

/trends & hypes

‘Everyware’: always online everywhere

Thanks to smartphones and netbooks, the Internet has gone mobile. We can be online anywhere and at any time. Mobile Internet offers wonderful opportunities, but beware of the risks connected with privacy, security and reliability.

Being online at all times and places means being reachable, available and traceable anywhere. The GPS functionality built into a lot of equipment makes location-based services possible. For instance, Google can offer search results that are relevant to your location. Completely new applications are being developed with names like Layar, WikiTude and ShopSavvy that link technologies and databases together. Imagine, you are standing beside a beautiful canal in Amsterdam looking at a historic canal house and you wonder what it costs. You point your phone’s camera at the building. The application in the phone links GPS, compass and camera image together so it knows where you are and which way you are facing. Next it accesses the Funda real estate database – unfortunately, the house is somewhat out of your budget, but you can still check out some photos of the interior. The tourist information database tells you that the church you can see off to your right is the Nieuwe Kerk, and that trams 5 and 9 for Central Station stop at the next bridge.

Outsiders break the rules: iPhone & Android

It is noticeable that many groundbreaking developments are coming from outsiders. With the launch of the iPhone in 2007, computer manufacturer Apple brought about a massive change in the telephony market and the Internet company Google may yet turn the market for mobile phone operating systems on its head with Android. This operating system is free for any phone manufacturer to use. Google earns nothing from Android, but the better people are connected with the Internet, the more advertisements Google can sell.

SpitsScoren

Although these developments are primarily driven by the consumer market, the business market can free ride on them too. Some technologies can be used directly, others may be cleverly combined. An example is the SpitsScoren project for the

Verkeersonderneming (a body set up to promote traffic flow in the Rotterdam conurbation), which is designed to reduce the number of traffic queues on the A15 motorway. The project is focused specifically on car drivers. In order to reach and enthruse this target group, a community has been set up. This allows drivers keen to avoid rush hour traffic to find each other on the SpitsScoren website. There they can arrange to carpool using the “Pool” application, entering their journeys in order to make matches with others. Every participant gets a smartphone to communicate how they plan to travel to work that day. In order to make sure that people keep to what they have agreed, the GPS functionality in the phones is used to record their movements. This project integrates existing systems: GPS, broadband mobile Internet and smart systems in the traffic centre and roadside cameras to make sure no-one is cheating the system.

Good privacy safeguards

The SpitsScoren project has good privacy safeguards built into it. Participants give their permission for their journeys to be tracked and recorded purely for the purposes of monitoring and advice. After use, the data is destroyed. Many companies actually depend on data from others. They will offer to store all kinds of things for you online, such as photos, your housekeeping book containing financial details or your documents. Many a supplier of free services scans such data for business purposes, for example in order to advertise in a targeted way. This is at odds with the requirements of privacy. Access to your data can be used for personal gain. But in Europe, and therefore also in the Netherlands, privacy legislation is fairly strict. Partly for this reason, the smart energy meter was scrapped, a system which could have helped encourage consumers to save energy. It remains a question of balancing convenience and privacy: what is the consumer getting in terms of convenience and what information is he prepared to provide in return?



Mobility services

The mobility project SpitsScoren is one of the test projects linked to the imminent introduction of road pricing. Soon, every car will have equipment installed that can calculate the cost of the journey. Service providers will also be able to use this equipment to offer other services, such as information on nearby filling stations or guiding you to a free parking space. In order to get this market up and running, a national subsidy scheme worth a hundred million euros has been set up. Ultimately, these services will need to be able to pay for themselves. If you have something good to offer, people will pay for it. Such as reliable and practical information or tools that make travelling easier and more pleasant. Such convenience is still lacking for many logistical systems (navigation and parking assistance in the city, for example).

Everything online everywhere

In the future, everything will be connected with each other. From the fridge that orders cheese and milk by itself to the car that brakes because someone else has hit the brakes a few cars ahead. The vision of intelligent devices that are integrated everywhere, are permanently connected with the Internet and can find all the relevant data there is also known as “pervasive computing” or “everyware”. We have not reached that point yet but some of the trends are already discernible. We are becoming ever more connected and we are storing more and more data in the Internet cloud. Where exactly the information is stored is not the point, as long as

you can get at it with an Internet connection. Often the process is unconscious - it is simply convenient to be able to work on documents, presentations and software together in this way. This places high demands on reliability. If your PC crashes, you can quickly sort yourself out a new one. But if your Internet connection is down, you are at the mercy of your provider. Solutions to this problem are already emerging – such as an application that simultaneously stores your data offline and can synchronise it later. So you can carry on working even if your connection goes down.

Beware

The safety and reliability of the Internet are determined in part by the security of the computers connected to it. Most PCs run on Microsoft Windows, an advanced and complex product for a large group of inexperienced users. Banks demand “adequate PC security” for Internet banking. But what is adequate? We may reasonably expect every Internet user to have an up-to-date virus scanner and firewall, and to install update patches straight away. Even so, hacking into a computer is easier than breaking into a house. While a hacker drinks his coffee, his PC scans thousands of computers for weak spots – from Utrecht, or from Peking. For companies and governments alike, this is something to consider when they start offering sensitive services to customers and citizens over the Internet. In short, there are still some obstacles to overcome on the road to “everywhere” if we are to avoid taking a wrong turn to “nowhere”.

