

The Criminal Judge's Authority in Assessing Electronic Evidence in Light of the Principle of Judicial Conviction under the 2025 Procedural Reforms

Sakina FERROUDJ ⁽¹⁾

⁽¹⁾ Lecturer B, Laboratory of the Effectiveness of the Legal Rule, Faculty of Law and Political Science, Abderrahmane Mira University of Bejaia, Algeria.

Email: Ferroudjsakina2017@gmail.com

Abstract :

The scientific development witnessed in recent years has produced new patterns of crimes that were not familiar or previously known. These crimes are committed through the use of information systems, transforming crime from its ordinary character and limited dimensions into newly emerging dimensions through reliance on modern technology—foremost among them cybercrime, which evolves from one moment to the next. This has led the Algerian procedural legislator to take it into account in all amendments to the Code of Criminal Procedure, including the most recent amendment of 2025.

The virtual environment in which cybercrime is committed has resulted in the emergence of a new category or type of evidence consistent with the nature of the environment in which information-related crime is perpetrated. This is referred to as electronic evidence, which has become one of the evidentiary means relied upon to prove the crime. Consequently, it has become necessary for the justice system in general, and criminal justice in particular, to deal with electronic evidence as a newly developed form of evidence in criminal proof.

Keywords:

Criminal proof, Crime, Electronic evidence, Evidentiary value, Legality.

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Corresponding author: Sakina FERROUDJ, email: Ferroudjsakina2017@gmail.com

سلطة القاضي الجزائي في تقدير الدليل الإلكتروني في ضوء مبدأ الاقتناع القضائي وفق الإصلاحات الإجرائية لسنة 2025

الملخص:

أبرز التطور العلمي الذي شهدناه في السنوات القليلة الأخيرة أنماطا جديدة من الجرائم لم تكن معهودة أو معروفة في السابق، والتي يتم ارتكابها باستخدام نظم المعلومات لتتحول بذلك الجريمة من صفتها العادية وأبعادها المحدودة إلى أبعاد مستحدثة باعتماد التقنية الحديثة على رأسها الجريمة الإلكترونية التي تتطور بين لحظة وأخرى، ما جعل المشرع الجزائري الإجرائي يأخذها بعين الاعتبار في جميع تعديلاته لقانون الإجراءات الجزائية بما في ذلك التعديل الأخيرة لسنة 2025.

فالوسط الافتراضي الذي ترتكب فيه الجريمة الإلكترونية أدى أو أسفر عن ظهور طائفة أو عينة جديدة من الأدلة تتفق وطبيعة الوسط الذي ترتكب فيها الجريمة المعلوماتية والتي يطلق عليها تسمية الدليل الإلكتروني والذي أصبح من الأدلة التي يعتمد عليها في إثبات الجريمة، ليصبح من الوجوب على أجهزة العدالة عامة والعدالة الجنائية خاصة التعامل مع الدليل الإلكتروني كدليل مستحدث في الإثبات الجنائي.

الكلمات المفتاحية:

الإثبات الجنائي، الجريمة، الدليل الإلكتروني، الحجية، المشروعية.

Le pouvoir du juge pénal dans l'appréciation de la preuve électronique à la lumière du principe de l'intime conviction judiciaire selon les réformes procédurales de 2025

Résumé :

Les progrès scientifiques observés au cours des dernières années ont fait émerger de nouveaux types de criminalité, auparavant peu connus ou inexistants. Ces infractions sont commises au moyen des systèmes d'information, transformant ainsi la criminalité, qui passe de sa forme ordinaire et de ses dimensions limitées à des dimensions nouvelles grâce au recours aux technologies modernes, au premier rang desquelles figure la cybercriminalité, en évolution constante. Cette réalité a conduit le législateur procédural algérien à en tenir compte dans l'ensemble des modifications apportées au Code de procédure pénale, y compris la dernière réforme de 2025.

L'environnement virtuel dans lequel la cybercriminalité est perpétrée a, par ailleurs, entraîné l'apparition d'une nouvelle catégorie de preuves adaptée à la nature de ce milieu, appelée « preuve électronique ». Celle-ci est désormais utilisée pour établir l'infraction, ce qui impose aux institutions judiciaires en général, et à la justice pénale en particulier, de traiter la preuve électronique comme un moyen de preuve moderne dans le domaine de la preuve pénale.

Mots clés :

Preuve pénale, Crime, Preuve Electronique, Force Probante, Légalité.

Introduction

The idea of proof is as old as human transactions themselves. Since ancient times, people have been guided to it because the transactions they conclude often give rise to disputes and disagreements. This led to the necessity of finding methods and means that would put an end to such conflicts and thereby reach the truth and restore matters to their proper course. Revealing the truth is achieved through the formulation of evidentiary methods and rules.

Proof in criminal matters is of great importance, because it is through the evidence available in a case that the court's conviction is formed. The court then issues its judgment on the basis of what it has become convinced of regarding the subject of the case, pursuant to a principle whose meaning is the judge's freedom of conviction and proof.

The scientific development witnessed in recent years has produced another type of transactions known as electronic transactions, in which geographical borders fade because they are carried out through electronic means. This requires the creation of other means of proof suited to the nature of these transactions. The evidentiary system has undergone fundamental transformations, especially after the introduction of modern mechanisms under the 2025 reforms to the Code of Criminal Procedure, whereby electronic evidence has come to the forefront.

Since it is difficult to separate the offender from this development, the legislator was obliged to devise modern means of proof that keep pace with this trend. This resulted in the creation of modern evidentiary means based on scientific controls, through which one may infer and uncover the hidden aspects of crime and convict the offender, within the framework of what is legally termed legality.

