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The scope of the application of the principle of freedom of proof in electronic commercial contracts

Dr. SLIMANI MOSTAPHA[1], Dr. OTHMANI MOHAMMED[2]

[1]Ahmed Draia University, Adrar, Laboratory of law and society, Algeria, E-mail: **mohammedrayanslimani@yahoo.com**

[2]Ahmed Draia University, Adrar, Laboratory of law and society, Algeria, E-mail: **othmani.mohammed@univ-adrar.edu.dz**

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Abstract:
This study seeks to shed light on an issue arising in the contemporary electronic commercial environment: proof. This environment has emerged alongside the expansion of digital technology into all areas of life, including commerce, buying and selling, and commercial contracts. The speed of performance and contracting is one of the most important features of this field, given traders' pursuit of rapid profit. The study therefore examines whether the principle of freedom of proof can be applied in the electronic commercial environment by comparing it with its application to traditional commercial transactions.

The principle of freedom of proof in commercial matters has been recognised in legislation around the world since this field began to be regulated in its traditional form. However, with the advent of technological and digital expansion, it has become necessary to regulate proof in the new digital environment, applying this principle in a manner suited to its requirements and mechanisms.

Keywords: proof; electronic commercial contracts; the principle of freedom of proof; the digital environment; digital evidence; expert evidence; remote testimony; visual inspection; electronic writing.

Introduction

The principle of freedom of proof in commercial contracts allows the parties involved to substantiate their claims using any lawful method permitted under Algerian commercial law[1]. This can include official and private documents, witness testimony, presumptions, admissions,

[1]- Ordinance No. 75-59 of 26 September 1975 containing the Commercial Code, as amended and supplemented.

expert evidence and inspections. However, the legislature has imposed certain restrictions on this principle. For instance, a company contract must be drawn up in an official document. The pledging of shares and partners' interests in commercial and financial companies, as well as the possessory pledge of a commercial business, must likewise be established by an official instrument.

Additionally, the courts have imposed restrictions such as requiring more than just witness testimony to prove rent payments and stipulating that a person's status as a tenant can only be established by a written contract or rent receipts[2].

The Algerian legislature has added electronic commercial contracts to the categories of contracts requiring notarisation and a written form. Every electronic commercial transaction must be documented by an electronic contract authenticated by the consumer. The electronic supplier is also obliged to send the consumer an electronic copy of the contract and an invoice prepared in accordance with applicable legislation and regulations[3].

The Algerian legislature therefore requires electronic transactions to be in written form, whether as an electronic contract or invoice or a paper-based document. Accordingly, it has established written form as a condition for the validity of electronic contracts, whether commercial or non-commercial, meaning such contracts can only be proven in writing.

Despite the principle of freedom of proof in commercial matters, legislation governing electronic commerce has primarily focused on regulating the proof of electronic contracts. Legislative texts adopted in this area have identified two principal means of proving this type of transaction: electronic documents or instruments and electronic signatures. These are considered reliable ways of overcoming the evidentiary issues posed by such contracts. However, the legislation has not addressed how the principle of freedom of proof is to be applied to commercial contracts concluded electronically. This may be because legislators intend the general rules of commercial evidence to apply, or because they have excluded other means of proof.

However, no legislation has expressly excluded the other aforementioned means of proof in addition to written evidence. Electronic storage media may malfunction, for example, as a result of a virus or cyberattack, causing an electronic document, instrument, or signature to be lost or deleted. In application of the principle of freedom of proof, recourse may therefore be had to all other means of proof. This raises the question, however, of whether non-written means of proof can be applied in the electronic environment.

This study seeks to answer that question through the following sections:

Section One: The Scope for Applying Inspection and Oath as Means of Proof in the Electronic Environment

This section addresses means of proof that cannot readily be applied in an electronic environment.

Section Two examines the rules governing witness testimony, its role and importance as a means of proof, and the possibility of applying it electronically, including the methods and means used to do so.

[2]- Begdar Kamel, 'Freedom of Evidence in Commercial Matters', Law Journal, Issue 3, June 2012, p. 71.
[3]- See Articles 10, 19 and 20 of Law No. 18-05 of 10 May 2018 on Electronic Commerce.

Section Three: Presumptions and Admissions

This section presents different perspectives on using electronic documents as presumptive evidence. It also examines admissions in terms of their nature, characteristics, evidentiary value and application in electronic form.

Section Four: The Use of Expert Evidence to Prove Electronic Commercial Contracts

This section examines the role of expert evidence in proving electronic commercial contracts and the extent to which it can be used electronically.

Section One: The Scope for Applying Inspection and Oath as Means of Proof in the Electronic Environment

Certain means of proof are difficult to apply in the electronic environment due to their nature or that of the relationship involved. The distinctive nature of electronic commercial contracts, the technology they employ and the complex structure of the systems on which they rely — including codes and encryption — make some legally recognised means of proof difficult to use. These include inspection (first) and both statutory and judicial oaths (second).

First subsection: Inspection in the Electronic Environment

Inspection is defined as 'the direct sensory examination intended to establish the condition of an object or person through observation and examination'. It also refers to a judge's or their representative's personal observation of the subject matter of the dispute between litigants, in order to ascertain the truth[4].

By analogy, since judges are specialists in legal matters, it is inconceivable that they should derive conclusions from inspecting electronic media or software, as these inherently require specialists in the relevant fields. Therefore, inspection cannot be used as evidence in electronic commerce.

Accordingly, ascertaining the facts in the event of a dispute relating to electronic contracts, such as website forgery, email impersonation or website hacking, requires the assistance of an electronic expert. This shifts the focus from inspection to judicial expertise, thereby depriving it of its original meaning.

