

## Apple, iPhone and iTunes – Impacts on the Wireless World

by Dr. Mehmet Unsoy



Happy New Year!

While the world is in the midst of major economic problems, it is good to start the New Year with some positive stories. I believe **Apple** has made and continues to make significant contributions to the development of the wireless industry. This is acknowledged by partners and competitors alike.

After the less than stellar MacWorld 2009 in San Francisco earlier this month, and in particular, after Steve Jobs' announcement of taking a 6-month medical leave of absence, Apple's stock took some losses. However, this week Apple announced their **2009 Q1 results, with record quarterly revenue of over \$10 billion and record quarterly net profit of \$1.6 billion**. Thus, Apple's future looks as bright as ever, and their flagship wireless product, **3G iPhone** as well as **iPhone apps on iTunes** will continue to have a huge positive impact on the global mobile market.

You may recall that 3G iPhone was launched globally on July 11<sup>th</sup>, 2008. Within the first 6 months, around **12 million 3G iPhones** have been sold, with significant majority in the U.S., to AT&T subscribers. However, as of now, iPhone is available in over 80 countries, through more than 100 mobile operators. So, it truly is a **global product**.

Smartphones are the most important handset category to observe in the developed mobile markets. The features of 3G iPhone in particular are having major impacts on the direction of the smart phones. The **multi-touch screen of iPhone** has revolutionized not just the handset screen market, but has also triggered a major momentum towards touch screens for all sizes of display. We are experiencing a dramatic change in behavior: when you see any type of screen in your daily life, you will first "**touch**" it, and if it does not respond, you may anticipate that there is something wrong with that screen! Bottom line is, we will see some new innovations, cost reductions, and new applications around "touch screens" in coming months / years. It is not outrageous to predict that non-touch screens may go the way of black & white screens!

On 3G iPhones, we have both an all-you-can-eat 3G mobile Internet flat-rate and Wi-Fi connectivity. This combination has significantly increased mobile Internet usage in the last 6 months, especially in the U.S. As of today, **about 50% of all mobile Internet access in the U.S. is through a 3G iPhone**, including the use of it through Wi-Fi access. Browsers on other smartphones including BlackBerry and Windows Mobile have followed suit and beefed up their feature sets and capabilities recently. So much so that we now have a serious debate as to whether it will be the browsers that will win the battle of mobile content, or the downloaded mobile apps. It is interesting that browsers on handsets may owe their recent success to Wi-Fi capability on the handset! In fact, Apple may be approving 3<sup>rd</sup> party browsers for iPhone, but this may have some strings attached!

The combination of assisted GPS, large screen and various mapping & navigational apps have made 3G iPhone one of the most exciting **personal navigation devices (PND)**. This is not only triggering various other mobile devices to take on the PND role (both on-vehicle and pedestrian), but also opening up numerous location-based retail and advertising services, creating significant excitement and an effective value proposition around **LBS**. Maybe, after waiting for so many years, **LBS is finally here**, and iPhone has been a major enabler for this market.

One of the major frustrations with 3G iPhone has been the **battery or power management**. It is fair to say that if you use most of the features of iPhone, you may have to charge it multiple times during the day. Alternatively some important features such as 3G, GPS or Wi-Fi may have to be turned-off to conserve battery, which defeats the purpose of iPhone. However, frustration with the iPhone battery has enabled various innovations around back-up batteries, new battery technologies and power management solutions.

In fact, there is hope that iPhone 3.0 (which is rumored to be targeted for June or July 2009) may have some improvements in power management. Other rumors for iPhone 3.0 include **3D graphics**, with the use of **quad-core CPU**, offering an excellent platform for new gaming apps. Yet another expectation is an **iPhone Nano**, also targeted for summer this year, to be smaller and cheaper, originally focusing on the Chinese market. It is fair to say that both 3D iPhone and iPhone Nano would be trailblazers, setting major new trends in the wireless market!

Application developers generally wonder which platform to focus on for their development. Sometimes (not always) numbers speak for themselves! Apple has launched the App Store for iPhones in iTunes on July 11<sup>th</sup> 2008 with only 500 apps, (about 150 of them free); In December 2008, this number **exceeded 10,000 apps** (which is a remarkable and record-breaking number to achieve within 5 months). In addition, in the same period, **500 Million application downloads** to iPhones have occurred. That is about **100 Million app downloads per month!**

One of the reasons for iPhone app success was the remarkable ease of app development with SDK and open APIs. Apple's single OS X platform offers a much bigger global target market, which attracts more developers. Lots of iPhone apps are free, but for those that cost some small amounts, Apple is reportedly giving **70% of the revenues to the app developers**. This is a very significant enticement!

