



Economics of Mobile Apps

Ted Chan

tedchan@gmail.com

Twitter: @upwardmobility

About me



Founder and CEO

Educational/ Test Prep Mobile Apps

- Virtual company 9 employees (Boston, Seattle, Vietnam, India)
- 6 Top 50 Apps in the iPhone App Store (Health and Education categories)
- 8 Top Paid Apps in Android Market (Health and Reference Categories)
- Palm Hot Apps Winner
- 100+ apps each in 4 app stores



Engagement Manager

Technology, Media and Telecom Consulting

- Strategy consultant to executives at Fortune 500 telecommunications, media and technology companies
- Expertise in wireless services, including mobile value added services, M2M, VoIP, convergence and app development

Other Ventures



Android Open Source Health Care Platform
Winner Vodafone mHealth Prize – \$150K



CTO
Recently raised funding for tablet software company



Popular site for high school athletes with a somewhat fanatical following

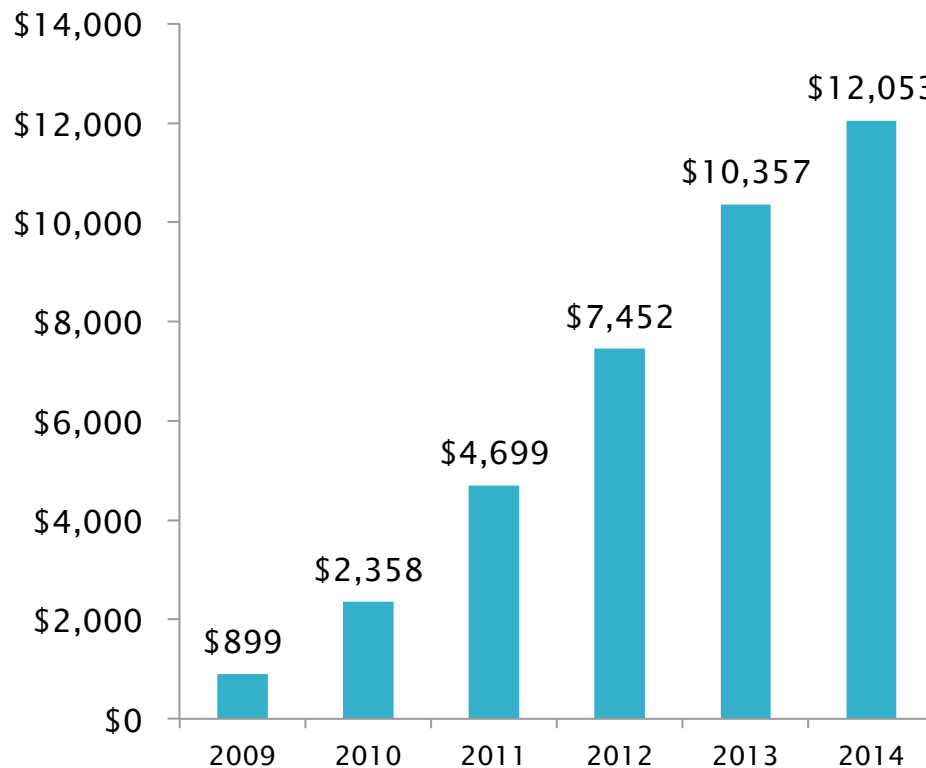
Agenda

- ▶ Market Overview and Evolution
- ▶ Monetization
- ▶ Challenges
- ▶ Recommendations



