When NFC met Gaming: the new technology blurring the line between gaming and reality

Just as NFC technology has started to pop up for payments in retail outlets ranging from newsagents to coffee shops, a growing number of gamers will soon be able to benefit from this same technology, says Consult Hyperion's Dave Birch.

Just like other forms of digital entertainment, video games have continued their steady march into the mobile space during the last two years; *Angry Birds*, for example, has been downloaded more than 300 million times during since 2009. The good news for gamers is that mobile gaming is about to get a boost from some rather "tactile" technology known as Near Field Communications (NFC).

NFC is a short-range wireless connectivity technology standard designed for intuitive, simple, and safe communication between electronic devices. Best known for its use within London's Oyster Card scheme, NFC communication is enabled by bringing two NFC-compatible devices – including a growing number of mobile phones – within a few centimetres of one another.

As the number of NFC-enabled mobile phones continues to grow, gamers can expect to see the arrival of full-colour interactive screens in shop windows and other high-traffic areas where gamers are likely to congregate. A complete menu of options can now even be included in "smart" posters and other promotional tools, so that gamers are able to download games and/or purchase credits with just a tap of their phone.

Although mobile purchases like these used to be slow, complicated and insecure (when sent over SMS), a number of important changes have helped to revolutionise this area in recent years. For a start, mobile phone handsets have improved enormously over the past five years, and now boast much larger screens, increased processor speeds and multiple communication channels – including NFC. At the same time, data networks have also improved a great deal, and now offer faster speeds and greater bandwidth, as well as Wi-Fi roaming and voice/data bundling, all of which have led to the rise of popular application ("app") stores.

Nokia has already launched a suite of games that cashes in on NFC by using this technology to enable mobile gamers to interact with physical objects in the real world. For example, one of these new games makes use of NFC-tagged playing cards as part of a simple phone-based version of a matching game, or 'snap' as it's

commonly known. In the original version of the game, users would have flipped over cards in order to find matched pairs. However, with the NFC version, users simply tap the card with their phone.

Of course, these are still early days, and so it is the concept that is perhaps more interesting than the actual execution in this case. However, it's not too much of a leap to imagine an NFC-enabled version of a more sophisticated game, with printed cards or posters that could provide a variety of animated battle sequences and different on-screen landscapes, depending on which characters and weapons the user decides to tap.

When used in this way, NFC could be used to create whole new characters, new levels, and new activities, and even to earn in-app money as part of the gaming experience. In the future, NFC gaming can also be made more social by making it possible for players to tap two smartphones together in order to unlock new levels, compare scores, or even to buy livestock for their virtual farms.

Along with these creative exploits, there is a more serious side to NFC gaming as well: payments. At the moment, when a user is prompted to 'click to buy', they are typically presented with a credit card payment screen and then very often can't be bothered to pay. However, in response, Facebook has already begun to develop micropayments, virtual currencies and marketplaces, and Google is taking the concept of a "digital wallet" into new territory by allowing people to make purchases – including app store and in-game payments – with their NFC mobile phones by tapping them against special payment terminals.

Interestingly, this development hasn't evolved as a way of making money from payments, where profit margins are thin, but from the potential for new products and services that have payments integral to them. For example, we're already seeing Facebook Credits for sale in shops, a billion dollar virtual goods market on top of them, and a multi-billion dollar valuation for Zynga, the company behind Farmville and Mafia Wars.

In the UK, we need this kind of competition in the payments arena to keep commerce vital and evolving, and games are a great place to experiment with these ideas. Even though widespread NFC adoption is still probably several years off– and undoubtedly waiting on Apple's participation – change is definitely in the air. Already, a new

Apple patent application has surfaced, called 'System and method for simplified resource sharing', which shows near field communication technology being used to enable a wide range of devices, including the iPod, iPhone, Apple TV and iMac as well as a games controller, a printer, DVR, projector, camera, keyboard and a TV remote control.

In the meantime, the gaming industry still represents a multi-billion pound industry, and it's growing rapidly as social media sites and smartphones continue to open up new methods for gaming. As technologies like NFC continue to blur the lines between the physical and virtual worlds, gamers can expect to see a revolution not only in terms of how and where games can be purchased, but also how they will be played and shared in the future.