

Electronic Litigation as a Substitute for Traditional Litigation

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Abstract

This research paper aims to clarify the concept of electronic litigation and the extent to which it is adopted as an alternative to traditional litigation within the judicial field. It also highlights the difficulties and challenges the state faces in adopting electronic litigation.

Electronic litigation is one of the recent developments intended to facilitate and accelerate justice and judicial proceedings. It refers to the use of technology and communication systems to conduct court sessions remotely, without the need for the parties to be physically present in an official legal venue.

Given its advantages for both litigants and members of the judiciary and their assistants, the Algerian legislator is not immune to adopting this approach in judicial practice — an approach that many countries worldwide have embraced.

Keywords: electronic litigation, modernisation of justice, quality of judicial work.

Introduction:

Electronic litigation (e-litigation) involves applying judicial procedures electronically to achieve faster case resolutions and facilitate procedures for litigants. Accordingly, many contemporary countries have adopted it due to its advantages and the benefits it offers in terms of simplifying procedures for those involved.

The Algerian legislator has been influenced by the various efforts made by countries to improve and modernise the justice sector, with a view to strengthening the rule of law and advancing the field of justice, making it more effective in carrying out its functions.

Furthermore, the term ‘electronic litigation’ is a relatively recent development. Initially, it appeared to lag behind ongoing developments in the judicial field compared to some Anglo-Saxon countries in particular.

In this regard, Law No. 15/03 of 10 February 2015 on the modernisation of the justice sector is pivotal in implementing this type of litigation in Algeria. However, the exceptional health circumstances imposed by the pandemic played a negative role in delaying the adoption of electronic litigation in Algeria and some other countries around the world¹.

The aim of electronic litigation is to improve the quality of judicial work, reduce the burden on judges and lawyers, and save time and effort for those involved.

The subject of electronic litigation in Algeria raises the following problem:

To what extent can electronic litigation be applied in criminal courts, and what obstacles does it face?

To address this issue, we adopted the descriptive method to clarify the concept of electronic litigation, its characteristics and the conditions for its implementation.

We have also used the analytical method, through which we analyse the relevant legal texts on electronic litigation contained in Algerian legislation.

Additionally, we employed the comparative method to compare the criminal provisions in Algerian law with those in other legal systems.

Chapter One: The Concept of Electronic Litigation

In order to clarify the concept of electronic litigation, it is necessary to define it, identify its characteristics and determine the conditions for applying this technique. This will be explained in the following three sections.

Section One: Definition of Electronic Litigation

Electronic litigation involves transferring court documents to the court electronically via email. The relevant clerk examines these documents, either accepting or rejecting them, and notifies the litigant of the outcome.

However, this definition has been criticised for being incomplete and insufficient since it reduces electronic litigation to the narrow concept of transferring or submitting documents to the court by email, without addressing the other procedural steps that can be carried out remotely.

Another definition considers electronic litigation to be the authority of a specialised group of regular judges to hear a case and conduct judicial procedures through newly developed electronic means within an integrated, information-based judicial system involving all parties and tools.

In jurisprudence, electronic litigation is defined as the competence of a specialised group of regular judges to hear a case and carry out judicial procedures using innovative electronic means within an integrated judicial system involving all parties and tools².

Jurisprudence also defines it as As'ad Fadil Mandil does: 'obtaining judicial protection through the use of electronic means that assist the human element, through technical procedures that ensure the achievement of litigation principles and guarantees, alongside legislative protection for these procedures, consistent with the general rules and principles of the Code of Civil and Procedural Law, while taking into account the special nature of electronic means'³.

Section Two: Characteristics of Electronic Litigation

Electronic litigation represents the transfer to a new, technical, information-based judicial system that allows litigants to register their cases and attend court hearings, with a view to reaching a judgment and implementing it, through electronic means of communication. This is done using computer devices connected to the Internet network, and via email.

Accordingly, when a litigant or lawyer wishes to submit a claim electronically, they select the relevant statement of claim form via the electronic portal of the court in question. The portal provides several pre-prepared templates, and the user only needs to fill in the required data and supply all the necessary information to file the case. This includes the names, addresses, phone numbers and email addresses of the parties involved. The portal is available 24/7. The submitted documents are received by the company managing the portal, which then forwards them to the

relevant court. A designated employee of the court, who is trained in using the technology and dealing with the portal, receives the documents, examines them and decides whether to accept them. The litigant is then informed via electronic message of the court's decision regarding the documents.

