



# Mobile, How Do I Develop Thee?

## Let Me Count The Ways

This guy is a liar!

Don't believe a

word he says

Mobile Software

Development Hurts

!



Fanbois!

Costs

Testing

Breadth of Skills

Moving Target



The Not-Really-Real

Mobile Development

Wall of Pain Game

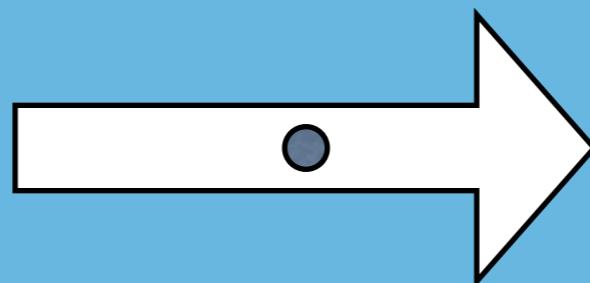
Fanbois!

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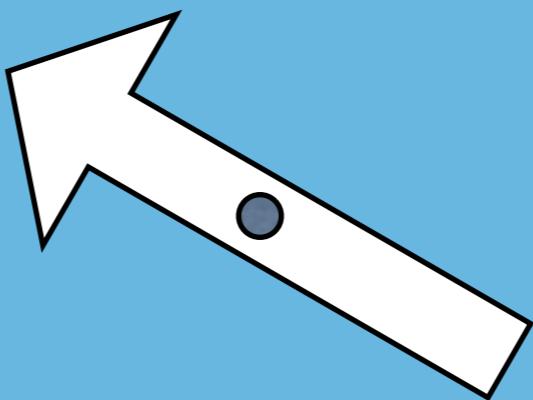
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# Mobile Technology Spectrum

