WHAT IS THE FUTURE OF THE LATENT PRINT DISCIPLINE?

AN FBI PERSPECTIVE

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The Big Picture
Topics

- Recruitment and Hiring
- Training and Certification
- Case Work
- Testimony
- Research
- Other interesting issues
Recruitment and Hiring

• Two Prong Approach
  – Person with no fingerprint experience
  – Person with fingerprint experience
  • Person with latent print experience
  • Person with limited fingerprint experience
    – Trend is 10-print examiners lack adequate skills primarily due to automation.
Person with NO Fingerprint Experience

• Require college science degree.
  – Desire to be more closely related with the “scientific laboratory” concept.
  – Brings a skill set better equipped to address secondary issues, e.g. research, formal writing, public speaking.
  – Minimal or non-existent technical fingerprint skill.
Person with NO Fingerprint Experience

• Degree in what?
  – Hard science v. forensic science v. criminal justice v. ???

• Universities offering specific fingerprint related courses.
Person with NO Fingerprint Experience

- FBI experiences to date.
  - Recruitment:
    - over 400 applicants with degrees ranging from Bachelors to Ph.D.
  - Hiring:
    - Standard FBI application plus specific request for knowledge, skills and abilities on specific matters.
    - Interview
    - Background investigation
Person with Fingerprint Experience

• 10-print experience is not a factor.

• Latent print experience.
  – Standard FBI application plus specific request for knowledge, skills and abilities on specific matters.
  – Interview
  – Background investigation
  – Demonstration of skills
    • leads to customized training program
  – IAI certification (consideration)
  – Coming from an ASCLD LAB accredited laboratory (proficiency testing). (consideration)
  – Meet SWGFAST training guidelines. (consideration)
Future for Recruitment and Hiring

• Emphasis on college education
  – hard sciences
  – irrespective of experience
  – need for certified aptitude testing
    • college and agency level

• Established probationary period
TRAINING and CERTIFICATION

• Training:
  – formal program; well documented
  – performance tracking; well documented
  – instructor qualifications
  – adherence to SWGFAST Guidelines
  – standard training program
    • national, international
  – computer based training
TRAINING

• Time in training versus quantity/quality of training.
  – Experience should be measured in actual performance, not just time.
    • The number of comparisons and identifications is more important than the amount of time.
  – The quality of the training content (instructor, material, etc.).
FBI Training
Physical Scientists - Latent Prints

• Two year program
  – formal classroom instruction followed by practical exercises. Lectures on wide range of topics - module format
    • classification
    • ACE-V methodology
      – comparison exercises beginning with good quality 10-print v. 10-print through difficult latent prints v. typical 10-prints.
      – errors
    • physiology of friction skin.
    • visualization, development techniques.
    • automation
    • legal
    • photography and digital imaging
    • history
    • standard operating procedures
FBI Training
Physical Scientists - Latent Prints

• Two year program continued;
  – tests conducted on each topic
  – several comparison tests
  – mentoring
  – oral boards
  – moot courts
FBI Certification
Physical Scientists - Latent Prints

• Formal examination
  – comparison test
    • 2 sessions, each time constrained
  – written test
    • 6 hour time constrained

• PASS / FAIL
TRAINING

• Continuing Education
  – In-Service
  – External training received
  – Conferences

• External Training Provided
  – Academy, Road Schools, WVU, Conference workshops, CBT
  – Certificate issue
Future Training

• Internal
  – continue to improve current program
  – efforts to create more detailed standard in line with SWGFAST Guidelines.

• External
  – revised program to utilize Computer Based Training (CBT)
  – conform with SWGFAST Guidelines
CASE WORK

• Maintaining skills
  – proficiency testing

• Errors
  – proficiency testing
  – case work

• Quantity vs. Quality
CASE WORK

• AUTOMATION
  – Capture technology; latent prints and known exemplars
    • 3 dimensional
  – AFIS / APPIS
    • improved algorithms using advanced technology

• Globalization via internet
TESTIMONY

- Training
  - Daubert Hearing testimony
  - Trial testimony
  - Moot Courts
TESTIMONY

• Exhibits
  – discontinue use of old style charts,
  – more use of PowerPoint-like demonstrations

Demonstration
TESTIMONY

- Present more complete testimony.
- Recognize Daubert, Frye, specific state case law issues.
- Present ACE-V methodology as opposed to simplistic point counting.
RESEARCH

• More “scientific” research
  • formalized, validated, published, peer-reviewed.
    – Visualization / Development Techniques
    – Physiology of Friction Skin
    – Statistical Probability Modeling
    – Aptitude Testing (including form blindness)
    – Automation validation
  • live-scan; lights-out; biometrics; etc.
Other Interesting Issues

• Interrelationship with and influence by:
  – academia
  – professional organizations
    • IAI, AAFS, Forensic Science Consortium, etc.
  – scientific community
    • biometrics, technology
  – politics
Cole’s Prediction

• Fingerprints may be replaced by DNA
  – Suspect Identities, page 286
FINGERPRINTS, HERE TO STAY

Scientifically Sound