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What the App Store Has in Store

The Apple App Store. The name itself lends meaning to the phrase “independent developer.” But what exactly is an independent developer? It is any development team or individual without the financial support of a publisher. That is to say, it is the average Joe of software development. The explosiveness with which the independent development community has grown in the new millennium can widely be attributed to the App Store revolution. However, to truly understand whether the App Store has actually had a positive effect on the independent developing community, we must look into what factors pulled the developers in and, once in, what difficulties the developers had to face.

The Apple App Store has seen dramatic growth since its inception back in July of 2008. It experienced immediate success, no doubt a result of the world-renowned Apple advertising team. When it was first released to the public, the Apple App Store had a mere 500 apps available for purchase. However in its first 3 days, the total app count almost doubled, to 900 apps, and the App Store as a whole garnered an impressive 10 million downloads (“iPhone App Store”)! The pace at which the App Store grew was staggering. It reached 1.5 billion downloads in its first year, and clocks in at over 10 billion to date. Equally impressive was the number of available apps. From its initial count of 500, it has grown steadily with the number of total downloads, now numbering over 400,000 (Hyun-joo 15). There is a pretty steady pattern to be found when comparing the number of total downloads with the number of total apps available,

consistently fluctuating around 45,000 downloads per app available. However, these numbers mean nothing without the most important statistic of all: revenue. And the App Store is certainly no slouch.

In the calendar year of 2009, Apple realized \$750 million in revenue, and in 2010 they outdid themselves by garnering an even more impressive \$1.8 billion. What was even more impressive was their utter dominance of the market share. In 2009, the Apple App Store had an eye-popping 93% share, and in 2010 it posted an equally impressive 83% despite having much stronger competition from rivaling smartphone companies (Jennings). In fact, the competition has surpassed Apple in terms of sheer smartphone sales as of late. The Android OS now leads the market, holding 29% market share, with RIM Blackberry and Apple in a close fight for second, each with 27% market share (Whitney). So how does the Apple App Store maintain such an overwhelming lead over its competition, despite its hardware playing second fiddle to the likes of Android and Blackberry?

For one, it can simply be argued that Apple was here first. Before the Apple App Store, there was no such thing as an app store. The simple definition of "app" came to be in a June 2008 article published by Apple. In it, they proudly announced the worldwide public release of the Apple App Store, a profound front in which third-party applications could be released and distributed to people in 62 countries simultaneously. The developer could choose categories that ranged from business and news to sports and gaming, and everything in between. More importantly, the App Store was available over both Wi-Fi and AT&T's 3G network, meaning that applications could be downloaded and used from virtually anywhere at any time ("Apple Introduces").

Having seen Apple's massive success in the market in 2009, Microsoft released its own

line of MP3 players to challenge Apple's iPod Touch (which had an App Store-compatible version that was released a year prior) and dubbed it the Microsoft Zune HD. The Zune HD had all of the features necessary to dethrone the Apple iPod Touch: a sleek, innovative design, a powerful CPU (central processing unit), a next-generation GPU (graphics processing unit), a better OLED (organic light-emitting diode) display, a touchscreen, Wi-Fi, and of course, Microsoft's own Zune Marketplace, its take on the Apple App Store (Godinez). However, come the holiday shopping season, the Zune HD was clearly outclassed. While the Apple iPod Touch took over the #2 and the #3 spots on Amazon's list of the top 25 bestselling electronics with its 8 GB and 32 GB models (yours truly contributed by purchasing a 32 GB), the Microsoft Zune HD saw itself suffering at number 89. The discrepancy? MSNBC, along with prominent PC magazine *PC World*, both cite the Apple App Store as the deciding factor. Whereas the Zune Marketplace was struggling with just a couple hundred applications, the App Store was alive and kicking at over 100,000 applications. The reviewers cite that both the iPod Touch and the Zune HD were not regular MP3 players; they were multimedia players (Bertolucci). And as such, consumers expect more from these products—the act of merely playing music had almost taken a backseat to the multitude of other entertainment features that they believed a \$300 device like that should have. Applications were a big part of what separated the iPod Touch from Apple's other MP3 players, such as the iPod Classic or the iPod Nano. The Zune Marketplace was simply no match—a seedling struggling to survive—when compared to Apple's App Store, which had grown to become a thriving, magnificent sequoia giant.

