

# Audiovisual Interaction w/ oF & iOS



Week 1 / 8: Intro to iOS & openFrameworks

Tuesday Jan 31, 2012

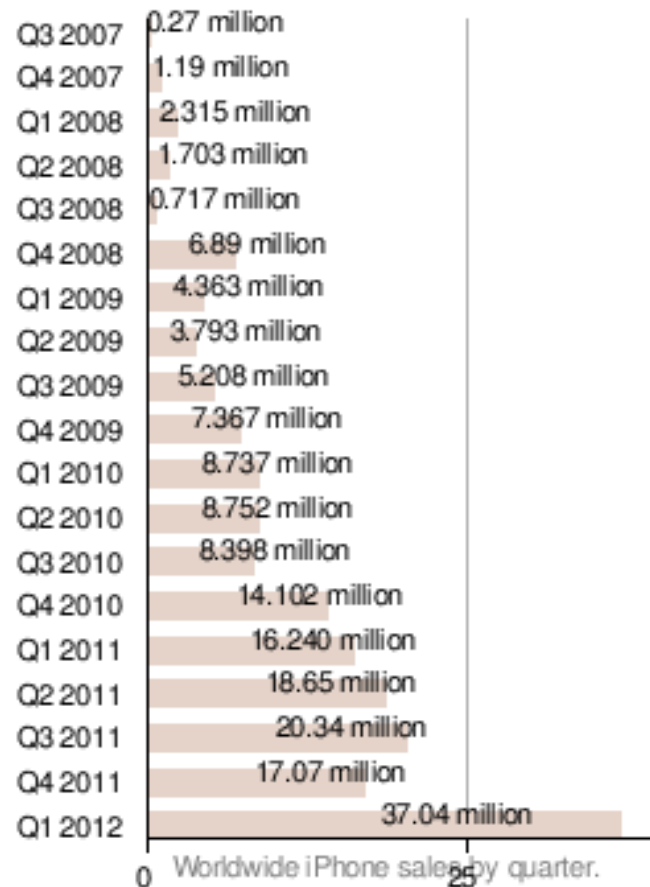
Parag K Mital | <http://pkmital.com>



Snow Leopard + Xcode 3.2.6  
OR  
Lion + Xcode 4.2.1

# iPhone

1. it is a ubiquitous device

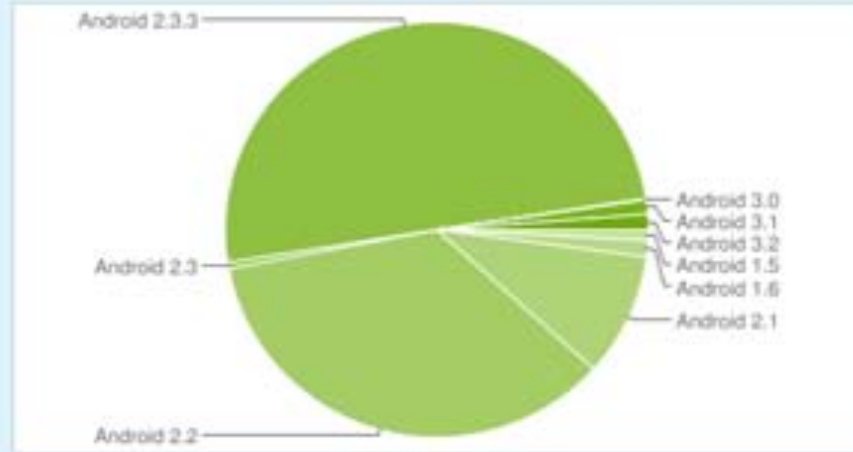




## 2. the OS and hardware are unified

## Current Distribution

The following pie chart and table is based on the number of Android devices that have accessed Android Market within a 14-day period ending on the data collection date noted below.



Platform	Codename	API Level	Distribution
<a href="#">Android 1.5</a>	Cupcake	3	0.8%
<a href="#">Android 1.6</a>	Donut	4	1.3%
<a href="#">Android 2.1</a>	Eclair	7	9.6%
<a href="#">Android 2.2</a>	Froyo	8	35.3%
<a href="#">Android 2.3 - Android 2.3.2</a>	Gingerbread	9	0.5%
<a href="#">Android 2.3.3 - Android 2.3.7</a>		10	50.1%
<a href="#">Android 3.0</a>	Honeycomb	11	0.1%
<a href="#">Android 3.1</a>		12	1.1%
<a href="#">Android 3.2</a>		13	1.2%

