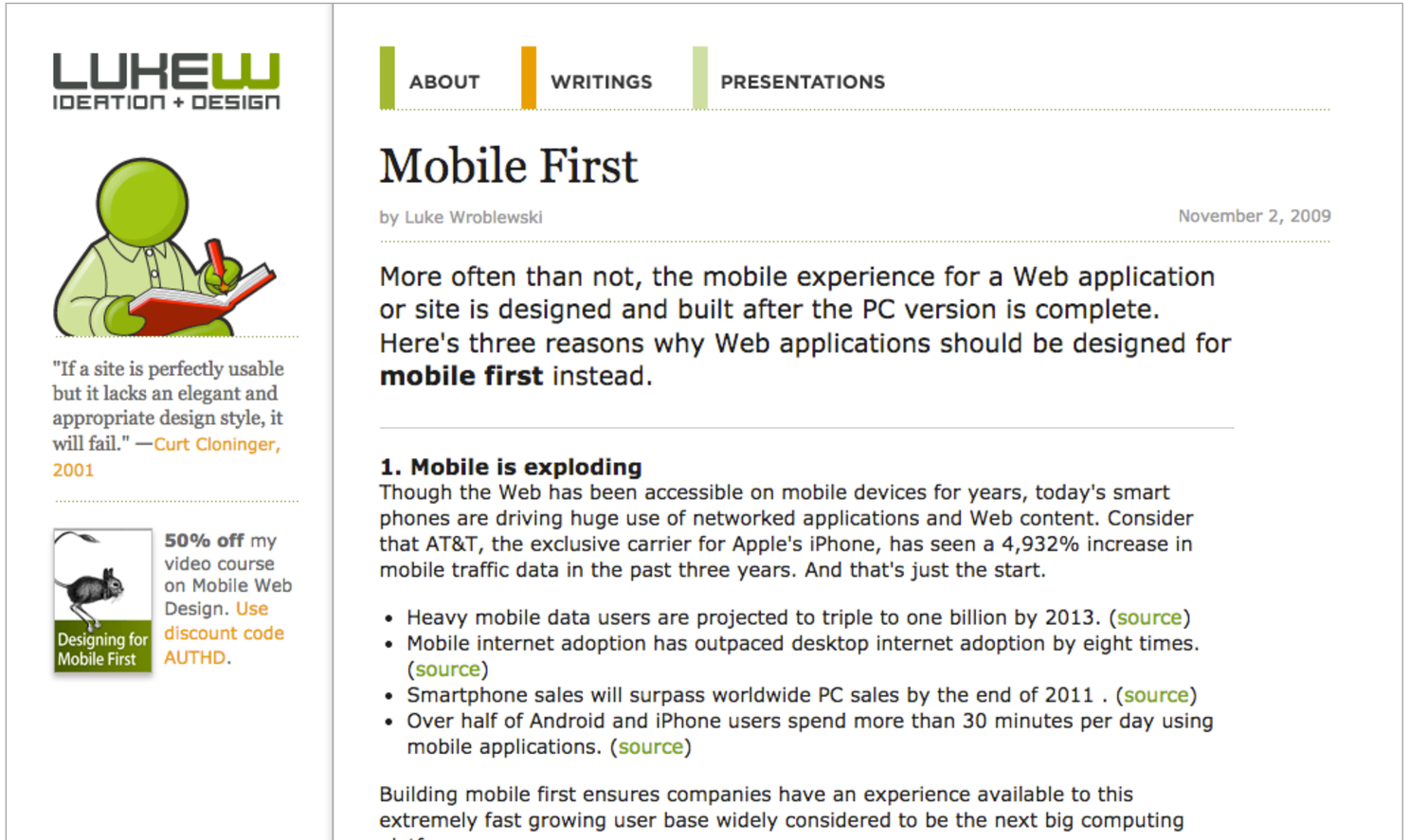

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WE’RE TALKING ABOUT MOBILE WEBSITES.

Not Mobile Apps.

YOUR CONTENT NEEDS TO BE ABLE TO GO ANYWHERE.

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Users don’t want less content, they want relevant content no matter what their device — Get to the point.

CONTENT FIRST = MOBILE FIRST

Mobile First:

WE NEED TO THINK RESPONSIVE FROM THE START

Mobile First:

WE NEED TO THINK RESPONSIVE FROM THE START

- ✓ Who are Our Users?
- ✓ What Do They Want?
- ✓ What Info Do They NEED & When?

WHAT DOES THAT MEAN?

Here’s an example...

Responsive Design | Mobile First

WHOLE FOODS: MOBILE NECESSITIES

✓ Locations & Directions

WHOLE FOODS: MOBILE NECESSITIES

- ✓ Locations & Directions
- ✓ Hours

WHOLE FOODS: MOBILE NECESSITIES

- ✓ Locations & Directions
- ✓ Hours
- ✓ Carry a specific item

WHOLE FOODS: EXTRAS

Nice to haves:

- Weekly Deals or Coupons
- Recipes
- Prices

CONTENT FIRST = MOBILE FIRST

Giving users what they need when and where they need it.

Our Goal:

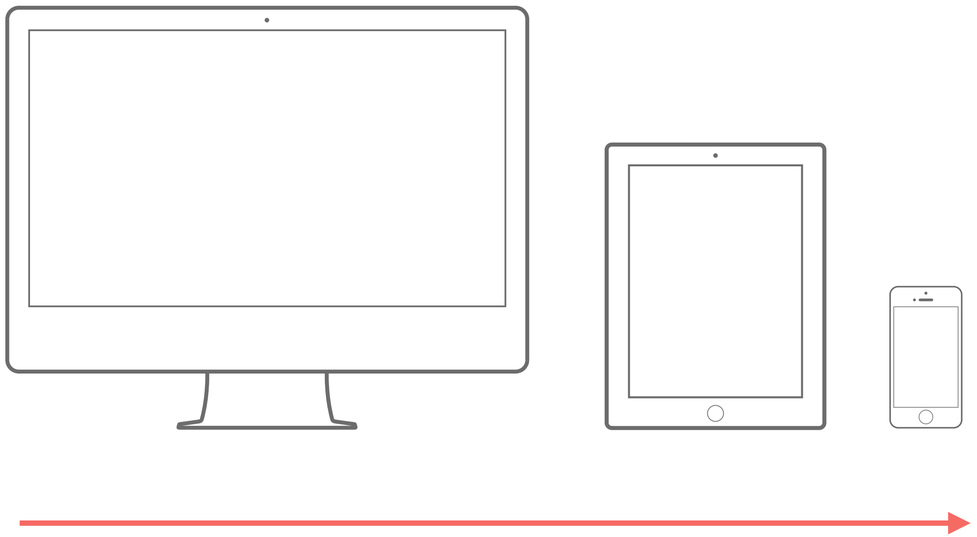
PROVIDE THE BEST EXPERIENCE NO MATTER WHAT THE DEVICE.

Let’s talk little bit about

GRACEFUL DEGRADATION vs. PROGRESSIVE ENHANCEMENT

GRACEFUL DEGRADATION

The original way we implemented responsive design, designing for the most familiar screen-size first and then trying to figure out how to shrink the content down to a smaller screen.



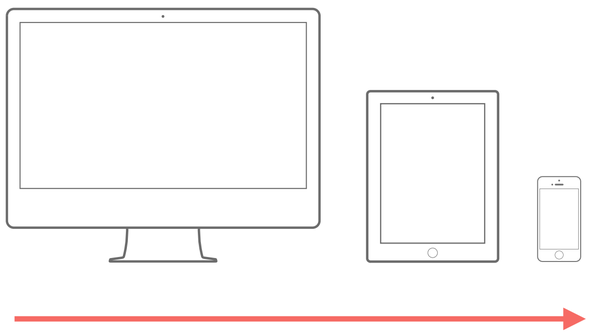
GRACEFUL DEGRADATION

Pros:

- Design for the largest screen is easy/natural

Cons:

- Mobile is outnumbering desktop, and yet we're designing for it very last...
- Features & important content get removed
- Creating two different experiences for users — poor UX

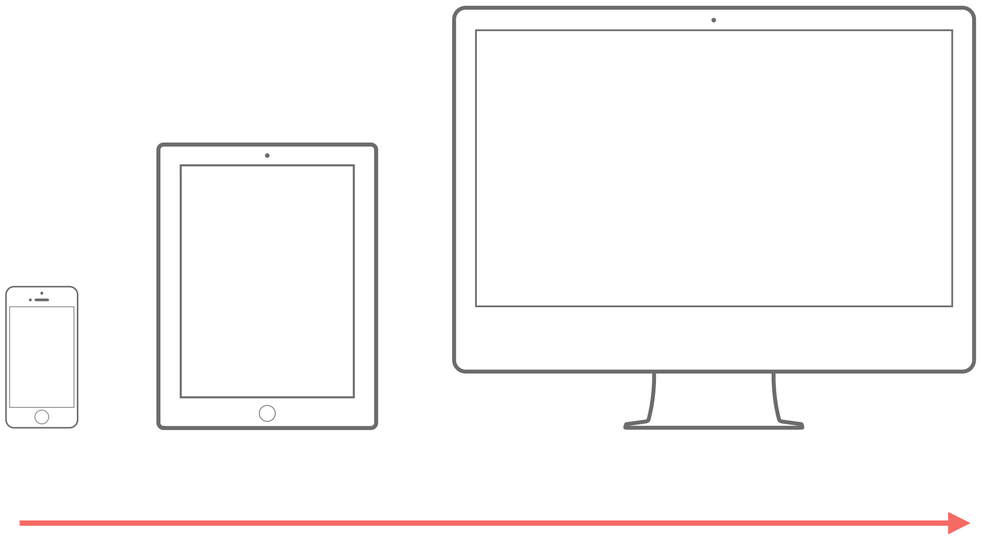


Moral of the Story:

GRACEFUL DEGRADATION IS STILL DEGRADATION

PROGRESSIVE ENHANCEMENT

Designing for the smallest screen first, allowing us to provide pertinent content to users. This makes it easy to add features for larger screens with more real-estate.



“Mobile-First” Approach

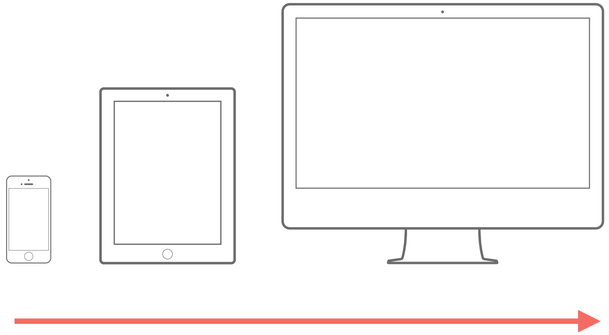
PROGRESSIVE ENHANCEMENT

Pros:

- Getting to the meat of the content & establishing the most important information.
- Mobile users outnumber desktop users so you're designing for the majority

Cons:

- Designing for mobile is sometimes difficult for seasoned web designers/developers
- **It's difficult to change the way clients are used to working**



HOW DO WE ADJUST THE WAY WE WORK?

By adopting a

FLUID WORKFLOW

By adopting a

FLUID WORKFLOW

We'll talk about that in the next section...

SECTION 2: Mobile First

WHAT WE'VE LEARNED

1. Content needs to be able to go **everywhere**.
2. Content first **IS** mobile first.
3. We need to think responsive from the start: thinking about our users and when and where they need information.
4. **Graceful Degradation:** designing for the most familiar screen-size first and then trying to figure out how to shrink the content down to a smaller screen.
5. **Progressive Enhancement:** Designing for the smallest screen first, allowing us to provide pertinent content to users.

3. WORKFLOWS

WHAT IS A WORKFLOW?

The way you organize and plan a project or task.

BENEFITS OF AN ORGANIZED WORKFLOW

- ✓ Saves Time
- ✓ Streamlines Collaboration
- ✓ Lower Cost
- ✓ Predictable Results

IN THE PAST...

STATIC WORKFLOW

or “Waterflow” Workflow

1. Research & Planning
2. User Flows & Wireframes
3. Design static Mock-Ups in Photoshop
4. Code site statically in pixels
5. Test, QA
6. Launch Site

STATIC WORKFLOW

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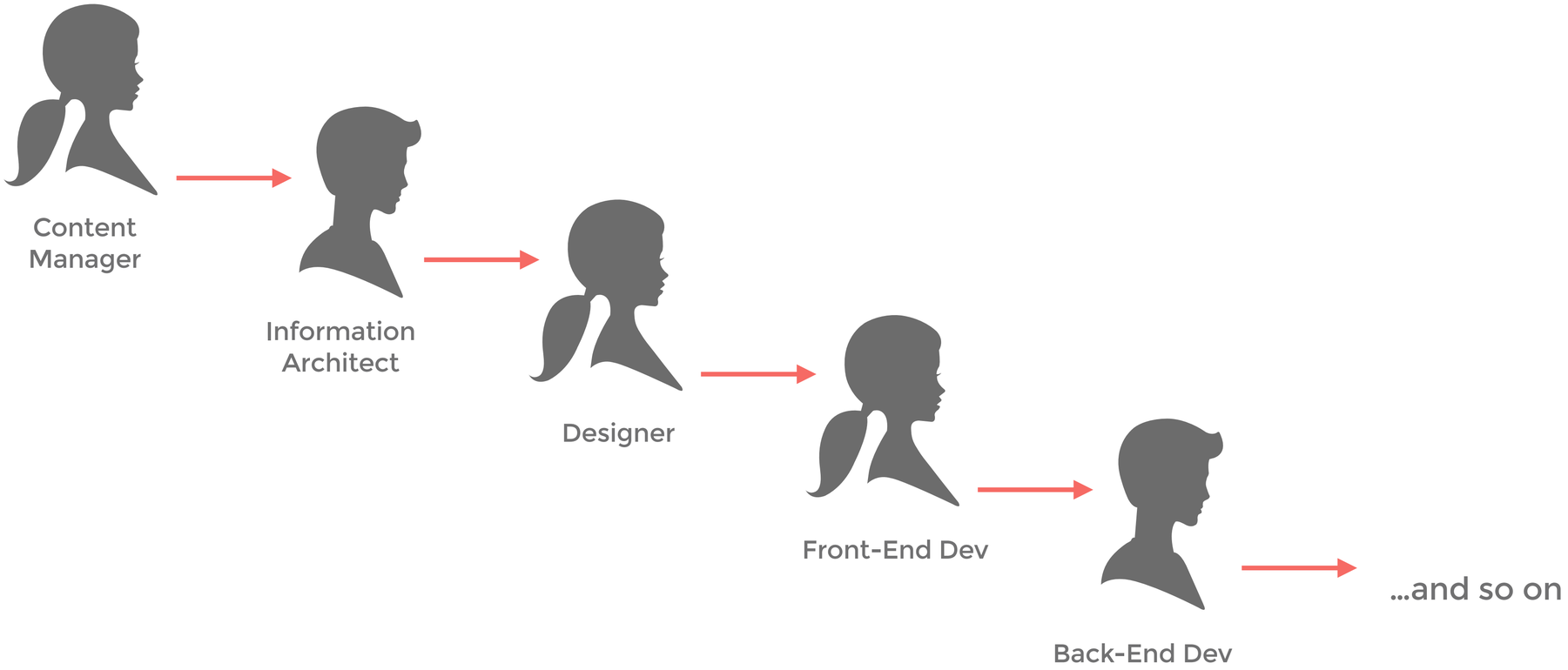
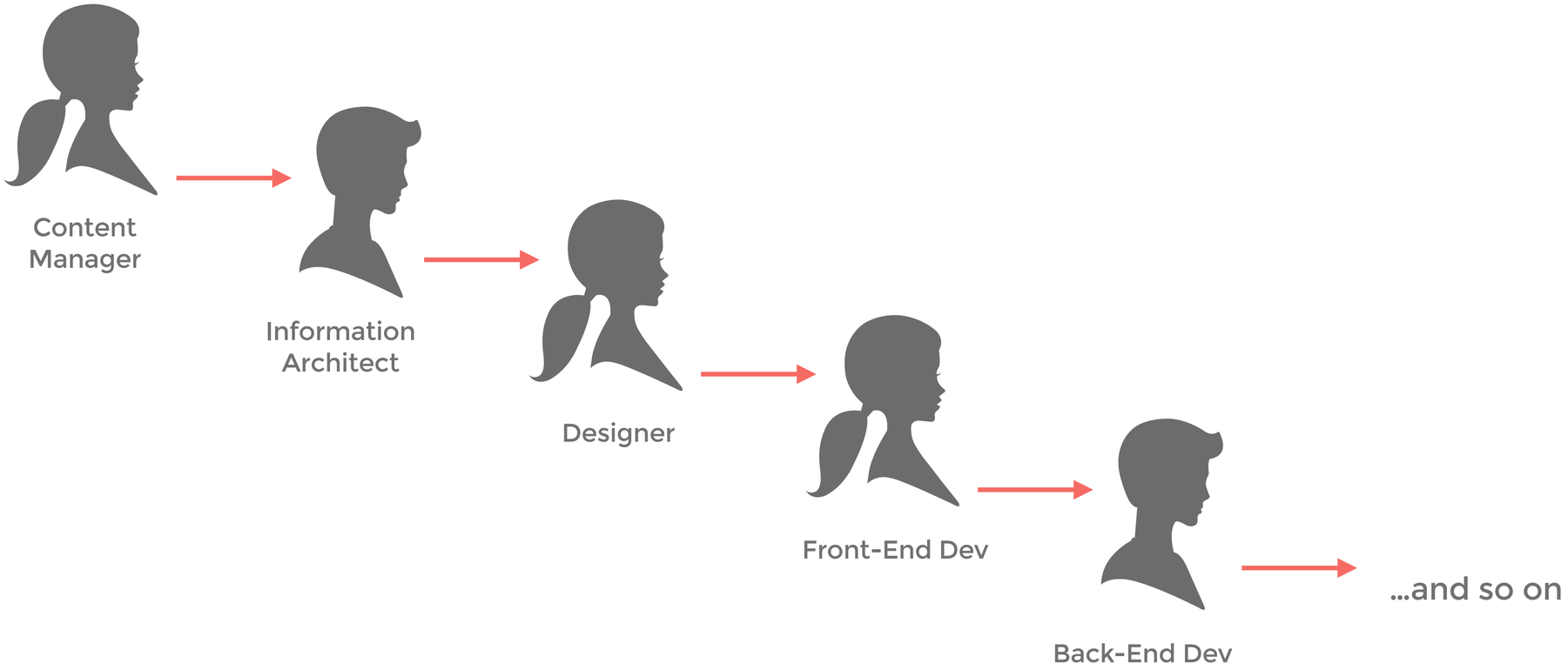


STATIC WORKFLOW
A.K.A.
ASSEMBLY LINE APPROACH

STATIC WORKFLOW

or “Waterflow” Workflow



CON: If things go awry at the very beginning of the project, they're likely to ripple and cause problems at the end of a project.

WE NEED TO ADAPT TO OUR ENVIRONMENT

Responsive

By adopting a

FLUID WORKFLOW

FLUID WORKFLOW *is*

Rapid Prototyping Over Pixel Perfection

This requires constant loop of feedback, QA and iterating between designers & developers until everything looks & works properly.

DESIGNED *in* BROWSER

FLUID WORKFLOW

or “Agile” Workflow

Not segmented like the Static Workflow, instead this process is about collaboration and iterations. The whole team should be working closely and constantly communicating.

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Outlining where content should go with simple HTML

```
<h1>About This Site</h1>

<p>
    This is some content that will make up the "about"
    page of our web-site.  We'll use this in conjunction
    with a layout template.  The content you are seeing here
    comes from the Home.cshtml file.
</p>
<p>
    And obviously I can have code in here too. Here is the
    current date/time: @DateTime.Now
</p>
```

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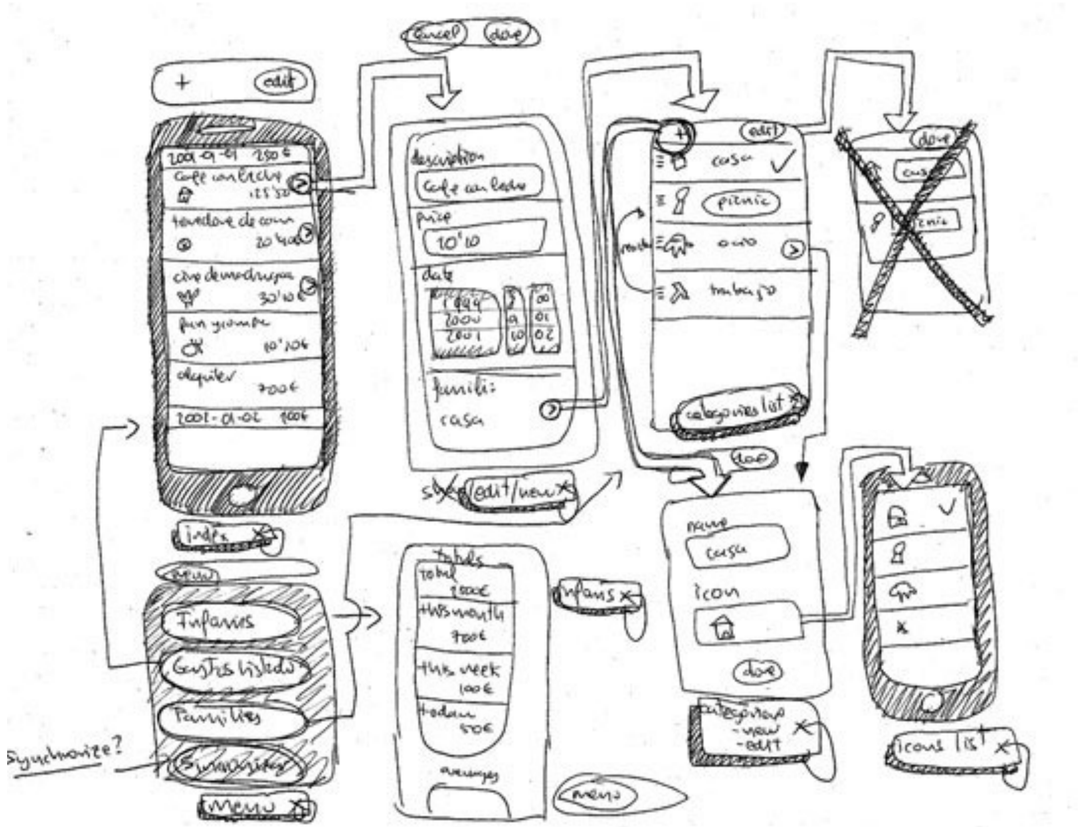

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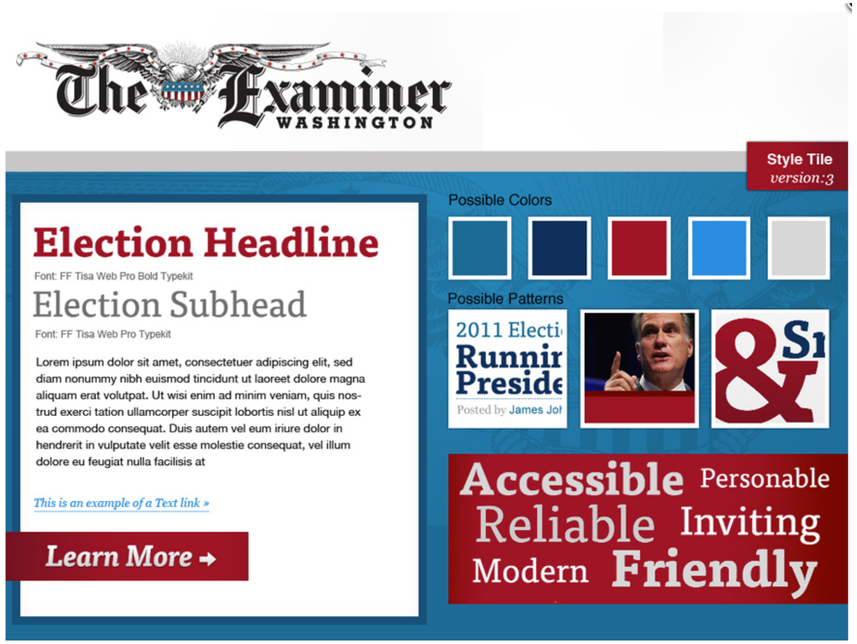
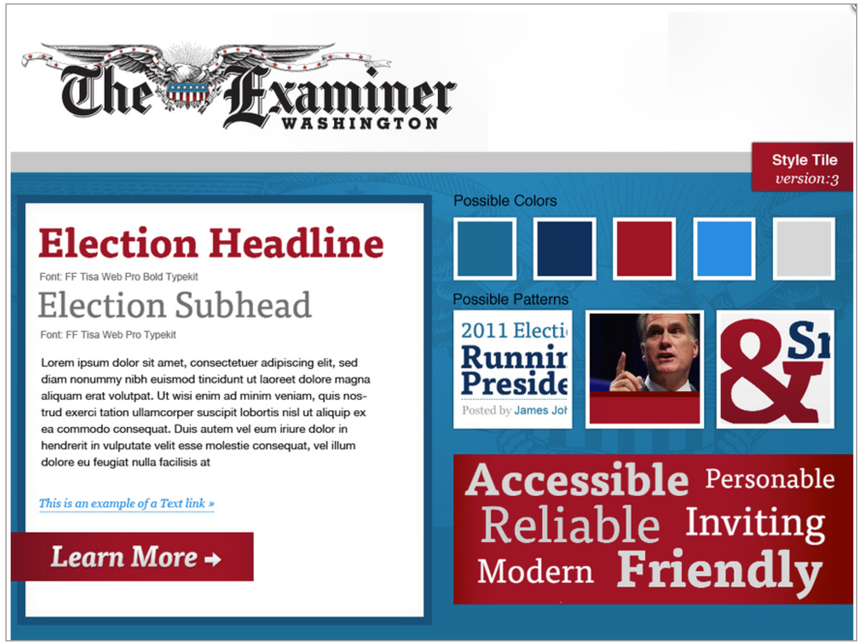


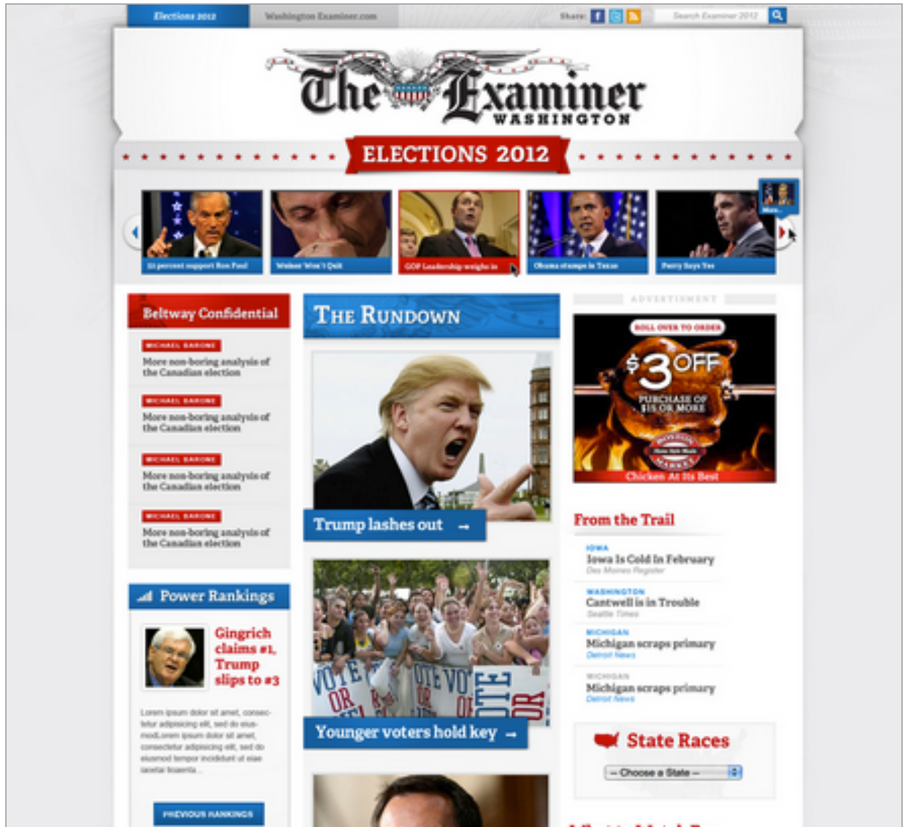
STYLE TILES

Create re-usable elements that help guide the styles and mood of the site.

