supercharge your front-end with the best ux practices

Gercek Karakus

Linz, May 2014

1daylgif.tumblr.com

how many people are front-end engineers?

write html, css & javascript daily as part of their job

how many people are designers?

build flow charts, wireframes, graphics design

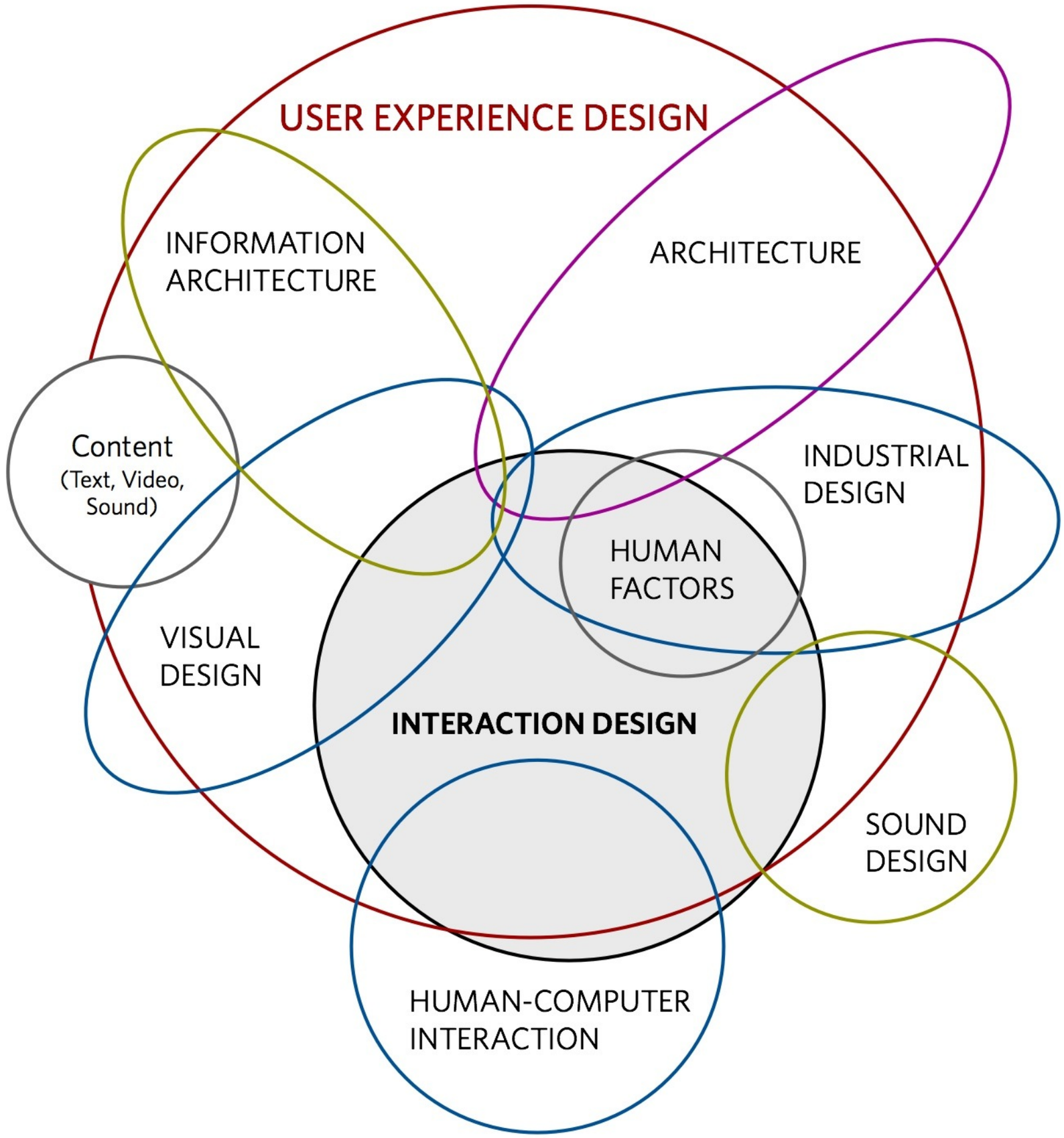
how many people are unicorns?

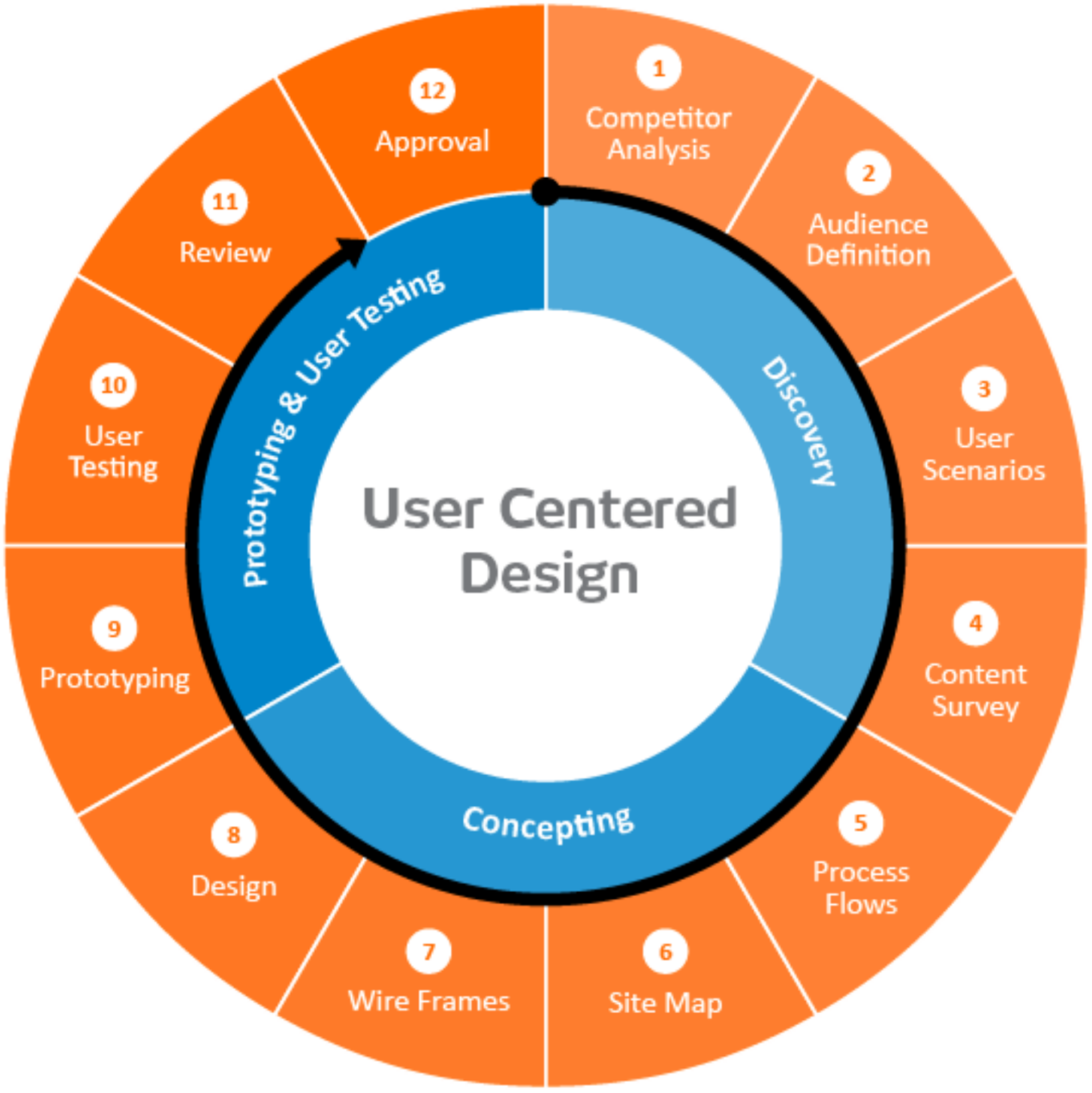
best of both worlds

ux design

the process of enhancing customer satisfaction and loyalty by improving the ease of use and pleasure provided in the interaction between the customer and the product.

UI ≠ UX


USER EXPERIENCE DESIGN
INFORMATION ARCHITECTURE
ARCHITECTURE
Content (Text, Video, Sound)
INDUSTRIAL DESIGN
HUMAN FACTORS
VISUAL DESIGN
INTERACTION DESIGN
SOUND DESIGN
HUMAN-COMPUTER INTERACTION


User Centered Design
Discovery
Concepting
Prototyping & User Testing
1 Competitor Analysis
2 Audience Definition
3 User Scenarios
4 Content Survey
5 Process Flows
6 Site Map
7 Wire Frames
8 Design
9 Prototyping
10 User Testing
11 Review
12 Approval

everything on the web is a **form**

Update Status | Add Photos/Video

What's on your mind?

Followed by John Resig and 4 others

Floor Drees @FloorDrees · 53m

OH: "Everybody hires pizza, Barack Obama hires pizza." @__tosh about building better products at #codefront2014

Collapse Reply Retweet Favorite More

RETWEET 1 FAVORITE 1

4:19 AM - 10 May 2014 · Details

Reply to @FloorDrees @__tosh

Welcome Back!

Email

Password

Sign in to your account

☑ Remember me

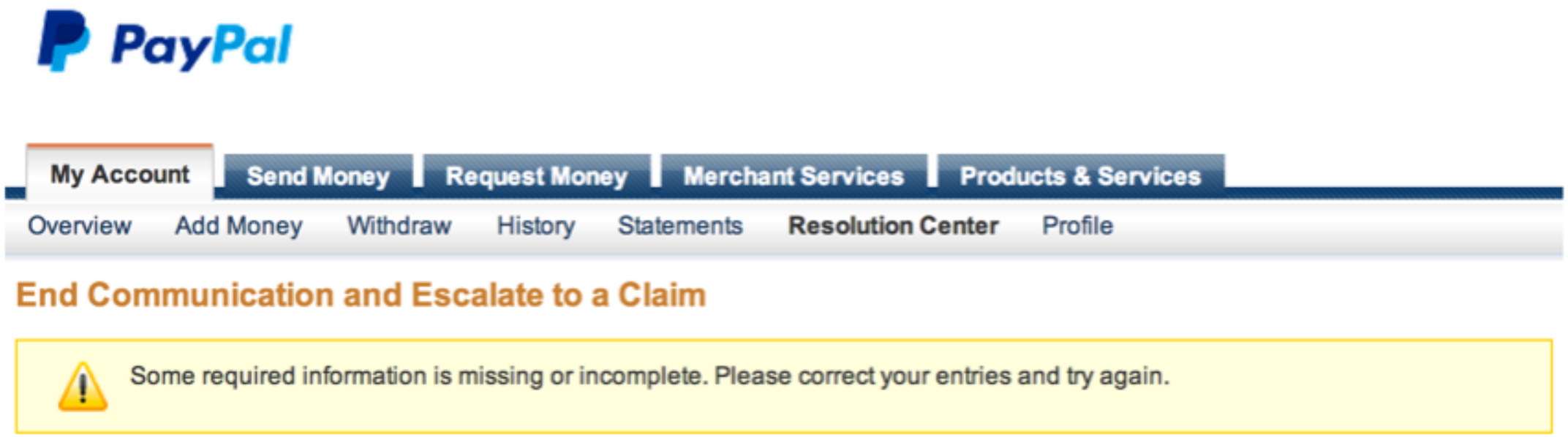
Gerçek Karakuş · That's you!

Add a comment...

