

## Chapter 6

# Sensorization to Promote the Well-Being of People and the Betterment of Health Organizations

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### **ABSTRACT**

*Well-being is a complex notion of satisfaction towards a human being. There is no doubt that it is not essential but the greater the sense of well-being, the better are living conditions and general happiness. It can be measured and although it is not directly assessed, there are procedures that grasp its value. An example is the act of sensorization of different key related attributes. Sensorization is the ability to gather data which may be used to a plurality of objectives. The greater the number of sensorized attributed, the better evaluation on well-being can be made. But there are more benefits that can be hypothesized such as the construction of community knowledge bases and the search for abnormal relationships between well-being and the attributes sensed. A historical record of our way of life can also present clues to health organizations, both to the creation of regulations and individual diagnosis.*

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## **INTRODUCTION**

The digital world is more than the electronic records and the internet. In there, a number of concepts exist that aim to make living easier and safer for people. For instance, the internet of things is a new paradigm in which every device is digitally connected, regardless of their function and can communicate with other devices and people over communication protocols. It applies both to fixed devices as well as portable personal devices that accompany people (Atzori, Iera, & Morabito, 2010). More examples can be enumerated by devices that are being incorporated inside the actual body, such as identification chips, smart tattoos and alike (Steele & Clarke, 2013). Along with the internet of things, smart cities development further the objective of ease of living, well-being and comfort. Smart city is a term applied to digital research and planning using computational methods and systems that results in better, easier and faster management of services and goods inside the inhabited areas. Internet of things acts in this setup as a base service which enables smart cities applications by either the collection of information directly from the environment and people or integrated fusion of data and information to the benefit of planning actions to improve the status quo. Among other concerns, health, comfort and well-being are points of concern in smart cities (Solanas et al., 2014).

If the technologies described under the concepts of smart cities and internet of things are perceived as social services, then conventional business and government agencies gain access to a new set of valuable information on both the environment and users. These trends, despite having ethical challenges of their own, present a number of opportunities for the society. Sensorization, monitoring, sharing of information are terms intimately connected to the new intelligent systems being created. They further expand the potential of the new digital world currently under construction. Applied research can be found related to health organizations and also the well-being of populations or individuals. Connected environments monitoring comfort parameters are not under active research but also regulated by governments. Air quality is an area that is actually regulated by governments, which define acceptable parameters. Concurrently, research conduct in the field of smart environments studies the impact of air composition in health, concentration tasks and psychological comfort. As expected, research directions are more specialized than government regulations and are being pushed forward by the quality of sensors and sensor networks which portrait better and better images of air composition across time and space inside environments. With this being only one example of application, there are other with equal approaches and strategies that aim to better assess and diagnose not optimised or harmful situation towards well-being and general health (Piro, Cianci, Grieco, Boggia, & Camarda, 2014).

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