LAST TIME ON IO LAB

APIs, JSON-P, OAuth
PROJECT 2

Due in 2 weeks

Add us to your GitHub repo
acchao & thegilby

Please use Piazza, OH, & email if you have questions
MOBILE LANDSCAPE

- 5.3 billion mobile subscriptions in the world and counting
- \( \sim 75\% \) of the global population and growing
- New devices coming out every few months, web enabled, different screen sizes and capabilities
# MOBILE BROWSER USAGE

Globally, mobile devices account for 10%+ of all Web traffic

<table>
<thead>
<tr>
<th>Non-Cellular Networks (mobile browser activity)</th>
<th>Cellular Networks (mobile browser activity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPhone &amp; iPod Touch 24%</td>
<td>iPhone &amp; iPod Touch 28%</td>
</tr>
<tr>
<td>Android devices 18%</td>
<td>Android devices 38%</td>
</tr>
</tbody>
</table>

# MOBILE BROWSER USAGE

<table>
<thead>
<tr>
<th>Non-Cellular Networks</th>
<th>Cellular Networks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobile Safari</strong></td>
<td><strong>Mobile Safari</strong></td>
</tr>
<tr>
<td>67% (43% on iPad)</td>
<td>35% (7% on iPad)</td>
</tr>
<tr>
<td><strong>Android WebKit</strong></td>
<td><strong>Android WebKit</strong></td>
</tr>
<tr>
<td>18%</td>
<td>38%</td>
</tr>
</tbody>
</table>

MOBILE BROWSER USAGE

- 14.5% of iOS user access the Web from something other than Safari. Most come from Web UIViews inside apps

- Chrome for iOS: 1.5% of iOS web browsing

- Mobile traffic from BlackBerry devices in the U.S. just over 1% of all mobile usage (5% last year)

- Opera Mini users > 200million (mostly feature phones)

MOBILE ONLY AUDIENCE

Steadily growing population across the World

• 31% of American adults who have cell phones use their phones for the majority of their Internet access.

• 42% of UK adults that own a smartphone now say this device is the most important one for accessing the Internet.

• More than half of internet connections on the African continent are exclusively on mobile.

• Worldwide, 25% of mobile web users only use mobile web or very rarely use desktop websites.
MOBILE ONLY AUDIENCE

Facebook

• 102 million people accessed Facebook solely from mobile in June, 2012.

• 18.7% of Facebook's 543 million monthly mobile users don’t visit its desktop site.

• About 30% of Facebook's users in India access the service from a mobile phone only.

• 30% of new Facebook users in India register on a mobile phone.
ALMOST ONE BILLION

- 480+ million Android devices activated
- 400+ million iOS devices sold
- ~ 880+ million Android + iOS devices since 2007
- 1 billion PCs powered by Windows in June 2012
- 2.2 billion Internet users in the World.

MOBILE WEB VS. NATIVE APPS
# MOBILE VS. NATIVE

<table>
<thead>
<tr>
<th>Mobile Web</th>
<th>Native App</th>
</tr>
</thead>
<tbody>
<tr>
<td>less overhead to get started</td>
<td>Access native functionality</td>
</tr>
<tr>
<td>accessible to more devices</td>
<td>Faster performance</td>
</tr>
<tr>
<td>HTML, CSS, Javascript</td>
<td>Objective C, Java</td>
</tr>
</tbody>
</table>
HYBRID APPS

PhoneGap
http://phonegap.com

Appcelerator Titanium
http://www.appcelerator.com/platform/titanium-sdk

• Use the code you already know how to use: HTML, CSS, JS

• Access more native device functionality:
  • Camera/Media Capture, Storage, Contacts, Notifications, etc.

• Deploy to multiple platforms
NATIVE CODE + HTML5
NATIVE CODE + HTML5
MOBILE WEB

Different Solutions

MOBILE-SPECIFIC VS. ONE WEB
MOBILE WEB FRAMEWORKS

jQuery Mobile
http://jquerymobile.com/

Sencha Touch
http://www.sencha.com/products/touch

iUI
http://www.iui-js.org/

320 and Up
http://stuffandnonsense.co.uk/projects/320andup/

The correct solution will always depend on your userbase

THIS IS THE WEB
MOBILE FIRST RESPONSIVE WEB DESIGN
MOBILE WHAT???
PROGRESSIVE ENHANCEMENT VS. GRACEFUL DEGRADATION
Providing an alternative version of your functionality or making the user aware of shortcomings of a product as a safety measure to ensure that the product is usable.
PROGRESSIVE ENHANCEMENT

Starting with a baseline of usable functionality, then increasing the richness of the user experience step by step by testing for support for enhancements before applying them.
Graceful Degradation

Progressive Enhancement
MOBILE FIRST
RESPONSIVE WEB
DESIGN
MOBILE FIRST

• Mobile is Exploding
• Mobile forces you to focus
• Mobile extends your capabilities
RESPONSIVE WEB DESIGN

• Fluid Grids
• Flexible Images & Media
• Media Queries
FOR NEXT TIME

Project 1 Feedback

Responsive Design Lab

Reading: Ethan Marcotte - “Responsive Web Design”
http://www.alistapart.com/articles/responsive-web-design/

You can find links to help with all of these on the course website at
http://courses.ischool.berkeley.edu/290ta-iol/f12