

EVERYDAY NFC

NFC (Near Field Communication) lets smartphones communicate with other NFC-equipped devices via radio frequency. NFC makes it possible to exchange digital files, send commands to a phone or make payments.

The principle is simple: A smartphone sends out waves that activate an NFC tag. In response, the tag sends the smartphone information. The smartphone can act as a sender or a receiver of an NFC signal.



transmitter

Hey! Wake up!
You need to tell me
what to do!

Oh hi!
Launch your browser
and load
www.website.com



receiver

0 cm NFC is a proximity-based technology. One of its benefits is that users stay in control of what information they share since they need to physically place their smartphones near another device with an NFC tag in order to transmit information. 10 cm

OPPORTUNITIES

NFC technology has been around since the 1940s but it has only recently started to change our daily lives.

In 2011, 30 million Android phones equipped with NFC chips were sold. Today, over 300 models of telephones including the iPhone 6 are NFC-enabled. With Apple products, NFC use is restricted to ApplePay, limiting its application in other domains like transport.

25 ¢

25 ¢

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Average price of an NFC tag

Here are some examples of NFC at work in daily life:



Personalized commands

All sorts of smart objects can contain NFC chips that send commands to your smartphone. For instance, you could activate your 'commuting playlist' as you leave the house or put your telephone in vibration mode just by passing by an NFC tag in your front door. When you return, passing by the front door can automatically send a message to your better half to say that you're home.



Mobile payments

Like ApplePay, Google Wallet lets you make a credit card payment without taking your card out of your wallet. Because the smartphone needs to be physically near the payment terminal to make a transaction, NFC has become a preferred method of secure payment. Mobile payments are predicted to rise by 1000% in 2015 as millions of users adopt technology.



Information & services

At the bus stop, you can launch a transport application to get travel schedules and alerts. You could imagine an application to display a map of restaurants or other attractions along the bus route.



Mobile ticketing

After mobile payments, mobile ticketing is perhaps the second most important application of NFC. This enables transport providers to reduce the cost of producing and selling tickets and also makes it easier for passengers to obtain tickets. No more lineups to recharge your monthly pass!

File transfer

Bring two phones next to each other and transfer! NFC file sharing can be a really practical way to transfer music or videos without using up your phone's internet data allowance. It's also possible for one person to transfer money to another with a simple tap.



Keys & security

Many security systems e.g. to unlock office doors already use NFC. Your mobile phone can simply replace a key or entry card as a piece of authentication to get you into the building. Some hotels are already sending keys by SMS so that guests can get into their rooms without having to check in at the reception desk.



Culture & history

Whether for a museum exhibit or other urban attractions, NFC chips are a great way to get extra information. The walking tour or exhibition experience can be enhanced by audio or images of artists' sketches.



Smart posters

From a marketing point of view, NFC creates opportunities to measure the impact of an advertising campaign. It also provides the opportunity for a consumer to take advantage of e.g. special offers, rebates, book previews.



Instant purchase

In a retail environment, it becomes possible to add items to a virtual basket by placing your telephone in front of a price tag. All you need to do after that is confirm your order, pay and leave. It also becomes possible to improve the in-store experience by giving customers easy access to product information about a product's origin and how many are in stock.

THE FACTS

If any of this comes as a surprise to you, know that North America is lagging behind Asia and Europe in NFC usage.

In fact, NFC technology is already well-integrated in many peoples' daily lives. In 2013, there were already 20 000 mobile cards of sale in Singapore. In London, EE supermarkets have already replaced their Oyster transport cards with their mobile phones. In France, supermarket chain Casino offers its shoppers an NFC basket.

By 2016, an estimated 550 million mobile phones will be equipped with NFC. So why are we so behind on this side of the ocean? Are mobile phone users reluctant to adopt the technology or have service providers simply been slow to move? It goes without saying that governments, banks, wireless terminal and telecoms providers need to offer citizens an experience that's both convenient and secure.

Montreal has much to gain from the technology notably in the area of public transport where charging our Opus cards is a major inconvenience. NFC adoption would bring credibility to Montreal's claim to be a major in the likes of New York, San Francisco or Portland.

Sources

ee.co.uk

orange.co.uk/

nfcworld.com

blog.atlasrfidstore.com/rfid-vs-nfc#sthash.qbmneGqg.dpuf

forbes.com/sites/homaycotte/2014/11/04/nfc-apple-pa-y-already-won/

hospitalitytechnology.edgl.com/news/NFC-Enabled-Smartphones-Replace-Hotel-Room-Keys-and-Check-ins-at-Clarion-Hotel88970

econsultancy.com/blog/65307-five-retailers-using-nfc-and-rfid-to-enhance-shopping-but-do-they-work/

startupbootcamp.org/blog/2013/july/10-largest-nfc-implimentations-in-the-world.html

La technologie NFC et le marketing: un univers de possibilités pour les annonceurs, Newad.