Transforming Public Administration: The Role of Machine Learning

Florentina Pană-Micu

National University of Political Studies and Public Administration
Faculty of Public Administration
Bucharest, Romania
florentina.micu@snspa.ro

Abstract

In recent years, artificial intelligence(AI) has opened new opportunities for progress across all fields and sectors, including the public sector. The expansion of AI technologies has led to advancements in decision-making processes, automation of various public administration tasks, and, most importantly, improvements in the quality of services provided to citizens. Among the most widely used applications in the field of machine learning, this paper will discuss the impact of predictive analytics, fraud detection, and big data analysis in the context of data-driven policy-making within public administration. Several identified studies reveal that machine learning techniques can significantly enhance the provision of public services to citizens, and I will present several best practice examples.

The article will explore, first of all, the machine learning techniques that can be used within public administration and will identify models of how these techniques are already applied; on the other hand, it will address the main benefits and challenges of using machine learning in public administration.

Keywords: public administration, machine learning, predictive analytics, artificial intelligence, optimization.