C8   Placing the Suspect "Behind the Keyboard" Through the Application of Handwriting Analysis to MS® Office OneNote® File Content

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After attending this presentation, attendees will have a general understanding of the potential value digitally captured handwritten content may provide in the individualization of digital evidence.

This presentation will impact the forensic science community by providing an additional method for linking an individual to specific digital evidence files and/or devices.

One of the common issues with the examination of Digital and Multimedia Evidence (DME) is individualization of reported data to a suspect. Without additional evidence such as fingerprints, photographic evidence, or witness testimony, placing the suspect "behind the keyboard" of an electronic device may be a daunting task for the DME examiner. This lack of ability to individualize the evidence to an individual, rather than just a "user of the electronic device," is sometimes provided as an argument toward labeling DME examination as an investigative/intelligence tool rather than as a true forensic science. This presentation was developed from the results of an investigation where handwritten data allegedly captured using a tablet-type electronic device was individualized to the subject under investigation through handwriting comparison.

Evidence was submitted to the United States Army Criminal Investigation Laboratory (USACIL) for digital evidence analysis related to the possession of suspected child pornography. Of the 134 items submitted for analysis, 67 items were subjected to either a full or triaged analysis while the remainder were either non-functional, contained no data, or were remanded back to the submitting agency for either manual review or an additional request for further examination. Of the 67 items examined, 32 contained pictures and/or videos of interest to the investigation and seven items contained additional case-pertinent data. The results of the initial triaged analysis of the evidence indicated one of the largest collections of suspected child pornography in USACIL history.

In addition to the large amount of suspected child pornography, several Microsoft® (MS®) Office OneNote® files containing apparent handwritten content related to fantasized sexual relations with underage persons were observed. Coordination with the submitting agency resulted in a request to have a USACIL document examiner attempt handwriting comparison on the recovered digital data. A preliminary examination of the OneNote® files disclosed that the handwritten entries appeared to be freely and naturally written and contained sufficient detail for comparison. Copies of the files were provided to the submitting agency with instructions to obtain comparable known writing from the suspect. Upon receipt of the known writing samples, a handwriting examination comparing the questioned writing from the OneNote® files to the known writing of the suspect was conducted. The results of the examination identified the suspect as the author of the questioned handwritten entries.

As a result of the joint examination efforts between digital evidence and handwriting examiners, the suspect was conclusively linked to the electronic document and therefore linked to the device. With the development and enhancement of more electronic devices capable of capturing handwritten data such as tablets, touch-screen monitors, and smart phones, the likelihood of finding handwritten data on electronic devices may be increasing. The results of this case study indicate the potential for individualization of digital evidence through handwriting analysis conducted on digitally captured handwritten material. Therefore, these types of files should not be overlooked and a more concerted effort to look for these types of files may be warranted.

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Digital Evidence, Handwriting, Individualization