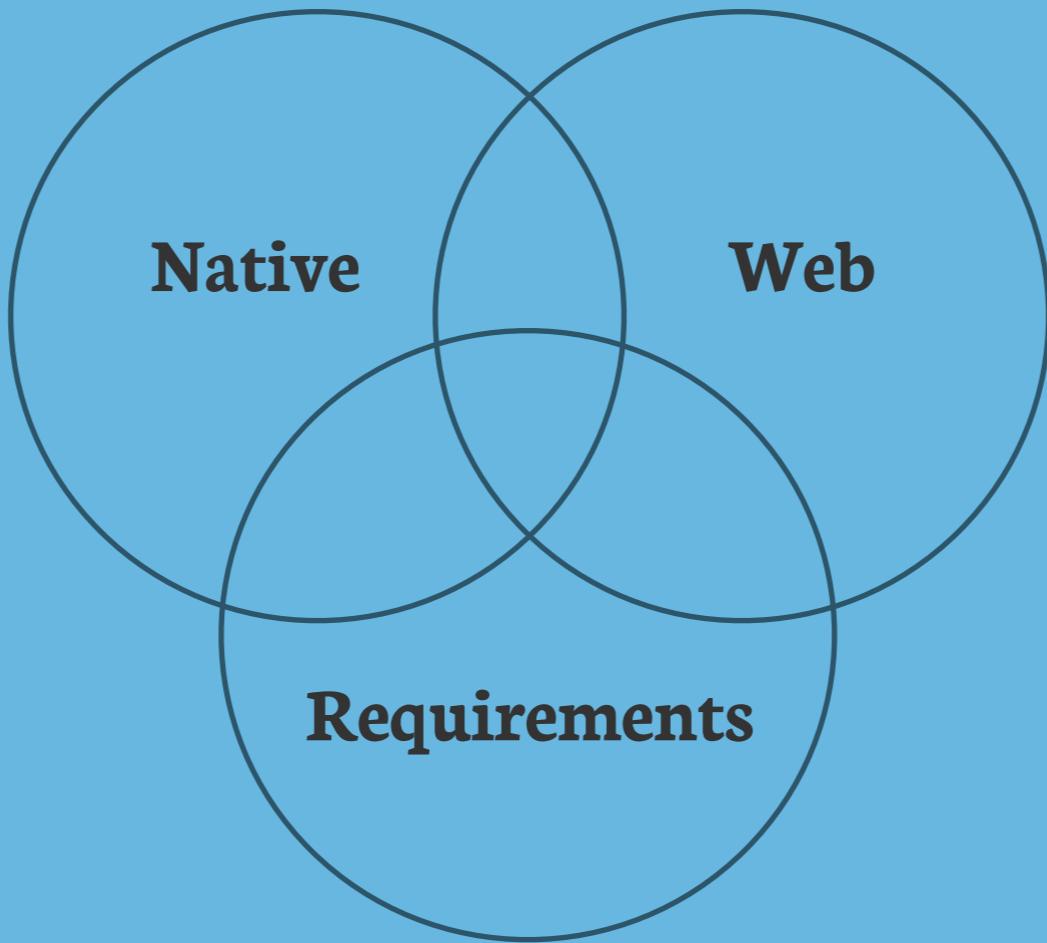
a.k.a make love not war



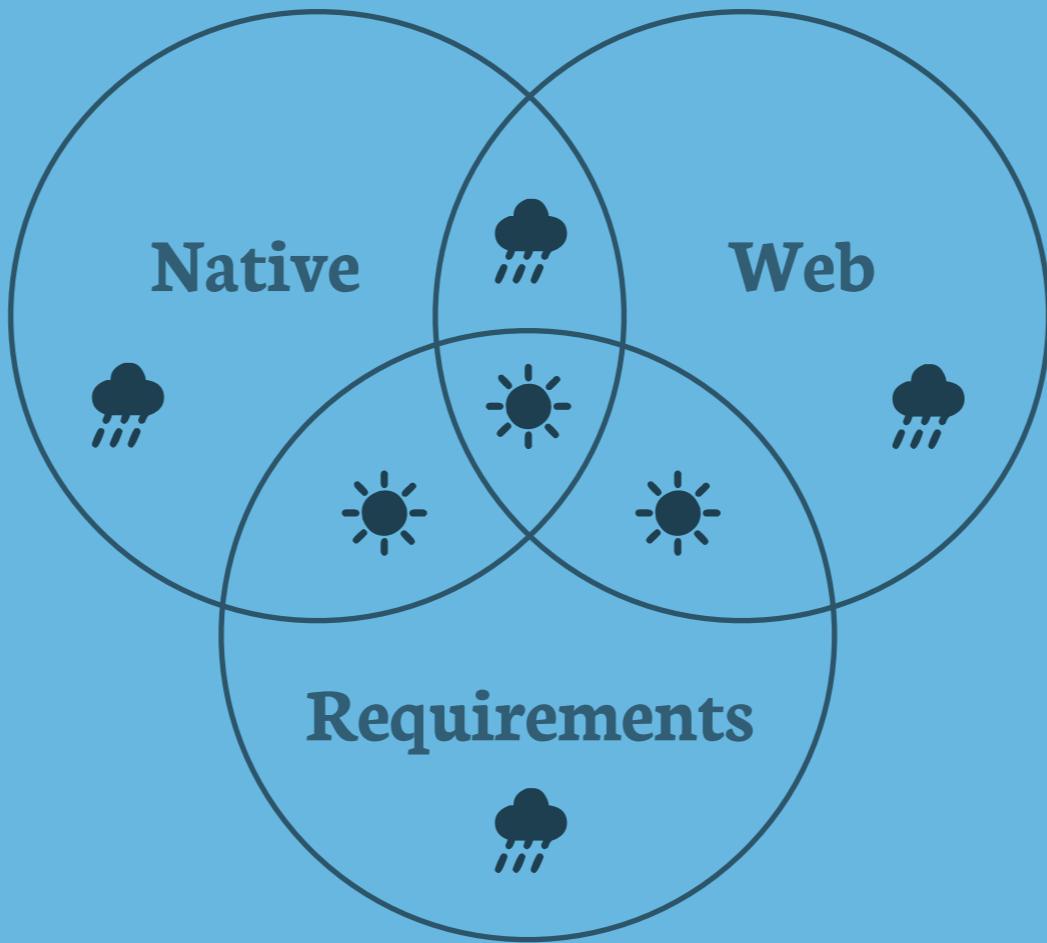
Native



Web



# Technology & Needs



**Doin' It Wrong!**



**Doin' It Right!**

Fanbois, can't live

with them, can't...

