

Introduction to the Digital Government and Artificial Intelligence Minitrack

Lemuria Carter
University of New South Wales
Lemuria.Carter@unsw.edu.au

Stephan Grimmelikhuijsen
Utrecht University
s.g.grimmelikhuijsen@uu.nl

Mila Gascó-Hernández
University at Albany – SUNY
mgasco@albany.edu

Frank Bannister
Trinity College, Dublin
Frank.Bannister@tcd.ie

The role of technology in the public sector continues to evolve. Digital government has emerged as an important research and pedagogical topic in diverse disciplines, including information systems, public administration, computer science and political science. Given the increasing amount of data available to organizations and constituents, exploring the role of artificial intelligence (AI) is imperative for the effective, efficient and ethical use of government resources.

The use of Artificial Intelligence (AI) in government reflects the growth in the use of AI in the economy and in society generally. It is being driven on the one side by technical advances in a number of areas such as machine learning, neural nets and deep learning and on the other by economic forces as many governments continue to try to provide ever more services with ever fewer resources. AI offers enormous potential to reduce the cost of (for example) delivering personalized and customized services to citizens. On the other hand, machines are not accountable and there are opaque and proprietary black boxes already being used to make decisions that can have fundamental effects of the lives of ordinary citizens. The focus of this mini track is on both current uses and potential uses of AI and invites contributions on the benefits and risks as well as on the control, regulation and governance of this technology.

This year, the Digital Government and Artificial Intelligence Minitrack at HICSS is composed of four papers that address important and timely issues in the digital government domain. The first paper is titled “Public Service Values and Chatbots in the Public Sector: Reconciling Designer Efforts and User Expectations.” It includes both user focused investigations and designer focused investigations to understand the specific public service value dimensions that contribute towards the users’

decision to use (or not to use) a chatbot. As AI in digital government evolves, it is imperative for researchers to evaluate its perceived public value.

The second paper is titled “AI Suffrage: A four-country survey on the acceptance of an automated voting system.” This project presents a mock AI voting system that facilitates decision-making between citizens and the government. The authors administered an online survey in four countries - Greece, Singapore, Switzerland, and the US - to explore citizen acceptance.

The third paper is titled “Designing an AI compatible open government data ecosystem for public governance.” It explores the use of AI solutions to create value in an OGD ecosystem. It proposes a conceptual framework which accounts for the governance needs that emerge from the use of AI.

The fourth paper is titled “Towards explaining user satisfaction with contact tracing mobile applications in a time of pandemic: a text analytics approach.” It explores the post-adoption use of Contact Tracing Mobile Applications (CTMAs). The authors utilize sentiment analysis, topic modeling and dictionary-based analytics on 10,337 reviews to provide recommendations for future disaster management.

Ultimately, the four papers in this minitrack explore the value of AI in digital government services and initiatives. Given an increasing dependence on AI supported technologies in the public and private sector, the value proposition for digital government initiatives should continue to rise. The need for rigorous and relevant research in this domain remains prevalent.