Mobile apps...massive growth, but just the tip of the iceberg

2010–2014 Projected Global Smartphone App Revenues



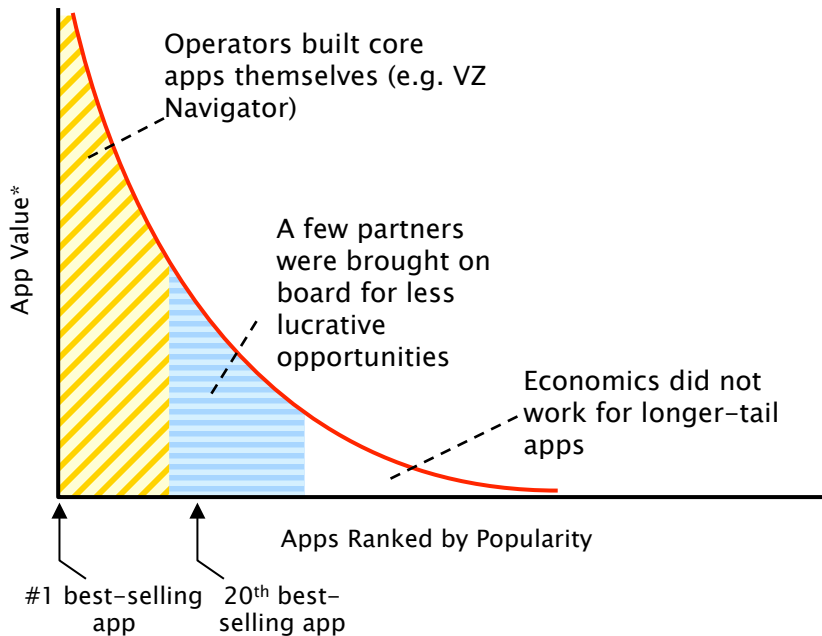
Comments

- US smartphone penetration is currently only 28%, lower globally
- US penetration forecasted to grow to 80% by 2015
- Tablets will be huge – forecasted to grow to 60 to 115 million globally
- 25+ Android tablets to be launched in 2010

From walled garden to open ecosystem

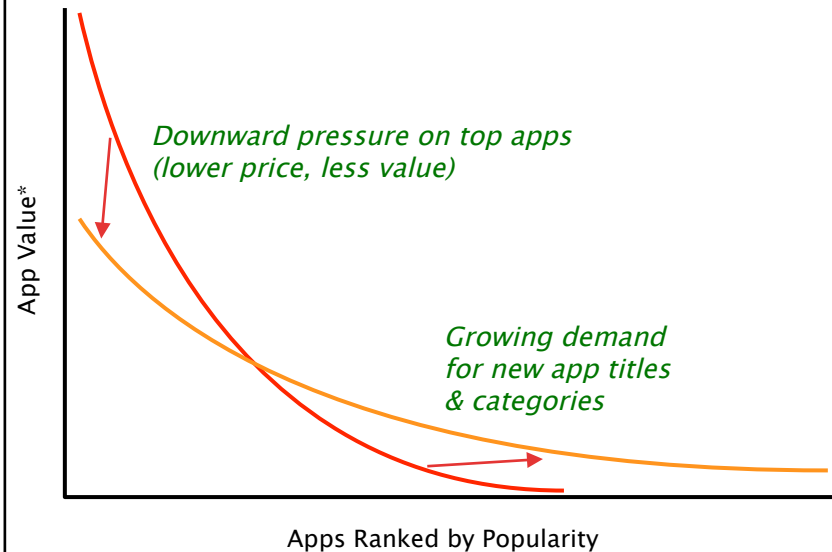
2005

In the walled garden days, operators focused only on high-demand apps...



2007 – Present

Led by the iPhone, apps became free or less expensive while serving as differentiator (e.g. “free Google Maps, screw Navigator”)



— = New app ecosystem demand
 — = Walled garden app demand

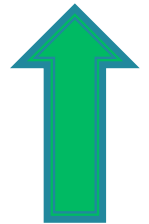
What's different?

- ▶ And on the 7th day Steve Jobs rested...