One of the most significant problems raised in the field of so-called cybercrime is the problem of assessing evidence, verifying it, and becoming convinced of it by the criminal judge. Before issuing a judgment, the judge examines and investigates the evidence in order to ascertain what is right in the case. The mere existence of evidence proving that a crime occurred and attributing it to a specific person is not sufficient to rely on for issuing a conviction, because it must have evidentiary force and legal value for a conviction to rest on a legal basis. The value of electronic evidence is based on two assumptions: first, it must be recognized, meaning that the judge may rely on it to form his or her conviction; and second, it must satisfy a set of conditions that confer upon it the character of legality. This may lead to the following question:

To what extent is it possible to apply the principle of judicial conviction, as incorporated in the Algerian Code of Criminal Procedure, to electronic evidence before the criminal judge?

Answering the problem raised above prompts me to examine two axes:

- The persuasive force of electronic evidence in criminal matters.
- The evidentiary value of electronic evidence in criminal proof.

Chapter I: The Persuasive Force of Electronic Evidence in Criminal Matters

Electronic evidence is a means of uncovering and reaching the truth. Accordingly, the criminal judge may order any measure he or she deems appropriate and may accept any lawful means—provided it does not infringe upon the individual's inviolability—as proof. There is no doubt that the use or employment of modern methods to obtain evidence may involve, on the one hand, means that constitute an intrusion into private life, and on the other hand, means that amount to a violation and infringement of an individual's physical integrity. For this reason, the criterion for accepting any scientific electronic evidence used in the field of criminal proof to reveal the truth is grounded in the principle that it must not undermine the individual's freedom or human dignity. This places on the judge the necessity of balancing what is lawful and what is unlawful.

Since electronic evidence is among the special forms of criminal evidence that emerged with the advent of cybercrime, and is intended to prove it, uncover its hidden aspects, and restore matters to their proper course, it is necessary to provide a definition of this evidence so that we can clarify the aspects related to it.

Through the application of evidentiary rules, the judge aims to achieve effective justice, which serves the interests of society in general and individuals in particular. The judge's personal conviction enables him or her to exercise authority in ascertaining the truth by freely assessing evidence and drawing inferences from it in a manner that leads to the revelation of the truth.

Section I: The Meaning of Electronic Evidence

Electronic evidence is so called because the data exists within a virtual medium or environment, whether in the form of images, recordings, or texts that take the form of numbers. These numbers are converted, when displayed, into the form of a document, a recording, or an image¹.

1 Mamdouh Abdel Hamid Abdel Muttalib, Zobaida Mohammed Qasim, Abdullah Abdel Aziz, A Proposed Model for Rules on Adopting Digital Evidence for Proof in Computer Crimes, published in the proceedings of the conference "Banking and Electronic Business," Faculty of Sharia and Law, United Arab Emirates University, Vol. 5, 2003, p. 2237.

Subsection 1: Definition of Electronic Evidence

With regard to defining electronic evidence, doctrinal definitions are numerous and diverse. Some legal scholars define it as: “Any data that can be prepared or stored in digital form such that it enables a computer to perform a task².”

Others define it as: “Information accepted by logic and reason and supported by science, obtained through legal and scientific procedures by translating the computational data stored in computers, their peripherals, and communication networks. It can be used at any stage of investigation or trial to prove the truth of an act or thing related to a crime, an offender, or a victim³.”

Another strand of legal scholarship defines it as: “Evidence taken from computer devices, existing in the form of magnetic or electrical fields or pulses that can be collected and analyzed using application programs and technology. It is a digital component that provides information in various forms such as written texts, images, sounds, shapes, and drawings, for the purpose of relying on it before law-enforcement and law-application authorities.”

The observations that may be made regarding these doctrinal definitions are as follows:

- They confine the concept of electronic evidence to evidence extracted from a computer, which is not logical, because evidence may be derived not only from a computer but also from any other digital device. Phones, cameras, and other devices that operate through digital technology can likewise be sources of electronic evidence.
- They confuse electronic evidence with the process of extracting it, since scholars have defined it as evidence “taken from a computer,” meaning that it acquires the character of electronic evidence only if it has been taken or extracted from its source. Accepting this view would mean that magnetic or electrical fields or pulses, before being separated from their source through technical means, are not fit to be described as electronic evidence.

Accordingly, drawing on the preceding definitions, electronic evidence may appropriately be defined as: “A set of magnetic or electrical fields or pulses that can be collected and analyzed using specialized programs and applications so as to appear in the form of images or audio or visual recordings⁴.”

2 Aisha Ben Qara Mustafa, *The Probative Value of Electronic Evidence in the Field of Criminal Proof*, Dar Al-Jami'a Al-Jadida, Egypt, 2010, p. 52.

3 Mohammed Al-Amin Al-Bishri, *Investigation of Emerging Crimes*, Dar Al-Hamid for Publishing and Distribution, Jordan, 2014, p. 232.

4 Al-Hassan Al-Tayyib Abd Al-Salam Al-Asmar Al-Hadari, *Criminal Proof by Modern Scientific Means: A Comparative Study between Libyan Criminal Law and Contemporary Jurisprudence*, Master's thesis submitted for the Master's degree, Graduate Studies Faculty, Department of Sharia and Law, 2016, p. 216.

It should be noted that electronic evidence has characteristics that distinguish it from traditional evidence. This is due to the nature of the environment in which it exists. This environment may be described as inherently advanced and encompassing multiple types of digital data that may be separate or combined, such that they may constitute proof of conviction or acquittal. These characteristics appear mainly in the following points:

- It is difficult to erase or destroy, because even if an order is issued to remove it, it may be recovered through the machine's memory⁵.
- It is considered a technical or scientific form of evidence and belongs to the category known as evidence derived from a machine⁶.
- Understanding the content of electronic evidence depends on the use of special devices for collecting and analyzing its content. Therefore, anything whose content cannot be identified and analyzed by such devices cannot be considered electronic evidence.

