The Good
The Bad
and
The WebView

OSCON 2013
#whois

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Google Front-End Dev
Cordova (Phonegap)

- web as a first-class platform
- cease to exist
Your Phonegap App IS A Native App
The Good
UI Dev Speed

Rocks compared to asset-based development
UI Dev Speed

CSS is Awesome

- Media queries rule
- NOT your biggest perf concern
- BUT rendering is!
UI Portability

The great hope: it can be!
UI Portability

The great hope: it can be!

NOT the same as App portability.
UI Portability

Cordova APIs generalize platform inconsistencies

- Events API is pure awesome
- except when they don't - see Device API for examples
UI Portability

Use the Cordova Bridge for async/thread work
UI Portability

Animations

○ can be mostly pretty great with some planning
○ translateX|Y|Z NOT left|right|top
The Bad
and
The Ugly
and avoiding them
Part 1: UI / Settings
Part 2: Cordova APIs
Part 1: UI / Settings
desktop  mobile
Scrolling

No sub-element scrolling prior to Gingerbread
• AKA forget about 30% of the market!

Software scrolling? NO
Scrolling

overflow-y: scroll = overflow-x: scroll

• wtf Android WebView!
Scrolling

appView.setOverScrollMode(View.OVER_SCROLL_NEVER);

○ unless you like that horrible blue glow crap in the middle of your action bar/header
AndroidManifest.xml

<manifest>
  
  ○ android:hardwareAccelerated="true"

</manifest>
<activity>
  ○ android:windowSoftInputMode="adjustResize"
  ○ android:launchMode="singleTop" (wtf)
  ○ screenOrientation
    ■ use media queries + responsive design, bruh
HTML

<meta name="viewport" content="">
  ○ width=device-width
HTML

<meta name="viewport" content="">
  ○ width=device-width
  ○ initial-scale=1.0,maximum-scale=1.0
HTML

<meta name="viewport" content="">
  ○ width=device-width
  ○ initial-scale=1.0,maximum-scale=1.0
  ○ target-densitydpi=device-dpi
    ■ but you'll need to pre-process CSS, JS, to scale for difference resolutions
    ■ all assets are on disk so size = memory not bandwidth
<meta name="format-detection" address=no,telephone=no,email=no">
  ○ Samsung JellyBean override nightmare
Spinners

Why so fucking hard?
  ○ GIFs and CSS versions will all glitch

window.navigator.notification.activityStart(title, msg) ftw
Keyboard - you can't detect that

Prevent ghost-click focus events so the keyboard doesn't stay up after screen transitions
Keyboard - you can't detect that

Don't try to measure height
  ○ see note on AndroidManifest.html adjustResize
Keyboard - you can't detect that

Disable longClick in Java

- `HitTestResult.getType() == HitTestResult.EDIT_TEXT_TYPE`
Part 2: Cordova APIs
Geolocation API

listener types (passive, network, gps) don't exist in the W3C API

○ enableHighAccuracy doesn't mean what you think it means
Geolocation API

Native APIs can be very useful
- `getLastKnownPosition()`
Geolocation API

JS Maps UI?
- fahgeddabouddit
- But we did it anyway
Contacts API

Contact picker UI is just plain hard on Android

- Cordova implementation was too slow
  - findAll
  - Bridge with 2500 contacts? #fail

- phone/email normalization / i18n
  - ProTip! use libphonenumber
Contacts API

What to do?

○ rearden's ContactView plugin with modified Intent. ACTION_PICK
○ +email +phone buttons on Android
Events API

- Debounce pause/resume handlers
- online/offline are just hints
Camera API

- crop/edit may or may not be available on the device
- don't build this editor interface
  - full img in memory = crashola
Storage API

- localStorage reads/writes are UI blockers
Storage API

It's a key-value store!
- use many keys, values
- use small values

Force your code to be async
- Promises ftw
Logging

window.console.log is great but...
Logging

Weinre will save your ass

- build in a command to load it async
Logging

Write a LogCatService

- periodically upload console / native logs to your server
- on launch
- on exceptions
Logging

ACRA is the awesome for crash reporting

- acra.ch
OK

breathe
Are you insane?
ONE SIZE DOES NOT FIT ALL
Your Phonegap App IS A Native App
Cordova Team
(Simon, Joe, Brian)

Twist
Google
Questions?