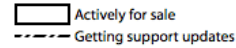
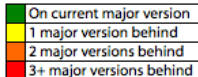
Data collected during a 14-day period ending on December 1, 2011



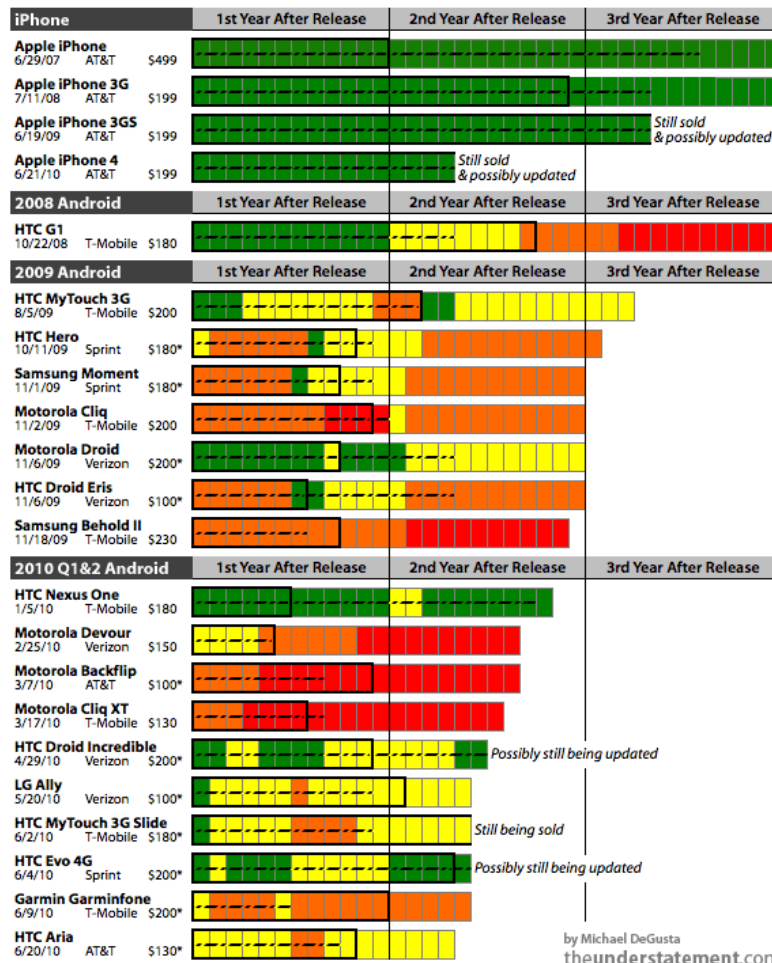
## ANDROID & IPHONE UPDATE HISTORY

Includes every iPhone & Android model released in the US before July 2010.

Data as of the end of October 2011.



Prices are with 2 year contract



\* After \$100 mail-in rebate (\$50 on MyTouch 3G Slide & Garminfone)

by Michael DeGusta  
theunderstatement.com  
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### 3. it's a tiny mobile computer

- 3.5'' capacitive multi-touch touchscreen, 360×480 px at 6.3 px/mm, 160 ppi, HVGA
- Proximity sensor and ambient light sensor
- 3 axis accelerometer (SDK)
- Assisted GPS (SDK)
- 2/3.2 Mpx digital camera
- PowerVR MBX 3D Graphics Accelerator (new version of old dreamcast hardware)
- Faster, more powerful and more memory than both PSP and nintendo DS
- 3g and/or WiFi internet access
- Bluetooth communication
- And it's a phone.....isn't it?
- Original iPhone, iPod touch and iPhone 3G – OpenGL ES 1.1
- iPhone 3GS, iPhone 4 and new iPod touch – OpenGL ES 2