**Ways to Achieve**

**Technology Harmony**

# WebViews & Bridges

Custom URL Schemes

HTTP Server

addJavascriptInterface()

ScriptNotify/InvokeScript

# PhoneGap/Cordova



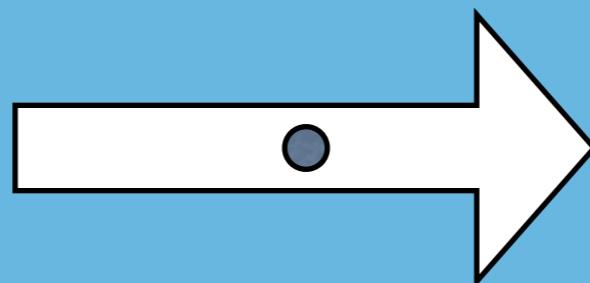
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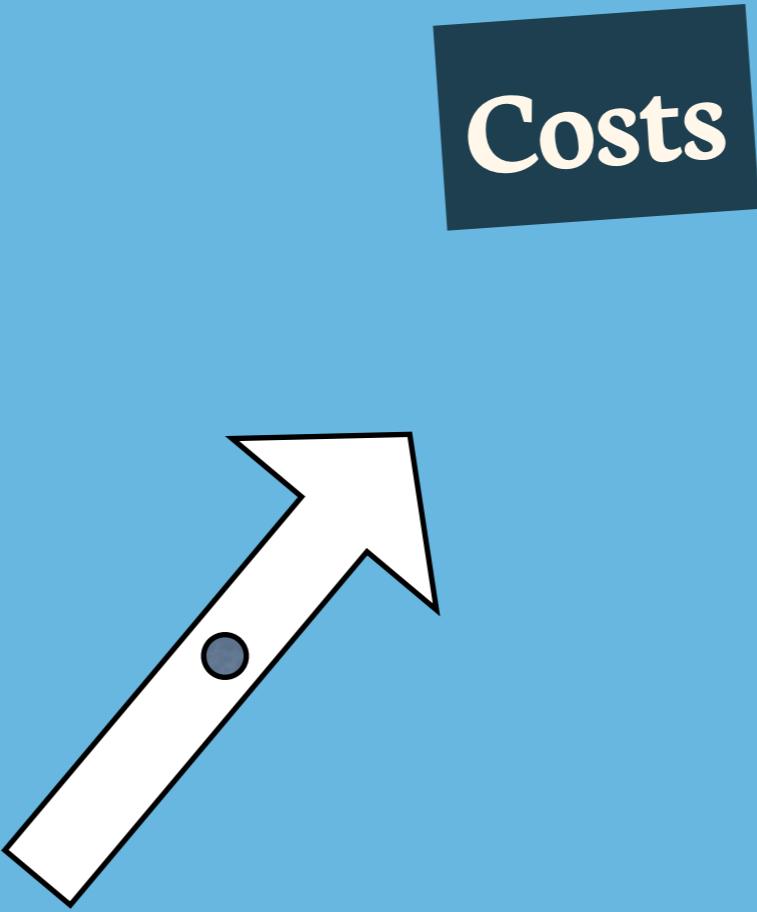
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# iOS Developer

MacBook

\$999 - \$1299

iOS Developer Program

\$99

iPhone/iPad/iPod

\$199 - \$650

\$1.3k - \$2k

# Android Developer

Registration Fee	\$25
Android Dev Phone	\$399
Other Devices	\$200 - \$600
	\$0.7k - \$1k

# WP7 Developer

Registration Fee	\$99
Test Device/Phone	\$200 - \$900
Windows 7	\$100
	\$0.4k - \$1.1k

Cross Platform Tools

Or Build-Once-Deploy-Anywhere

will NOT save you much money!