Style Tile



Full Site



STYLE TILES

Bernina Sans Condensed Light
Bernina Sans Condensed Regular
Bernina Sans Condensed Semibold
Bernina Sans Condensed Bold
Bernina Sans Condensed ExtraBold

TABLET BLOG IMAGE & LEAD IMAGE SIZE

HEADLINE/CAROUSEL AREA #1

Game of Thrones gets season 4
Lorem ipsum dolor sit amet

HEADLINE/CAROUSEL AREA #1

Game of Thrones gets season 4
Lorem ipsum dolor sit amet

HEADLINE/CAROUSEL AREA #2

Miranda Lambert & Blake Shelton
Lorem ipsum dolor sit amet

HEADLINE/CAROUSEL AREA #2

Miranda Lambert & Blake Shelton
Lorem ipsum dolor sit amet

CONTENT DIVIDER TREATMENT #1

CONTENT DIVIDER TREATMENT #2

TABLET TOP NAVIGATION BAR (PLACEHOLDER LOGO)

Entertainment

SELECTOR BAR #1

1 2 3 4

SELECTOR BAR #2

SPECIAL COVERAGE #1A

IPHONE TOP NAVIGATION BAR (PLACEHOLDER LOGO)

Entertainment

Search EW.com

GO TO BUTTON/BAR

GO TO STYLE SECTION

GO TO STYLE SECTION

HEADLINES

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SPECIAL COVERAGE #1B

MAIN LOWER NAVIGATION BUVTTON TABS

TV +
MOVIES +
MUSIC +

FOOTER SIGN UP

Get Entertainment news alerts from EW.com

your email address

SIGN ME UP

HEADLINE NAV BAR

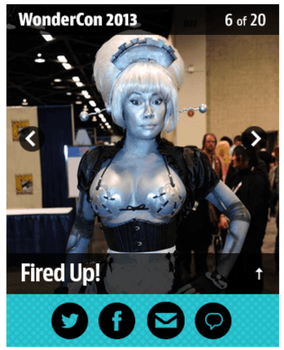
Latest | Most Popular | PopWatch

FOOTER SOCIAL BUTTONS

gallery end card

gallery extra long caption

gallery start w caption collapsed



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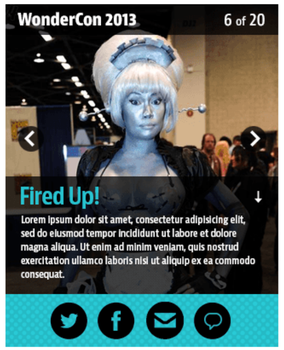

gallery image tapped/revealed

Responsive Design | Wireframe

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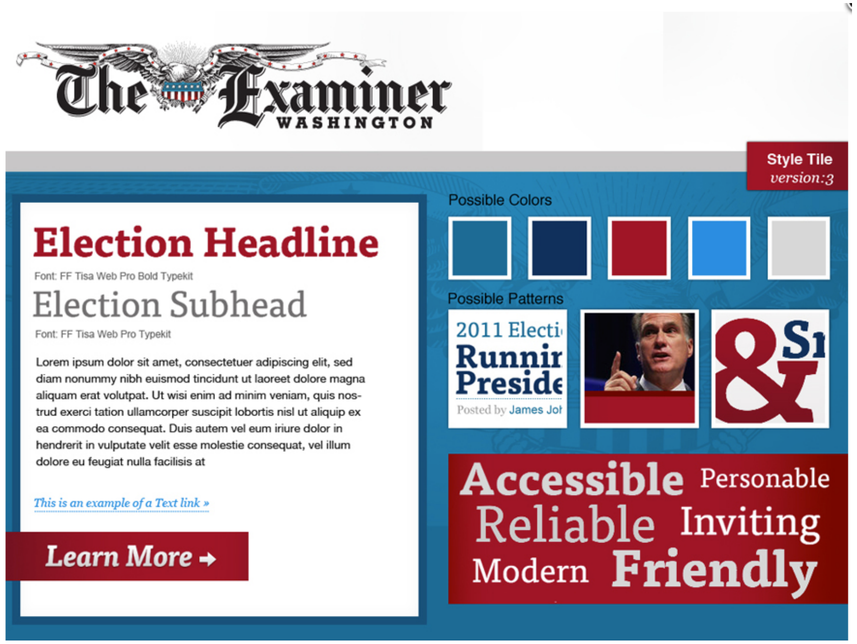

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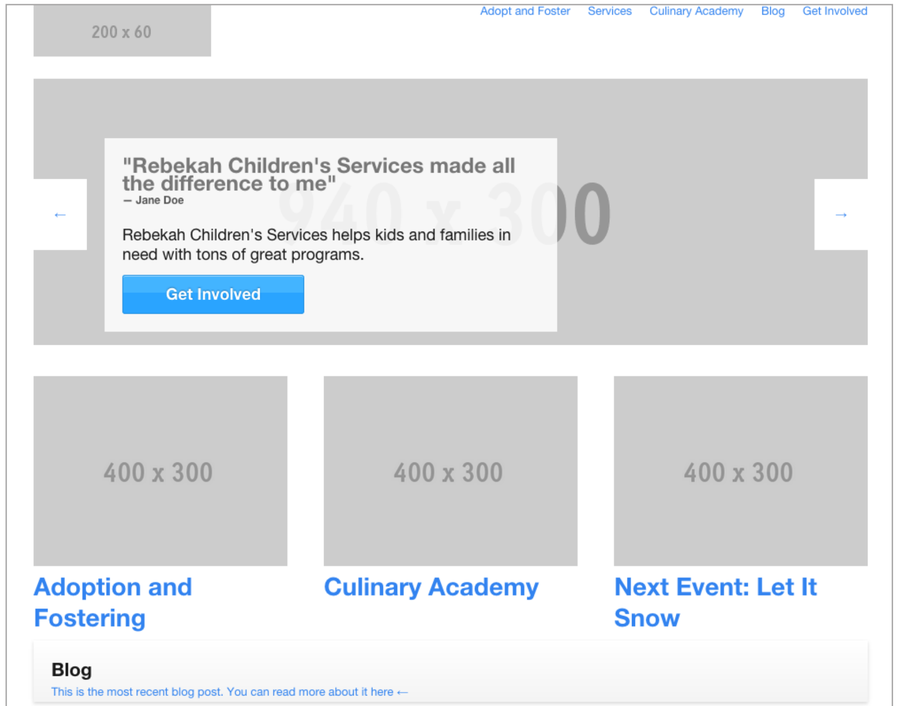

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- Content Strategy & “Markdown” Layouts
- Collaborative Sketches & Rough Wireframes
- Utilizing “Style Tiles” opposed to static .psd comps
- Design in Browser to create Rapid Prototypes
- Test, QA, Get Feedback

FLUID WORKFLOW

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- Content Strategy & “Markdown” Layouts
- Collaborative Sketches & Rough Wireframes
- Utilizing “Style Tiles” opposed to static .psd comps
- Design in Browser to create Rapid Prototypes
- Test, QA, Get Feedback

Continue this Loop:

Prototype, Test & Repeat until it starts coming together

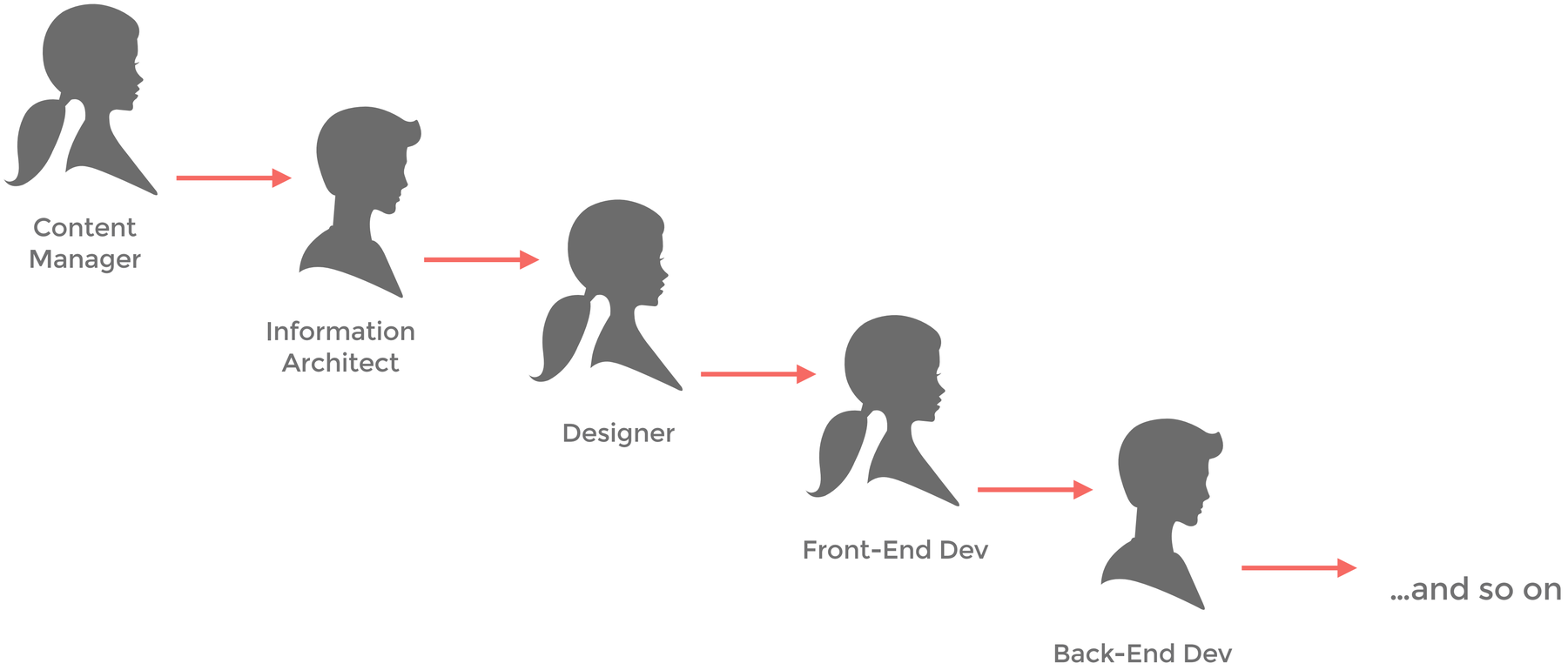
FLUID WORKFLOW

Not segmented like the Static Workflow, instead this process is about collaboration and iterations. The whole team should be working closely and constantly communicating.

- Research & Planning
- Content Strategy & “Markdown” Layouts
- Collaborative Sketches & Rough Wireframes
- Utilizing “Style Tiles” opposed to static .psd comps
- Design in Browser to create Rapid Prototypes
- Test, QA, Get Feedback
- Launch Site

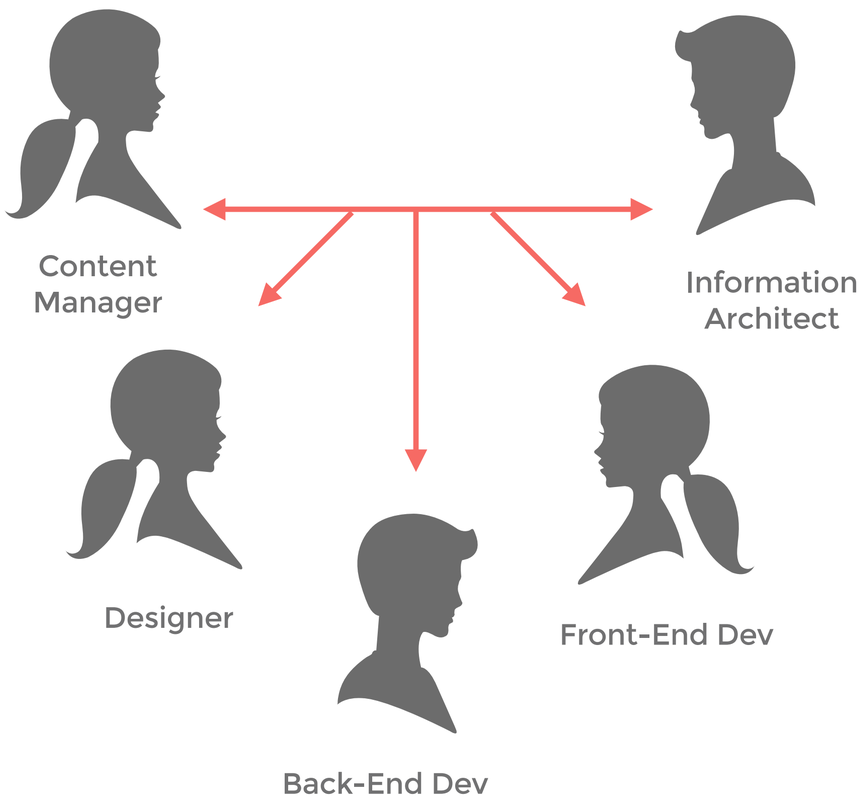
STATIC WORKFLOW

or “Waterfall” Workflow



FLUID WORKFLOW

or “Agile” Workflow



FLUID WORKFLOW

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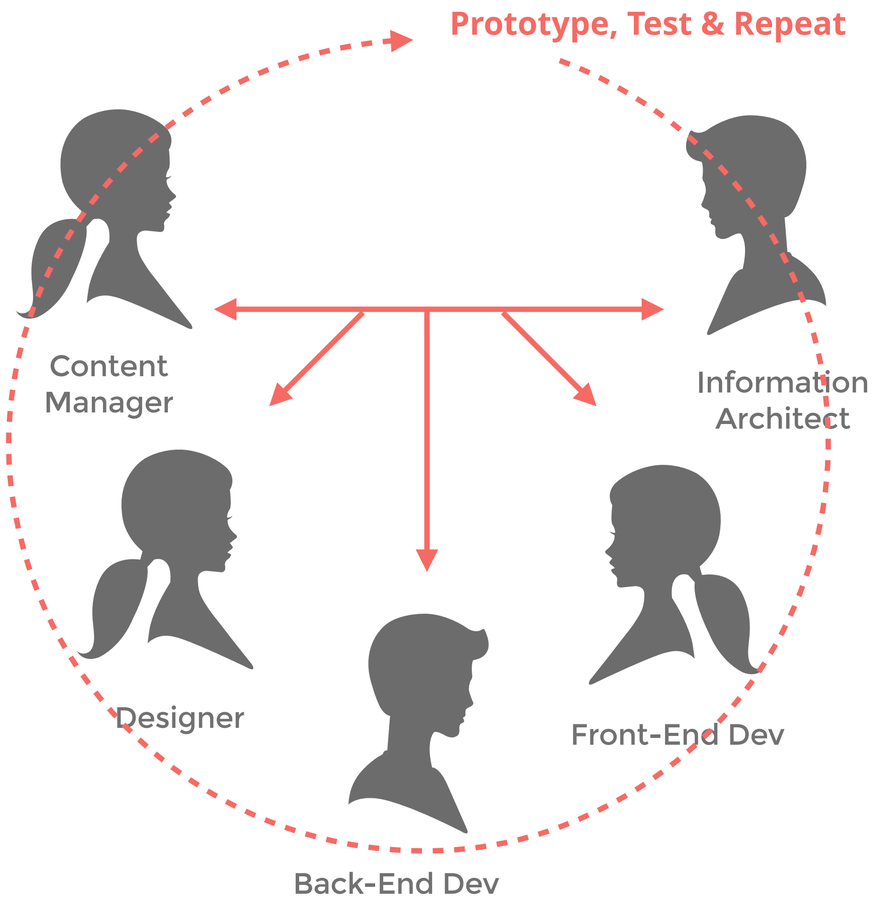
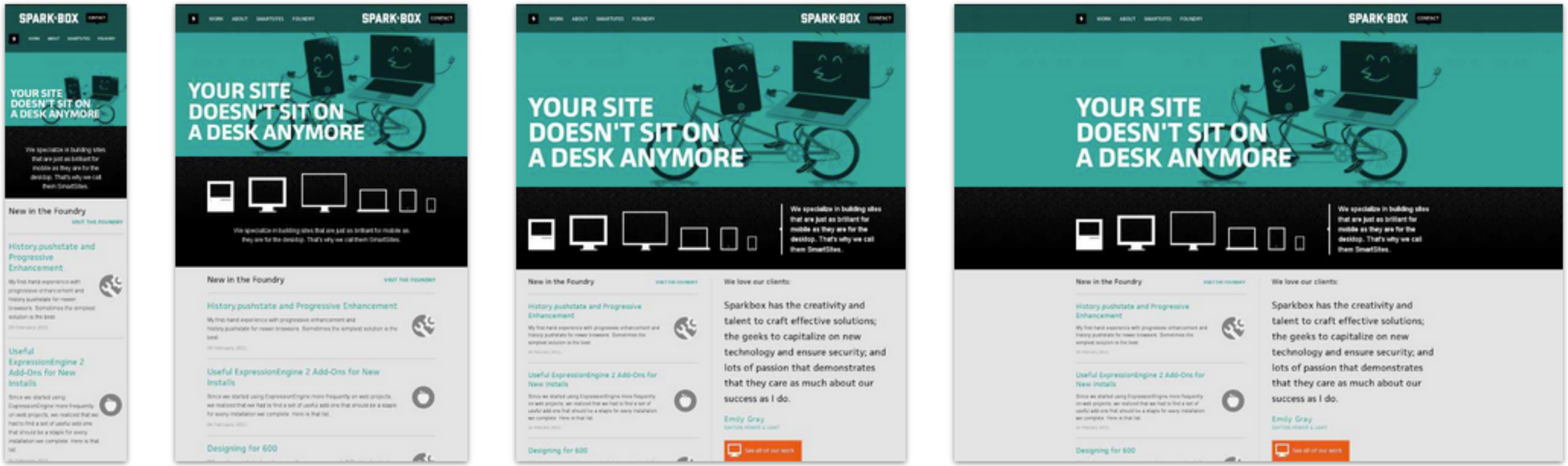


MAKING A STATIC .PSD FOR ALL OF THESE WOULD BE INEFFECTIVE



SECTION 3: Workflows

WHAT WE’VE LEARNED

1. Workflows are important for staying on-time, on-budget and maintaining sanity

2. Static Workflows are also known as Waterfall Workflows or Assembly Line Workflows and aren’t the best for web projects.

3. Fluid Workflows require your team to communicate frequently and work together OFTEN — Test, Test, TEST!

4. MOBILE IS NOT DESKTOP

82% OF OUR MOBILE INTERACTIONS ARE DONE WHILE USING OTHER MEDIA

Such as watching TV, using another computer, reading, etc.

Source: http://services.google.com/fh/files/misc/omp-2013-us-en.pdf

> One eyeball, one thumb.

– Luke Wroblewski

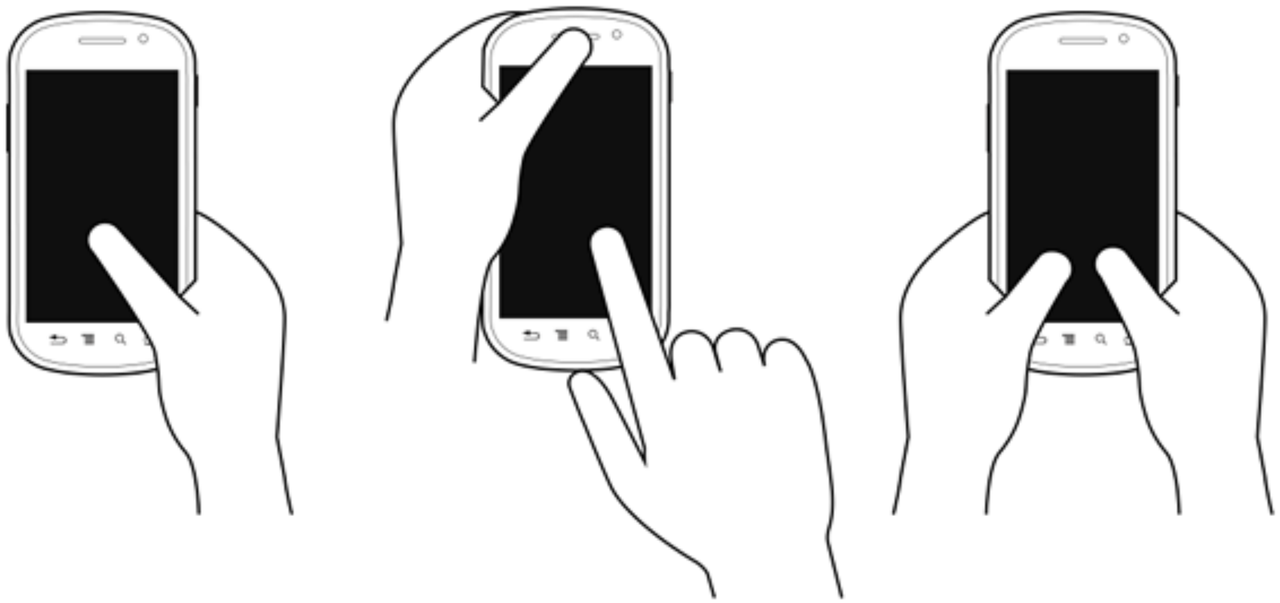
Mobile is not Desktop because it...

REQUIRES DIFFERENT INTERACTIONS

Mobile

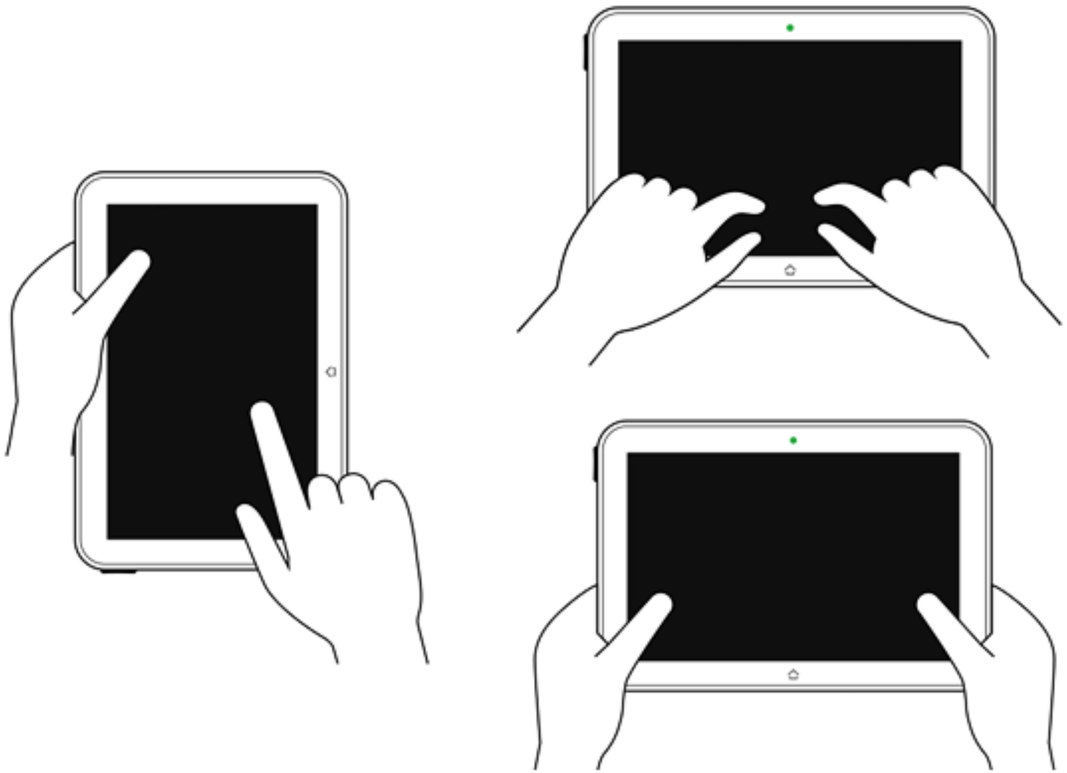
ACCOUNTS FOR TOUCH

PEOPLE HOLD THEIR MOBILE DEVICES IN VARIOUS WAYS.



Source: http://LukeW.com

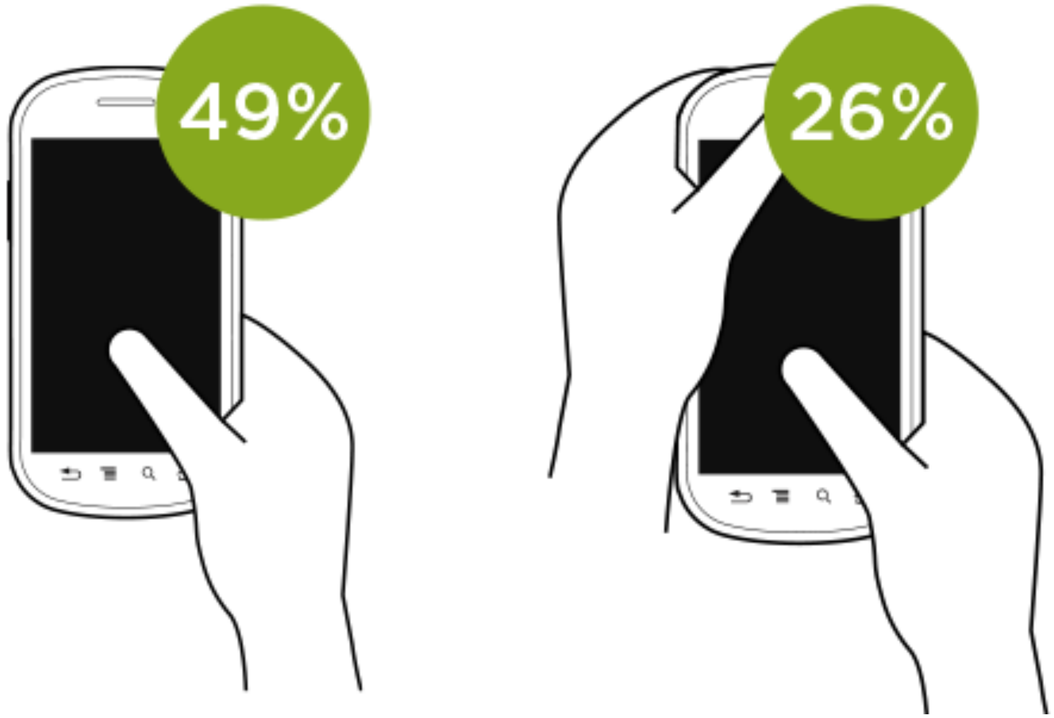
PEOPLE HOLD THEIR MOBILE DEVICES IN VARIOUS WAYS.



Source: http://LukeW.com

MOST COMMON USAGE

A recent study of 1,333 people using smartphones on the street found that about 75% of smartphone users use one thumb.



Source: http://LukeW.com

MOST USERS ARE RIGHT-HANDED

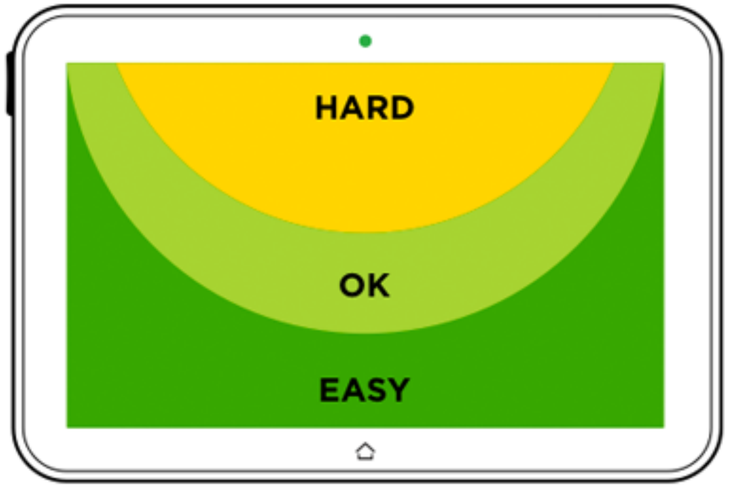
So the following slides are based on that information, focusing on the majority once again.

Source: http://LukeW.com

Accounting for Touch

CONTROL PLACEMENT

"Controls" are things that are frequently needed or used by users such as navigation, buttons, etc.



Source: http://LukeW.com

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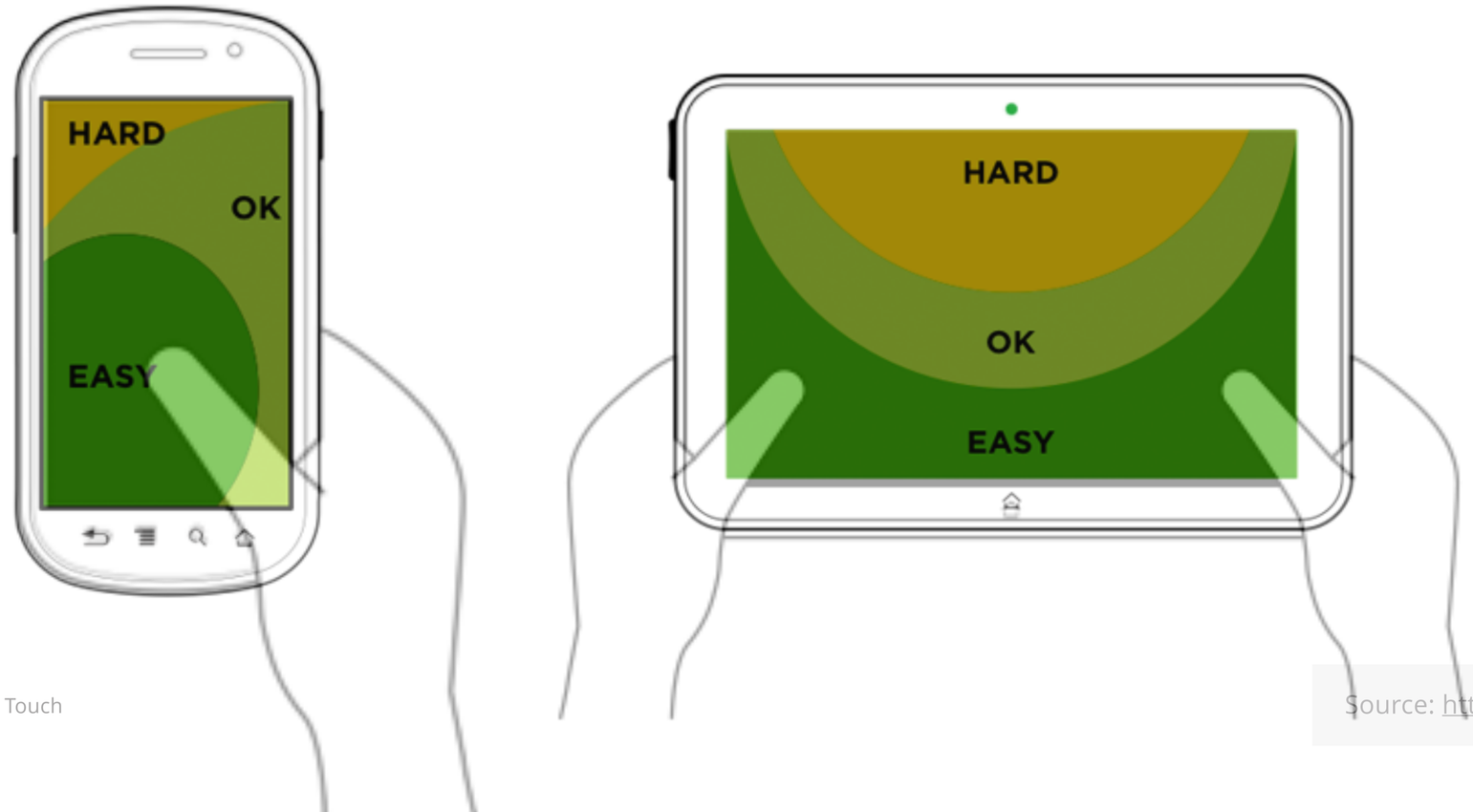
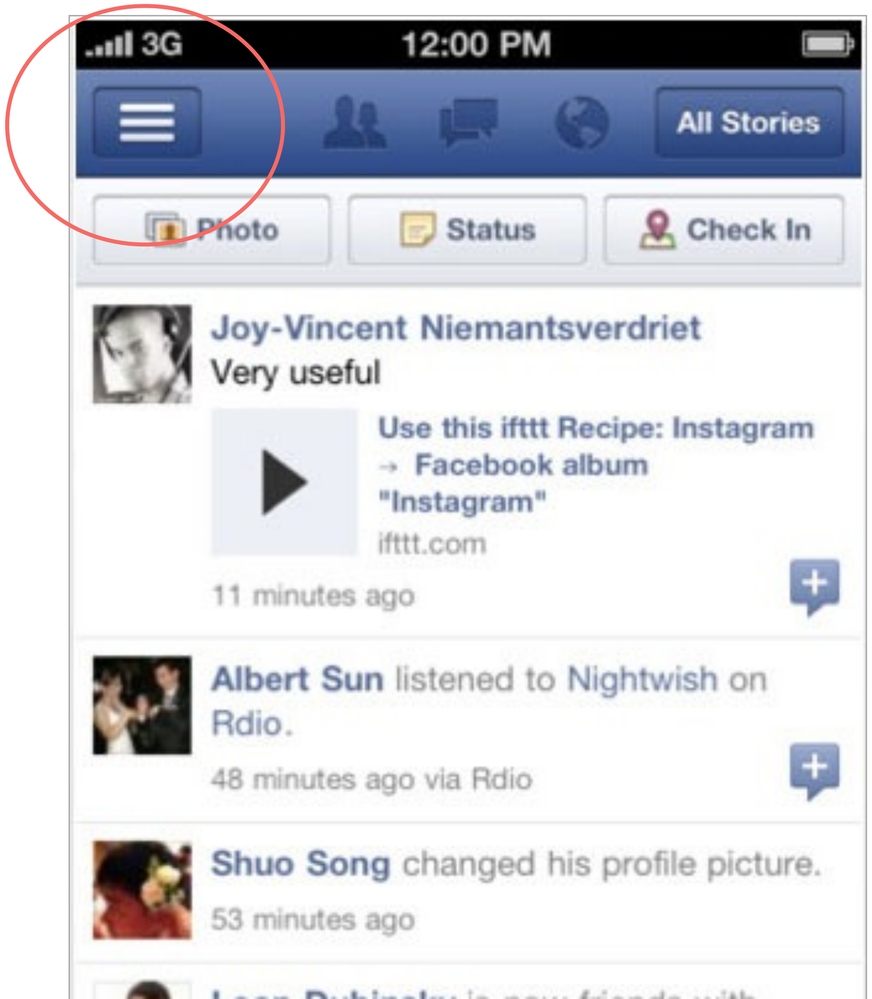


Source: http://LukeW.com

PREVIOUS FACEBOOK APP

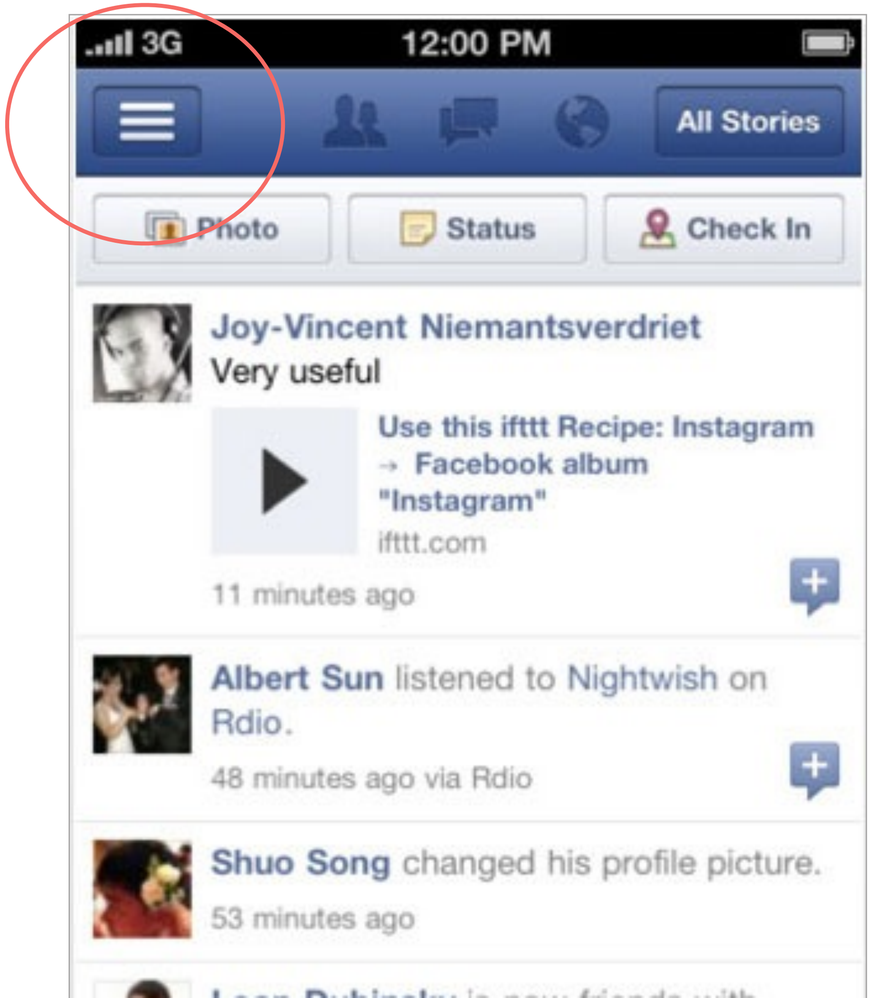
PREVIOUS FACEBOOK APP

Navigation on the Upper Left



PREVIOUS FACEBOOK APP

Navigation on the Upper Left



Multiple Buttons & Features

RECENT FACEBOOK APP

RECENT FACEBOOK APP

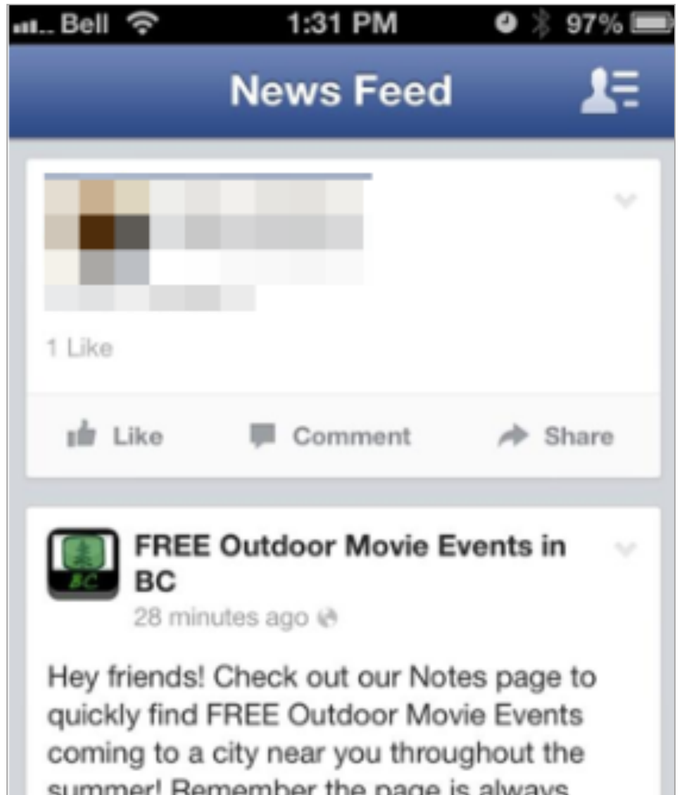
Navigation on the Upper Right

& condensed all of those other features are located them elsewhere.