# 4. apps

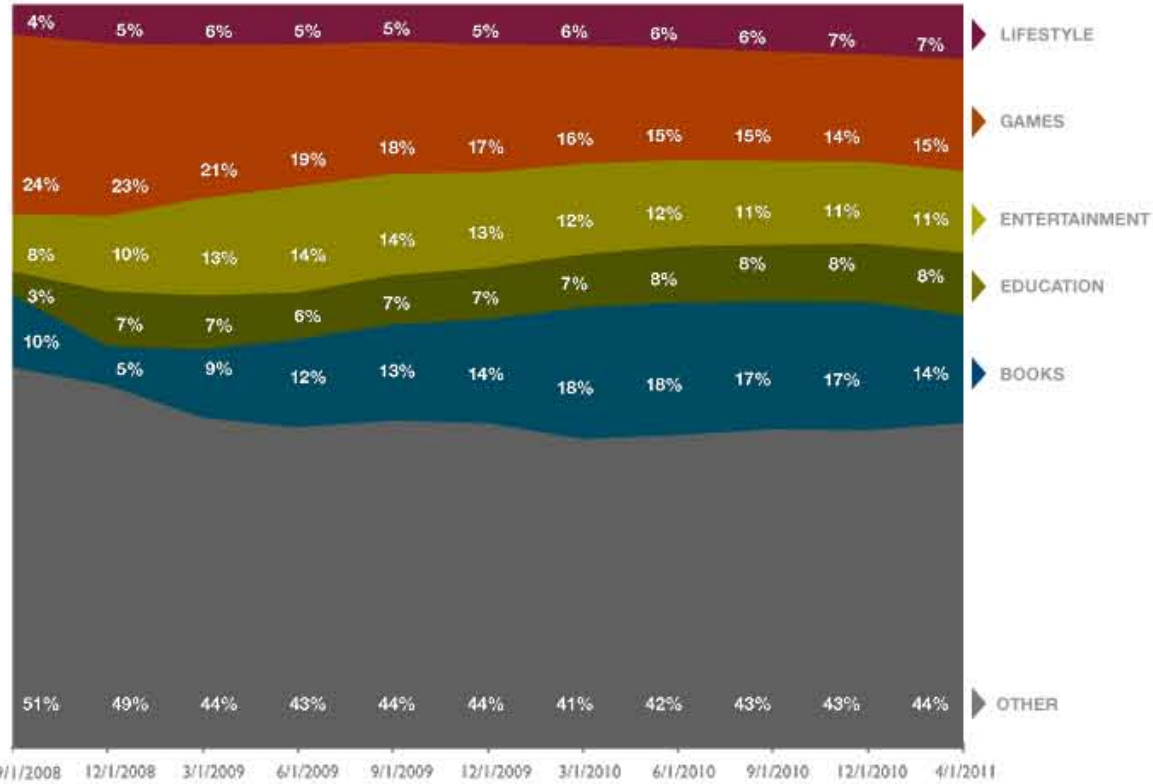
# 244,720

TOTAL PAID APPS



- \$11.99
- \$12.99
- \$13.99
- \$14.99 and more

## CATEGORY DISTRIBUTION OVER TIME

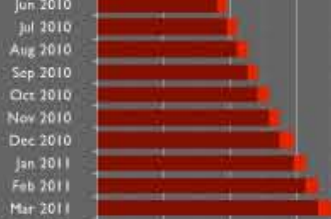


chomp

148Apps

chillingo

facebook.com/500kapps | MAY 2011



VALUE OF ALL LIVE APPS

4.6

AVERAGE NUMBER OF APPS PER DEVELOPER

MAY 2011 LIVE APP PRICES

**\$ 3.64**

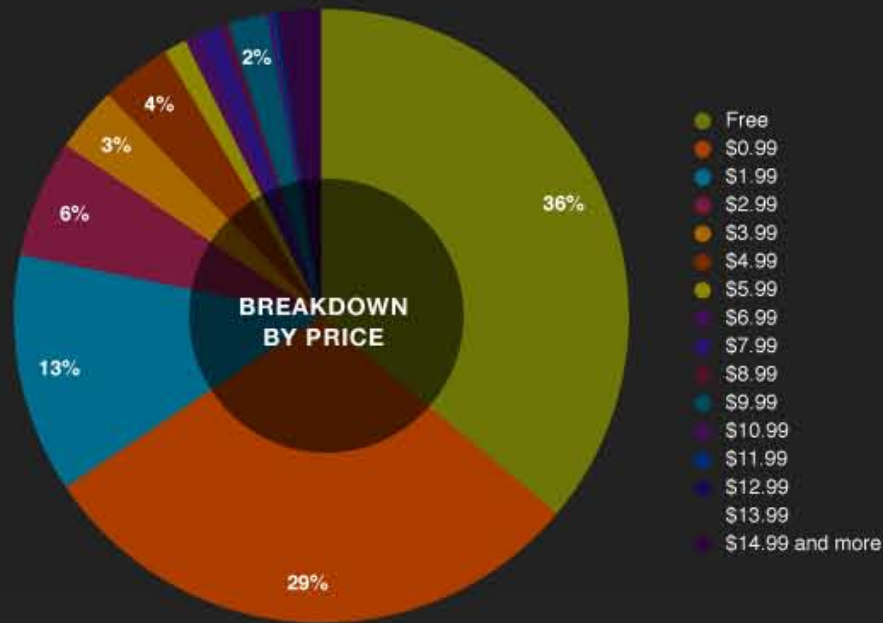
IS THE AVERAGE PRICE FOR PAID APPS

**147,966**

TOTAL FREE APPS

**244,720**

TOTAL PAID APPS

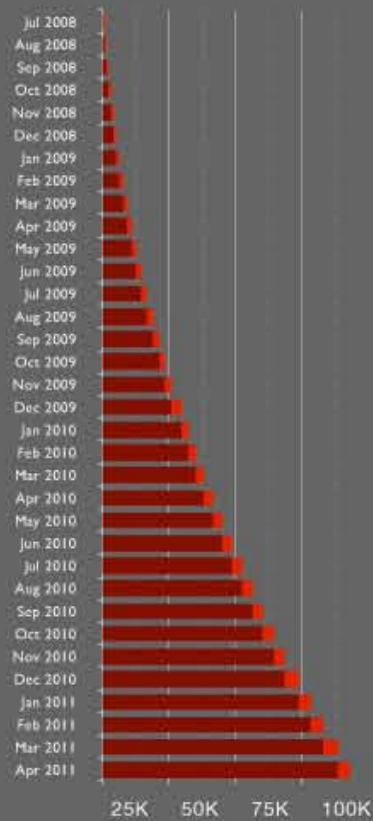


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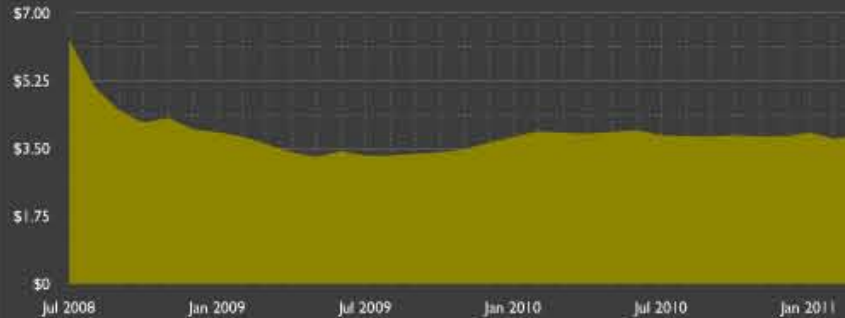
MAY 2011

## PRICE, CATEGORIES AND DEVELOPERS

NUMBER OF DEVELOPERS MONTH OVER MONTH



CHANGE IN AVERAGE APP PRICE (FOR PAID APPS) OVER TIME



**\$ 891,982.24**

VALUE OF ALL LIVE APPS

**4.6**

AVERAGE NUMBER OF APPS PER DEVELOPER



App Store Launches

2008

JULY 10 2008  
**500**  
APPS

7/14/2008  
**10 million apps downloaded**  
(first weekend of App store launch)

25% of those apps were free

NOVEMBER 29 2008  
**10,000**  
APPS

6  
7  
8  
9  
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11  
12

- 
 7/9/2008 | **Pandora**  
 Credited by Pandora as making the company profitable.
- 

 7/11/2008 | **Facebook**  
