

AI-enabled offending: Building police capability

This project develops and evaluates practical police training to improve recognition, understanding and decision-making around artificial intelligence-enabled offending, particularly child sexual exploitation and abuse.

Key details

Lead institution	Scottish Policing Academic Centre of Excellence (SPACE)
Principal researcher(s)	space@napier.ac.uk
Police region	Scotland
Collaboration and partnership	• College of Policing • Police Scotland
Level of research	Professional/work based
Project start date	August 2026
Date due for completion	August 2027

Research context

Artificial intelligence (AI) is rapidly changing the ways in which harmful and criminal activity can be carried out. Advances in frontier AI now enable high-quality text, image, audio and video generation, multi-step planning, code generation and large-scale automation. These capabilities can reduce the skills, time and resources required to undertake harmful behaviour. Although policing has established approaches to traditional digital evidence and cyber-enabled crime, AI-enabled offending presents new challenges that require officers and staff to understand rapidly developing technologies and their potential misuse.

This project focuses particularly on child sexual exploitation and abuse (CSEA). It addresses the need to translate technical developments in frontier AI into practical and role-relevant police training. The intention is not to develop new AI systems or investigative tools, but to strengthen police knowledge, confidence and decision-making when encountering offending that may be enabled or facilitated by AI.

Aim

The aim is to develop, pilot and evaluate a training framework and curriculum that enables police personnel to recognise, understand and respond appropriately to AI-enabled CSEA offending, with particular attention to current frontier AI capabilities and likely near-term developments.

Objectives

The objectives are to:

- map potential AI-enabled offending capabilities
- identify training and capability gaps across relevant policing roles
- co-design modular training materials
- develop realistic scenario-based exercises
- pilot the training with Police Scotland
- evaluate learning, usability and operational relevance

The project will also develop a sustainable training framework with mechanisms for updating content as AI technologies and associated threats evolve.

Research methodology

The project will use a mixed-method, training-development and evaluation approach, organised into six work packages. It will combine qualitative research, horizon scanning, co-design, scenario development and quantitative and qualitative evaluation. The research will be guided by responsible research and innovation principles and the Economic and Social Research Council (ESRC) Framework for Research Ethics.

A training needs assessment will be undertaken through semi-structured interviews and workshops with Police Scotland officers and staff from relevant roles. This will identify existing knowledge,

capability gaps, target audiences and the minimum level of AI understanding required for different policing roles.

Horizon scanning will then examine publicly available technical literature, platform policies, available threat intelligence and practitioner insights. Findings will be synthesised into a capability matrix covering areas such as synthetic media, conversational systems, translation, persona creation and AI-enabled automation.

These findings will inform a modular training curriculum and realistic scenario-based exercises. Only synthetic, non-abusive materials will be used, ensuring participants are not exposed to illegal CSEA content. Training resources will include slides, trainer notes, explainers and knowledge checks.

The training will then be piloted with Police Scotland personnel. Evaluation will use pre- and post-training measures of knowledge, confidence and scenario performance alongside qualitative feedback about clarity, relevance and likely operational usefulness. Findings will be analysed to identify learning gains and areas requiring improvement, and the materials will be revised accordingly.

Research participation

Participants will primarily be Police Scotland officers and staff whose roles are relevant to identifying, understanding or responding to AI-enabled offending and child sexual exploitation and abuse (CSEA). Participants will contribute to both the initial training needs assessment and the subsequent pilot and evaluation of the training materials.

The project will aim to include participants from a range of policing roles, ranks or grades, geographical areas within Scotland and shift patterns. Participants will also be selected to reflect different levels of existing familiarity with AI, helping ensure that the resulting training is suitable for personnel with differing levels of prior knowledge rather than being designed only for complete beginners or AI specialists.

During the first stage, officers and staff will participate in semi-structured interviews and workshops to identify training needs, capability gaps and operational priorities. Police Scotland personnel will also contribute throughout the project through regular engagement and a steering group involving representatives from policing and AI research.

A further cohort will participate in the in-person pilot training workshop. Participants will complete pre- and post-training measures assessing knowledge, confidence and performance on scenario-based exercises and will provide qualitative feedback on the relevance, clarity and likely operational usefulness of the training. Participation in evaluation activities will be voluntary, with appropriate wellbeing signposting available.