Facial recognition to identify suspects of knife enabled robbery

Using facial recognition software via the Police National Database (PND), to identify suspects of knife enabled robberies (KER).

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Key details

Stage of practice	Untested
Purpose	Reoffending
Topic	Knife and gun crime Robbery Intelligence
Organisation	West Yorkshire Police
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Region	North East
Partners	Police
Stage of Implementation	The practice is implemented.
Start date	June 2024
Scale of initiative	Local

Key details

Target group	Offenders

Aim

This initiative aims to support investigations by identifying more suspects of knife enabled robbery (KER) offences in Leeds city centre.

Intended outcome

The intended outcomes are to:

- increase the number of KER offenders identified
- decrease number of knife crime incidents occurring in Leeds city centre
- improve investigation standards by using facial recognition
- promote a hostile environment for offenders to commit KER

Description

In Leeds city centre there have been a high number of KER. West Yorkshire Police (WYP) identified a trend that revealed offenders were traveling significant distances in order to commit offences. This was to ensure that they were not known by local officers and not readily identifiable.

One detective inspector has oversight of two district crime teams (DCTs) with each consisting of two detective sergeants and 16 detective constables or trainee investigators. The team work from 7am to midnight and investigate all KER in Leeds city centre.

Face Reveal

When an offence takes place, the district crime team(s) trawl through CCTV as a starting point to establish if there are any sufficient quality images of a suspect both before and after incidents. There is no fixed timeframe on how far back officers will trawl through CCTV. Once a suspect has been identified on CCTV an officer will follow them on CCTV until a high quality image is captured.

When a high quality still image is obtained of the suspect(s) it is then fed into the internal facial recognition software called Face Reveal. The software uses the Police National Database (PND) to search for matches of suspects. Generally, KER offenders are known for previous offences, so when sufficient quality CCTV is obtained then matches will be received. Alternatively, e-fits are used when there is no available CCTV footage.

When officers upload images to Face Reveal, the software states whether the image is of sufficient quality. Where it is, the software will provide an instant result. Where quality does not meet the threshold, the image is rejected and traditional ID methods are then used to obtain positive results. Face Reveal has allowed investigators to make instant searches nationally and result in further offenders being identified.

Face Reveal has been added to the WYP intranet page along with a ‘how to’ guide for officers to assist with how to upload images and receive the results.

There were no costs involved in the development or roll out of the facial recognition software.

Overall impact

Between June 2024 and January 2025, eight offenders have been positively identified by the DCTs in cases that previously would have gone undetected. Several of these offenders have been from other cities, including London, Nottingham and Newcastle. It is thought that offenders travel into a different city in an attempt to avoid recognition by local force officers.

As the team continues to investigate cases, their knowledge on CCTV location and how to capture high quality has significantly improved.

Learning

Recommendations

- The technology has drastically improved the force's capability to identify suspects originating from other cities.
- Face Reveal prevents unnecessary collateral intrusion with the release of CCTV images to the public as it is common for multiple names to be received.

- The force recommends inputting all images received into the software rather than allowing investigators to ‘second guess’ from the quality of images which ones will be sufficient.

Challenges

- The majority of offences are committed at night and often by offenders wearing masks, this can make it time consuming to search for suitable images.
- In some cases, there have been no high quality CCTV images, and the force has used media releases to identify suspects.

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