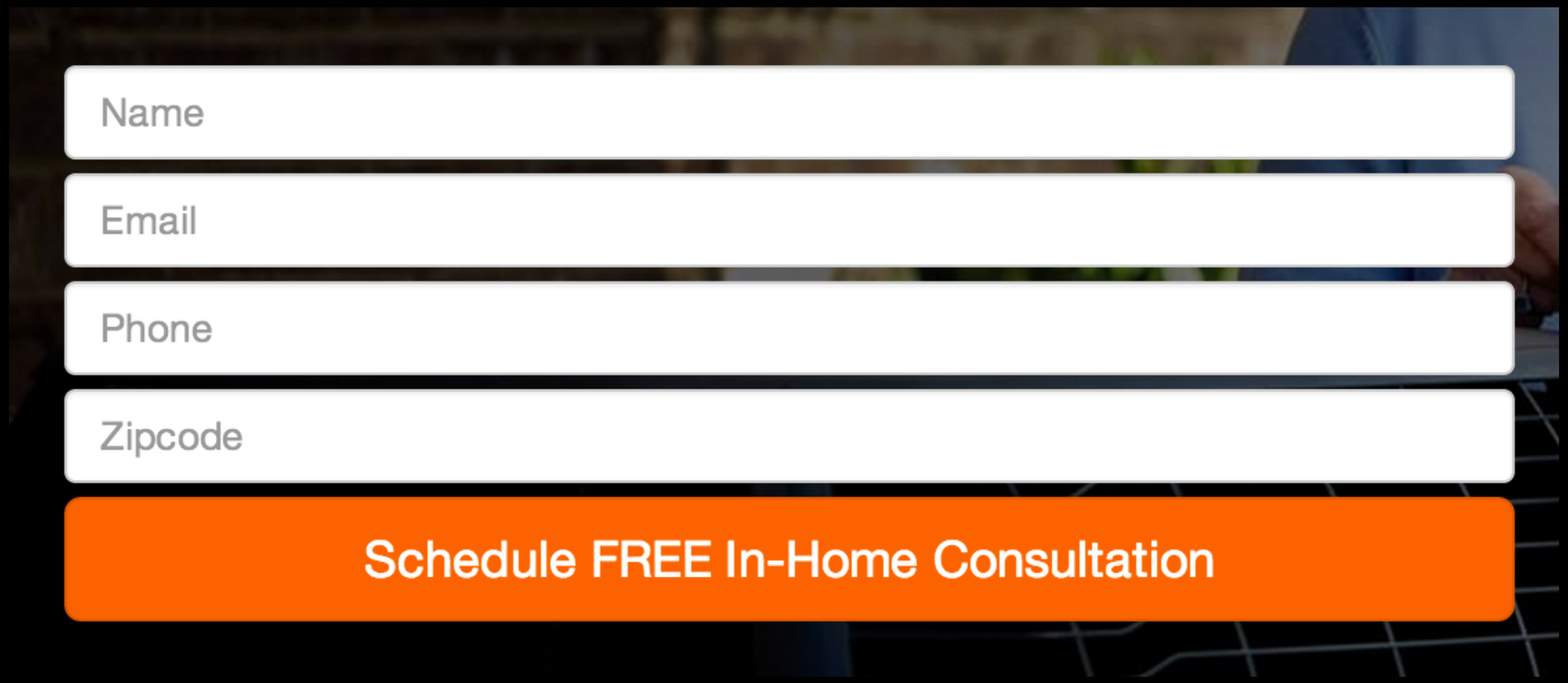
validate

to bring user on your side

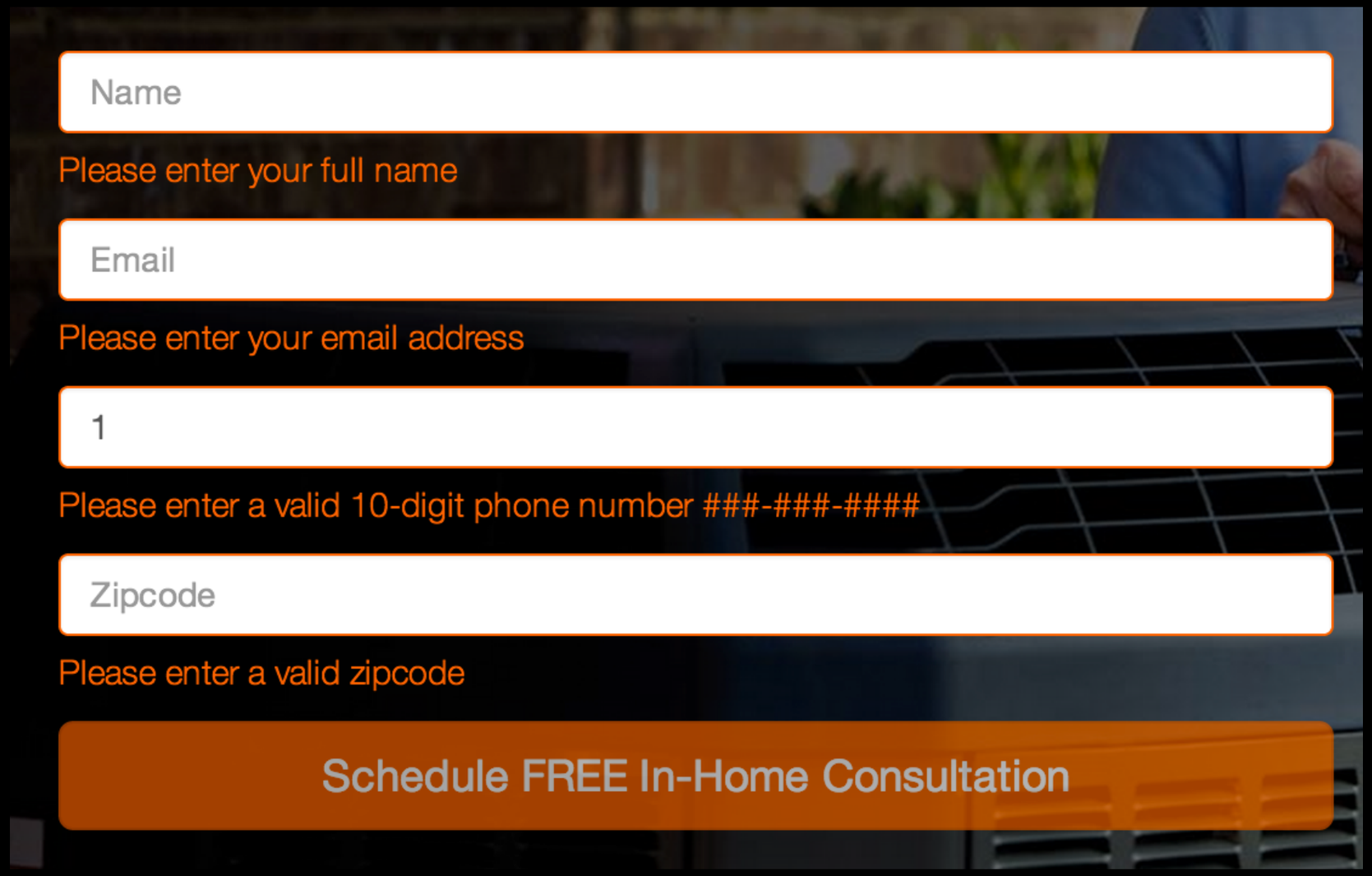
meaningful error messages



huge drop-off after front-end validation



test different validation messages

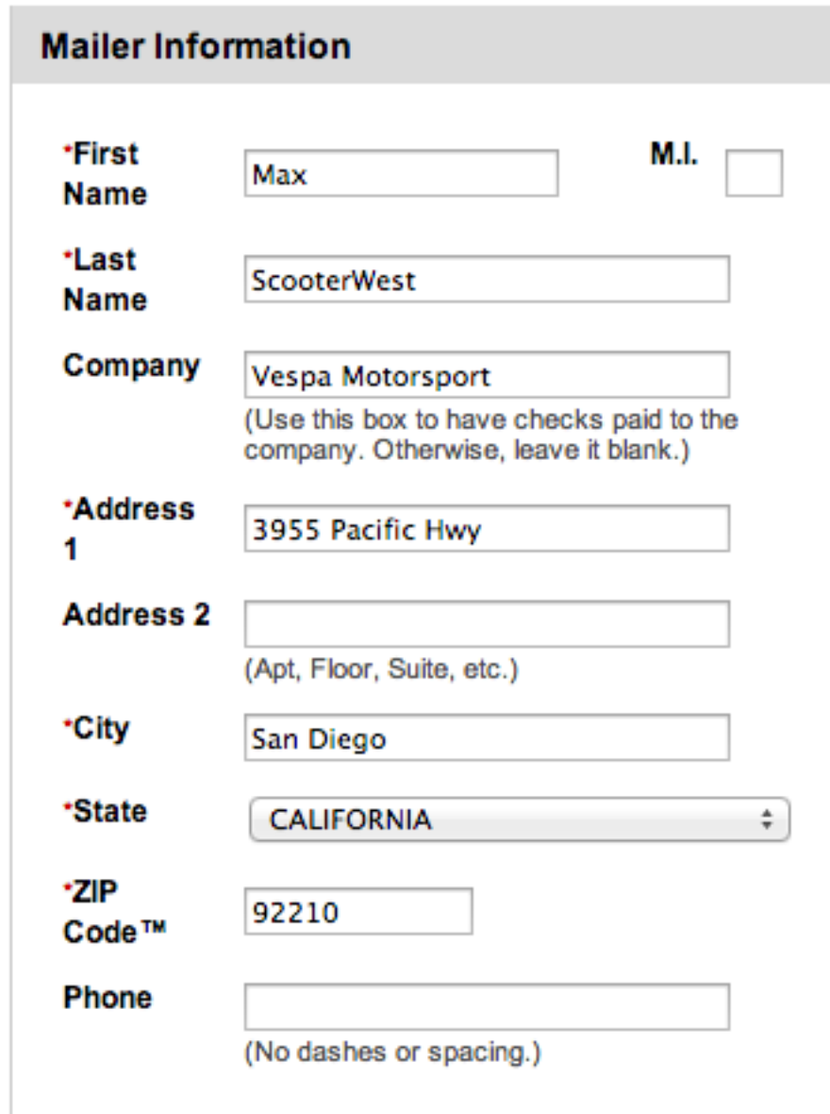


do your homework first

Phone

(No dashes or spacing.)

