

The Smartphone Ecosystem and the Apps Developer Community

The Smartphone Ecosystem is Creating Jobs and Opportunities in Tough Economy

The state of the world economy is profoundly unsettled. Questions about job security, healthcare, and foreclosure have become dinner table conversation throughout this country.

In the face of all of this turmoil, there has been a bright spot in economic growth: Sales of smartphones and tablets, such as the iPhone, the HTC Thunderbolt (running Google Android) the Samsung Focus (running Microsoft WP7), the iPad, Xoom and now RIM's Playbook continue to outpace all predictions and are providing a huge growth market in a slumping economy. In fact, nearly one hundred million smart phones were shipped in the first quarter of 2011¹ marking a 79% increase in an already fast growing market.

| | 1011 | 1Q11 Market | 1Q10 | 1Q10 Market | 1Q11/1Q10 |
|--------------------|-----------|-------------|-----------|-------------|-----------|
| Vendor | Shipments | Share | Shipments | Share | Change |
| Nokia | 24.2 | 24.3% | 21.5 | 38.8% | 12.6% |
| Apple | 18.7 | 18.7% | 8.7 | 15.7% | 114.4% |
| Research In Motion | 13.9 | 14.0% | 10.6 | 19.1% | 31.1% |
| Samsung | 10.8 | 10.8% | 2.4 | 4.3% | 350.0% |
| HTC | 8.9 | 8.9% | 2.7 | 4.9% | 229.6% |
| Others | 23.2 | 23.2% | 9.5 | 17.1% | 143.7% |
| Total | 99.6 | 100.0% | 55.4 | 100.0% | 79.7% |

Source: IDC Worldwide Quarterly Mobile Phone Tracker, May 5, 2011

Note: Vendor shipments are branded shipments and exclude OEM sales for all vendors. 2

Smartphones that run third party applications are creating opportunities for handset manufacturers like HTC, Apple and Motorola, communications firms like Verizon and AT&T, and most especially for application developers like our members.

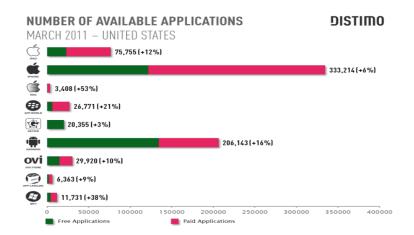
In 2008 Apple launched an "apps store" to provide a place for developers to sell independently developed applications for the iPhone. Since then, over 300,000 new applications have gone on sale, with billions of applications sold or downloaded. The Android platform has recently exceeded the growth rate seen in the iPhone, totaling more than 200,000 applications, with 10,000 new programs available each month. In 2010 we saw the release of Windows Phone 7, with its own applications store and an entirely unique user interface. Total unique apps across all platforms are expected to exceed 500,000 by the end of 2011.³

Association for Competitive Technology

¹ Mark Kurlyandchik, *IDC*: Nokia Remains Top Smartphone Vendor Worldwide, DailyTech, May 6, 2011.

² Id.

 $^{^3\} http://d2omthbq56rzfx.cloudfront.net/wp-content/uploads/2011/04/Distimo-survey-201103-app-stores-count.png$

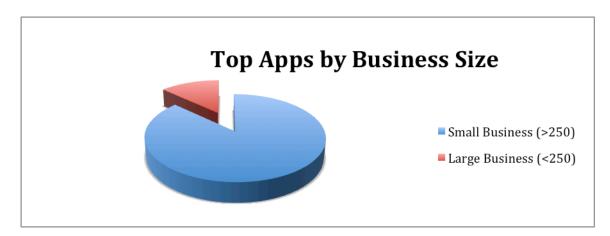


Possibly the most important thing we have noticed about the new apps world is how it has revolutionized the software development industry. It is nothing less than a rebirth. Startup costs of the modern app developer are a fraction of what it used to be just 10 years ago. Gone now are the costs of printing discs, manuals, marketing materials, contracts with retailers, onerous contracts with publishers and contracts with credit card providers all once necessary to sell a single product. Distribution is now all digital. Those costs savings in distribution are now used to hire more developers and artists, creating more jobs across the country. With mobile and Xbox 360 apps, we have seen the return of the small "garage", independent developer focused on products that can be created and shipped in a matter of months. The apps store model creates a direct bridge between the customer and the developer. Our members tell us that being a developer has not been this exciting since the origins of the personal computer and software industry in the 70s and 80s.