Subsection 2: The Legality of Electronic Evidence in Criminal Proof

The principle of legality of crimes and punishments is among the most important principles upon which the structure of substantive criminal law rests. This principle is reflected in the rules of criminal proof and requires that they, too, be subject to legality. It follows that no evidence may be accepted or rejected if it is unlawful—whether due to the procedures through which it was obtained, its very existence, the means used to search for it, or the manner in which it was secured. The legality of the existence of electronic evidence requires that the criminal legislator recognize it through clear legal provisions and include it within the list of evidentiary means on which the judge may rely in forming his or her conviction. Accordingly:

- A judge cannot base a judgment on evidence that the law has not expressly provided for.
- A judge cannot expand the interpretation of criminal texts, construe them broadly, or load them with meanings beyond what they can bear, because this may lead to the creation of evidentiary means that have no recognized existence in the law⁷.
- The method of recognizing electronic evidence and accepting it as proof differs from one state to another, depending on the evidentiary system

5 Fathi Mohammed Anwar Ezzat, *Electronic Evidence in Criminal Matters and Civil and Commercial Transactions*, Dar Al-Fikr wa Al-Qanun, Egypt, 2010, p. 655.

6 Ali Mahmoud Ali Hamouda, Evidence Obtained from Electronic Means within the Framework of the Theory of Criminal Proof, paper presented in the proceedings of the First Scientific Conference on the Legal and Security Aspects of Electronic Operations organized by the Dubai Police Academy, 2003, p. 22.

7 Yasser Mohammed Al-Koumi Mahmoud Abu Hatab, *Criminal and Security Protection of the Electronic Signature*, Manshaat Al-Maaref, Alexandria, 2014, p. 303.

prevailing in each. As for the evidentiary system adopted in Algerian criminal legislation, it is the system of free proof. This may be inferred from Article 212 of the Code of Criminal Procedure, which provides: “Crimes may be proven by any means of proof, except in cases where the law provides otherwise, and the judge shall render judgment according to his or her personal conviction⁸.” On this basis, the system of free proof is one in which the principle of freedom of proof prevails, because the legislator does not restrict proof to specific methods nor assign predetermined probative force before the criminal courts. Instead, this is left to the criminal judge, who has an active role in searching for evidence and assessing its probative value in light of the conviction formed from it. Thus, the judge may form his or her conviction on any evidence submitted in the case, even if it is not specifically enumerated.

Accordingly, the philosophy of this system rests on two principles:

- **The legislator’s passive role in the evidentiary process:** Under this principle, the legislator refrains from predefining which evidence is suitable for proof. This opens the way for evidence to be deemed admissible according to the judge’s assessment rather than the legislator’s. The legislator also refrains from determining the persuasive value of evidence or establishing any hierarchy among evidentiary means in terms of probative force. Therefore, within this system, the legislator’s role is limited to specifying the conditions required for the validity of evidence and the manner of its submission, in order to ensure the proper functioning of justice⁹.
- **The criminal judge’s active role in proof:** This principle appears in two respects. The first lies in the broad freedom enjoyed by the criminal judge in establishing the truth and the wide powers to take measures and procedures believed to be useful for revealing the truth, such as hearing witnesses, appointing experts, and summoning them to clarify the reports they have prepared. The second lies in granting the criminal judge extensive discretionary authority to accept evidence and assess its value, guided by conscience and relying on legal knowledge and experience. The judge may therefore accept certain evidence and exclude other evidence¹⁰.

To rely on electronic evidence and consider it a means of proof in criminal matters, it is not sufficient that the criminal legislator recognizes it through clear

8 See Article 212(1) of Order No. 66-156 dated 18 Safar 1386 corresponding to 08 July 1966, containing the Code of Criminal Procedure, Official Gazette of the People’s Democratic Republic of Algeria No. 84, as amended and supplemented by Law No. 22-06.

9 Ahmed Youssef Al-Tahtawi, *Electronic Evidence and Its Role in Criminal Proof*, Dar Al-Nahda Al-Arabia, Cairo, 2006, p. 195.

10 See Article 212(1) of Law No. 06-22, op. cit.

legal provisions. There must also be legality in its existence and legality in the manner of obtaining it. By the legality of obtaining electronic evidence is meant that the process of searching for the evidence and presenting it to the judiciary is carried out by those conducting the investigation in accordance with the rules and procedures established by law.

Because evidence derived from modern electronic means is among the forms of evidence most intrusive and most likely to violate the rights and inviolabilities of the individual, it should not be accepted or relied upon in the evidentiary process unless it is obtained in accordance with legal provisions and with respect for the principles and ethics of justice.

Thus, although the principle of the criminal judge's freedom in proof is affirmed, this freedom does not mean that it extends to accepting and relying on evidence produced by an unlawful procedure, because such acceptance conflicts, on the one hand, with the values of justice, and on the other hand, it undermines the accused's right to defense.

Accordingly, if the process of collecting electronic evidence violates the procedural rules and principles governing how it is obtained, it is null and void. This necessarily leads to the nullity of the evidence derived from it, in accordance with the well-known legal maxim: "What is built on invalidity is invalid¹¹." On this basis, a judge may not:

- Accept any electronic evidence obtained through an interception procedure carried out without observing the formal and substantive conditions required for the authorization to conduct that procedure.
- Rely on evidence obtained by coercing the cybercrime suspect to decrypt data or disclose the password necessary to access files stored within information systems.
- Use methods of fraud, deception, or trickery to obtain electronic evidence.
- Treat recordings made by individuals among themselves as criminal procedural measures, because they are not issued in relation to a criminal case initiated by judicial authorities.

Nullity does not stop at the defective procedure that is tainted by a ground of invalidity; rather, it extends to the subsequent procedures directly connected to it. This is the position adopted by the Algerian legislator under Article 191 of the Code of Criminal Procedure, which provides: "The Indictment Chamber examines the validity of the procedures submitted to it. If it discovers a cause of nullity, it rules the tainted procedure null and, where appropriate, declares null all or some of the subsequent procedures."

