E39 Legal and Management Challenges Raised by the Current Changes in the Fingerprint Community – Are the Requested Changes Backfiring?

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After attending this presentation, attendees will realize that the changes rightfully imposed on the fingerprint community are now impacting the legal and management communities. Some of the challenges for these communities are presented, supported by three multi-year research projects.

This presentation will impact the forensic science community by making managers and actors of the legal community aware of the upcoming challenges awaiting them because of the changes currently undergoing in the fingerprint community. Challenges regarding missing evidence, the reporting of probabilistic statements, training of staff, etc., will be addressed.

Since the early 1900's, it has been suggested that fingerprint evidence could be presented probabilistically to express the uncertainty associated with the inference of a source attribution to a questioned impression. However, this approach never gained widespread acceptance from the practitioner community. In fact, the forensic fingerprint community has generally eschewed, even banned, the use of probabilities to express fingerprint evidence, asserting that the inherent biological uniqueness of friction ridge skin prevented duplication of ridge arrangements. Any use of probabilities would thus allow for "some probability" of duplication. Practitioners have also noted that proposed theoretical models did not correctly or completely capture expert processes, and thus use of such statistical tools was limited or inaccurate.

Recently, the fingerprint community in particular, but also the wider forensic community, has been put under increasing pressure to reassess old paradigms. Most arguments are based on the lack of existing measurements of the validity, reliability, and real evidential value of fingerprint evidence and its examination and comparison processes.

The availability of new technology, the pressure of the scientific and legal communities, and evolution from within the profession are triggering fundamental changes. More research is being done, training programs and policies are being updated. And most recently, following a two-year project from one of the committee of the International Association for Identification (IAI), two resolutions from 1979 and 1980 banning the use of probabilistic conclusions for fingerprint were rescinded. Instead, the IAI has now opened the door to the use of probabilistic statements.

Through the use of results from three recent research projects, this paper will discuss the impact of these changes from the criminal justice system point of view and from a laboratory management point of view.

Indeed, the demonstration of the strong evidential value of fingerprint evidence, even with low number of features (Project 1), may open the flood gate in terms of number of evidence to collect from the crime scene and consider in the lab, at the risk of missing evidence (Project 2). On the other hand, training and competence of staff is a critical issue that needs to be addressed to answer current and future challenges in terms of quality of evidence, and reporting framework (Project 3).

Ultimately, the changes, rightfully requested from the fingerprint community, are now in turn impacting the legal community and are creating new demands on laboratory management. These challenges are currently faced by fingerprint examiners, their customers and managers, but will soon expand to most other evidence types.

Management Policy, Legal Impact, Fingerprint

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