Second subsection: Oath in the Electronic Environment

An oath is defined as 'affirming the establishment or denial of a claim by invoking the name of God in court following a request to that effect'[5]. A judicial oath is 'an oath taken before the judiciary to confirm the establishment or denial of a right by swearing by Almighty God following a request to that effect'[6].

[4]- Dr Mohamed Mustafa al-Zuhayli, 'Means of Evidence in Islamic Sharia in Civil Transactions and Personal Status Matters', Dar al-Bayan Library, Damascus, Syria, p. 590.

[5]- Dr Mohamed Abdullah Ould Mohamedan, 'The Judicial Oath: A Comparative Jurisprudential Study', Arab Journal for Security Studies and Training, Vol. 15, No. 30, November 2000, p. 83.

[6]- Mansour bin Arshid bin Mohamed Al-Majlad, 'The Judicial Oath as a Means of Evidence in Islamic Criminal Legislation' (Master's thesis, Specialisation in Islamic Criminal Legislation, Faculty of Graduate Studies, Naif Arab Academy for Security Sciences, Riyadh, Saudi Arabia, 2002), p. 18.

Thus, an oath involves swearing by the name of God to affirm or deny a fact following a request made by one of the litigants before the court. Oaths are divided into two types:

The first type is the decisive oath, whereby one litigant directs a question to another litigant concerning disputed matters or any related facts, in order to resolve an existing dispute between them. Legislation generally agrees that this oath brings the lawsuit and dispute to an end. It is called a decisive oath because it finally settles the dispute[7].

The second type is the supplementary oath, which the judge directs at one of the litigants when the evidence they have submitted is insufficient. The purpose of this oath is to support the evidence and enable the judge to reach a decision[8].

For an oath to have legal force, several conditions must be met. The person taking the oath must be present at the hearing and the oath must be administered with the court's authorisation. With the court's permission, each party to the dispute may direct an oath to the opposing party. The judge may deem it inappropriate or reject it if there are indications of deceit. The judge also has the discretion to determine whether directing the oath is necessary or whether it should be rejected.

Furthermore, the party directing the oath must have full legal capacity, meaning they must have attained the age of majority and must not be affected by any circumstance or impediment that restricts legal capacity. As for the party to whom the oath is directed, they must have the legal capacity to dispose of the right being claimed. The oath must also relate to the facts of the case. An oath administered during a hearing but relating to another case or different facts shall not be taken into consideration[9].

An oath is more closely associated with religion than law. Transactions in electronic commerce extend beyond national borders and the contracting parties may follow different religions. Consequently, the decisive oath cannot be applied to a contract where one of the parties belongs to a secular state that does not incorporate religion into its laws and commercial transactions, or to a state that does not recognise the oath as evidence. Furthermore, other forms of evidence are widely recognised and agreed upon in all countries, unlike the oath, which remains very limited in this field and therefore reduces its importance.

Second Requirement: Proof through witness testimony (evidence) in electronic contracts

Witness testimony is a means of evidence with limited probative force. Historically, witness testimony constituted the predominant means of proof, as other forms of evidence had weaker probative value. However, technological progress has reduced its evidentiary value, as written evidence has become the most important and strongest means of proof. Nevertheless, testimony continues to have evidentiary value and plays an important role in various transactions. Its legal value and probative force are recognised under different legislations, particularly criminal legislation.

What is meant by electronic testimony? (First Subsection), and how is it presented to the judiciary? (Second Subsection).

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[7]- Qayed Hadi, 'The Decisive Oath and Its Role in Civil Evidence (A Comparative Study)', Karbala Scientific Journal, Vol. 5, No. 2, September 2007, p. 35.

[8]- Anwar Abu Hilal, 'The Oath in Moroccan Civil Legislation: Reality and Prospects', Jil Journal of In-Depth Legal Research, Issue 4, June 2016, p. 73.

[9]- Ismat Abdul Majid Bakr, 'Conditions for Directing the Decisive Oath', Al-Marja' Electronic Information Website, accessed 15/10/2026 at 21:30.

First subsection: The Concept of Testimony and Its Electronic Form

Most legislation permits proof through witness testimony as a means of evidence in certain cases, provided that specific conditions are met for it to acquire legal probative force. In terms of how it is given and performed[10], testimony may be provided through digital electronic technology (Second Subsection). We will examine the extent to which electronic testimony fulfils the same function as conventional testimony (Third Subsection).

Item One: Testimony in General

Testimony is given when a person provides statements concerning facts that they have witnessed or heard. We will address both conventional and electronic testimony.

Proof by testimony is defined as 'proof in which witnesses give statements to the judiciary about what they have seen or heard[11].'

A witness is a person who testifies under oath at a trial or in relation to a fact in a case. The claimant or defendant may also act as a witness. Witnesses must have direct knowledge of matters relevant to the case, and their testimony is subject to the applicable rules of evidence. An ordinary witness is someone who gives testimony based on their personal knowledge of the circumstances of the case or one of its facts[12].

Item Two: Testimony in Electronic Form

We have previously defined conventional testimony, which is given by a witness orally or in writing before the judiciary. However, can testimony be provided electronically (First Item), and how can a witness personally observe an incident documented electronically (Second Item)?

First: Definition of electronic testimony

The term 'electronic testimony' consists of two words: 'testimony' and 'electronic'. As previously defined, 'testimony' refers to statements made by a person concerning events perceived through their senses and relating to a case or one of its facts. The term 'electronic' refers to the use of digital or electronic technology to perform this act.

Electronic testimony is defined as 'informing the court of a right belonging to another person against another person during a court session using electronic means'[13].