As part of entrenching the principle that the legality of electronic evidence must be respected, the international convention for the prevention of torture issued by

11 Ahmed Youssef Al-Tahtawi, op. cit, p. 195.

the United Nations on 1 December 1994 considers any electronic evidence obtained as a result of torture, or any confession produced under pressure, coercion, or intimidation—whatever its degree—to be invalid evidence, which the judge must exclude. Likewise, the Fifteenth International Congress of the International Association of Penal Law, held in Brazil in 1994, recommended that all evidence obtained through the violation of one of the accused's fundamental rights is null and may not be relied upon before the courts or taken into account at any stage of the proceedings¹².

Based on the foregoing, any evidence extracted in violation of the law is unlawful and loses its value in the evidentiary process. The criterion for accepting any practical means in the field of criminal proof is grounded in a principle whose meaning is that it must not undermine the individual's public freedoms or human dignity.

Subsection 3: The Meaning of the Principle of Judicial Conviction

Doctrinal definitions of what is known as the principle of judicial conviction are numerous and varied. Some scholars define it as: "A subjective mental state inferred from the facts presented for examination; it consists of probabilities with a high degree of certainty reached as a result of excluding doubt, and it is influenced by a person's receptiveness and responsiveness to various motives, because it reflects the judge's assessment of conscience¹³." Others define it as: "That mental and psychological state, or that manifestation, which shows that the judge's conviction has reached the level of certainty regarding the truth of a fact that did not generally occur under the judge's direct observation¹⁴." Another group of scholars considers judicial conviction to be: "The free, reasoned assessment of the elements of proof in a case, as an alternative to the system of legal evidence¹⁵." From the preceding definitions of judicial conviction, we can conclude that it is based on a set of elements, which may be summarized as follows:

- Judicial conviction is an intellectual and affective mental process within the judge's mind, prompted by the criminal incident. It activates the judge's memory and brings to mind the relevant legal rules and the model factual patterns suited to application to the facts of the case before the court.

12 Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, adopted and opened for signature, ratification, and accession by United Nations General Assembly Resolution 46/39 of 10 December 1984.

13 Mahmoud Mustafa, *Proof in Criminal Matters in Comparative Law*, Cairo University Press and the University Textbook, 1977, p. 3.

14 Ali Rashed, *The Judge's Personal Conviction*, 2nd ed., copyright reserved to the author, 1953, p. 140.

15 Abdullah bin Saleh bin Rashid Al-Rubaish, *The Authority of the Criminal Judge in Assessing Evidence between Sharia and Law and Its Applications in the Kingdom of Saudi Arabia*, research submitted for the Master's degree, Department of Criminal Justice, p. 75.

- Judicial conviction is the outcome of a practical, scientific, and logical process that the judge carries out with his or her conscience and inner judgment.
- The material facts presented in the criminal case to the judge are what generate the judicial process that ultimately leads the judge to reach this state.
- The nature of the conviction reached by the criminal judge depends on the existence of correspondence between the material facts on the one hand and the model facts contained in legal provisions on the other¹⁶.

Accordingly, every mental effort exerted by the judge during the trial aims to reach the truth. The truth meant here is factual truth as it actually occurred, not as the parties portray it. It cannot be revealed except by searching for it and proving it through evidence, whatever its type, in order to attribute the incident to its perpetrator. Therefore, if the judge reaches a mental state in which the elements of the incident have been gathered, settled in his or her conscience, and the judge's conscience is fully at ease with them, then it may be said that the judge has reached what is called the state of conviction¹⁷.

As for the legal foundation of the principle of judicial conviction, the Algerian legislator enshrined it in the Code of Criminal Procedure through Article 212(2), which provides: "Crimes may be proven by any means of proof, except in cases where the law provides otherwise, and the judge shall render judgment according to his or her personal conviction¹⁸."

It is clear from this provision that the Algerian legislator expressly adopted the principle of judicial conviction in the Code of Criminal Procedure. This gives the criminal judge the opportunity to examine the evidence presented during the proceedings and to assess it, which leads us to ask: What type of conviction is meant—subjective conviction, or conviction based on the evidence presented to the judge in the case?

The judicial conviction meant here is not a purely subjective conviction; rather, it is conviction based on the evidence presented, which the judge must reflect in the reasoning and justification of the judgment or decision. The assessment of evidence by the trial judge is not subject to review by the Supreme Court.

If the principle of judicial conviction is an established principle in the Code of Criminal Procedure, we may ask about the scope of its application: Does it extend to all types of criminal courts, or is its operation limited only to the trial

16 Fawzia Abd Al-Sattar, *Commentary on the Code of Criminal Procedure*, Dar Al-Nahda Al-Arabia, Cairo, n.d., p. 511.

17 Kamal Abd Al-Wahid Al-Jawhari, *Foundations of Judicial Conviction and the Fair Criminal Trial*, Dar Mahmoud Publishing, Cairo, 1999, p. 14.

18 See Article 212(1) of Order No. 156-66, op. cit.

adjudication stage? With regard to the scope of application of the principle of judicial conviction, a doctrinal disagreement has arisen:

- **First doctrinal trend:** This view holds that the principle of judicial conviction extends to all types of criminal courts, whether felony courts, misdemeanor courts, or courts dealing with minor infractions.
- **Second doctrinal trend:** This view holds that the principle was designed to apply before the trial adjudication stage; however, this does not mean that its application is confined to that stage. Rather, it also covers the preliminary investigation stage.

It should be noted that the principle of judicial conviction, also referred to as the judge's freedom of conviction, is relatively modern in criminal legislation.

Its first appearance was at the end of the eighteenth century. The first judiciary to adopt it was French criminal legislation, specifically the French Penal Code and the French Criminal Code of 1791, by virtue of Article 24, which provided: "Jurors must state their conviction specifically on the basis of the evidence and the discussions presented or conducted before them."