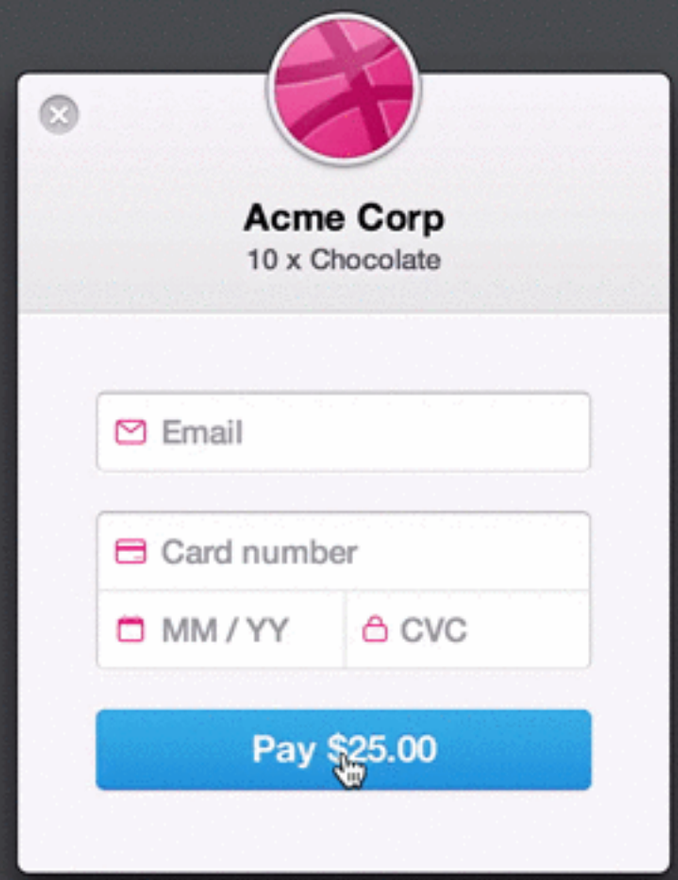
validating phone numbers



remove non-digit characters and reformat in the backend

validating email fields

- capture common mistakes in email fields
- ie. gnail.com, yhoo.com …



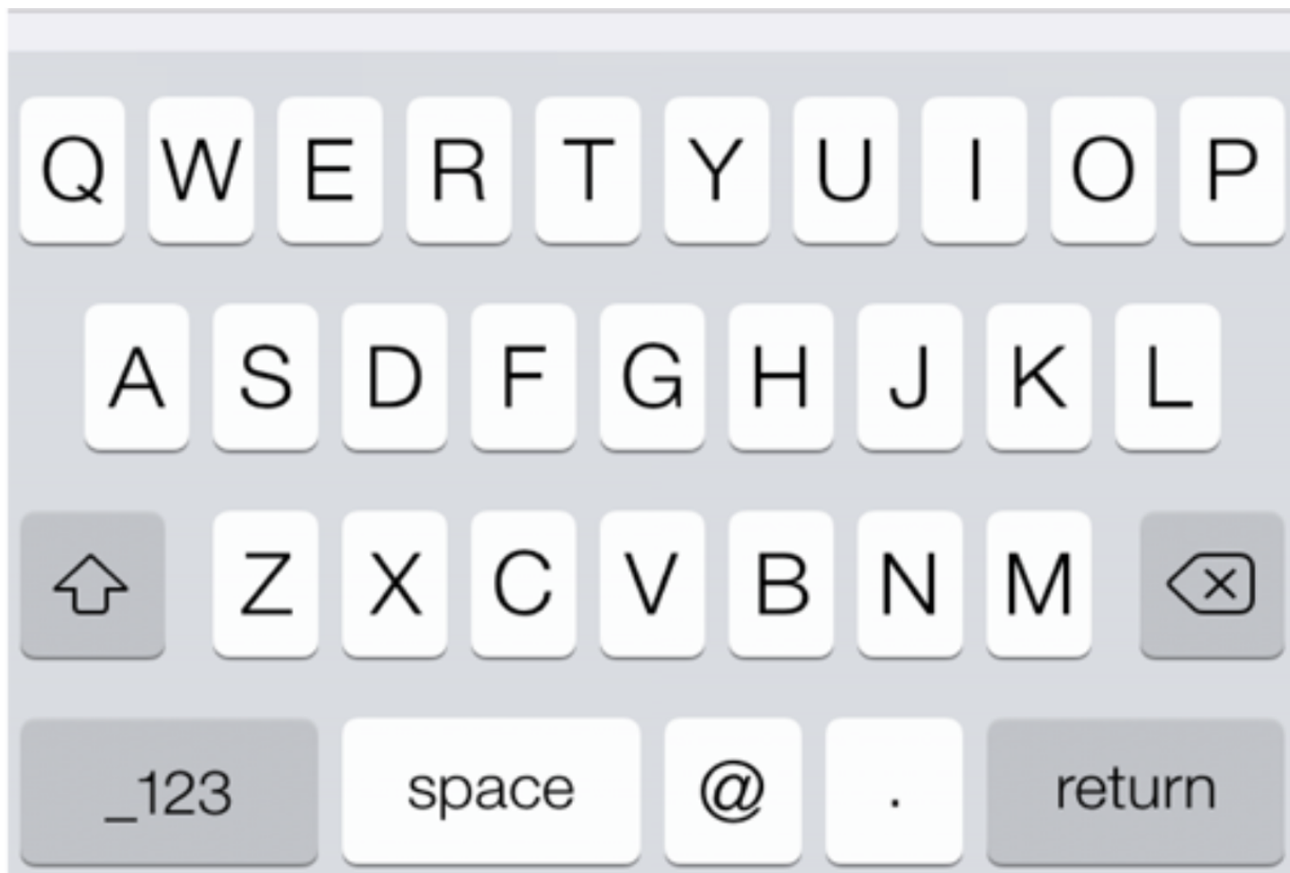
https://medium.com/ui-ux-articles/3d1b0a9b810e

