

Chapter 6

Implementing Artificial Intelligence in Public Administration: Managing Challenges, Risks, and Opportunities in the Contemporary Context

Antoaneta Stoyanova

 <https://orcid.org/0000-0002-5186-1498>

University of Economics, Varna, Bulgaria

Marieta Stefanova

 <https://orcid.org/0000-0002-5847-0887>

Nikola Vaptsarov Naval Academy, Bulgaria

ABSTRACT

Artificial Intelligence (AI) is rapidly emerging as a critical technology for improving efficiency and innovation in public administration. The implementation of AI is accompanied by many challenges and requires a clear definition of leadership positions and responsibilities in management decision-making. The aim of this study is to examine the main technical, organizational and legal challenges in the implementation of AI in public administration, as well as the role of the various leadership positions in the management of AI initiatives. In accordance with this aim, the study applies an approach inextricably linked to the assessment of RPN (Risk Priority Number) in the implementation of artificial intelligence. The results of the study urge the management of institutions within public administration to search for solutions related to the development and implementation of more effec-

DOI: 10.4018/979-8-3693-8372-8.ch006

tive and innovative tools to deal with the challenges of the present, according to the accepted context.

INTRODUCTION

Each country's adopted policies form the framework for implementing actions aimed at ensuring national, regional and local governance. Their implementation requires interactions between public institutions and the population of the relevant country. The creation of trust between the public and the various institutions within public administration rests on the reliability, security and accessibility of the services provided (Persson, Parker & Widmalm, 2017). Public administration focuses on the needs of society and functions on the basis of organizational structures, processes, roles, relationships, policies and programs. State governance necessitates the implementation of reforms, and the management of reforms is a fundamental element of public administration. The daily interactions between public administration institutions and the citizens of a society consist in the receipt of various services determined by an economic, administrative, social, health or educational context (Ingrams, Piotrowski & Berliner, 2020).

In its report on issues of the quality of public services in individual countries, the European Parliament found that it was directly related to the level of trust in the public administration, the conditions for carrying out business and public well-being (EC, 2016). The quality of public services is also a good indicator of the sustainable functioning of the state as a whole (Marques, Leitão, Carvalho & Pereira, 2021). Administration is defined as a barometer for the sustainability of the economy and the pace of economic development, welfare and guaranteeing people's well-being (Hallerod, Rothstein, Nandy, Daoud, 2013). In the current dynamic and unstable external environment, building and maintaining sustainability of the functions of public institutions is a priority for individual governments. Modern social, technological and economic changes give rise to new expectations in all interested parties towards the provided public services (Petrov, Vasilev, Kuyumdzhev, Ivanov, 2022). Public administration is now required to monitor the implemented administrative processes and procedures and to receive feedback on the quality of the services provided with a view to improving the administration's activities (EP, 2017). The digitization of processes lays the foundation for digitalization of the activity as the main approach to achieving the desired economic results from the services of the public administration. The provision of digital services to citizens and the subsequent summarization of the resulting information are among the most important prerequisites for making available and providing information to various sectors, especially within business, healthcare, education and welfare.

34 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/implementing-artificial-intelligence-in-public-administration/370461

Related Content

Data-Driven Strategies for Enhancing Customer Retention in Moroccan Telecoms

Adil Garoheand Rachid Zammar (2024). *AI and Data Engineering Solutions for Effective Marketing* (pp. 284-298).

www.irma-international.org/chapter/data-driven-strategies-for-enhancing-customer-retention-in-moroccan-telecoms/350758

Neuro-Immune Model Based on Bio-Inspired Methods for Medical Diagnosis

Fatiha Djahafiand Abdelkader Gafour (2022). *International Journal of Ambient Computing and Intelligence* (pp. 1-18).

www.irma-international.org/article/neuro-immune-model-based-on-bio-inspired-methods-for-medical-diagnosis/293176

DRESS: A Distributed RMS Evaluation Simulation Software

Vincenzo Agate, Alessandra De Paola, Giuseppe Lo Reand Marco Morana (2020). *International Journal of Intelligent Information Technologies* (pp. 1-18).

www.irma-international.org/article/dress-a-distributed-rms-evaluation-simulation-software/257211

Parenting in the Age of Artificial Intelligence: Digital Guardians

Ruqia Safdar Bajwa, Asma Yunus, Hina Saeedand Asia Zulfqar (2024). *Exploring Youth Studies in the Age of AI* (pp. 45-68).

www.irma-international.org/chapter/parenting-in-the-age-of-artificial-intelligence/351959

Integrating AI Education in Non-Technical Disciplines: Bridging the Gap Between Theory and Practice

Omar Abdennour, Hassane Kemoussand Mohamed Khaldi (2025). *Ethics and AI Integration Into Modern Classrooms* (pp. 117-146).

www.irma-international.org/chapter/integrating-ai-education-in-non-technical-disciplines/375509