FONDAZIONE BRUNO KESSLER
MAGAZINE

Responsible Artificial Intelligence

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Images and privacy of citizens in a Smart City. FBK participates in the MARVEL European project

Smart city. Near future. In some streets and squares cameras are placed for a statistical study on traffic and to decide whether to make a pedestrian area. In another area the car parks are monitored to detect their use and evaluate whether to build new ones. **But how to use the images to improve the lives of residents and at the same time respect their privacy?**

The question is addressed by the **MARVEL** project (Multimodal extreme scale data analytics for smart cities environments), funded by the European Union as part of the **H2020** calls for proposals on technologies for the analysis of Big Data, in which the Fondazione Bruno Kessler of Trento participates. In particular, researchers are developing artificial intelligence algorithms capable of automatically anonymizing images, making people's faces unrecognizable, and at the same time extracting statistically useful information.

All of this can be done already by the cameras, i.e., before the entire image stream is sent to the cloud so that sensitive information is preserved.

"With these innovations in the field of AI", explains Elisabetta Farella, researcher at the FBK Digital Society center, "we aim not only for scientific excellence but also for the impact on the territory and to offer solutions that have a real impact on the life of people, paying attention to ethical aspects".

Also the Municipality of Trento is a partner in the project, which will end on December 31, 2023. Fondazione Bruno Kessler participates with three research units of its **Digital Society center**: **DVL** for the computer vision part, **SpeechTek Lab** for audio processing, **E3DA** for the part of optimization of algorithms performed on integrated devices.

More information is published in the scientific article "**Responsible AI at the edge: towards privacy-preserving smart cities**" by researchers **Luca Zanella, Yiming Wang, Nicola Dall'Asen, Alberto Ancilotto, Francesco Paissan, Elisa Ricci, Elisabetta Farella, Alessio Brutti** and the director of the Digital Society Center, **Marco Pistore.**

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