



## Jurisprudence Section – 2005

### E1 Digital Evidence and Expert Testimony: Applying Rule 702 to the Digital World

Mark M. Pollitt, MS\*, *Digital Evidence Professional Services, Inc. PO Box 1309, Ellicott City, MD 21041*

The goal of this presentation is to explore how Federal Rule of Evidence 702 applies to expert testimony in the emerging field of digital forensics.

This presentation will impact the forensic community and/or humanity by serving to provide useful information to both legal and forensic practitioners who operate in this high technology area. This exploration may assist in refining the roles of practitioners in other applied forensic sciences.

As defined by the Scientific Working Group on Digital Evidence; digital evidence is information of probative value, stored or transmitted in binary form. The forensic examination of computer hard drives, tapes, and disks has been done for well over a decade. Initially the work was done by criminal investigators in the field and in their offices. In this initial phase, the vast majority of digital forensics was done by people whose education and training was neither forensic science nor computer science. However, as they were, compared to the judges, juries, and most attorneys, "experts" with respect to computers, they began to testify.

In 2003, digital evidence was accepted as a discipline, subject to accreditation by the American Society of Crime Laboratory Directors – Laboratory Accreditation Board. With this acceptance has come rapid adoption of many of the traditional forensic science features, including formal education. However, many of the digital evidence forensic practitioners do not meet the standards that are imposed by traditional accreditation. Does this mean that only laboratory examiners from accredited laboratories can testify as experts in this area?

Since the early days of computer forensics, computers have become ubiquitous. People interact with a wide variety of digital devices, from traditional computers to digital video and audio devices to computers and electronic storage that is imbedded into cars, homes, and offices. These interactions result in the production of probative information for all forms of legal proceedings.

In the early days, the majority of digital evidence was being collected, examined and utilized in criminal trials, often in technology related crimes such as computer trespass, intellectual piracy and sexual exploitation cases. Now that "digital breadcrumbs" are being left everywhere, that is no longer the case. The vast majority of records created by business are now stored and transmitted in electronic form. A byproduct of this activity is a large quantity of latent digital evidence on the computers used to produce and view these records. Electronic discovery is becoming common in civil and regulatory cases. Forensic examination of electronic devices is a natural extension to this trend.

A byproduct of this trend is the increasing need to admit digital evidence into court. But who should testify, how and on what basis; expert or lay witness? This presentation will focus on a number of ways in which Federal Rule 702 could be applied to issues of digital evidence.

#### **Rule 702, Digital Evidence, Expert Testimony**