

# **INTERNET TRENDS:**

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## **Selected graphics and commentary**

This is an edited version of the presentation made at D: All Things Digital conference with comments by Aberdeen. A complete copy of the presentation by Ms. Meeker, all 112 slides, can be found at the following link:

[KPCB Internet Trends 2012](#)

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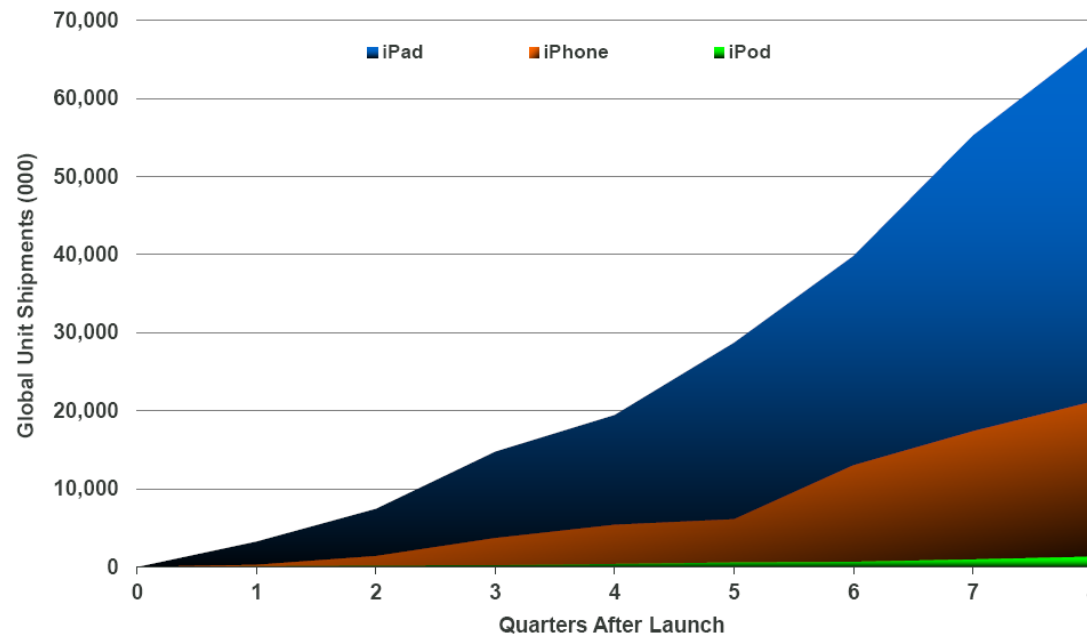
Jeb B. Terry, Sr

[www.aberdeeninvestment.com](http://www.aberdeeninvestment.com)

The iPad is the fastest adopted technology device – EVER. The implications for the way video is sold and consumed are far reaching. The explosion in iPads and soon, other more competitive tablets, has accelerated the roll out of TV Everywhere initiatives and is causing demand for WiFi bandwidth to explode. JBTSR