Section II: Conditions of the Principle of Judicial Conviction after Expanding the Scope of Electronic Investigation Methods

The evidentiary system in criminal matters is based on the principle of freedom of proof and the judge's freedom to form his or her conviction. This is what the Algerian legislator enshrined in the Code of Criminal Procedure by adopting the system of the criminal judge's personal conviction. However, the emergence of electronic evidence—as a product of the digital environment—has made it necessary to reconsider this principle in light of complex technical realities, especially given the increase in information-technology crimes and the reliance on electronic media across various aspects of human activity.

By the safeguards of the principle of judicial conviction is meant the conditions that the judge must observe when beginning to form a conviction regarding the elements of the case and the evidence presented before the court, in a manner that makes the conviction valid and lawful because of its effect on the judgment issued in the criminal case. Since the criminal judge enjoys broad authority to assess evidence, including electronic evidence, and may seek the truth and all evidence without being bound by any predetermined probative value for a particular item of evidence—even if it is scientific—the legislator has established a set of safeguards governing this authority to protect the judge from deviating when exercising it. The most important of these conditions are as follows:

Subsection 1: The Evidence Presented Must Be Relevant to the Case File

The Algerian legislator provided for this condition in the Code of Criminal Procedure under Article 212(2), which states: "The judge may not base his decision except on the evidence presented to him in the course of pleadings ..."

It follows from this paragraph, within the provisions of Article 212, that the judge may not render a judgment on the basis of evidence that does not exist within the criminal case file. The phrase “evidence presented in the course of pleadings” refers to evidence that has its source in the documents of the case brought before the judge, whether that source lies in the records of preliminary inquiries, the investigation records, or the order referring the case to the court. The importance of stating this restriction or condition lies in safeguarding the rights of the accused on the one hand, and ensuring the realization of justice and the discovery of the truth on the other, as well as guaranteeing the rights of the defense. It is unreasonable for a judge to base a judgment on evidence without it being discussed with the parties to the case and examined by the judge before issuing the ruling. Accordingly, if the evidence is electronic, it is not proper for the judge to be shown this evidence alone, or to inspect it, without it having a basis in the case file¹⁹.

Subsection 2: Presenting Electronic Evidence for Discussion at the Hearing

The mere inclusion of electronic evidence within the case file before the judge is not sufficient to form judicial conviction and, consequently, to treat it as evidence that may be relied upon. Rather, it must be discussed by the parties to the case. Discussion leads to verifying its probative force and its suitability for proof in the proceedings. All parties must be aware of the evidence presented against them before judgment is rendered, so that they may confront it and respond to it. In this regard, Article 212(2) of the Code of Criminal Procedure provides: “The judge may not base his decision except on the evidence presented in the course of pleadings and which has been discussed orally in his presence²⁰.”

It follows from this provision that the judge forms conviction only on the elements of proof that were presented during court sessions and were subject to the parties’ freedom to discuss them, in application of the principles of the criminal trial, namely orality, publicity, and confrontation. Oral discussion in the presence of the judge is a logical requirement: on the one hand, it gives the accused an opportunity to question every means of proof presented; on the other hand, it entails a comprehensive examination of each evidentiary means.

Although the judge rules in a criminal case according to the conviction formed in full freedom, the judge is nevertheless obliged to ensure that the evidence forming that conviction has been presented for discussion and examination. Accordingly, any judgment based on evidence that was not presented for discussion, or in respect of which the parties were not given an opportunity to express their views, is void. The standard governing the status of digital evidence rests on two

19 Sorour Ahmed Fathi, *The Intermediate Treatise on the Code of Criminal Procedure*, 7th ed., Dar Al-Nahda Al-Arabia, 1996, p. 498.

20 See Article 212(2) of Order No. 156-66, op. cit.

elements: granting the parties the opportunity to review the electronic evidence and respond to it, and ensuring that the electronic evidence has an origin in the case file.

Subsection 3: Basing Conviction on Evidence Derived from a Lawful Procedure

Since criminal proof is a procedural activity directed toward achieving judicial certainty through evidence, the legality of proof requires that no evidence obtained by an unlawful method be accepted. The process of obtaining evidence—whatever its type—must observe safeguards, most importantly: justice and the rights of the defense.

The requirements of preserving human dignity, and these safeguards, are achieved only when evidence in general, and electronic evidence in particular, is obtained within procedures characterized by legality.

Accordingly, any evidence obtained in an unlawful manner has no legal value in proof. The reasoning is that accepting evidence produced by unlawful procedures would render the safeguards established by law to protect individual rights meaningless, and would likewise deprive the rules formulated by the legislator of value and importance whenever it becomes possible to disregard them, fail to apply them, or bypass them.

Subsection 4: Realizing the Principle of Certainty through Electronic Evidence in Criminal Matters

Certainty means the existence of a truth inferred by the criminal judge through sensory knowledge, free from any ambiguity or probability. Therefore, the judge must render judgment on the basis of a certain conviction regarding the evidence obtained through electronic means. This is achieved by the judge's inspection of these means, examining them through intellectual understanding, and reading the results in order to confirm the existence of the truth.

Since the requirement of certainty in convictions is a general requirement regardless of the evidence from which it is derived, electronic evidence must not be open to doubt. It is sufficient for the judge to doubt the correctness of attributing the charge to the accused for the judge to rule an acquittal, in accordance with the principle that doubt is interpreted in favor of the accused.

If the criminal judge can reach certainty through sensory or rational knowledge, then affirming the occurrence of an information-technology crime and attributing it to the accused requires another type of knowledge on the part of the judge—namely, scientific knowledge in information-technology matters. This is particularly so because the criminal judge plays an active role in proof. Ignorance of such matters generates doubt about the value of electronic evidence, which

leads to acquittal, since the accused benefits from that doubt. For this reason, judicial conviction is considered the fruit of certainty²¹.

