



Physical Anthropology Section – 2010

H112 Hand Comparison: The Potential for Accurate Identification/Recognition in Cases of Serious Sexual Assault

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After attending the presentation, attendees will have an understanding of the differences between human identification, recognition, and comparison in forensic body mapping scenarios, forensic photographic comparisons methods, as discussed in relation to body mapping – using the human as example, and different geometry and biometric identifiers, in terms of developing multi-modal systems.

This presentation will impact the forensic science community by providing an overview of a new and innovative human identification/recognition system which does not require the offender's face to be visible, offering another mechanism for the detection and confirmation of the identity of serious sex offenders, including members of international paedophile rings, providing inter-agency and cross-boundary support to investigative agencies outside of the United Kingdom investigating serious sex crimes in which faces are not visible, and making the system details available to other law enforcement agencies, with a view to increasing the number of successful prosecutions of serious criminal, including those guilty of sexual offences.

This presentation will summarize a number of high profile cases that have been heard recently in the United Kingdom courts – one of which was described by the presiding judge as Scotland's worst child sex abuse trial – which have utilized a novel and innovative hand comparison method to identify and corroborate the identify several pedophiles.

Researchers at the Centre for Anatomy & Human Identification, University of Dundee, Scotland, have developed the world's first large database for hand recognition and identification, with thousands of images which can now be used as a reference sample to show the occurrence of features within a discrete population. This database was developed as a direct result of a case that was presented to the anthropological team at the Centre by the Metropolitan Police Service (MPS), London, which consisted of an offender taking illegal photographs of under-aged children while on a business trip to Thailand – who was careful not to catch his face on camera; however, his hands were in clear evidence. Previous to the Dundee team's work, only circumstantial evidence linked the suspect to the offender in the images.

The resulting report showed that it was unlikely that the hand in the photographs could have belonged to anyone else; that there was more variation between the suspects' two hands than there was between the suspect's left hand and the hand in the offender image. This result was achieved by comparing multi-modal features, such as overall finger size and shape, in addition to more individualistic characteristics such as scar, moles, freckles, etc. When confronted with the evidence the suspect confessed, and was subsequently found guilty of indecent assault of children under the age of 14 years, together with other serious sexual assault charges. This ground-breaking forensic identification case was revealed to the media by the MPS (2009) and the British Crown Prosecution Service (2009).

Subsequently, a second hand comparison was undertaken for Lothian and Borders Police, Scotland, which resulted in the successful conviction of a pedophile ring, with eight men being found guilty of child pornography and sex abuse charges. Since this time, and a considerable media attention, an increasing number of similar scenarios have been presented to the team for analysis, demonstrating that there are significant applications for the work being undertaken in Dundee. This presentation will summarize the methods under development, and detail the most significant cases reviewed by the team to date.

References:

CPS (2009) Paedophile Sentenced after Hand Evidence Secures Conviction. Crown Prosecution service. Available from: http://www.cps.gov.uk/london/press_releases/paedophile_sentenced_after_hand_evidence_secures_conviction/.

MPS (2009) Freckles Prove Child Abuse. Metropolitan Police Service. Available from: http://cms.met.police.uk/news/convictions/freckles_prove_child_abuse.

Forensic Anthropology, Forensic Hand Comparison, Body Mapping