## iPods Changed Media Industry...iPhones Ramped Even Faster...iPad Growth (3x iPhone) Leaves “Siblings” in Dust

First 8 Quarters Cumulative Unit Shipments, iPod vs. iPhone vs. iPad



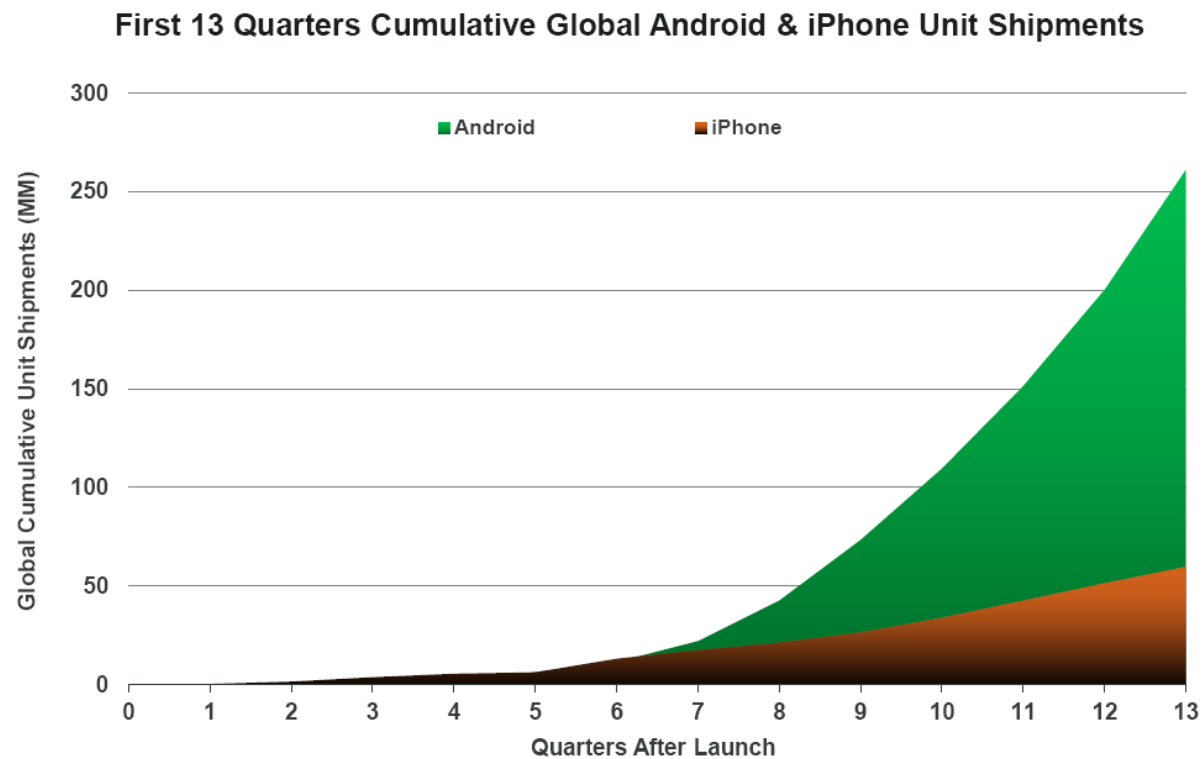
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Source: Apple, as of CQ1:12 (8 quarters post iPad launch).

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People are too focused on Apple's leadership in smartphones. They are missing terrific growth in Google sponsored Android devices. Expect a BIG push for more competitive Android phones once Google gets its recent Motorola acquisition up and running. Google / Motorola devices will be video centric. Expect even more demand for wireless data bandwidth. JBTSR

## Android 'Phone' Adoption Has Ramped Even Faster – 4x iPhone



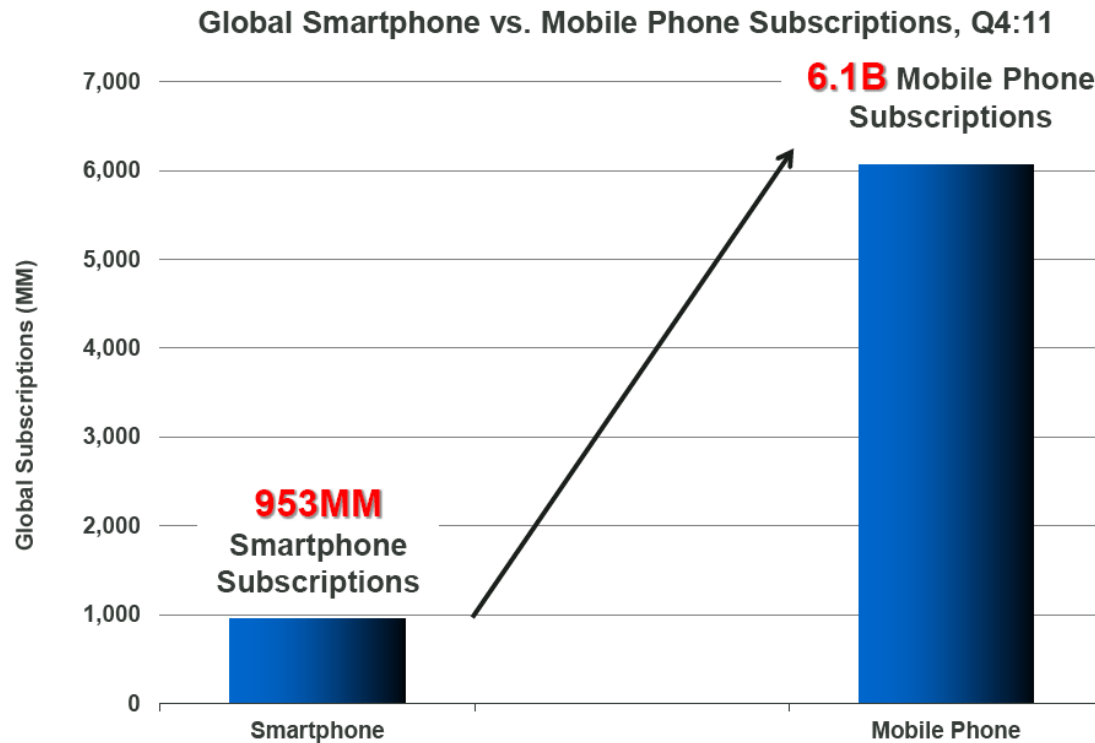
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Source: Gartner, Morgan Stanley Research, as of Q4:11.