In other words, electronic testimony involves providing statements about facts and events that have been personally observed in relation to a dispute or case, using electronic communication technologies.

Second: the electronic witness

[10]- Bennia, A. (2013–2014). Means of Evidence in Commercial Matters. Master's thesis. Specialisation in Business Law. Faculty of Law, University of Constantine, Algeria.

[11]- Hezzam, F. (2017). Electronic Evidence in Civil and Commercial Matters. Doctoral Dissertation, University of Algiers 1. p. 112.

[12]- 'Witness Law and Legal Definition', https://www.law.cornell.edu/wex/witness, accessed 15/10/2026 at 21:30.

[13]- Abdelaziz Ben Saad Al-Ghanem, The Electronic Court, Naif University Publishing House, Riyadh, Saudi Arabia, 2017, p. 119.

Given the nature of electronic contracts and how they are concluded remotely through intangible data messages, it is difficult to determine how a witness can observe them.

Electronic contracts are usually made between traders or between traders and consumers. The presence of a witness during the conclusion of an electronic contract has no effect on confirming that the transaction has taken place. On the one hand, the witness may not be familiar with the technical intricacies of the technology in question, meaning they cannot be relied upon to confirm the conclusion of the transaction. Furthermore, involving another person in communication conducted through secure electronic media may result in the disclosure of secret keys and private codes.

In cybercrime investigations, witnesses are often technicians or specialists in computer systems and networks who, through their expertise, can access electronic systems and media as required by a criminal investigation. Those involved include programming experts, who specialise in developing computer programs, including applications and system software; analysts, who examine electronic operation stages, study data and divide systems to identify functional relationships; and maintenance, telecommunications and system engineers, who control information systems. Witnesses in cybercrime investigations may also include hosting service providers and persons responsible for transferring information[14].

It is inconceivable that witnesses to disputes arising from electronic commerce contracts would fall outside these categories, since the contracting parties may use technology themselves, or resort to technicians and specialists to conclude electronic contracts if they are not familiar with digital devices. It is these technology users and intermediaries who are capable of observing the acts of entering data and clicking buttons to indicate acceptance of offers for the purpose of concluding contracts.

Second Subsection: Methods of Giving Electronic Testimony

Testimony is given when a witness makes statements directly to a judge or arbitral tribunal. The general rule is that testimony is given orally. However, in certain cases, this may be impossible due to the witness's personal incapacity or circumstances preventing them from doing so. Accordingly, this subsection will address testimony through videoconferencing (First Item), testimony through audio recording (Second Item) and the extent of the judge's authority to accept such testimony (Third Item).

Item 1: Testimony through videoconferencing

The term 'videoconferencing' is derived from the linguistic expression 'vidéo conférence'. The word 'vidèo' means television and refers to any visual device that transmits sound and images through electromagnetic waves. The term 'confèrence' refers to a gathering of individuals to discuss a particular subject.

From a terminological perspective, videoconferencing is a technological means of communication that enables audiovisual communication among a group of individuals through the transmission of images, sounds, and various types of information.

Given the time, effort and cost savings offered by this technology, the judicial service is moving towards adopting its use.

[14]- Aïcha Ben Kara Mustafa, 'The Evidentiary Value of Electronic Evidence in Criminal Proceedings', Master's thesis, Specialisation in Law, Faculty of Law, University of Alexandria, Egypt, 2009, p. 79.

Without prejudice to the general rules governing judicial proceedings[15].

The European Convention on Mutual Assistance in Criminal Matters, adopted by the European Union on 30 November 2000, which amended the European Convention on Mutual Assistance in Criminal Matters of 1959, constitutes the legal basis for the use of videoconferencing technology remotely in the judicial field. It authorized its use in remote judicial investigations; however, it restricted such use to hearing witnesses and exchanging expert reports between Member States. This is permitted when necessary, particularly when it is impossible for the witness or expert to travel to the State requesting their testimony. The Convention also requires the consent of the accused when they are being questioned, the existence of an agreement between the two States, and compliance with their respective laws when using this technology[16].[17]

The French legislator has adopted the use of videoconferencing technology, which is regulated by Law No. 98-468 of 17 June 1998 and Law No. 2001-1065 of 15 November 2001. The scope of its application was subsequently expanded under Article 706-71 of the French Code of Criminal Procedure, as amended by Law No. 2009-1436. This amendment authorised the use of videoconferencing technology when necessary due to the circumstances of the case or the investigation. The latest amendment, introduced by Law No. 2016-1636, authorised public prosecutors and investigating judges to use this technology for questioning witnesses, conducting confrontations, presenting pleadings and hearing experts, both within France and between France and another European Union Member State[18].

The United States of America has also made extensive use of videoconferencing technology in judicial proceedings relating to criminal matters and international judicial assistance within the framework of international agreements concerning the use of this technology in criminal matters, concluded between the United States and other countries. Furthermore, most state legislations have adopted this technology for use in both investigations and trials[19].

Testimony obtained through electronic means is recorded in written documents and submitted as evidence.

A complete witness statement, without the need for the witness to sign the document[20].