Drivers of Improved Developer Profitability

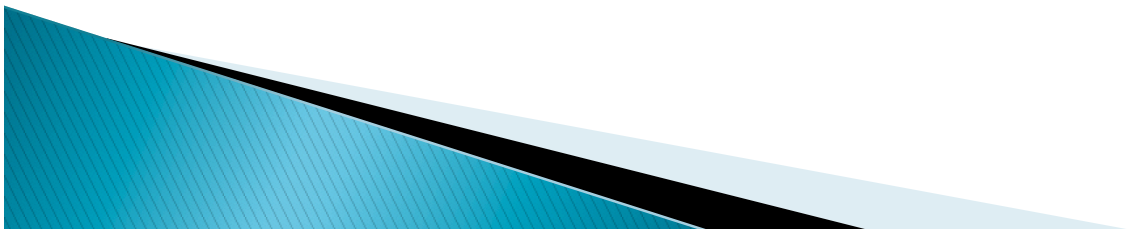
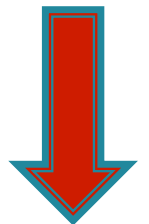
▶ Revenue Up

- **Improved Rev Share Terms:** Revenue splits are massively improved (was 40/60 to the carrier just a few years ago)
- **Discoverability:** Discovery and marketing is done for you (with varying levels of competence (can't emphasize how important this is as an App Store concept – companies can spend years building channels))
- **Easy Billing:** Billing infinitely easier and will get better with carrier billing (we hope)
- **User Experience:** User experience massively improved and thus customer willingness to pay (thank you Apple)
- **App Culture:** Users who avoided anything sold by the carrier like the plague are now all about apps