Part of the attraction of the App Store, and an aid in its quick growth, was its ease of access and availability to common users. Anyone could become a part of Apple's iOS Developer Program. The cost? A mere \$99 per year, along with a 30% cut of profits. That is a small price to

pay considering that there are now over a billion dollars up for grabs. The language of programming, Objective-C, was easy to learn for any object-oriented programmer. In fact, for the annual cost of \$99, Apple would provide everything: the Xcode development environment, the iOS simulator, performance instruments, interface, builder, even videos and documentations that would walk any developer through making his or her first program (“iOS Developer Program”). There was also a generous library of iOS references, an ever-growing reference database that past and present developers can contribute to. Once the product is finished, it could be distributed to millions of customers, provided it passes Apple’s approval process. Apple even let developers choose their own price and would automatically calculate monthly payments. There were also no hosting fees or marketing fees, which translated to a very appealing distribution system for independent developers (“iOS Developer Program”). In fact, it was so appealing that other companies began emulating it. Gaming giant Epic Games, developers of the award-winning and bestselling science-fiction-video-game-franchise *Gears of War*, began making available their renowned Unreal Engine 3—the backbone of games like *Bioshock* and *Mass Effect*—using a similar system. It cost \$99 up front in addition to a 25% royalty on revenues exceeding \$50,000 (“UDK Commercial Terms”). Clearly, Apple had created a financial framework for the future of independent development.

Thus, the Apple Gold Rush of ’08 was set in motion, and Ethan Nicholas was just one success story out of many. He was a full-time engineer at Sun Microsystems with a wife and kid, but he made the best choice of his life when he decided to teach himself Objective-C to develop for the iOS platform. Immediately following his daytime shift at Sun Microsystems, he would come home, cradle his one-year-old in one arm, and code with the other. He worked on his new Objective-C project for six weeks, until it was finally ready for release in October of 2008.

Initially, *iShoot* gathered almost no attention and made little money. Then, Ethan had another stroke of genius: he decided to produce a free “lite” version of the game to gain some publicity. In January of 2009, Ethan successfully released *iShoot Lite*, which advertised the \$3 full version of *iShoot*—and the results were immediate. The full version of *iShoot* was purchased by 320,000 satisfied users, rocketing it to #1 in the ranking of paid applications in the App Store. Once there, it saw continued success, occupying the spot for 26 days. Ethan ended up raking in \$37,000 in a single day, \$600,000 in a single month, and was well on his way to becoming a multi-millionaire (Beaumont 22). And yes, he ended up quitting his day job at Sun Microsystems. In his farewell letter to the company, he stated that the App Store has given him a legitimate shot at striking it rich. And while others viewed his daytime job at Sun Microsystems as a reliable lifestyle—a steady, safe, secure stream of consistent income—he begged to differ. He saw working at Sun Microsystems as a far greater risk, as it was “a company that [was] cutting 6,000 jobs and [facing] and uncertain financial future,” and it made far more sense financially to “take a few months off and... see if [he] could follow it up with another hit” (Nicholas).

