Evaluation of AI enhanced supervision of stop and search

An evaluation examining the implementation and impact of an AI agent designed to support sergeants when they supervise the written grounds for stop and search.

Key details

Lead institution	College of Policing
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Police region	West Midlands
Collaboration and partnership	- British Transport Police (pilot force and AI agent developer) - Crest Advisory (research partner) - Cabinet Office (funder) - Derbyshire Constabulary (pilot force) - Dyfed-Powys Police (pilot force) - North Yorkshire Police (pilot force) - Warwickshire Police (pilot force) - Wiltshire Police (pilot force)
Level of research	Professional/work based
Project start date	April 2025
Date due for completion	June 2026

Research context

The police in England and Wales have powers under the Police and Criminal Evidence Act 1984 (PACE) and other legislation to stop members of the public and search them for prohibited items (for example, stolen property and offensive weapons). Most powers require constables to have 'reasonable grounds for suspicion' before carrying out searches, and to document their grounds in written records. In addition, the Code of Practice that governs the exercise of stop and search (PACE Code A) requires sergeants to examine individual uses of stop and search – particularly the written grounds – to ensure powers have been used appropriately and lawfully.

Despite these requirements, His Majesty's Inspectorate of Constabulary & Fire and Rescue Services (HMICFRS) has raised concerns about the grounds for stop and search for over a decade. In 2021, 14% of the 9,378 stop and search records HMICFRS examined did not contain sufficient grounds to justify the lawful use of police powers, and a further 22% had weak grounds. HMICFRS, therefore, concluded that forces needed to place more emphasis on constables and sergeants understanding what constitutes reasonable grounds and how to record grounds accurately, and sergeants understanding their supervisory responsibilities and how best to supervise stop and search.

British Transport Police (BTP) has built an AI agent to address HMICFRS's concerns. When instructed by a sergeant, the AI agent reviews the written grounds for a search record against a library of reference materials, such as PACE Code A, and generates feedback for the sergeant to share with the constable who carried out the search.

The intervention, therefore, aims to:

- improve the use of stop and search among the constables (supervisory effectiveness)
- enhance the quality of stop and search supervision among sergeants (supervisory productivity)
- reduce the time spent by sergeants on stop and search supervision (supervisory efficiency)

Research methodology

The AI agent is being piloted as a quasi-experiment in six police forces: British Transport Police, Derbyshire, Dyfed-Powys, North Yorkshire, Warwickshire and Wiltshire. The pilot is being carried out over a 3 to 4-month period, between October 2025 and January 2026, and involves sergeants in some areas of each force being given access to the AI agent and basic training in how to use it.

Impact evaluation

A quantitative impact evaluation is being carried out to assess whether the AI agent 'worked' in terms of improving supervisory effectiveness, productivity and efficiency. It compares whether outcomes in areas where sergeants had access to the AI agent improved before and after implementation, relative to areas where sergeants did not. The outcomes are as follows:

Recorded police practices (police data)

- increased proportion of searches with written feedback
- reduced proportion of searches with insufficient or weak grounds
- increased proportion of searches resulting in a criminal justice outcome
- reduced proportion of searches involving black people

Officer experiences and perceptions (survey data)

- increased frequency of sergeants examining grounds for search
- increased depth in sergeants examining grounds for search
- increased frequency of sergeants providing feedback to constables
- increased frequency of constables receiving feedback from sergeants
- reduced time spent reported by sergeants supervising searches

Process evaluation

In addition, a mixed-method process evaluation is being carried out to understand how the AI agent was implemented and used in practice. These issues will mainly be explored through in-depth interviews with constables, sergeants and force leads. Survey data will also be analysed to identify factors, such as perceptions of organisational justice, that were associated with the AI agent being used and having an impact on outcomes.