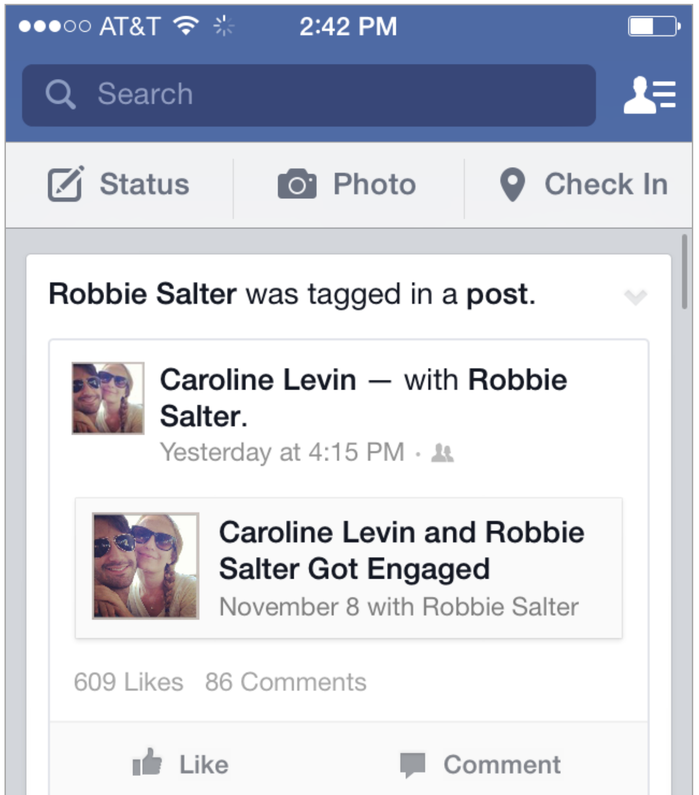
FLUID WORKFLOW & ITERATIONS

Previous Version

Recent Version



Current Version



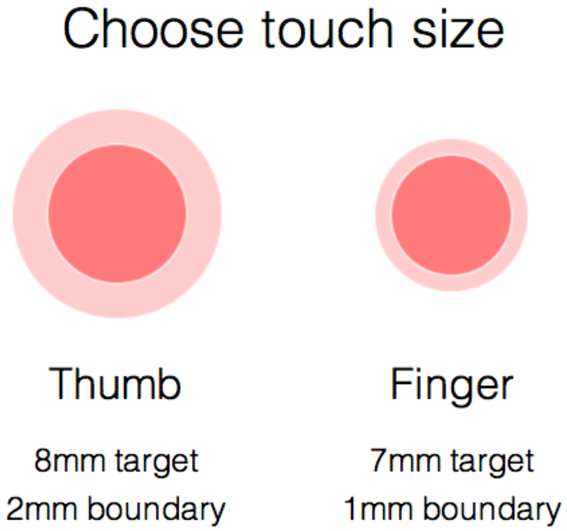
Accounting for Touch

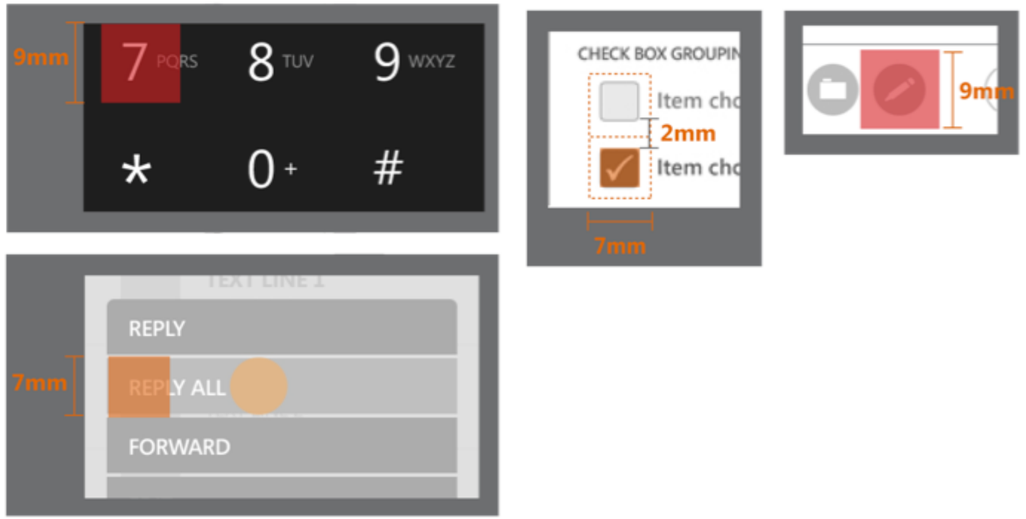
TOUCH TARGETS

Elements that users need to touch in order to complete an interaction or task, such as buttons, inputs, checkboxes, etc.

SIZING: GENERAL RULES

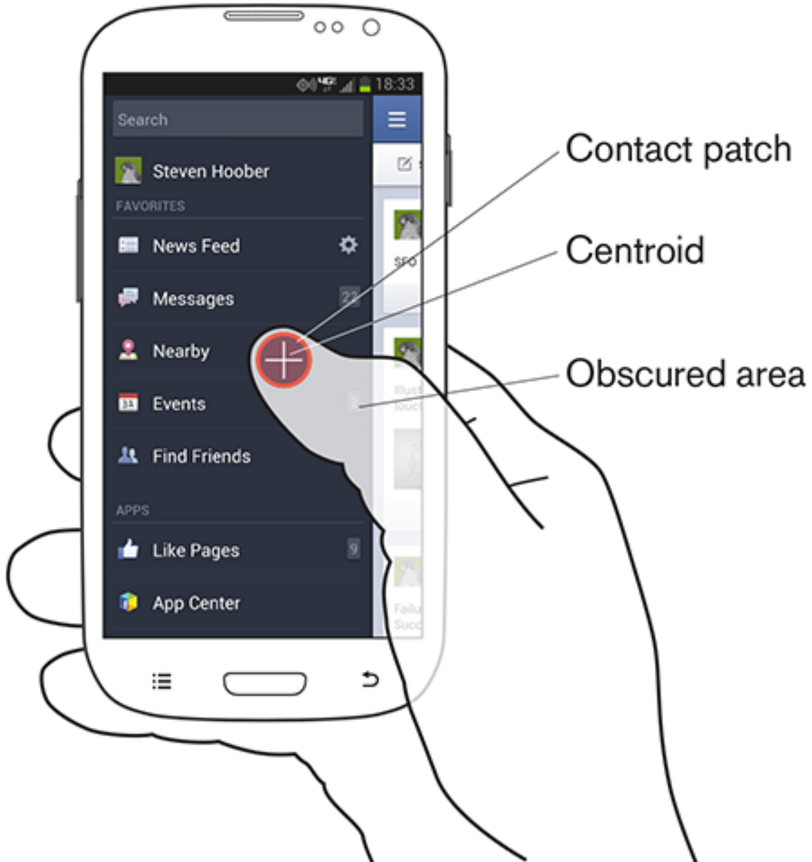
Take into account if a user will be using their thumb or finger to complete an interaction. Based on what we previously learned, most users will likely be using their **thumb** for a majority of interactions.





RULE OF THUMB: (HAR HAR)

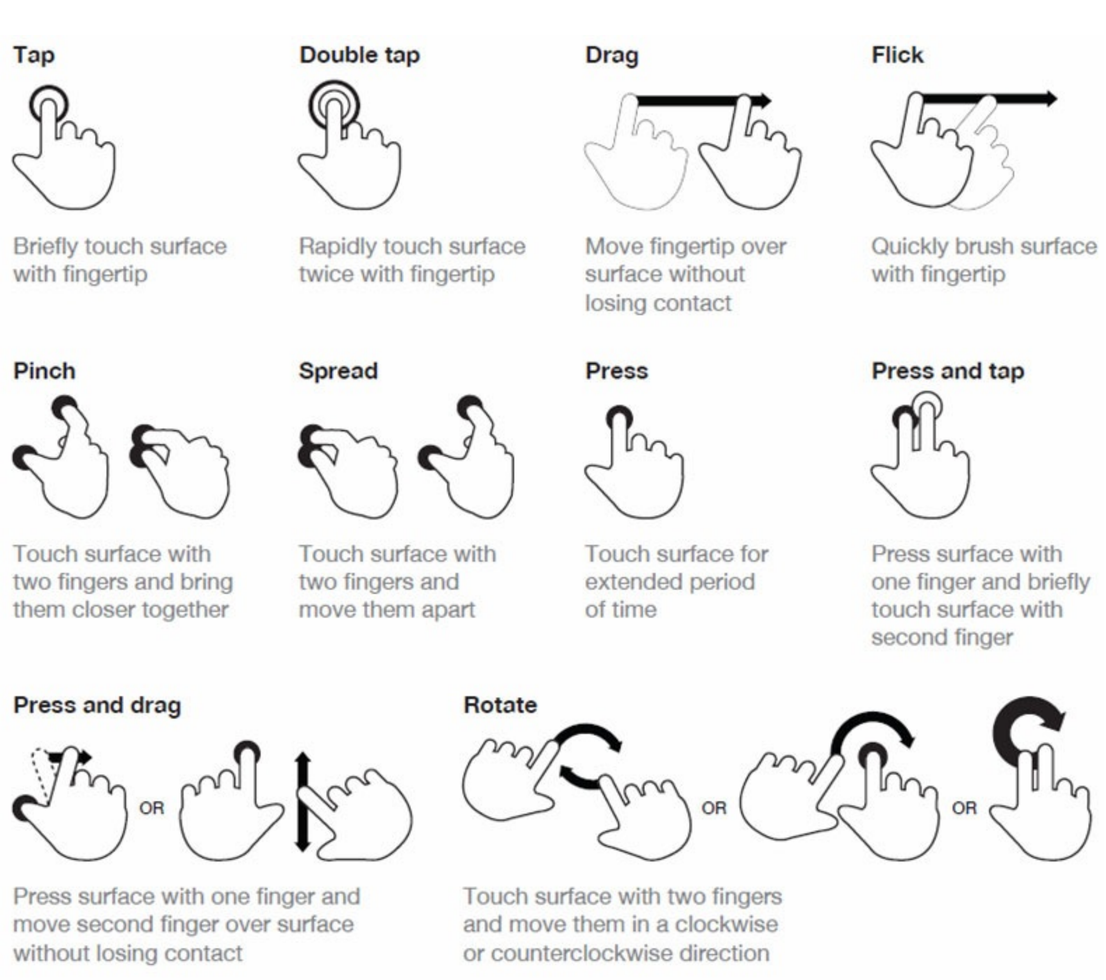
When in doubt, make your elements BIGGER. Nothing is worse than accidentally clicking on something you didn't mean to — then test it out to see how well it functions.



Mobile

ALLOWS FOR GESTURES

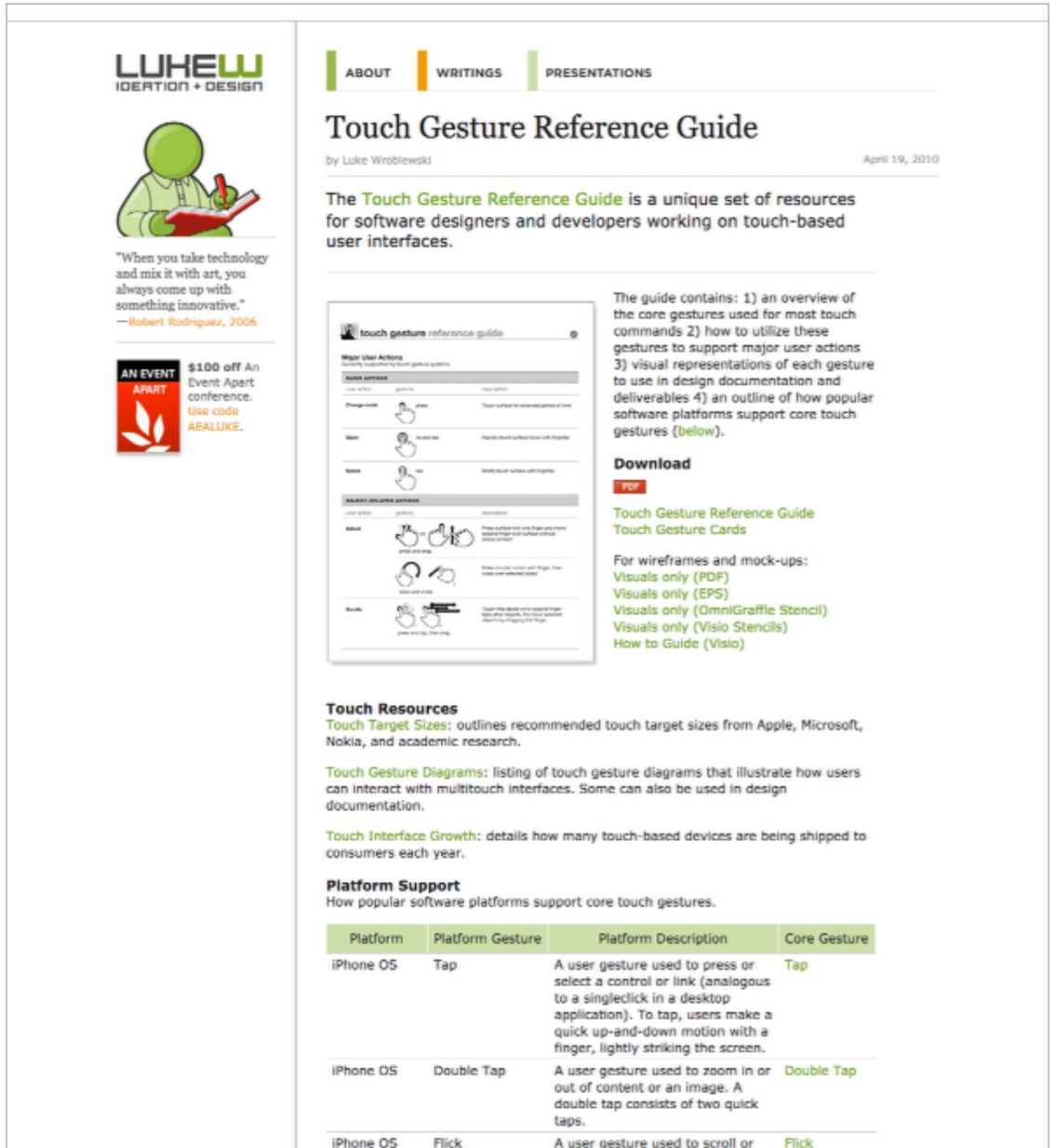
COMMON GESTURES



Source: http://static.lukew.com/TouchGestureTemplate.pdf

GESTURE SUPPORT IS INCONSISTENT

across various devices, so it shouldn’t be fully relied on when planning a site or app without further investigation.



LUKEW IDEATION + DESIGN

"When you take technology and mix it with art, you always come up with something innovative."
—Robert Rodriguez, 2006

AN EVENT APART
$100 off An Event Apart conference. Use code AEALUKE.

ABOUT | WRITINGS | PRESENTATIONS

Touch Gesture Reference Guide

by Luke Wroblewski April 19, 2010

The Touch Gesture Reference Guide is a unique set of resources for software designers and developers working on touch-based user interfaces.

The guide contains: 1) an overview of the core gestures used for most touch commands 2) how to utilize these gestures to support major user actions 3) visual representations of each gesture to use in design documentation and deliverables 4) an outline of how popular software platforms support core touch gestures (below).

Download

PDF

Touch Gesture Reference Guide
Touch Gesture Cards

For wireframes and mock-ups:
Visuals only (PDF)
Visuals only (EPS)
Visuals only (OmniGraffle Stencil)
Visuals only (Visio Stencils)
How to Guide (Visio)

Touch Resources

Touch Target Sizes: outlines recommended touch target sizes from Apple, Microsoft, Nokia, and academic research.

Touch Gesture Diagrams: listing of touch gesture diagrams that illustrate how users can interact with multitouch interfaces. Some can also be used in design documentation.

Touch Interface Growth: details how many touch-based devices are being shipped to consumers each year.

Platform Support

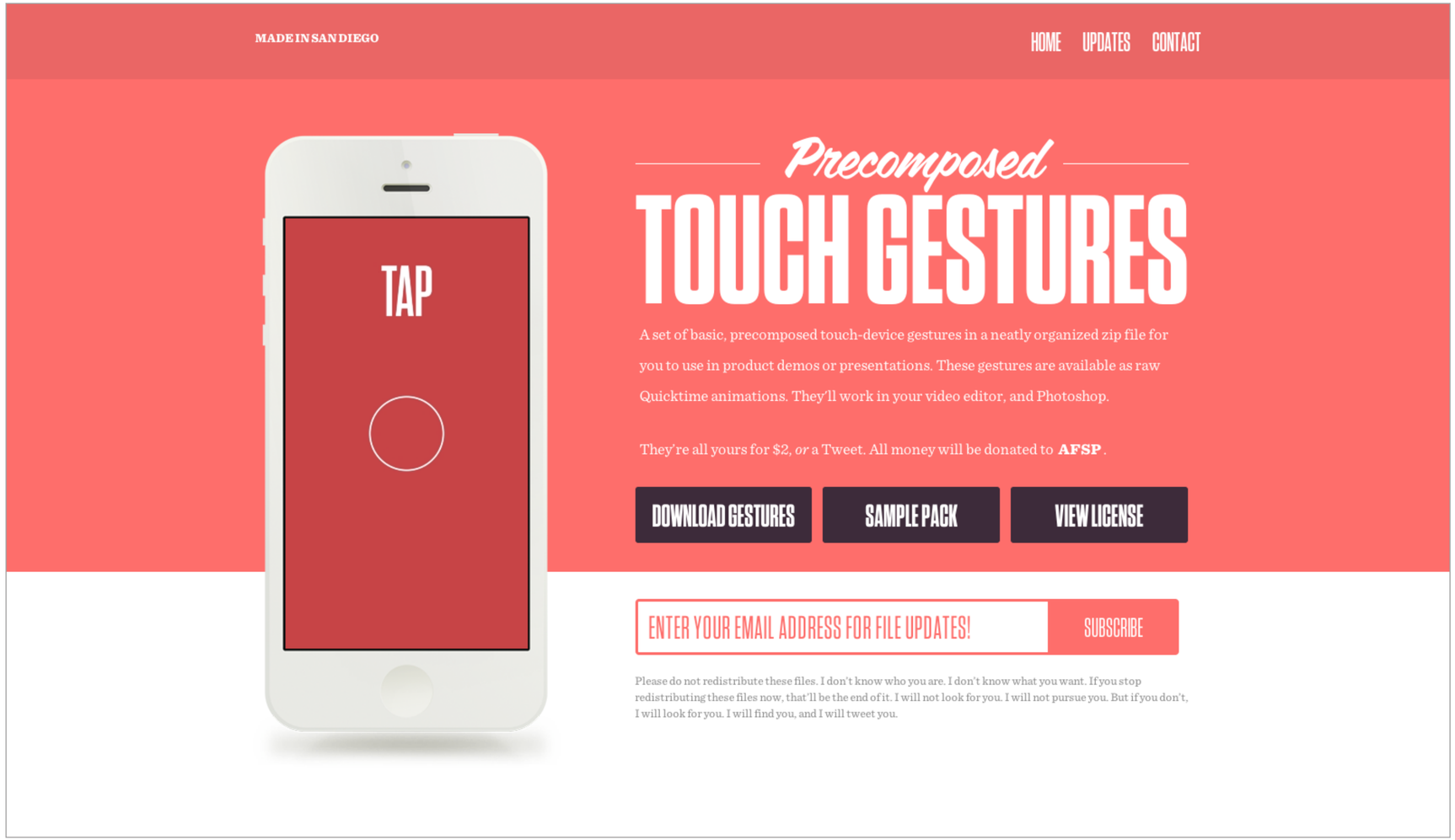
How popular software platforms support core touch gestures.

Platform	Platform Gesture	Platform Description	Core Gesture
iPhone OS	Tap	A user gesture used to press or select a control or link (analogous to a singleclick in a desktop application). To tap, users make a quick up-and-down motion with a finger, lightly striking the screen.	Tap
iPhone OS	Double Tap	A user gesture used to zoom in or out of content or an image. A double tap consists of two quick taps.	Double Tap
iPhone OS	Flick	A user gesture used to scroll or	Flick

DEVICE SUPPORT

A great post on Luke Wroblewski's blog not only provides you with a pdf guide, but also outlines which device supports each gesture!

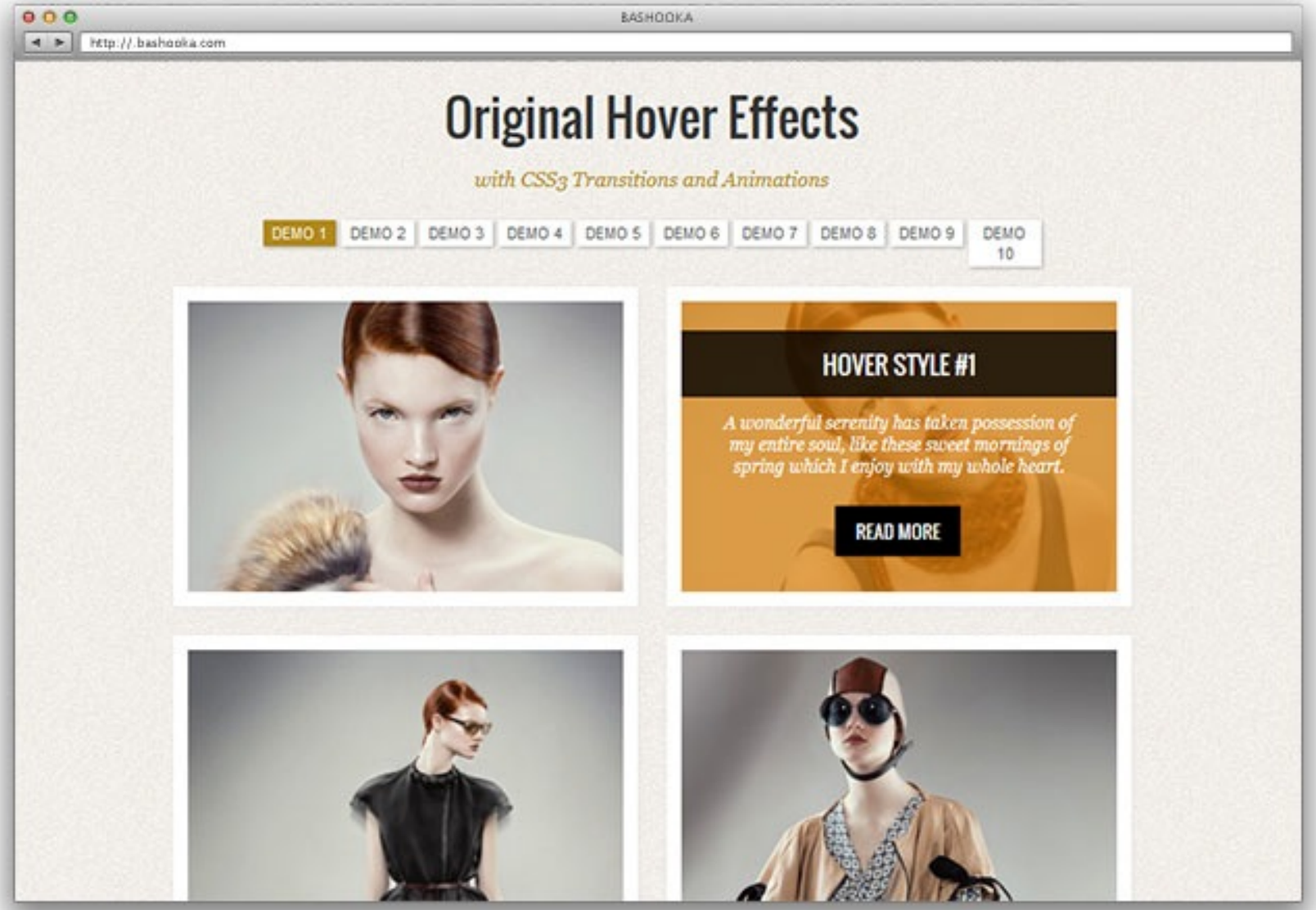
Source: http://static.lukew.com/TouchGestureTemplate.pdf

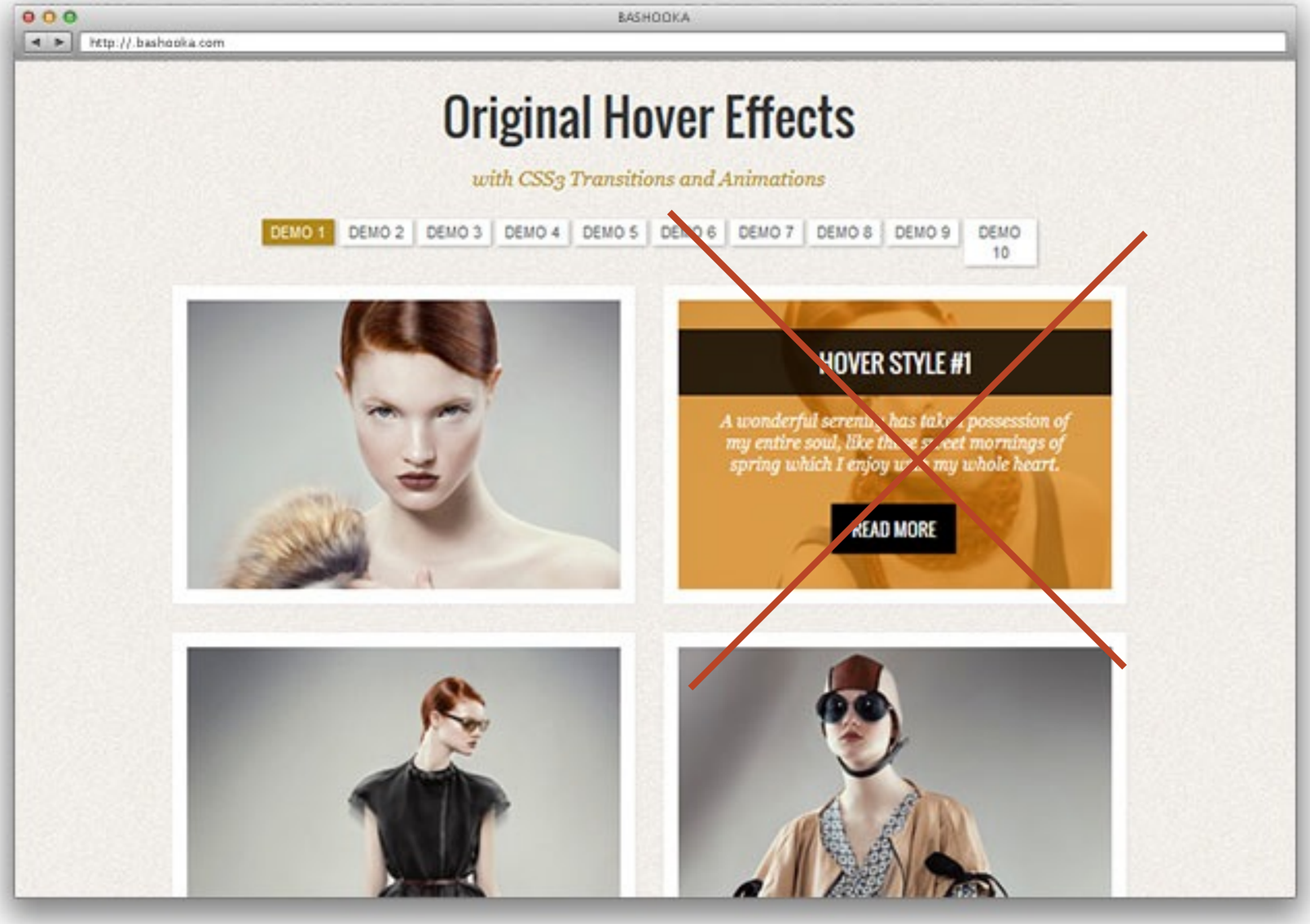


Source: http://areuswade.com/precomposed-touch-gestures/

Mobile

DOESN’T SUPPORT HOVERS


BASHOOKA
http://.bashooka.com
Original Hover Effects
with CSS3 Transitions and Animations
DEMO 1
DEMO 2
DEMO 3
DEMO 4
DEMO 5
DEMO 6
DEMO 7
DEMO 8
DEMO 9
DEMO 10
HOVER STYLE #1
A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart.
READ MORE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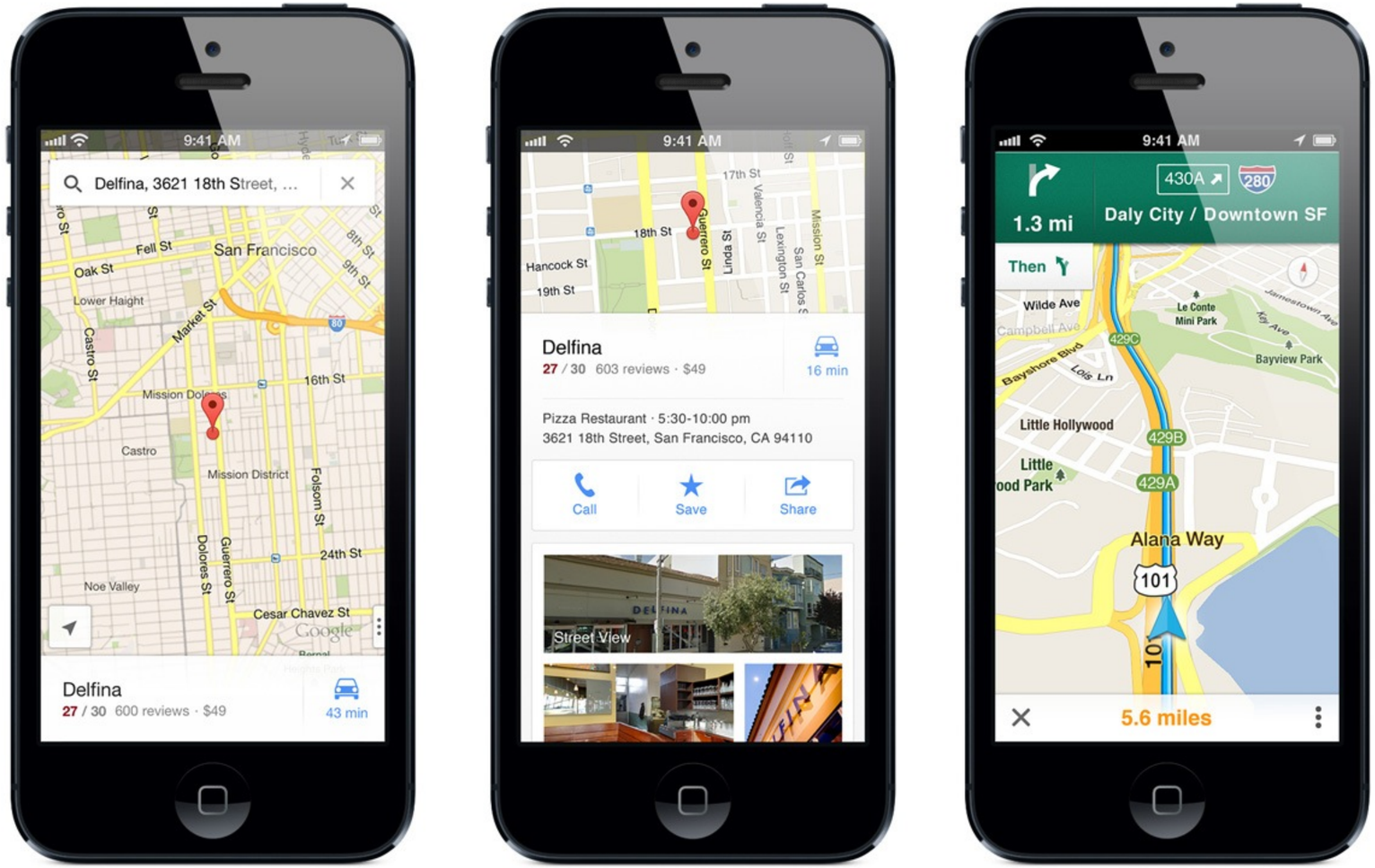
HOVER STYLE #1
READ MORE

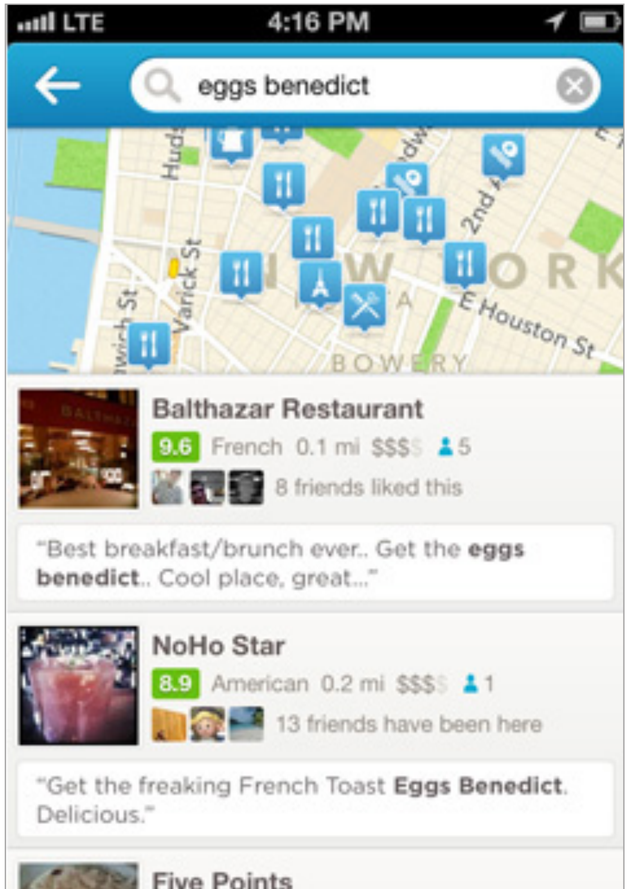
Mobile

ALLOWS FOR RELATIVE GEOLOCATION EXPERIENCES

EASY DIRECTIONS



FIND WHAT YOU NEED WHERE YOU ARE.