The principle of conviction was enshrined by the Algerian legislator, particularly in Article 212(1) of the Code of Criminal Procedure, which provides: “Crimes may be proven by any means of proof, except in cases where the law provides otherwise, and the judge shall render judgment according to his or her personal conviction²².”

It is clear from this provision that the Algerian legislator affirmed two principles regarding proof in criminal matters: the principle of freedom of proof and the principle of conviction as a general rule. This constitutes an implicit acknowledgment by the legislator of opening the field to a type of scientific evidence discovered by modern science in order to confront newly emerging crimes. Although Algerian legislation adopts the principle of freedom of proof in criminal matters pursuant to Article 212(1), a careful reading of the same provision shows that it is not adopted without limitation.

This means that the legislator adopted freedom of proof as the general rule, and by way of exception adopted the principle of legal evidence. This appears clearly in the same provision through the phrase “except in cases where the law provides otherwise,” which indicates that the legislator has restricted the proof of certain crimes through special texts. The restrictions introduced by the legislator on the judge’s freedom of conviction are not intended to deem the accused the perpetrator of the crime. Rather, they are intended to relieve the judge from reinvestigating certain matters, while the judge’s discretionary authority to assess evidence in order to derive conviction remains intact, and the accused continues to benefit from the presumption of innocence until proven otherwise.

Chapter II: The Evidentiary Value of Electronic Evidence in Criminal Proof

Obtaining electronic evidence and presenting it before the criminal courts is not sufficient for it to be relied upon as evidence of conviction. Rather, it must be assessed and its value examined in proving the criminal incident. Since electronic evidence is merely one application of scientific evidence, it enjoys strong evidentiary value in criminal matters. Scientific evidence, by virtue of its scientific authenticity and technical precision—often reaching a level of certainty—has probative force that binds the judge.

Despite the probative force enjoyed by electronic evidence, it raises many problems that relate, in reality, to its constitutive nature on the one hand and the method of obtaining it on the other. The existence of such issues leads to a

21 Aisha Ben Qara Mustafa, op. cit., pp. 278–279.

22 See Article 212(1) of Order No. 156-66, op. cit.

weakening of the value of digital evidence in criminal proof if solutions are not found for these obstacles, whether substantive or procedural

Section I: The Value of Electronic Evidence in Criminal Proof

Electronic evidence has long acquired strong probative value in criminal matters. This is due to its objectivity and neutrality on the one hand, and because it is governed by decisive computational rules that do not admit interpretation, which strengthens its certainty on the other²³.

Despite the objectivity and neutrality of electronic evidence, this does not rule out the possibility that doubts may be raised as to its integrity in terms of tampering—through alteration and distortion—and as to the validity of the procedures followed to obtain it.

If doubt regarding the credibility of electronic evidence is closely linked to external factors wholly independent of the evidence itself, then granting it absolute probative value in criminal proof—which would lead to accepting it as evidence upon which the truth in a criminal case is built—requires the fulfillment of a set of conditions, including the following:

Subsection 1: The Necessity of Discussing Electronic Evidence

Establishing that electronic evidence has not been tampered with, and that there were no errors in the procedures of collection, is not sufficient for it to acquire conclusive probative value in criminal proof. There is an essential requirement: that this evidence be discussed publicly in the trial hearing, in accordance with the principle of confrontation and orality²⁴.

Accordingly, the criminal judge may not rely on evidence submitted by one of the parties and base a judgment on it unless it is presented during the trial session in an oral manner that gives all parties the opportunity to discuss it, respond to it, and express their views regarding its value.

It follows that the judge may not be convinced by information obtained outside the hearing or outside the scope of pleadings and discussion. If the judge does so, the judge would combine two roles: the role of judge and the role of witness.

The judge may not base conviction on the opinion of others, except where those others are experts and technicians consulted in accordance with the law²⁵.

The problem affecting the discussion of electronic evidence lies in the fact that it is non-visible evidence that cannot be seen with the naked eye. It is recorded on electronic media that cannot be read or extracted except through electronic

23 Iman Mohammed Ali Al-Jabri, *The Certainty of the Criminal Judge*, Manshaat Al-Maaref, Alexandria, 2005, p. 130.

24 Suleiman Ahmed Fadl, op. cit., p. 375.

25 Nabil Ismail Omar, "The Rule that a Judge Must Not Decide on the Basis of Personal Knowledge", *Arab Journal of Security Studies*, Vol. 1, No. 1, Riyadh, 1989, p. 24.

devices, in addition to the possibility of manipulating the recorded information by deleting it or replacing its content.

This raises the question of the extent to which public discussion of such electronic evidence can be established in terms of its authenticity, and the extent to which this affects its acceptance by the criminal judge in cases where the original evidence is deleted using the delete function, or where the accused removes the evidence so that what remains is merely a copy reached through what is called electronic monitoring. In such a case, can the extracted evidence be considered original evidence capable of being presented and discussed before the judge?

Many comparative legislations have adopted the principle of presuming the authenticity of electronic evidence. The American legislator has recognized that an exact copy has the same probative value as the original copy. Likewise, the German legislator treated computer outputs of all kinds—whether data, copies, or printouts—as sources that the court must accept in proof, pursuant to Article 224(2) of the Code of Criminal Procedure.

Accordingly, if the judge is not permitted to rule in information-technology crimes on the basis of personal work or the opinion of others, this places on the judge the duty to re-discuss and re-examine all evidence contained in electronic accounts, so as to be able to form a conviction that brings the judge closer to the truth²⁶.

Subsection 2: Evaluating Electronic Evidence

The technical nature of electronic evidence makes it a form of evidence that may be subject to doubt as to its integrity. This is due to the established possibility that it may be tampered with or altered, thereby producing an outcome that contradicts the truth sought by every judge. The evidence may even be fabricated—created specifically to convey something contrary to reality. Modern technologies make it easy to manipulate electronic evidence in a way that makes it appear as though it were an original copy.