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There will be a mad dash by the global smartphone makers to get their fair share of the 6.1 billion “dumb” phone replacement market . . . and the data ARPU that will go along with that replacement. Voice services are commoditizing rapidly. “Smart” data services are rising rapidly. JBTSR

## Despite Tremendous Ramp So Far, Smartphone User Adoption Has Huge Upside



Source: Mobile phone subscriptions per Informa (as of Q4:11), Smartphone subscriptions estimate based on Morgan Stanley Research's estimated smartphone user as % of total mobile user at the end of 2011 (16%).

Note: While there are 1B global 3G subscribers as of Q4:11, not all of them were smartphone users. One user may have multiple mobile subscriptions, therefore actual user #s may be lower than subscriber #s.

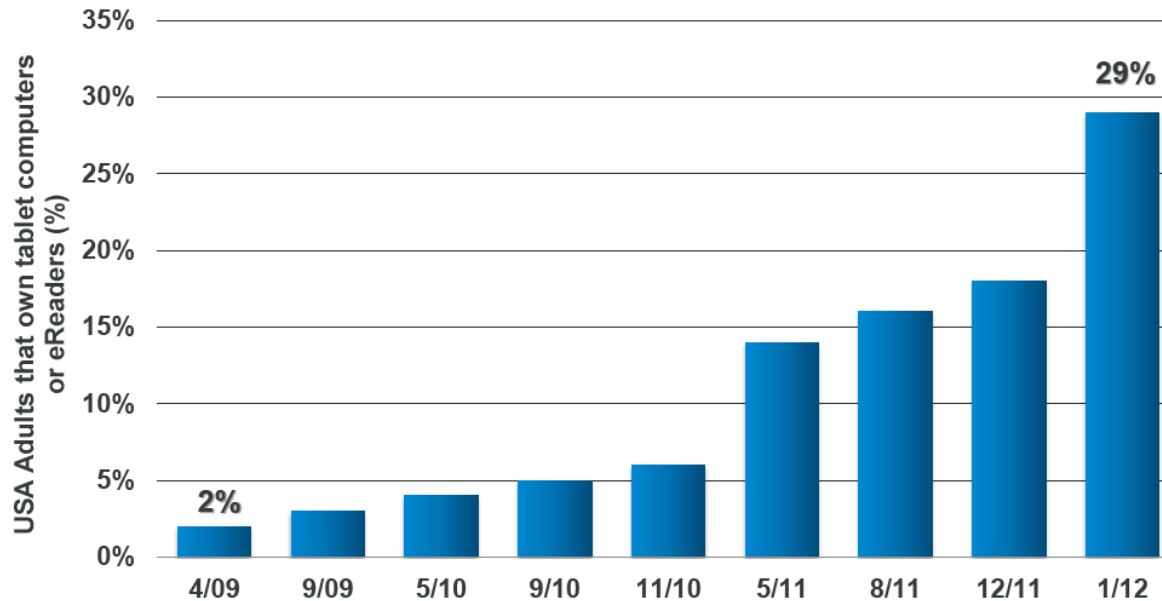
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I wouldn't be surprised to see this percentage double by the end of 2013. JBTSR