Under Algerian Law:

Following Algeria’s ratification of the United Nations Convention against Transnational Organized Crime, adopted by the United Nations General Assembly on 15 November 2000, through Presidential Decree No. 02-55 issued in 2002 — which includes the possibility of using technology to combat organised crime among its provisions — Algeria was required to

[15]- Amara Abdelhamid, 'The Use of Remote Video Conferencing Technology in Criminal Investigation and Trial', Studies and Research Journal, Vol. 10, No. 3, September 2018, pp. 59–60.
[16]- Dhebah Ismail, 'Remote video conferencing technology in the justice sector in Algeria', article published on the University of M'Sila website [http://dspace.univ-msila.dz:8080], accessed 13/10/2026 at 00:24.
[17]- Amara Abdelhamid, 'The Use of Remote Video Conferencing Technology in Criminal Investigation and Trial', same reference, p. 63.
[18]- Mahieddine Hassiba, 'Hearing Witnesses through Remote Video Conferencing between the Right to Protection and the Rights of the Defence', Journal of Legal Research and Studies, Issue 10, University of M'Sila, p. 284; Amara Abdelhamid, op. cit., p. 63.
[19]- Amara Abdelhamid, op. cit., p. 63.
[20]- Jordanian Regulation on the Use of Electronic Means in Civil Judicial Proceedings, Adaleh Legal Information Centre website (https://www.adaleh.info/Art.aspx?Typ=2&Id=1202), Article 9, paragraphs (f) and (w), accessed 13/10/2026 at 20:06.

accelerate the amendment of its judicial procedural system and the development of its judicial system, as well as the modernisation of the justice sector, in order to keep pace with other countries' judicial systems and implement the principles of the ratified Convention. Despite the delay in doing so, the adoption of this technology was eventually recognised through the promulgation of Law No. 15-03[21] on the Modernisation of Justice in 2015, which regulated the use of videoconferencing technology in judicial proceedings[22].

Chapter Four of Law No. 15-03 regulates the methods and procedures for using videoconferencing during judicial proceedings. Article 14 specifies the cases in which this technology may be used, where geographical distance or the requirements of the proper administration of justice authorise the investigating judge to use videoconferencing to question and hear individuals, as well as conduct confrontations between them, as set out in Article 15 of the same law[23].

The trial court may also use this technology to hear witnesses, parties and experts. Statements and testimonies are recorded on a secure electronic medium to guarantee their integrity and prevent damage, and are attached to the case file. Subsequently, these statements are transcribed in full and verbatim in an official record signed by the assigned judge and the court clerk. The videoconferencing equipment must ensure confidentiality and security[24].

Hearings, questioning and confrontations are conducted using videoconferencing software from the nearest...

The hearing is conducted at the court closest to where the person providing testimony or statements is located. The hearing takes place in the presence of the territorially competent Public Prosecutor and the court clerk, who verifies the person's identity and draws up a record of the hearing[25].

The first remote trial in Algeria took place at Koléa Court in Tipaza Province on 30 September 2015. The court examined three cases involving defendants held at Koléa Prison for offences relating to the possession of narcotic drugs and bladed weapons. The trial proceedings began with the verification of the defendants' identities through genetic fingerprinting. The presiding judge then requested the defendants' consent to conduct the trial via videoconferencing as a mandatory procedure. The trial was broadcast on screens inside the courtroom to the public[26].

The greatest impact of the pandemic on the judicial field was the activation of electronic communication means. Accordingly, Ordinance No. 20-04 was issued to supplement Ordinance No. 66-155, which contains the Code of Criminal Procedure[27]. Article 441 bis authorised judicial authorities to use videoconferencing technology, provided the means employed ensured

[21]- Law No. 15-03 of 1 February 2015 on the Modernisation of Justice, Official Gazette, Issue 6, dated 20 February 2015.
[22]- Dhebah Ismail, 'Remote Video Conferencing Technology in the Justice Sector in Algeria', op. cit., p. 4.
[23]- Law No. 15-03, op. cit., Article 15: 'The investigating judge may use video conferencing to question or hear any person, and to conduct confrontations between several persons. The trial court may also use remote video conferencing to hear witnesses, civil parties and experts...'
[24]- Law No. 15-03, op. cit., Article 14, paragraphs 2 and 3.
[25]- Mahieddine Hassiba, 'Hearing Witnesses through Remote Video Conferencing between the Right to Protection and the Rights of the Defence', op. cit., p. 286.
[26]- Dhabah Ismail, 'Remote video conferencing technology in the justice sector in Algeria', op. cit., p. 4, based on an article published on the Ennahar newspaper website [https://www.annasronline.com/index.php], 8 October 2015.
[27]- Ordinance No. 20-04 of 30 August 2020 amending and supplementing Ordinance No. 66-155 containing the Code of Criminal Procedure (Official Gazette, Issue 48, 31 August 2020, p. 9).

confidentiality and security of transmission. Article 441 bis 4 also referred to the possibility of delivering judgements via videoconferencing.

Item Two: Testimony through audio recording

Audio recording is a technical process whereby sound waves are converted into vibrations that can be stored using a device that translates sound waves into specific vibrations, which are then recorded on a tape or storage device.

Some legislation has adopted the view that audio recordings constitute a form of documentary evidence, a position also adopted by the English judiciary.

For an audio recording to be admissible as evidence, it must accurately and clearly represent the event in question, providing the judge with certainty regarding the truth of the facts. The judge may seek the assistance of a voice expert to verify the identity of the person to whom the recording is attributed by comparing the voiceprint[28].

Testimony through audio recording is generally applied under witness protection legislation. In this regard, Article 136 of the Code of Criminal Procedure provides:

" The trial court may, either on its own initiative or at the request of the parties, hear a witness whose identity is concealed using technical means that allow their identity to remain confidential. This includes hearing them via videoconferencing and using methods that prevent the identification of their image and voice[29]."

The Algerian legislator has permitted the concealment of a witness's identity and the use of their voice alone when employing technological means or videoconferencing. This is to protect the witness from retaliation by those against whom they have testified.

Such testimony is not considered sufficient evidence in itself, but is taken into consideration for evidentiary purposes alongside other means of proof. This is provided for in Paragraph 3 of the same Article, which states:

'If the identity of the witness is not disclosed, the information revealed shall be considered merely as indications and shall not, in itself, constitute evidence that may be relied upon as a basis for a conviction.'