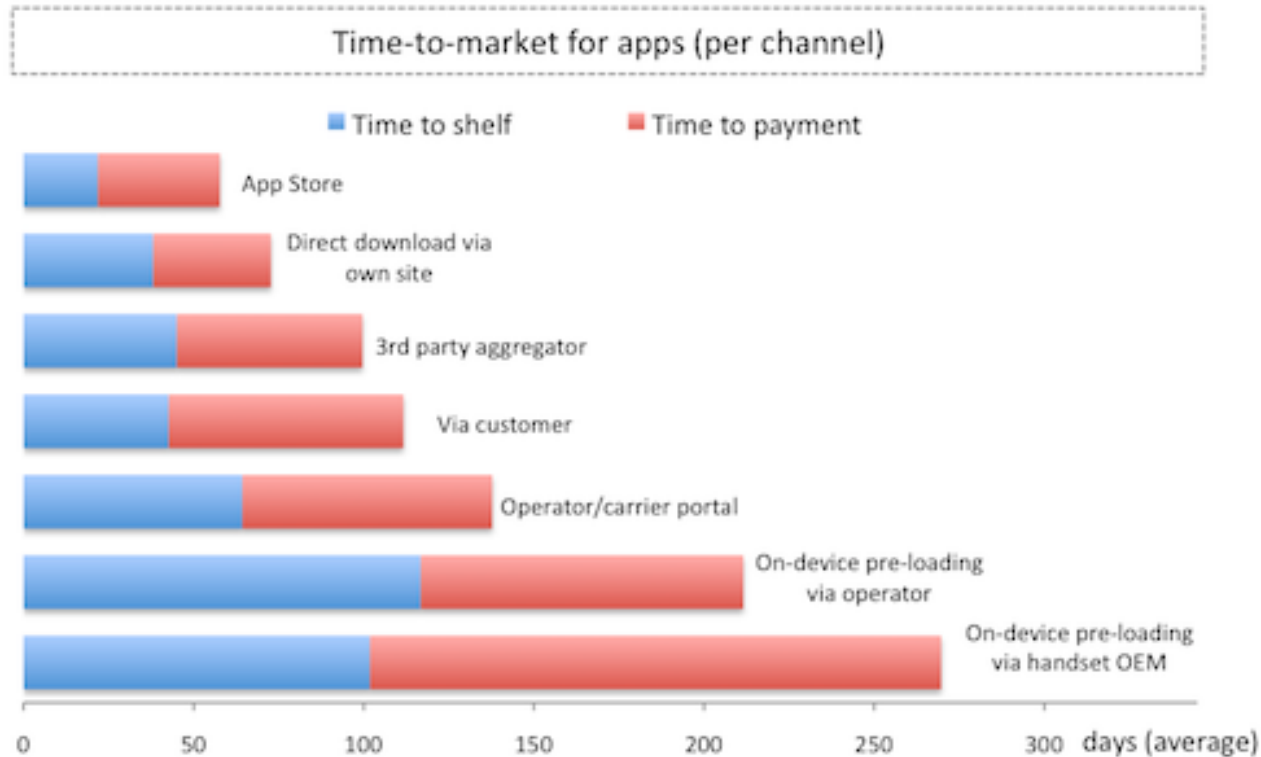


▶ Costs down

- **Development costs:** Development is much easier with APIs and SDKs
- **Certainty around getting to market:** No more business development army needed to get on carrier decks
- **Channel:** Investment costs to establish channel are minimal – watch out for Mac App Store. Days of begging VARs to sell your stuff may be coming to an end.



Time to market and payment has vastly improved

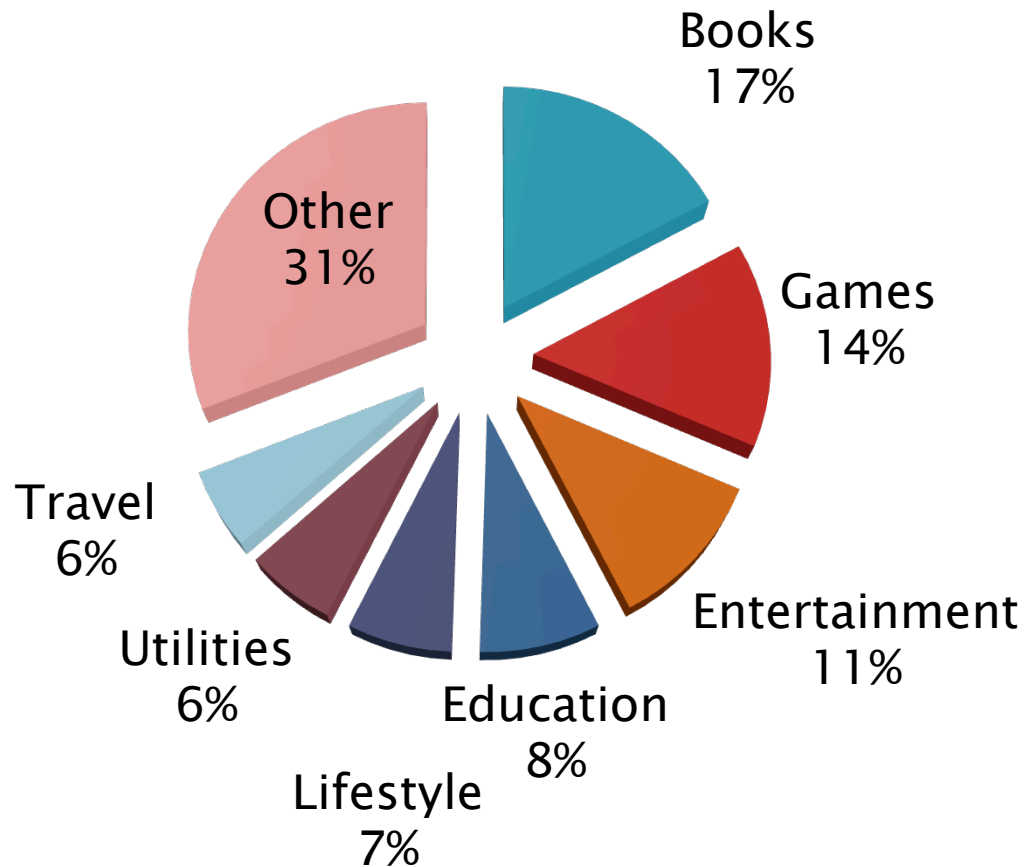


Source: Mobile Developer Economics 2010 and Beyond. Produced by VisionMobile. Sponsored by Telefonica Developer Communities. June 2010. Licensed under Creative Commons Attribution 3.0 License. Any use or remix of this work must retain this notice.