The most significant feature of electronic litigation is that no paper documents are used in any of the procedures or communications between the parties to the litigation, which all take place electronically. This aligns with the purpose of establishing such platforms: to create a community of paperless transactions⁴.

Another distinctive feature of the electronic litigation system is the use of electronic means, primarily computers connected to international communication networks (the internet) or external communication networks. These tools transmit information instantaneously, regardless of geographical distance, enabling the parties to hear statements, exchange written submissions (memoranda) with each other and their representatives, and hear witness testimony or conduct questioning of the parties⁵.

Section Three: Conditions for Applying Electronic Litigation

A review of the Additional Protocol to the European Convention on Mutual Assistance in Criminal Matters reveals that international law imposes a set of conditions for the application of electronic litigation. The most important of these are as follows:

1) Non-conflict with the law of the executing state: Firstly, electronic litigation must not conflict with the law of the state in which execution is sought. In this regard, paragraph two of Article 9 of the Additional Protocol requires that the use of electronic litigation techniques does not undermine the fundamental principles of the executing state's law. Thus, the executing state may consider that allowing such a technique could result in the disregard or undermining of the fundamental principles of its domestic law, particularly since jurisdiction would not rest with that state in practice.

2) Availability of means and technical capabilities: Secondly, the relevant state must have the necessary resources and technical capabilities to carry out electronic litigation. Article 9 of the Additional Protocol recognises the necessity of providing the requisite technical facilities to enable the executing state to implement the procedure. The executing state is also authorised to refuse the use of this technique if it does not possess the appropriate equipment, taking into account financial considerations. Furthermore, the requesting state may be asked to provide assistance, for example by offering equipment or expertise needed to use the technique, either on loan or as a donation.

3) Limiting electronic litigation to the hearing of witnesses and experts: Thirdly, electronic litigation is only used for hearing witness and expert testimony. Although the overall process relies on modern technology and the internet, in practice it is limited to hearing witness testimony and expert statements. This enables the judicial authorities of one contracting state to request the testimony of a person located in another contracting state, provided it is established that it is impossible or otherwise inappropriate for the person to appear in person before the first state. This is in accordance with paragraph one of Article 9 of the Protocol.

By limiting the technique to hearing witnesses and experts, it can be seen that the drafters sought to avoid legal complexities at an international level, particularly those related to jurisdictional issues⁶.

Chapter Two: Means of Electronic Litigation

These means are determined by two components: legislative means and technical means

Section One: Legislative Means

Legislation is one of the most important tools in electronic litigation, contributing to the process. By 'legislation', we mean a set of written legal rules issued by the relevant state authority — namely, the three recognised branches of power, including the legislative authority.

For legislation to be binding, it must be compatible with the state of scientific and technical progress, particularly with regard to the use of modern communication technologies for implementing electronic litigation procedures via the international communications network. This cannot be achieved without either eliminating traditional rules and issuing new legislation to regulate these procedures or developing and adapting existing traditional jurisdiction rules. Additionally, it is necessary to select the appropriate rules to apply to electronic litigation procedures, from filing a statement of claim via the competent court's electronic website or email, to the issuance of a judgment or decision.

For instance, an electronic contract concluded via the internet is standard and falls within the category of distance (remote) binding contracts. Its distinguishing feature is the means by which consent is expressed: the parties exchange agreement remotely through electronic offer and electronic acceptance. The content of these does not differ from traditional offer and acceptance, only the means by which they are communicated. The same applies to acceptance. In light of technical developments and the decline in the importance of paper documents, scientific techniques have entered the field of law in general and the judiciary in particular. Consequently, new terms have emerged, such as 'electronic writing', 'electronic signature', and 'electronic document or instrument'.

Accordingly, the legislator had to address this development by reconsidering existing legislation or introducing new laws to cover electronic transactions, e-commerce and electronic documents. As scientific technologies spread and are used to form contracts, the concept of 'writing' is no longer confined to traditional methods such as handwriting or printing.