At the Conference of the Parties to the United Nations Convention against Transnational Organized Crime on 30 October 2013, it was recommended that witness protection measures could include allowing witnesses to testify from behind a curtain or one-way transparent mirror. This would enable the defendant to view the witness's testimony via video link from an adjacent room or allow the witness to testify via an audiovisual connection.

Item Three: The Judge's Authority to Assess Testimony

Although witness testimony is persuasive, it is not binding. Unlike documentary evidence, judges have broad discretion when assessing witness testimony. The judge can decide whether to admit proof through witness testimony, as the case may contain other evidence that, in the judge's opinion, makes witness testimony unnecessary. The judge also has the authority to determine whether the facts to be established are relevant to the right for which proof is sought,

[28]- Hezzam Fatiha, 'Electronic Evidence in Civil and Commercial Matters', doctoral dissertation, op. cit., p. 122.
[29]- Law No. 25-14 of 3 August 2025 containing the Code of Criminal Procedure, Official Gazette, Issue 54, p. 7.

and whether such facts can be proven[30]. The judge has considerable discretion in this regard, as set out in Article 150 of the Code of Civil and Administrative Procedure:

'An order may be issued to hear witnesses concerning facts that, by their nature, may be established through witness testimony and in respect of which an investigation is permissible and useful to the case.'

Accordingly, depending on their conviction regarding the statements made by the witness, the judge has broad discretion in relying on witness testimony as a means of proof, whether or not it is consistent with the circumstances of the case.

However, we believe that electronic testimony may be subject to numerous risks, particularly because it is conducted remotely and not given directly before the judge. Testimony via videoconference may be falsified or intercepted, particularly when conducted online, given the development of electronic software capable of intercepting any audiovisual intervention or transmission. This is further compounded by the emergence of video-editing software capable of modifying and manipulating video recordings.

Furthermore, audio testimony transmitted electronically may present difficulties in verifying the voiceprint, since a person's voice can change due to various factors, such as illness and ageing. Therefore, electronic testimony cannot be relied upon extensively as a means of proof.

Third requirement: Presumptions and admissions

Presumptions are a means of evidence whereby the judge uses deduction and inference to derive the truth from the facts, since it is not directly apparent. This differs from admissions, which dispel doubt with certainty and bring all processes of searching for and inferring the truth to an end. An admission made by a litigant conclusively establishes the facts they have acknowledged. Accordingly, we will address presumptions in the first subsection and admission in the second.

First Subsection: Electronic Documents as Presumptions in Proof

We will consider the nature of presumptions (First Item) and the extent to which electronic evidence can be considered a presumption on which the judge can base a decision (Second Item).

Item 1: The meaning of presumptions

Presumptions are defined as 'the inference of a known fact from an unknown fact, on the basis that the two facts are ordinarily connected in terms of their existence or non-existence'[31].

A presumption is inferential evidence relating to another fact closely connected to the one being proven, rather than seeking to establish that fact itself. By establishing the former, it is possible to infer the latter[32].

There are two types of presumption: legal and judicial. Legal presumptions are those inferred by the legislator from a known fact that they specify as an indication of an unknown matter.

[30]- Mohamed Hizzit, Evidence in Civil and Commercial Matters under Algerian Law, Dar Houma, Algeria, 2017, pp. 189–190.
[31]- Mohamed Nasr Mohamed, 'Means of Evidence in Comparative Legal Systems', Law and Economics Library, Riyadh, Saudi Arabia, 2012, p. 191.
[32]- Mohamed Nasr Mohamed, 'Means of Evidence in Comparative Legal Systems', same reference, p. 136.

Judicial presumptions, on the other hand, are inferences made by a judge based on an established fact chosen by the judge to determine the matter in question.

In this form, legal presumptions constitute provisions that are binding on the judge and the litigants. The judge plays no part in assessing them and cannot extend them by analogy. Their only task is to examine the law: if a legal presumption is found, it must be applied; if not, they may infer one independently, in which case it is considered a judicial presumption[33].

When applying legal presumptions, the judge is subject to the supervision of the Supreme Court. The Supreme Court also reviews whether the presumption is conclusive or rebuttable and whether it relates to public policy.

Item Two: The extent to which electronic documents and electronic signatures may be considered presumptive evidence.

Some scholars believe that presumptions[34], given how they are derived by judges or legislators, are incompatible with the electronic environment. This is because presumptions and their derivation depend on the facts, circumstances and surrounding conditions of a case. Consequently, they cannot be applied to contracts concluded electronically, given their intangible and abstract nature, which relies on intellectual inferences.

However[35], others believe that email can be used as evidence in a court of law to prove an online transaction, since it is ultimately up to the judge to decide whether to accept or disregard it. Electronic signatures and extracts can also be used as presumptions of law, as a judge can infer that an electronic signature belongs to its creator, especially if that person is the credit card holder. However, this presumption is rebuttable. For the judge to make such an inference, they must be familiar with the procedures of the electronic system through which the electronic signature was created and possess expertise in this field. They must also have knowledge of electronic contracting methods.

In our opinion, it is difficult for judges to use electronic evidence as presumptions, since, as previously mentioned, it requires them to have expertise in electronic transactions and exchanges, as well as knowledge of digital devices and electronic communications. This can only be achieved by having specialist judges who have received specific training in this area, but this is not available in most countries' judicial systems. Nevertheless, this may become possible in the future, particularly as the scope of electronic contracts expands and the number of disputes in this field increases.