Angry Birds, a recent success, has reached uncharted territory in the mobile market and with each passing moment is either topping another sales chart or setting another mobile record. It has recently reached unheard-of heights for a mobile game, and its commercial recently aired during Super Bowl XLV. The developer of *Angry Birds* was Rovio Mobile, a small, independent, game development studio headquartered in Espoo, Finland. Rovio Mobile was founded in 2003 by a group of three college students, and it has since grown to 40 employees. In December of 2009, they finished developing and released their game *Angry Birds* in the Apple App Store. The total development cost was estimated to be about \$100,000, no small sum, but it was still considered a fairly low-cost product when compared to the budgets of gaming giants such as EA

Mobile or Gameloft (Costello). The game was an overnight sensation, soaring to #1 in Finland immediately upon launch. In January of 2010, *Angry Birds* took aim at global success when Apple put it in the limelight, presenting it in its Featured Apps category. From there, *Angry Birds* claimed the #1 paid rank in dozens of other countries, including the UK and the US. To date, it has seen unthinkable success. It has received an estimated 70 million downloads on all platforms, 40-50 million of which have been from the Apple App Store. It is estimated that 25% of these downloads were paid downloads, which would result in revenues in excess of \$15 million (Costello).

In an interview, when asked about marketing and advertising techniques, the developers of *Angry Birds* cited the availability of digital advertising as a driving point. For a game that will end up grossing 70 cents per sale, it did not make too much sense to spend the money on traditional advertising. Instead, embracing the digital age, Rovio Mobile turned to free digital marketing—everything from Twitter tweets to Facebook pages to online forums and message boards. And no matter how big the numbers grew, they tried to answer every e-mail and respond to every tweet, stating that the little things really ended up making a big impact in sales and downloads (Rigney).

However, most independent developers have recently set their sights on more moderate goals, no longer aiming to get rich or die trying, but rather to make a sensible, consistent living in what has become a legitimate industry. In an interview, Josh Presseisen, the graphics director at Crescent Moon, described his experience being a lone developer in the App Store world. He ran into issues finding trustworthy independent artists to contract. Before he met his current partner Russ Menapace, he "was cheated out of quite a bit of money, from a programmer that said they were working on the game when in fact they weren't" (Presseisen). This experience

made him a bit more hesitant to invest in his projects, but eventually his persistence paid off. His first game, *Ravensword*, received a lot of publicity. He said he "owed it to the members at TouchArcade for being supportive and giving the game the attention it deserved" (Presseisen). *Ravensword* ended up getting featured several times by Apple, including on its best of 2009 list. This led to a more publicized development period of *Aralon*, the successor to *Ravensword*. The fan base gradually grew for the team of two, and eventually they were able to contract more honest freelance artists. *Aralon* ended up being one of the most hyped iOS games of 2010, and Josh and Russ eventually worked with Crescent Moon to promote the game. In all, Josh estimates that the two have spent about two years working on programming the game, and several thousands of dollars on different artists to polish the graphics. In its first day of release, he estimates that they reached about 10,000 downloads at a price of \$6.99, a healthy sum for just two developers. Sales have tapered off since then, but remain fairly steady—a couple hundred a day, Josh estimates. Because of their significant success, both Josh and Russ now devote their lives full-time to a past time they love (Presseisen).

But of course, the App Store story does not always have a happily-ever-after ending. There are problems—a lot of problems. One of the largest setbacks facing game developers of all platforms is, of course, software piracy. The digital age has forced the rewriting of the definitions of property and crime, leading to new intellectual property laws. Because every bit of digital data is highly reproducible, the task of regulating it is monumental. People started jailbreaking the iPhone long before the App Store even came to be, and once the App Store hit, the jailbreaking community knew it was only a matter of time before piracy would take hold. To clarify, the act of jailbreaking is a 100% legal process whose sole purpose is to “unblock” many of the features that Apple did not initially want users tampering with (Fitzgerald 16). According to Apple’s

