



# Quality Digital Forensics - the Frontier

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- **Bachelor of Science Engineering Technology (BSET)**
  - [BSET- Design](#) [BSET- Operation](#)
  - [BSET- Geomatics](#) [BSET- Space Systems Technology](#)
- **Bachelor of Electrical Engineering Technology (BSEET)**
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# National Center for Forensic Science



Partnership I Building: Center for Public Safety, Forensic Science, and Security

Graduate Certificate in Digital Forensics - Currently Offered

MS in Digital Forensics (MSDF) – Scheduled Fall 2007  
(Research and Practitioner Tracks)  
In partnership with ENT Dept, CECS



## A (Very) Brief History of DF

- 1980-1994 Computer Forensics infancy
- 1994-2000 Growth of Internet Crimes Against Children
- 2000-2001 “discovery” of network forensics
- 2001-date Terrorism and increasing volume and complexity



## So where are we now?

- Different Constituencies
  - Law enforcement
  - Civil discovery
  - Information assurance
- Huge increase in volumes
- Huge increases in complexity
- Huge potential legal challenges



“I have something important to say!”



## Two Hurdles:

- Admissibility
- Weight of testimony



## Admissibility

- Judge as gatekeeper
  - Rule 701/702
  - Frye/Daubert/Kumho Tire
  - Accepted vs. Best Practices



## Rule 701. Opinion Testimony by Lay Witnesses

If the witness is not testifying as an expert, the witness' testimony in the form of opinions or inferences is limited to those opinions or inferences which are (a) rationally based on the perception of the witness, and (b) helpful to a clear understanding of the witness' testimony or the determination of a fact in issue, and (c) not based on scientific, technical, or other specialized knowledge within the scope of Rule 702.



## Rule 702. Testimony by Experts

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

The witness must lay the foundation, set out the facts, and demonstrate the application of scientific principles



## So, now you're in...

- Now you have to “weigh in”



## So how do you get “gravitas”?

- By being a professional
- By doing things in a professional way
- By demonstrating that you have acted in a professional way



**This is the definition of “quality”!**



## Two “ugly” words...

- Certification
- Accreditation
- **ACCREDITATION**: “A process whereby an organization is recognized as competent to perform a defined task or tasks.”
- **CERTIFICATION**: “A process whereby an individual is recognized to possess the knowledge, skills, and abilities to perform a defined task or tasks.”



## Two other “dirty words:”

- Competency Test
  - a measure of a persons knowledge, skills and abilities to perform a defined set of tasks. Administered prior to performance of duty
- Proficiency Test
  - a measure of a person’s ability to competently continue to perform an assigned duty.



## Much has been said about ASCLD-LAB Accreditation...

- But it fundamentally does two things:
  - It requires that you define policies and procedures
  - It requires that you follow those policies and procedures
- ASCLD-LAB then audits to see that you are doing what you say you're doing



## Does everybody doing DE have to get accredited

- No, but...
- You need policies
- You need to follow your polices
- You need to demonstrate that you follow your polices

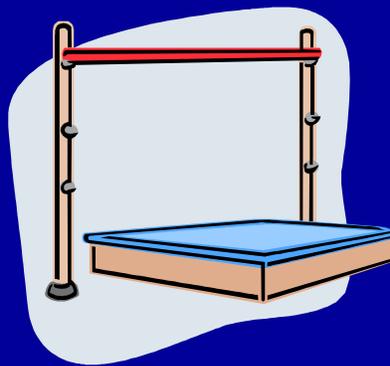


## What about certification?

- Education
- Training
- Vendor Certification
- Industry Certification
- Agency Certification



Set a bar... and then meet it!



## Be ready for the future

- Civil Discovery will drive DE
- Corporate Governance/IA will help drive DE
- Academia is moving forward



The practice of Forensics will change! Be ready!



## Questions, Comments, Assaults?

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