In this context, the role of the specialised judicial expert becomes important, as they can confirm whether the conditions required for electronic signatures, as stipulated by law, have been met. Through Law No. 26-02[36], which establishes the general rules relating to trust services for electronic transactions and electronic identification, the Algerian legislator affirmed the

[33]- Mohamed Sabri Al-Saadi, Al-Wadih fi Sharh al-Qanun al-Madani (Evidence in Civil and Commercial Matters), Dar Al-Huda, Algeria, 1st edition, 2011, pp. 165 and 170.

[34]- Hazzam Fathi, Electronic Evidence in Civil and Commercial Matters, op. cit., p. 137; Ben Al-Niya Ayoub, Means of Evidence in Commercial Matters, op. cit., p. 179.

[35]- Alaa Radwan, 'Email in Legal Custom', Sout Al-Umma website, accessed 16/10/2026 at 23:10 [http://www.soutalomma.com]; Wasan Kazem Zarzour, 'Electronic Signature as a Means of Evidence in Light of the Provisions of the Iraqi Evidence Law', Resalat Al-Huquq Journal, Year 3, Issue 2, 2011, p. 151.

[36]- Law No. 26-02 of 17 February 2026 establishing general rules relating to trust services for electronic transactions and electronic identification (Official Gazette, Issue 14, 19 February 2026, p. 1).

probative value of the qualified electronic signature in Article 7, providing that the conditions in Article 5 are met.

Second subsection: Admission in the Electronic Environment

Item 1: The meaning of admission and its types

First: The meaning of admission

Admission is defined as 'the acknowledgement by a litigant of a fact or legal act alleged against them'[37]. It is also defined as 'the acknowledgement by a person of a right owed by them to another, whether or not they intend to establish that right as an obligation incumbent upon them'[38].

Under Article 341 of the Algerian Civil Code, the Algerian legislator defined admission as "the acknowledgement by a litigant before the court of a legal fact alleged against them during the proceedings relating to that fact".

It should be noted that this definition is general, as it overlooks the requirements relating to the intention and legal capacity of the person making the admission. Therefore, a statement made by any person with natural legal capacity cannot be considered an admission without taking into account the validity of their intention and legal capacity. Accordingly, admission may be defined as the acknowledgement by a person with legal capacity of a right or obligation towards another person through their own free will.

From these definitions, it is clear that an admission is an acknowledgement by one person to another that the latter has a right or debt owed to them. Admission is therefore an exceptional situation that departs from the ordinary course of things, since the general rule is that it is the debtor who must prove their right against the creditor; with admission, however, the right is acknowledged directly.

Second: types of admission

Admission can be divided into two types: judicial and extrajudicial. An admission made during the examination of a dispute before judicial authorities is considered judicial. Alternatively, it may be made outside the scope of judicial proceedings or in a case that is unrelated to the subject matter of the admission. In this case, it is referred to as an extrajudicial admission.

1. Judicial admission:

This is when a litigant acknowledges a right or fact alleged against them during the proceedings relating to the subject matter of the admission. This is provided for in Article 341 of the Algerian Civil Code[39]. The following conditions must therefore be met for an admission to be considered judicial:[40]

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[37]- Al-Mouatasim Billah Fawzi Adham, Proof of Electronic Contracting, Al-Halabi Legal Publications, Beirut, Lebanon, 2017, p. 156.

[38]- Abdelrazzaq Al-Sanhouri, Al-Wasit fi Sharh al-Qanun al-Madani al-Jadid, Dar Ihya' Al-Turath Al-Arabi, Beirut, Lebanon, p. 417.

[39]- Ordinance No. 75-58 of 20 Ramadan 1395 AH (corresponding to 26 September 1975) containing the Civil Code, Article 341: 'An admission is the acknowledgement by a litigant before the court of an alleged legal fact against them during proceedings relating to that fact.'

[40]- Mohamed Hizzit, Evidence in Civil and Commercial Matters under Algerian Law, op. cit., pp. 198–199.

It must be made before a judicial authority, whether an ordinary or exceptional court or an arbitral tribunal.

It must be made during the examination of the case relating to the fact that constitutes the subject matter of the acknowledged right. This can be done in the statement of claim, memoranda submitted to the court, during pleadings or when questioning the litigant.

2. Extrajudicial admission:

This is an admission made outside of the courtroom or to a judicial authority, or an admission made in another unrelated case. It may be either oral or written. If the admission is oral and the person making it denies making it, the party relying on it must prove that it originated with the opposing litigant. In this regard, they must rely on the general rules of evidence. However, if the admission is in writing, it is subject to the legal rules governing written instruments according to their probative force, whether they are official or private[41].

Item Two: The Application of Admission in the Electronic Environment

As previously mentioned, admission is when the defendant acknowledges the opposing party's right regarding a legal fact that is the subject of the case in front of the judicial authorities. Admission may take several forms. It may be express, whereby a litigant directly acknowledges the opposing party's right by making an oral or written statement. This can be done either before or during the hearing, or as a result of being questioned. Admission may also be implied when it is clear from the context of the statement or its general meaning that an admission is being made. Implied admission is only relied upon within a very narrow scope in civil proceedings[42].

In the electronic environment, however, the manner in which admission is made varies according to the means or software used. It may be made through videoconferencing or in writing via electronic messages and documents.

Firstly: Admission through videoconferencing.

Article 15 of Law No. 15-03 on the Modernisation of Justice states that: 'The investigating judge may use remote videoconferencing to question or hear a person and conduct confrontations between individuals. The trial court may also use remote videoconferencing to hear witnesses, civil parties and experts".

This article establishes the possibility for the investigating judge to question and hear individuals via videoconferencing. The trial judge may also use this method to hear witnesses and civil parties. During the questioning or hearing of civil parties, the judge may obtain an admission from a litigant acknowledging the right of the opposing party or an obligation incumbent upon that litigant towards the latter through videoconferencing.

