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# Privacy-aware Big Data Analytics as a Service for Public Health Policies in Smart Cities

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## Abstract

Smart cities make use of a variety of technologies, protocols, and devices to support and improve the quality of everyday activities of their inhabitants. An important aspect for the development of smart cities are innovative public policies, represented by requirements, actions, and plans aimed at reaching a specific goal for improving the society's welfare. With the advent of Big Data, the definition of such policies could be improved and reach an unprecedented effectiveness on several dimensions, e.g. social or economic. On the other hand, however, the safeguard of the privacy of its citizens is part of the quality of life of a smart city. In this paper, we focus on balancing quality of life and privacy protection in smart cities by providing a new Big Data-assisted public policy making process implementing privacy-by-design. The proposed approach is based on a Big Data Analytics as a Service approach, which is driven by a Privacy Compliance Assessment derived from the European Union's GDPR, and discussed in the context of a public health policy making process.

*Keywords:* Big Data, privacy, public policy making

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