Instead, the term 'writing' has acquired a broader, more modern meaning, extending to writings generated through advanced technical means, particularly those produced by computers connected to global information networks. Consequently, the term 'electronic writing' has become widespread, and electronic documents must be signed by a person or entity with the necessary authority.

In this context, 'signature' refers to an electronic signature. To authenticate the procedures of this form of litigation, the document must be registered in a dedicated electronic register using a technical tool that exchanges computer-language information, i.e. electronic messages. These messages are then stored in the electronic register for future reference.

Therefore, electronic litigation requires a legislative basis that derives the courts' authority to hear cases and issue decisions and judgements based on these procedures. Such decisions carry binding force independently of paper documentation. This is because technological advancements in modern communication and information technology have made a new form of writing and electronic signature possible. These messages can be loaded onto electronic media through the exchange of data messages over the Internet.

Therefore, advanced technical tools that perform the function of signing are necessary, as well as a move away from a paper environment, while ensuring that these tools authenticate the electronic message. This technology can be used to authenticate electronic administration and consequently the electronic contract through electronic signature.

This requires re-examining existing legislation in all countries in order to respond to this technological transformation in society and align with new scientific technology that has entered all areas of life. The importance of legislation for this system is clear, as it serves as a cornerstone and a legally grounded mechanism for implementing the procedures of this modern system using advanced technical tools, keeping pace with developments and investing in them to achieve justice and keep up with more advanced countries⁷.

Section Two: Technical Means

Historically, legal relationships were conducted primarily in the tangible, physical world using traditional technical means, mainly paper-based methods. Over time, however, this balance has shifted, and modern technical means have emerged in response to developments in the modern world, the most prominent of which is electronic technology and modern communication methods based on the internet and its supporting infrastructure. This has created the need for electronic judicial bodies to help reduce distances and remove all kinds of barriers between parties to legal proceedings.

The Internet is now a phenomenon with social and cultural effects throughout the world. It has led to the modification of traditional concepts in several fields, such as work, education and commerce, and has given rise to a new type of society: the information society. Moreover, as the Internet becomes increasingly legitimate and widely used, geographical and political borders are breaking down, turning the world into a small “village”. This vast expansion of legal relationships in connection with the Internet’s use prompts us to study its nature.

The Internet is essentially a set of interconnected computer networks consisting of computers linked worldwide that exchange data through packet switching following unified Internet protocols. It provides many services, including the World Wide Web, communication technologies, email and file transfer protocols.

The internet is based on a simple design principle, whereby the initial function is to deliver a digital message between two nodes, each of which has a distinct address. This is achieved using store-and-forward mechanisms across multiple intermediate nodes between the sending and receiving nodes. This means that the route the message will take cannot be predicted in advance. Furthermore, the message can be divided into parts, each of which can take a different path and arrive at the destination in a different order to that in which they were sent. In such cases, the receiving node(s) must reassemble the message in the correct order.

The Internet makes no prior assumptions about the nature, content or purpose of the message, or how it is to be used. It does not attempt to process the message or its content beyond what is required to deliver it between two points. In practice, this processing occurs in the application layer above the transport layer. Accordingly, added value lies at the endpoints of the network, not in its ‘core’, which consists of routers that do not distinguish between messages, whether they are carried in emails, video segments, data for any application or any other service built on top of the Internet network.

This data-delivery infrastructure is used by many applications, including email, file transfer, video, image sharing, conversations and chats, as well as many other services. Any digital data can be transmitted through this infrastructure.

The internet itself contains no information; rather, it is a means of transmitting information stored in files or documents from one computer to another. Therefore, it is a common mistake to say that ‘information exists on the internet’. The correct statement is that information exists through the use of the internet.

One of the Internet’s most distinguishing features, upon which it was designed, is its lack of a central node or location through which all communication lines must pass. This means there are multiple alternative routes: when you send information across the network, the route is only determined during transmission depending on the extent of congestion in the lines. If a line fails, another functioning line is used instead.

However, this technical decentralisation has not been fully reflected in the network’s administrative dimension. The body responsible for issuing internet addresses, referred to as ‘Internet governance’, operates indirectly under the oversight of the United States of America and manages the core nodes in many countries worldwide⁸.

Third Requirement: The Electronic Court

In order to implement electronic litigation procedures, a court operating using electronic means is required. Through this court, a panel of judges will examine and rule on lawsuits in a legal capacity.