Furthermore, the accused or litigant may be questioned via videoconferencing from the correctional institution in which they are detained and may make an admission during the questioning. This is provided for in Paragraph 3 of Article 16 of the same Law, which stipulates:

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[41]- M. Rachid Al-Iraqi, 'Methods of Proving Obligations', Judicial Supplement Journal, National Institute of Judicial Studies, Issue 30, 1995, p. 23.

[42]- Yousri Awad, 'The Concept of Judicial and Extrajudicial Admission and Its Forms under the Saudi Law of Pleadings and the Sudanese Evidence Law', Arab Lawyers website, http://www.mohamoon-montada.com, article published on 5 July 2006, accessed on 14 October 2026 at 23:44.

‘If the person being heard is detained, the remote videoconference shall take place from the correctional institution in which the detainee is held...’

Second: Written Admission through Electronic Messages and Documents

Admissions may be made in writing and the law does not specify a particular form. It may therefore be contained in a telegram, letter or other message addressed to the court or opposing party by the person making the admission. It may also take the form of a separate document given to the person making the admission, which they then submit as evidence. Furthermore, it may be included in the statement of claim or in a memorandum submitted by the litigant to the court[43].

Since most legislation recognises the probative value of electronic documents and equates them with ordinary documents, provided the conditions relating to electronic signatures and certification are met, admission may be made electronically through electronic documents in their various written forms.

However, written admission does not have the same probative force as an oral admission made before the court. This is because an admission made before the court is considered conclusive evidence against the person making it as soon as it is made; it constitutes evidence in itself. Written admissions, on the other hand, since they are not made before the court, require other legal procedures, such as verifying their authenticity through handwriting comparisons when their authorship is denied. It therefore lacks the verification that takes place before official judicial authorities.

Fourth requirement: The use of expert evidence to prove electronic commerce contracts.

Recourse to expert evidence is the solution adopted in cases involving a technical or technological element, which the judge may find difficult to interpret or derive legal rulings from owing to his limited knowledge in this field. The law therefore permits the assistance of specialised experts. Expert evidence is a technical means used in relation to the facts of the case or one of its stages.

First subsection: The Meaning of Expert Evidence and Its Probative Value

To examine the role and probative value of expert evidence in proving electronic commerce contracts, the meaning of expert evidence must first be addressed from the perspectives of legal doctrine and legislation. Secondly, the person carrying out the evidence, the expert, must be defined.

Item One: Definition of Expert Evidence

‘Expert evidence is a scientific means of proof carried out by persons with knowledge and expertise, at the judge’s request, to provide an opinion on the disputed matter and reveal the truth, which the judge is unable to establish independently[44].’

The Algerian legislator has not provided a precise definition of expert evidence, merely referring to its function and purpose. Article 125 of the Code of Civil and Administrative

[43]- Abdelmonem Abdelwahab Mohamed, 'Admission as a Means of Civil Evidence: A Comparative Study Between Islamic Sharia and Iraqi Law', doctoral dissertation, specialisation in private law, Saint Clements University, Jordan, 2014, p. 68.

[44]- Abdel Nasser Mohamed Shannour, Evidence through Expertise: Islamic Judiciary, International Law and Contemporary Applications, Dar Al-Nafa'is Publishers, Jordan, 1st edition, 2005, p. 39.

Procedure states that: ‘Expert evidence aims to clarify a purely material, technical, or scientific fact for the judge.’

Accordingly, proof through expert evidence may be defined as judicial authorities’ recourse to specialists in a field related to the case’s subject matter, to clarify a material and technical fact for the judge.

An expert is a person with extensive knowledge and skills in a scientific, technical or practical field whom the judge calls upon to clarify matters within their area of expertise[45].

The Algerian legislator has regulated the profession of judicial expert under Executive Decree No. 95-310, which establishes the conditions and procedures for registration on the lists of judicial experts, and specifies their rights and duties. Judges are required to appoint individuals from the registered lists of judicial experts, whose registration is subject to the conditions set out in Articles 4 and 5 of Chapter Two of the same Decree.

Item Two: The Probative Value of Expert Evidence and the Extent to Which It May Be Used to Prove Electronic Contracts

Expert evidence has always played, and continues to play, an important role in assisting the judiciary in understanding certain technical and technological aspects that require individuals with specialized knowledge. Expert evidence has therefore been relied upon throughout the ages to prove many cases. It has been used in handwriting comparison and the detection of forgery. Medical expertise has also been used to establish lineage, detect harmful and chemical substances used in crimes, and, more recently, decode symbols and codes used in cases of electronic fraud and deception.

First: The Probative Value of Expert Evidence in the Field of Proof

The judge is not bound to adopt the findings of the expert report, since the expert’s opinion is advisory and does not bind the court or restrict its judgment. An expert report does not constitute conclusive and decisive evidence; rather, its assessment is subject to the judge’s discretionary authority, allowing him either to adopt or reject it. This is provided for in Article 144(2) of the Algerian Code of Civil and Administrative Procedure, which stipulates that: “The judge is not bound by the expert’s opinion; however, he must provide reasons for rejecting the findings of the expert examination.”

The judge’s discretionary authority therefore allows him to adopt the expert report as evidence. The court may also divide the expert’s opinion, adopting the parts that reinforce its conviction, or reject it entirely. In both of the latter cases, the law requires the court to state the reasons for disregarding the expert report or part thereof. The judge may also summon the expert before the court for discussion if it becomes apparent that there is ambiguity in the findings of the expert examination. Furthermore, the judge may rule that the expert examination is invalid if it is found to be unsound or contrary to public policy and general rules[46].