So who is this new generation developer? What does an apps creator look like? To find out, ACT conducted surveys and focus groups within our membership, and also analyzed the top 500 selling apps.

First, we learned mobile apps are overwhelmingly created by developers in small businesses. A review of the top 500 best selling applications show that over 85% are written by small businesses⁴; in a majority of cases micro businesses with less than 10 employees.

⁴ ACT analysis of top 500 selling apps, some discrepancies exist due to lack of verifiable employment data and apps created by a developer who has significant investment from a larger company. Some apps branded for a larger company are in fact developed by small firms subcontracted to build the application. Sample size of 408 applications, from "top apps" on March 25 2011



Second, app developers are not just in California. While the U.S. has a disproportionately large percentage of the world's App developers⁵, there are significant global hotspots in Northern Europe / UK and Korea. We have not seen a huge boom in developers coming from Japan, but we expect China to be a developer powerhouse soon.

Third, app development companies have low initial costs but also have the ability to become a highly successful and sustainable business. ACT's members reported development costs ranging from \$1000 to upwards of \$1,000,000. Given the wide range of our findings and those of other reports⁶, it is better to view the cost of mobile apps in tiers. In tier one, a simple app with no real back end server based functionality can run in the low thousands; this category makes up a significant percentage of all the apps in various mobile stores. They may be single feature programs, vanity apps, or just irreverent apps like iBeer.

The second tier are the apps that provide multiple levels of functionality, often working with data stored in a remote server to provide information/ user generated content, or advanced capabilities like writing and saving specialized documents, this tier runs from \$30,000 to \$100,000.

The final tier runs from \$100,000 on up, This category is for apps that may need to tie into sophisticated inventory management systems, require specialized licenses for content, interface with business critical databases not just to read, but also write information, and finally, games with immersive environments where art and music costs can be significant.

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⁵ ACT study of top selling apps as of March 25, 2011. ACT members Chalk LLC are in Moorhead, MN; Permafrost Software in Tulsa, OK.

⁶ http://appmuse.com/appmusing/how-much-does-it-cost-to-develop-a-mobile-app/

Understanding the Real Opportunity for Small Business

To get a sense of the size of the market and potential opportunity, we must first understand the various business models underlying the mobile app market. First, there are app developers who charge their customers to download their applications and/or charge them for purchases they make inside the app. For example, photography app Hipstamatic costs \$1.99. If users want additional camera effects (Kodachrome or Holga for instance) they can buy the addons in the application.

Second, some apps are supported either entirely or partly by advertising revenue. This is an increasingly important model especially as the Android platform grows in importance. Some applications charge for downloads and run advertisements inside the app itself.

Finally, many applications are given away free by larger companies in order to extend services to mobile devices or as marketing tools. From Citibank's online banking app to Pepsi's "Refresh Project" and Conde Nast's magazine apps, Fortune 1000 companies are increasingly offering mobile apps to their customers and potential customers. While large companies brand these apps, smaller companies with the expertise necessary to build world-class applications under tight deadlines usually build them.

Mobile App Stores

The exponential growth in app stores during the past few years is unprecedented. Apple launched the mobile app store with the iTunes App Store less than 4 years ago, soon followed by Nokia, Google, Microsoft, Amazon and others According to IHS, in 2010 the worldwide market revenue of these app stores in 2010 was \$2.15 billion, a 160% increase over 2009, and is expected to reach nearly \$4 billion this year. Forrester Research estimates that the revenue created from customers buying and downloading apps to smartphones and tablets will reach \$38 billion by 2015.