This requires legislation authorising judges to carry out these functions directly through advanced modern technologies for litigation files, through which judicial procedures will be recorded.

Consequently, litigation through the electronic court is one of the pillars of electronic litigation. It is an information technology framework that enables litigants to register their cases, submit evidence and attend hearings electronically in order to obtain and implement a judgment. This framework is part of an information system that enables judges to communicate with parties remotely and conduct litigation, investigations and witness hearings — particularly across international jurisdictions.

From this standpoint, we will present the concept of the electronic court.

Firstly, the United Nations Human Rights Committee, which is concerned with human rights, described the right to a fair trial before an independent and impartial court as an absolute right that cannot be subject to any exceptions.

In language, the word “court” is derived from the root “to judge” (hukm), meaning adjudication and justice, and protecting people from oppression and injustice. A ‘court’ is also the place where judgements are issued, and where the body responsible for judging convenes.

In resolving disputes between people, the court has also been defined as the judicial authority responsible for deciding cases in general. Some contemporary scholars refer to it as a judicial council or any other body vested with the power to adjudicate cases submitted to it.

In legal terms, a court is a place where disputes between parties are brought and litigated. It falls under the judicial authority, which is considered to be completely independent of the other two branches of the state: the legislature and the executive. The judicial authority is independent

of the legislative authority, which is represented by parliament (both chambers), and of the executive authority, which is represented by the government.

The judicial system varies from one country to another. In some countries, a system of juries is used, while in others it is not. Each system has its own philosophy regarding the concept of justice and how it is implemented.

In addition, a unified judicial system may apply, whereby a committee of judges — headed by one of them — adjudicates cases in courts that do not include juries, whether the cases are civil or criminal. These courts are allocated cases according to a set of controls approved by the legislator, ensuring each court can deliver a fair judgment on disputes within its jurisdiction.

Furthermore, taking into account the geographic size of the state, the legislature sets specific rules for establishing and publicising the courts, and for distributing work among them at a national level. This is intended to facilitate access to the courts when the law is violated⁹.

Third topic: Procedures of Electronic Litigation

This section addresses the nature of electronic lawsuits, how pleadings are conducted within them and the issue of proof in this type of lawsuit through three separate requirements.

First Requirement: The nature of the electronic lawsuit

Few legislations provide a definition of a lawsuit, instead leaving it to other sources, most notably jurisprudence (scholarly doctrine), because it is difficult to formulate a definition that is both comprehensive and conclusive and that fully captures the concept of a lawsuit. The lawsuit occupies a middle position between procedural law and civil law. It is the general means by which legislators seek to protect the rights recognised in most legal systems, regardless of their type.

In essence, a lawsuit is derived from the root meaning of ‘to claim’ or ‘to assert a demand’. It is a mechanism available to individuals, whether natural or legal persons, to protect their rights. This “right” is a characteristic granted by law to a person and protected as a legal position.

A lawsuit comprises several elements: the parties, the subject matter and the cause. There are also conditions for acceptance, including those related to the parties, such as capacity, standing (*locus standi*/interest), and legal capacity/quality.

An electronic lawsuit can be defined as the authority to resort to the judiciary to obtain a ruling on, or to protect, a substantive right. However, it differs from an ordinary lawsuit in that it is initiated and processed electronically via the internet.

In general terms, an electronic lawsuit can be defined as the authority to seek judicial protection by enforcing a rule established in the legal system through electronic means. For example, this can be done by writing and submitting a statement of claim to the competent court via the internet.

The elements of the electronic lawsuit are similar to those of a classical lawsuit, with the plaintiff being the first element. In both types, the plaintiff asserts an entitlement or right on behalf of another person. Electronic means are simply the specific tools used by the parties or the judge within the judicial process, and they have no effect on defining who the plaintiff is.

The plaintiff must have legal capacity, meaning they are legally fit to be granted and exercise rights personally, whether through legal acts or judicial actions related to those rights. The second condition is standing, or capacity to litigate, which refers to the plaintiff’s position in the lawsuit. These two conditions can be verified in the electronic lawsuit, even if the plaintiff

does not appear in person at the court. This is achieved by submitting the claim from the plaintiff's personal computer via the electronic court portal using a digital signature that verifies the plaintiff's identity, legal capacity and standing. The digital signature functions as a certification mechanism that confirms these matters.

