

Introduction to the Artificial Intelligence in Government Minitrack

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The public sector continues to utilize artificial intelligence (AI) to improve internal processes and citizen services. Given the increasing amount of data available to organizations and constituents, exploring the role of AI is imperative for the effective, efficient and ethical use of government resources. Artificial Intelligence has emerged as an important research and pedagogical topic in diverse disciplines, including information systems, public administration, computer science and political science. With the growing proliferation of AI in the public sector, there is a need for more research to elucidate the opportunities and challenges associated with this phenomenon.

The use of AI in government reflects the growth in the use of AI in personal, organizational and societal interactions. This growth is being driven by both technological advances in a number of areas, such as machine learning, neural nets and deep learning, and also by economic forces as many governments continue to try to provide more services with fewer resources. AI offers enormous potential to reduce the cost of service delivery. However, machines are not accountable and there are opaque and proprietary black boxes already being used to make decisions that can have fundamental effects on the lives of ordinary citizens.

The focus of this mini track is on both current uses and potential applications of AI in government. This year, the Artificial Intelligence in Government Minitrack in the Digital Government Track at HICSS is composed of four papers that make a valuable contribution to the digital government domain.

The first paper is titled “What Other Factors Might Impact Building Trust in Government Decisions Based on Decision Support Systems, Except for Transparency and Explainability?” It uses a Mixed-Method Sequential Explanatory Design to explore trust in decision support systems. As AI in digital government evolves, it is imperative for researchers to evaluate factors that impact citizen trust.

The second paper is titled “Federated Learning as a Solution for Problems Related to Intergovernmental Data Sharing.” Federated learning is a decentralized AI method created to utilize personal information on edge devices. This paper uses a structured literature review to illustrate how major intergovernmental data sharing challenges, such as legal and ethical issues, can be solved through federated learning.

The third paper is titled “Exploring AI supported Citizen Argumentation on Urban Participation Platforms.” The authors examine how an AI-based feedback system can increase citizens’ argumentation on urban platforms. In particular, the paper compares two prototypes by applying Argumentation Theory and Mayring’s qualitative content analysis. The results provide initial findings about how AI-based feedback systems for urban planning participation should be designed to encourage citizens to provide more argumentative and comprehensible contributions.

The fourth paper is titled “Tertiary Study on the Use of Artificial Intelligence for Service Delivery: A Bibliometric Analysis of Systematic Literature Reviews.” It explores sixty-six systematic literature reviews (SLRs) on the use of artificial intelligence for service delivery. The analysis reveals healthcare and business management are among the most prevalent fields of application.

Ultimately, the four papers in this minitrack explore the value of AI in government services and initiatives. Given the increasing utilization of AI supported technologies in the public and private sectors, the value proposition for digital government initiatives continues to rise. The need for practical applications and scholastic explorations in this domain remains high.