think about mobile input entry

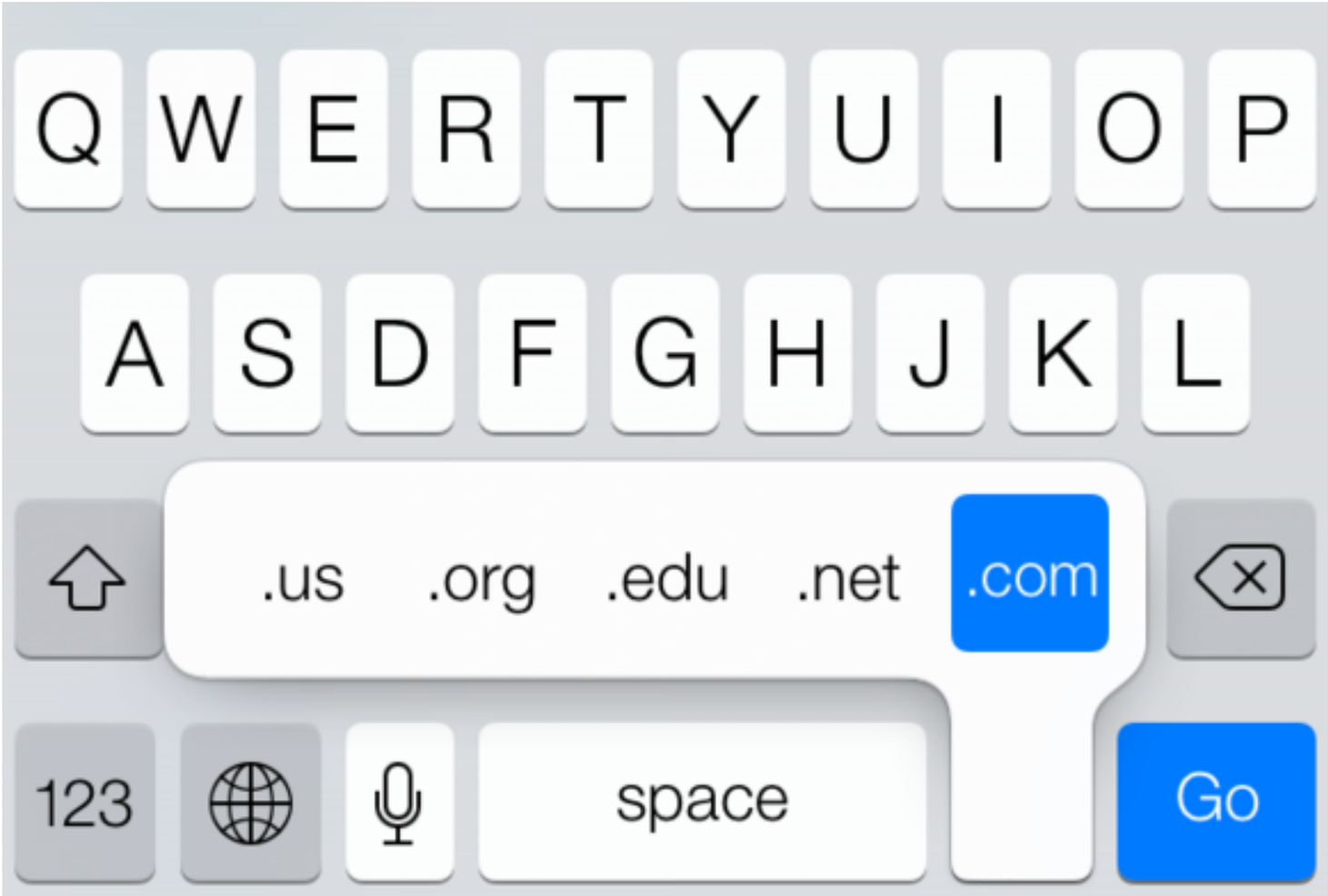
Use HTML5 input types

to trigger appropriate keyboard

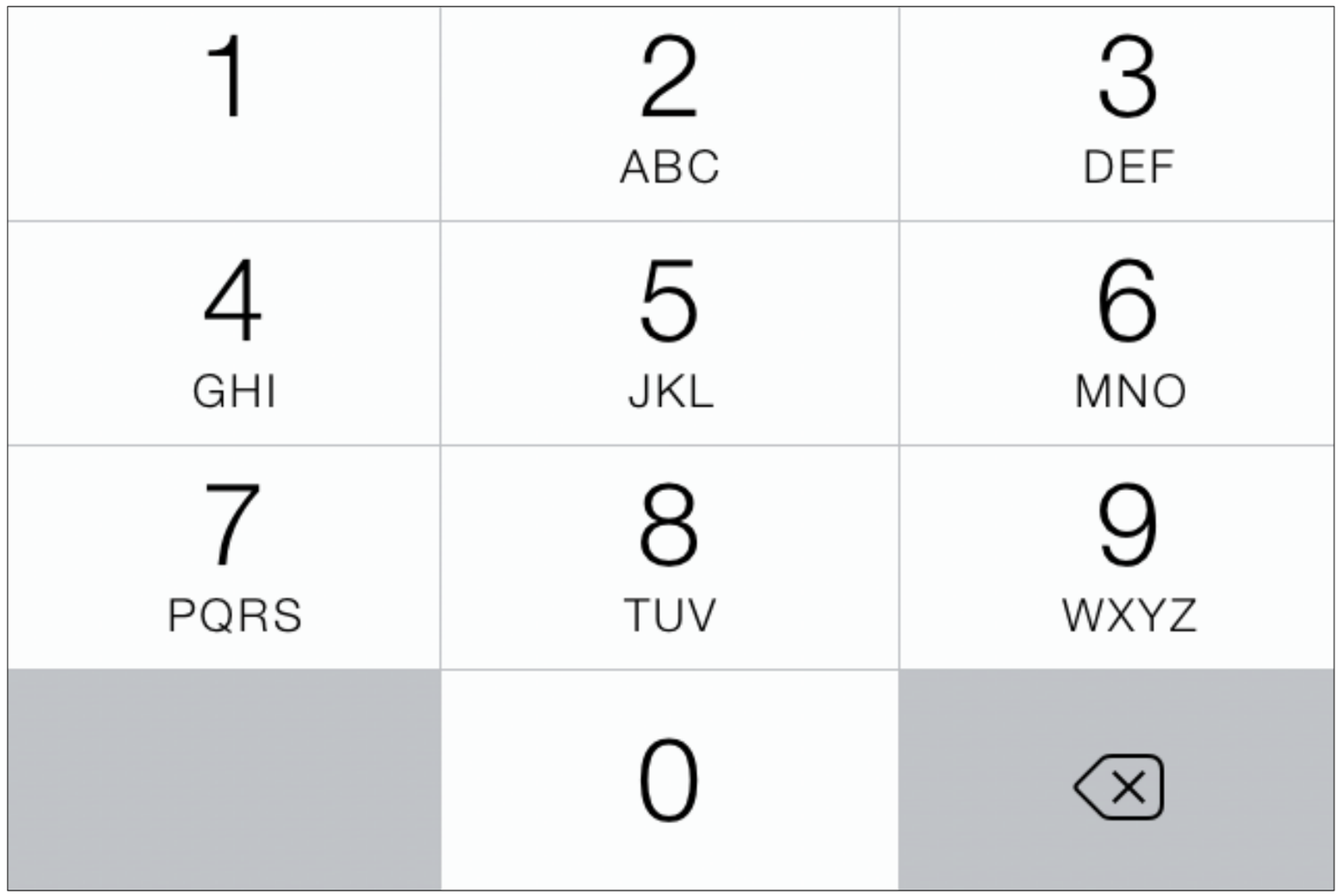
<input type="email" name="email" />



<input type="url" name="url" />

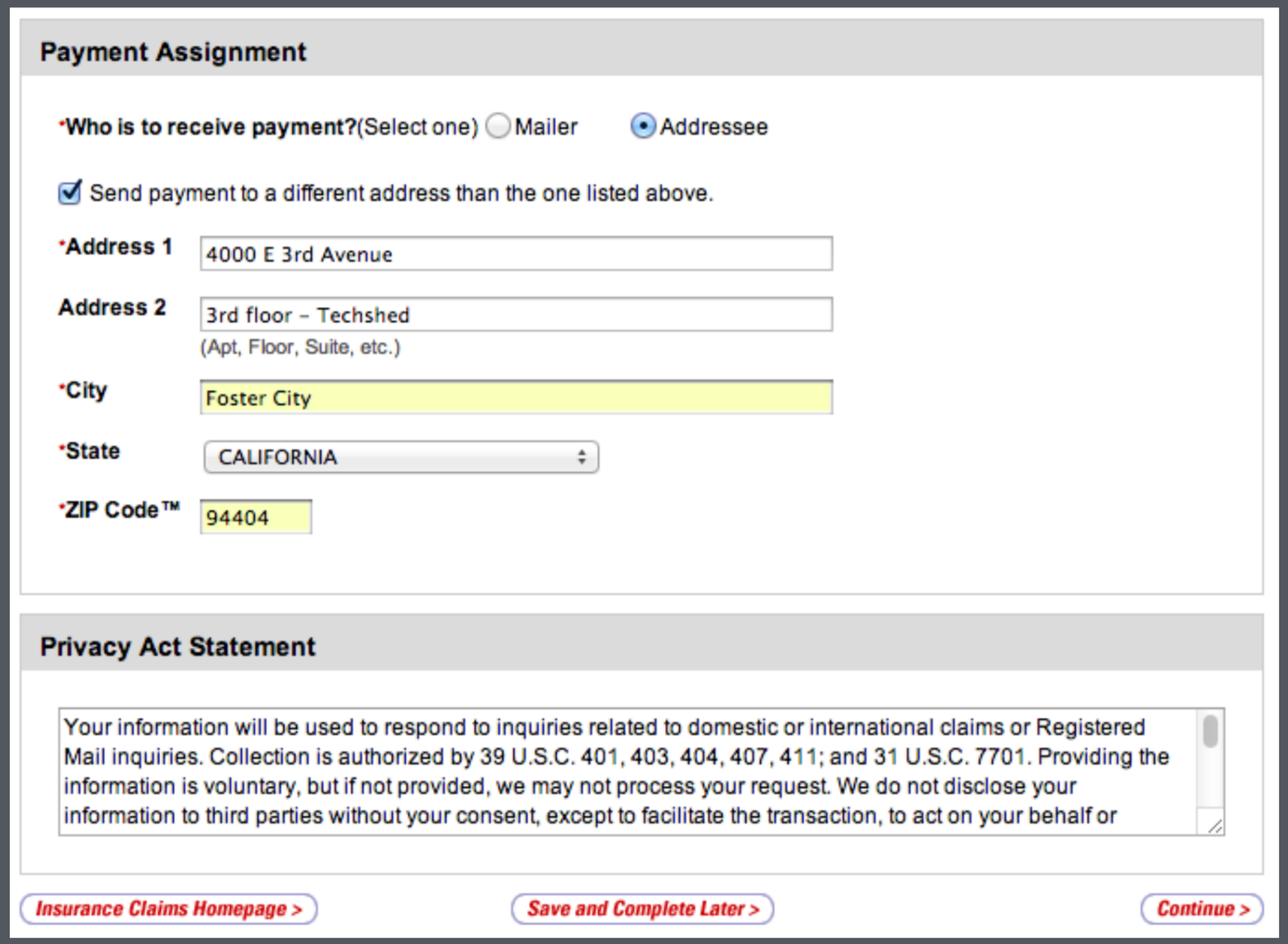


<input type="tel" name="zipcode" />

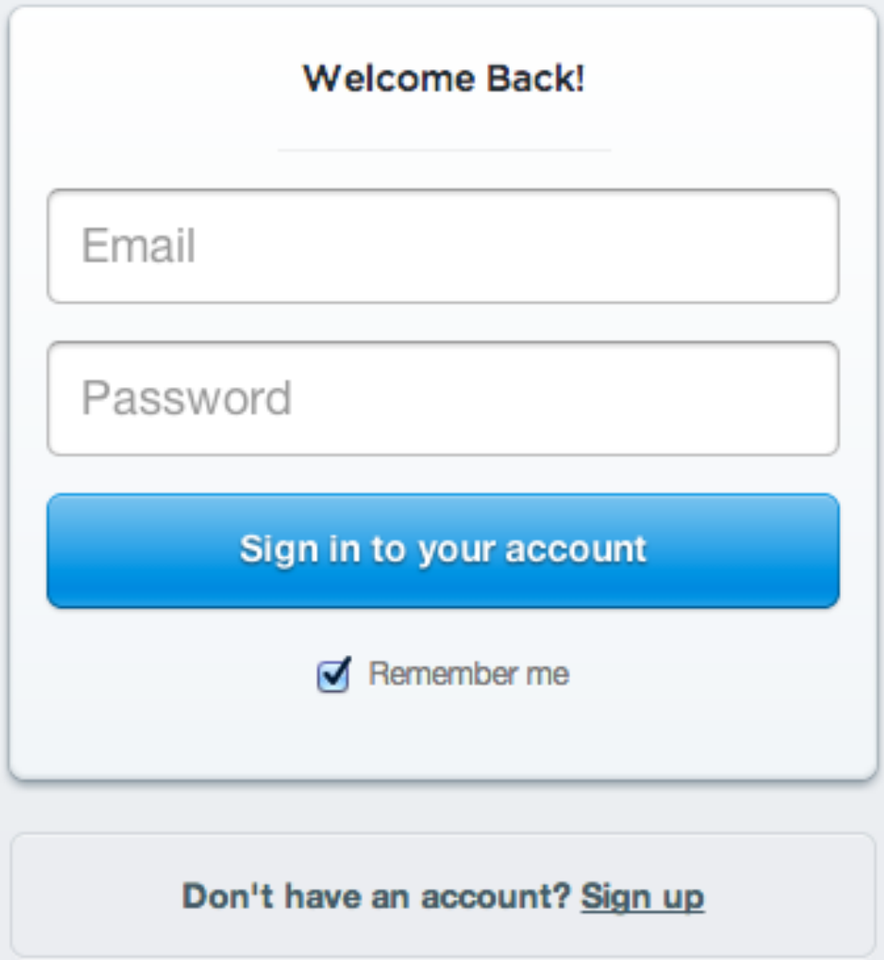


On Android, both “number” and “tel” brings up the number pad keyboard

auto-complete common fields



turn off auto-capitalize



when designing form fields on email, password & url

graceful degradation

- build for now and future
- don’t force yourself to build features for old browsers
- make it work and move on

PayPal

My Account | Send Money | Request Money | Merchant Services | Products & Services

Overview | Add Money | Withdraw | **History** | Statements | Resolution Center | Profile

History

Resolution Center: Open cases (1)

PayPal Invoicing. Free and easy to send. Customize and send invoices in just minutes. **Learn more**

Balance
$x,xxxUSD

Recent Activity | All activity | **Find a transaction**

Search In Email

☑ EUR ☑ TRY ☑ USD ☑ ALL

1/8/2014 to 3/8/2014 Search

Search results for '**Search**' in **Email** from **Jan 8, 2014 - Mar 8, 2014** Print

Date		Type	Name/Email	Payment status	Details	Order status/Actions	Gross	Fee	Net amount

Please double check the email address and try again.

auto-login from emails

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businessinsider.com

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People in the news

Gagan Biyani is mentioned in the news

Sprig Wants A Piece Of San Francisco's Lunch Hour

... "We've always known Sprig would be about every meal, not just dinner," cofounder and CEO Gagan Biyani told Fast Company ahead of its beta test. Sprig is taking a different approach to lunch than...

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Michael Phillips Moskowitz is mentioned in the news

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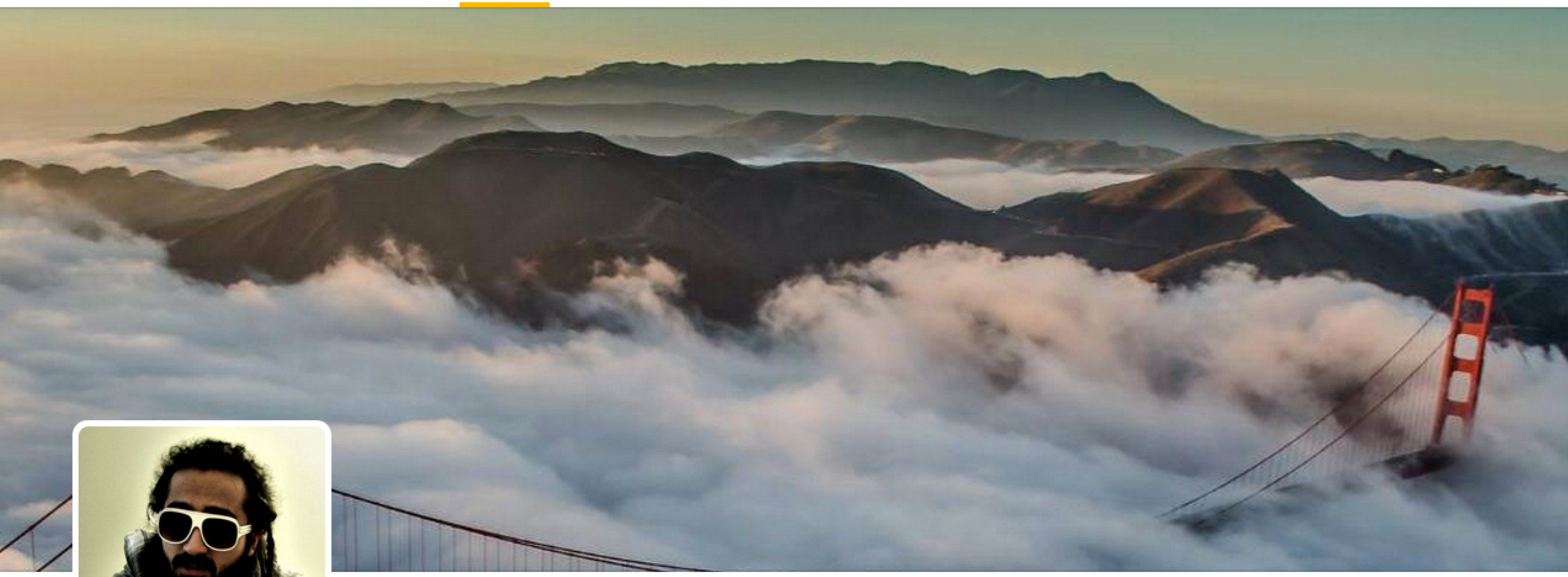
be careful!

- people forward email
- don’t let free riders in…
- implement sandbox mode & limit user access

in-place editing

Home | 2 Notifications | Discover | Me

Search



Gercek Karakus
@gercheq

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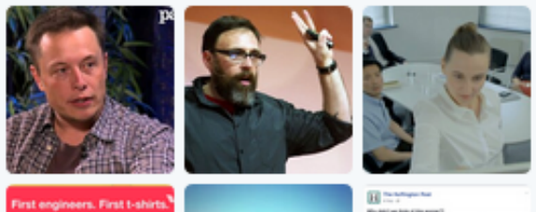
IST ✈ NYC ✈ SF
gercekkarakus.com
Joined September 2008

75 Photos and videos



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Pretty good summary "State of Bitcoin in 2014 Q1" by @coindesk #bitcoin #cryptocurrency slideshare.net/CoinDesk/coind…

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Gercek Karakus

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Theme color

75 Photos and videos

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Popular accounts · Find friends

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#MüzikÖnemliÇünkü

responsive web design

web
web
web
web
web
web
web
web
web
web
web
web

adaptability matters

- cross browser
- cross device
- easier maintenance

flexible images

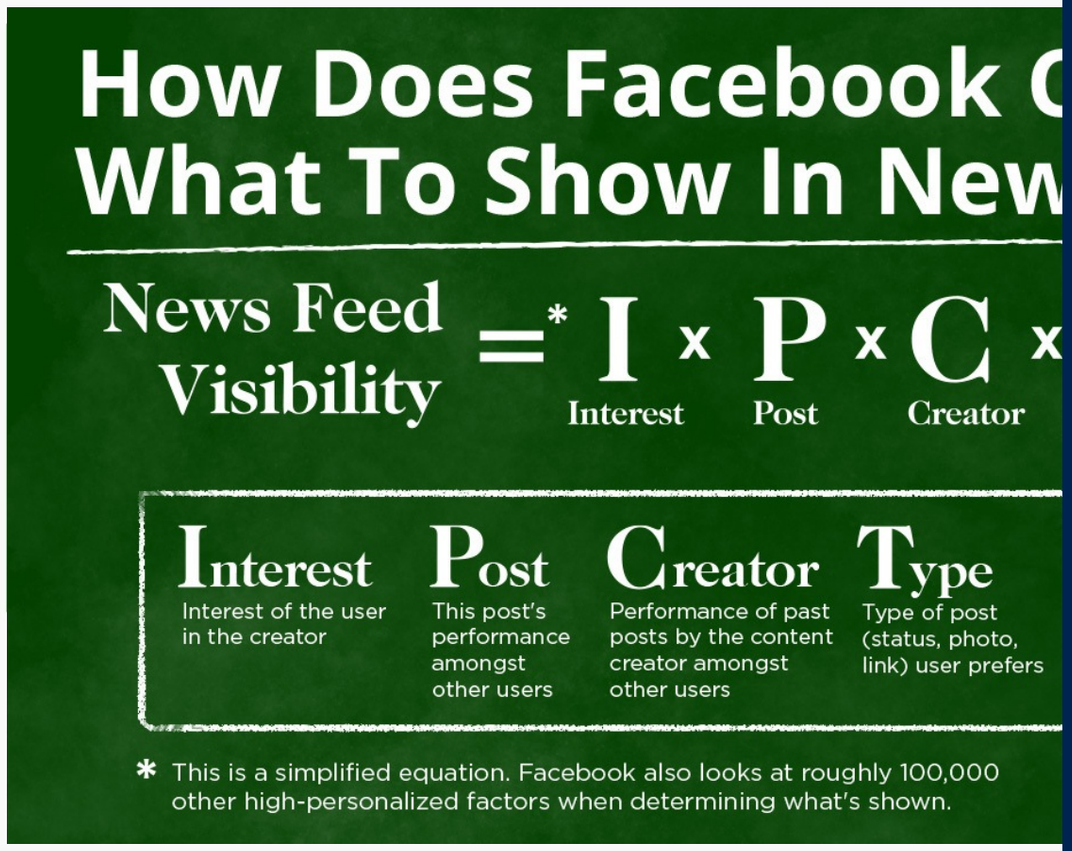
```
img {
  max-width: 100%;
  height: auto;
}
```

