# Building Strategic Partnerships to Understand Ethics and the Use of AI to Manage Health-related Crises.

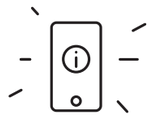
**This yearlong project focuses on the use of AI-enabled technologies employed to monitor, respond to and manage individuals or populations deemed at risk. The research team will investigate two case studies, (1) the ethics of the use of AI in smart city technologies employed during crises (with partners at the Graduate School of Public Policy, University of Tokyo) and (2) ethics of the use of AI in adaptive data-driven health surveillance (with partners at the Dyson School of Design Engineering, Imperial College London).**

In 2020, the case study of ethics of the use of AI in adaptive data-driven health surveillance was underway. Together with partners from the Imperial College London, our research team aims to develop ethical guidelines directed to policymakers to support the development and application of health surveillance technology to manage present and future health-related governance challenges. Personal health surveillance is defined as the continuous monitoring of health data and behavioral signals for wellbeing purposes. It allows, for example, caretakers and health professionals to detect changes in a patient's condition, or employers to monitor employees that might be exposed to pollutants, noise or vibration, or other health hazards. AI technologies used in this context raise ethical, psychological and social consequences concerns.

**Plans for 2021**

This research aims to assist developers and policymakers in creating implementable guidelines that enable support at each step of the development process, with aspects of fairness integrated in the design being of major importance. To better understand and target this issue, we will pilot stakeholder engagement in the form of surveys, interviews and behavioral experiments in 2021. A major output of this initial study will be the creation of a framework for ethical challenges in the different phases of the development of health surveillance tools. Anticipated further extensions of this product would aim to prototype the integration of the framework into new tools and designs.

These findings will be presented and further adapted in several workshops on ethics and AI-enabled technologies employed to monitor, respond to and manage individuals or populations at The Responsible AI Forum. Finally, to disseminate the results of this project, an educational strategy will be developed to communicate the ethical implications in health surveillance technology to developers and policymakers.



**Principal Investigators**

- Prof. Dr. Christoph Lütge, TUM School of Governance
- Prof. Rafael A. Calvo, PhD, Dyson School of Design Engineering, Imperial College London
- Prof. Kan Hiroshi Suzuki, Graduate School of Public Policy, University of Tokyo
- Prof. Dr. Ken Ito, Interfaculty initiative in Information Studies, University of Tokyo
- Caitlin Corrigan, PhD, Institute for Ethics in Artificial Intelligence, TUM

**Researchers**

- Ellen Hohma, M.Sc., Institute for Ethics in Artificial Intelligence, TUM
- Ana Cataria Fontes, PhD, Institute for Ethics in Artificial Intelligence, TUM

**Applied Partners**

- UC Berkeley, Department of Mechanical Engineering
- Airport RFID Technology Agency (ARTA), Denso Wave Co.
- NPO Medical Governance Research Institute
- Bavarian State Tokyo Office