**YouTube** has been one of the flagship mobile apps on iPhone; in fact, YouTube on iPhone has been credited for the ground-breaking take-off of mobile video streaming in the U.S. It is one of the most advertised, most sexy apps and one of the most used multimedia apps on iPhone. It has triggered far more interest in the use of mobile video as well as mobile TV. When mobile TV becomes more prevalent on handsets soon, it will be partially thanks to YouTube success on iPhone.

**Social networking apps** on iPhone are probably the ones that take advantage of the GPS feature of the handset the most. Instant messaging / chatting, locating friends, but most importantly, staying on-line with YouTube, MySpace and Facebook all-day long, and for professionals staying connected with LinkedIn or Plaxo while on the go, are all new possibilities, that were not feasible just 6 months ago (unless you carried a laptop!) We should expect tons of more innovative new apps in this space, as more and more user demographics are introduced into mobile Internet.

In fact, one major area of innovation we should look forward to is **secure mobile applications**, i.e. anything from mobile signatures, mobile banking, to mobile money transfers. There are already various but limited services and apps out there, but this is one market that will grow dramatically in the coming months or years. Smartphones such as iPhones are particularly suitable since they can offer levels of security but also significant ease of use.

One type of iPhone apps that I personally use frequently is the **on-device portals**. They provide me with all sorts of latest news, downloaded periodically, which are ready for me to read whenever I have the time to do so. Going forward, we should expect various innovations around on-device portals.

iTunes is one of the most successful digital content delivery platform in the world. It has been reported that to date, more than **6 billion songs** have been sold through iTunes. Apple's recent announcement that iTunes content becomes **DRM-free, with variable pricing**, will further help to increase the delivery of digital content, including to those iPhones. Even though, there may be challenges to Apple from some Hollywood studios & record labels, this game-changing initiative may drive the whole multimedia industry toward **simpler, more innovative and DRM-free digital content delivery business models**.

For the mobile industry, 2009 is expected to be the **year of applications**. It is the applications where the user excitements are at; it is the applications that will justify and drive the deployment of wireless broadband / 4G networks in the future; and it is the applications where ultimately the money is.

That is why, when a new platform is being deployed, such as iPhone last year, or more recently Google's Android based G1 phone, it is the applications that attract the most attention. It is fair to say that, for G1 to succeed, **innovative Android-based applications** will be absolutely critical.

The vertical integration of handsets and applications is not limited to Apple. In fact, Nokia with OVI, has been innovating similar apps and content delivery solutions, through mobile operators. Nokia's **Comes with Music**, albeit currently limited to a few Nokia devices, offers some revolutionary business models. Nokia is already working on **Comes with Video**. RIM is reportedly working on launching a similar music store for Blackberry, in the next couple of months. Also, Google is working on Android Market as the app store for the G1 phone.

Finally, even though the world is facing some severe economic difficulties, Apple is in a very healthy position. They have over **\$25 billion cash reserves, 35% gross margins** and thus they have the financial means to maintain leadership in innovation and market deployment of iPhones. Apple has a VC fund that they use to steer innovation and applications. Some analysts are predicting around **77 million iPhones** deployed in the next 4 years, and that Apple would grab the smartphone market-share leadership from Nokia, by taking **40% of this prestigious high-margin market**. Also, the vertical integration with their iTunes App Store will give Apple a strong standing, and will allow Apple to influence the future direction of the wireless industry as a whole. Whether these predictions are right or wrong, it is fair to expect that Apple, iPhone and iTunes will play a major role in the near future of the wireless industry. Especially Apple's willingness to adopt disruptive, game-changing technologies and business models, should give everyone in the wireless industry, reason to monitor closely what Apple is doing!

Dr. Mehmet Unsoy

Partner, Cartagena Capital

[munsoy@cartagena-capital.com](mailto:munsoy@cartagena-capital.com)

[www.cartagena-capital.com](http://www.cartagena-capital.com)