E119 Is the Decentralization of Forensic Capabilities Providing an Opportunity for Forensic Science to Reach the End of the Crossroads?

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Learning Overview: The goal of this presentation is to provide an outlook of forensic science and its future by considering the rapid and ongoing technology changes in modern society, especially regarding the decentralization of forensic capabilities and digital traces.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing guiding principles to be better equipped to face current and future challenges in forensic science. This presentation will encourage managers, educators, researchers, and policymakers to look beyond the usefulness of forensic results for solving individual investigations and to realize the value of combined forensic knowledge and intelligence for developing broader strategies to deal with crime in a globalized, digitalized society.

Forensic science has been at the crossroads, not to say in crisis, for more than a decade. The robustness of the scientific foundations of essentially all of the forensic science disciplines is being questioned on a regular basis. Further, the usefulness of forensic science continues to be questioned by evaluative studies focusing on the judicial contribution. In this debate, it is apparent that very few discussions considered the very nature of forensic science, overlooking essential contributions to investigation and security, beyond the single production of evidence in court. Further, some rapid changes in society and organizations are bringing additional challenges for forensic science laboratories. One such critical change is the expanding decentralization of forensic capabilities, particularly for digital traces, which exposes and catalyzes a rupture with the traditional central forensic science laboratory model. In this presentation, it is argued that this situation generates not only challenges but also opportunities for forensic science to move forward.

To assist this unavoidable decentralization, it is recommended that laboratories undertake digital transformations to capitalize on the decentralization movement, develop a more comprehensive understanding of crime and security-relevant problems, and play a more central role in problem solving collaboratively with law enforcement organizations and other stakeholders. A model for bilateral transfer of information and knowledge is proposed to magnify the impact of forensic science laboratories on abating crime, strengthening security, and reinforcing the criminal justice system. To accomplish digital transformations, laboratories require personnel with different expertise, including investigative reasoning, knowledge codification, data analytics, and forensic intelligence.

A policy window is open. Forensic science laboratories have the potential to achieve the broader legitimacy that is required for redefining their position through transformed processes. However, this requires some courage and conviction from the forensic science community and reciprocal commitment, including the creation of processes within law enforcement organizations and government that ensure the new knowledge generated by laboratories will be utilized effectively.

At that stage, one may have reached the end of the crossroads.

Forensic Intelligence, Problem-Oriented Policing, Knowledge Management