●●●●○ A1 12:21 75%
techcrunch.com

Why Is Facebook Page Reach Decreasing? More Competition And Limited Attention

Posted Apr 3, 2014 by Josh Constine (@joshconstine)

194 Like 13k Tweet 3,168



fluid grids everywhere

http://www.slideshare.net/AaronGustafson/intro-to-adaptive-web-design-chadev-lunch

mobile first breakpoints

```
/*==========  Mobile First Method  ==========*/

/* Custom, iPhone Retina */
@media only screen and (min-width : 320px) {

}

/* Extra Small Devices, Phones */
@media only screen and (min-width : 480px) {

}

/* Small Devices, Tablets */
@media only screen and (min-width : 768px) {

}

/* Medium Devices, Desktops */
@media only screen and (min-width : 992px) {

}

/* Large Devices, Wide Screens */
@media only screen and (min-width : 1200px) {

}
```

B

The most popular front-end framework for developing responsive, mobile first projects on the web.

wrestling with bootstrap

customizing bootstrap

```
// Copyright 2014 Red Beacon, Inc.  All Rights Reserved
//
// This code, and all derivative work, is the exclusive property of
// Red Beacon, Inc. and may not be used without Red Beacon, Inc.'s
// authorization.
//
// Author: Gercek Karakus
//
// This is our custom Bootstrap build for the SEM project
// Key of customizing Bootstrap is to introduce a new variables file
// and disabling unnecessary modules
//



//
// Import our own variables instead of the default Bootstrap ones.
//
@import "../../core/styles/variables"

// Core variables and mixins
@import "../third_party/sass-bootstrap/lib/variables"
@import "../third_party/sass-bootstrap/lib/mixins"

// Reset
@import "../third_party/sass-bootstrap/lib/normalize"
@import "../third_party/sass-bootstrap/lib/print"

// Core CSS
```

leverage !default

```sass
//
// Variables
// ==============================================


// Global values
// ==============================================

// Grays
// -------------------------

$gray-darker:            lighten(#000, 13.5%) !default; // #222
$gray-dark:              lighten(#000, 20%) !default;   // #333
$gray:                   lighten(#000, 33.5%) !default; // #555
$gray-light:             lighten(#000, 60%) !default;   // #999
$gray-lighter:           lighten(#000, 93.5%) !default; // #eee

// Brand colors
// -------------------------

$brand-primary:         #f96302 !default;
$brand-success:         #5cb85c !default;
$brand-warning:         #f0ad4e !default;
$brand-danger:          #d9534f !default;
$brand-info:            #5bc0de !default;

// Scaffolding
// -------------------------
```

define your variables first

```
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//
// This code, and all derivative work, is the exclusive property of
// Red Beacon, Inc. and may not be used without Red Beacon, Inc.'s
// authorization.
//
// Author: Gercek Karakus
//
//
// Define all your variables to overwrite default Bootstrap ones.
// Since Bootstrap has all the variables defined with !default
// we can define them in this file and include before _variables.scss
// and everything will work fine.
//
// For more info: http://robots.thoughtbot.com/sass-default


// Variables
// ----------------------------------------------
$brand-primary: #f96302
$state-danger-text: #f96302


// Iconography
// -----------------------
$icon-font-path: "../third_party/sass-bootstrap/fonts/"
```

because some internal variables are dependent on each other. ie. $link-color

disable unused components

```
// Reset
@import "../third_party/sass-bootstrap/lib/normalize"
@import "../third_party/sass-bootstrap/lib/print"

// Core CSS
@import "../third_party/sass-bootstrap/lib/scaffolding"
@import "../third_party/sass-bootstrap/lib/type"
//@import "../third_party/sass-bootstrap/lib/code"
@import "../third_party/sass-bootstrap/lib/grid"
//@import "../third_party/sass-bootstrap/lib/tables"
@import "../third_party/sass-bootstrap/lib/forms"
@import "../third_party/sass-bootstrap/lib/buttons"

// Components
@import "../third_party/sass-bootstrap/lib/component-animations"
@import "../third_party/sass-bootstrap/lib/glyphicons"
//@import "../third_party/sass-bootstrap/lib/dropdowns"
//@import "../third_party/sass-bootstrap/lib/button-groups"
//@import "../third_party/sass-bootstrap/lib/input-groups"
@import "../third_party/sass-bootstrap/lib/navs"
@import "../third_party/sass-bootstrap/lib/navbar"
//@import "../third_party/sass-bootstrap/lib/breadcrumbs"
//@import "../third_party/sass-bootstrap/lib/pagination"
```

maintaining responsive components

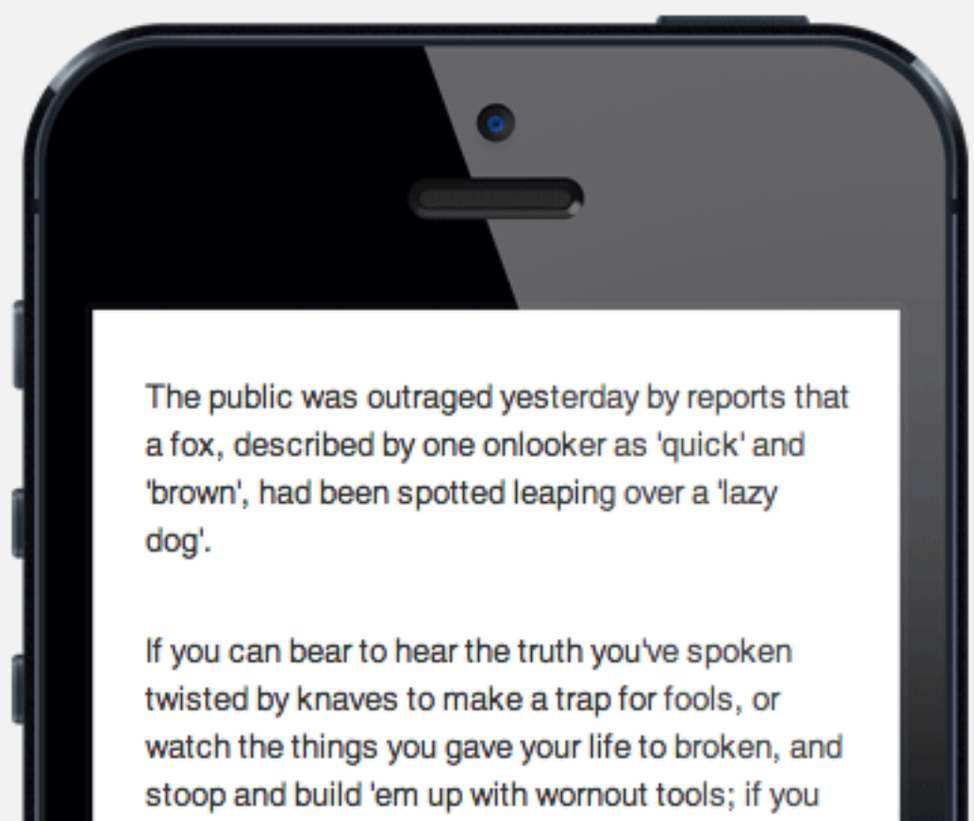
- make sure create separate files for your components
- include all the media queries at the end of each file
- all the changes should be tested in different sized devices

```
//
// Tiny - Phones
//
@media (min-width: $screen-xs-min)
  .titles
    width: 100%
  .jumbotron
    padding: 0

//
// Small - Tablets
//
@media (min-width: $screen-sm-min)
  .titles
    width: 50%
  form
    background: rgba(0,0,0,0.5)
    padding: $grid-gutter-width
    border-radius: $border-radius-base

//
// Medium  - Desktop
//
@media (min-width: $screen-md-min)
  .titles
    width: 50%

//
// Large grid  - Large Screens
//
@media (min-width: $screen-lg-min)
  .jumbotron
    background-position: center center
```

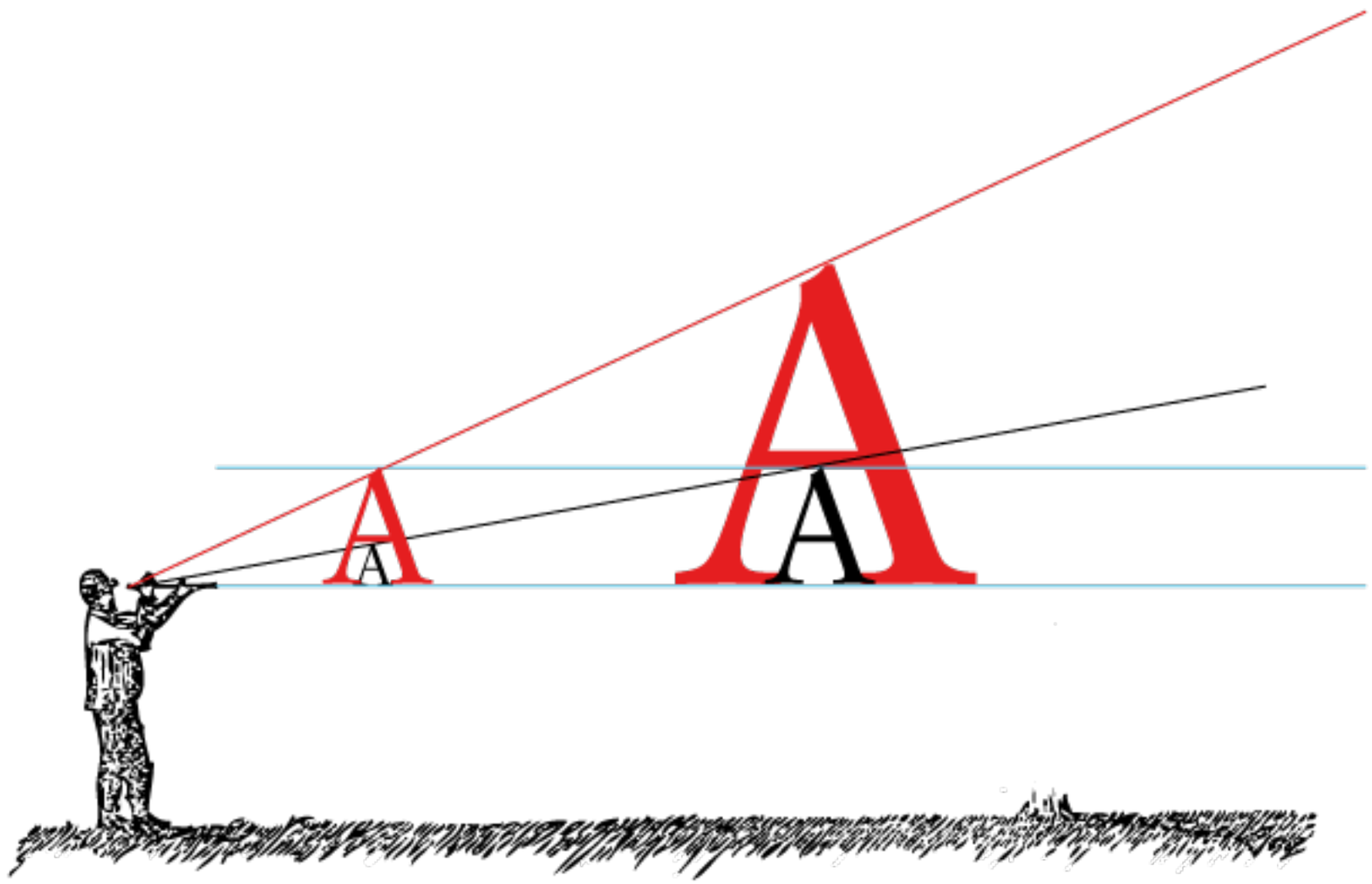
readability matters

characters per line

- 60-75 characters/line on larger screens
- 35-40 characters/line on mobile



responsive typography



http://ia.net/blog/responsive-typography-the-basics/

adapt line-height and font-size

H1	Font Size	Line Height
Print	36pt	1.25em
Desktop (lg)	3em (48px)	1.05em
Desktop	3em (48px)	1.05em
Tablet (lg)	2.5em (40px)	1.125em
Tablet (sm)	2em (32px)	1.25em
Phone	2em (32px)	1.25em

http://typecast.com/blog/a-more-modern-scale-for-web-typography

no more image icons!

life is happier with font icons

- crisp & clear iconography
- single http request
- easy maintenance
- rescale, recolor or animate with no hassle

Font Awesome

THE ICONIC FONT DESIGNED FOR BOOTSTRAP

Download

Version 4.0.3 · GitHub Project · Old 3.2.1 Docs · Created by Dave Gandy

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Font Awesome gives you scalable vector icons that can instantly be customized — size, color, drop shadow, and anything that can be done with the power of CSS.