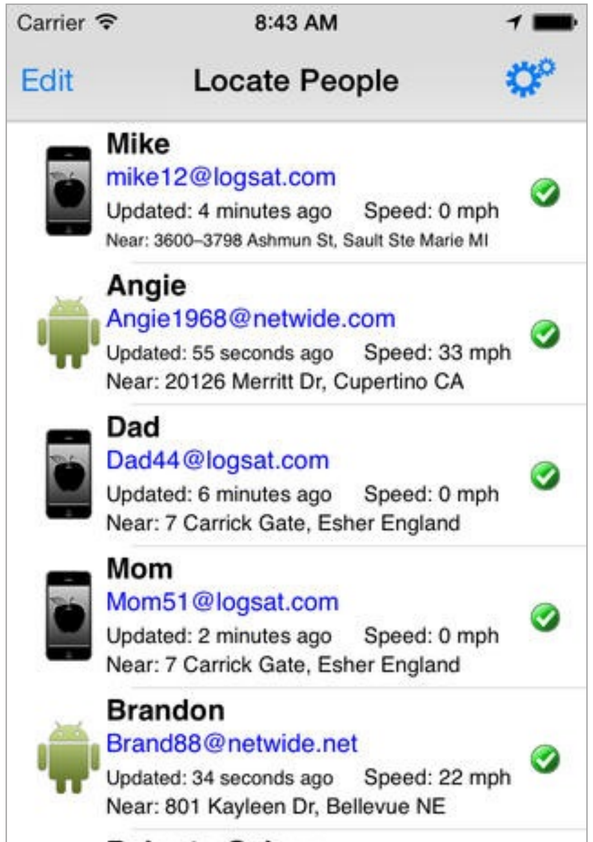


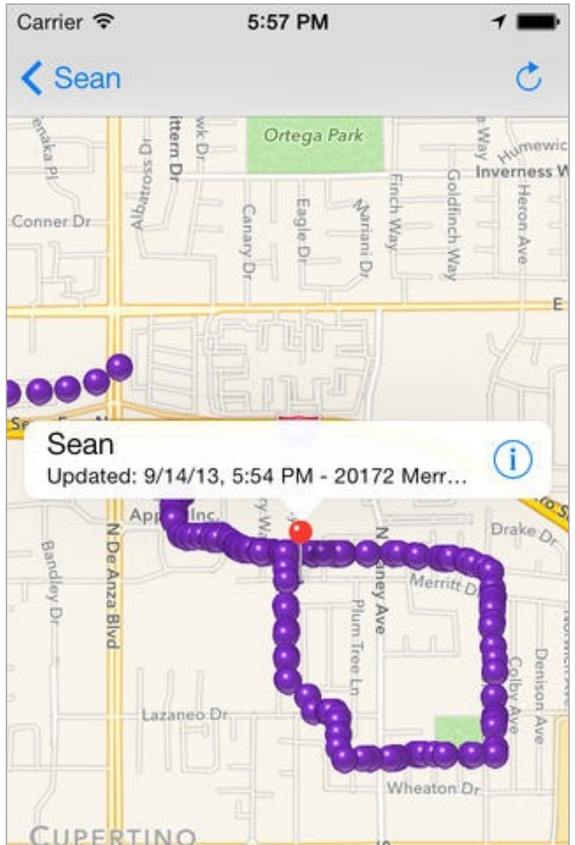
TRACK YOUR DISTANCE

Nike + Running App

TRACK YOUR KIDS

Family Tracker App



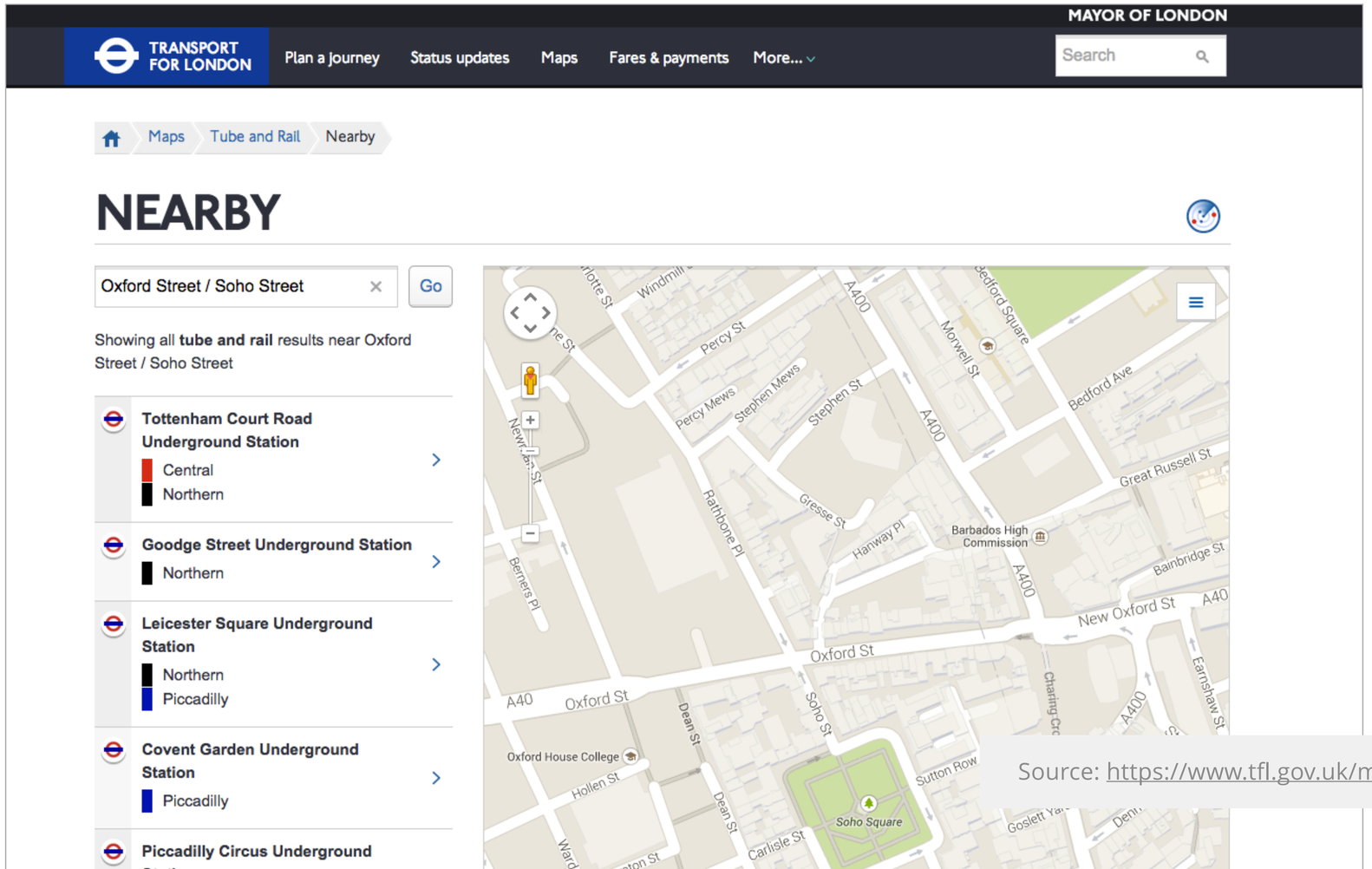


Mobile is Not Desktop

LONDON TUBE

DESKTOP EXPERIENCE

Transport for London government website

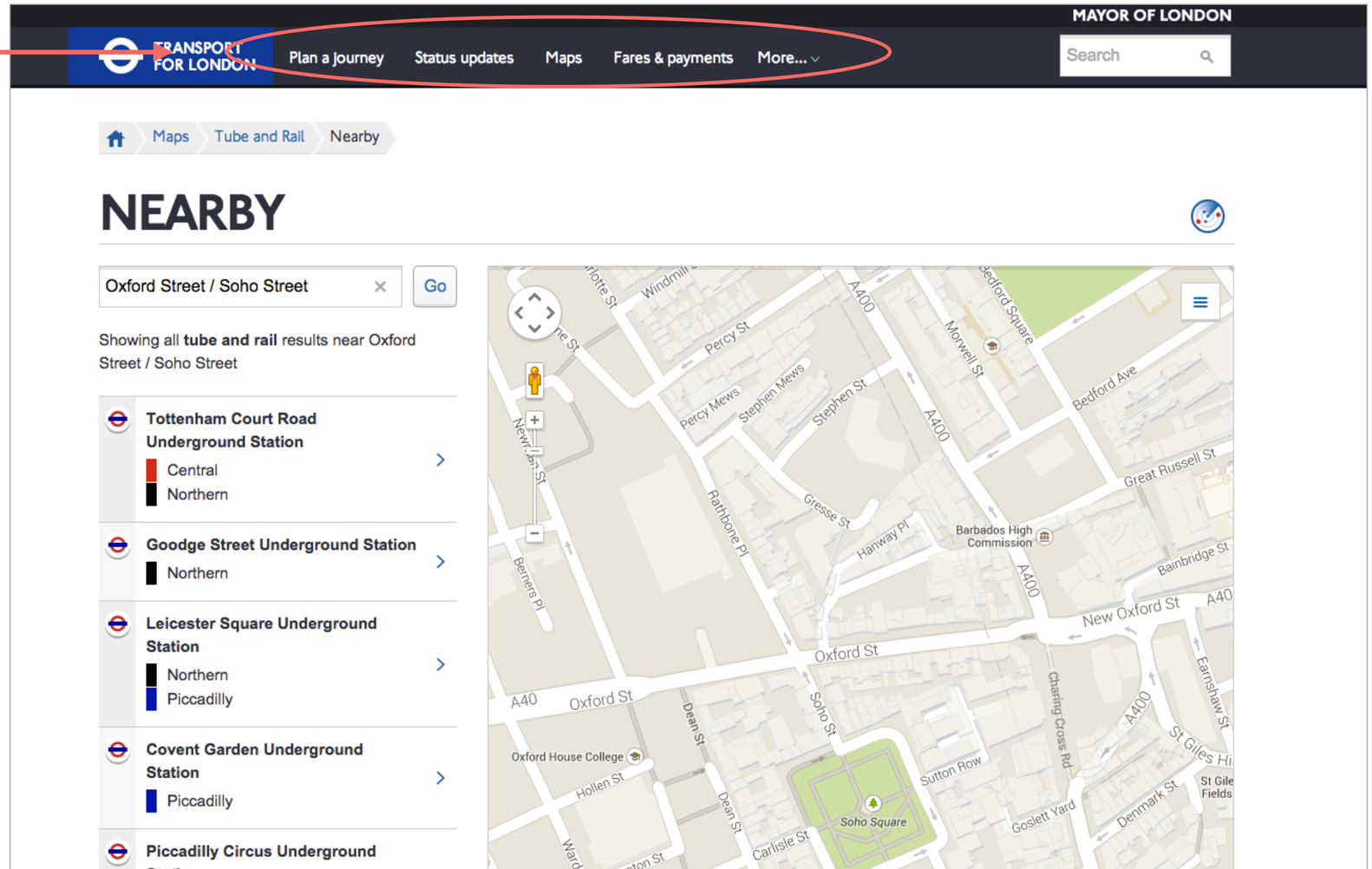


Source: https://www.tfl.gov.uk/maps/?cid=fs069

DESKTOP EXPERIENCE

Transport for London government website

Important needs are prominently displayed.



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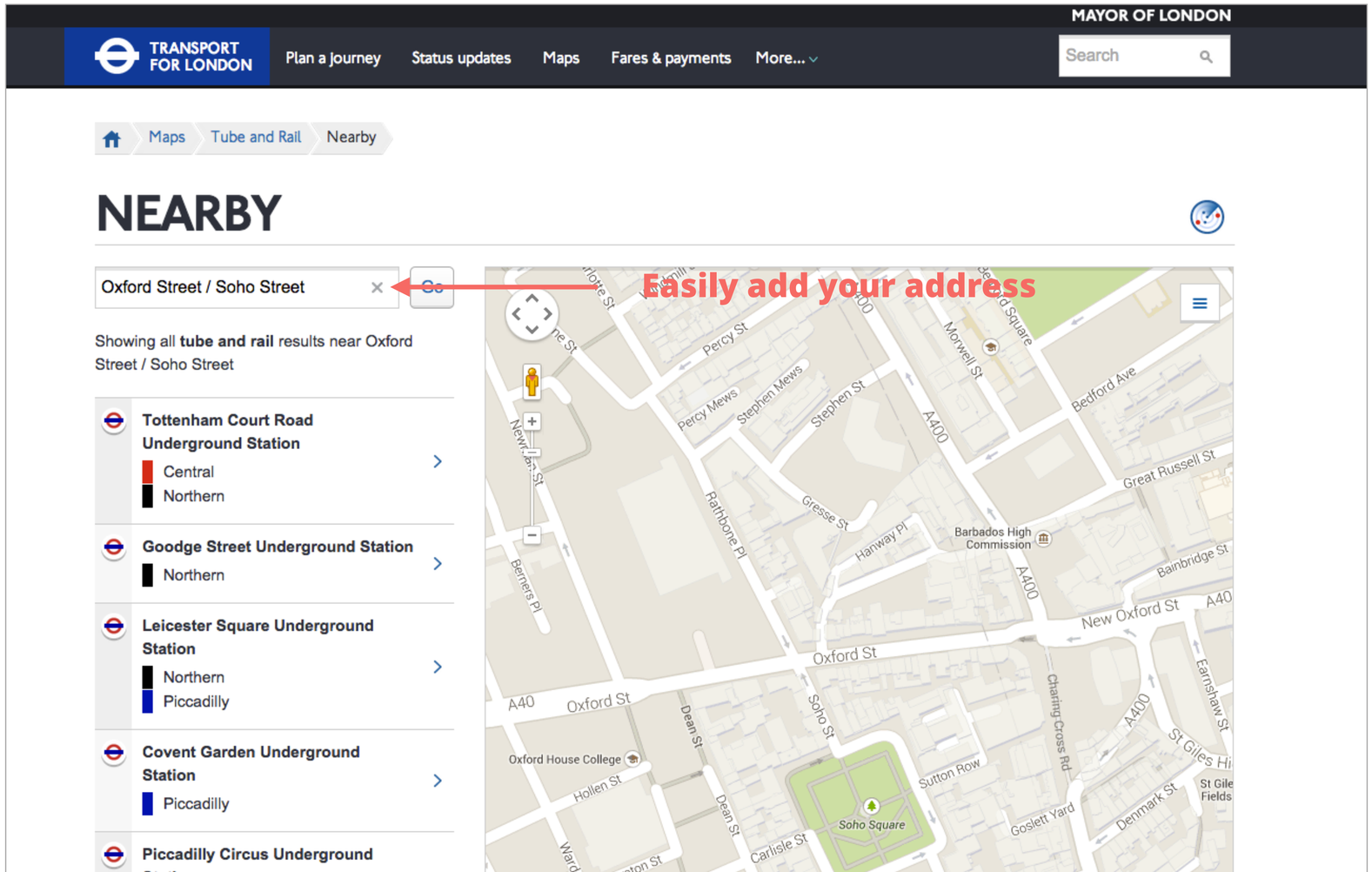
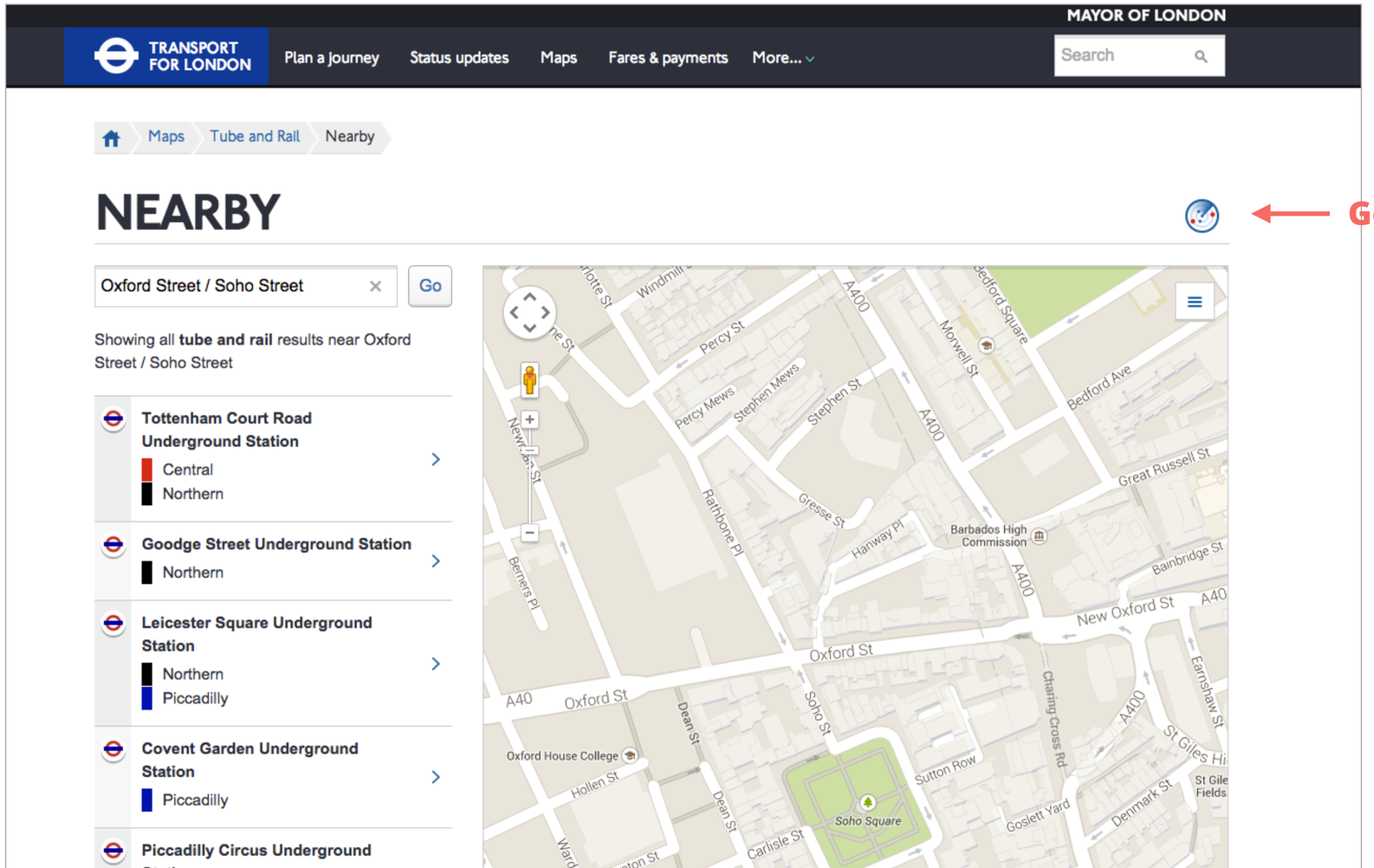
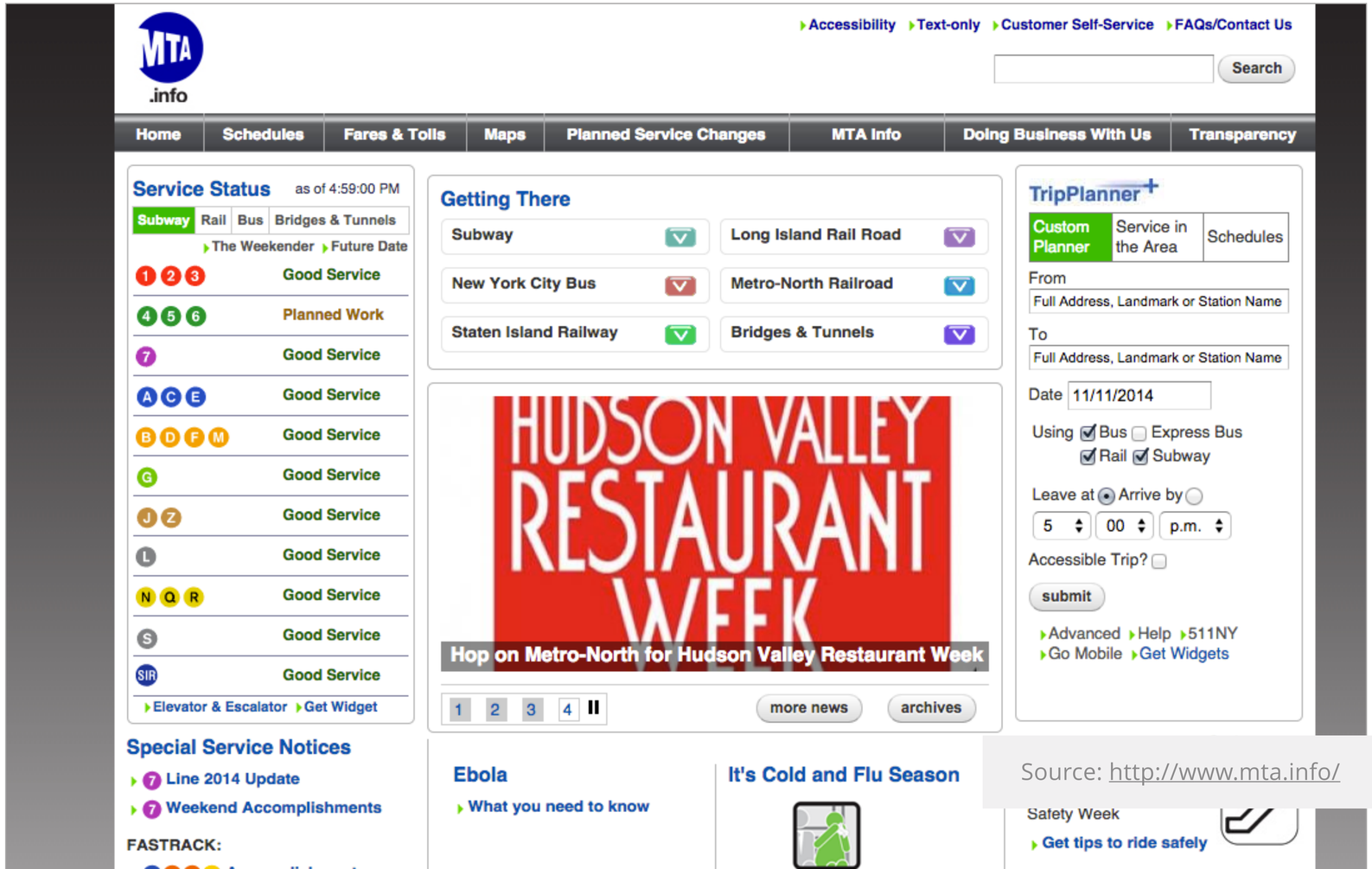


DESKTOP EXPERIENCE

Transport for London government website

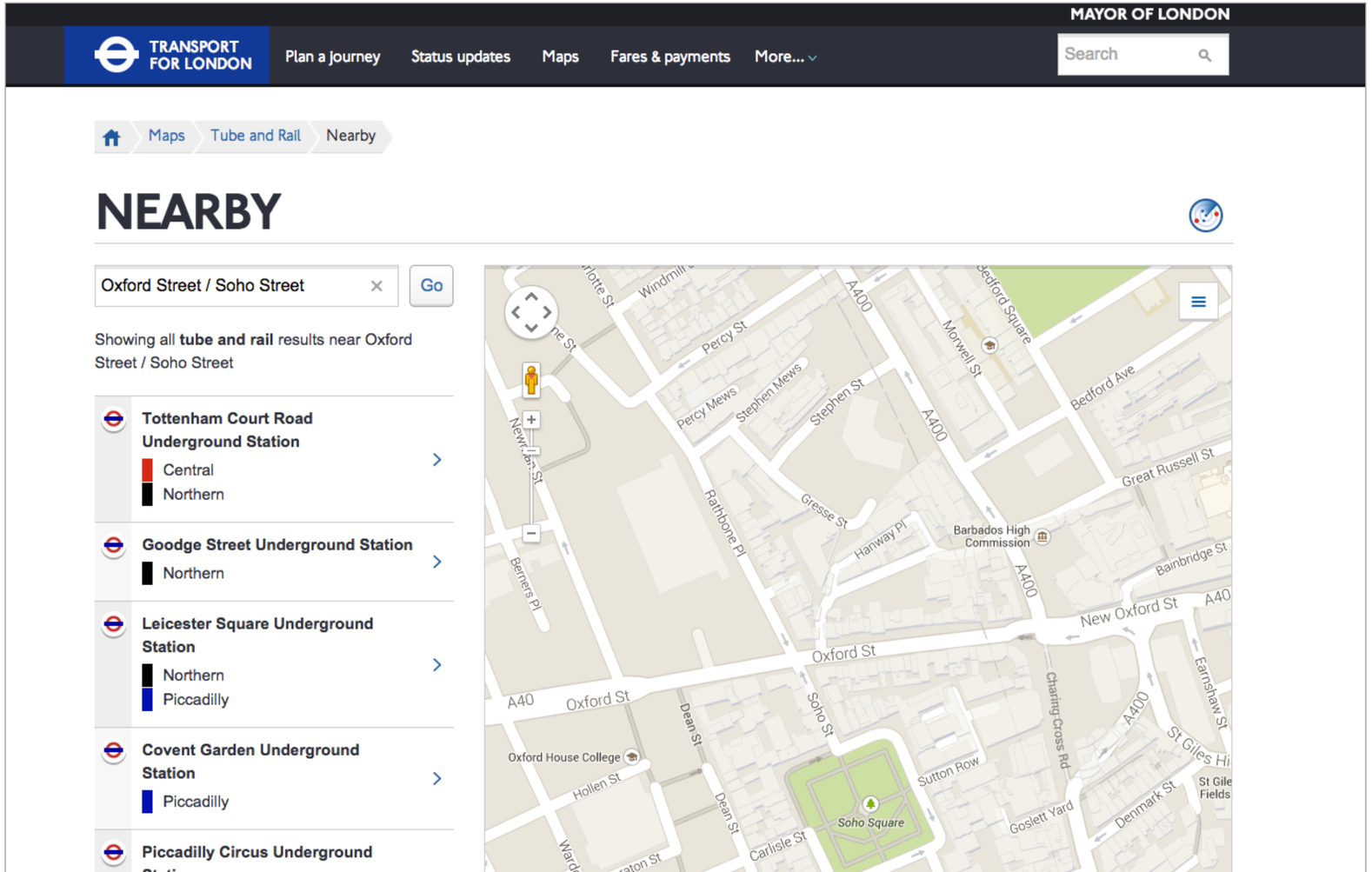


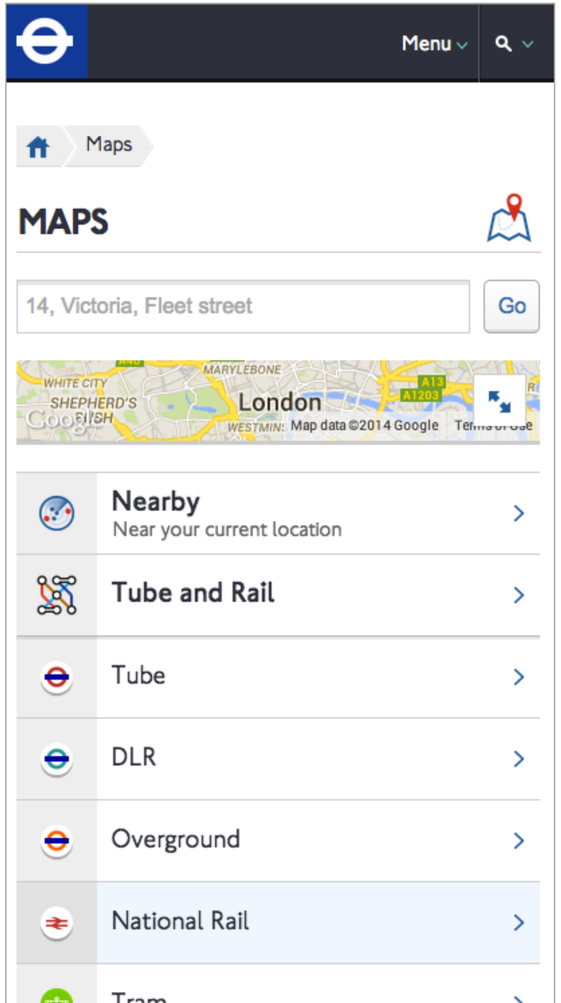
NEW YORK MTA



Source: http://www.mta.info/

...AND IT'S RESPONSIVE





London Tube

GREAT USER EXPERIENCE

Giving users what they need when and where they need it.

LET’S TAKE A LOOK AT A DIFFERENT MOBILE EXPERIENCE

Source: http://www.acrossair.com/apps_nearesttube.htm

Nearest Tube

MOBILE EXPERIENCE

Utilizing your video capabilities to create an augmented reality.

Nearest Tube

AUGMENTED REALITY

Nearest Tube

GREAT USER EXPERIENCE

Providing users with a unique experience that only a mobile device could provide.

SECTION 4: Mobile is not Desktop

WHAT WE'VE LEARNED

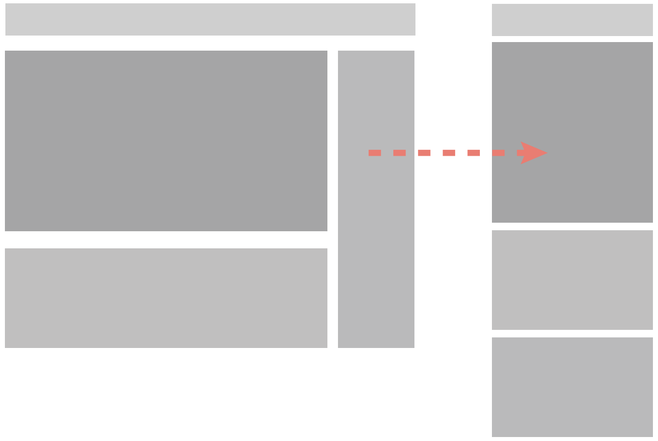
1. Mobile Devices never have our full attention: "One Eyeball, One Thumb."
2. Mobile Devices allow for different interactions than desktop, such as: **touch, gestures** & **unique geolocation experiences**.
3. Mobile doesn't support hover effects, so avoid using them!
4. Augmented reality is reaaaaallllyyy cool.