**Costs are an inevitable  
part of doing business**

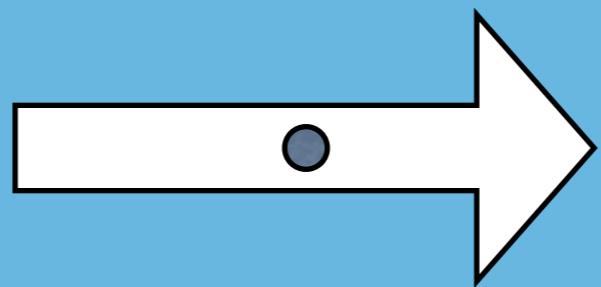
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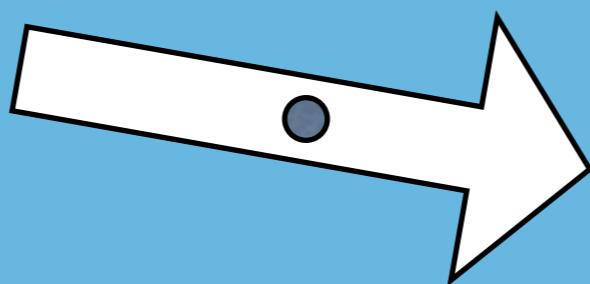
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Testing

**Manual testing on the simulator**

**is simply not enough!**

**Access to apps**

**on a device can be**

**very difficult**

Web Inspector Remote

localhost:8081/client/

weinre

Elements Console

Search Remote

## Targets

- localhost [id: 1491679085] - http://localhost:8081/demo/weinre-demo.html

## Clients

- localhost [id: 1491679084]

## Server Properties

```
boundHost: localhost
boundHosts:
  • localhost

deathTimeout: 15
httpPort: 8081
readTimeout: 5
reuseAddr: true
verbose: false
```

weinre

TestingWithFrank

Robotium etc.

WP7 Test Framework

[lesspainful.com](http://lesspainful.com)



How can you be sure you  
built the right thing?

# Beta Testing

TestFlight



# HOCKEY

Hockey App



AppHub

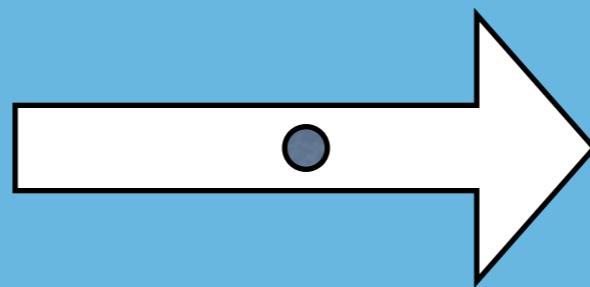
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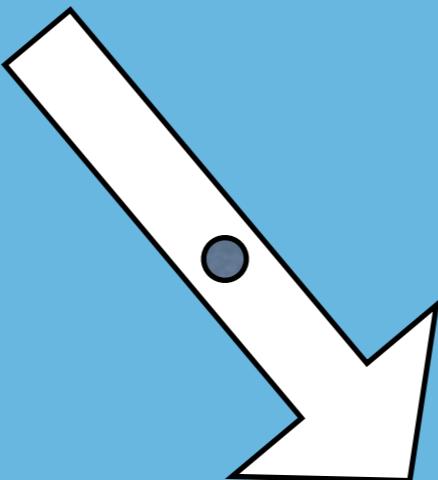
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Moving Target

Fragmentation

EULA Changes

Web Storage Locations

Deprecated DeviceID

App Store Submission

**Expect change**

**Never trust the vendors**

**Don't do anything too “weird”**

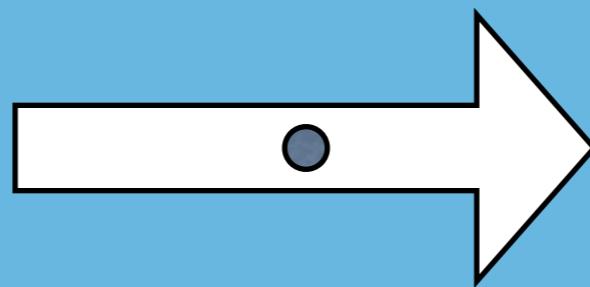
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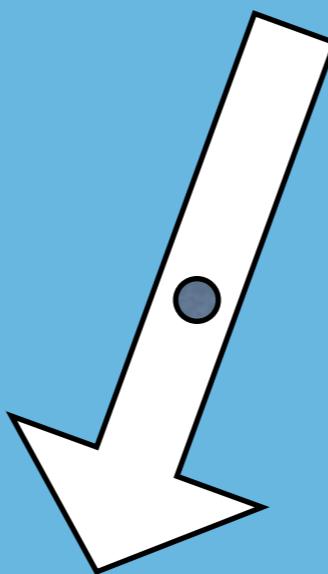
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Breadth of Skills