 7/11/2008 | **Google**
- 
 7/11/2008 | **Super Monkey Ball**  
 Recognized as the first big game on the App Store. Launched at \$9.99 and set the price point back then for games.
- 
 7/11/2008 | **Texas Hold'em**  
 First and only game released by Apple. Hasn't been updated since 9/1/2008. Priced at \$4.99. Originally \$9.99.
- 
 8/20/2008 | **Brushes**  
 iOS recognized devices as artistic tools used to create New Yorker cover (6/1/2009).
- 
 11/6/2008 | **Star Walk**  
 Educational, augmented reality - hold up phone to night sky, look through camera to see a stars name.
- 
 11/30/2008 | **Amazon**



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2009

App Store had 99.4% market share in 2009



1/9/2009 | **Pocket God**  
First app to pioneer episodic updates



1/24/2009 | **Wheels on the Bus**  
The touchstone app for educational apps on the iOS platform - first really popular kids education app.



2/26/2009 | **Flight Control**  
New game type, huge sales, developer now owned by EA.



3/3/2009 | **Kindle**  
Apple responded with iBooks; the arrival of Kindle on the App Store was the beginning of iOS devices as e-readers.



3/11/2009 | **Foursquare**  
3/27/2009 | **MLB At Bat**



9/3/2009 | **Madden NFL 10 by EA Sports**  
Arrival of the largest franchise in video games.



