

SOURCE CODE ON TRIAL

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INTRODUCTION

Description of the current state of the law

Identification of the key issues and arguments

DESCRIPTION OF THE CURRENT STATE OF THE LAW

- **ADMISSIBILITY:** *In order to validate a computerized forensic technique, must **the proponent** present testimony about the software's source code?*
 1. The first wave of cases: infrared breath testing (IRBT) devices
 - Statutes such as Minnesota Statute § 634.16
 2. The second wave of cases: probabilistic genotyping software programs for the analysis of complex DNA mixtures
 - The lack of statutes
 - A split of authority
 - But the prevailing view – reliance instead on validation studies

DESCRIPTION OF THE CURRENT STATE OF THE LAW

- **DISCOVERY:** *Even if **the proponent** does not have to present testimony about the source code to validate the methodology, may **the opponent** discover and obtain access to the source code?*
 1. The first wave of cases: infrared breath testing (IRBT) devices
The split of authority and the rationales for denying access
 2. The second wave of cases: probabilistic genotyping software programs
Primary reliance on the trade secret rationale to deny discovery
State v. Pickett, 2021 N.J.Lexis 17, 2021 WL 357765 (A.D. Feb 3, 2021)
Memorandum Order, *United States v. Ellis*, No. 19-369 (W.D.Pa. Feb. 26, 2021)(citing *Pickett*)

IDENTIFICATION OF THE BASIC ISSUES AND ARGUMENTS

- *ADMISSIBILITY: Is proof of the accuracy of the source code the only way to validate the forensic technique or at least an essential part of the foundation?*
 1. Federal Rule of Evidences 702(c) and 901(b)(9)
 2. The permissibility of multiple methods of authentication or validation
 3. The essential question: Does the methodology do what the expert claims that it does? *Pickett*
 4. The claim about the calculation of the likelihood ratio

IDENTIFICATION OF THE BASIC ISSUES AND ARGUMENTS

- DISCOVERY: *Does the multi-factor balancing test favor granting access?*

- I. Factor #1: The probability of discovering errors in the software

Marshal et al., *Recommendations for the Probity of Computer Evidence*, Digital Evidence and Electronic Signature Law Review 18 (2021)

Note, 105 CAL.L.REV. 179 (2017)(seven sources of error)

State v. Pickett, supra – the discoveries about FST and STRmix

IDENTIFICATION OF THE BASIC ISSUES AND ARGUMENTS

- DISCOVERY: *Does the multi-factor balancing test favor granting access?*
 2. Factor #2: The existence of alternative avenues of obtaining reasonably equivalent information
 - Validation studies
 - The 2016 PCAST report and the concept of validity as applied
 - United States v. Gissantaner*, 417 F.Supp.3d 857 (W.D.Mich. 2019)
 - Bauer et al., 65 JOURNAL OF FORENSIC SCIENCES 380 (2020)(10 contributors)
 3. Factor #3: Countervailing considerations such as the need to protect trade secrets
 - The formal rule versus the real rule

CONCLUSION