5. RESPONSIVE LAYOUT

RESPONSIVE WEB DESIGN RELIES ON 3 MAIN CONCEPTS

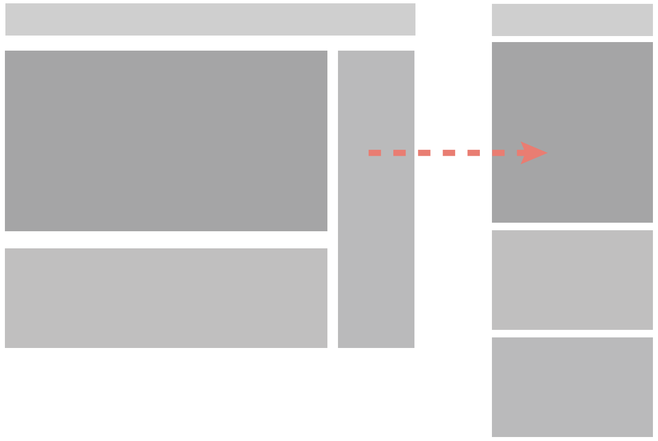
RESPONSIVE WEB DESIGN RELIES ON 3 MAIN CONCEPTS

Media Queries

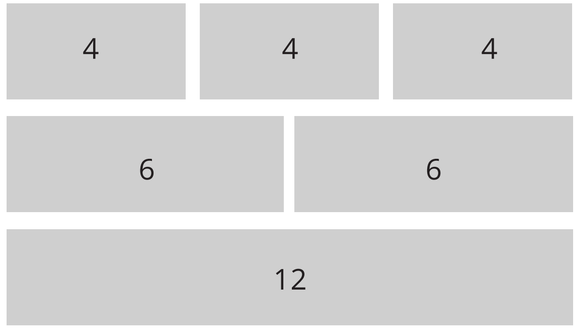


RESPONSIVE WEB DESIGN RELIES ON 3 MAIN CONCEPTS

Media Queries

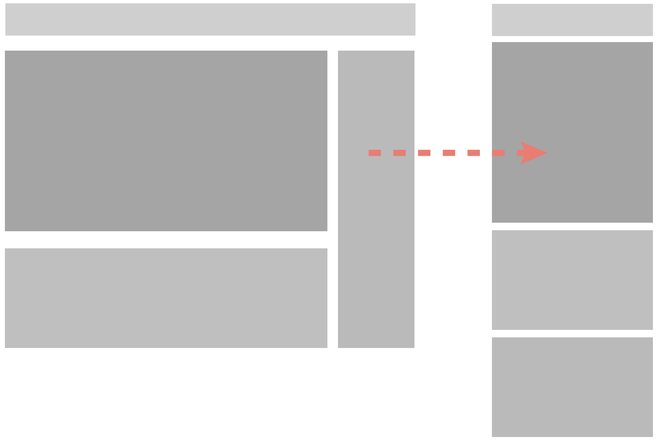


Fluid Grids

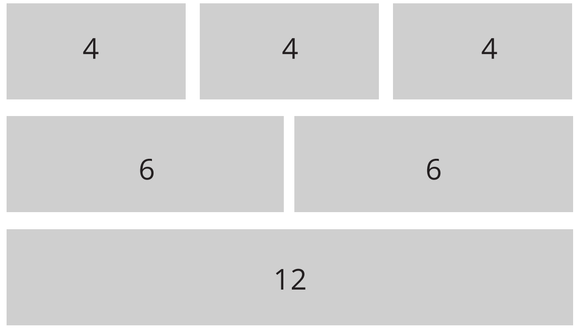


RESPONSIVE WEB DESIGN RELIES ON 3 MAIN CONCEPTS

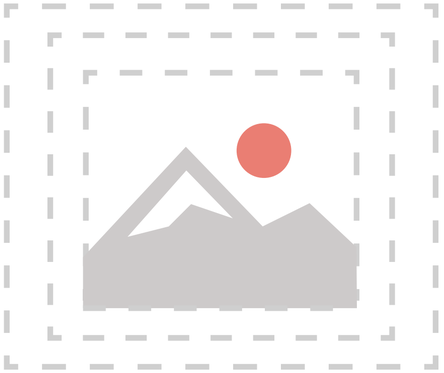
Media Queries



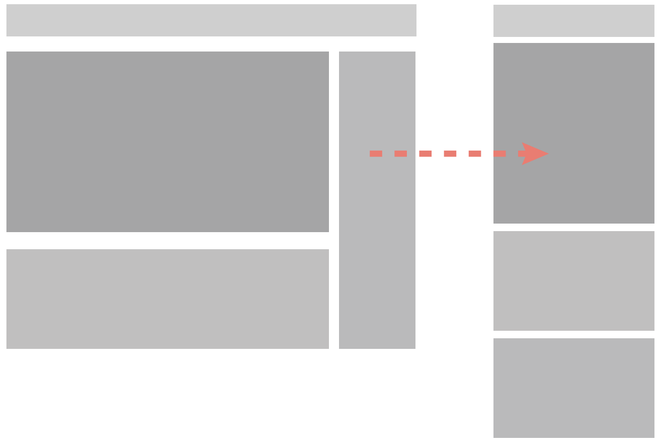
Fluid Grids



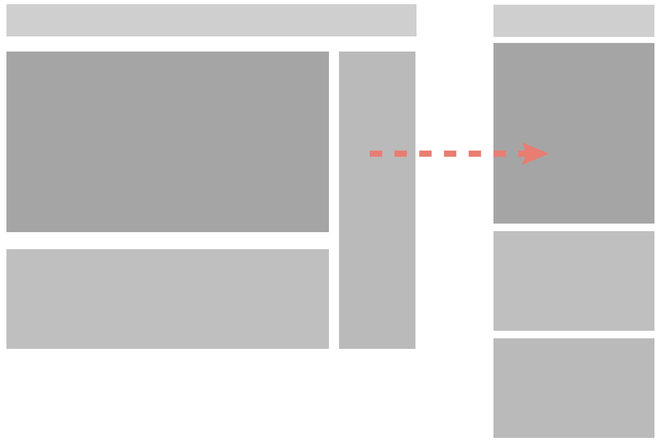
Flexible Media



MEDIA QUERIES



MEDIA QUERIES



Different CSS styles allow you to target specific styles for different devices, including layout, font-size, colors, etc.

MEDIA QUERIES

Allow you to apply different styles based on device size just with CSS!

SIMPLE MEDIA QUERY

.main-content

.side-bar

SIMPLE MEDIA QUERY

```
.main-content {
background: white;
}
.sidebar {
background: white;
}
@media only screen and (max-width: 768px) {
.sidebar { background: blue; }
}
```

SIMPLE MEDIA QUERY

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}
@media only screen and (max-width: 768px) {
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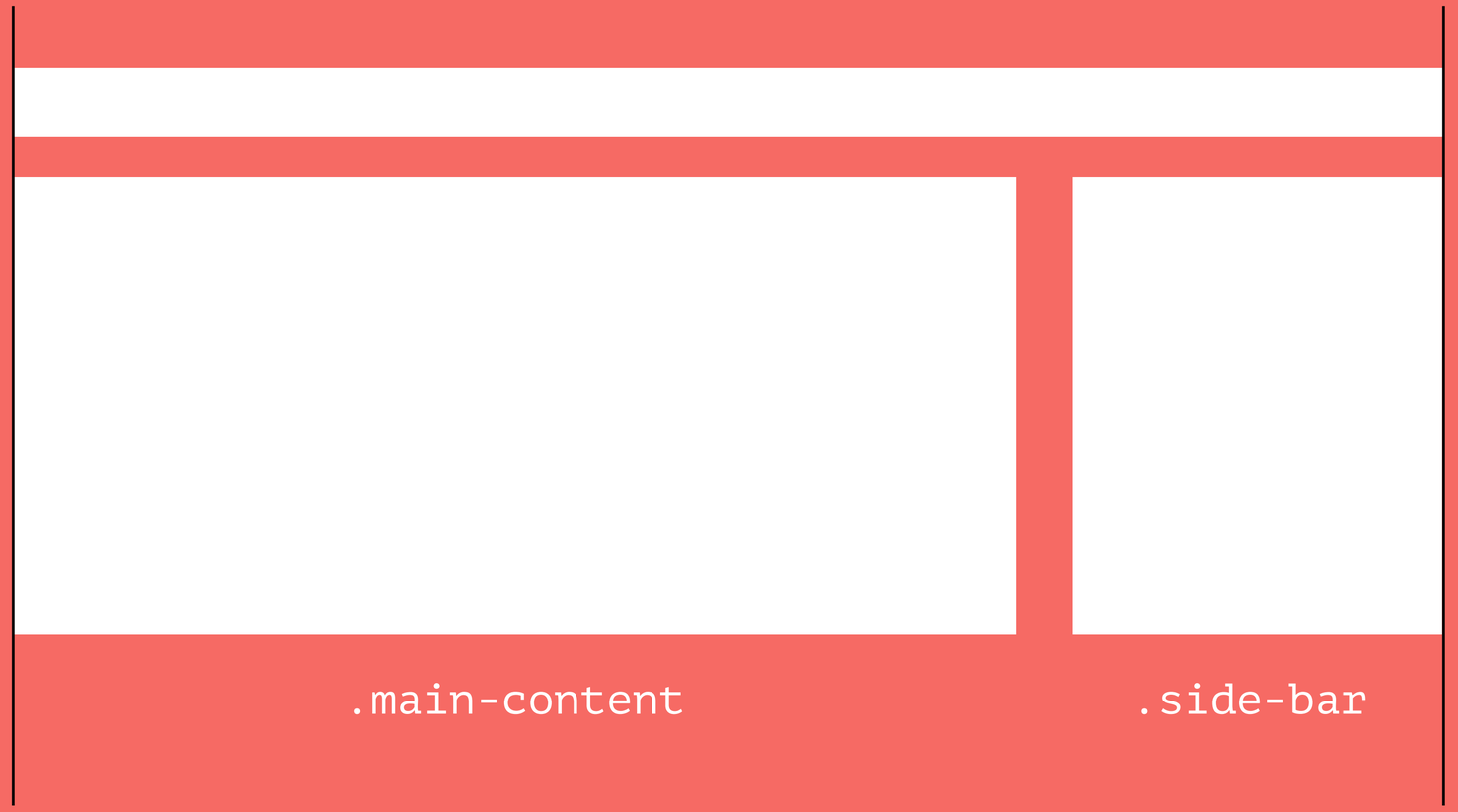
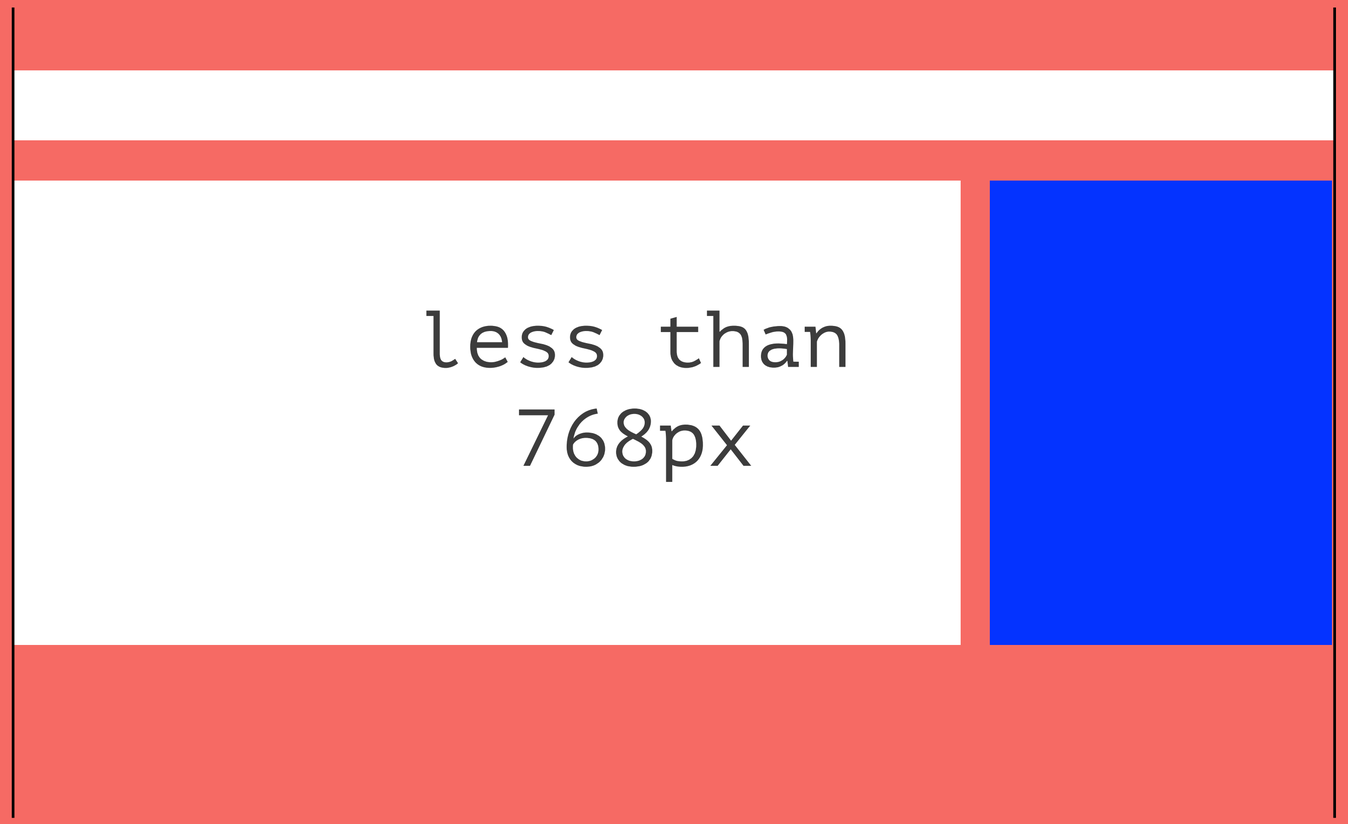
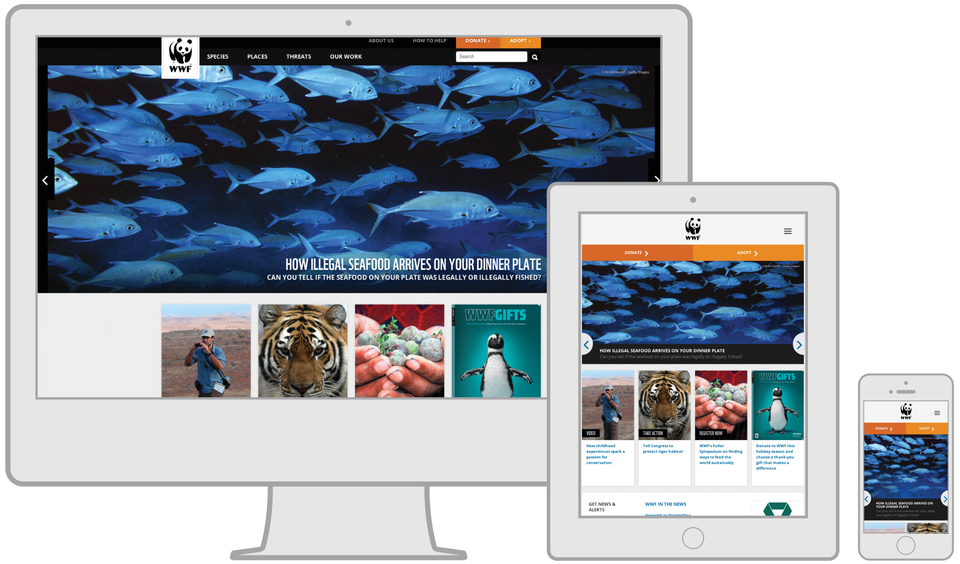


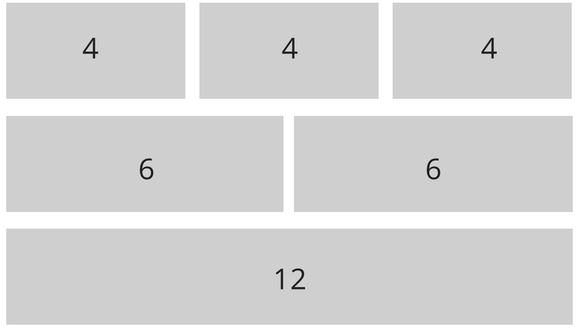
SIMPLE MEDIA QUERY



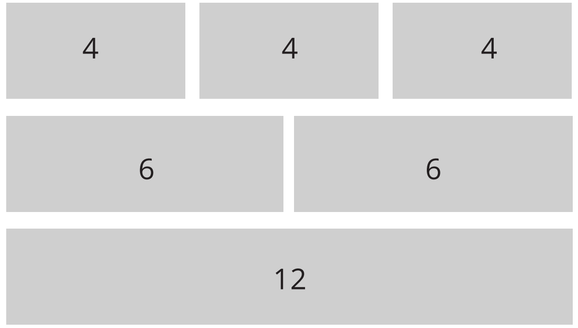


Each screen size has a different line of CSS rules that tell images, text, navigation and various other elements to adjust size and/or orientation based on each device.

FLUID GRIDS



FLUID GRIDS

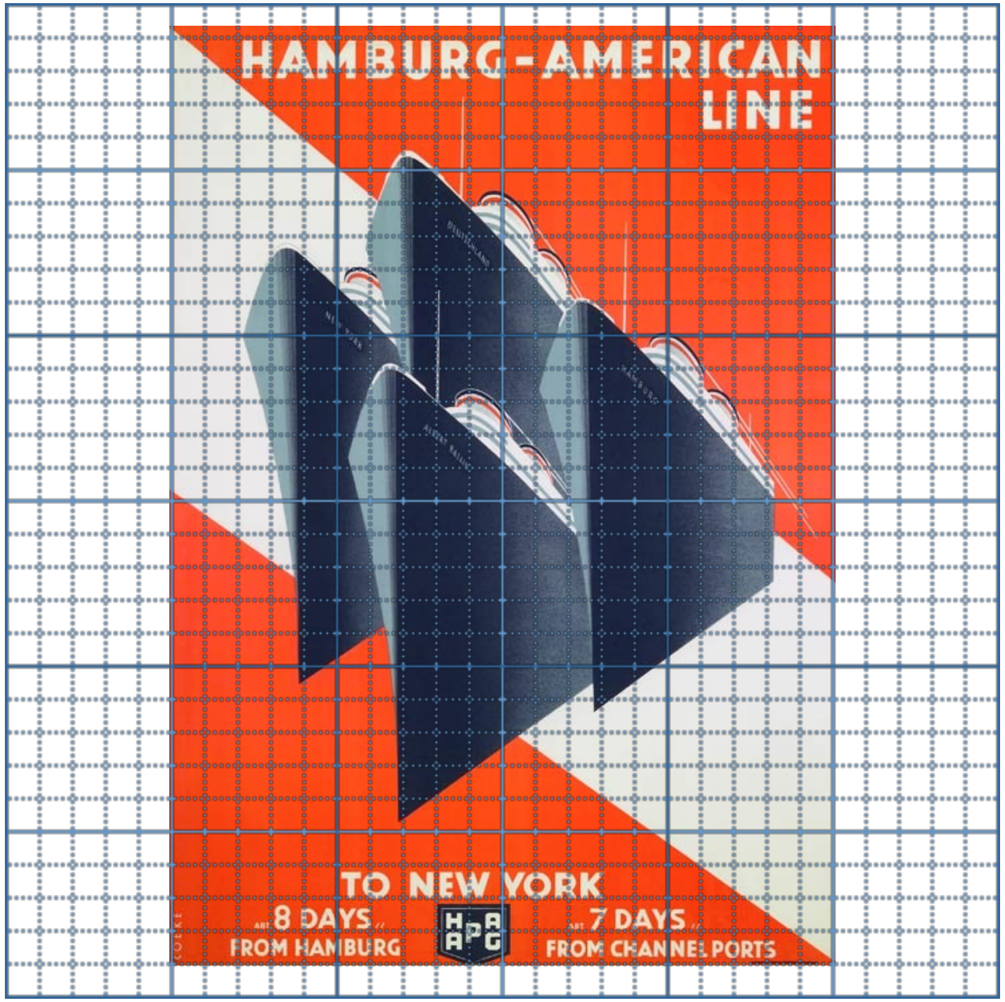


Building a site using modular grids that can flow and adapt to various screen sizes by using percentages, not pixels.

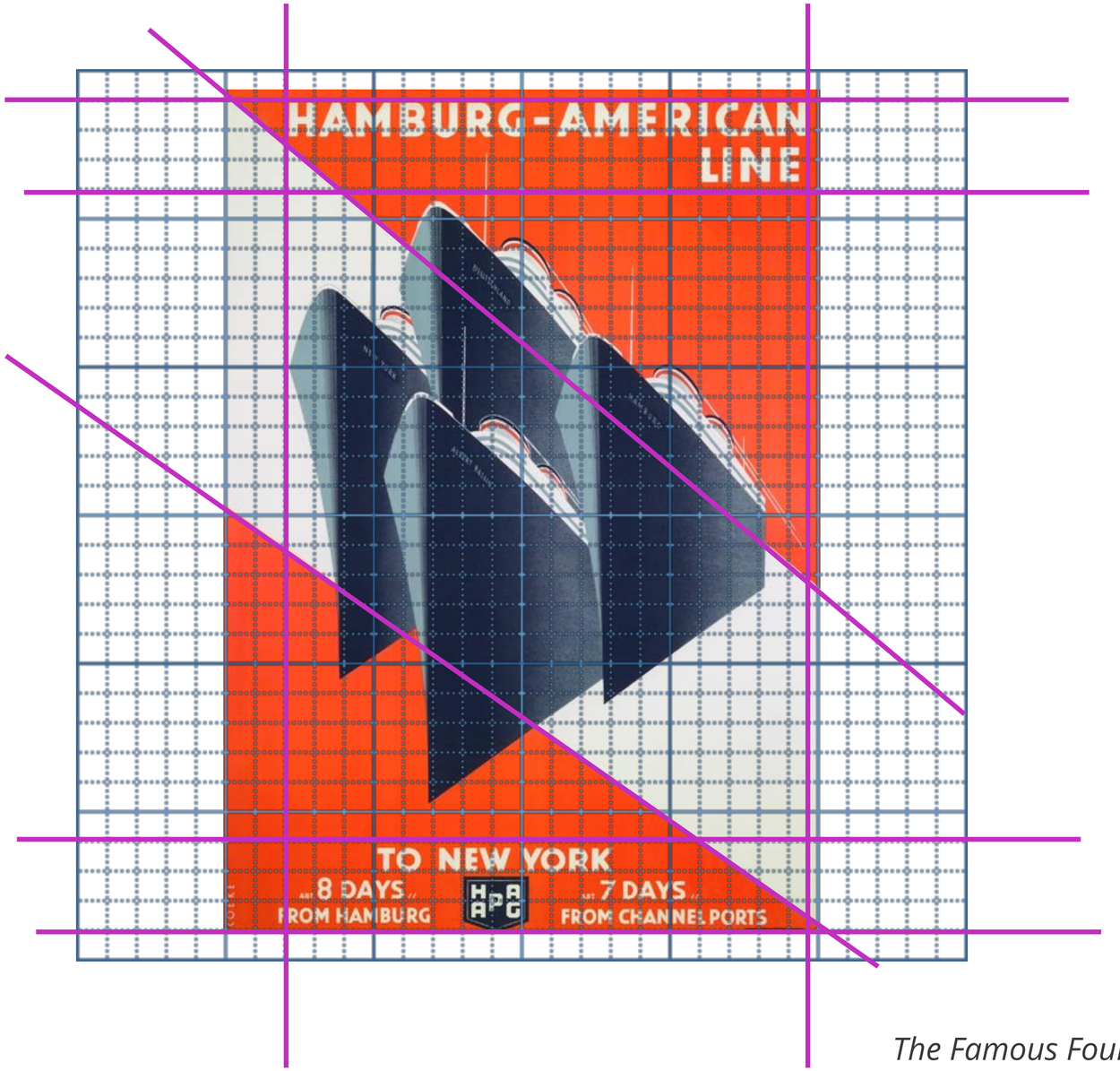
GRIDS

Grids have been used in design for centuries.

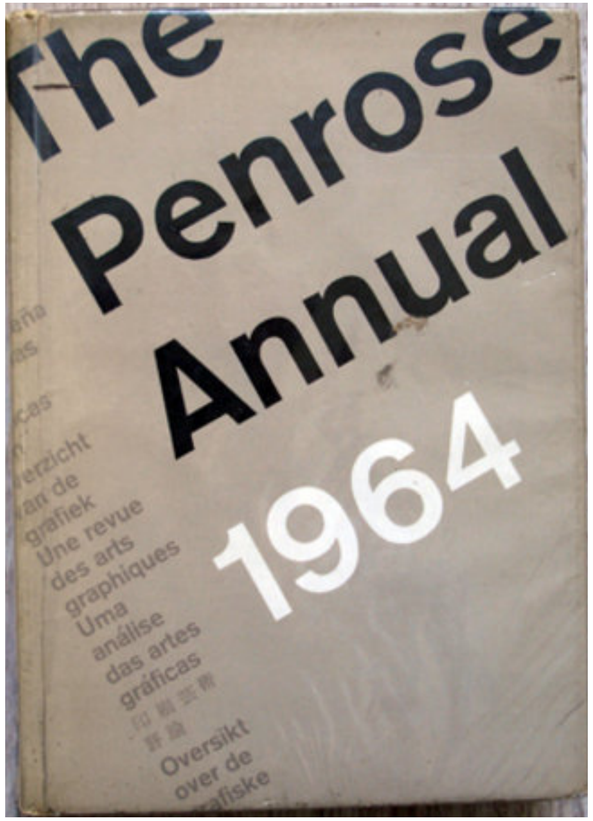
The Famous Four, Hamburg America Line, 1920s



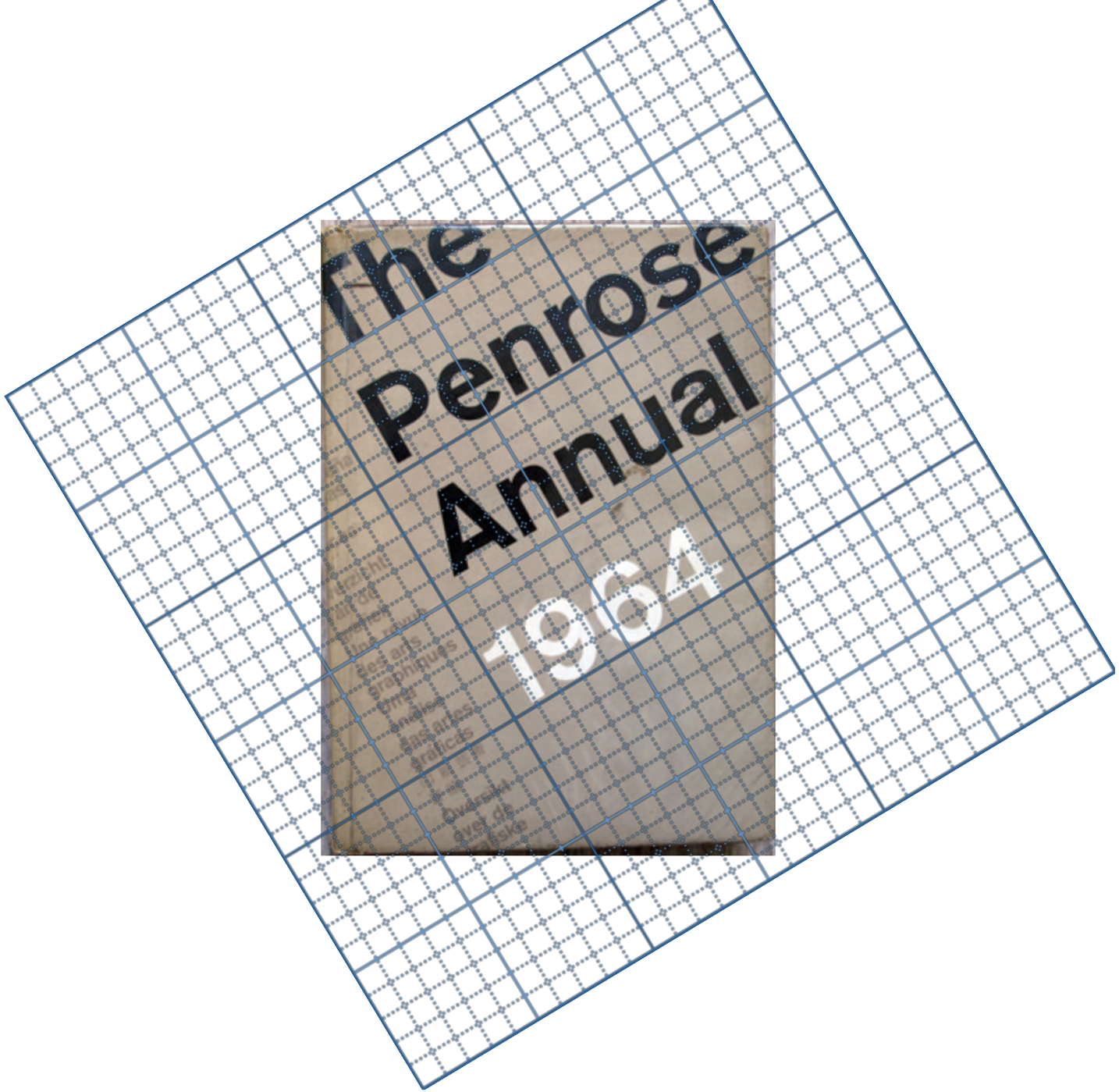
The Famous Four, Hamburg America Line, 1920s



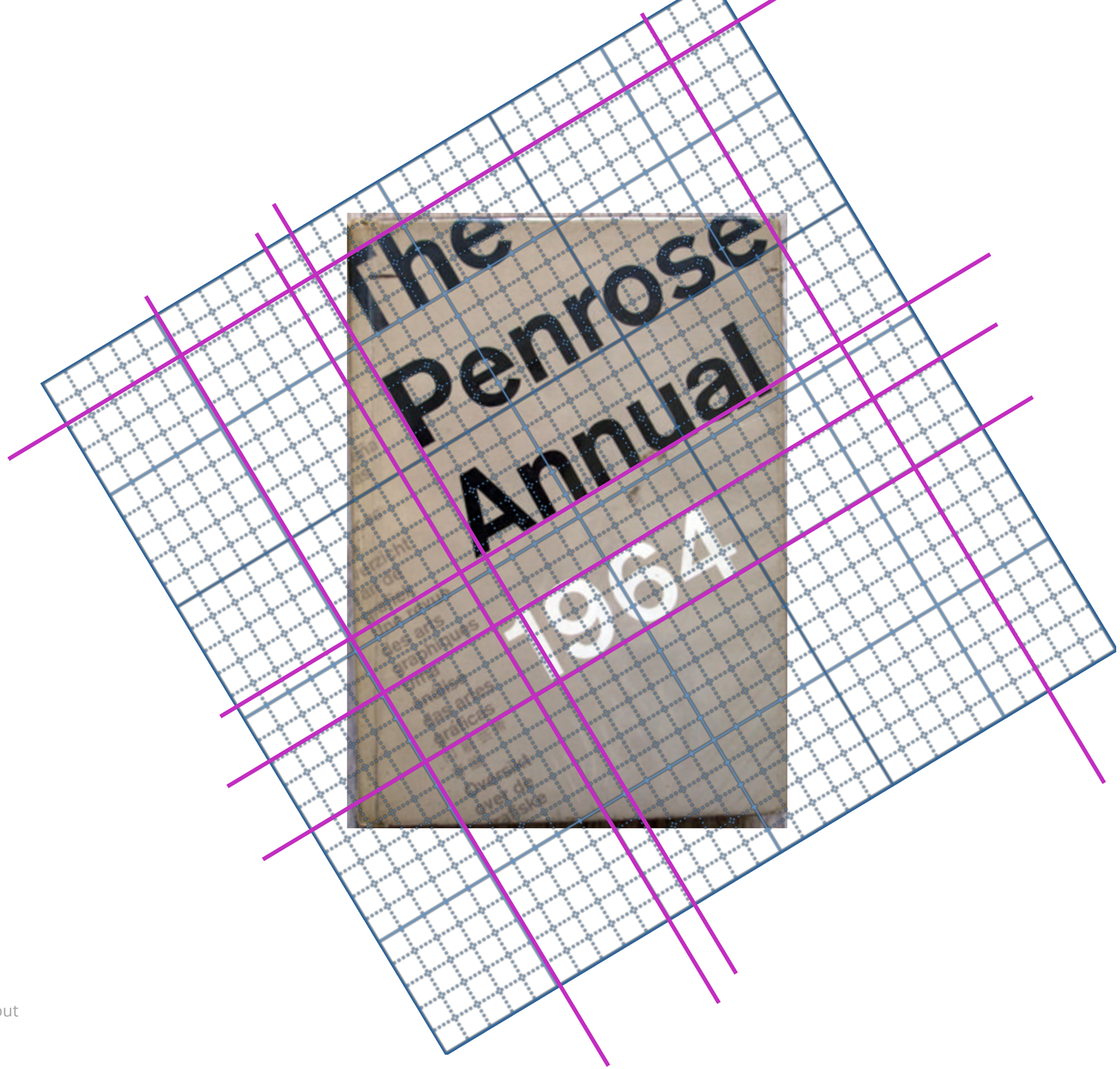
The Famous Four, Hamburg America Line, 1920s



The Penrose Annual, 1964



The Penrose Annual, 1964

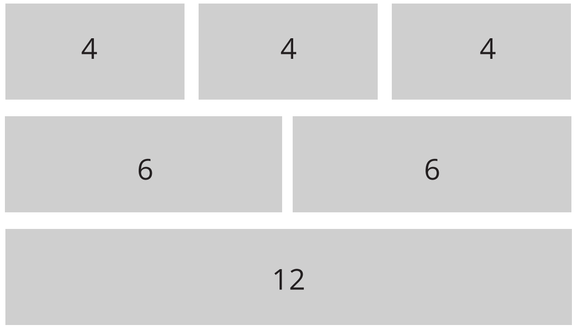


The Penrose Annual, 1964

GRIDS ARE JUST GUIDES TO HELP ALIGN

They allow you to align elements and provide structure.