10/9/2009 | **Twitter**  
Started as Tweetie from indie developer Loren Brichter, purchased by Twitter and became official client.



12/11/2009 | **Angry Birds**  
Highest selling game on iOS with millions of paid downloads (specific iOS total never released, 200M total downloads on all platforms and variations).

1/16/2009

500 million app downloads

4/23/2009

1 billion app downloads

NOVEMBER 4 2009

100,000

APPS

"App" was awarded the honor of being 2010's "Word of the Year" by the American Dialect Society




facebook.com/500kapps


MAY 2011

"App" was awarded the honor of being 2010's "Word of the Year" by the American Dialect Society

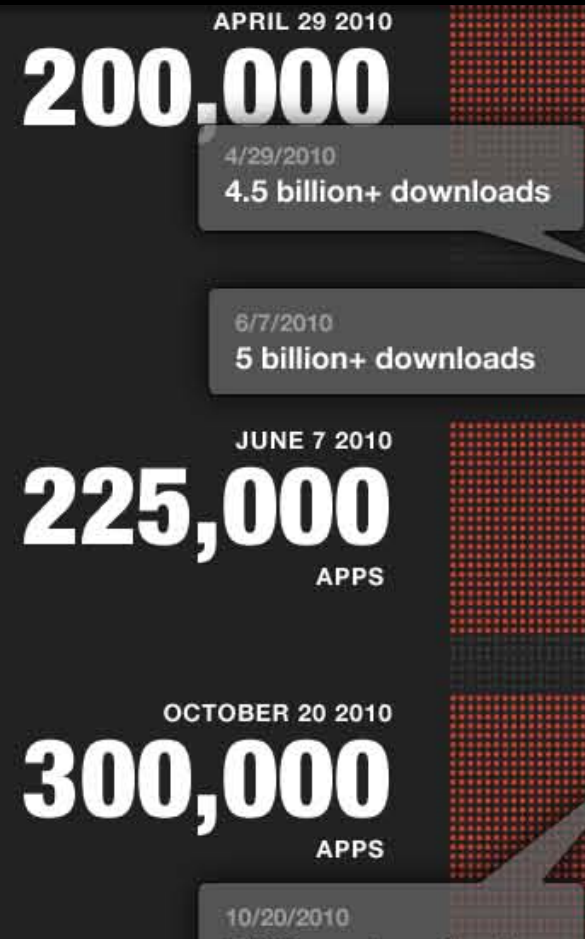
11  
12



Loren Brichter, purchased by Twitter and became official client.



12/11/2009 | **Angry Birds**  
Highest selling game on iOS with millions of paid downloads (specific iOS total never released, 200M total downloads on all platforms and variations).



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1/10/2010 | **Chomp**  
Chomp released to help with the app discoverability problem.



4/1/2010 | **Pages, Numbers, Keynote**  
Released by Apple, these set the bar for productivity apps on the iPad.



4/1/2011 | **Netflix**  
Netflix starts movies and TV streaming to iOS devices.



6/29/2010 | **Hulu+**



7/21/2010 | **Flipboard**  
Social and news aggregation app launched. The newspaper of the future?



8/12/2010 | **Camera+**  
App removed from App Store for 4 months, but returns and quickly racks up 1 million downloads.



10/6/2010 | **Instagram**



12/16/2010 | **Wordlens**  
Augmented reality-based text and sign language translator. Point and translate.



# 500,000

APPS

10/20/2010  
7 billion+ downloads

## 2011



12/16/2010 | **Wordlens**  
Augmented reality-based text and sign language translator. Point and translate.

# 350,000

APPS

1/22/2011  
10 billion+ downloads

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2/2/2011 | **The Daily**  
With huge investment by News Corp., The Daily is the first professionally produced daily newspaper like app for the iOS platform.



3/10/2011 | **Garageband**  
Released with the iPad 2, universally heralded as a fantastic music creation app.



3/23/2011 | **Color**  
Seen as a well-funded flop. Released to great fanfare, but no one could understand how to use it.



4/20/2011 | **Real Racing 2 HD**  
First iOS game to output full 1080p HD with iPad 2 connected to a capable TV.

# PROJECTIONS

PROJECTED: JANUARY 18 2010

## 4.5 billion

apps sold in 2010, \$6.8 billion in revenue

## 21.6 billion

apps sold in 2013, \$29.5 billion in revenue

PROJECTED: JANUARY 27 2011

## 15 billion +

apps sold in 2011 for all tablets & phones  
17.7 billion app downloads  
with 190% revenue increase over 2010

Source: Gartner



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MAY 2011

# Xcode

# openFrameworks