Android vs. iPhone

Anthony Hand, M.S.I.
Mobile User Experience Designer,
Hand Interactive
anthony.hand@gmail.com

Presented at:
April 27, 2009
Self Introduction

- **Motorola**
  - UI designer on Android platform

- **Hand Interactive:** [www.hand-interactive.com](http://www.hand-interactive.com)
  - Freelance UI design for mobile software & services

- **Formerly at:**
  - **iSkoot**: Skype client for mobile phones
  - **Nokia Enterprise Solutions**
  - **SavaJe Technologies**: Mobile OS platform startup
  - **FloSpace**: [www.FloSpace.com](http://www.FloSpace.com)
    - FloPrompter: Teleprompter software

- **M.S.I. in Human-Computer Interaction, University of Michigan, 1999**
Both are game-changing mobile platforms

- Apple broke all the rules
  - Next-generation mobile experience
  - Impact on operator-manufacturer dynamics
  - “Open mobile platform” with walled garden attributes

- Google benefits from iPhone’s long shadow
  - Next generation mobile experience
  - Heavily customizable UI: heavy uptake by manufacturers and operators
  - “Open mobile platform”: Big walled garden?

What does this all mean for a 3rd party software/services developer?
The Market
Market Share Stats

Worldwide OS Market Share (CY 2008)

- Symbian: 52.4%
- RIM: 16.6%
- WinMo: 11.8%
- iPhone: 8.2%
- Palm: 1.8%
- Android: N/A

Gartner, “Market Share: Smartphones, Worldwide, 4Q08 and 2008”

Mobile Ad Market Share

US Operating Systems
March 2009

Gartner, “Market Share: Smartphones, Worldwide, 4Q08 and 2008”

April 27, 2009
MoMo Chicago: iPhone vs. Android
iPhone Market Stats

- Cumulative sales of iPhone & iPod Touch: 37 million devices (Q1 2009)
  - iPhone: 21 million; iPod Touch: 16 million
- Almost all iPhone owners have flat rate data plans
- 60% browse the web at least once per day*
- ~60% use device for reviews & comparison shopping while in the store**
- 72% have 5+ apps on their device**

*Rubicon, "The Apple iPhone: Successes and Challenges", March 2008
**Compete, Smartphone Intelligence, November 2008
***Compete, Smartphone Intelligence, March 2009
- Cumulative sales: **1 million devices** (Q1 2009)
  - HTC G1 is currently the only Android device
  - Accounts for 2/3 of T-Mobile’s 3G phones
  - About ½ traded up from a Feature Phone*
- Flat rate data plans common (though not universal)
  - Use data services 50x more than voice-centric customers*
- 80% browse web at least once daily*
- Average of 40 apps downloaded by each user*
- More devices coming soon...
  - HTC, Motorola, Samsung, LG, Sony Ericsson, Asus, Huawei, Toshiba, Acer, Dell, E28
  - Mobile Internet Devices (MIDs), Netbooks, etc..

*T-Mobile Announcement at CTIA, March 2009
Development
### Key differentiators from legacy mobile platforms

<table>
<thead>
<tr>
<th>Feature</th>
<th>iPhone</th>
<th>Android</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Compelling user experience”</td>
<td>√+</td>
<td>√</td>
</tr>
<tr>
<td>“Simplicity is key”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• UI design &amp; available features</td>
<td>√+</td>
<td>√</td>
</tr>
<tr>
<td>• Setup &amp; management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Data access is a right, not a privilege”</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>“Web browsing is a core experience”</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>“Location awareness makes the UX better”</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>“Open to innovation”</td>
<td>√</td>
<td>√+</td>
</tr>
<tr>
<td>“Bring apps to the user”</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>“Seamless sync”</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>“User customization”</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>“Media consumption is a core experience”</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>“Visual design makes the UX better”</td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>
- MacOS X for iPhone
  - Objective-C