A growing percentage of revenues for app markets are coming from "in app purchases." According to Xyologic a company that indexes and analyzes app store data, 40 percent of game downloads are now free titles with in-app purchases. In March, it found there were more than 99.9 million downloads of free iPhone games from the App Store.

Yet revenues from app purchases and in-app purchases are only represent a part of the overall opportunity for app developers. According to Xyologic, 80.8 percent of all app downloads in the month of March were free. While some of those apps relied on in-app purchasing for revenue, many others were supported by advertising or developed to support other brands and services.

Custom Mobile Development

The majority of the more than 600,000 free apps available across all app stores are not designed to be profitable on their own. They are designed as an extension to an existing service or a marketing program

for an established or growing brand. Yet, the value of these apps and the jobs they create are completely missed by the revenue numbers of app stores and advertising platforms.

This translates into a tremendous number of job-creating opportunities for smaller app development shops. Forrester Research predicts this market to reach \$17 billion by 2015.

Mobile Advertising Revenues

In-app mobile advertising is growing more slowly than revenues from app downloads and in-app purchases, but it is a particularly important revenue model for apps with enormous scale, or "eyeballs," like the hugely successful Angry Birds. In the games category, which represents around half the app market, the total revenue from in-app advertising was \$87 million according to Juniper Research. Juniper expects that to grow to around \$900 million by 2015.

It is also worth noting that the business model of the platform makes a difference in how developers pursue revenue. As shown in an earlier chart, the iOS store has more than 333,000 applications, and nearly 70% of those are paid for up front. Google/Android, a company whose entire revenue stream and dominant market position is dependent on advertising, tends to push developers towards the advertising model, with only 30% of the 206,000 apps relying on direct payment to the developer.

The Future for Mobile App Developers

Even more important are the opportunities that lay farther ahead. According to a recent Morgan Stanley report⁷, most people haven't yet invested in such technology. True "smartphones" have around 25% penetration in the U.S.; in Asia, it may be as low as 6%. This represents a pathway for growth leading far into the future.

To understand just how important international sales are to the mobile apps market, one only needs to look at a comparison between the total number of users possessed by a combined AT&T / T-mobile (130 million wireless subscribers)⁸ and China's number one wireless carrier, China mobile (584 million subscribers)⁹. Even if only 6% of China mobile's subscribers become smartphone users - and app purchasers - the market opportunity for U.S. software developers is huge.

⁷http://www.morganstanley.com/institutional/techresearch/pdfs/2SETUP_12142009_RI.pdf

⁸ http://www.siouxcityjournal.com/business/local/article_f24b5818-ea11-5f04-b0b0-d7bbd02055b0.html

⁹ http://www.wirelessweek.com/News/2011/01/Carriers-Subs-Reach-842M-China-Mobile/

COUNT OF ACTIVE APPLICATIONS IN THE APP STORE [DETAILS]

Total Active Apps (currently available for download): 371,185 **Total Inactive Apps (no longer available for download):** 91,031

Total Apps Seen in US App Store: 462,216

Number of Active Publishers in the US App Store: 79,790

COUNT OF APPLICATION SUBMISSIONS [DETAILS]

This Month (Games): 36 (4 / day)

This Month (Non-Games): 22 (2 / day)

This Month (Total): 58 (6 / day)

APPLICATION APPROVAL DELAY [DETAILS]

April, 2011: Maximum delay 11 days, average delay 4.13 days.

APPLICATION PRICE DISTRIBUTION [DETAILS]

Current Average App Price: \$3.96 Current Average Game Price: \$1.06 Current Average Overall Price: \$2.30

APPLICATION CATEGORY DISTRIBUTION [DETAILS]

Most Popular Categories

- 1 Games (54915 active)
- 2 Books (53529 active)
- 3 Entertainment (40746 active)
- 4 Education (31693 active)
- 5 Lifestyle (27668 active)

About the author: Morgan Reed is the Executive Director for the Association for Competitive Technology (ACT).