

# The Spy in Your Pocket

## In brief

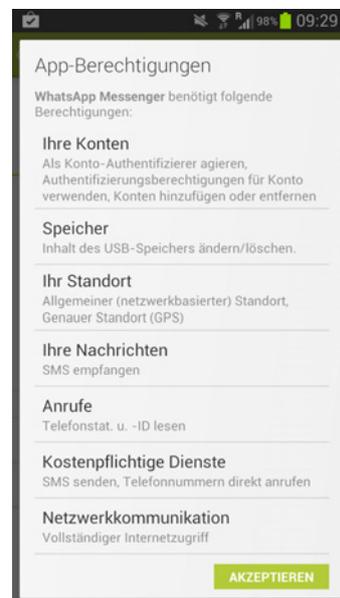
- Smartphones know where we are, with whom we communicate, what interests us, and much more.
- Enhancing customer profiles with geo-data is a lucrative business.
- Generally, not much attention is being paid to constitutional rights such as the protection of privacy and informational self-determination.

## What is it about?

The fact that mobile devices are increasingly equipped with GPS sensors and that market shares of smartphones are on the raise has led to a completely new problem: the analysis and exploitation of geo-data, possible because the functionality of smartphones can be enhanced through applications ('apps'). Today's self-evident availability of geo-data and the possibility to allocate individual devices to specific persons allows advertisers (and investigative authorities) to enter a new dimension when it comes to profiling – a field that promises high profits over the next few years. Yet, users have little awareness of the consequences these profiling processes entail; on the other hand, many perceive their basic right to privacy as something negligible. However, rarely do manufacturers and service providers accept responsibility. Data protection bodies are often unable to enforce existing laws; their limited (national) jurisdiction, the overwhelming amount of apps, and the extremely dynamic nature within the field make this practically impossible.

Particularly problematic is the ubiquity of smartphones and geo-data-based services amongst young people. In general society deems this group as particularly vulnerable and worthy of protection, with children and adolescents being legally incompetent persons. But when it comes to smartphone use it appears that this age group is at the mercy of companies' pursuits of monitoring and/or maximising profit. The use of

smartphones is continuously rising across all age groups, leaving behind large amounts of consumers who are affected by this (partly private sector) monitoring. Not all apps that use location information are problematic; navigation apps, for example, are undeniably beneficial when it comes to the use of geo-data. Many applications, however, can confidently be deemed a false front in order to monitor customers because they collect data irrelevant to the app's promised function and then transmit it to manufacturers and advertiser networks. For example, 'Text Plus', an app for text messages, captures information with regard to sex, age, position as well as the telephone ID and transmits it to seven international advertiser networks.



Requests for access by WhatsApp on Android

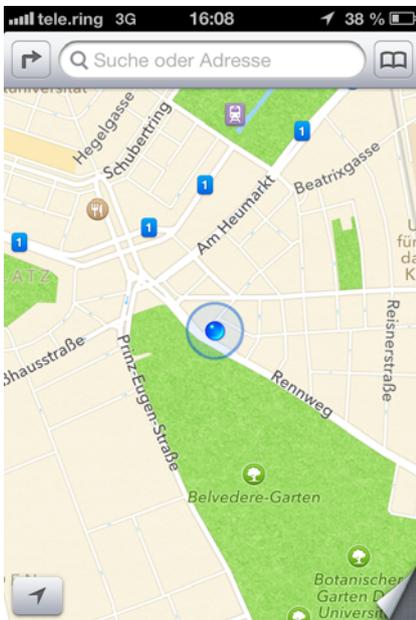
Taking this into consideration, the following socio-political questions arise: how to oppose the market power of large IT corporations and non-transparent advertiser networks? What are the implications for a democratic society should relationships of dependency form as a result of this monitoring? Who will be able to eschew this in the future?

## Basic data

<b>Project title:</b>	Current issues of geo-data use on mobile devices
<b>Project team:</b>	Peissl, W., Sterbik-Lamina, J., Rothmann, R., Čas, J.
<b>Duration:</b>	01/2012 – 08/2012
<b>Funded by:</b>	Federal Chamber of Labour, Dept. of Consumer Protection

## Key results

Because of their design (hand-held, light-weight, loaded with features and sensors) and the nature of their use (they are often used on the go, practically never handed over or left behind), smartphones are closely related to their users' everyday lives. Recorded patterns of movements provide an in-depth insight into highly intimate details of private lives. Both these data as well as other information saved on the phone strongly appeal to many organisations. The exploitation of this knowledge by advertiser networks is particularly apparent: it can be assumed that many apps are offered primarily for the collection of data.



Apple Maps on iOS

The extent of the increasing knowledge and power disparity between providers and consumers is, not least in terms of democracy policy, problematic. Smartphone users have no insight into the processes they subject themselves to as a result of using such device. They can hardly assess the future significance of handing over their data and thus cannot give informed consent to app-related data processing and data transfer. Within the area of data protection, a glaring lack of implementation and enforcement exists. Many citizens in Europe have already had to experience this when attempting to maintain control over their data.

## What to do?

**From a technology assessment's perspective, the following suggestions can be given to policy-makers and society:**

On the one hand, policy-makers may want to think about the implications for democracy if certain areas of law are not enforced; on the other hand, they may also want to think about the implications if constitutionally-protected fundamental rights can be eroded for the purpose of maximising profits at any time.

As with competition law, in which the European Commission took a stand against large corporations, European cooperation is the most appropriate approach to regulate this internal market issue.

Data protection authorities need more money and more staff to coordinate work on supranational levels (maybe in cooperation with the European Commission) and to promote full application of the fundamental right of data protection despite a multitude of apps and very dynamic market conditions.

Manufacturers of smartphones and operating systems ought to recognise the constitutionally-protected right of informational self-determination. More transparency and better rights management within the operating system would promote its enforcement.

Our recommendations to consumers would be to carefully choose which app to install, and to take every opportunity, as far as the operating system will allow, in restricting unnecessary access to data.

## Further reading

Rothmann, R.; Sterbik-Lamina, J.; Peissl, W.; Čas, J. (2012): Aktuelle Fragen der Geodaten-Nutzung auf mobilen Geräten – Final report. No. ITA-PB A63; Institute of Technology Assessment (ITA), Vienna <http://epub.oew.ac.at/ita/ita-projektberichte/d2-2a63.pdf>

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