

INFORMATION ORGANIZATION LAB

# 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
- ~ 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

<b>Non-Cellular Networks</b> (mobile browser activity)	<b>Cellular Networks</b> (mobile browser activity)
iPhone & iPod Touch 24%	iPhone & iPod Touch 28%
Android devices 18%	Android devices 38%

Source: <http://www.lukew.com/ff/entry.asp?1611>

# MOBILE BROWSER USAGE

Non-Cellular Networks	Cellular Networks
Mobile Safari 67% (43% on iPad)	Mobile Safari 35% (7% on iPad)
Android WebKit 18%	Android WebKit 38%

Source: <http://www.lukew.com/ff/entry.asp?1611>

# 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)

Source: <http://www.lukew.com/ff/entry.asp?1611>

# 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.

Source: <http://www.lukew.com/ff/entry.asp?1626>

# MOBILE WEB VS. NATIVE APPS

# MOBILE VS. NATIVE

Mobile Web	Native App
less overhead to get started	Access native functionality
accessible to more devices	Faster performance
HTML, CSS, Javascript	Objective C, Java

# HYBRID APPS

PhoneGap

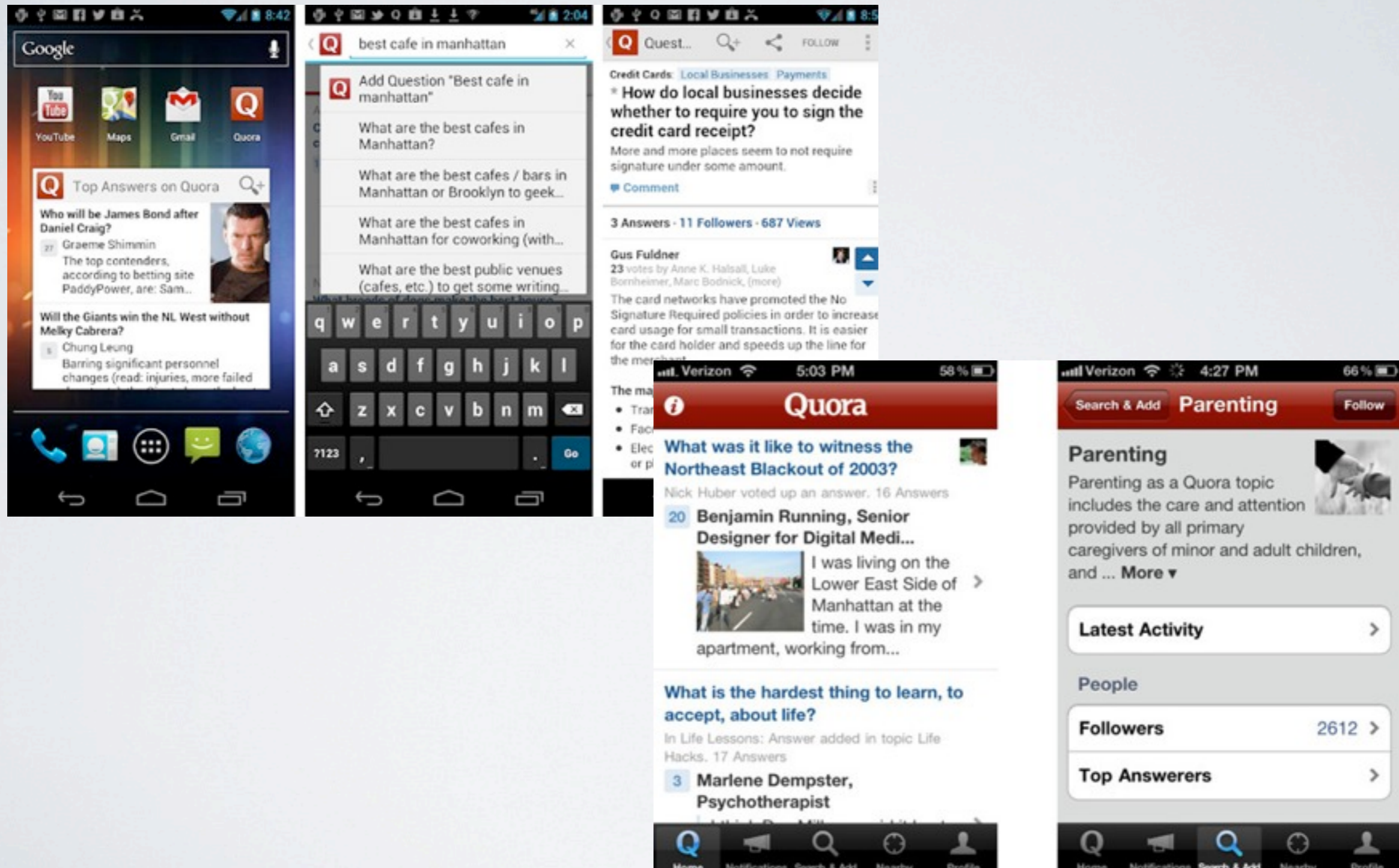
<http://phonegap.com>

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

More: <http://sixrevisions.com/javascript/mobile%C2%A0web-development-frameworks/>

# THIS IS THE WEB



# MOBILE FIRST RESPONSIVE WEB DESIGN

# MOBILE WHAT???

# PROGRESSIVE ENHANCEMENT VS. GRACEFUL DEGRADATION

# 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 I 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>