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Proposed intelligence systems based on digital Forensics: Review paper

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ABSTRACT

The field of information security, in general, has seen shifts a traditional approach to an intelligence system. Moreover, an increasing of researchers to focus on propose intelligence systems and framework based on the forensic case studies because of the limitations of traditional methods such as analysis intensive data manually, intelligence visualization to make the evidence more understandable and intelligence system for store data. However, most of these intelligence systems are still facing different limitations. Furthermore, the primary goal of this work analysis popular intelligence system that was used based on forensic. Moreover, propose new algorithms and hybrid model which it's achieved good results in dif-ferent other fields to develop the forensic systems in the future.

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1. Introduction

In general, the systems with capable of handling a comparison with a different couple degree with intelligence will definitely give positive enhancement by an increase the quality and productivity which represent such a powerful example of this kind of the systems. They have been contributed to developing several fields and sciences such as Intrusion-Detection System (Mohammed Hasan Ali, 2018), Image Processing [1], prediction of water level [2]. On theother hand, digital multimedia currently has become an integral part of our day activities. It has become necessary to secure this content from the illegal use, efficiently detect and reconstruct illegal activities from it. More in general, it is the set of techniques that can be applied to understand how a system has been used or abused to commit mischief. The increasing use of forensic techniques has led to the development of several techniques that can make this process difficult [3]. However, [4]tasks that were previously subjected to manual inspection are now far beyond the capacities of forensic experts, tools are needed to support the protection, management, processing, interpretation, and visualization of multimedia data during the various steps of the investigative process.

The community of multimedia researchers has developed several exciting solutions to enhance images, videos and audio include automatic categorization, knowledge extraction, and indexing. [4] many researchers mentioned several advantages to adapt, tailor and extend the multimedia analysis for forensics. Even though forensic personnel has consciously used past experiences in solving new cases, the idea of applying machine intelligence to support decision-making in forensics is still in its infancy and poses a great challenge [5]. This work provides an overview of the most popular intelligence systems that have been proposed based forensic. This paper structure is organized as follows. In section.2 represents the state of the rat of the main proposed systems based on the forensic that encouraged the researchers to adapted intelligence systems for forensic cases. Section.3 include an overview of forensic methods and techniques. The challenges that face most of the forensic systems represent in Section.4. In section 5. the details of related works that proposed intelligence systems based on digital forensics. Setion.6 represents forensic visualization techniques and limitations. The paper conclusion with Section.7.

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