Investigating the future of work in policing: a qualitative comparative analysis of police forces in England and Wales

Study investigating AI and analytics' dual impact on efficiency and inequality, exploring their effects on public value creation in policing across England and Wales.

Key details

Lead institution	University of Sussex
Principal researcher(s)	Dr Federico Iannacci f.iannacci@sussex.ac.uk
Police region	South East
Level of research	Professional/work based
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Research context

The study investigates the dual impact of digital technologies on public value creation, using artificial intelligence (AI) and analytics in policing in England and Wales as a case study. It aims to explore how these technologies are integrated into police practices and their effects on public value creation. The paper advocates for innovative mixed-methods approaches to research and contributes to policy debates concerning the transformation of work in the criminal justice system.

AI encompasses various digital technologies capable of mimicking human thinking and problem-solving. However, concerns about algorithmic bias have spurred discussions on regulating AI to prevent discriminatory outcomes. Principles for responsible AI include fairness, transparency,

accountability, robustness, data governance, adherence to laws, human oversight and societal and environmental wellbeing.

In policing, AI adoption raises issues of transparency, fairness and accountability. The lack of transparency in machine learning methods hinders explainability and accountability, potentially exacerbating biases and privacy concerns. Responsible AI design in policing should consider community dynamics and ethical principles. This research study proposes a model to understand the mindful use of AI and analytics in policing. It emphasises trust in AI, its use as a prompt to expert judgment rather than automation, transparency, auditability, controllability and compliance with laws and regulations. These factors contribute to a more mindful use of AI and analytics, enhancing fairness, accountability and public value creation in policing practices.

Research methodology

The methodology employed in this study adopts a sequential, multi-methods case study design with a focus on Qualitative Comparative Analysis (QCA) techniques. The research will incorporate both qualitative and quantitative strategies to gather comprehensive data. Qualitative data will be collected through interviews with members of one or two police forces in England and Wales. These interviews will allow for in-depth exploration of participants' perspectives, experiences and insights regarding the integration of AI and analytics in policing practices. The interviews will be conducted using semi-structured interview protocols to ensure consistency while allowing for flexibility to delve into emergent themes. Following data collection, qualitative analysis will be conducted using abductive coding techniques.

In addition to qualitative methods, quantitative data will be gathered through surveys distributed to 43 police forces in England and Wales. The surveys will be designed to gather quantitative data on various aspects of AI and analytics integration in policing, including perceptions, attitudes and practices.

The survey data will provide quantitative insights into the prevalence, patterns and correlates of AI and analytics use across different police forces. Quantitative analysis of the survey data will be conducted using QCA methods. QCA is a set-theoretic approach that allows for the identification of configurations of causal conditions that lead to specific outcomes. By analysing survey data using QCA techniques, the researchers will be able to identify combinations of factors that contribute to different outcomes related to the integration of AI and analytics in policing practices. This analytical

approach offers a systematic and rigorous means of exploring the complex interplay of factors influencing public value creation in policing.

Research participation

UK police forces are invited to complete a survey, gathering quantitative data on various aspects of AI and analytics integration in policing.