# Mobile Development for VDFers

# Why should you care???

4Q11 – 150,000,000 Smartphones shipped:

- 75,900,000 – Android Based
- 37,000,000 – Apple iOS
- 17,500,000 – Nokia
- 13,200,000 – RIM (Blackberry)
- 2,800,000 – Microsoft

Over 55,000,000 iPads sold as of 12/31/2011
Other tablets don't matter!!!

# Development Specifications iOS:

- Programming Language: Objective-C 2.0 (a superset of C)
- Uses Multiple Frameworks:
  - Cocoa Touch Layer – UI & Other Features
  - Media Layer – A/V Graphics, Text, MIDI, etc.
  - Core Services Layer – Networking, File access, etc.
  - Core OS Layer – Bluetooth, Acceleration, etc.
- Requires development on a Mac
- Tightly coupled MVC design – UI implications
- Can use some third party C libaries
- Develop for iPads, iPhones and iPod Touches

# Development Specifications WP7:

- Programming Language: C# or Silverlight (Obsolete)
- Uses XNA for games & .NET Compact Framework
- MVVM pattern (Model/View/ViewModel)
- Requires development on a Windows PC
- Other Managed Langs can be used (F#, IronRuby, etc.)
- Silverlight development model recently obsoleted
- WinRT on the way... (MinWin coming?)
- Tablet Development for Win 8 is different

# Development Specifications Android:

- Programming Language: Java
- Uses Android Application Framework
- Uses various Development Patterns
- Develop on Windows, Mac OS X, or Linux
- Underlying Linux Kernel
- Develop for Tablet or Phones the same way

# Some people do all 3!!!

EVERNOTE

iSilo

skype™

NETFLIX

# There is another way:
## Harness the power of the web

- SproutCore – www.npr.org/webapp
- Appcelerator – NBC iPad App & Metronomos
- Sencha – www.kivamobile.org
- Cappuccino – www.timetableapp.com

# Why use Mobile Frameworks:

- Javascript is easy & portable
- Multiplatform (kinda)
- DAW likes AJAX
- Will get better as WebKit & IE improves
- No app store rules to deal with!

# Why NOT use Mobile Frameworks:

- Its not native! (Even with Appcelerator)
- Won't be as fast
- Doesn't acquire new looks from OS updates (except Appcelerator)
- Can't practically do some things (multithreading, precise timing, etc.)

# What should you do?

- <u>A bad app IS worse than no app!</u>
- UI design is drastically different
- Especially in the area of design (see Clear)
- Paradigm shift from your knowledgebase
- Either learn a new way or:

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