To verify the integrity of electronic evidence, the following mechanisms may be used:

- **Using neutral evidence:** Neutral evidence is a type of electronic evidence stored in the virtual environment that has no connection to the subject of the crime. However, relying on it helps verify the integrity of the evidence in question and confirms that no modification or change has occurred in the computer system.
- **Using computational operations (algorithms):** These operations are used when the original version of electronic evidence cannot be obtained, or

26 Ali Hussein Mohammed Al-Tawalbeh, *The Legality of Electronic Evidence Derived from Criminal Searches*, Alam Al-Kutub Al-Hadith for Publishing and Distribution, Jordan, 2004, p. 257.

when there is doubt that tampering has affected the copy or the original evidence.

- **Employing analog analysis techniques:** This is done by comparing the original evidence stored in the device with the evidence presented to the judge²⁷.

Section II: The Impact of Electronic Evidence in Criminal Proof and Its Challenges

The Algerian criminal procedural system has undergone qualitative transformations as a result of the digital revolution and the growth of information-technology crime. This has produced practical and theoretical challenges related to proving crime through electronic means. The principle of judicial conviction is the cornerstone of the criminal evidentiary system; however, applying it to electronic evidence raises issues connected to the distinctive nature of this evidence, including its technical character, its susceptibility to alteration, and its dependence on complex technical procedures. This article aims to analyze the extent to which the principle of judicial conviction is sufficient to accommodate electronic evidence in light of the Algerian Code of Criminal Procedure, while assessing procedural safeguards and the limits of the criminal judge's discretionary authority.

Subsection 1: The Impact of Electronic Evidence on Proof in Criminal Matters

In the digital age, electronic evidence has become the most prevalent means of criminal proof, whether in information-technology crimes or in traditional crimes committed through digital media. With the legislative development introduced into the Algerian Code of Criminal Procedure in 2025, the legal framework for collecting and analyzing digital evidence was strengthened, including electronic searches, digital infiltration, and the interception of communications through modern media.

However, the core issue does not lie solely in the legality of electronic evidence, but also in the extent of the judge's authority to evaluate it, and the extent to which this authority is constrained by the safeguards of the principle of judicial conviction.

To understand the impact of electronic evidence in criminal proof, legal scholarship has been divided into two trends, as follows:

27 Mamdouh Abdel Hamid Abdel Muttalib; Zobaida Mohammed Jasim; Abdullah Abdel Aziz, "A Proposed Model for Rules on Adopting Digital Evidence for Proof in Computer Crimes", Conference on Electronic Banking Business between Sharia and Law, Vol. 5, 2003, pp. 2246–2247.

1. First trend

This view holds that electronic evidence has binding probative force on the judge. The argument is that electronic evidence is the outcome of scientific experiments used to prove or negate a fact about which doubt is raised, and understanding it often requires special knowledge and expertise that the judge may not possess due to purely legal training.

According to this view, electronic evidence has decisive evidentiary value in indicating the facts it contains. Proponents argue that concerns about doubt and credibility can be overcome by subjecting such evidence to tests that confirm its integrity and correctness. If electronic evidence is free from tampering and the required conditions are met—namely, legal recognition of the evidence and the legality of the means by which it was obtained—then the judge has no option but to accept it and be convinced by it. The judge may not doubt its probative value, because it constitutes a truthful report of the facts, unless it is proven that there is no connection between the evidence and the crime sought to be established.

Under this trend, the judge is no longer free to debate the weight and assessment of electronic evidence, because the scientific nature of electronic evidence is treated as a real constraint on the criminal judge's freedom to evaluate evidence—especially given that such evidence has come to play a leading role in criminal proof²⁸.

2. Second trend

This view holds that the principle of the judge's freedom of conviction is based on extending the judge's authority over all evidence without exception, including electronic evidence. Its proponents argue that granting electronic evidence absolute probative force—such that the judge cannot discuss or assess it—amounts to a retreat to a restricted evidentiary system.

They also argue that scientific means, in most cases, are not evidence in themselves, but rather indicia that are studied and analyzed in order to extract their significance. They are therefore not, by themselves, suitable to serve as the sole evidence in criminal proof.

Moreover, proponents of this approach add that the mere availability of scientific electronic evidence does not mean that the judge is necessarily obliged to rule immediately on its basis, whether by acquittal or conviction, especially considering that such evidence often conflicts with other evidence in the criminal case.

28 Aqila Ben Bellagha, The Probative Value of Criminal Evidence, Master's memorandum in Law, University of Algiers, 2011, p. 59.

Accordingly, regardless of the elevated status that electronic evidence may attain in criminal proof, there remains an essential need to preserve the judge's freedom to evaluate evidence and to form conviction from it²⁹.

Subsection 2: Challenges of Proof through Electronic Evidence

Proof through electronic evidence faces challenges that may be substantive or procedural, which can be set out as follows:

1. The Problem of Authenticity in Electronic Evidence

Authenticity in electronic evidence differs from authenticity in traditional evidence. This difference is due to the virtual character of electronic evidence, which does not reach the level of authenticity found in tangible, physical evidence. The issue of authenticity has raised many problems regarding the extent to which a copy may be relied upon as constituting complete evidence. At the legal level, the topic of authenticity has led the legislator to adopt the logic of presuming the authenticity of electronic evidence.

2. Lack of Technical Knowledge among Legal Professionals

The technical nature of electronic evidence has long affected the work of the authorities responsible for investigation and adjudication. This is because uncovering and proving cybercrimes requires special strategies, including the acquisition of specific skills to confront computer technology and its networks.

3. Electronic Evidence Is Non-Visible Evidence

Electronic evidence consists of an electromagnetic record stored in a computer system in binary form and in an unorganized manner. Hard drives, for example, contain a mixture of intermingled data, not all of which is relevant to the issue at hand. Because electronic evidence is non-visible, and is often encrypted or coded, and can be modified and manipulated, this may sever the link between the offender and the crime. It thus constitutes an obstacle for investigators and law-enforcement personnel, particularly since they are accustomed to proving crimes through material, physical evidence³⁰.