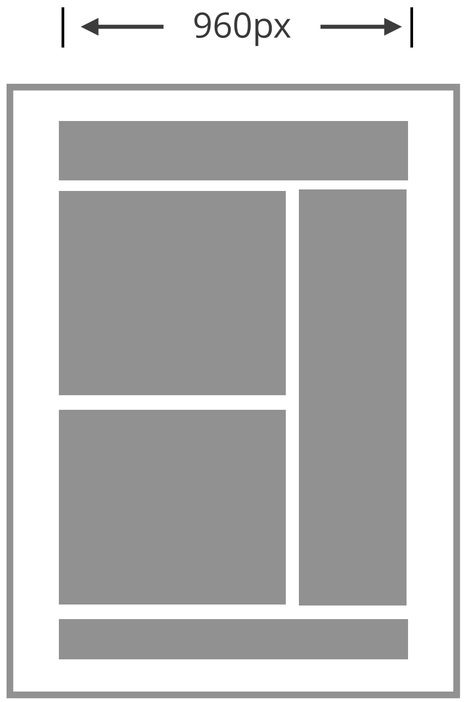
They're not perfect.



FLUID GRIDS

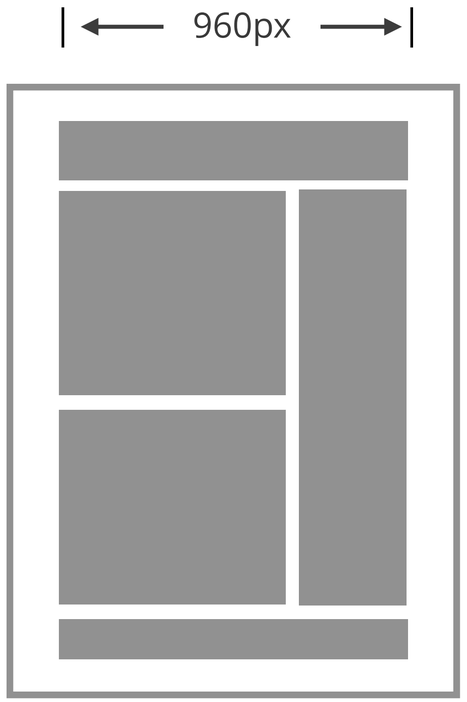
Building a site using modular grids that can flow and adapt to various screen sizes by using percentages, not pixels (as well as a little help from some media queries).

FIXED VS. FLUID



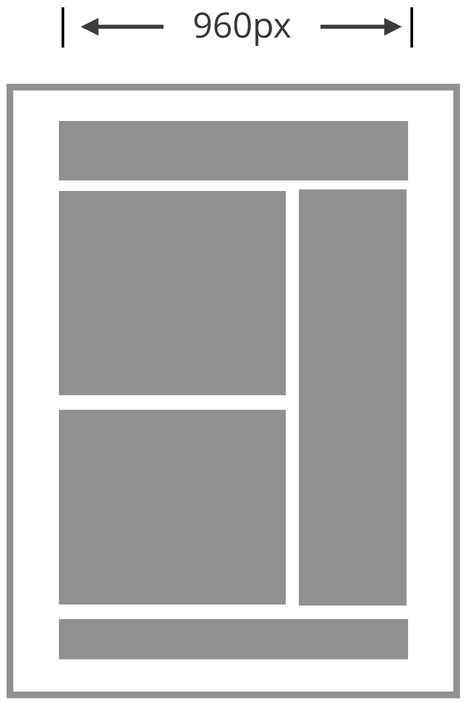
FIXED VS. FLUID

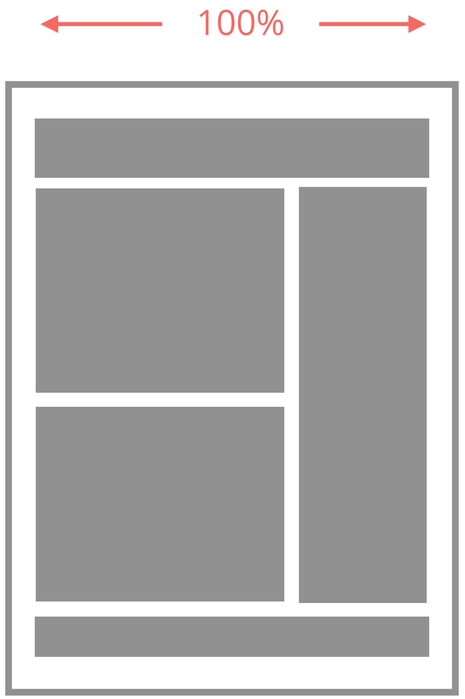
Fixed Grid



FIXED VS. FLUID

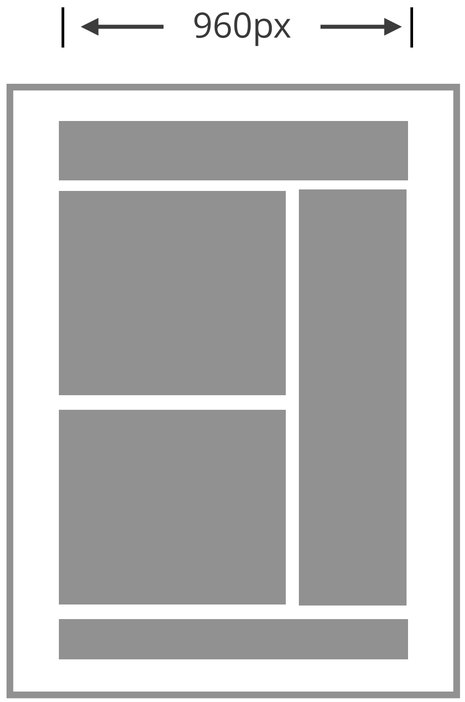
Fixed Grid



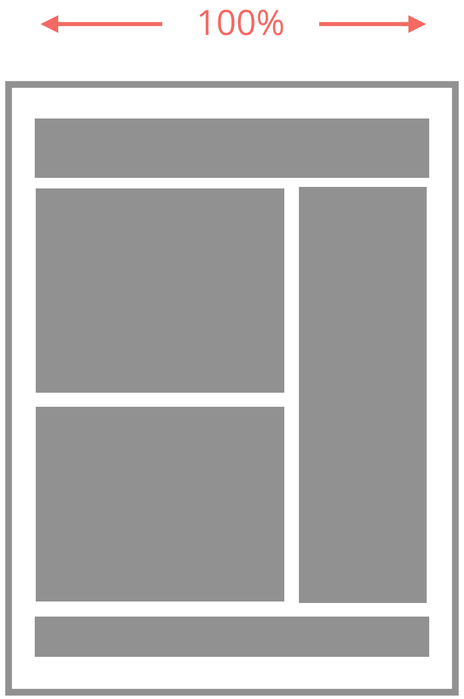


FIXED VS. FLUID

Fixed Grid



Fluid Grid



Logo

Navigation

Article

Sidebar

Footer

Logo

Navigation

Article

Sidebar

Footer

Logo

Navigation

Article

Sidebar

Footer

FLUID GRIDS SCALE & FLEX

And still allow you to align your content.

FLEXIBLE MEDIA

FLEXIBLE MEDIA

Ensuring images are large enough to appear on the biggest of screens and are coded to scale **proportionately** on smaller devices.

IF THIS IS OUR PHOTO:

WE’RE TRYING TO AVOID…

Extreme Cropping

Weird Stretching

FLEXIBLE MEDIA

Can scale across different device sizes while maintaining its **resolution** and **proportion**.

SECTION 5: Responsive Layout

WHAT WE'VE LEARNED

1. There are 3 elements that make up Responsive Design: **Media Queries, Fluid Grids**, and **Flexible Media**.

2. Media Queries are magical lines of CSS styles that can tell what size device you're viewing on and provide the styles accordingly.

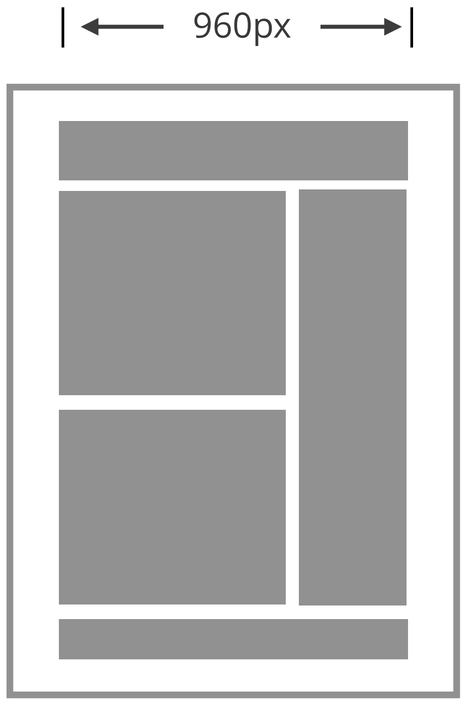
3. Fluid Grids adapt to different screen-sizes by using percentages instead of pixels.

4. Flexible Media are images and videos that can maintain resolution and proportion on all screen sizes.

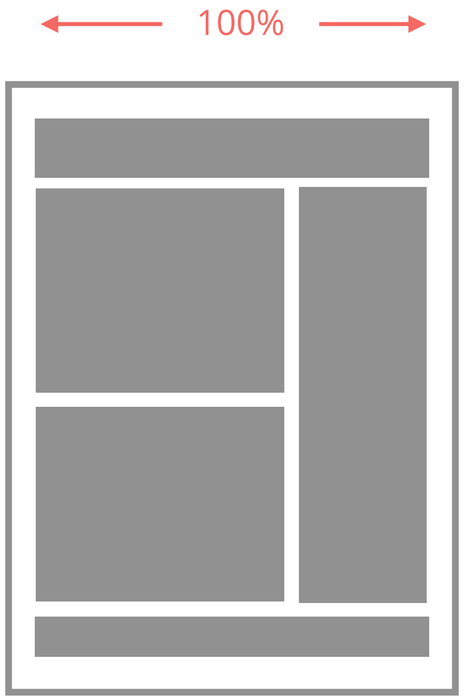
5.1 | FLUID LAYOUT

FIXED VS. FLUID

Fixed Grid

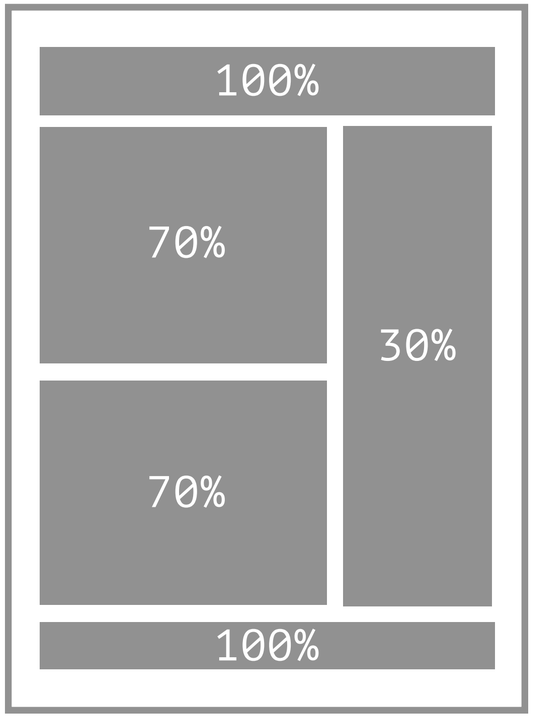


Fluid Grid

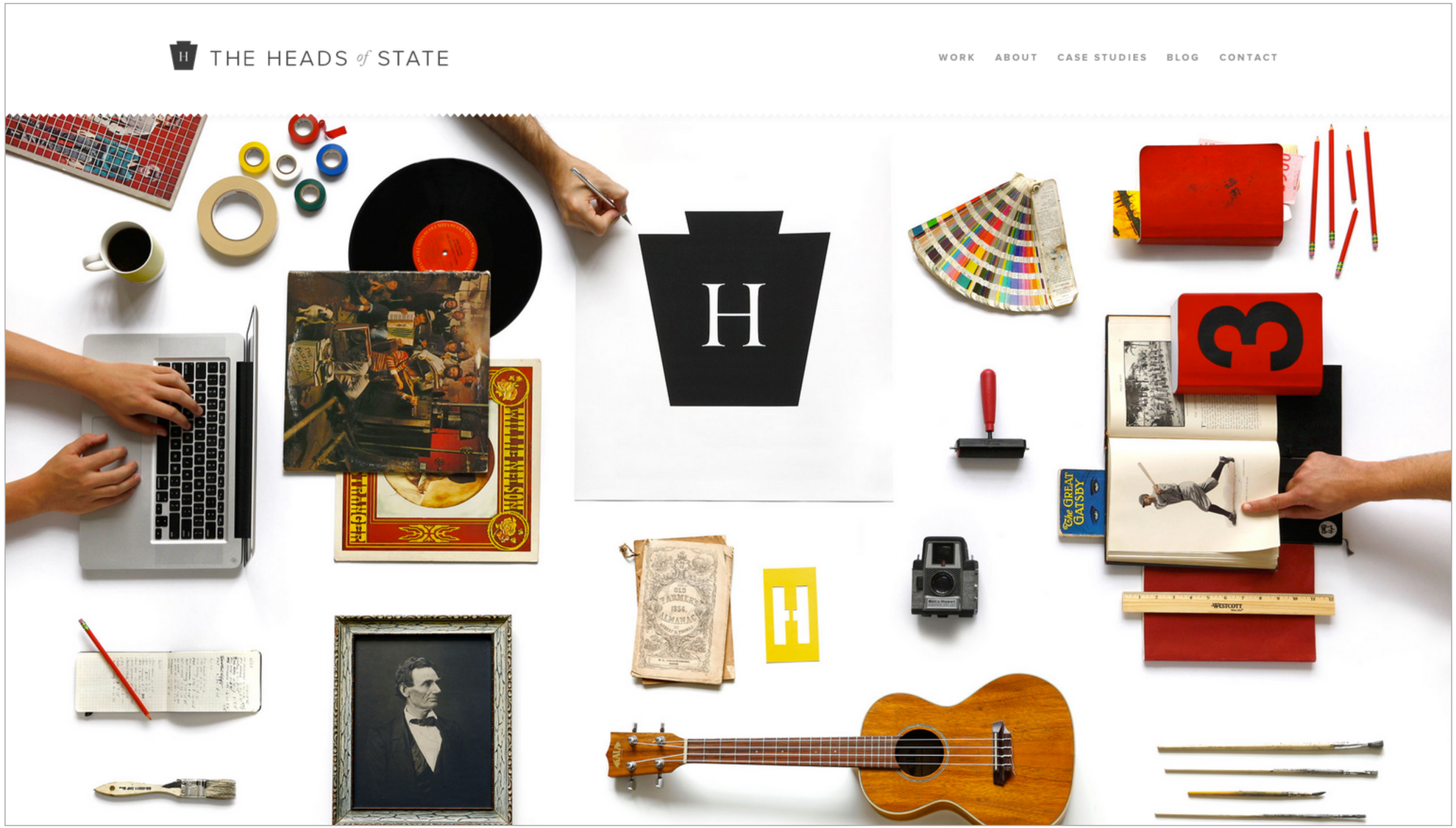


FLUID LAYOUT

Fluid Grid




```
#header {
  width: 100%;
}
#side-bar {
  float: right;
  width: 30%;
}
#content {
  float: left;
  width: 70%;
}
```


THE HEADS of STATE
WORK
ABOUT
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BLOG
CONTACT
H
The GREAT GATSBY
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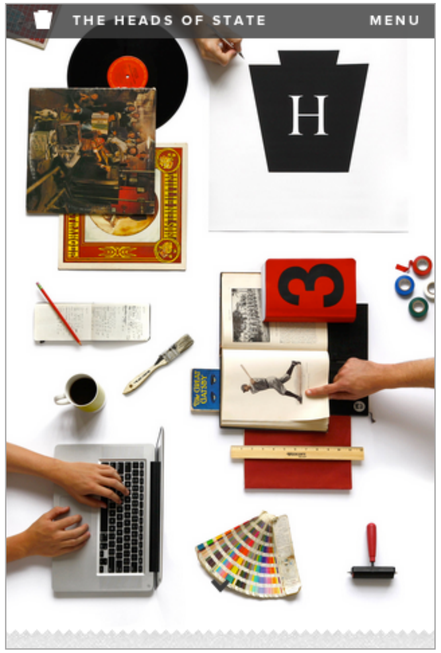
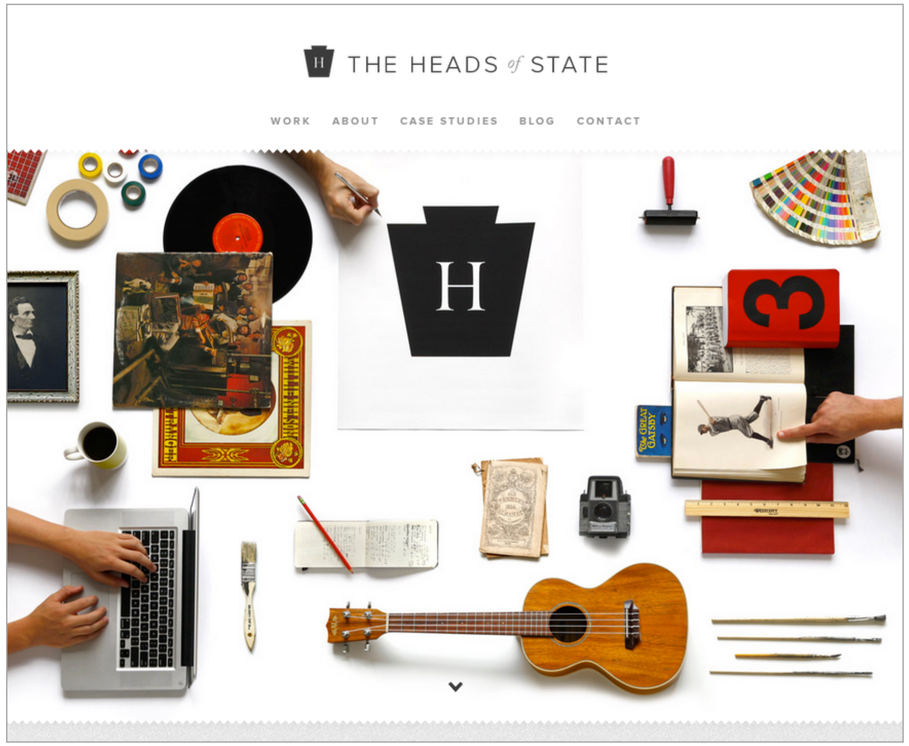
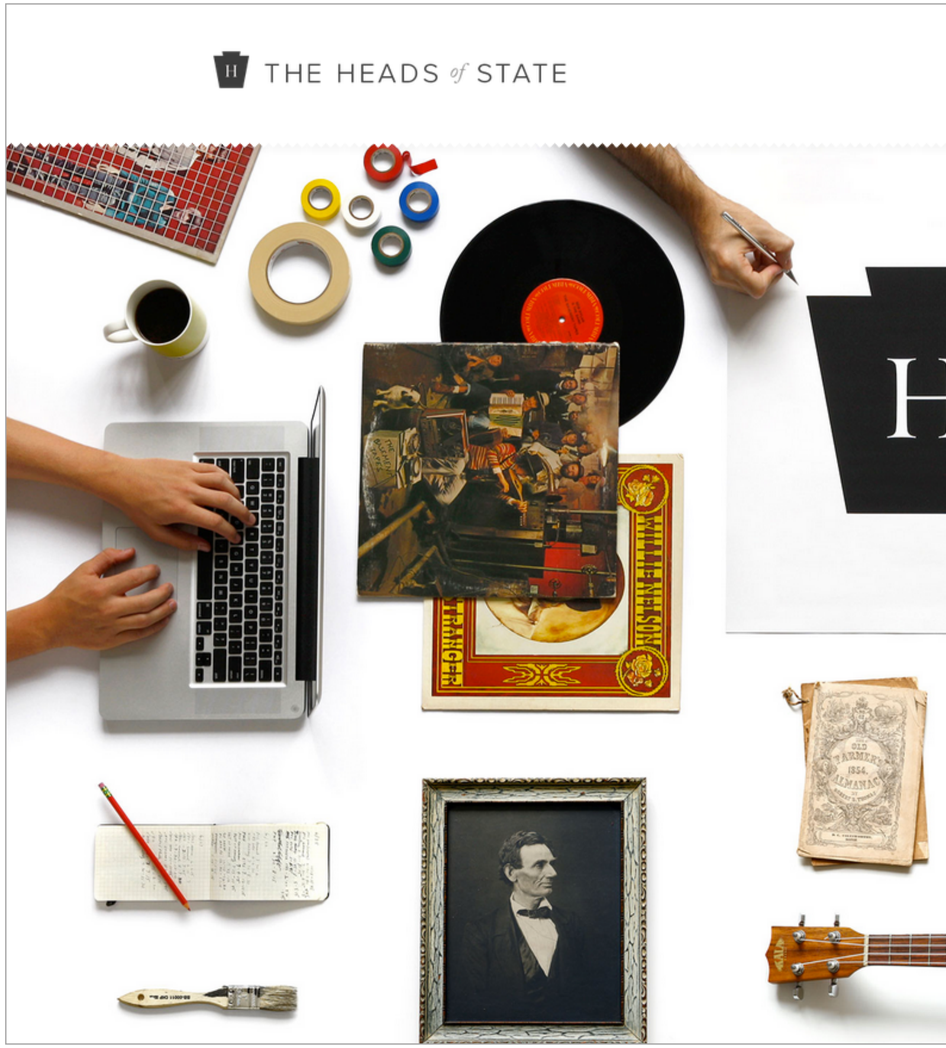

THE HEADS OF STATE
MENU

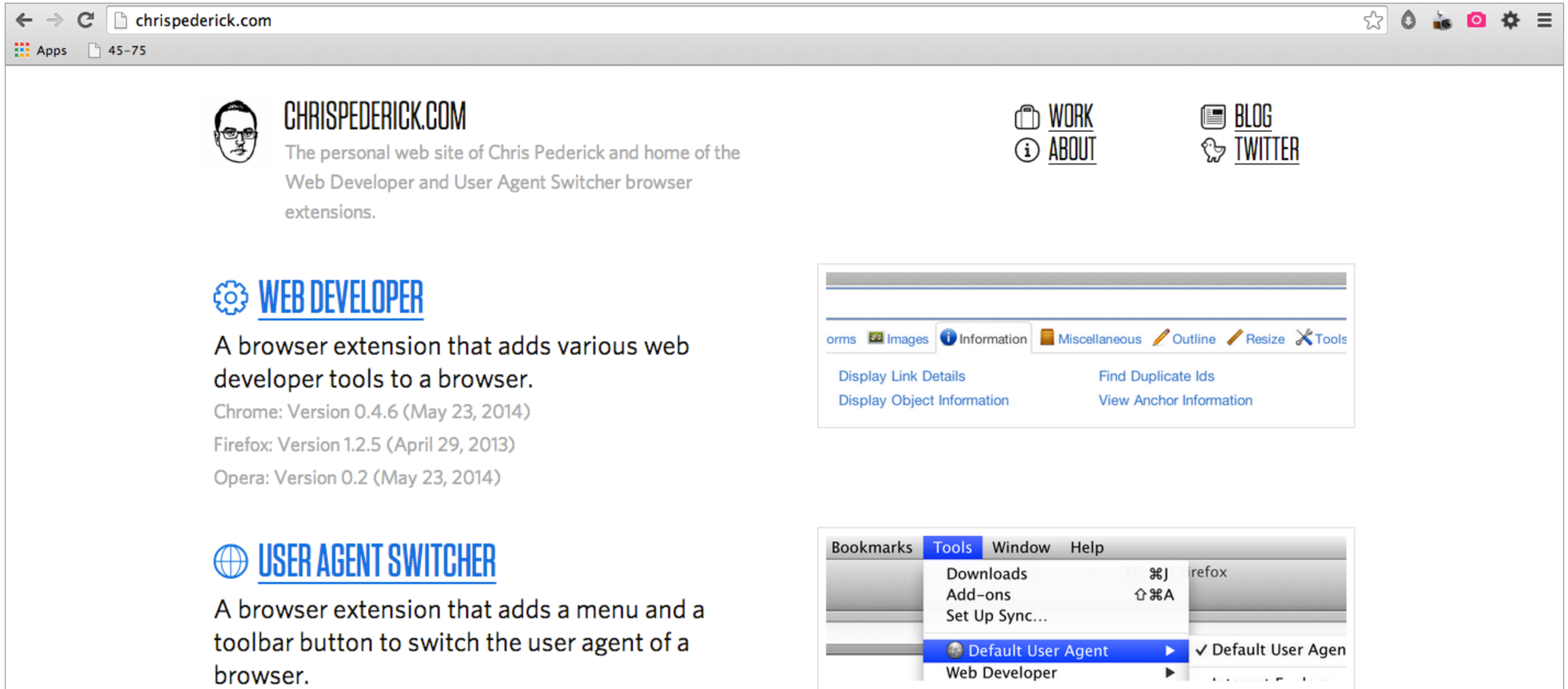

THE HEADS of STATE
WORK
ABOUT
CASE STUDIES
BLOG
CONTACT


THE HEADS of STATE

Chris Pederick's

WEB DEV CHROME EXTENSION

Allows you to see the different Responsive Layouts of any responsive site.



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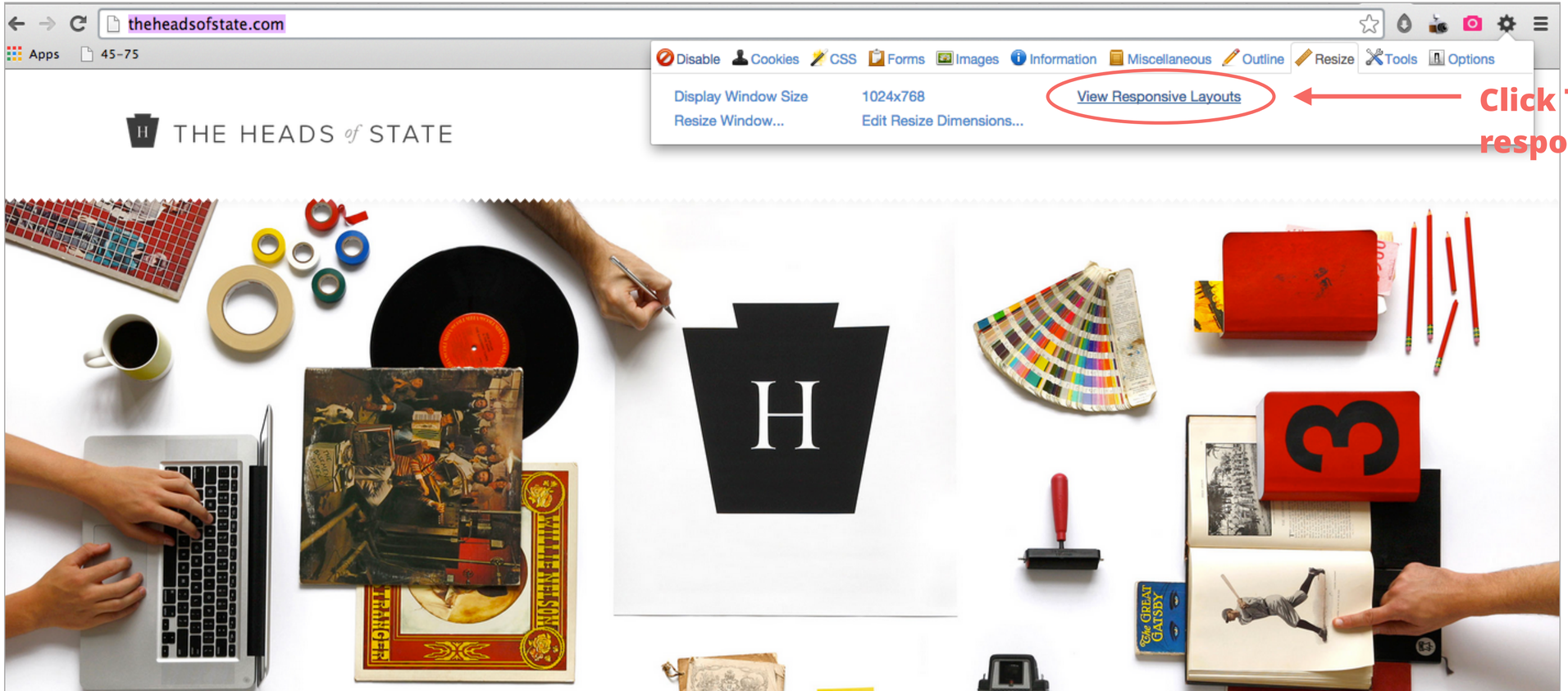
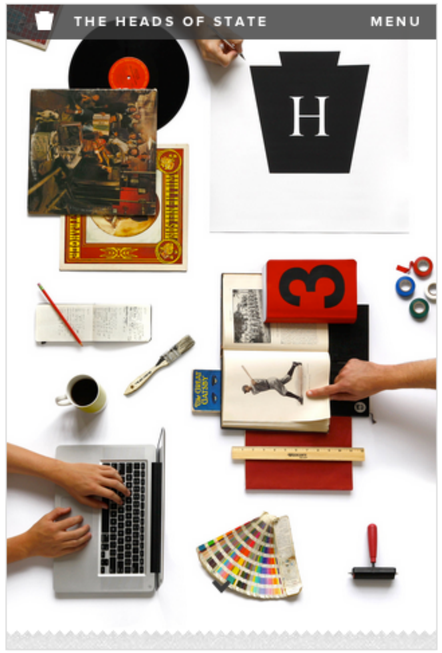


Click This on any responsive page

Responsive Layouts | Layouts | Reload Layouts | Collapse all | Expand all | Web Developer

http://theheadsofstate.com/

Mobile portrait (320x480)



Mobile landscape (480x320)

This is a good time to mention

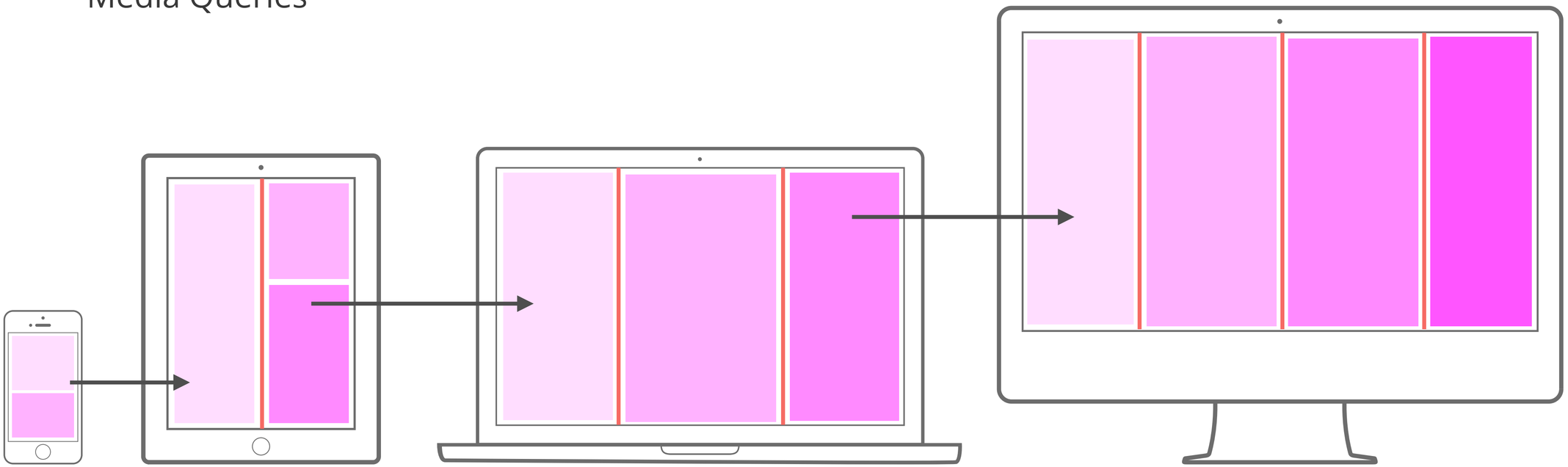
“ADAPTIVE DESIGN”