Source: VisionMobile

It's a jungle out there

iOS Available Apps by Category (332,000 total apps)



Paid App Comments

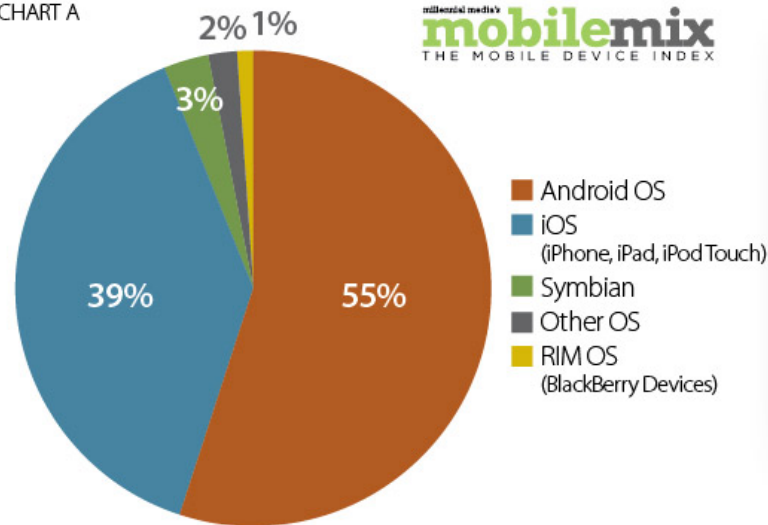
- Average App Price is \$4.07
- Average Game Price is \$1.66
- Average sold app is around \$2.50 (games represent a huge proportion of the apps sold, estimates are 60%+)
- Android has about 130,000 applications. Android has more free apps and lower prices in general.
- BlackBerry has about 18,000 application

Android is doing well for ad supported models

Application Platform Mix

By Revenue – Q4 2010

CHART A



Source: Millennial Media, 12/10. Other category includes Java, Palm, Windows Mobile/Windows Phone 7, and Brew.

Comments

- We have heard anecdotally about Android being better for advertisers from multiple ad servers
- Android users seem to have slightly higher click through rates
- iAds is probably taking some market share from the ad servers
- They also have a higher percentage of free apps

A plug to sign up for these free reports:

<http://www.millennialmedia.com/research/>

Two other monetization models are very important

Ad-Based

- ~\$10 CPM for Apple iAds
- \$8 to \$25 CPM range
- Ads tend to be clearly visible rather than stuffed into cluttered environments as they can be on the web

In-App Purchases

- Distimo recently reported that as much as 50% of revenue is coming through in-app sales
- Key in-app goods include expanded content (premium articles) and digital goods (super fertilizer in CarrotVille)

Getting on deck with a charge is hard – Top 300 free apps generated 3 million downloads per day, compared to 350,000 for paid

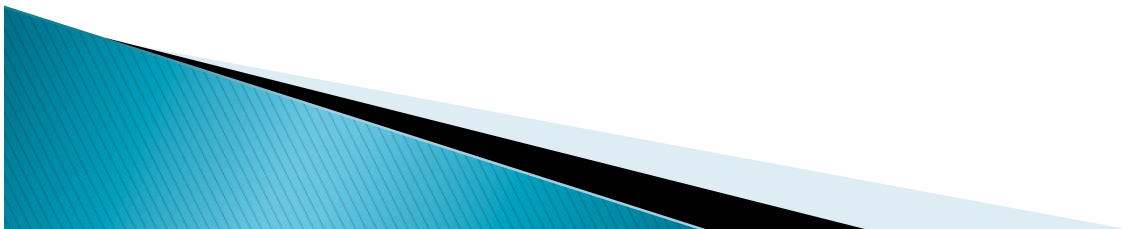
iPhone is not always best (though it often is)

Key Market Attractiveness Considerations

- ▶ Economics are driven by:
 - **Platform Penetration** (purely OS market shares)
- But also:
 - **App Adoption by Platform** (Palm is good, BlackBerry is really bad)
 - **Intensity of competition for specific app** (quality and quantity)
 - **Discovery** (iOS is best, Android is rapidly improving)
 - **Cost of support** (Android fragmentation is a major problem)

