

Role of Artificial Intelligence in Public Administration Research Ethics

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EXECUTIVE SUMMARY

The use of artificial intelligence (AI) in public administration research provides transformative opportunities and complex ethical challenges. In this chapter, the focus is on the role of AI in public administration research ethics. Despite the prevalent use of the term AI, there is no generally accepted definition of the concept. However, in this chapter, AI was used to mean technology that enables machines to imitate different complex human competencies related to public administration research. The discussion is focused on how AI impacts key ethical principles, specifically, informed consent, autonomy, privacy, confidentiality, equity, bias, transparency, accountability, scientific validity, and public interest. In this chapter a cases study on issues and dilemmas associated with the application of AI in public administration research was included to assist in explaining that ethics in research are indispensable because the pursuit of knowledge should not come at the expense of public trust and equitable governance outcomes.

INTRODUCTION

The focus in this chapter is on exploring the role of Artificial Intelligence (AI) in research ethics in public administration. The need to focus on the topic was supported by the concept that the core attribute of AI is that it enables the automation of some tasks that have traditionally required human input. The application of AI has resulted in a transformation that has provided new opportunities for individuals, the economy, and society. Notably, the adoption of AI has disrupted the manner things are done globally and in the United States (Collins et al., 2021; Xu et al., 2021; Zuiderwijk et al., 2021). One area where AI has caused a disruption is in research. As such, the focus in this chapter is the role of AI in public administration research ethics.

AI is not a novel discipline, but the increased focus and the adoption of innovation across different sectors, including public administration, have made it a modern phenomenon. There is a consensus among scholars on the definitional explanation of AI (Sheikh et al., 2023). For instance, Nilsson (2009) defined AI as a technology that functions appropriately and with foresight in its environment. Comparably, the High-Level Expert Group on Artificial Intelligence (2019) defined AI as systems that have intelligent behavior by assessing their environments and taking actions, with some degree of autonomy to fulfill certain goals. Hence, in this chapter, AI was defined as technologies such as machine learning, predictive analytics, and natural language processing that can be used in public administration research.

The increased adoption of AI in government has resulted in numerous opportunities for enhancing the quality of public services, fostering citizens' trust, and promoting effectiveness and efficacy (Zuiderwijk et al., 2021). For instance, AI can result in aggregate productivity growth through automation of routine tasks, process optimization, and data-informed decision-making (Lee, 2016). In public administration research, AI can be applied to optimize operations such as fraud detection in social security systems (Criado et al., 2025; Noordt & Tangi, 2023). In addition, AI's capacity to analyze large data sets can promote evidence-based policymaking, but there is a need to address ethical concerns to ensure scientific validity is achieved and prevent biases, ensuring compliance with research principles. The potential positive impact of AI needs to be effectively managed, ensuring that benefits are equitable.

The adoption of AI in public administration can result in decreased trust in government by citizens, because of a lack of transparency, privacy concerns, and vague responsibility and accountability (Kuziemski & Misuraca, 2020; Zuiderwijk et al., 2021). The use of AI can cause changes in the skills demanded by the job market, with increased demand for technical skills in data science and programming, causing a shift in public administration roles towards policy analysis (Lee, 2016; Organization for Economic Co-operation and Development [OECD], 2019). The

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