RESPONSIVE DESIGN:

Fluid Grids

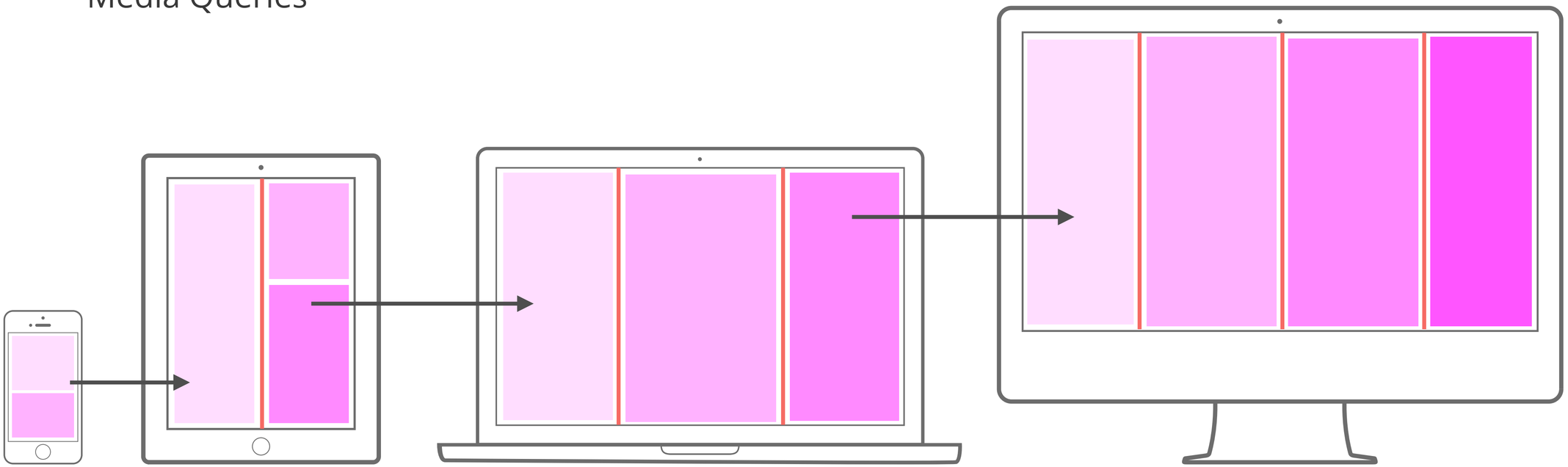
Flexible Media

Media Queries



RESPONSIVE DESIGN:

- ✓ Fluid Grids
- Flexible Media
- Media Queries



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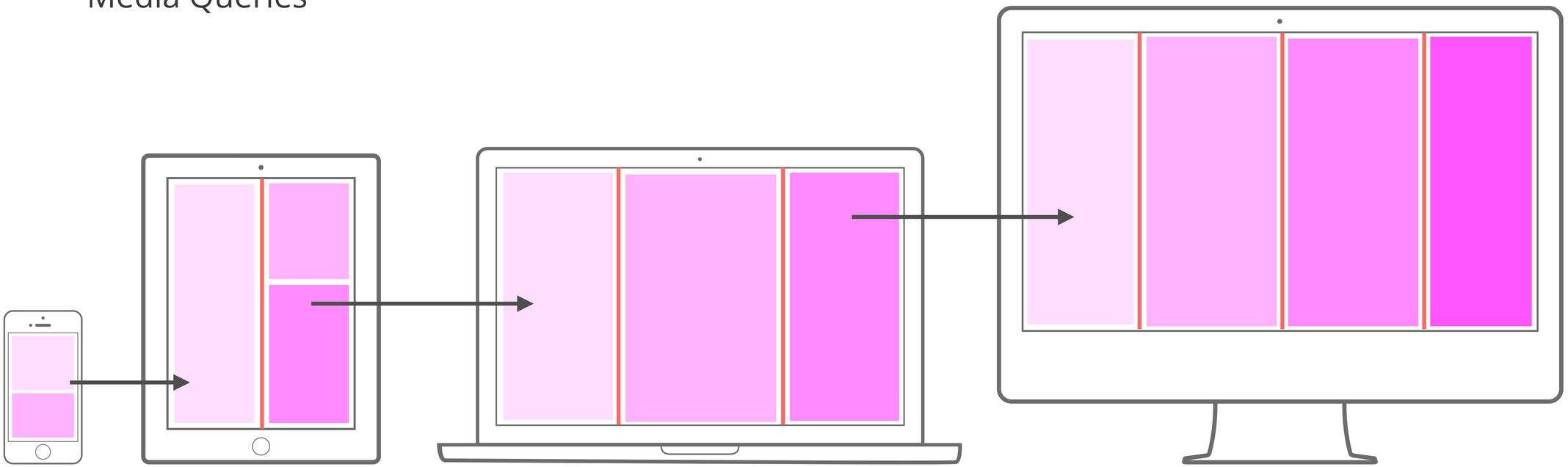
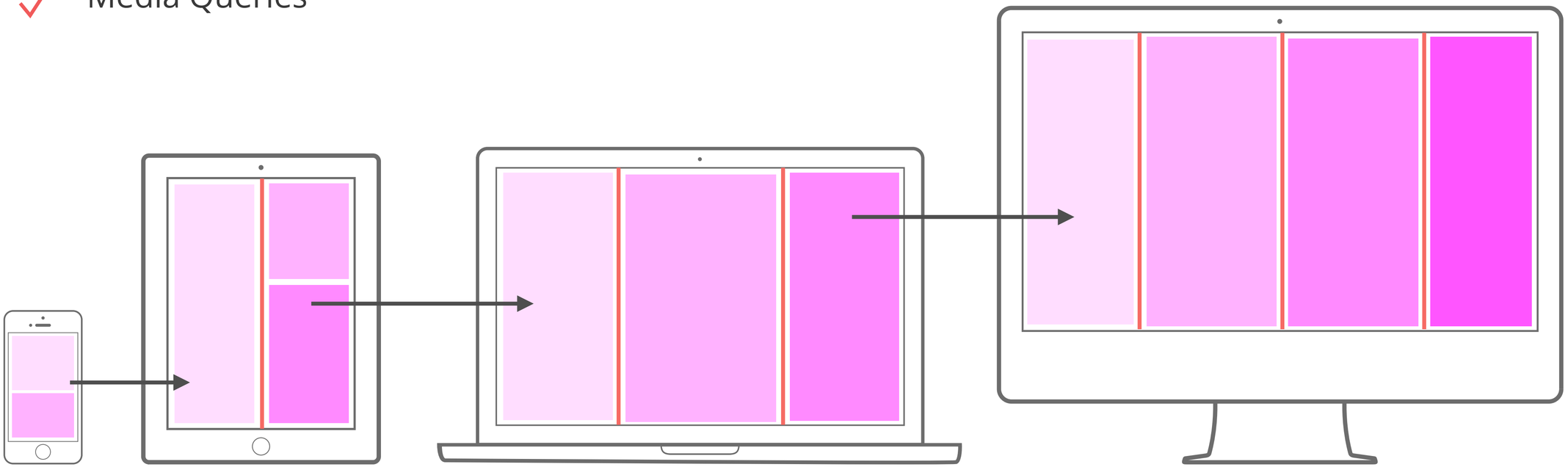
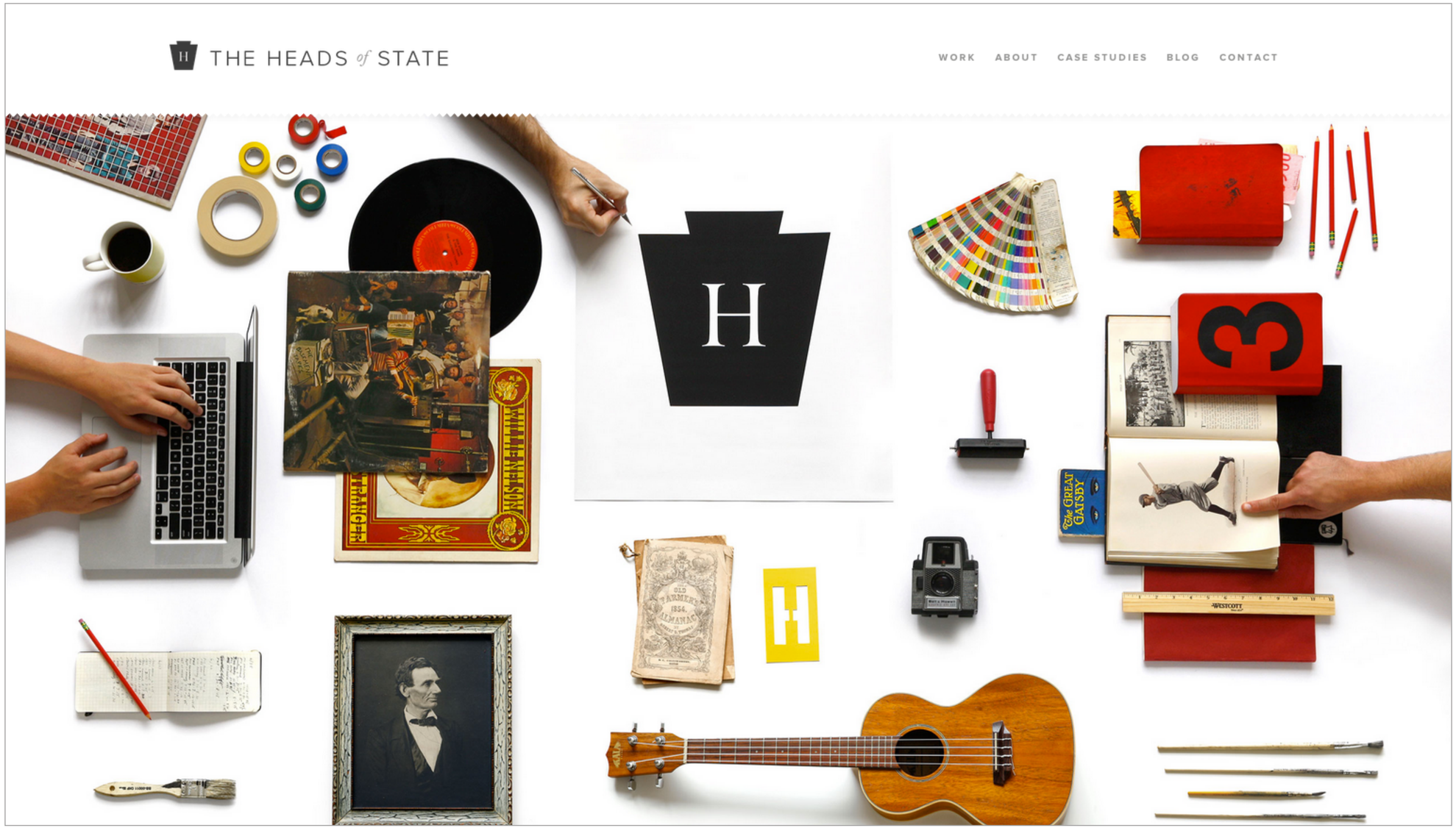


RESPONSIVE DESIGN:

- ✓ Fluid Grids
- ✓ Flexible Media
- ✓ Media Queries

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The GREAT GATSBY
WESTCOTT

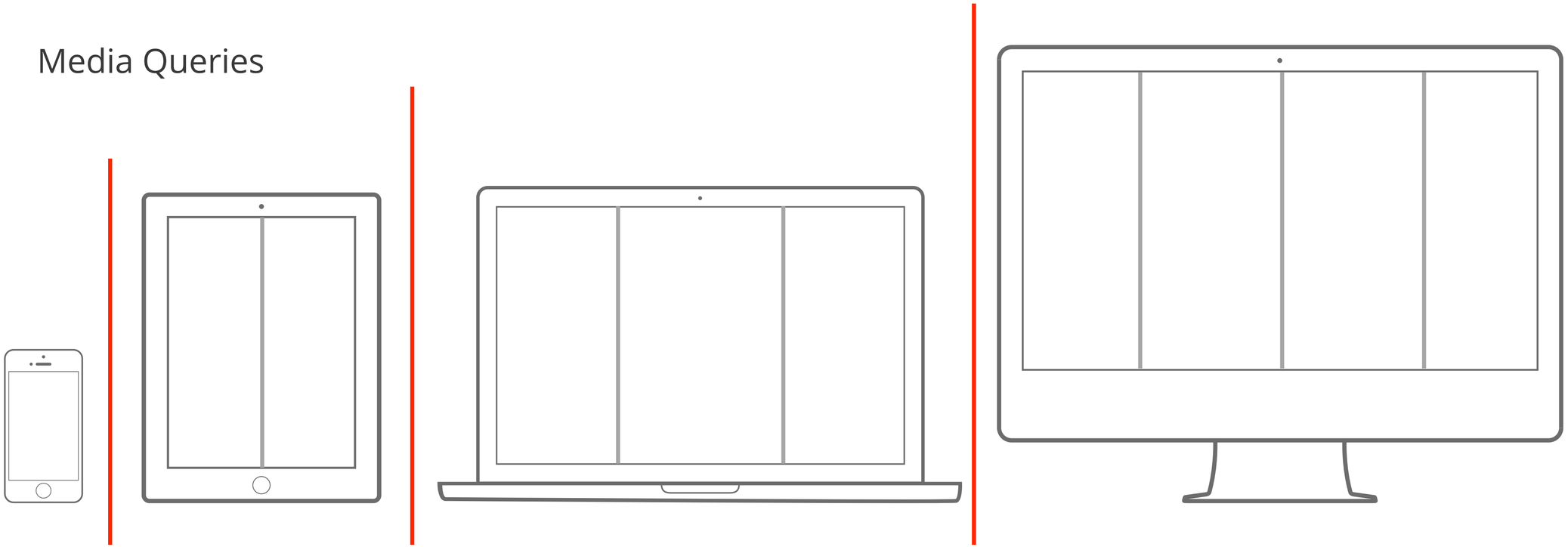
ADAPTIVE DESIGN:

Still has breakpoints for different device sizes, but it's not ***fluid***.

Fluid Grids

Flexible Media

Media Queries



ADAPTIVE DESIGN:

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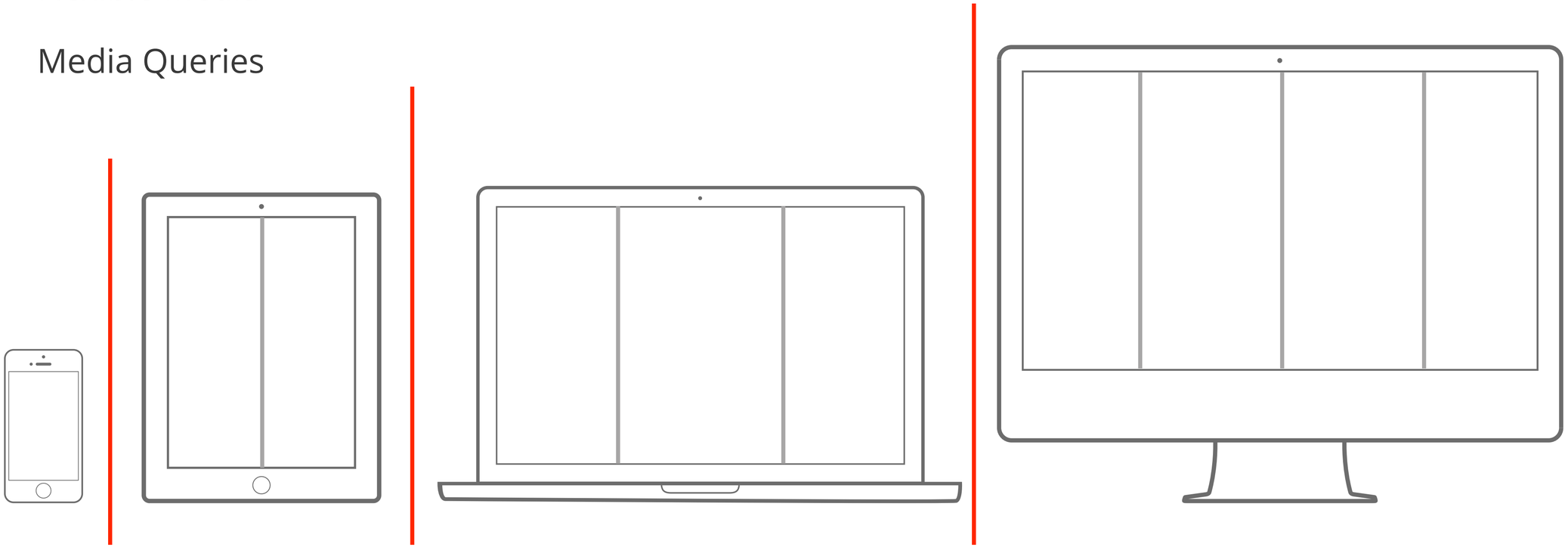
~~Fluid Grids~~

Flexible Media

Media Queries



ADAPTIVE DESIGN:

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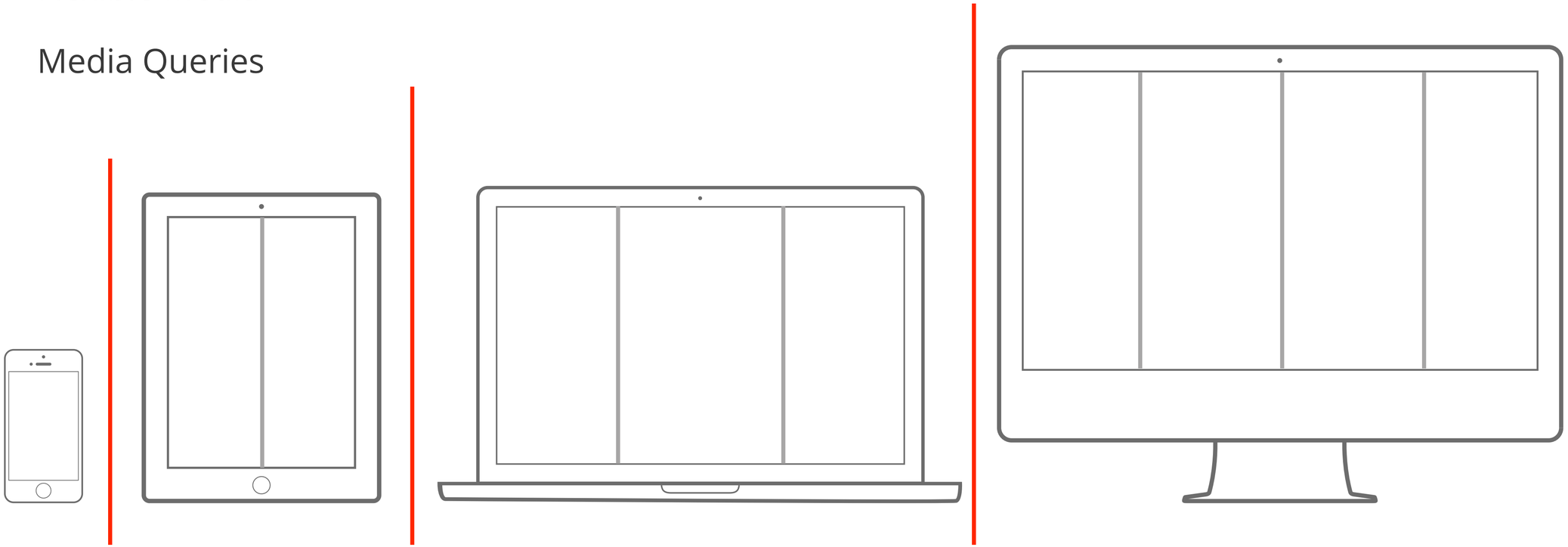
~~Fluid Grids~~

~~Flexible Media~~

Media Queries



ADAPTIVE DESIGN:

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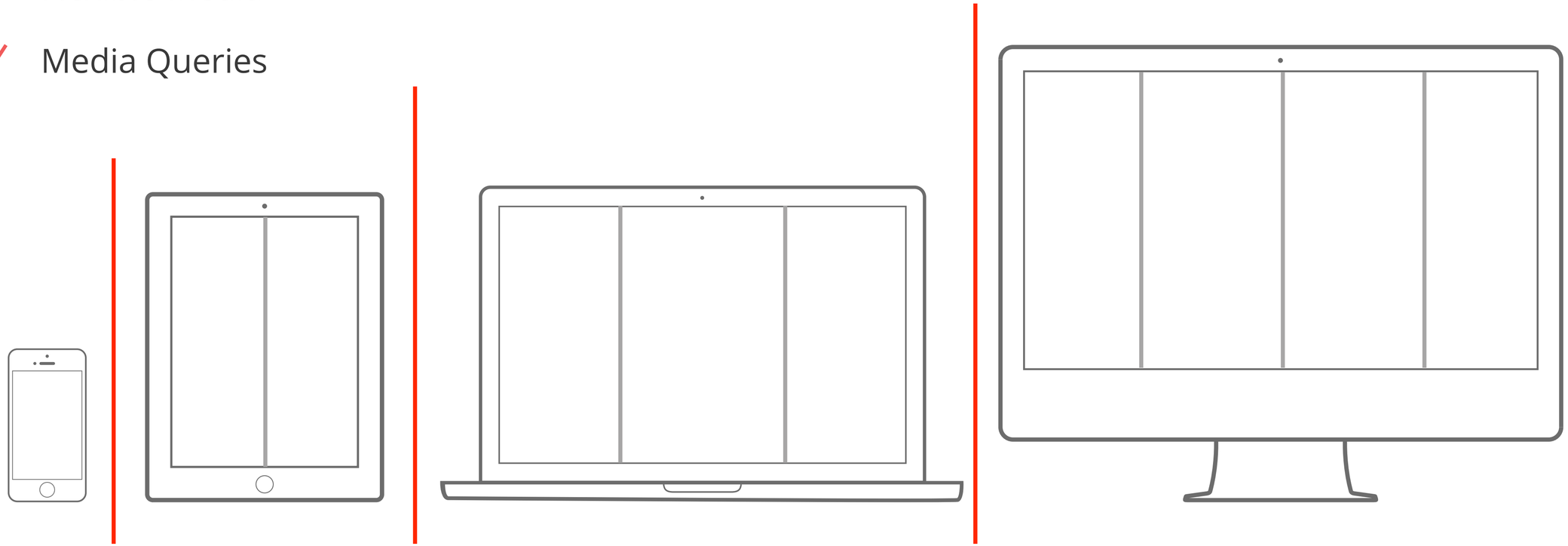
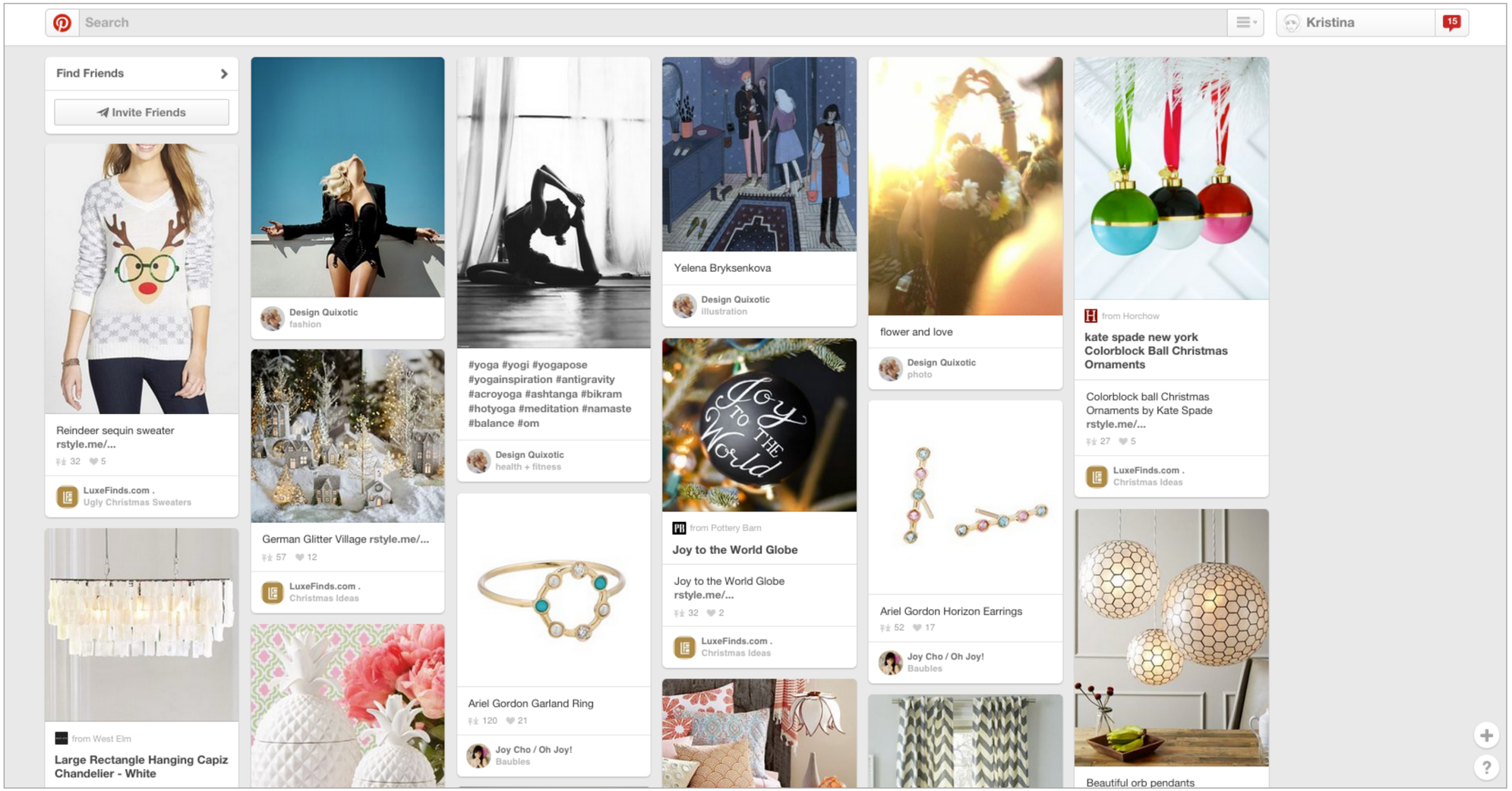
~~Fluid Grids~~

~~Flexible Media~~

✓ Media Queries




Search
Kristina
15
Find Friends
Invite Friends
Reindeer sequin sweater
rstyle.me/...
32 5
LuxeFinds.com .
Ugly Christmas Sweaters
from West Elm
Large Rectangle Hanging Capiz Chandelier - White
Design Quixotic
fashion
German Glitter Village rstyle.me/...
57 12
LuxeFinds.com .
Christmas Ideas
#yoga #yogi #yogapose #yogainspiration #antigravity #acroyoga #ashtanga #bikram #hotyoga #meditation #namaste #balance #om
Design Quixotic
health + fitness
Ariel Gordon Garland Ring
120 21
Joy Cho / Oh Joy!
Baubles
Yelena Bryksenkova
Design Quixotic
illustration
Joy to the World
from Pottery Barn
Joy to the World Globe
Joy to the World Globe
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32 2
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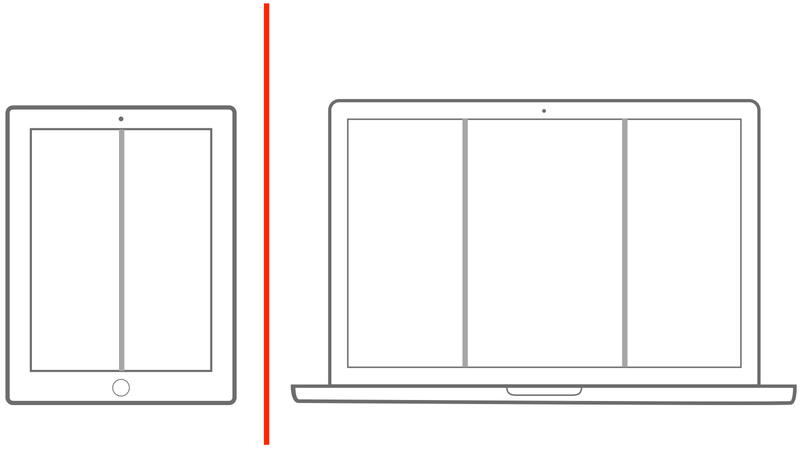
Christmas Ideas
flower and love
Design Quixotic
photo
Ariel Gordon Horizon Earrings
52 17
Joy Cho / Oh Joy!
Baubles
from Horchow
kate spade new york Colorblock Ball Christmas Ornaments
Colorblock ball Christmas Ornaments by Kate Spade
rstyle.me/...
27 5
LuxeFinds.com .
Christmas Ideas
Beautiful orb pendants

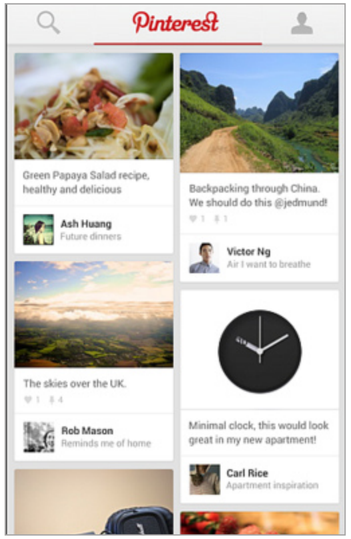


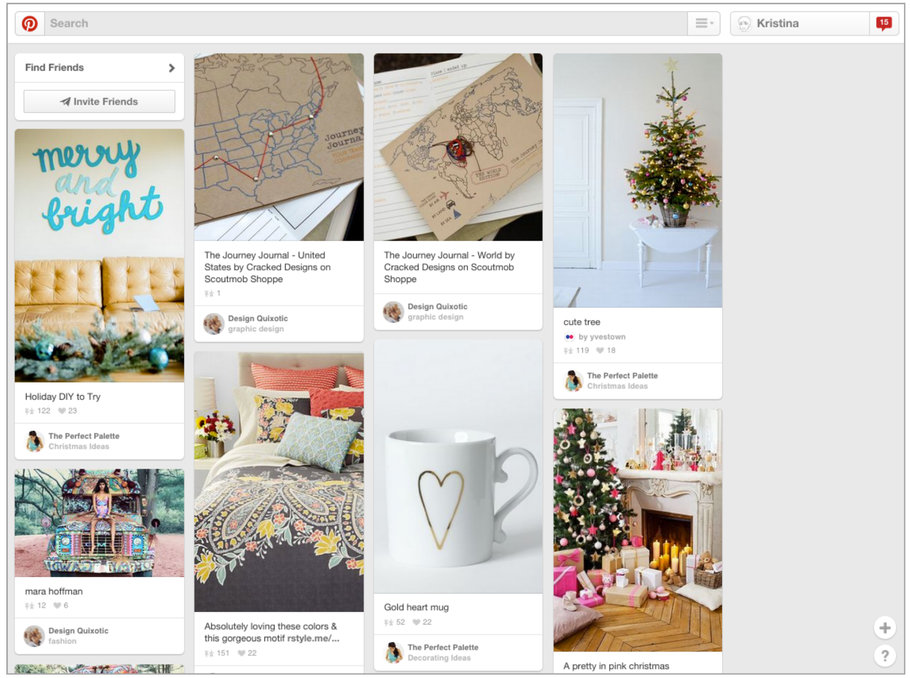
BREAKPOINTS:

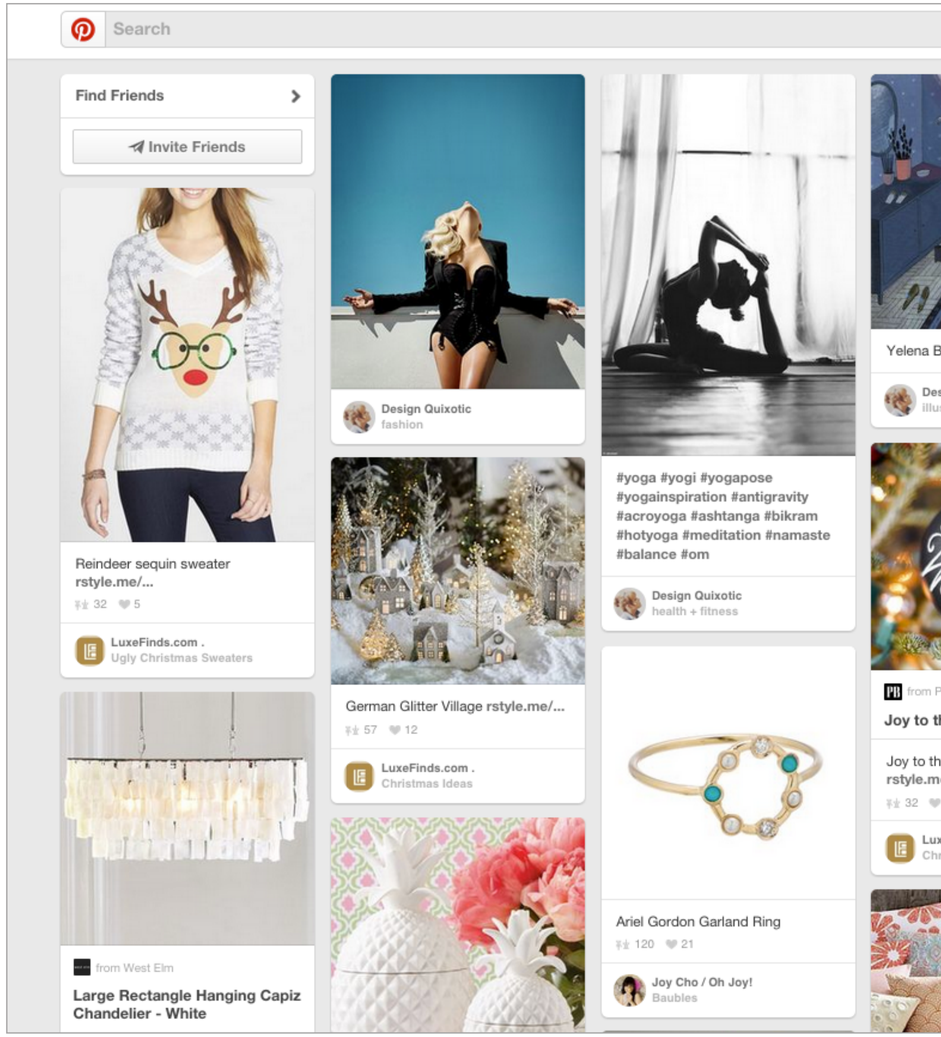
the points at which your site's content will respond to a device size to provide the user with the best possible layout to consume the information.

