I feature -Technology-

# Mobile Country

**Recently, mobile phones in Japan displaying features far in advance of mere telephoning have spread at a remarkable rate. As Japanese technology advances even further, the contemporary mobile phone is currently having a marked effect on people's daily lives.**

If you walk through the cities of Japan, or ride the trains, you cannot fail to observe the multitudes entranced by the mobile phone fixture in their hands. According to data from June 2009, the rate of mobile phone ownership in Japan stands at 85.4% of the population, which translates to roughly 110 million phones[1]. Considering that ten years ago the number of mobile phone users was about 44 million, it is clear that the increase has been both remarkable and rapid.

One of the reasons for the sudden increase in the number of people possessing mobile phones is the range of functions available on most units. Completely apart from the common call and text functions, most phones now have TV, game and Internet capabilities. Current Australian phones display a similar range of features, but what is unique to the Japanese models is that they feature the unprecedented, so-called Osaifu-Keitai®[2] (wallet-phone) function.

Osaifu-Keitai® is an innovation of NTT DOCOMO, with the premise being to figuratively empty the contents of your purse or wallet into your mobile phone. Instead of paying with cash, touching your pre-charged mobile phone to a sensor at the register allows you to buy things in a manner similar to, but easier than, EFTPOS. It is also currently possible to utilise the Osaifu-Keitai® function at outlets such as convenience stores, markets or vending machines.

On top of cash card style functions, a feature worth highlighting is the Mobile Suica[3] function, launched in January 2006. Ordinarily, prior to boarding a train, passengers purchase a ticket and pass through an automatic ticket gate. However, using the Mobile Suica function, it is possible for passengers to simply touch their mobile phones to the sensor on the gate when they enter and leave the station, without needing to buy a ticket. Mobile Suica was introduced primarily in the Tokyo metropolitan district and by the end of August 2009 was already being used by around 1,650,000 people[4].


Passing an automatic ticket gate with a mobile phone, using Mobile Suica.

Which brings us to the question, how is it that mobile phones can do this kind of thing? The answer is that they have been equipped with contactless IC card technology known as FeliCa[5]. Owners of mobile phones with built-in FeliCa technology must first register for the desired service with participating stores. In order to adjust the information encoded in the FeliCa, data is transmitted to and from the local machine via wireless communication. Both prepaid and credit payment arrangements are possible.

Given the prospect of your phone becoming your wallet and automatic sensors lurking everywhere, you could be forgiven for feeling that it is all a bit like science-fiction. But in modern-day Japan, the multi-purpose mobile phone is a daily reality. With the evolution of Japanese technology and the further advancement of mobile phone units, we can anticipate the capabilities and proliferation of mobile phones to continue. Perhaps the time will come when the mobile phone is not merely a means of communication, but a unit by which anything is possible.


Buying a drink from a vending machine using Osaifu-Keitai®.

1 Ministry of Internal Affairs and Communications Kanto Bureau of Telecommunications, *The Trend of Subscribers on Mobile Communications*, September 2009
2 Osaifu-Keitai® is a registered trademark of NTT DOCOMO, INC. in Japan.
3 Mobile Suica is a registered trademark of East Japan Railway Company.
4 Information courtesy of East Japan Railway Company
5 FeliCa is a registered trademark of Sony Corporation.

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