

IMPETUS PUBLIC OPINION SURVEY ON ETHICAL ISSUES OF SMART CITY TECHNOLOGIES

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Abstract

As part of [IMPETUS project](#), a public perception survey was conducted with the goal of determining the level of ethical concerns of the European citizens related to the use of Smart City Technologies (SCT) (with special attention given to the citizens of the project's partner cities: Oslo and Padua) in order to define ethical, legal and data privacy boundaries within which the project will evolve.

To gain a paneuropean perspective and compare the results of the survey from Oslo and Padua to other European cities, the public perception survey was conducted in March 2021 in five European cities (Madrid, Oslo, Padua, Zagreb and Bucharest) on a sample of cca 500 18+ citizens per city by the method of computer-assisted telephone interviewing (CATI). The basis for the survey was a questionnaire which consisted of demographic (gender and age) and specific questions that explored citizens' level of familiarity with the concept of SCT, their general opinion about the topic and the level of worry about the possibility of unethical use of SCT.

The results of the survey analysis showed that the majority of Padua citizens are familiar with SCT concept and think it is necessary to use SCT in the fields of smart management of healthcare and security, but do not think it is necessary to use it in warning systems for high air pollution, danger of floods, landslides, earthquakes. As for ethical concerns, 73% of them have experienced misuse of their personal data for unnecessary or unwanted purposes, but only 7% are concerned over the misuse of the data collected by the Smart Cities services. When it comes to the citizens of Oslo, only 50% of them have heard about the SCT concept. The citizens of Oslo think it is necessary to use SCT in the fields of public transportation and warning systems for high air pollution, danger of floods, landslides and earthquakes but not many think it is necessary to use SCT in the security sector. As for ethical concerns, 44% have experienced misuse of their personal data for unnecessary or unwanted purposes and are four times more concerned over the misuse of the data collected by the Smart Cities services than the citizens of Padua.

Based on these results it can be concluded that the citizens of Padua are ready for further developments of Padua as a Smart City, but could use more awareness raising initiatives concerning the benefits of using SCT in warning systems for high air pollution and climate change induced higher frequency of floods, landslides and earthquakes.

As the City of Oslo has been investing in SCT since at least 2010, the analysis result concerning familiarity with the SCT could also be interpreted as unfamiliarity with the words rather than the concept. The City of Oslo could direct more attention to awareness raising initiatives concerning the benefits of using SCT in the field of public security and educational activities concerning the misuse of the data collected by the Smart Cities services. The latter concern of the citizens of Oslo must be taken into account when developing the IMPETUS platform to be potentially used by the City of Oslo.

Keywords: IMPETUS, Smart City technologies, ethical concerns, public opinion, survey

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