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Advances in Digital Forensics XVII

Gilbert Peterson, Sujeet Shenoï

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Gilbert Peterson · Sujeet Shenoj (Eds.)

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Revised Selected Papers

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Preface

Digital forensics deals with the acquisition, preservation, examination, analysis and presentation of electronic evidence. Computer networks, cloud computing, smartphones, embedded devices and the Internet of Things have expanded the role of digital forensics beyond traditional computer crime investigations. Practically every crime now involves some aspect of digital evidence; digital forensics provides the techniques and tools to articulate this evidence in legal proceedings. Digital forensics also has myriad intelligence applications; furthermore, it has a vital role in cyber security – investigations of security breaches yield valuable information that can be used to design more secure and resilient systems.

This book, *Advances in Digital Forensics XVII*, is the seventeenth volume in the annual series produced by the IFIP Working Group 11.9 on Digital Forensics, an international community of scientists, engineers and practitioners dedicated to advancing the state of the art of research and practice in digital forensics. The book presents original research results and innovative applications in digital forensics. Also, it highlights some of the major technical and legal issues related to digital evidence and electronic crime investigations.

This volume contains thirteen revised and edited chapters based on papers presented at the Seventeenth IFIP WG 11.9 International Conference on Digital Forensics, a fully-remote event held on February 1-2, 2021. The papers were refereed by members of IFIP Working Group 11.9 and other internationally-recognized experts in digital forensics. The post-conference manuscripts submitted by the authors were rewritten to accommodate the suggestions provided by the conference attendees. They were subsequently revised by the editors to produce the final chapters published in this volume.

The chapters are organized into five sections: Themes and Issues, Approximate Matching Techniques, Advanced Forensic Techniques, Novel Applications and Image Forensics. The coverage of topics highlights the richness and vitality of the discipline, and offers promising avenues for future research in digital forensics.

This book is the result of the combined efforts of several individuals. In particular, we thank Kam-Pui Chow and Gaurav Gupta for their tireless work on behalf of IFIP Working Group 11.9 on Digital Forensics. We also acknowledge the support provided by the U.S. National Science Foundation, U.S. National Security Agency and U.S. Secret Service.

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