## Impressive 29% of USA Adults Own Tablet / eReader, Up from 2% Less Than Three Years Ago

% of USA Adults Who Own Tablet Computers or eReaders, 4/09 – 1/12



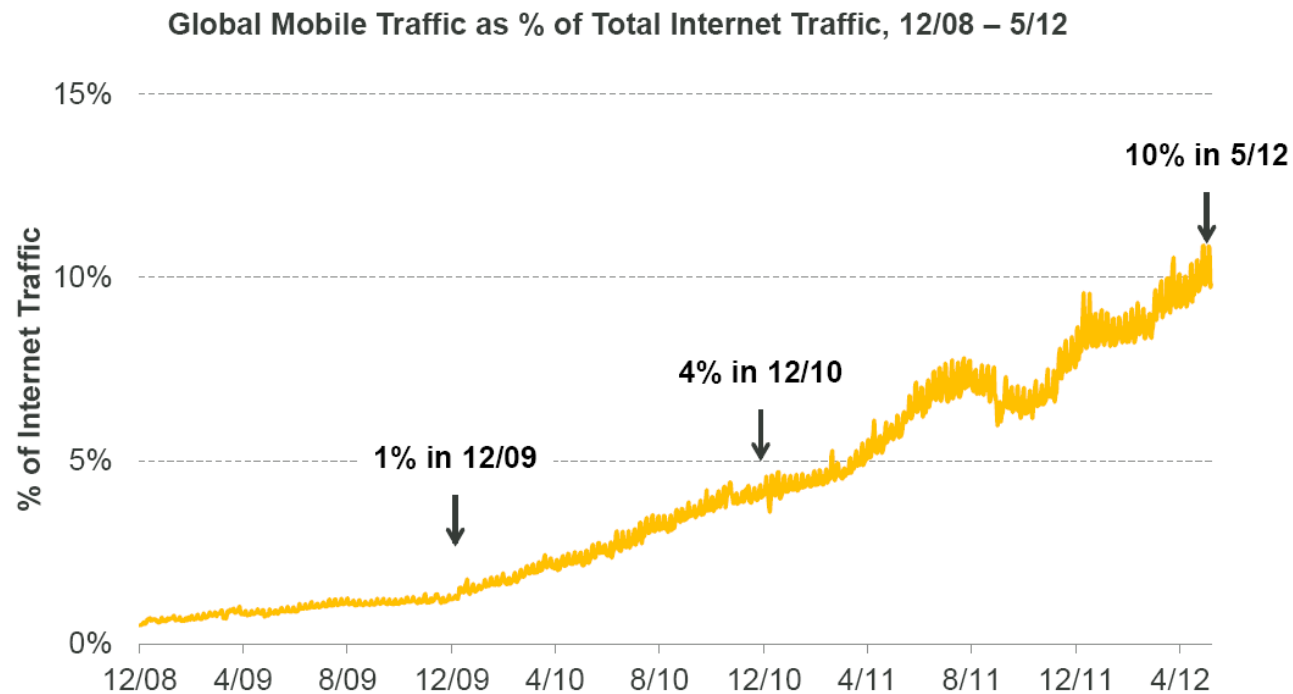
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Source: Pew Research Center, 1/12.