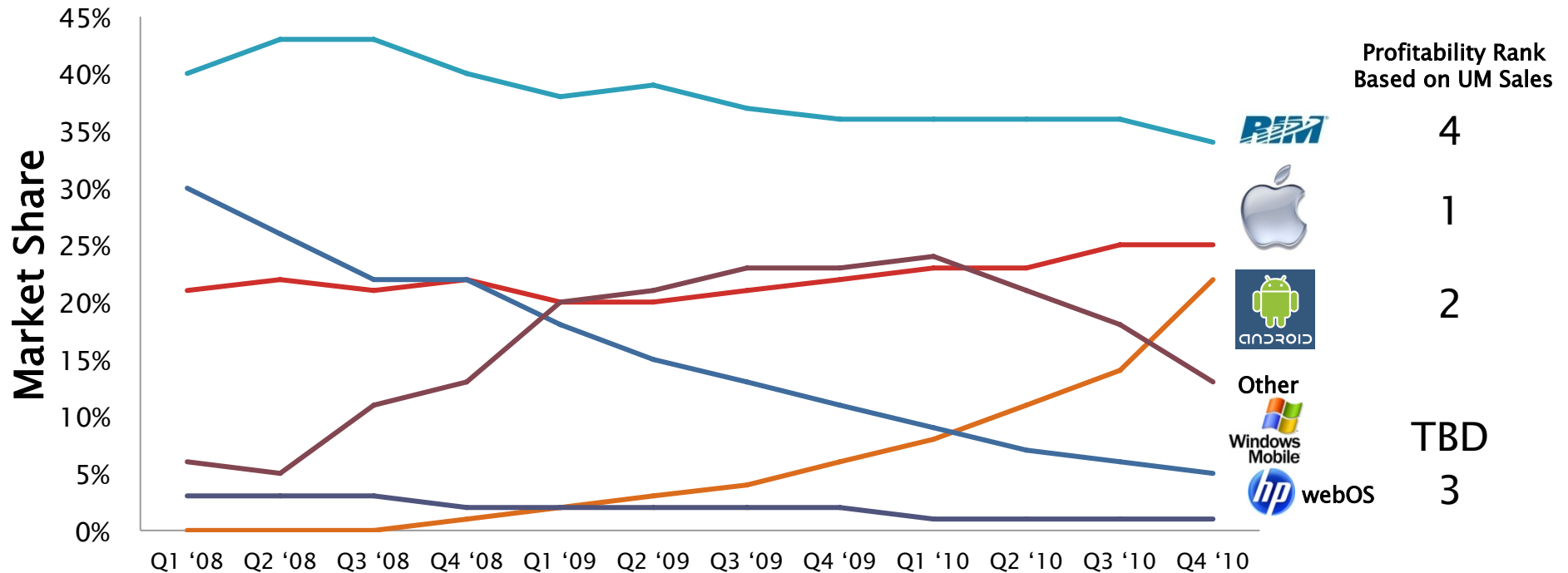


*Small fish in a small pond or
big fish in a shark tank?*



US Smartphone OS Market Share

US Smartphone OS Share 2008 to 2010

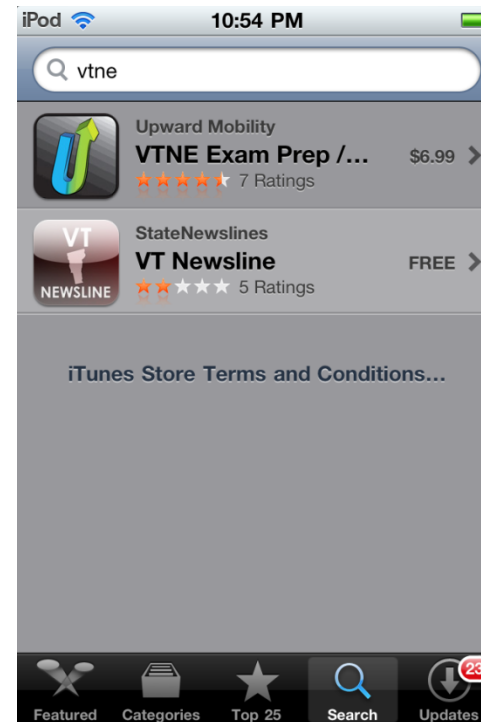


- Other includes devices from Nokia, LG, Samsung, and Sony
- Nokia matters much more in global markets
- 40% of iOS devices are iPod Touches...with lots of iPad to come
- Why isn't there an Android MP3 player?
- Developers hate RIM with a passion but eventually they'll figure it out...right...right?

Source: SNL

Tooth and nail fight for the big opportunities

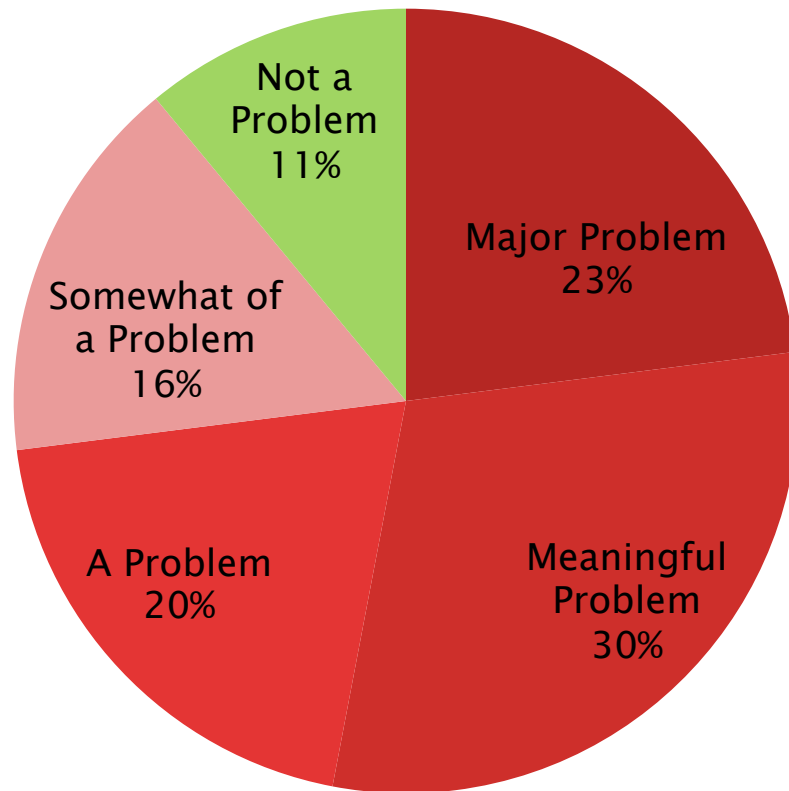
- ▶ Do you want to live in a world where Kaplan isn't on the front page?



Traditional SEM is very difficult to do because revenues per conversion are low and apps are on-deck

Android fragmentation is becoming a problem

How much of a problem is Android fragmentation?



- Multiple versions of Android that are significantly different
- Different screen resolution and sizes (but customers want to run everything)
- Devices range in processing power
- Buttons aren't in the same place
- Varied components (e.g. accelerometer)
- Different UIs overlaid by OEMs trying to differentiate
- Multiple 3rd party app stores with different install processes

My app philosophy

- ▶ Competent, low-cost development available outside the US
- ▶ Re-use similar platforms with different content – you don't know what will be hot – ninjas, drug wars, carrot farming
- ▶ Portfolio theory applies – multiple apps spreads risk / multiple apps on one platform creates value
- ▶ Sales boost only from making Top 10 or so
- ▶ KISS principle applies – think hard about customer use cases and eliminating bulky code and slow-moving features
- ▶ And lastly...

We're just at the bottom of the knee in the curve for the global opportunity – 3.8 b mobile broadband subs in 2015