C4 The Organization of Scientific Area Committees (OSAC) Digital/Multimedia Scientific Area Committee Standards Work—Part 1: Digital Evidence and Video/Imaging Technology and Analysis (VITAL)

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Learning Overview: After attending this presentation, attendees will have learned about the latest work in developing OSAC Standards for the Digital and Multimedia Sciences disciplines of Digital Evidence and VITAL.

Impact on the Forensic Science Community: Standards are vital to ensuring the sound practice of forensic science across all disciplines. In order to implement these standards, community members must know of their existence and scope. This presentation will impact the forensic science community by offering newcomers an introduction to such standards, while offering more experienced practitioners with an opportunity to probe the finer details of the current work and shape the direction of future work.

The OSAC for Forensic Science works to strengthen the nation's use of forensic science by facilitating the development of technically sound forensic science standards and by promoting the adoption of those standards by the forensic science community. These standards are written documents that define minimum requirements, best practices, standard protocols, and other guidance to help ensure that the results of forensic analysis are reliable and reproducible.

The OSAC forensic science disciplines are spread across five major "Scientific Area Committees" or "SACs." The SAC most relevant to the American Academy of Forensic Sciences (AAFS) Digital & Multimedia Sciences Section is the "Digital/Multimedia SAC" (DMSAC). The DMSAC incorporates four subcommittees that address the following disciplines: Digital Evidence, Video/Imaging Technology & Analysis, Facial Identification, and Speaker Recognition. This presentation will focus on the work of the first two, while a companion presentation addresses the second two.

Recently, the Forensic Science Standards Board (FSSB), which oversees the work of the various SACs and Subcommittees, directed each subcommittee to establish a "roadmap" of standards for their discipline. Each roadmap would identify the individual standards considered to be of the highest priority for placement on the OSAC Registry of Standards.

It should be noted that only standards that have been published by an acknowledged Standards Development Organization (SDO) are eligible for publication on the OSAC Registry. While many standards within OSAC disciplines have been published through SDOs, the work of OSAC has revealed that most of these require some modification to reflect the latest advances in forensic science. Likewise, OSAC subcommittees have identified a number of additional standards that have not yet been published through an SDO and, therefore, have begun to develop these standards themselves. Once prepared by an OSAC subcommittee, these documents are passed on to an SDO to ensure transparent input by the broadest possible community of stakeholders. As a result, individuals interested in actively developing standards have at least two opportunities to do so—either through participation in the OSAC or through an SDO. The SDOs with which the OSAC Facial Identification and Speaker Recognition subcommittees are currently engaged include: the American Society for Testing and Materials (ASTM), the Acoustical Society of America, and the American National Standards Institute (ANSI).

In order to facilitate the process by which standards are reviewed and validated through the OSAC, the FSSB has established an ontology to define the categories and subcategories of standards that may be included in the roadmaps. The major categories of standards as defined in this ontology are as follows: Competency; Method Validation; Examination & Analysis; Reporting & Testimony; Quality Assurance; Terminology; and Conclusions, Interpretation, & Opinion. It is expected that individual standards may span more than one of these categories.

During this presentation, attendees will learn about various efforts to develop standards within the disciplines of digital evidence and video/imaging technology and analysis with such topics as: Standard Terminology for Digital and Multimedia Evidence; Examining Magnetic Card Readers; Forensic Audio Laboratory Setup and Maintenance; Data Acquisition from Digital CCTV Systems; Training Guidelines for Video Analysis, Image Analysis & Photography; Latent Print Evidence Imaging Resolution; and Establishing Confidence in Digital and Multimedia Evidence Forensic Results by Error Mitigation Analysis.

Digital Evidence, Forensic Video Analysis, Image Analysis

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