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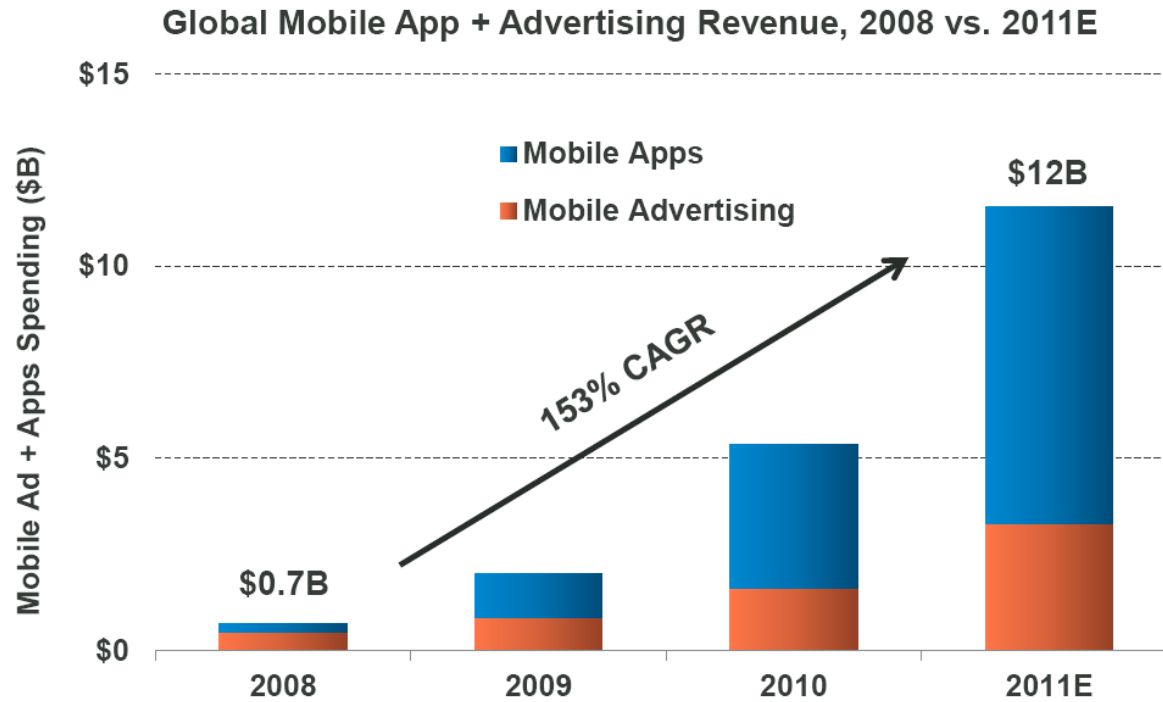
More smartphones and tablets = more wireless data traffic (i.e. video). The upward pressure on wireless data bandwidth capacity will be unrelenting. Our overweighting on WiFi related, wireless video technology & services and mobile advertising companies is looking smarter by the day. JBTSR

**Good News =  
Global Mobile Traffic Growing Rapidly to 10% of Internet Traffic**



More smart devices = more apps and more ads. Truly remarkable growth and scale. JBTSR

## Good News = Mobile Monetization Growing Rapidly (71% Apps, 29% Ads)



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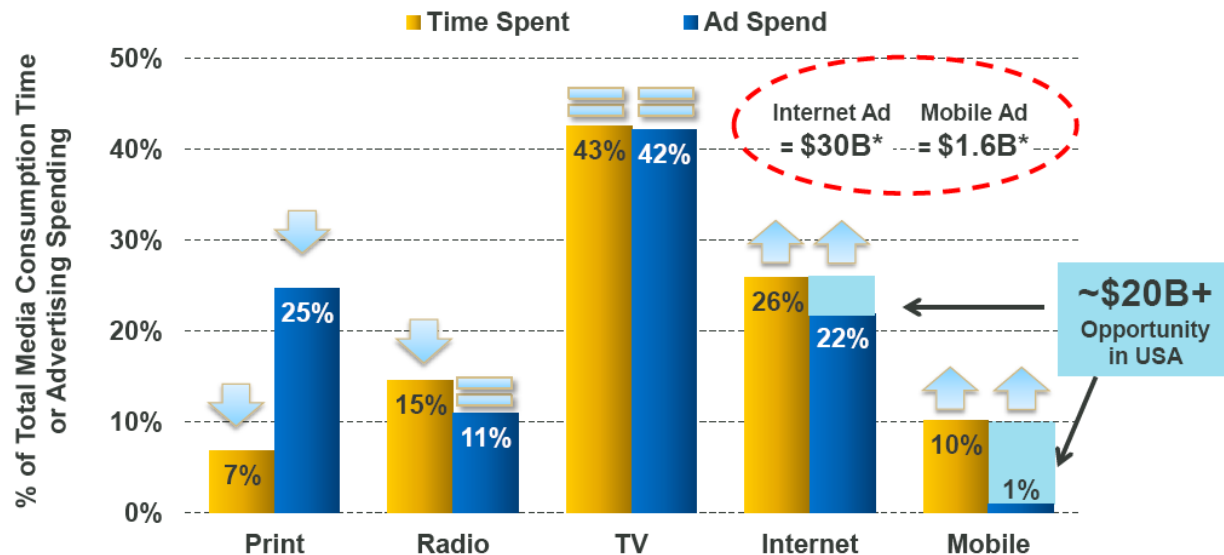
Source: Gartner. CAGR is compound annual growth rate.  
Note: Apple has paid >\$3B \$'s to developers as of 9/11, implying gross app market revenue of \$4B in 3 years; Google indicated during Q3 earnings call that it expects \$2.5B mobile ad revenue in 2011E