There is also no difference in this regard between the electronic lawsuit and the traditional lawsuit as far as the defendant is concerned. In both cases, the defendant is the person who causes harm to the plaintiff or unlawfully deprives them of a right. Electronic means are merely specific tools used by the parties or the judge in the judicial process, and they do not affect the identification of the plaintiff or defendant.

The legislator has set out two conditions for the defendant: Legal capacity, and valid legal standing in the lawsuit.

The subject matter of the electronic lawsuit is assessed by reference to that of the traditional lawsuit. The same conditions applicable to the ordinary subject matter under the procedural rules govern it.

The procedure for filing an electronic lawsuit requires certain technical procedures, namely that the electronic lawsuit be supported by technical requirements on the plaintiff's computer in order to submit the case to the competent judicial authority (including criminal jurisdiction, as mentioned in your text). To file a lawsuit, the applicant must therefore have:

- a computer connected to the internet;
- a web browser to access websites and forms for handling online documents;
- software capable of reading files and images introduced via a scanning device (where 'optical/laser scanning' is used);
- a scanner¹⁰.

After that, the electronic lawsuit proceeds through a number of judicial steps before reaching the electronic court.

The first stage is the registration of the electronic lawsuit. This is carried out using modern software systems, so the plaintiff does not need to attend the court in person. At this stage, the lawsuit is filed electronically via the internet through an electronic document transmission system and accepted.

It is an electronic system that establishes communication channels between litigants and the court via the electronic window. Case documents are accepted electronically through this window, and judicial fees can be paid electronically. The competent court officer confirms and accepts the payment via the electronic window.

Data is exchanged electronically using computer language and legal specifications through the creation of an electronic filing system. This system unifies the management of lawsuits across different courts.

Accordingly, litigants can file lawsuits using their personal computers and an internet connection by following certain procedural steps, such as entering the electronic court's official website and submitting lawsuits at any time of the day or week. The portal provides a user guide explaining how to use it, as well as different templates according to the types of cases the court hears. These templates include the documents and papers required to file the lawsuit. Litigants

may also use a specialised company to transfer electronic documents, as is done in the United States of America.

Second stage: Review of the Electronic Pleadings

This stage involves reviewing the electronic lawsuit papers. Once the necessary data for the statement of claim has been entered, the relevant clerk registers it in an electronic record in the court's database. The clerk also sends the litigant or their lawyer a notification email indicating acceptance of the filing.

If the filing is not accepted, the clerk specifies the reason for refusal and indicates the procedure to be followed to resubmit the documents for acceptance. Reasons for refusal include failing to pay judicial fees or submitting a statement of claim containing data that violates public order or public morals, or that is inconsistent with what the system permits.

Third stage: Conducting electronic judicial notifications

The third stage involves conducting electronic judicial notifications. Once the registration process has been completed, the judicial fees have been paid and the plaintiff's identity has been verified, the case moves to the stage of performing electronic notifications. If these notifications are not carried out and published correctly, it becomes impossible to conduct the pleadings, which may result in the lawsuit not being decided.

As for the method of notification/service, this is carried out electronically via email or mobile phone through access to the court's website¹¹.

Second requirement: Pleadings in an Electronic Lawsuit

In electronic lawsuits, pleadings refer to the oral statements made by the parties or their representatives during court hearings. This includes hearing the parties' or their legal representatives' statements regarding the claims and requests submitted to the court, as well as the defence arguments and supporting grounds raised before it.

Generally, pleadings are the statements made by a person (or their representative) seeking a right in the presence of a judge, in order to obtain a favourable ruling. Therefore, electronic pleadings are the statements and procedural actions expressed by the parties or their representatives during hearings using modern technological tools.

The general rule is that both the complainant and the respondent (the accused or victim) must attend hearings in person or be legally represented, so each party has the opportunity to present their defence and submissions. However, one of them may fail to attend for some reason.

For this reason, like comparative legal systems, the Algerian legislator has arranged certain procedures in cases where the accused or the victim does not attend¹².

As this is an electronic lawsuit, there is no need for the parties to attend the hearing in person. They can be present via technical means over the internet. However, if the case requires the parties to appear in person and one of them fails to do so, the electronic court may apply the provisions relating to default/failure to appear.

