

Turning CCTV into hard evidence



Picture: iStockphoto

A national CCTV strategy is now in place, run by the Home Office and ACPO.

An armed robber has been sentenced thanks to expert testimony delivered by an independent company that specialises in turning gathered CCTV images, digital stills and photographs into forensic evidence for court submission.

Last month David Kristopher Beattie was sentenced to four years detention at a young offender's institution, followed by two years probation for a series of armed robberies in the area of Newtonabbey, Northern Ireland.

ABM's Facial Verification Bureau (FVB) linked the CCTV footage of the perpetrator to the five separate incidents, helping to secure a guilty plea and a subsequent conviction.

Five incidents were committed in 2005 against petrol stations and a fast food restaurant in the Newtonabbey area of North Belfast. During the incidents the cashiers were threatened with a knife and handgun.

A spokesperson for ABM said: "During the course of the robberies, the assailants were captured on CCTV. However, the footage was unfortunately deemed to be of insufficient quality to meet Home Office standards and unlikely on its own to secure a conviction in a court of law. The perpetrators left no forensic evidence such as fingerprints at the crime scene and were previously unknown to the police which made the job of identifying and convicting them more difficult."

In order to prove the identity of the lead suspect and to link him with all five robberies, the Police Service of Northern Ireland (PSNI)

brought in Orly Golding and Doctor Leslie Bowie from ABM's Facial Verification Bureau (FVB).

The FVB delivers an independent service, turning CCTV images, digital stills and photographs into forensic evidence for court submission. Analysing facial and other visual evidence such as clothing, and calculating height, the FVB compiles identification reports and provides expert testimony on behalf of prosecution or defence agents to either disprove or support and strengthen evidence in a case.

The spokesperson added: "The FVB carried out facial image comparisons between the crime perpetrator in each incident and Beattie. Additionally, continuity between the five incidents was assessed through comparisons of face, clothing, jewellery and assailants. It was concluded that there was strong support that it was the same person in all five incidents and moderate support that this person was in fact the chief suspect David Kristopher Beattie."

Detective Constable Philip Cummings said: "It was only when confronted by the FVB's independent assessment of the case that the suspect changed his plea to guilty. As such, the FVB's analysis has played a vital role in securing a conviction without the need to go to the time and expense of a trial."

Dr Bowie believes there is a need to develop processes that will allow an investigative team to obtain 'hits' from CCTV evidence just as they can from DNA or a fingerprint. He would like to see a national database of crime pictures that allow investigative teams to search for matches. "This should concentrate on facial images but also include additional information obtained from the analysis of the imagery such as heights of crime suspects and clothing detail, all searchable using keywords," she said.

Commenting on current CCTV evidence gathering procedures, Dr Bowie said continual step changes in technology means the processes are often laborious and difficult. For most crimes, He said, it is not just a case of obtaining the footage from the crime

scene, it is necessary to obtain all of the footage from the surrounding areas. "For example, where the suspect of a bank robbery is wearing a mask, footage from other areas where the crime perpetrator may not have the mask on would be needed."

He added: "Sometimes it is difficult to obtain digital footage where a hard drive needs to be removed. It is also important to maintain the original format; digital footage should not be downloaded or copied onto VHS analogue format because quality is lost."

Although a national CCTV strategy is now in place, being run by the Home Office and ACPO, Dr Bowie still believes a common nationwide strategy and quality for gathering CCTV footage is some time away.

However, he does draw attention to good practice being delivered by the Met's VIIDO (Visual Images Identifications and Detections Office) unit (PP 08/02/07). The small team headed by Chief Inspector Mick Neville is turning the gathering of CCTV evidence into a forensic specialism. Detection rates have increased sharply since the unit became operational last September, dealing with gathered images in the same way as other forensic evidence; procedures to get the image identified and systematically converted into a detection.

The VIIDO staff are like fingerprint officers; they are tasked with in the collection of CCTV images, particularly for street robbery, a current priority for the Met. Working closely with Crimestoppers and various websites, VIIDO is achieving a good detection rate. Since its launch, the unit has produced images of 80 individuals involved in street robbery compared to none in the month prior to the launch.

Dr Bowie's ultimate vision for CCTV evidence gathering is that all of the material collected during investigations could be relevant to a case. He said: "Images put into a national database along with details of any analysis that has been carried out would be the best way to progress gathering and using CCTV to detect crime."

Crime Science Conference

An International Crime Science Conference will bring together academics, manufacturers and practitioners developing the latest techniques, technologies and strategies for increasing security and reducing crime.

This conference, organised by University College London and the Engineering Physical Science Research Council (EPSRC), is billed as a chance to create dynamic partnerships and opportunities.

Held at the British Library, London, from July 16 to 17, the event will focus on tackling the crime and security issues that are faced on local, national and international levels.

A spokesperson for the conference organisers said: "It will underline the need to think connectively and recognise the complexity of problems and the implied complexity of solutions."

"The conference will bring all these elements together in a forum that will enable people to share knowledge and expertise and encourage the development of intelligent and creative strategies for increasing security and reducing crime."

The International event will feature leading opinions and research from a range of disciplines including anthropology, forensic science and information technology presented by academics all sharing a vision about a safer world, and keen to contribute to its development.

The conference will attract:

- End users searching for solutions to the problems they face on a daily basis will be able to connect with academics to help them get across the scale of problems faced in securing communities from anti-social behaviour, crime and terrorism.

- Manufacturers will have the opportunity to find out about potential new products that are still on the engineer's bench or in the laboratory just waiting to be exploited.