

Digital Evidence in the Context of Criminal Justice System¹

Daria Bulgakova

PhD in international law, an advocate, Kryvyi Rih, Ukraine,

ORCID: <https://orcid.org/0000-0002-8640-3622>,

e-mail: dariabulgakova@yahoo.com

Diana Baklan

SGP-10, MEI «KL «KOLIIA» DRC», Kryvyi Rih, Ukraine,

e-mail: dianabaklan67@gmail.com

The paper explores the role of digital expert evidence in the criminal justice system, stressing the need to verify both expert results as well as their reliability, as digital forensics faces challenges due to its complexity and lack of qualified experts. Therefore, forensic examination results depend not only on the research methods applied but also on the advantage over other pieces of evidence: parties to the proceedings should not have any doubts about the credibility and adequacy of evidence provided by a forensic expert.

Keywords: expertise; adversarial forensic technique; proof.

Цифрові докази в контексті системи кримінального правосуддя

Дар'я Булгакова, Діана Баклан

Розглянуто роль цифрових експертних доказів у системі кримінального правосуддя, наголошено на необхідності перевірки як експертних результатів, так і їхньої надійності, оскільки цифрова криміналістика має певні проблеми через власну складність і брак кваліфікованих експертів. Результати судової експертизи залежать не лише від застосованих методів дослідження, а й від переваги над іншими доказами: сторони процесу не повинні мати жодних сумнівів щодо переконливості й достатності наданих судовою експертизою доказів.

Ключові слова: експертиза; загальна судова методика; доказування.

In the context of the Criminal Justice System involving expert evidence, this translates to a court coming to a decision on the reliability of such evidence-based upon two forms of trust: the expert and their evidence [5, 6].

Nevertheless, digital forensics is meant to be based on science, not supposition [2, p. 155], and at the same time, for instance, the boost of IoT evidence submitted to digital forensic laboratories has been an issue due to the lack of experts to nail the weights

¹ Переклад автора.

[1, p. 41]. Perhaps one solution here lies with the option of seeking to formalize this work through the publication of any results where this process subjects the work to peer review and acceptance, providing the benefit of recognition of the work to them as the author [4, p. 4]. Hence, according to the study, the guided approach is to enforce digital forensic readiness, which encompasses two distinct types: operational readiness and infrastructural readiness. Operational readiness is concerned with the provision of training and equipment for individuals who are involved in forensics, whereas, infrastructural readiness is concerned with ensuring that the data of an organization is appropriately preserved [3, p. 71].

Therefore, the research idea is the standing of digital forensic preparedness whether in organizational sets or courtroom tactics. The research stresses the hunger for thorough forensic eagerness, not just in technical capacity but also in legal strategy, to ensure balanced and robust forensic conventions before the court. True, the advocate may have discussed the case with the witness, but his knowledge of the specialist subject cannot, by definition, be extensive and this may show up particularly in cross-examination and re-examination [7, p. 9]. The trend for admitting expert evidence and allowing it to be tested by the usual 'adversarial forensic techniques' also suffers from the drawback that, frequently, the defence does not obtain its own expert evidence in rebuttal of a prosecution expert [6, p. 46]. Thus, the force of forensic evidence can

be constrained by the advocate's mistrust, but this incredulity is limited by the poundage and credibility of the evidence itself. The advocate's power to contest it counts not only on its doubts but correspondingly on the robustness of the opposing evidence, which must be decisive adequately to confound the prosecution proof and confirm the advocate's sufficient doubt about such proof before the court.

In determination, the role of digital expert evidence within the criminal justice system hinges on the trustworthiness and scientific floor of that evidence. Courts must assess both the expertise and the credibility of results due to the discretion. One of the prime features of discretion is the scope it offers to the judges to enunciate legal values in a situation where the statutory provisions either contain an element of indeterminacy or where there is an explicit conferment of discretionary power [8, p. 194]. While digital forensics seeks to equip grounded culmination, the growing complicatedness of digital evidence. To address these challenges, there shall be recognisable practice composing evidence in both organizational and courtroom contexts that balance technical capabilities with robust legal strategies, ultimately fostering a fair and effective judicial process. Advocates must admit that their proficiency to question such complexness is not solely shaped by their mistrust but also by the solidity and credibility of the opposing evidence. Hence, in order to convince the court on the advocate point of view, - need to outweigh the

expertise results on itself or the credibility of the applied process to confer the discretionary power.

References

1. Bulgakova D. Forensic Examination of the Internet of Things. *Reports Collection of the International Scientific & Practical Conference 'Internet of Things: Problems of Regulation'*. 2023. Pp. 35—49.
2. Collie J. Digital Forensic Evidence — Flaws in the Criminal Justice System. *Forensic Science International*. 2018. Vol. 289. Pp. 154—155. DOI: 10.1016/j.forsciint.2018.05.014 (date accessed: 07.10.2024).
3. Elyas M., et al. Digital Forensic Readiness: Expert Perspectives on a Theoretical Framework. *Computers & Security*. 2015. Vol. 52. Pp. 70—89. DOI: 10.1016/j.cose.2015.04.003 (date accessed: 07.10.2024).
4. Horsman G., Shavers B. Who Is the Digital Forensic Expert and What Is Their Expertise? *WIREs. Forensic Science*. 2022. Vol. 4. Is. 5 (e1453). DOI: 10.1002/wfs2.1453 (date accessed: 07.10.2024).
5. Kennedy I. M., Price B., Bandara A. Towards Increasing Trust In Expert Evidence Derived From Malware Forensic Tools. *The Journal of Digital Forensics, Security and Law*. 2020. Vol. 15. Art. 3. DOI: 10.15394/jdfsl.2020.1691 (date accessed: 07.10.2024).
6. MacLeod N. Art vs Craft Expert Evidence in the England and Wales Criminal Justice System. *Language and Law*. 2021. Vol. 8. Is. 1. Pp. 43—58. DOI: 10.21747/21833745/lanlaw/8_1a3 (date accessed: 07.10.2024).
7. Mason J. K. Expert Evidence in the Adversarial System of Criminal Justice. *Medicine, Science, and the Law*. 1986. Vol. 26. Is. 1. Pp. 8—12. DOI: 10.1177/002580248602600102 (date accessed: 07.10.2024).
8. Phillips E. The Incorporation of the European Convention on Human Rights: Maintaining the Integrity of a Modern Criminal Justice System within the Context of Improperly Obtained Evidence. *Contemporary Politics*. 2003. Vol. 9. Is. 2. Pp. 185—202. DOI: 10.1080/1356977032000106965 (date accessed: 07.10.2024).