

The Effectiveness of Digital Evidence in Criminal Evidence

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Abstract:

The information revolution that the world has known in the modern era has shown the emergence of modern scientific evidence with technical dimensions, innovative from computers and its accessories or the internet and every other device has the property of processing or storing information, which has been called "digital evidence", where it has the accuracy and objectivity that puts a decisive and certain evidence in criminal evidence, but on the other hand, the invisible nature of these evidence is easy for perpetrators of information crimes, the ability to encrypt, destroy, erase or hide data to prevent access to the evidence, and the evidence is subject to digital, as well as other evidence of the discretion of the criminal judge, who, in turn, examines the extent of his power Proofreading.

Keywords: digital evidence, information Crime, Criminal Evidence, criminal judge

Introduction:

Criminal evidence is considered a fundamental basis for the achievement of criminal justice, as it aims to enable the judge to form a certain conviction based on legal and logical grounds about the commission of the crime and its attribution to the accused. Traditional legal systems have relied on familiar means of proof such as testimony, confession, inspection, writing, and evidence, but the accelerated technological developments witnessed by the world in the modern era have led to the emergence of new means of proof in line with the digital transformation of societies, foremost of which is the digital evidence, which led to the use of modern technologies in the emergence of which can play an important role in proving the crime Whether or not. The electronic evidence raises several problems, including the extent of legality, how to ensure that it is free from manipulation or forgery in light of the possibility of modifying digital data without leaving an obvious trace, and the extent of its compatibility with the principles of criminal legality and the protection of the rights of the defense and the right to privacy, in addition to the challenges of proving the link between the extracted data and the facts of the crime or the accused. These problems are becoming more complicated with the difference in legislation between countries on the regulation of electronic evidence.

There are no clear uniform standards governing the rules of its admissibility and validity before the judiciary. In view of the importance of these issues in ensuring the fairness of

criminal trials and preserving the rights and freedoms of individuals, the importance of studying the topic "the effectiveness of electronic evidence in criminal evidence" as an analytical study aimed at providing an integrated understanding of the legal framework governing this evidence, indicating its legal nature within the Criminal Evidence system, determining the conditions and procedures for?;".

.1. the legal nature of electronic evidence and its basis in criminal proof:

The accelerated technological development has led to radical changes in the lifestyles and activities of individuals within society, which clearly reflected on the reality of crime in terms of the means used to commit it and ways to hide its effects.

In addition to the emergence of new types of crimes related to the digital environment, such as information crimes and cross-border crimes. In the face of these transformations, the electronic evidence has emerged as a pivotal means of proof in the criminal field, due to the accurate data it provides that helps in detecting crimes and their perpetrators and proving the facts

The crime attributed to them.

However, the use of electronic evidence in criminal evidence raises a number of problems related to

The specificity of this type of evidence, both in terms of its technical nature that can be modified, deleted or falsified, and in terms of the legal controls that must be observed during the process of collecting, analyzing and presenting it in front of

The judiciary, ensuring the protection of the fundamental rights and freedoms of individuals and at the same time achieving effective Criminal justice.¹

Proceeding from the importance of determining the legal nature of the electronic evidence to understand the legal basis for its acceptance within the system of evidence in criminal materials, this axis deals with what the electronic evidence is, and its types.

Its legal nature, within the criminal system and the legal basis adopted for its admission before the judiciary, as a preliminary

To study the conditions of its validity and the practical and judicial problems associated with its use as a means of criminal evidence in the following chapters.

1.1-what is the electronic directory and its types:

Electronic evidence is one of the most prominent manifestations of technical development in the field of criminal evidence, as it has become an essential means of revealing the truth in modern crimes, especially information crimes, the pillars of which are On the technical act. Therefore, understanding what this evidence is requires standing on its definition and adjusting its characteristics Legal and technical before moving on to determining its types and areas of use before the judiciary. Technological development has led to a fundamental change in the nature of crimes and the means of their commission, which was directly reflected in the criminal evidentiary system, as digital data and electronic media have become a

sourceThe main focus of criminal evidence, especially in emerging crimes such as information crimes, as well as crimes Traditional ones are committed using modern technical means.²