Second: the extent to which expert evidence may be used to prove electronic commerce contracts.

[45]- Dr Abdelrazzaq Ahmed Al-Chaiban, 'Judicial Expertise Procedures and Their Role in Evidence', Journal of the Faculty of Law for Legal and Political Sciences, Vol. 4, Issue 15, 2015, p. 428.
[46]- Massoudan, Fatiha. 'The positive role of the judge in judicial expertise (in accordance with the Code of Civil and Administrative Procedure)'. Journal of Legal Studies, Vol. 3, No. 2, p. 14.

The particular nature of contracts concluded via electronic means of communication makes them difficult to prove. Verifying the authenticity of electronic documents or signatures requires the involvement of technical experts specialising in digital technology, such as electronic certification and authentication bodies. Given the constant evolution of technology and computer software, it is difficult to envisage a judge being able to easily examine electronic documents and signatures. Some software programmes and electronic systems may be updated several times within a short period. Furthermore, electronic forgery and counterfeiting software has become so advanced that it is difficult to detect even for experts.

Therefore, it can be said that disputes arising from electronic commerce contracts are among those that most require technical and technological expertise in communications.

Technological development, the introduction of digital technology into the justice system, and the use of remote electronic litigation have made it possible to hear witnesses and receive expert testimony remotely. Judicial authorities in one State can now request that a person located in the territory of another State be heard as a witness or expert, within the framework of agreements, by means of video technology, whenever the physical appearance of the witness or expert concerned is not possible. This was referred to in Article 9(1) of the Additional Protocol to the European Convention on Mutual Assistance in Criminal Matters[47].

Second subsection: The Legal Status of Experts before the Judiciary

There is disagreement over the legal status that an expert may hold before the judiciary. Some consider the expert to be a witness who provides testimony on the results of examining technical and specialised matters at the judiciary's request. One piece of legislation that has adopted this approach is English law, which does not recognise the system of expert evidence. However, this opinion has been criticised on the grounds that an expert cannot be considered a witness since a witness is an ordinary person who has personally observed the incident and is not required to possess the technical or specialised qualifications required of an expert.

Another approach considers expert work to be a form of judicial assistance and a procedural measure since experts provide their expertise at one of the stages of proceedings to help judges assess the evidence. This view is supported by the fact that judges are free to decide whether to use expert evidence and are not bound by the findings in the report[48].

A third approach considers expert evidence to be an independent means of proof, requiring specialised knowledge and qualifications to establish a disputed fact[49].

'French legal doctrine considers expert evidence to be an ancillary procedure within the framework of an incidental dispute. That is to say, it is an objective in itself but is established to serve the investigation of the principal dispute from which it cannot exist independently. It is subject to the general principles governing investigative measures, and the judge has the

[47]- Draft Second Additional Protocol to the European Convention on Mutual Assistance in Criminal Matters, Article 9(1), 'Hearing by videoconference': '1. If a person in the territory of one Party is to be heard as a witness or expert by the judicial authorities of another Party and it is inappropriate or impossible for them to appear in person, the latter Party may request that the hearing take place by videoconference in accordance with paragraphs 2 to 7.' Accessed on 15/10/2026 at 23:10 from https://rm.coe.int/09000016804f87db.

[48]- Hassani, S. (2013). The Judicial Expert in Civil Matters. Master's Thesis. Specialisation in Professional Liability. Faculty of Law and Political Science. Mouloud Mammeri University, Tizi Ouzou, Algeria. P. 28.

[49]- Hassani, S., The Judicial Expert in Civil Matters, same reference, pp. 28–29.

discretion to order or decline such a measure, either at the request of the parties or of their own accord.[50]"

Regarding the positions adopted by national legislation, the Italian legislature was among the first to authorise the use of remote videoconferencing in conducting certain criminal procedures during investigations and trials, pursuant to Decree No. 306 of 1992, which set out the procedures for using videoconferencing technology in criminal investigations. This enabled judicial authorities to hear witnesses and receive statements from individuals cooperating with the justice system in the fight against mafia organisations. The Italian Code of Criminal Procedure was also amended under Law No. 11 of 1998 to align with the use of this technology in trial proceedings and investigations involving dangerous criminals.

Conclusion:

In summary, the foregoing demonstrates that the electronic environment and the activities conducted within it have specific characteristics at every stage of the contracting process, from the initial offer and negotiation to signing the contract and final delivery. Each of these stages differs partially or entirely from its traditional counterpart.

Remote transactions place the two parties outside the customary contractual setting, meaning neither party can inspect the other. This complicates the process of providing proof, as well as the application of the principle of freedom of proof in electronic commercial transactions, and the adaptation and implementation of means of proof in electronic form that are consistent with the requirements of the electronic domain. Accordingly, some means of proof can be applied, while others cannot due to their specific nature and conditions.

Nevertheless, the electronic environment is exposed to several risks that are increasing day by day in parallel with innovation and technological development, making it less secure than the traditional contracting environment. The risks of hacking and falsification are increasing at an alarming rate.

The most serious threat to electronic commerce is the inadequate protection against cyber threats. Therefore, contracting parties in the electronic environment must exercise caution and implement electronic security measures, while states must adopt more robust security measures. Despite technological progress in security measures, including two-factor authentication, threats remain. The application of means of proof must therefore take into account the specific characteristics of each means.

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[50]- Hassani, S., The Judicial Expert in Civil Matters, op. cit., p. 29, quoting Cléo Leclercq, Éléments Pratiques de Procédure Civile et Modèles d'Actes, 2nd ed., Brussels, 1993, p. 129.)

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