Title: Adopting Artificial Intelligence (AI) in social administration. A qualitative study on the role of technological, organizational, and environmental factors for AI maturity

Authors: Mareike Winkler (University of Oldenburg) & Markus Tepe (University of Oldenburg)

Abstract: Implementing technologies based on artificial intelligence (AI) in public administrations has become a significant theme on the agenda of governments all across Europe. The use of AI in social administration is particularly controversial among policy-makers, citizens, legal and technology experts. While AI applications in the public sector may fail for various reasons (e.g., financial resources, technical expertise, political majorities), this study explores the sector-specific factors influencing the implementation of AI-based technologies in public social administration. To promote the use of AI in the public sector and to identify challenges in this context, we think it is necessary to understand which factors facilitate or hinder the adoption of AI technology projects in social administration. From an administrative science perspective, we conduct a comparative case study analysis with six social administration agencies in Germany. Drawing on previous research by Neumann & Guirguis et al. (2022), we apply a refined version of the Technology-Organization-Environment (TOE) framework to adopting AI-based technologies in social administration in Germany. Based on the analysis of a series of qualitative interviews, we can disentangle the linkage between these three factors and the maturity level of AI-based technologies in social administration.