- Developer resources
  - Excellent iPhone Developer Center
    - Excellent Human Interface Guidelines
  - $99 to join register & download the SDK
  - Plethora of 3rd party books & resources

- Device features
  - Excellent UI components
  - **Technologies:** geolocation, accelerometer, WiFi, Bluetooth PAN, A/V support, graphics, network access, multi-touch
  - **Limitations:** No background processes, limited access to core apps (e.g., SMS, music), memory management
Client Software: Android

- Java
  - An Android-specific flavor of Java based on Dalvik

- Developer resources
  - Good developer center
  - Free SDK download integrated with Eclipse
  - Plethora of 3rd party books & resources

- Device features
  - Good UI components: Extremely customizable
  - **Technologies:** Vary by device, but generally: WiFi, geolocation, A/V support, graphics (OpenGL), background processes, integration with core apps
  - **Limitations:** still maturing, lack of clear UI guidelines, too much customizability?
Web Apps: Android & iPhone

- Mobile Safari & Android browsers based on WebKit
  - If it works for iPhone, it’ll work for Android (mostly)

- Developer resources
  - Plethora of 3rd party books & resources
  - **Wanted:** Cross-mobile platform UI component library

- Device features
  - Rich support for JavaScript, CSS (AJAX)
    - Best mobile platforms for web apps
  - iPhone-optimized UIs work well on Android
    - Good apps include Google Reader, Yahoo! (http://new.m.yahoo.com)
  - **Technologies:** Integration with core apps (maps, phone, email, YouTube), orientation hooks
  - **Limitations:** Integration with device info (geolocation, battery, Bluetooth), no Flash, no Java

- **Hand Interactive:** Detect mobile devices using PHP, Java, JavaScript
  - www.hand-interactive.com/resources/
App Distribution
- Sell apps on the iTunes App Store
  - 70% goes to software publisher (reasonable!)
    - But if a user requests a refund, developer pays 100%
    - Delayed payments
  - 30,000+ apps (Fortune, March 2009)
  - 1 billion apps in 9 months
- App store features
  - Free vs. paid tensions
    - Mean price of a paid app is $2.55 (O’Reilly, March 2009)
  - Excellent search & browse
  - For each app: Long description, picture, reviews
  - Apple handles Tier 1 support
  - Virtually painless app update notification & installation features
  - Many small publishers have found success: Tap Tap Revenge
  - App approval issues
    - Mysterious process, requirements; arbitrariness
    - Long delays for approval
App Distribution: Android

- Sell apps on the Android App Market
  - $25 fee to register
  - 70% goes to software publisher (reasonable!)
    - Customer has 24 hours to request refund
  - Payment through Google Checkout (has some bumps...)

- App store features
  - Decent search & browse
    - Not as sexy or pleasant overall as the iPhone’s App Store
  - For each app: Short description (~325 chars), no picture, reviews
  - App publisher handles all customer support
  - Virtually painless app update notification & installation features
  - App approval process
    - No approval. Publish & it’s immediately live!
    - Google reserves right to remove apps from market. See recent scandal when T-Mobile USA requested removal of a tethering app
Quick Summary
Market positioning

- **iPhone**: Premium user experience ➔ BMW
- **Android**: Affordable touchscreen user experience for the people ➔ Honda
  - And VW — and Audi — and Chevy — and Cadillac — and Mini...

iPhone and Android represent the most consumer-friendly smartphone platforms on the market

- Easy to learn and use
- Seamless data connectivity
- Compelling & innovative user experiences

→ Together are leading to the mass market adoption of smartphone devices

- Revolutions present opportunities
  - Great opportunities for innovative software and services
  - Get started!!
Anthony Hand
(e) anthony.hand@gmail.com

- **Hand Interactive:** [www.hand-interactive.com](http://www.hand-interactive.com)

- **FloSpace:** [www.flospace.com](http://www.flospace.com)

- **Twitter:**
  - @AnthonyHand : Personal
  - @HandInteractive : Mobile industry & user experience