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In a single collection, Font Awesome is a pictographic language of web-related actions.

No JavaScript Required

Fewer compatibility concerns because Font Awesome doesn't require JavaScript.

Infinite Scalability

Scalable vector graphics means every icon looks awesome at any size.

Free, as in Speech

Font Awesome is completely free for commercial use. Check out the license.

CSS Control

Easily style icon color, size, shadow, and anything that's possible with CSS.

Perfect on Retina Displays

Font Awesome icons are vectors, which mean they're gorgeous on high-resolution displays.

Made for Bootstrap

Desktop Friendly

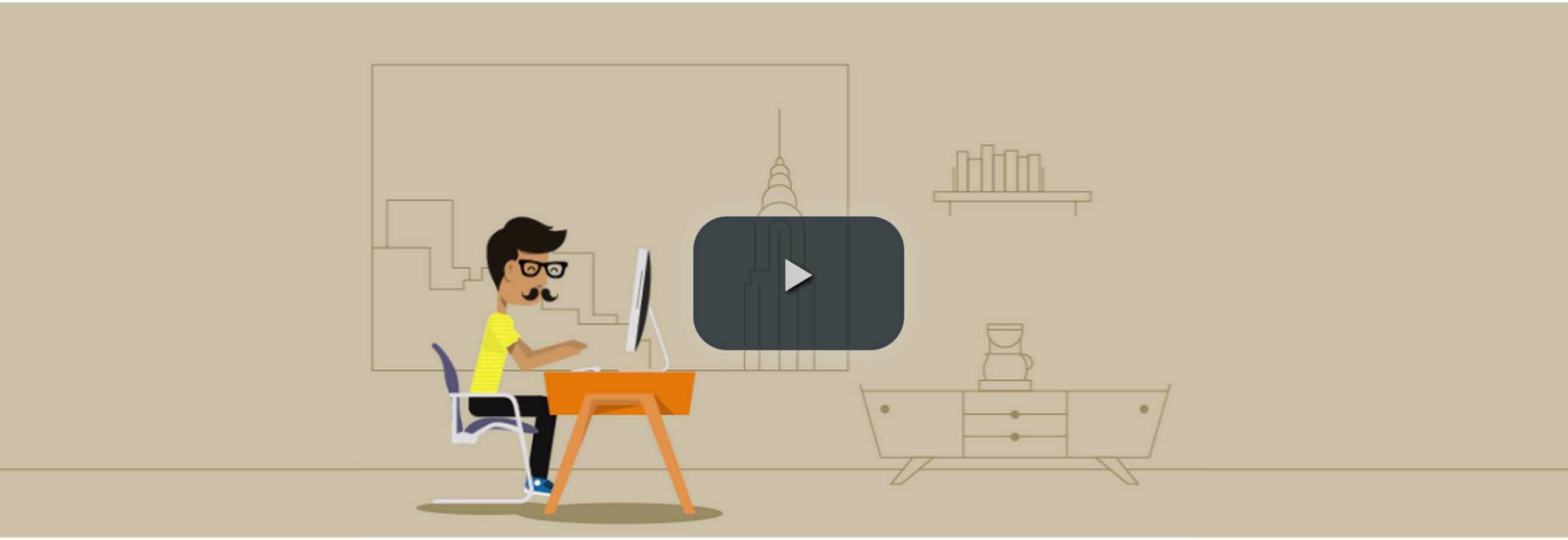
Screen Reader Compatible

Fontastic

Menu Login

Add Vector Icons to Your Website

Create your icon fonts in seconds. Make your website faster. Over 9,000 icons available.



Enter your email...

Add a Password...

Create your Icon Font

Free Forever. Instant Activation

Perceived Performance

VS

Actual Performance

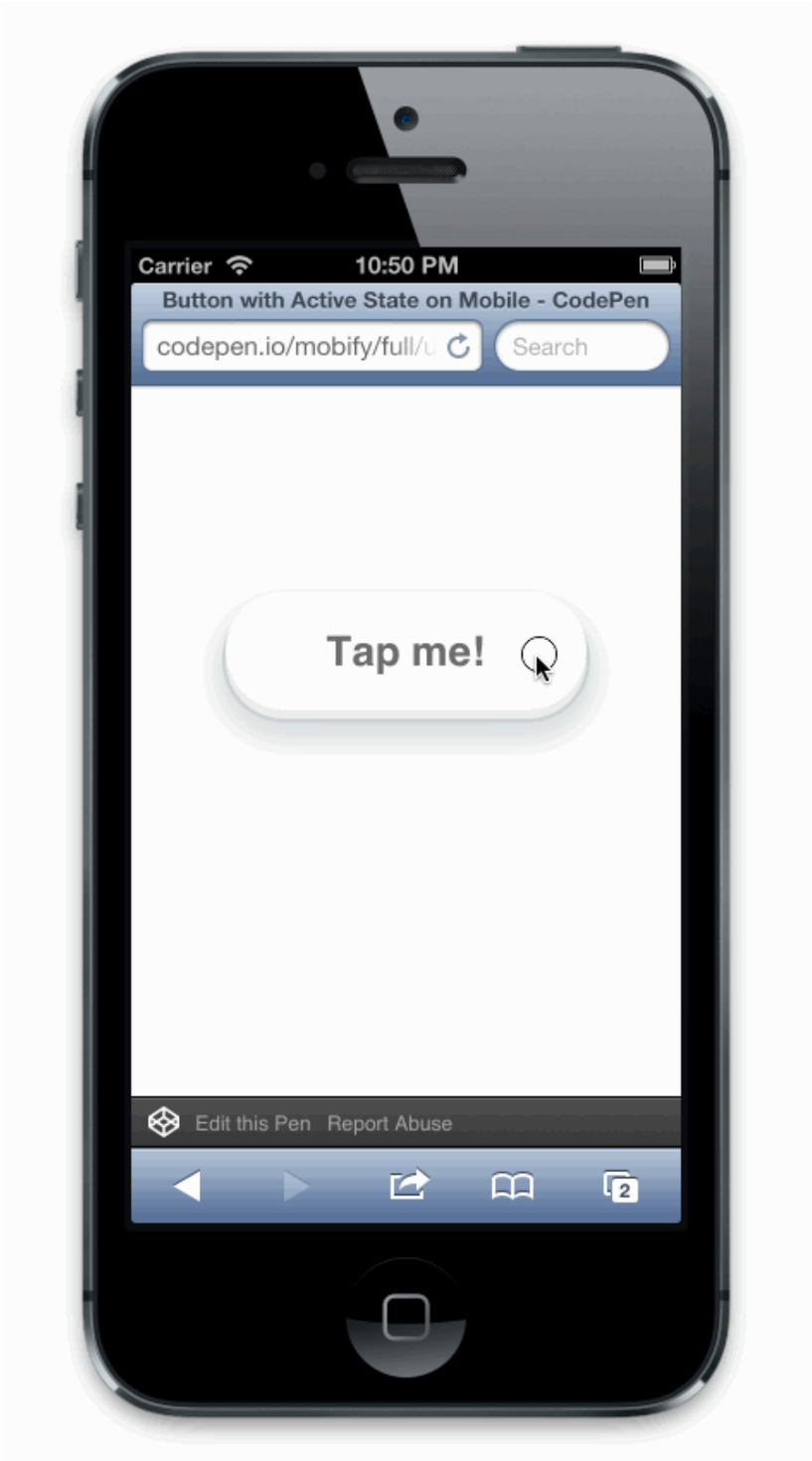
build

single page web apps

make it feel fast

- pre-catch views on the front-end
- cache in memory for fast access
- separate content and chrome

add touch states to your buttons



http://www.mobify.com/blog/beginners-guide-to-perceived-performance/

avoid spinners when possible

- animate on waits shorter than 300ms
- display chrome instead of a spinner
- use short animations to distract the user from the wait — instead of staring at a spinner they're simply waiting for a short animation to finish.

smooth animations

- 60fps
- bust janky animations with devtools
- pre-load views
- contextual transitions

New on Potluck

What to Tell VCs When You're Missing the Data They Want

firstround.com

3

Intro to UIKit Dynamics

teehanlax.com

3

The Only 9/11 "Ad" to Ever Get It Right

youtube.com

What to Tell VCs When You're Missing the Data They Want

firstround.com

3

respond to user interaction in

less than 100 ms

if it absolutely has to take longer than **100ms**,

it should definitely respond within **1s**.

