

Introduction to the Minitrack on AI in Government

Dapeng Liu
Baylor University
dapeng_liu@baylor.edu

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

Lemuria Carter
University of Sydney
lemuria.carter@sydney.edu.au

Abstract

Artificial Intelligence (AI) is increasingly shaping governmental sectors, driven by advancements in machine learning, neural networks, and economic challenges. As governments strive to enhance services with limited resources, AI offers optimized efficiency, enhanced decision-making, and improved data processing. This transformation holds potential in areas like welfare identification, fraud detection, and improved public service delivery. This minitrack, part of the Digital Government Track at HICSS, delves into AI's current and future roles in public sectors, emphasizing its benefits, complexities, and the need for comprehensive governance and scrutiny. With four accepted papers, the minitrack offers insights spanning a diverse spectrum, from exploring AI's geopolitical evolution and the nuances of strategic planning in different cultural contexts to understanding perceptions held by public managers and the innovative use of AI in digital participation platforms. Together, these contributions shed light on the multifaceted implications of AI within the realm of public governance, providing a holistic understanding of its current landscape and future trajectory.

Keywords: AI, Government, Public Administration, Decision-making, Public Service, Governance

As artificial intelligence (AI) continues to expand its presence across various sectors, its penetration into the realm of government is particularly noteworthy. This growth, mirroring the surge of AI in the broader economy and societal constructs, is fueled by advancements in fields such as machine learning, neural networks, and deep learning, as well as economic imperatives. Faced with the challenge of augmenting service provisions despite dwindling resources, many governments see AI as a promising solution.

AI's potential in government is multifaceted. It offers the ability to elevate efficiency, hone decision-making, and process vast amounts of data. Such capabilities can revolutionize areas like welfare beneficiary identification, fraud detection, and the

overall enhancement of public services. Furthermore, AI presents avenues to deliver personalized and bespoke services to citizens at reduced costs. However, as with any potent tool, AI presents complexities and challenges, necessitating rigorous debate and consideration.

This minitrack aims to delve into both the prevailing uses and prospective applications of AI in government. We encourage diverse contributions touching upon adoption, implementation, advantages, risks, and the overarching governance of AI within public entities. 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 “National AI Strategic Plans for the Public versus Private Sectors: A Cross-Cultural Configurational Analysis.” The authors employ a fuzzy set Qualitative Comparative Analysis (fsQCA) to scrutinize the national Artificial Intelligence (AI) strategic plans across 34 countries. Using Hofstede’s cultural model with four dimensions, the study identifies that countries’ strategic plans for AI, targeting either the public or private sectors, align with their national cultural norms. Notably, if a country prioritizes only one sector in its strategy, it typically leans toward the industry. The paper discerns that the defining factors between extensive and limited AI plan development are task/people orientation and the spectrum of individualism/collectivism. Specifically, countries with strong collectivist values and a high task orientation tend to develop more comprehensive national AI strategies and policies.

The second paper is titled “Voices from the Frontline: Revealing the AI Practitioners’ viewpoint on the European AI Act.” The authors investigate the perspectives of AI industry practitioners on the upcoming European AI Act, a regulation aimed at ensuring trustworthy AI development that upholds user well-being. Drawing from interviews with 21 companies, the study reveals a generally positive

sentiment towards the AI Act. However, there's a highlighted need for more resources, both in terms of personnel and information, to bolster its legitimacy. The companies expressed desires for a more nuanced regulation and a stronger inclusion of AI expert insights. The paper also pinpoints potential areas for further research, including machine unlearning and the industry's perceptions of existing legislation.

The third paper is titled "A Typology for AI-enhanced Online Ideation: Application to Digital Participation Platforms." This paper delves into the challenges and opportunities surrounding Digital Participation Platforms (DPP), which facilitate large-scale online citizen participation in policy-making. The authors identify challenges like information overload and asynchronous dialogues that citizens face on these platforms. The paper introduces a typology comprised of six distinct AI-enhanced solutions for online ideation. Applying this typology to DPPs, the findings indicate a strong reliance on automated tasks, a notable scarcity of AI-human collaborative solutions, and a void in collective-level applications. By comparing current DPP solutions with fields like open innovation and recommender systems, the paper offers insights into potential inspirations for future AI-integrated solutions. Conclusively, this research not only establishes a foundational typology for AI-enhanced online ideation but also uncovers avenues for future research and architectural innovations in DPPs.

The fourth paper is titled "Public Managers Perception on Artificial Intelligence: The Case of the State of Mexico." The study delves into the challenges faced by the public sector in adopting Artificial Intelligence (AI) tools for mundane, repetitive tasks, particularly considering the hesitance often displayed by bureaucrats. Despite these challenges, the transformative potential of AI—enabling enhanced processes and services, including tasks like tax payments, basic services, and complex decision-making via machine learning or diffuse logic—is evident. This research pivots to gauging public managers' readiness and competence to navigate the AI landscape in the public sector. To this end, a survey encompassing 32 pivotal public managers from the government of the State of Mexico was administered. The results point towards a notable skills deficit and a limited grasp of AI among these managers, possibly acting as roadblocks to AI's broader integration in the future. This investigation stands out in its spotlighting of competency levels related to AI deployment within a specific local government context.