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Time spent on the internet and mobile phones is going up => online and mobile ad spending is going up. The percentage of ad spending that is spent on online ad spending is rapidly catching up to the percentage of time spent on line. This chart is a great display of why we like mobile advertising so much. JBTSR

## Good News = Material Upside for Mobile Ad Spend vs. Mobile Usage

**% of Time Spent in Media vs. % of Advertising Spending, USA 2011**



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Note: \*Internet (excl. mobile) advertising reached \$30B in USA in 2011 per IAB, Mobile advertising reached \$1.6B per IAB. Print includes newspaper and magazine. \$20B opportunity calculated assuming Internet and Mobile ad spend share equal their respective time spent share. Source: Time spent and ad spend share data eMarketer, 12/11, Internet and mobile ad dollar spent amount per IAB.

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## Mobile Monetization Good News = Desktop Internet Proved Ad \$ Follow Eyeballs, it Just Takes Time

	1995E	2011E
<b>Global Internet Ad Revenue</b>	\$55MM	\$73B
<b>Ad Revenue per User</b>	\$9	\$49
<b>Global Internet Users</b>	6MM	1.5B

### Mobile Monetization has More Going for It than Early Desktop Monetization Had:

- Very Rapid User Growth
- **App + In-App Monetization (44% of apps are free, 56% of apps priced at \$3.77 average)**
- Rapid Growth of Mobile Commerce + Payment Systems
- **Large Number of Innovative Developers**
- **Broad Base of Sophisticated Advertisers + Marketers**
- **Highly Engaged Consumers Assisted by Social + Curation Tools**
- Rapid Acceptance of Two Device Platforms – Smartphones + Tablets
- ‘Essential Utility’ / Ultra Useful Apps Being Created
- **Lessons from Developed Mobile Markets like Japan – Using Japanese Market Pattern Recognition, Mobile Monetization Levels in USA Could Surpass Desktop Within 1-3 Years**