Some jurisprudence has defined electronic evidence as "the set of data and information of a digital nature, which is produced, stored, transmitted or received by electronic devices or media, and is Submit it to the judiciary with the intention of establishing legal facts related to the criminal case. "French jurisprudence also considers that electronic evidence includes "all digital data and data that can be stored and processed by technical means, which can be exploited as a means of evidence before criminal justice. "English jurisprudence also goes on to define electronic evidence as "any information that is stored or processed electronically and can be presented in criminal proceedings to support or deny the charges against the accused. These definitions agree that electronic evidence has characteristics that distinguish it from the means of evidence to conceal its effects, in addition to the emergence of new types of crimes related to the digital environment, such as Information Technology Crimes and cross-border crimes. In the face of these transformations, electronic evidence has emerged as a pivotal means of proof in the field Due to the accurate data it provides, which helps in detecting crimes and their perpetrators and proving Criminal facts attributed to them.³.

However, the use of electronic evidence in criminal evidence raises a number of problems related to the privacy of this type of evidence, both in terms of its technical nature, which can be modified, deleted or falsified, and in terms of the legal controls that must be observed during the process of collecting, analyzing and presenting it before the judiciary ‘

In order to ensure the protection of the fundamental rights and freedoms of individuals and at the same time achieve the effectiveness of Justice Criminal.Proceeding from the importance of determining the legal nature of the electronic evidence to understand the legal basis for its acceptance within the system of evidence in criminal materials, this axis deals with the nature of the electronic evidence, its types, its legal nature within the criminal system, and the legal basis adopted for its acceptance before the judiciary, in preparation for To study the conditions of its authenticity and the practical and judicial problems associated with its use as a means of proof Criminal in the following classes.

- Its digital nature and its technical process ability with ease.
- Its changeability or falsifiability without leaving visible physical traces.
- Its connection with electronic devices, communication systems or storage media.

Electronic evidence before the criminal justice system can be classified into:

* Direct digital evidence: it is data and data that directly prove the occurrence of a crime or its attribution to the accused, such as threatening e-mail messages or conversations on communication applications, or Video recordings documenting the crime.

* Indirect digital evidence (electronic evidence:), which is the data that contributes to proving the circumstances of The crime or its elements without being directly related to the criminal act, such as GPS geolocation data, electronic account logins, telephone contact data.

* Evidence extracted from storage media and digital devices: such as computers, smartphones ‘

Hard disks, MODULES USB, servers, which contain data that can be technically analyzed and extracted Evidence of them.

* Digital evidence extracted from networks and communication platforms: such as WhatsApp conversations ‘Facebook, Telegram, Twitter, which have become key sources for proving cybercrime and crimes The traditional ones are relevant.⁵

2.1-the legal nature of electronic evidence in the criminal system:

The legal nature of the electronic guide raises a fundamental problem related to its location within the system of means Traditional proof, the extent to which it can be equated with evidence known in criminal law such as confession or Certificate or official transcripts. Thus, to determine this nature, it is necessary to examine the function of the proof Electronic evidence in the field of evidence, and whether it is considered an independent means in its own right or an extension of existing evidence. Electronic evidence in modern criminal systems is recognized as the primary means of proof, provided that it is obtained by legitimate methods and the integrity of the extracted data is ensured and not exposed For manipulation or forgery. The electronic manual is governed by the principle of freedom of evidence Where the legislator does not impose a restriction on the ‘ established in criminal articles means of proof unless otherwise provided by law

How to ensure the integrity of the electronic manual and verify that it has not been - modified.

Verification of the connection between the extracted evidence and the facts of the - crime or the person being charged.

Respect the formalities and legal procedures during the collection of evidence to - ensure that the rights of the defense are not infringed.

The legal nature of the electronic guide varies depending on the method of its submission, as it can be treated as written evidence if it is unpacked in a readable edited form, or as physical evidence if the technical means containing

Based on the data, or as technical evidence that requires a technical examination to confirm its authenticity, the acceptance of the evidence is based

Electronic criminal evidence on a number of grounds, the most prominent of which are:

Freedom of proof in criminal articles: article 427 of the French Code of Criminal Procedure states that " crimes can be proved by all means of proof, and it is left to the criminal judge to assess the validity of a law The evidence presented before him."The Algerian legislator has also established the principle of freedom of proof in the article punicial procedures.