Electronic means may also be used in cases where it becomes impossible for either party (the accused or the victim) to attend and where, in the opinion of the court, their physical presence is not required. In particular, victims are expected to submit their requests in writing. If the victim can access the electronic court portal, they can submit these memoranda to the judge, who can then share them with the other party.

Electronic Judicial Decision

As for the electronic judicial ruling, it is known that a judgment is divided into four parts:

- the preamble (opening section),
- a summary/brief of the facts,
- the reasoning/explanation (justification),
- Finally, the operative part (the ruling/disposition).

The electronic judicial decision also has certain characteristics, the most important of which are:

Firstly, issuing an electronic judgement is much faster than issuing a traditional judicial judgement due to the extensive capabilities provided by modern technology, particularly with regard to the speed of saving and retrieving information. Secondly, the case file contains all the details of the lawsuit, including its documents and supporting papers, enabling the judge to review them easily and efficiently.

Secondly, if the case is considered or decided by more than one judge, the confidentiality requirements are met in the issuance of the electronic judgement. This is because the judges work within one court and conduct their deliberations in the traditional manner. Furthermore, if a judge is required to travel on official business outside the court, the judges can still conduct their deliberations. The electronic reading of the draft judgment may be carried out via an electronic medium that enables voice and video communication between the judge and their fellow judges via an encrypted, secure channel, ensuring the confidentiality of deliberations and protection against hacking.

Thirdly, electronic judgements enable judges to search and consult legal references, collections of judicial decisions and prior rulings on the court's website quickly and at any time, eliminating the need for travel. This enables the judge to provide proper and professional reasoning in the judgment.

Fourthly, the parties to the lawsuit can access the file on the court website to view the judicial ruling and the procedures for appeal and contestation via a confidential code assigned to them. Alternatively, the ruling can be sent with the relevant procedural information for filing an appeal by email or text message, informing the parties of the issuance of the judgment and the method for challenging it.

Third requirement: Proof in Electronic Litigation.

It is a well-established principle that traditional adjudication relies on paper-based evidence to prove the existence of transactions. In this context, a document is not considered a complete means of proof unless it is signed by hand. In electronic litigation, however, proof is achieved through an electronic document supported by an electronic signature.

Thus, the electronic document formalises the rights of the two contracting parties. It serves as a reference for determining what the parties have agreed upon and defines their legal obligations.

In language, proof conveys the meanings of knowledge, continuity and stability. Accordingly, in language, proof means providing evidence to support an argument regarding a given matter. In legal jurisprudence, proof means presenting evidence to a judge in the methods and procedures established by law concerning the existence or validity of a disputed legal act which can serve as a basis for a claimed right.

The legal organisation of proof, considered in light of the content of the legal rule and the nature of the subject matter it regulates, falls into two categories: substantive and formal rules.

Methods of proof fall into two categories: ordinary and extraordinary. Ordinary methods include written evidence, witness testimony and presumptions, whether judicial or legal. Extraordinary methods consist of acknowledgement and oaths, whether decisive or supplementary¹³.

If we consider proof by means of documents (i.e., written instruments), we find that, with respect to traditional documents, there are two types. The first type is official documents, which are those that are evidenced by the general officer (public employee) or the person assigned to perform a public service, regarding what took place before them or what they received from persons concerned, in accordance with the legal formalities, within the limits of their authority and competence. The second type is customary (informal) documents, meaning any document drawn up by persons among themselves without the intervention of a public officer, and whose probative force is based on the mutual signatures exchanged between the two parties.

The electronic document is a modern concept that has emerged in the field of electronic transactions and become widespread in recent times. Given its importance in this area, we will address its details below.

We can define an electronic document as any document written in electronic form and signed electronically.

For the electronic document to have full evidentiary force, analogous to official documents, it must meet the legal conditions, as well as the legislator's specified conditions.

Regarding the writing condition, it must indicate the document's intended purpose, and no special formal condition is required. There are three conditions that must be met by electronic writing: the first is that it must be readable and understandable. Secondly, it must have the character of continuity so that it can be referred to whenever circumstances require it. Thirdly, the writing must not be capable of alteration except through the destruction of the document or the creation of a material trace.

