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TUTORIAL

Methods on Artificial Intelligence

Theodore Chadjipandelis, Laboratory of Applied Political Research, Aristotle University, Thessaloniki, Greece

Using the example of an on-going research in the frame of AI4GOV project, we explore the connection between AI-driven digital transformation in municipalities and human rights, with a specific emphasis on Article 25(c) of the International Covenant on Civil and Political Rights, which advocates for equal access to public service, with the aim to evaluate how these technologies impact citizens' rights to equitable public service access.

Public sector has increasingly integrated digital solutions to streamline services and enhance citizen engagement. However, aspects such as bias, inclusiveness and accessibility remain inadequately explored. Central to this investigation is the role of AI in either facilitating or hindering equal access to municipal services. The research employs a dual-method approach:

1. Qualitative Analysis: Conducting semi-structured interviews with municipal staff (internal users) to understand their experiences, challenges, and perceptions of the digital applications.
2. Quantitative Analysis: Survey to citizens (external end users) to assess the usability, accessibility, and inclusivity.

The study aims to assess whether digital transformation initiatives are aligned with the principles of Article 25(c), ensuring that all citizens, irrespective of their background, have equitable access to these services. It also seeks to identify any digital barriers that might infringe upon this right, such as issues related to digital literacy, accessibility, and inclusivity.

By examining both internal and external perspectives on AI and digital applications in municipalities, this research is significant in the context of the evolving discourse on AI and human rights, offering a nuanced perspective on how digital transformation can both support and challenge the realization of fundamental human rights in the public sector. The findings are expected to contribute to the development of more inclusive and rights-aligned digital public services in Greek municipalities.

We investigate the impact of technology on the decision-making processes on a municipal level, and the interplay between civic engagement and emerging technologies. An informed and involved citizen is essential for the vitality of democratic governance, and European countries work to ensure the active participation of individuals in political life, and their engagement in the decision-making processes. Simultaneously, local governance acknowledges the role of technology as an enabler of civic participation, with digital platforms and e-governance initiatives serving as tools to amplify voices and streamline decision-making. We explore the dynamic relationship between technology-driven civic participation and the evolution of decision-making mechanisms at the municipal level.

Municipalities today aim for the integration of state-of-the-art technological solutions such as Artificial Intelligence (AI) and Blockchain technologies, establishing a transparent and secure platform that redefines citizen involvement in decision-making. Through the utilization of such emerging technologies, citizens are equipped with advanced and secure tools to express their opinions on matters affecting the community, fostering a sense of ownership that can lead to a more politically informed and engaged society.

Drawing experience and input form the AI4Gov project, we present the utilization and integration of AI and blockchain technologies on the municipal level to optimize resource management, reduce environmental impact, and elevate overall quality of life. Through AI-based solutions, such as smart waste management systems, traffic violation solutions, and civic engagement tools, the municipality enhances accessibility for all residents, irrespective of age or ability.

The integration of blockchain ensures the security, audit, integrity and transparency of the data being analyzed. It enables these technologies to play vital roles in reinforcing and upholding democratic principles and strengthening democratic processes and governance worldwide. Through civic participation, Europe builds resilient and responsive democracies that reflect the diverse perspectives and needs of its citizens.

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Theodore Chadjipadelis is Professor of applied statistics and the director of the Laboratory of Applied Political Research. His research interests cover the field of Applied Statistics and mainly refer to issues of experiment design, statistical research training, public opinion, political and electoral behaviour, electoral geography, election systems as well as urban and regional programming and development. Among others projects, he represent A.U.TH in the HORIZON project AI4Gov which is