6

Respect for legal guarantees: Obtaining the electronic evidence by lawful means in accordance with the rules of Criminal Procedure, taking into account the protection of Personal privacy and confidentiality of correspondence, in accordance with Article 40 of the

Algerian constitution and Article 66 of the Constitution The Frenchman Relevance to the subject of the crime: electronic evidence is not considered if it does not have a direct or indirect link The subject of criminal investigation or criminal follow-up, which entails proving the relationship between the extracted data The crime or the accused.

7

The integrity of the technical evidence : it must be proved before the court that the data has not been modified or falsified, and that The process of collecting and analyzing them was carried out according to correct technical procedures, and often resort to technical expertise to achieve The electronic manual is one of the most prominent manifestations of modernization in the Criminal Evidence system, as it contributed to supporting The effectiveness of criminal justice and countering new crimes, but its technical and digital specificity has resulted in Practical and legal challenges before the courts, especially in light of the ease of manipulating, deleting or modifying electronic data in ways that do not leave obvious traces, which requires that this guide be surrounded by strict legal and technical controls To ensure the correctness of the proceedings, the integrity of the evidence, respect for the rights of the defense and fair trial guarantees⁸

It is clear from the above that the electronic evidence has become an essential element within the Criminal Evidence system Modern technology, because it provides practical and technical capabilities that help to detect and prove crimes effectively, Taking into account the special nature of this type of evidence and the controls and procedures imposed by it to ensure Its legality and integrity. Also, the acceptance of electronic evidence in the criminal field is associated with the need to respect The principle of legality, relevance to the facts of the case, verification of data integrity⁹

2.1 conditions for acceptance of the electronic guide:

Despite the crucial importance of electronic evidence in the detection of modern crimes, its validity before the judiciary does not It is understood in isolation from the controls regulating its admission as a means of proof. The legal value of any evidence is related to To the extent that the essential procedures that guarantee his legality, honesty and connection with the criminal act are respected.¹⁰

The conditions of acceptance of the electronic manual represent the basic controls that ensure its legality and validity before the criminal justice, as the validity of the manual is linked to a number of legal and technical criteria that achieve a balance between the effectiveness of criminal justice and the protection of the rights of individuals. These conditions can be summarized as follows:

* The requirement of legality in obtaining the electronic guide:

This condition is one of the most important controls that must be observed when collecting the electronic guide, as it requires It must be obtained in accordance with the legal procedure provided for in the code of Criminal Procedure ‘While respecting the constitutional norms that guarantee the protection of private life and the inviolability of correspondence and

communications. Violation of this requirement leads to the invalidity of the electronic evidence and the unreliability of it in forming a conviction. The criminal judge. The French judiciary has stressed the need to respect legal controls during. The French court of Cassation ruled that the use of an illegal means of obtaining evidence makes the latter invalid and unreliable in a criminal case.¹¹

* The requirement of the link between the electronic evidence and the facts of the crime: the requirement for the acceptance of the electronic evidence before the judiciary. The criminal must have a direct or indirect link to the criminal act being pursued, and have a role in proving the elements of the crime or in denying the charge of the accused.¹⁵ the assessment of this link is due to an authority. The criminal judge who has the freedom to be convinced of the evidence presented before him according to his compassionate conviction.¹²

Requirement for the safety of the electronic manual from manipulation: the technical nature of the electronic manual requires. Verifying its technical integrity and its freedom from any modification, alteration or damage that could affect its content or its credibility before the courts, and using technical expertise by specialists to verify its authenticity. The evidence and the integrity of the chain of possession from the moment of its seizure until its submission to the judiciary. This is considered. The requirement is necessary to ensure the reliability of the electronic evidence and avoid providing data that may have been manipulated or falsified in technical ways that are difficult to detect without specialized expertise.¹³

2.2 the authority of electronic evidence in criminal evidence:

The recognition of electronic evidence as an approved means of proof before the court is a fundamental issue related to the extent of its legal authority, that is, its power of persuasion and attribution of criminal responsibility. This validity depends on. The basis that the legislator and the judiciary give to such evidence in the light of the principles of criminal justice and fair trial guarantees. Accordingly, the legal basis on which the authenticity of the electronic evidence in the criminal system. The recognition of the evidence is based is first put forward in the authenticity of electronic evidence before the criminal judiciary is based on the principle of freedom. Article 427 of the French Code of Criminal Procedure provides that Crimes can be proven by all means of proof, and the criminal judge is left free to "evaluate the evidence according to his conviction," the Algerian legislator also enshrined the principle of freedom of proof in Article 212 of the amended code of Criminal Procedure. And mumble.¹⁴

Modern legislation has deliberately included the texts related to digital proof within the laws. In the fight against cybercrime, as in the UAE Law No. 5 of 2012 Regarding the fight against Information Technology Crimes, which provided for the acceptance of the electronic evidence as part of the criminal proof.

Electronic evidence has evidentiary value before the criminal justice, but the scope of this authority varies depending on the nature of the evidence and the circumstances of its extraction and submission, as the criminal judge has a wide discretion in assessing its sufficiency.

of electronic evidence to form his judicial conviction.²² The strength of the electronic manual is related to several factors, including:

- The validity of the legal procedures followed in collecting it.
- Clarity of the connection between the evidence and the facts of the crime.
- The integrity of the extracted digital data and free from any manipulation.
- The possibility of presenting the evidence before the defense, examining it and discussing it before the judiciary.¹⁵

3.2-the electronic guide is invalid in case of violation of the conditions:

If the electronic evidence has been collected illegally, has been tampered with, or is not Related to the fact in dispute, it loses its evidentiary value before the Criminal Court, and is considered invalid not The judge canreliable to him in the formation of his conviction.The French court of Cassation has confirmed in many Of its provisions on the need to exclude evidence obtained illegally to ensure the rights of the defense The requirements of a fair trial.It emerges from this presentation that the electronic guide has become a means of Major in criminal evidence¹⁶

Conclusion:

The Accelerated Digital Development has transformed electronic evidence into a cornerstone of the evidentiary system As a result of its technical capabilities, it contributes to revealing the truth and proving the new and traditional crimes committed through technical media or using them. Research has shown that the evidence The electronic enjoys authority before the criminal justice provided that the legal and technical controls are respected Related to the methods of obtaining it, ensuring the integrity of the extracted data, observing the protection of rights And individual freedoms.The study has highlighted that the technical nature of the electronic guide produces a number of Problems before the judiciary, including the ease of manipulating it and the difficulty of proving its attribution to the accused, besides Technical challenges related to the need for technical expertise to examine the devices and extracted data. The study also stressed the importance of the requirement of legality in obtaining electronic evidence as a guarantee Essential for maintaining the balance of criminal justice between the need to combat crime and respect for safeguards Constitutionality is guaranteed to individuals.Recent trends have shown that the development of the legislative and judicial framework for dealing with evidence E-mail has become an urgent necessity, so by organizing the procedures for collecting digital evidence, ensuring Reliability, relying on technical expertise to ensure the authenticity of the manual, in addition to enhancing international cooperation To counter cybercrime, cross-border. The criminal judge also has a key role in assessing The electronic evidence is within his compassionate conviction, thus enhancing the role of criminal justice in confronting crime Without prejudice to the rights of the defense and fair trial guarantees.In view of the above, it can be argued that the development of criminal evidence rules to accommodate the specifics of the evidence E-mail is an imperative necessity in the digital age, which requires both the legislator and the judiciary

Work on the development of accurate standards that ensure the authenticity of this evidence and enhance confidence in it within the justice system While continuing to keep abreast of emerging technical developments to meet practical and legal challenges Imposed by the digital environment modern.

Recommendations:

- Electronic media should be disseminated in the social environment in order to effectively raise awareness of the importance of digital evidence in criminal evidence.
- The need for high-level training of judicial officers in the field of computer and technology in order to conduct an in-depth and effective investigation.
- Enhance your encryption techniques in electronic transactions.
- The use of high or super artificial intelligence in the evaluation of digital forensic evidence.

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