Although the electronic signature is a social necessity protected by law, the concept remains ambiguous due to the lack of clear scholarly and legislative perspectives.

Given the widespread use of electronic information processing systems, it is clear that a handwritten signature is not compatible with modern systems of administration and accounting. Furthermore, hacking activities targeting computers and attempts to breach electronic devices, as well as the spread of viruses, may lead to damage to these devices and breach their contents¹⁴.

For this reason, there has been a shift towards seeking an alternative to the traditional signature that can perform the same function and adapt to modern administrative methods. This alternative may be a secret number or a specific code, known as an electronic signature, resulting from defined technological procedures that lead to a specific, known result. In this sense, the totality of these procedures constitutes the modern alternative to the traditional concept of a signature, which we can term a 'procedural signature'.

Conclusion:

The subject of electronic adjudication and the establishment of courts using advanced technology is a topic imposed by the nature of development across all fields, given the increase in cases brought before courts. It is also linked to the emergence of new types of crimes that

were previously unknown—commonly referred to as electronic crimes and cybercrimes. Since courts constitute the body responsible for general jurisdiction, their development and the advancement of their technical capacities are unavoidable.

There is no doubt that carrying out adjudicative procedures using computer and internet technology involves many practical difficulties, both technically and legally.

From a technical standpoint, the first issue is the limited availability of electronic services in remote areas, which is a key reason why claims cannot be filed electronically. Additionally, hacking and fraud against computer systems have emerged, as have attempts by certain malicious actors to penetrate websites. We also observe the spread of viruses across electronic devices, which can result in the destruction of software content on computers. Furthermore, we observe weaknesses in the electronic communications infrastructure in some developing countries, alongside these countries' perception that electronic transactions may pose a risk to their economies. There is also limited proficiency in foreign languages, as well as concerns about trust, security and safety on the internet, including the credibility of transmitting and signing electronic documents through digital media.

Legal difficulties can be summarised as follows: the judiciary in some countries, particularly developing ones, lacks flexibility when interpreting traditional legal rules in a manner that keeps pace with modern life and contemporary legal patterns on the internet. This is due to traditional laws failing to keep up with rapid transformation.

To activate the electronic transaction system—including electronic writing and electronic signatures.

In addition, filing a lawsuit remotely requires substantial funding to establish the necessary infrastructure and associated requirements, including devices, equipment and digital networks. Firstly, it requires the development of human resources through training and qualification processes for court employees and judicial council staff.

Furthermore, we find that the legislation of some developing countries has not kept pace with technological developments, nor does it follow the rules governing remote adjudication, such as the mechanisms for applying these procedures and their implementation. Legislative intervention is therefore required to keep up with these modern technologies and to include certain provisions to address these new developments.

Despite this, electronic adjudication has a number of positive aspects and advantages, including:

- Reducing congestion in public areas of courts and offices.
- Improving the quality of service provided to litigants.
- Providing storage space for court and judicial council files.

Allowing the public and litigants to access case-related information across the various branches of the judiciary via digital media. This is achieved through applications and databases such as email, which aim to improve communication with court services.

As for the Algerian legislature, Law No. 15-03 addressed this issue. It focused on criminal matters rather than civil matters, reflecting the government's explicit intention to prioritise modernising the justice sector. In this context, the Ministry of Justice established a digital platform dedicated to receiving petitions and complaints, through which individuals can track the progress of their cases within courts and judicial councils.

Based on our findings, we can propose several recommendations, summarised as follows:

Firstly, we recommend strengthening the human resources responsible for managing electronic court procedures, including judges, court clerks and lawyers, as well as everyone involved in electronic court proceedings. This should be achieved through training and professional ‘reskilling’ that matches every new development, particularly by ensuring the confidentiality of information and combatting all forms of hacking and intrusion, along with consulting specialised experts in the field.

Second, hold conferences, seminars and training courses in electronic adjudication for all judicial system stakeholders, and involve citizens by providing explanations on how to obtain documents such as court judgements, orders and other justice system documents, including civil status certificates and criminal record extracts.

Thirdly, we recommend strengthening the material means by providing all the necessary tools for operating the electronic court, such as computers and cameras, and connecting them to a high-speed internet network. Additionally, the judiciary’s database information system should be developed in line with the most up-to-date internationally adopted programming systems.

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