Both Responsive & Adaptive use breakpoints :)

BREAKPOINTS:







So Responsive or Adaptive,

WHICH IS THE “RIGHT” WAY?

Neither is right or wrong, they’re both useful depending on your project and who your users are.

Let’s do a little coding...

WE’RE GOING TO CREATE A SIMPLE FLUID LAYOUT

How to Get Started

WATCH ME FIRST

IT SHOULD BE FLUID AND LOOK LIKE THIS:

I Don't Care If You Like It

An Excerpt from Tina Fey's Bossypants

Amy Poehler was new to SNL and we were all crowded into the seventeenth-floor writers' room, waiting for the Wednesday read-through to start. There were always a lot of noisy "comedy bits" going on in that room. Amy was in the middle of some such nonsense with Seth Meyers across the table, and she did something vulgar as a joke. I can't remember what it was exactly, except it was dirty and loud and "unladylike."

Jimmy Fallon, who was arguably the star of the show at the time, turned to her and in a faux-squeamish voice said: "Stop that! It's not cute! I don't like it."

Amy dropped what she was doing, went black in the eyes for a second, and wheeled around on him. "I don't fucking care if you like it." Jimmy was visibly startled. Amy went right back to enjoying her ridiculous bit...

With that exchange, a cosmic shift took place. Amy made it clear that she wasn't there to be cute. She wasn't there to play wives and girlfriends in the boys' scenes. She was there to do what she wanted to do and she did not fucking care if you like it...

I think of this whenever someone says to me, "Jerry Lewis says women aren't funny," or Christopher Hitchens says women aren't funny,"

CONGRATS!

YOU MADE YOUR FIRST FLUID LAYOUT!

But we're not done yet...

TYPOGRAPHY RULES EVERYTHING.

Especially with Responsive Design. Get Used to It.

READABILITY

- FONT-SIZE
- LINE-HEIGHT
- MEASURE

EMS

EMS

A relative unit we often use for sizing type on the web.

Rule of Thumb Across Most Browsers:

1EM

Is the default

Rule of Thumb Across Most Browsers:

1EM = 16PX

Is the default

Rule of Thumb Across Most Browsers:

1EM = 16PX = 100%

Is the default

LINE-HEIGHT

LINE-HEIGHT

Also called “leading” in print, this is the space in between lines of text.

LINE-HEIGHT

Also called “leading” in print, this is the space in between lines of text.

Line-Height or “Leading”

I Don't Care If You Like It

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Jimmy Fallon, who was arguably the star of the show at the time, turned to her and in a faux-squeamish voice said: "Stop that! It's not cute! I don't like it."

MEASURE

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The length of your line of text.

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The length of your line of text.

I Don't Care If You Like It

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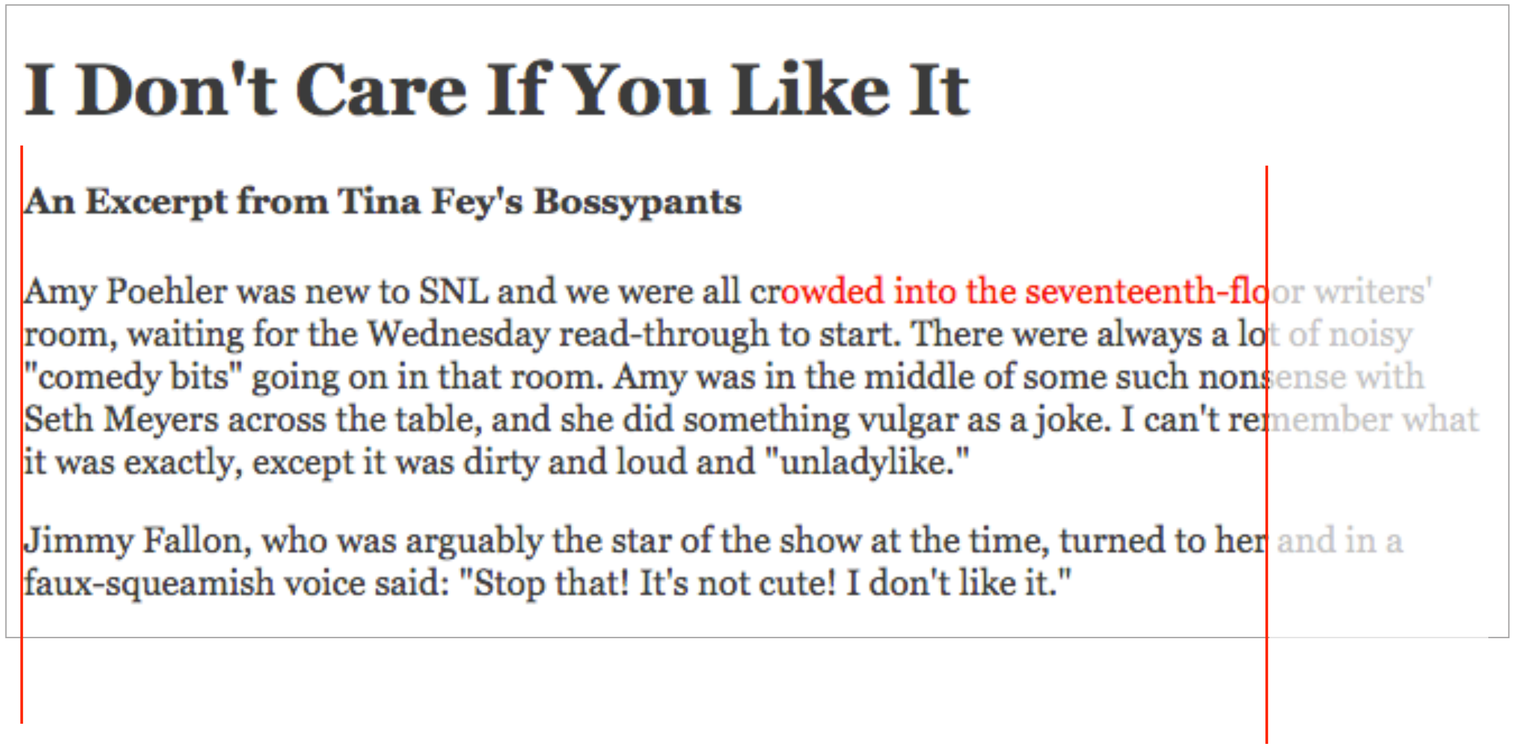
Jimmy Fallon, who was arguably the star of the show at the time, turned to her and in a faux-squeamish voice said: "Stop that! It's not cute! I don't like it."

MEASURE

The length of your line of text: optimal readability is between **45-75 characters** (that includes spaces!).



Responsive Layouts Rely on This Formula

TARGET ÷ CONTEXT = RESULT

Responsive Layouts Rely on This Formula

TARGET ÷ CONTEXT = RESULT

We'll be using this in a second!

Let’s do a little coding...

WE’RE GOING TO ADJUST OUR TYPOGRAPHY

How to Get Started

WATCH ME FIRST

IT SHOULD LOOK LIKE THIS:

I Don't Care If You Like It

An Excerpt from Tina Fey's Bossypants

Amy Poehler was new to SNL and we were all crowded into the seventeenth-floor writers' room, waiting for the Wednesday read-through to start. There were always a lot of noisy "comedy bits" going on in that room. Amy was in the middle of some such nonsense with Seth Meyers across the table, and she did something vulgar as a joke. I can't remember what it was exactly, except it was dirty and loud and "unladylike."

Jimmy Fallon, who was arguably the star of the show at the time, turned to her and in a faux-squeamish voice said: "Stop that! It's not cute! I don't like it."

Amy dropped what she was doing, went black in the eyes for a second, and wheeled around on him. "I don't fucking care if you like it." Jimmy was

ALREADY LOOKS PRETTY GOOD, RIGHT?

I Don't Care If You Like It

An Excerpt from Tina Fey's Bossypants

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Jimmy Fallon, who was arguably the star of the show at the time, turned to her and in a faux-

SECTION 5.1: Fluid Layout

WHAT WE’VE LEARNED

1. A fluid layout, or truly Responsive Site uses **Fluid Grids**, **Flexible Media** and **Media Queries**.
2. An adaptive layout isn’t fluid and utilizes media queries to define main breakpoints.
3. Typography rules all when designing Responsively
4. Font-Size, Line-Height and Measure are what makes bodies of text READABLE.
5. Rule of Thumb: 1em = 16px = 100% across (most) browsers

5.2 | MEDIA QUERIES, CSS3 CONTROLS & OTHER TROUBLE-SHOOTING

VIEWPORT TAG

VIEWPORT

(HTML DOC)

```
<!DOCTYPE html>
    <head>
        <meta charset="utf-8">
        <title>My First Fluid Layout</title>

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

        <meta name="viewport" content="width=device-width,
        initial-scale=1.0, user-scalable=yes"/>

    </head>
```

VIEWPORT

(HTML DOC)

```
<!DOCTYPE html>
    <head>
        <meta charset="utf-8">
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        <meta name="keywords" content="">

        <meta name="viewport" content="width=device-width,
        initial-scale=1.0, user-scalable=yes"/>

    </head>
```

VISIBILITY CONTROLS

VISIBILITY CONTROLS

(CSS DOC)

```
img {
  visibility: hidden;
}
```

@ MEDIA SCREEN

@MEDIA SCREEN

(MEDIA QUERY IN YOUR CSS DOC)

```
@media screen and (min-width: 400px) {
   header {background: red;}
}
```

@MEDIA SCREEN

(MEDIA QUERY IN YOUR CSS DOC)

```
@media screen and (min-width: 400px) {
   header {background: red;}
}
```

@MEDIA SCREEN

(MEDIA QUERY IN YOUR CSS DOC)

```
@media screen and (min-width: 400px) {
   header {background: red;}
}
```

5.3 FLEXIBLE MEDIA

FLEXIBLE MEDIA

Can scale across different device sizes while maintaining its **resolution** and **proportion**.

WE’RE TRYING TO AVOID…

Extreme Cropping

Weird Stretching

SOUNDS COMPLICATED, RIGHT?

SOUNDS COMPLICATED, RIGHT?

Rest assured it’s not as hard as it may appear…

SIMPLE LINE OF CODE

```
img {
max-width: 100%;
}
```

MAX-WIDTH 100%

This works on most devices but you may have to do a couple of hacks to have these work on IE6 and below.

Let’s do a little coding...

WE’RE GOING TO ADD A FLUID IMAGE TO OUR FLUID LAYOUT

LOOK AT THIS!
YOU MADE A RESPONSIVE LAYOUT

I Don't Care If You Like It

An Excerpt from Tina Fey's Bossypants

Amy Poehler was new to SNL and we were all crowded into the seventeenth-floor writers' room, waiting for the Wednesday read-through to start. There were always a lot of noisy "comedy bits" going on in that room. Amy was in the middle of

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6 | GETTING READY FOR LAUNCH

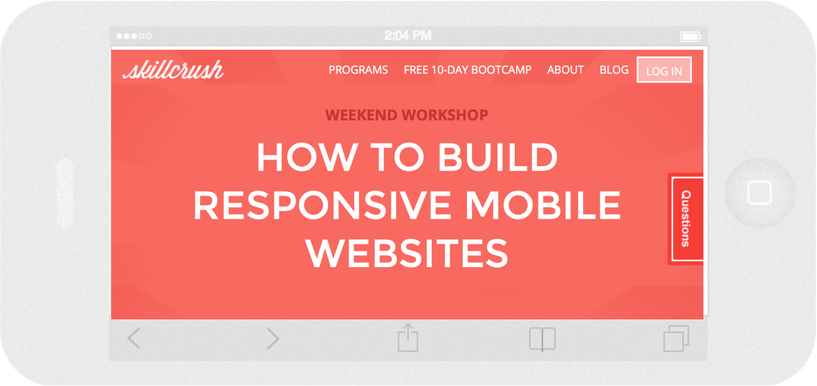
TESTING YOUR RESPONSIVE SITE

- ✓ Viewport (breakpoint) Testing
- ✓ Device Testing
- ✓ Cross-Browser Compatibility Testing
- ✓ Validating Your Code

VIEWPORT TESTING

VIEWPORT TESTING

Testing your responsive site on different device orientations.



DEVICE TESTING

DEVICE TESTING

Testing your responsive site on a multitude of browsers and devices.

Etsy Device Labs

STILL BUILDING YOUR DEVICE LAB?

You can check out your public library.

It’s really important to

QA ON REAL DEVICES

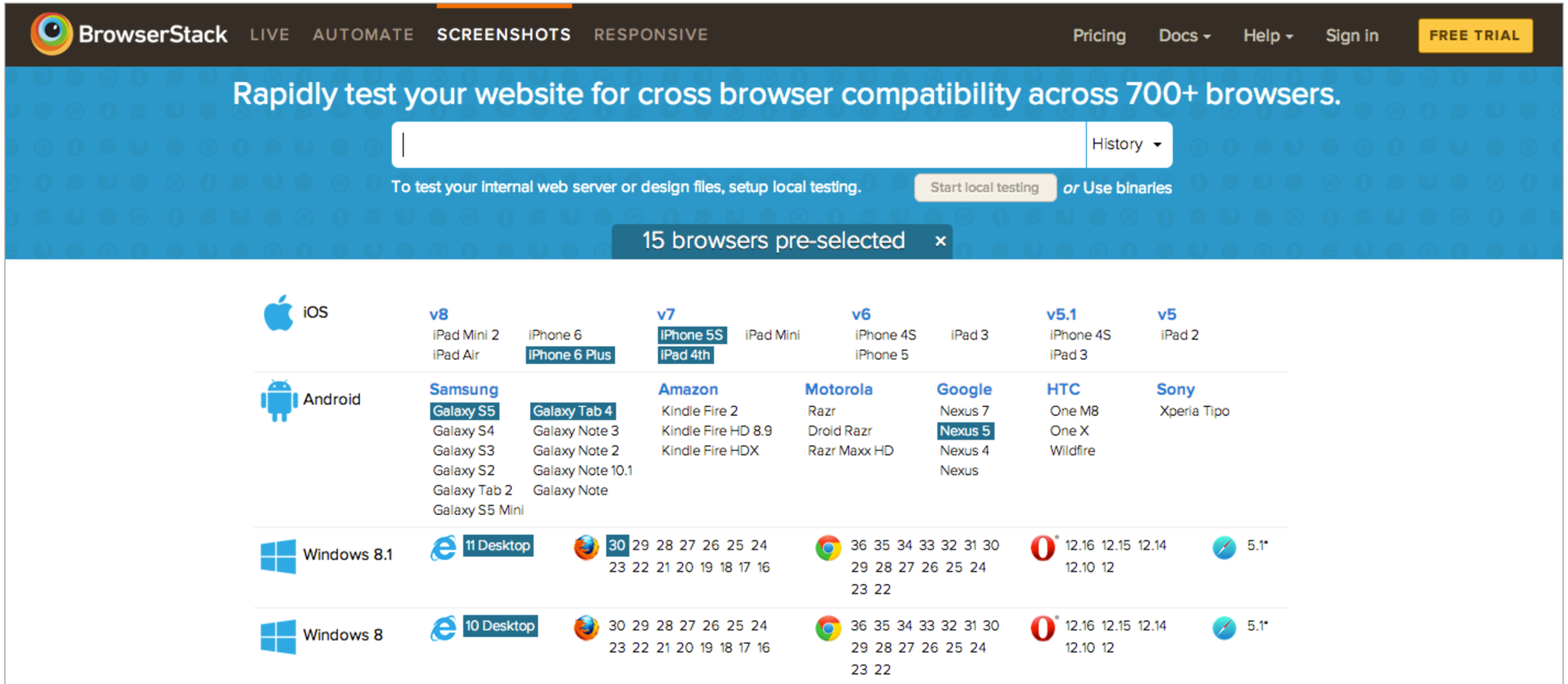
Quality Assurance or QA is just a fancy way to check for bugs. Although browser device simulators are great as a starting point, but before final launch, you should test on REAL DEVICES.

CROSS-BROWSER TESTING

CROSS-BROWSER TESTING

Testing your responsive site on different browsers.

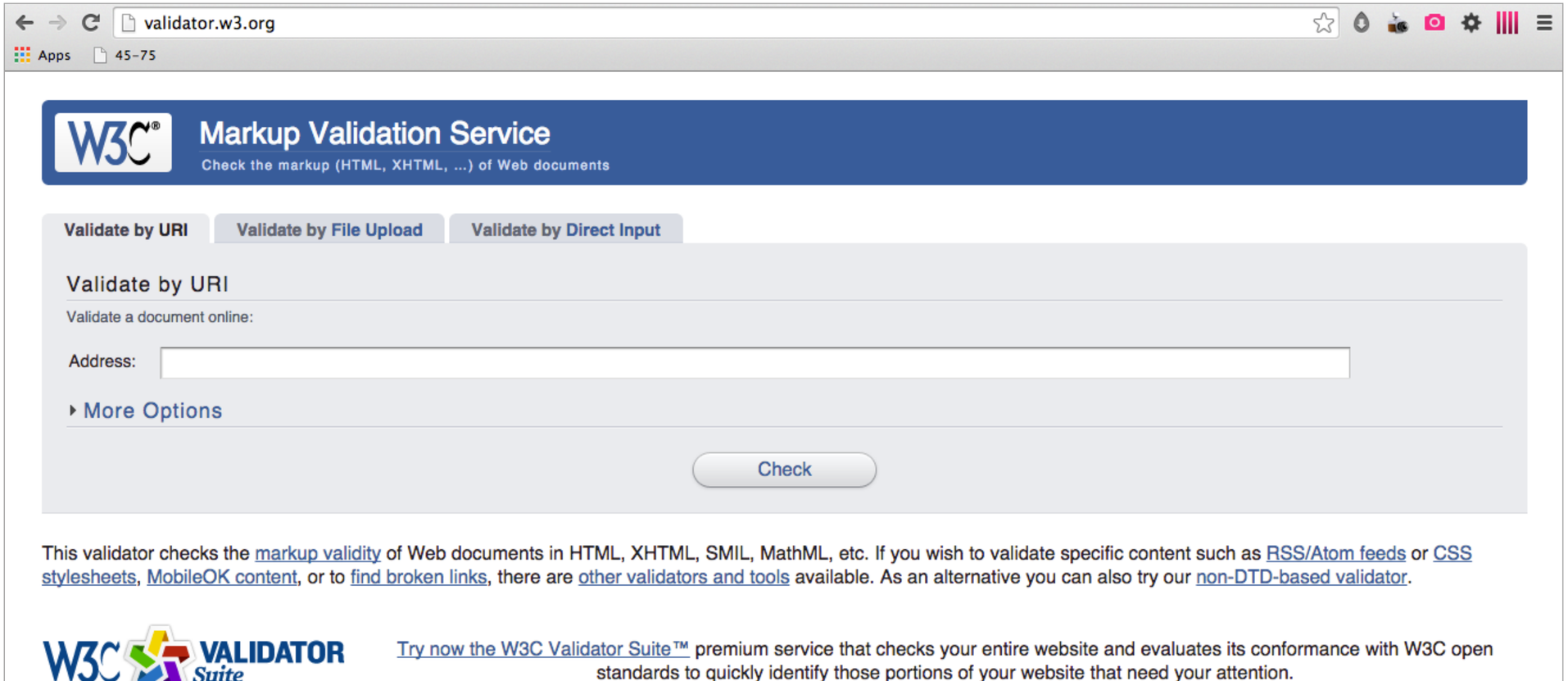
There are online testing tools where you can check them all at once!



VALIDATE YOUR CODE

VALIDATE YOUR CODE

Check your code to check for errors.



We Also Really Need to Make Sure We're

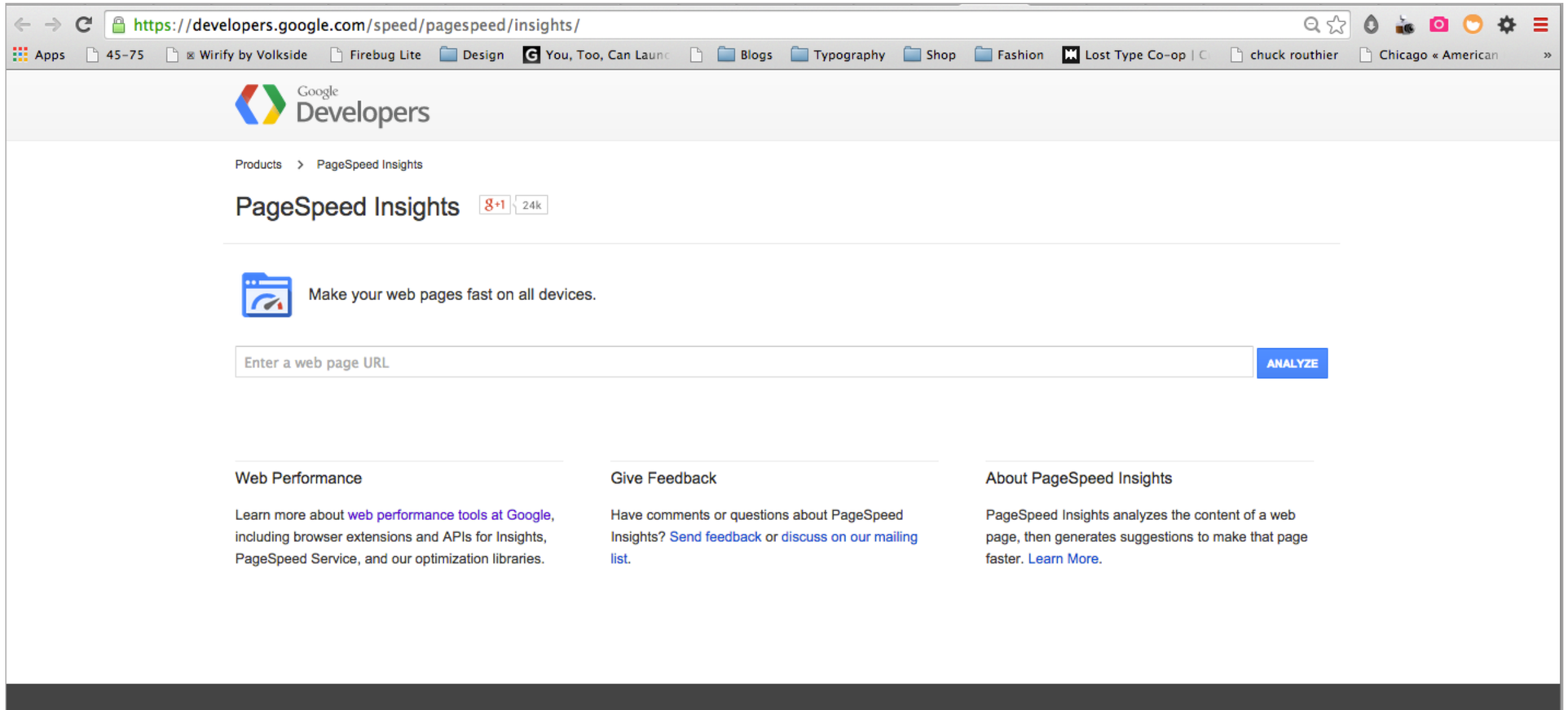
PRIORITIZING PERFORMANCE

> Adding half a second to a search results page can decrease traffic and ad revenues by 20 percent.

– A List Apart Issue 371

PRIORITIZING PERFORMANCE

Making sure your site is optimized for desktop and mobile.



YSLOW

yslow.org

Apps | 45-75 | Wirify by Volkside | Firebug Lite | Design | You, Too, Can Launc | Blogs | Typography | Shop | Fashion | Lost Type Co-op | C | chuck routhier | Chicago « American

Fork me on GitHub

YSlow

YSlow analyzes web pages and why they're slow based on Yahoo!'s rules for high performance web sites

Install YSlow for Chrome

En Español | Source | Issues | FAQ | Help

Advertise locally or globally.
Get a $75 credit when you spend your first $25
Show me how
Google

Feature highlights

- Grades web page based on one of three predefined ruleset or a user-defined ruleset;
- It offers suggestions for improving the page's performance;
- Summarizes the page's components;
- Displays statistics about the page;
- Provides tools for performance analysis, including Smush.it™ and JSLint.

Availability

Firefox | Chrome
Mobile/Bookmarklet | Opera
Safari | Command Line (HAR)
PhantomJS | Node.js Server
Source Code

» View YSlow Ruleset Limitations across several browsers/platforms.

Tweets | Follow

Stoyan Stefanov @stoyanstefanov 25 Jun
Just announced cssshrink.com at #velocityconf Drinks now!
Retweeted by YSlow
Expand

O'Reilly Velocity @velocityconf 23 Apr
Haven't registered for #velocityconf yet? 1. What are you waiting for? 2. Use discount code TW20 for an extra 20% off oreil.ly/1g5tmTU
Retweeted by YSlow
Show Summary

William Pain @painwilliam 19 Mar
Help us to tell the world and improve translations of #yslow rules for a more #faster web checkmyws.github.io/yslow-rules/ @yslow @Souders @checkmyws
Retweeted by YSlow
Expand

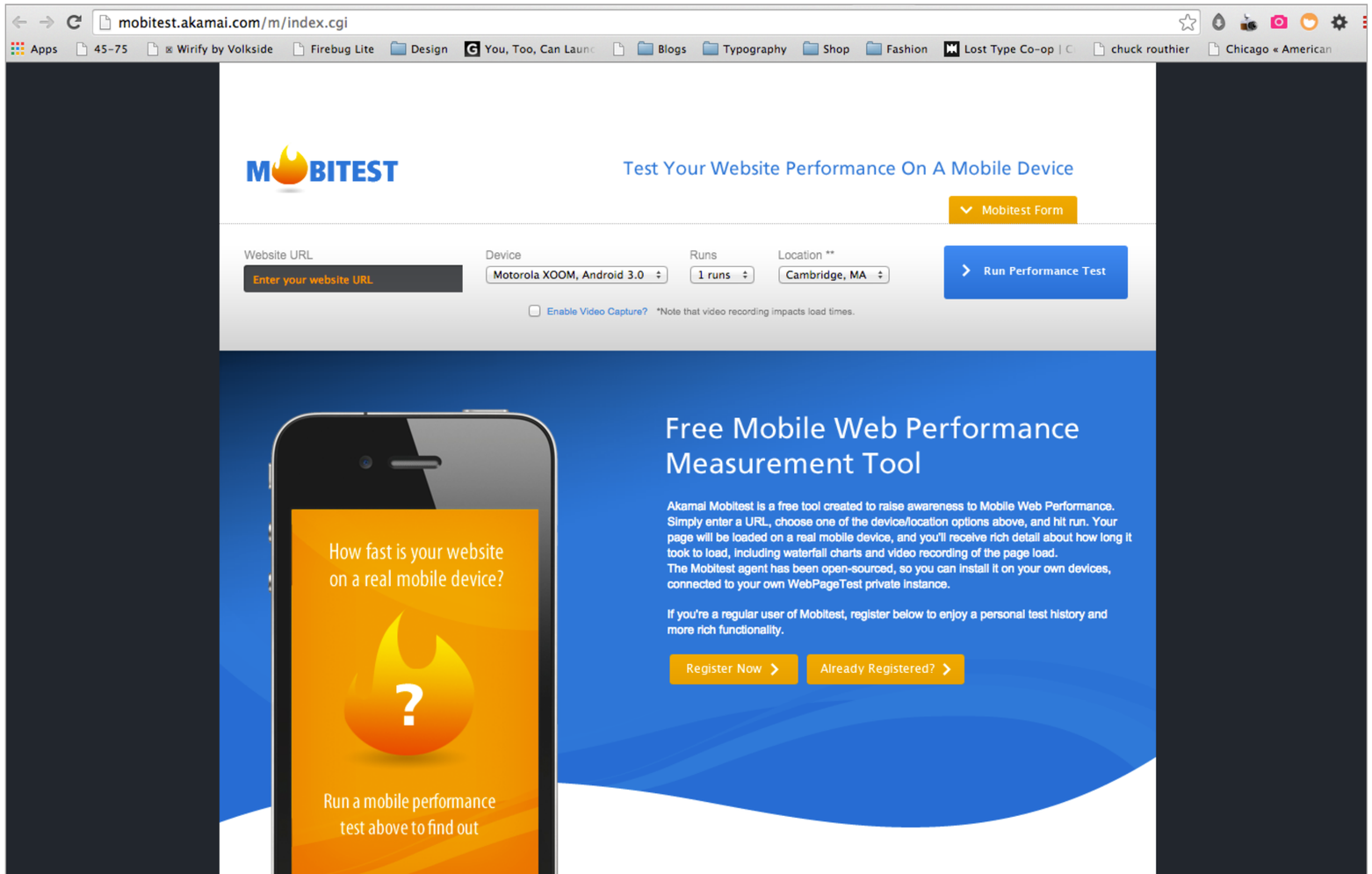
Tweet to @yslow

YSlow
Like 2,699

YSlow
October 14, 2013
Awesome @yslow's @github stars heatmap visualization by @rick_viscomi's Red Dwarf http://t.co/7Bv9Atrimu

MOBITEST

Mobitest is a free tool created to raise awareness to Mobile Web Performance.



ADDITIONAL PERFORMANCE HELPERS

- ✓ Sass or Less
- ✓ Minimizing image sizes
- ✓ Minifying your code

SECTION 6: Getting Ready for Lunch

WHAT WE'VE LEARNED

1. It's important to do lots of different testing before deploying
2. You want to not only test on different devices, but on different orientations of those devices.
3. You want to test your site across various browsers to ensure nothing is broken and validate your code to check for errors.
4. PRIORITIZE PERFORMANCE so we can make sure load times are kept to a minimum and to keep users happy.

PHEW! THAT WAS A LOT

LET'S DO A FINAL

SELF ASSESSMENT

PLEASE WRITE DOWN YOUR ANSWERS SOMEWHERE

On a scale of 1-10, After Taking This Workshop:

How Well Do You Feel Like You Could Explain Responsive Design To A Client?

1 2 3 4 5 6 7 8 9 10

On a scale of 1-10, After Taking This Workshop:

How Well Do You Feel Like You Could <u>Explain</u> Responsive Design To A Client?

1 2 3 4 5 6 7 8 9 10

Responso Who?

I've dabbled and done some reading...

I've been designing & developing responsively for years. I know *all* the best practices.

On a scale of 1-10, After Taking This Workshop:

How Confident Are You With Executing A Responsive Design Project?

1 2 3 4 5 6 7 8 9 10

On a scale of 1-10, After Taking This Workshop:

How Confident Are You With Executing A Responsive Design Project?

1 2 3 4 5 6 7 8 9 10

Responso Who?

I've tried a few small projects.

I've been designing & developing responsively for years. I know *all* the best practices.

COMPARE YOUR NUMBERS

Remember the numbers you wrote down when we started this workshop? How do they compare with your current numbers?

THANK YOU!

We hope you learned a lot today.

Feel free to send us a shoutout **#responsiverules**

CONNECT WITH US

@KZmaic **@Skillcrush** **@AngelaWyman**