

Digital Forensics

Creation of a Crime Scene and Digital Evidences

Students



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Definition of Task: Digital forensics is a rapidly developing field that is critical to modern law enforcement, cybersecurity, and legal investigations. It is crucial to have well-educated professionals to ensure that criminal activity in the digital realm can be correctly and securely identified. The work presented in this paper serves to advance the field of digital forensics by combining a comprehensive theoretical foundation with the creation of a practical learning environment.

Approach: Thorough documentation of the creation of this investigation lab not only supports educational efforts by providing instructional materials, but also aims to serve as a stepping stone for future similar endeavours. Creating digital evidence can be time-consuming, and it requires a high degree of attention to detail. The methods evaluated in the presented work can support the creation of future labs to strengthen the forensic community. The theoretical foundation examines fundamental concepts in digital forensics, focusing on the dynamic nature of cyber threats, evolving technologies, and the legal landscape. Emphasis is placed on the significance of a proactive and adaptive approach to investigations, taking into account the challenges posed by encrypted communications, cloud storage, and emerging technologies.

Result: By showing the development process of a forensic training scenario using a concrete example, readers are introduced to both challenges and opportunities faced when creating similar work.

During the acquisition of digital evidence, a hardware write-lock is indispensable.
Own presentation



The workspace used to extract digital copies of physical storage media.
Own presentation



Our own creation: A phone to imitate WiFi network environments.
Own presentation



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