



# DIGITAL INVESTIGATION

The International Journal of Digital Forensics & Incident Response

## AUTHOR INFORMATION PACK

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### DESCRIPTION

*Digital Investigation* covers a broad array of subjects related to crime and security throughout the computerized world.

The primary pillar of this publication is digital evidence, with the core qualities of provenance, integrity and authenticity.

This widely referenced publication promotes innovations and advances in utilizing digital evidence for legal purposes, including criminal justice, incident response, cyber-risk management, civil and regulatory matters, and privacy protection.

Relevant research areas include forensic science, computer science, data science, artificial intelligence, and smart technology.

This journal is used by investigative agencies and forensic laboratories, computer security teams, practitioners, researchers, developers, and lawyers from industry, law enforcement, government, academia, and the military to share their knowledge and experiences, including current challenges and lessons learned in the following areas:

**Research and development:** Novel research and development in forensic science, computer science, data science, and artificial intelligence applied to digital evidence and multimedia. New methods to deal with challenges in digital investigations, including applied research into analyzing digital evidence and multimedia, exploiting specific technologies, and into preparing for and responding to computer security incidents.

**Cyber-risk management:** Improved ways of using digital evidence to address security breaches involving information systems, and to perform cyber threat intelligence. The techniques and findings of digital investigations are essential in drawing post-incident conclusions, which are vital feedback components of the security policy development process.

**Practitioner reports:** Investigative case studies and reports describing how practitioners are dealing with emerging opportunities and challenges in cybercrime and computer security, including improved methods for conducting effective digital investigations, performing forensic analysis, responding to IT security incidents, and handling and utilizing digital evidence.

**Scientific practices:** Novel approaches to strengthening the scientific foundation and rigor of digital investigations, and to increasing the reliability of and confidence in processes, analysis methods, results, and conclusions involving digital evidence.

Effective practices: Studies that assess new practices in digital investigations and propose effective approaches to handling and processing digital evidence.

Survey papers: Discussion of current methods and future needs relevant to digital investigations, including analysing digital evidence and multimedia from computers, smart technology, mobile phones, memory, malware, network traffic, as well as systems that support enterprises, telecommunications, and satellites. In addition, advanced approaches to analysing digital evidence and multimedia, including novel applications of artificial intelligence and data analytics.

Tool reviews: Evaluation and comparison of specialized software and hardware used to preserve, survey, examine, analyse or present digital evidence and multimedia, deepening our understanding of specific tools, and highlight any needed enhancements.

Future challenges: Analysis of new technologies, vulnerabilities and exploits which may create opportunities for criminality and/or computer security incidents, but which require further work in order to determine how their use can be investigated and the evidential opportunities they may create.

Registered reports: Studies that assess methods critically, and evaluating the reliability, statistical power, and reproducibility of results. Such reports can include tests and experiments with negative results, not just positive.

Legal analysis and updates: Carefully considered commentary by legal experts on recent cases involving digital evidence, forensic applications and computer security risk management, relevant legal developments, privacy issues, and legislative limitations.

## AUDIENCE

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Digital Investigation will be essential reading for: Auditors, Information Security Officers, Forensic Accountants, Information Systems Managers, Independent Investigators, Lawyers, Fraud Examiners, Law Enforcement Officials, Systems and Data Security Analysts.

## IMPACT FACTOR

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## ABSTRACTING AND INDEXING

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Current Contents/Engineering, Computing & Technology

Engineering Index

Scopus

Science Citation Index Expanded

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## GUIDE FOR AUTHORS

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### INTRODUCTION

*Digital Investigation* is an international practitioner & research journal, and offers:

- A platform for pioneering peer-reviewed research papers
- Best-practice reports from the real experiences of investigators and lawyers
- New developments in the field of digital forensic science
- The latest proven methodologies being applied by the community

The journal brings together the growing global community interested in digital forensics, encompassing law enforcement, research, corporate information security, legal professionals and government.

#### *Types of Paper*

Original submissions on all digital forensic topics are welcomed, especially those of practical benefit to the investigator.

Papers are welcomed from the following categories:

#### **Research:**

Theoretical - Discovery and experimentation of digital forensic principles.

Applied - Tailoring of "agreed upon" principles into procedures that can be easily implemented for conducting network, computer and software forensics, to build a corroborated chain of evidence.

#### **Practice:**

Methods and tools for conducting effective digital investigations

#### **Legal:**

Legislative developments and limitations, new defences, and privacy

#### **Standards, Policy & Ethics:**

Overarching considerations, accreditation and certification

#### **Submission checklist**

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- Include keywords
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*Graphical Abstracts / Highlights files* (where applicable)

*Supplemental files* (where applicable)

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- Manuscript has been 'spell checked' and 'grammar checked'
- All references mentioned in the Reference List are cited in the text, and vice versa
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- Relevant declarations of interest have been made
- Journal policies detailed in this guide have been reviewed
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#### *Introduction*

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

#### *Material and methods*

Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.



### *Theory/calculation*

A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

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Results should be clear and concise.

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This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

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### *Abbreviations*

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

### *Acknowledgements*

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

### *Formatting of funding sources*

List funding sources in this standard way to facilitate compliance to funder's requirements:

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It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

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