4. The Dynamic Nature of Electronic Evidence

The rapid transmission of electronic evidence over the internet makes it possible to store information and data abroad through remote communication networks. This results in difficulty tracking and seizing electronic evidence, because addressing this problem requires tracing evidence and carrying out procedural acts outside the borders of the state where the crime was committed. This clashes with the problem of territorial boundaries and jurisdiction³¹.

29 Mohammed Abd Al-Shafi Ismail, *The Principle of the Criminal Judge's Freedom of Conviction*, Dar Al-Manar, Cairo, 1992, p. 165.

30 Aisha Ben Qara Mustafa, same reference, p. 251.

31 Ashraf Abd Al-Qader Qandil, *Criminal Proof in Cybercrime*, Dar Al-Jamia Al-Jadida, Egypt, 2015, p. 227.

5. The High Costs of Obtaining Electronic Evidence

In the field of electronic evidence, experts are often relied upon to deal with this technical evidence in the domain of information technology and the internet. However, such expertise becomes a burden due to the large and substantial expenses incurred in obtaining electronic evidence.

The problem here lies in the nature of the evidence and the costly requirements needed to prove it, especially in the absence of domestic institutions. This makes costs dependent on the global prices set in the financial schedules of those institutions³².

Conclusion

The study has demonstrated that the judge's authority to assess electronic evidence remains a natural extension of the principle of judicial conviction, but it has become more complex due to the procedural reforms of 2025. Electronic evidence does not constrain the judge; however, it requires a higher level of technical scrutiny and legal reasoning.

The future of digital criminal justice in Algeria depends on the judiciary's ability to reconcile technology with safeguards, and freedom of conviction with the requirements of procedural legality. It can be said that the 2025 procedural reforms did not affect the essence of the principle of judicial conviction, but they: strengthened the legal framework for digital evidence, imposed stricter standards for its collection, and increased the technical character of the judge's authority. The danger, however, lies in: excessive reliance on technical expertise without careful examination, weak digital training for some judges, and the possibility of turning technical indicia into unjustified judicial certainty. Therefore, developing judicial training in the field of criminal digital analysis has become an urgent necessity.

Findings

Through this research paper, I reached a set of findings, as follows:

- Proof is the foundation of investigative work; it begins with the occurrence of the crime and continues until the case is referred to the court.
- The evolution of crime into the electronic sphere has led to the emergence of new scientific evidence based on scientific standards known as electronic evidence, which has become admissible within a legislative framework in criminal proof.
- The Algerian legislator did not adopt a policy of enumerating a set of criminal evidentiary means; rather, the foundation of criminal proof is freedom of evidence.
- The acceptance of electronic evidence by the court is affected only by the judge's conviction of the evidence. Accordingly, the Algerian legislator did

32 Ashraf Abd Al-Qader Qandil, op. cit, p. 228.

not include, within the evidentiary provisions of the Code of Criminal Procedure, any legislative texts that would assist the judge in rejecting or accepting electronic evidence.

- Judicial certainty is based on two matters: first, ensuring that electronic evidence was extracted by a lawful method; and second, ensuring that digital evidence is free from tampering.
- Judicial conviction is the basis upon which the criminal trial is built. It is derived from the evidence presented in the case, and the judge may form conviction from any evidence that provides reassurance.
- The principle that a judicial ruling must not be based on any evidence that was not presented to the parties at the hearing is a fundamental principle that criminal court judges must not disregard.
- Conviction is governed by safeguards embodied in the Code of Criminal Procedure, namely that the evidence be within the case file, that it be presented for discussion, and that it be founded on evidence derived from a lawful procedure.
- Electronic evidence is a set of magnetic or electrical fields or pulses that can be collected and analyzed by specialized programs so that it appears in the form of images or audio or visual recordings.
- The legality of electronic evidence in criminal proof is based on two principles: recognition of it by the criminal legislator through a legal foundation enabling the judge to rely on it in forming conviction, and the legality of the method by which it was obtained.
- The principle of free proof in criminal matters is enshrined by Article 212(1) of the Code of Criminal Procedure.
- Enshrining or adopting the principle of free proof led to two matters:
 - The first is the legislator's passive role in the proof process, whereby the legislator refrains from defining in advance the evidence suitable for proof.
 - The second is the criminal judge's active role in proof, which appears clearly in granting the judge: Full freedom to establish the truth, insofar as the legislator allowed the judge to take various measures and procedures to reveal the crime; Full freedom to accept electronic evidence and assess its value, guided by conscience on the one hand and by legal culture and experience on the other.
- One must not confuse the scientific value of electronic evidence with the surrounding circumstances and context. The former is a technical matter that the judge cannot resolve independently and is for specialists, whereas the latter is an area in which the judge may place himself or herself in the position of the expert and express an opinion based on acceptable reasons.

- The principle of judicial conviction means the mental and psychological state indicating that the judge's conviction has reached the level of certainty regarding the truth of a fact that did not occur under direct observation. This is the principle affirmed by the Algerian legislator in Article 212(1) of the Algerian Code of Criminal Procedure.
- The acquisition by electronic evidence of absolute probative value in criminal proof depends on the fulfillment of a set of conditions, summarized in its discussion and evaluation.
- The impact of electronic evidence in criminal proof has long been the subject of doctrinal debate. Some scholars accept its binding probative force, and thus the judge is not free to discuss and assess it; others hold that the principle of the judge's freedom of conviction is based on the judge's authority over all evidence, including electronic evidence.
- Electronic evidence is affected by many problems, whether substantive or procedural, which weaken its value in criminal proof.

Recommendations

- Introduce a scientific module within the curriculum studied by law students, in which they learn modern scientific means of proof in criminal matters.
- Draft a law specifically regulating the subject of proof by electronic evidence.