terms and conditions, the act of jailbreaking the iDevice voids its warranty, but this act alone is not illegal (side fact: Cydia, the most popular APT that is installed on over 90% of jailbroken devices, was developed by Jay Freeman, a graduate student studying at UCSB). Software piracy refers to the infringement on software copyrights by the user, or the unauthorized use and/or distribution of computer software. This has been a growing problem for Apple as more and more iDevices are being jailbroken. Surveys have shown that while only about 10% of devices are actually jailbroken, an estimated 40% of those are used to pirate—so about 4% of the total iDevices in circulation are running pirated software (McIntyre). And the amount of damage those 4% have done is incredible. For example, *Infinity Blade*, a popular action game released in December of 2010, received a quarter of a million sales in its first five days (McElroy). However, one software hacker reports that his pirated version received over 1.6 million downloads in the same time span (Hood). Another developer, Neptune Interactive Inc., decided to conduct a study on piracy in order to draw a few conclusions. They found that the percentage of users who had submitted high scores from pirated versions of their game *Tap-Fu* was a staggering 71.2% in a given 3 week period. But a frequent argument of these pirates was that "they just like to try before they buy. If it's a good game, then they'll buy it," so Neptune conducted a follow-up study. Searching for device ID matches of versions previously flagged as pirated, they found that 0% of pirates ended up purchasing their game ("Piracy and the App Store"). Disappointingly, Apple offers no anti-piracy protection of its own—and has no plans to introduce any DRM protection or UDID checker.

To make matters worse, it is not only the pirates that developers have to worry about reaching into their pockets, but also other developers. Among the most detrimental qualities of the App Store is the sheer competitiveness of such a market. With almost half a million different

applications, it is tough to get noticed and easy to get lost in the crowd. And the growing trend is that only the cheapest of applications ever make it, establishing a trend toward rock-bottom prices. This is obviously bad news for developers trying to make a living. For example, TomTom, a global leader in automotive navigation systems, has their app priced at a reasonable \$50. MotionX GPS Drive is another GPS application providing similar features, but it is priced at \$1 (Herrman). The discrepancy between the two is tremendous and ends up having adverse effects on the App Store (Dokoupil). Consumers expect full-blown software applications for the price of a bottle of water. This "trend to the bottom" threatens many developers, especially independent developers, because the concept of larger sales volumes making up for the lower prices is unrealistic. Eventually, once the developers see that it is not feasible to recoup the initial costs and make a decent profit, they will stop developing altogether.

However, despite these drawbacks, it is clear that Apple is still leading the mobile market in terms of sales. Even though Android devices are making leaps and bounds on Apple's technology, on Apple's design, and on Apple's sales, surveys show that developers (including Rovio Mobile, developer of hit game *Angry Birds*) are still more willing to devote themselves to the Apple market instead of the now-technically-more-popular Android market. This phenomenon can be explained through various theories. However, the definitive reason is that the Android OS market is too diverse; it is composed of many different cell phone companies, including Samsung, HTC, Motorola, LG, and Sony, just to name a few (The Big Bird). Incorporating a variety of cell phone manufacturers is great for racking up sales, but it is a huge disadvantage when trying to be a platform for software development. Developers have to consider the different hardware in the smartphones, the limitations of certain phones, the carriers of certain models, the default OS versions, different Android markets, et cetera, and it makes for

confusing software development and even more complicated software support. However, with Apple's iPhone, developers are developing for one specific device, under one specific carrier (however, as of February 2011, Verizon is now a carrier), in a universal Apple App Store. Not having to deal with compatibility issues is a tremendous chip that Apple controls, and a primary reason why Apple continues to draw the attention of developers despite falling behind its competition in the mobile market.

The App Store has clearly seen better days, especially in the eyes of many independent developers. What once was a gold mine for developers is now struggling just to stay afloat. But despite this, more and more developers continue to flock into the market. The ease of entry and the instant access to over 50 million possible consumers is an incredible draw that keeps the developers coming. In addition, the digital age is filled with avid gamers and programmers whose lifelong dreams are to work in the field they love. And in living his dream, *Aralon* developer Josh Presseisen simply could not picture himself working anywhere but from the confines of his homely cubicle that is the App Store.

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