
Access and Use of Smart Hospitals Data for Research Purposes

Jaroslav Greser*¹

¹Adam Mickiewicz University in Poznań – Poland

Abstract

The Internet of Things (IoT) is a revolution happening around us. Devices, system components and networks are becoming autonomous, ubiquitous and interconnected. It is estimated that by 2020 the total number of IoT units reach 25 to 30 billion while the amount of data they are going to generate will reach 500 zettabytes. They are widely used both in services and industry and the health system is considered to be the most interested in aiming to deliver optimal patient care. This is particularly evident in hospitals which tending to become ‘smart hospitals’. That means IoT components are supporting the core functions of a hospital.

The IoT medical devices collect, process and store different types of information to ensure efficient and effective surgical and diagnosis processes with low error rate and cost-effectively. To achieve it they accumulate medical data and personal information. Nevertheless, at the same time, they gather records of regarding life habits, financial resources and sensitive personal information not necessary for medical treatment like political views or sexual orientation. This applies to patients, relatives and hospitals’ staff.

This information may prove useful in public decision-making in such areas as public health, law enforcement, public safety or social policy. They are also crucial for evidence-based research in humanities not only related health. Nevertheless, those data are either inaccessible to the scholars or access is limited. At the same time, data is collected by the manufacturer of the device, both to enable analyses of its functioning as well as to develop consumer profiles or predict particular behaviours of the users. Data thus amassed constitutes an asset which possesses economic value and as such, it is protected by proprietary rights.

In my paper, I would like to address two issues. First, I am going to discuss possibilities of accessing data based on mechanisms contained in international human rights law, examining whether IoT devices can be considered technological progress and, if so, whether they are protected under the Covenant on Economic, Social and Cultural Rights. Moreover, I will present the interrelations and reciprocal limitations arising between the freedom of scientific research and the right to property, both of which are protected under the Covenant as well.

The second issue is the possibilities available researchers as the EU citizens. I will focus on two questions: first, whether the collected data falls within the scope of legislation on the re-use of public sector information, and second, whether regulations on the protection of non-personal data will apply to the data collected by IoT medical devices, enabling their re-use.

*Speaker

Keywords: access to data, IoT, smart hospitals, re, use