# Platforms

Apple iOS

Android

Windows Phone 7

Blackberry

Various Feature Phones

Symbian

# Languages

Objective-C

C#

Java ME (Various)

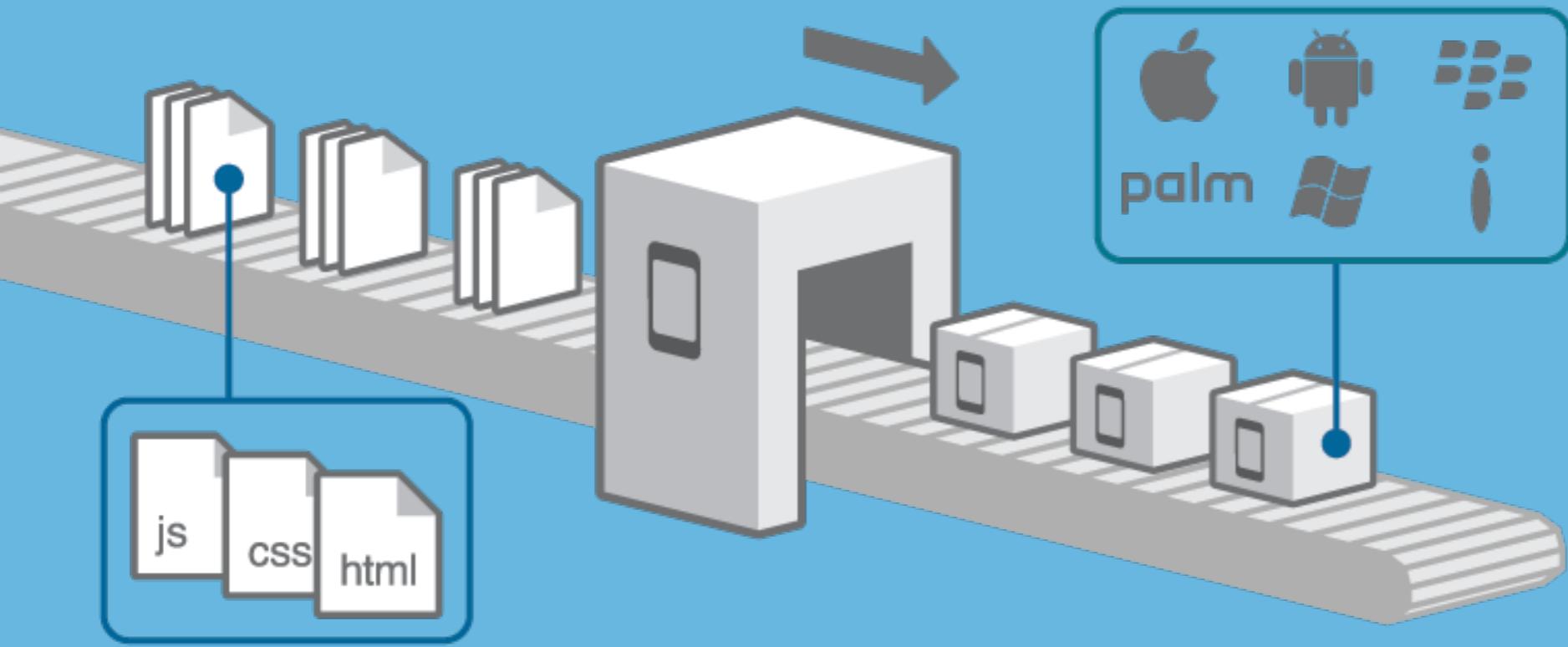
JavaScript

Cross Platform Tools

can help reduce the burden

of technology sprawl

# PhoneGap Build





And we haven't even  
mentioned the server-side!  
Not every app will be  
a self contained solution

# Server-side Needs

Push Notifications?

Authentication?

Data Storage/Retrieval?

In App Purchases?

Analytics?

You may not need or want

to re-invent the wheel

# Specific Needs



Flurry



iCloud

Urban Airship



# All The Things!





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