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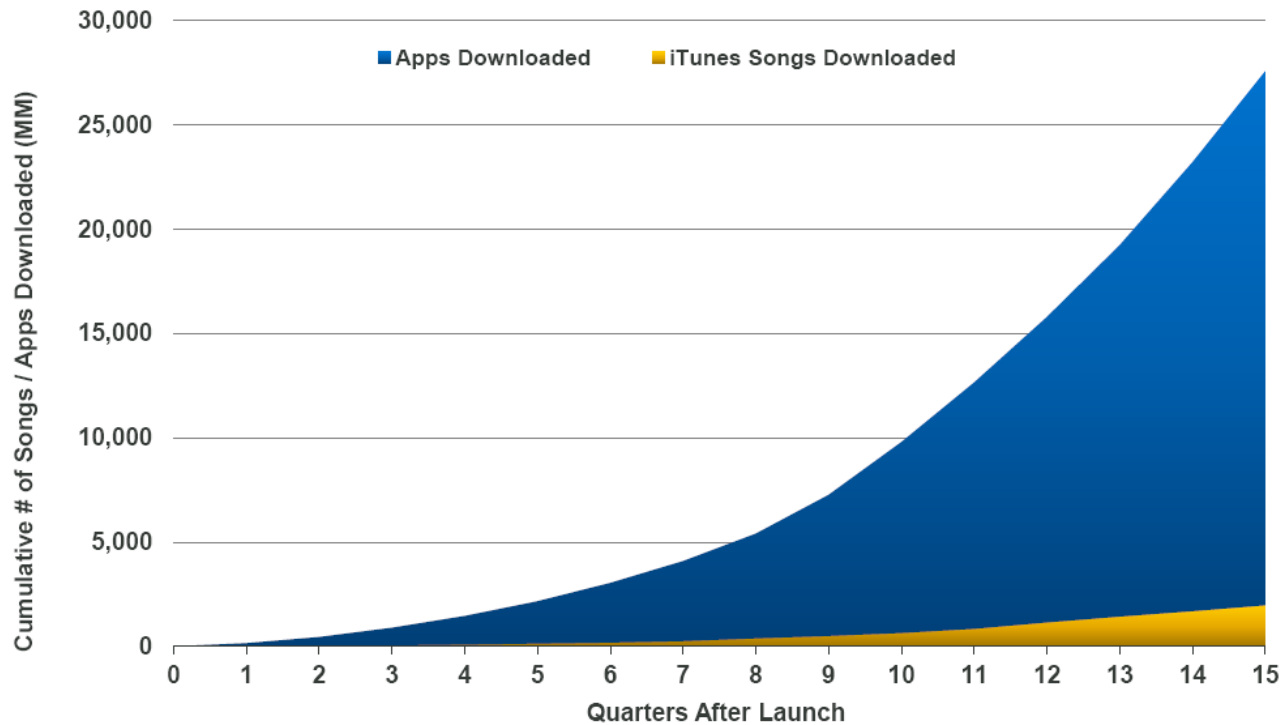
Source: Global online ad revenue per Jupiter Communications (1995), ZenithOptimedia (2011). Internet users per Morgan Stanley estimate (1995) and comScore (2011). We note that comScore reports a lower global Internet user # than International Telecommunications Union. App price data per 148apps / AppBrain.

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Apps are not only money makers in terms of direct purchases, they have spawned a rapidly growing sub-industry of app developers / entrepreneurs. The pace of innovation is breathtaking. The ability to create an app and have it commercialized is far more facile and rapid than in the days of writing software for PCs. JBTSR

## Apple App Store Distribution – iTunes App Store Driving 46MM+\* Downloads per Day

First 15 Quarters Cumulative # of Downloads, iTunes Music vs. Apps



Note: \* 46MM daily app downloads calculation based on days between Apple announced milestones (18B downloads as of 10/4/11 and 25B downloads as of 3/5/12). iTunes Music store launched in CQ2:03, App Store launched in CQ3:08. Source: KPCB estimates based on Apple data, as of CQ1:12.

. . . This speaks for itself – eh? **THINK POSITIVE AND SEE THE FUTURE - JBTSR**

## Magnitude of Upcoming Change Will be Stunning - We are Still in Spring Training

- **Nearly Ubiquitous High-Speed Wireless Access in Developed Countries**
- **Unprecedented Global Technology Innovation**
- Ultra Competitive Markets for Mobile Operating Systems + Devices
- Broadly Accepted ‘Social Graphs’ / Information Transparency
- **Fearless (& Connected) Entrepreneurs**
- Difficult ‘What Do I Have to Lose’ Economic Environment for Many
- **Available (& Experienced) Capital**
- **Fearless (& Connected) Consumers**
- **Inexpensive Devices / Access / Services (Apps)**
- **Ability to Reach Millions of New Users in Record (& Accelerating) Time**
- ‘Social Emerging as Starting Distribution Point for Content,’ (Brian Norgard, Chill)
- Aggressive (and Informed) ‘On My Watch’ Executives at ‘Traditional’ Companies
- Unprecedented Combo of Focus on Technology AND Design
- Nearly ‘Plug & Play’ Environment For Entrepreneurs – Marketplaces / Web Services / Distributed Work / Innovative Productivity Tools / Low ‘Start Up’ Cost
- Beautiful / Relevant / Personalized / Curated Content for Consumers

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