anything that takes longer than 1 second

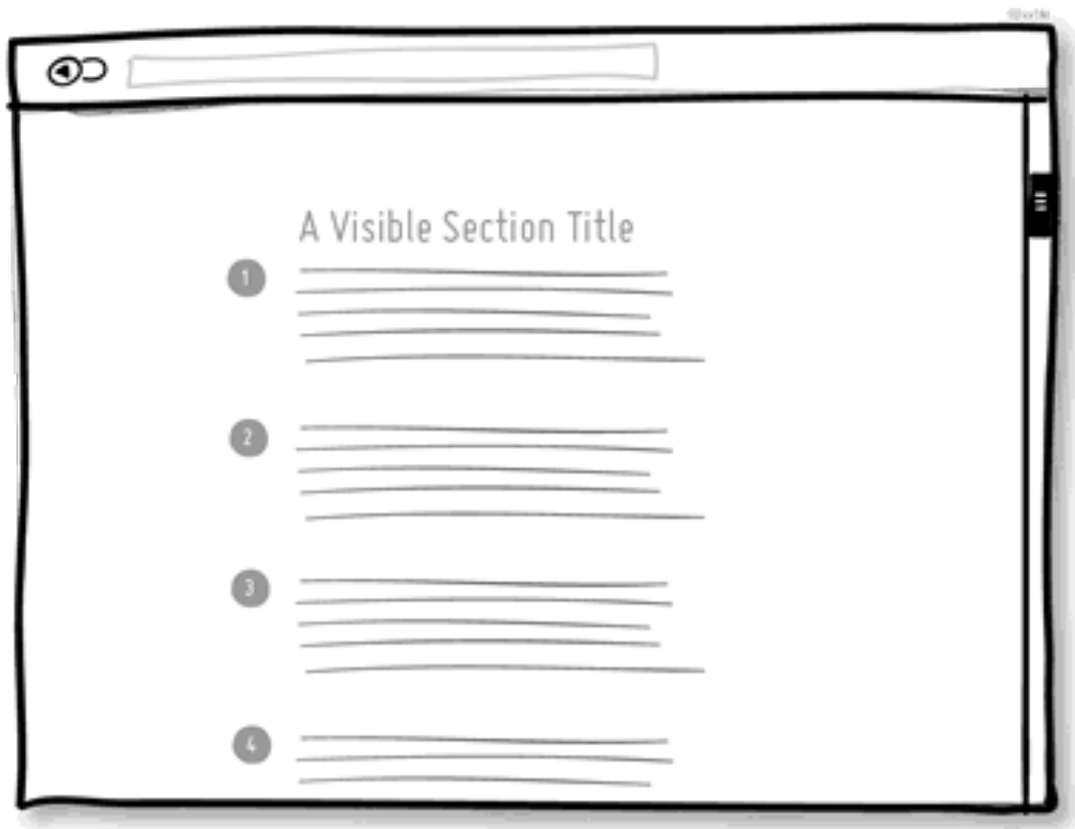
should make you feel bad

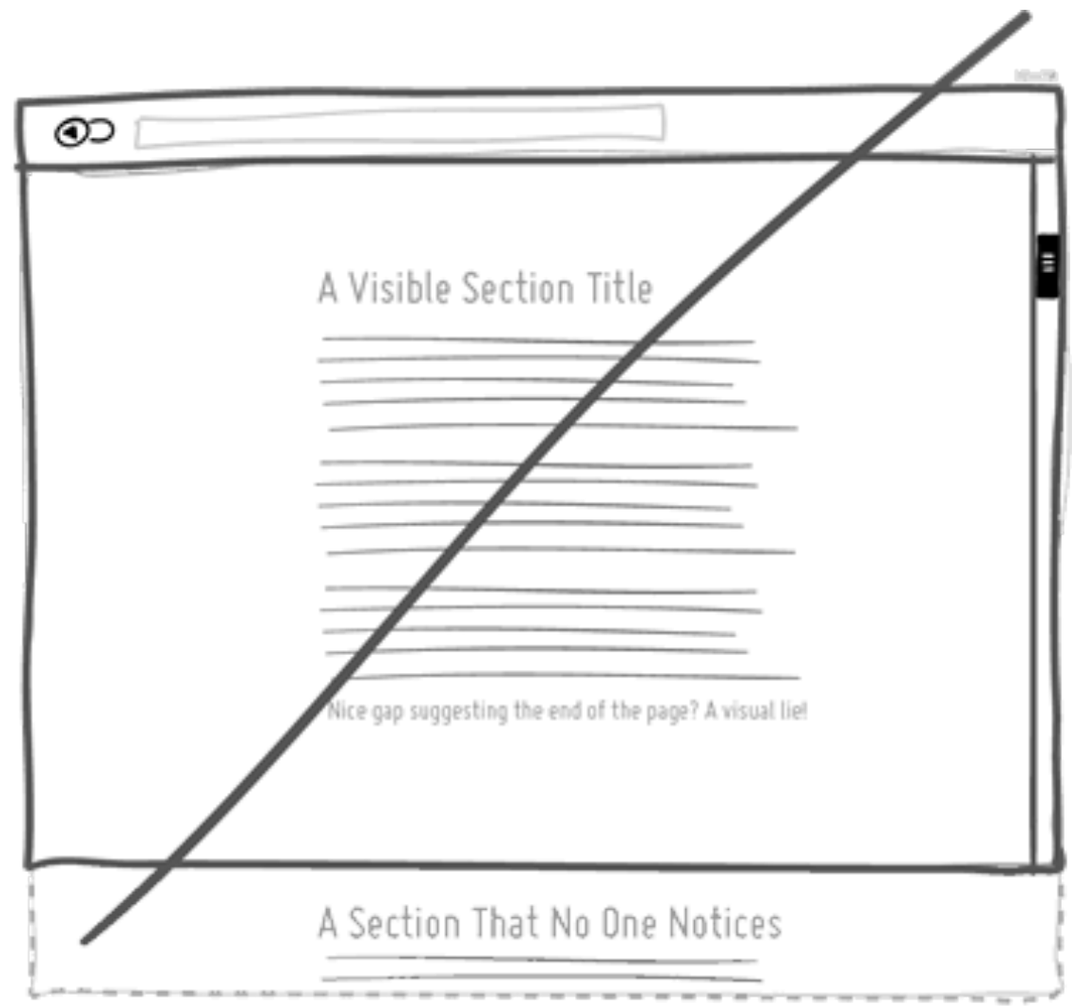
increasing conversion

auto-fill whenever possible

One of the worst things from an experience and conversion stand point is to ask people for data that they have already provided in the past, repeatedly over and over again.

suggest continuity





don’t ever ask for the information that you don’t really need

building the billion dollar landing page

FREE SHIP TO STORE† OR HOME* ON OVER 500,000 ITEMS*. NEED IT NOW? BUY ONLINE AND PICK UP IN STORE†.

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ZIP Code: 94404 CHECK AVAILABILITY

Please submit your contact information to request a consultation with a Home Depot installation service specialist.

First Name: Last Name:

Address: Apt./Suite: *Optional*

focusing on conversion

- **first impression**
  ~3 seconds attention span
- **responsive**
  needs to adapt all devices
- **high performance**
  small footprint and fast loading time

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4.5 of 5 CUSTOMER SATISFACTION RATING*

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We use the highest quality products and back

