



D52 Technology for Crime Scene Investigation

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After attending this presentation, attendees will have an insight into technologies being developed by researchers at the University of Birmingham to support forensic investigation. The presentation will highlight the requirements process and subsequent technology designed and developed to support the delivery of crime scene investigation and enhance the potential of the forensic resource to law enforcement agencies.

This presentation will impact the forensic community and/or humanity by introducing several concepts, incorporating wearable technology, shared analysis, augmented reality and enhancing connectivity throughout the investigative infrastructure.

To maximize the potential of the forensic resource the recovery process has to be performed in a manner that maintains the integrity of the exhibits and remain within the confines of the appropriate laws which govern evidence recovery. Providing that an adequate integration plan has been used, technology can improve the efficiency and the efficacy of the investigative process. A key issue relates to the digitization of data collected at the crime scene and the methods of connectivity utilized throughout the investigative process to disseminate and receive information. Additionally, methods of capturing pertinent data will be explored, removing the mundane aspects of paperwork, such as completing labels and logs, and also evaluating bureaucratic responsibility focusing on allowing the forensic investigator to concentrate on the scene examination. This research has focused on several aspects of technological innovation providing solutions which involve the use of wearable technology, case based reasoning, and augmented reality. The research has culminated in the participatory collaboration of domain professionals and design engineers to produce technology relevant to the domain. The technology will be presented along with responses of practitioners to the proofs of concept and prototypes. Using a technology acceptance model several designs were presented to Crime Scene Investigators in a series of workshops, the responses were measured using questionnaires, the results of which will also be presented. The research has provided an insight into how emerging novel technologies are affecting crime scene investigation and forensic process; it will also highlight the potential future for law enforcement technologies.

The results of research into technology designed to support forensic investigation will be presented. Several concepts will be introduced, incorporating wearable technology, augmented reality, and enhancing connectivity throughout the investigative infrastructure of law enforcement agencies. Pertinent issues relating to potential integration problems of novel technology will be discussed. In order to ask what affect a new technology might have on an organization, it is necessary to consider the nature of the organization, the tasks performed, and the people who will use the technology.

Crime Scene Investigation, Shared Analysis, Technology