Licensed & Insured

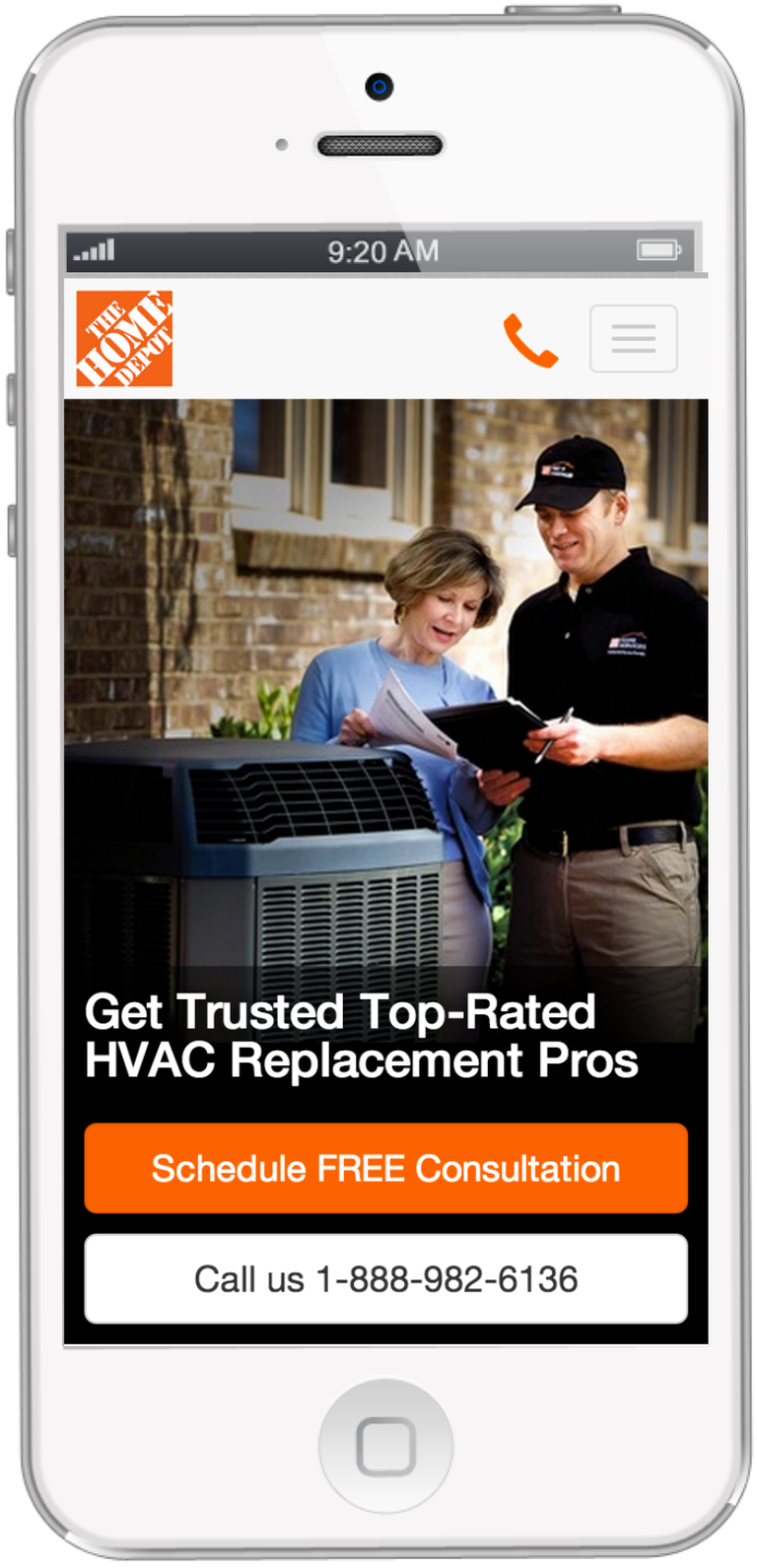
Our HVAC Replacement contractors are

Flexible Financing

We offer flexible financing options along with

adapt to viewport

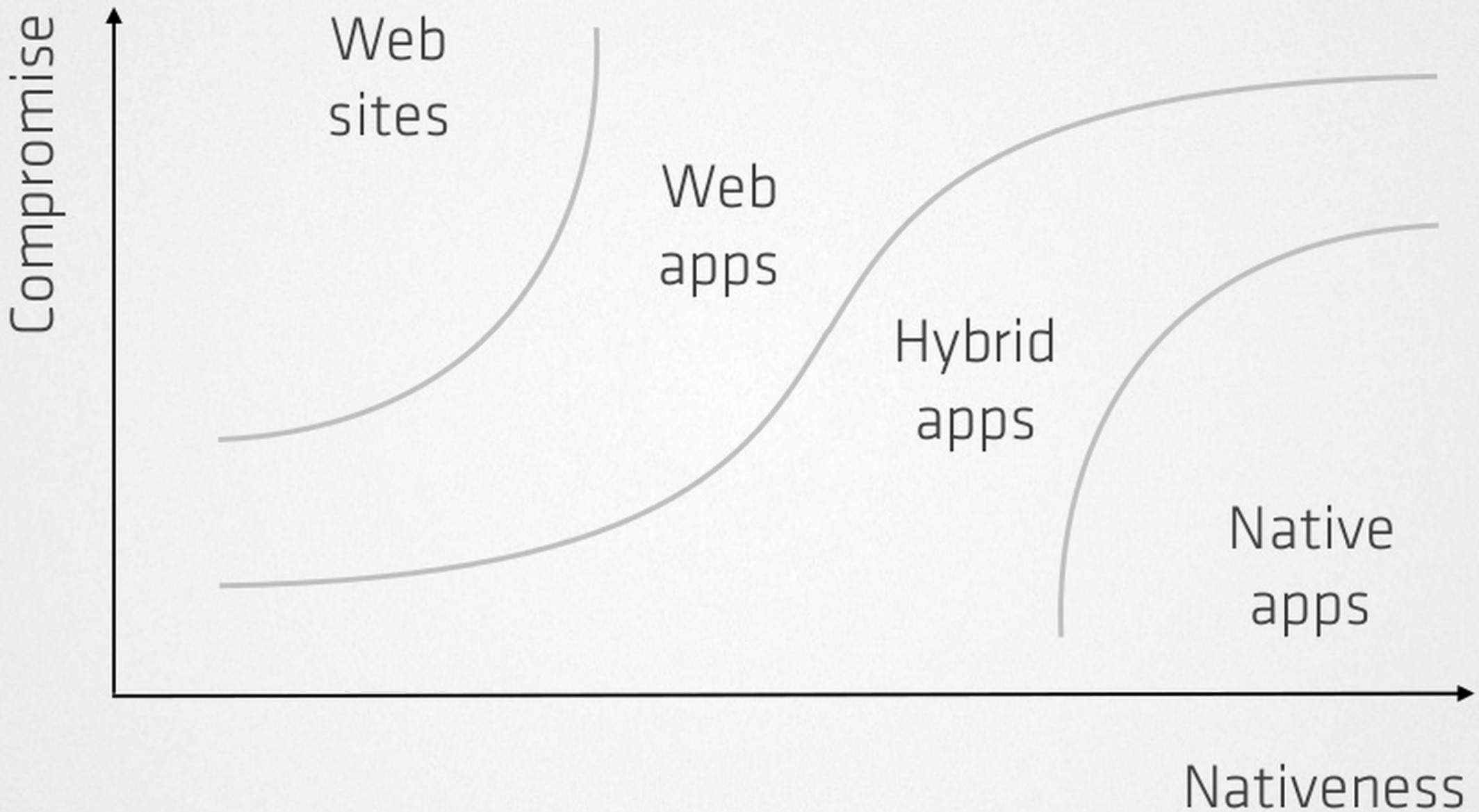
- width
- height
- pixel density



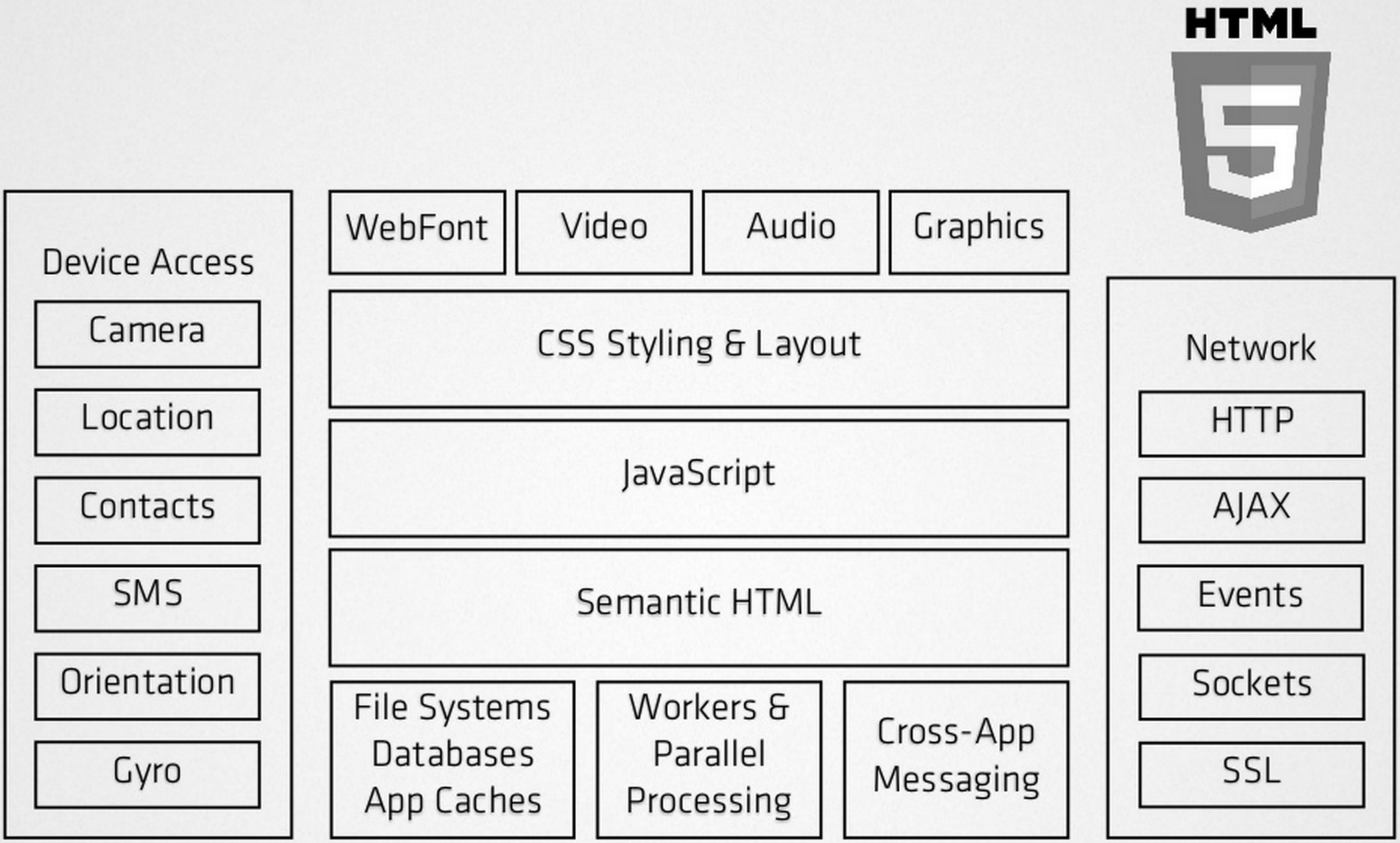
all the roads should

lead users to the same goal

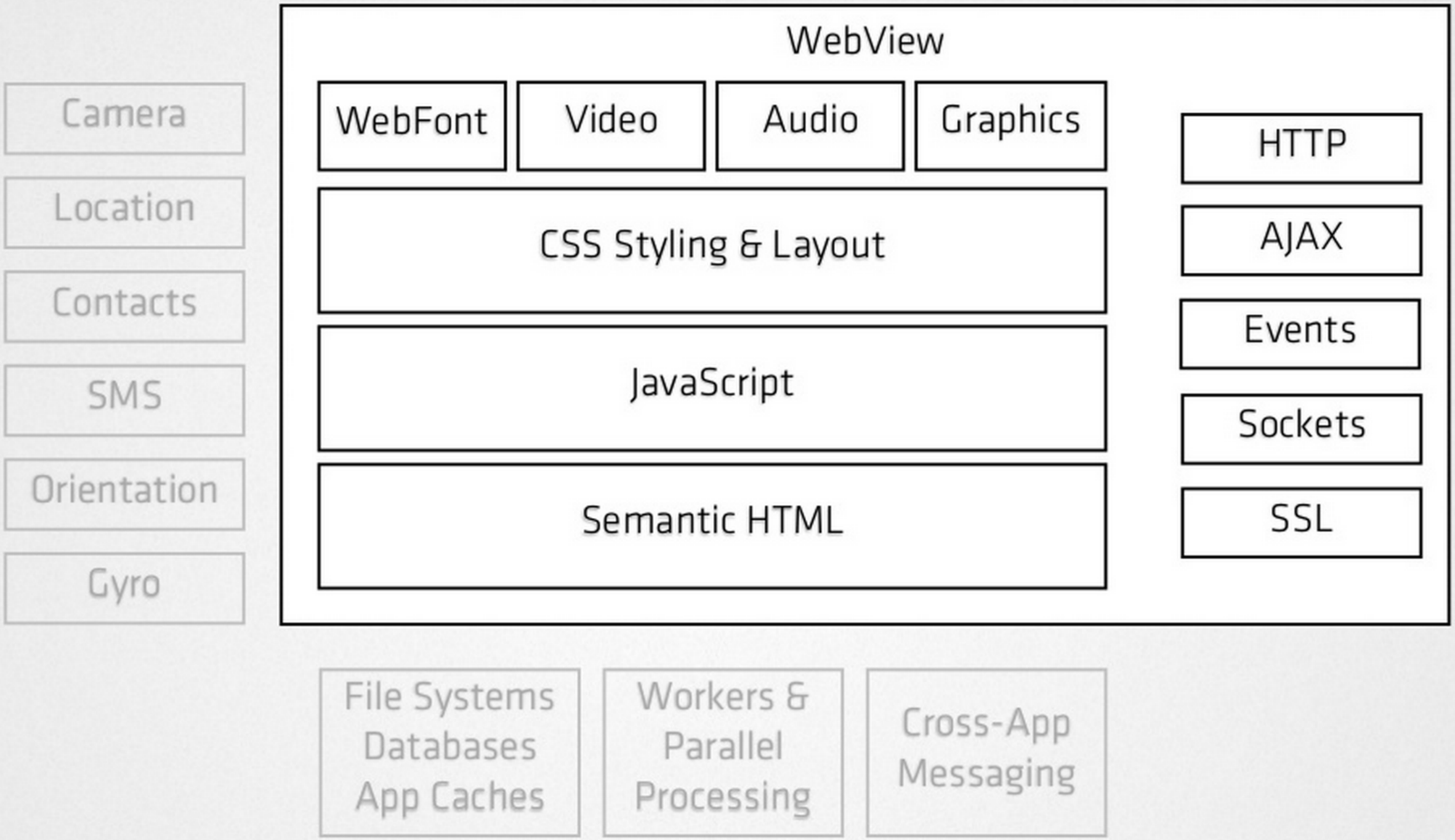
what’s next?

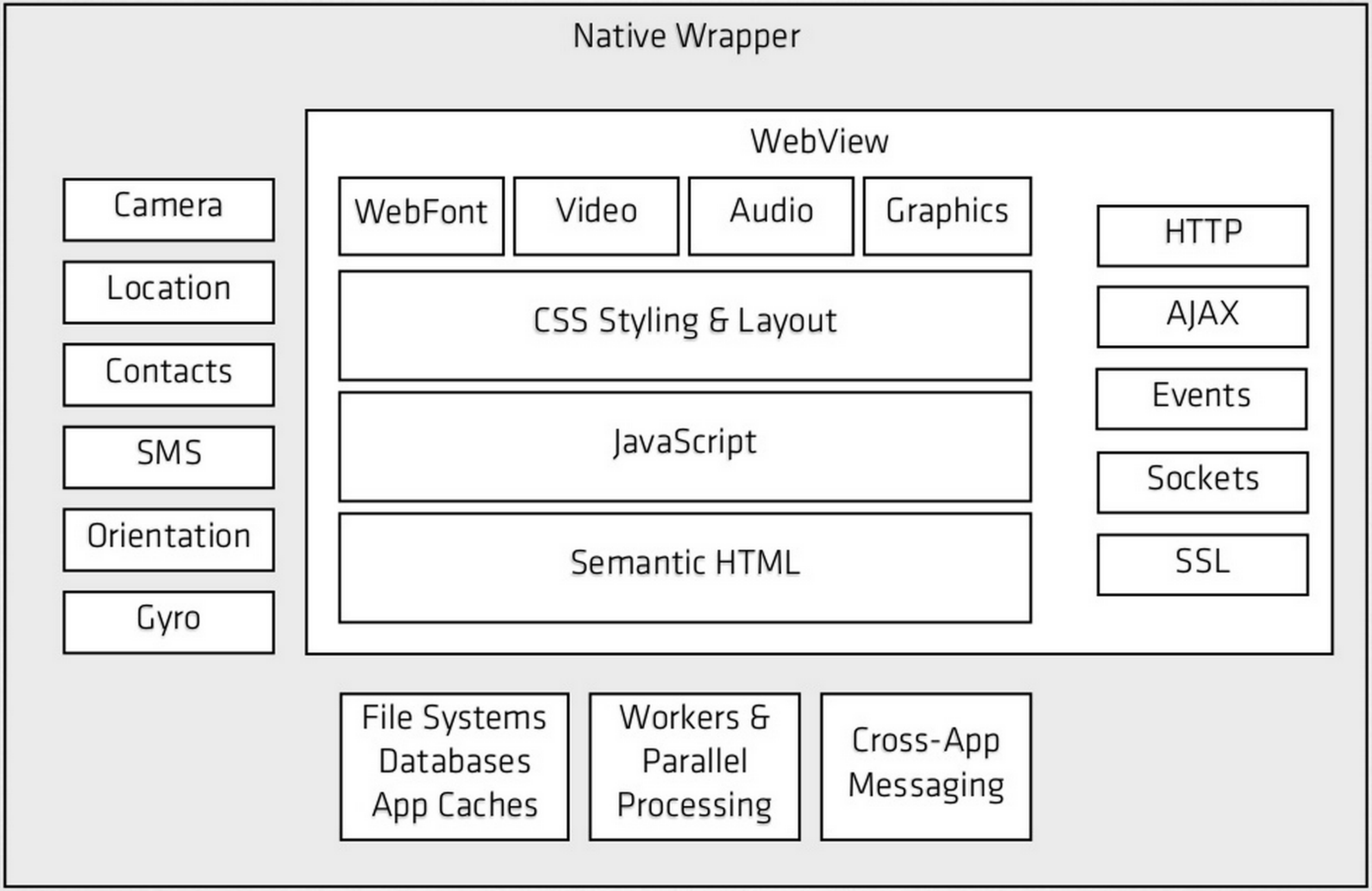


http://www.slideshare.net/jamesgpearce/html5-and-the-dawn-of-rich-mobile-web-applications-pt-1



(all the elements of a modern application platform)


WebView
WebFont
Video
Audio
Graphics
CSS Styling & Layout
JavaScript
Semantic HTML
HTTP
AJAX
Events
Sockets
SSL
Camera
Location
Contacts
SMS
Orientation
Gyro
File Systems
Databases
App Caches
Workers &
Parallel
Processing
Cross-App
Messaging


Native Wrapper
WebView
Camera
Location
Contacts
SMS
Orientation
Gyro
WebFont
Video
Audio
Graphics
CSS Styling & Layout
JavaScript
Semantic HTML
HTTP
AJAX
Events
Sockets
SSL
File Systems
Databases
App Caches
Workers &
Parallel
Processing
Cross-App
Messaging

YOU FEELING IT YET?
NOPE, I THINK WE GOT RIPPED OFF
OH MY GOD I CAN SEE COLORS!!!

thank you!

follow me on twitter: @gercheq

redbeacon

Interaction Designer	Design
UX Researcher	Design
Jr. Software Engineer	Engineering
Senior Software Engineer	Engineering
Software Architect	Engineering
Software Engineer - Backend	Engineering
Software Engineer - Frontend	Engineering
Software Engineer - Mobile	Engineering
Contract Home Improvement Writer	Marketing
Product Manager	Product