

# The Authentic of the Electronic Signature in Jordanian Law (Comparative Study)

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## Abstract

The development of the means of communication and information technology has led to developments in all fields, especially in the field of electronic contracting, electronic commerce and electronic signature through the means of modern communication (Internet), the exchange of information and data of various kinds through this network had increased, The electronic signature is a signature used in the completion and completion of electronic contracts concluded through the Internet, and it plays an important role in electronic transactions procedures aimed at providing confidence in correspondence and in order to determine the authenticity of the electronic signature in the judicial evidence, it is necessary to discuss the important issues that explain the authenticity of the electronic signature, and we dealt with the electronic signature and its argument in the evidence in the Jordanian law in comparison with international and national legislation by defining its concept, in the First section, we discussed the concept of electronic signature (its definition, description of its characteristics, characteristics and conditions), and in the second section, the extent of the validity of the electronic signature in the Jordanian law and the laws. International and national, in addition to the statement of its legal effects in the Jordanian legislation, comparative and means of protection. At the conclusion of this research, we reached important conclusions regarding the validity of the electronic contract, and suggested appropriate recommendations.

**Keywords:** Electronic Signature, Electronic Transactions, Authoritative Evidence

## Introduction

The world is witnessing rapid development in various fields, especially in the scientific and technological environment, and the ability to research and develop. These great transformations are based on knowledge and science in various aspects of life. This development has been accompanied by the emergence of new forms of communication and dealing based on precise and sophisticated machines and devices, especially computer which led to a major shift in the life of humanity.

The Internet has been the most important production of scientific and technological progress in the modern era. It has led to the exchange of data and information through the Internet very quickly. All the world's traders are able to sign electronic commerce contracts at any time. The development of technological and technological information the world witnessed in communication technology, (ICT) elements on the evidence elements of the electronic signature, which have been created by modern techniques consisting of electronic writing and electronic signature.

The integration between the electronic computer, the information technology field and the communications sector, which has created the modern communications network, has contributed to increasing the use of modern technologies for legal actions. This network has become the window of the human being all over the world. No need to travel, it is a system that follows the movements of the sale and purchase of goods, services and information as characterized by characteristics and characteristics may not be comparable to traditional trade, such as speed and save money, time and effort.

In order to prove and document transactions of electronic commerce among dealers, they need to be signed in accordance with this modern environment. The latter agree with the idea of signing in its traditional concept, and there is no room for manual procedures under it. Which took several forms, such as signing a secret code or other digital signature, which took a large space in the field of electronic transactions and obtained legal recognition. A signature is a means by which a person can identify himself and express his will to comply with the content of legal conduct. Several countries have enacted electronic signature laws that recognize these acts and their evidentiary power to make them evidence admissible before the courts. Jordan was among those States. The purpose of this research is to determine the nature of the electronic signature and the extent of its validity in proving the international and national legislation and its implications, given the importance of the electronic signature component in the electronic proof of proof and the extent to which it achieves the functions that make it an element of proof.

The problem of this research lies in the extent of the validity of the electronic signature and the recognition granted to it in Jordanian law in comparison with international and national laws and what are the implications thereof? We will discuss this research in two parts: we show in the first section, the concept of electronic signature, and in the second section, the extent of the authenticity of the electronic signature in the evidence and its effects.

## **Section 1: The Concept of Electronic Signature:**

The electronic signature in the era of technology is one of the most important ways and means in the field of proving contracts in electronic transactions, which confers confidence and safety among the dealers We will discuss:

### **The First Topic: Definition of Electronic Signature in Various Legislations:**

Most of the international and local laws have defined electronic signature. The most prominent of these laws are:

#### **First Requirement: Definition of Electronic Signature in the UNCITRAL Model Law:**

The UNCITRAL Model Law defines electronic signature in article 2 as "data in electronic form included in an electronic editor, added to or associated with it, used to identify the signed site for the editor and to indicate the consent of the signatory to the information contained in the editor."<sup>1</sup>

It can be said, based on the text of the above-mentioned article, that the UNCITRAL Law did not restrict the concept of electronic signature but rather expanded it and did not comply with a particular technological means, The designation of the signatory on the message of the data, his / her signature and consent to the information contained in the communication, which are the functions of the traditional signature.

#### **The Second Requirement: The Definition of Electronic Signature in The European Directive:**

Article 1/2 of European Directive No. 99/1993 defines an electronic signature as "electronic statement or information that is logically linked to other electronic information or data that serves as a means of identifying a person". It can be said through this definition that the electronic signature is data that performs an important function of the European Directive in identifying the owner and its association with the signature, and not to tamper with it, and this definition corresponds to the definition of UNCITRAL law<sup>2</sup>.

#### **Third Requirement: Definition of Electronic Signature in Jordanian Law:**

Article 2 of the Electronic Transactions Act No. 85 of 2001 defines an electronic signature as "data that takes the form of letters, numbers, symbols, signs or others and is included in electronic, digital, photocopying or any other similar means in an information message or an addendum thereto or associated with it and has a character that allows the identification of the person who signed it and distinguishes it from others in order to sign it and for the purpose of approving its content"<sup>3</sup>

In the researcher opinion, the electronic signature is able to identify the person signed, and when checking this signature, we find that if supported by means of sufficient confidence, it is able to identify the person signed more than the normal signature. This is also found in the biometric signature, which is based primarily on the use of the subjective characteristics of the person, which leads to identification. As well as signature based on the secret code through using of plastic cards for the ATM that allows only owners to use them<sup>4</sup>, and therefore the device does not respond to the request for withdrawal or otherwise only after the verification of the identity of the person, through the card associated with the use of the secret code that does not know the other and does not resemble with Other numbers. As well as signature with an electronic pen, it is also able to identify the site, because this method of signature does not work unless the person signed in accordance with what is stored in the memory of the computer<sup>5</sup>.

#### **Fourth Requirement: Definition of Electronic Signature In French Legislation:**

Article 1316 of the French Civil Code, which states: "Electronic writing shall enjoy the same recognized value of writing on a paper support in proof, provided that it is possible to identify a person of origin, and that it has been established and kept in conditions ensuring its safety"<sup>6</sup> 1316/4, amended by article 4 of the Law on Evidence Concerning French Electronic Signature, states that if an electronic signature is signed in electronic form, reliable methods must be used to distinguish the identity of the owner, so as to ensure its relevance and relationship to the conduct that has been signed. This suppose to be safe method unless there is a contrary evidence<sup>7</sup>.

#### **Fourth Requirement: Definition of Electronic Signature in US Legislation.**

The Electronic Signature Act, the electronic signature in the first chapter of Section 101 of Article 1, defines "any symbol or medium regardless of the technology used if it is attributed to a person in signing the document"<sup>8</sup>. The US Uniform Electronic Transaction Law defines it In Article 2/8, as "a voice, code or procedure occurring in an electronic form logically connected to a contract or other record (document) executed or issued by a person with a view to signing the record"<sup>9</sup>.

<sup>1</sup> UNCITRAL Model Law on Electronic Signatures published on 2016 <http://www.uncitral.org/stable/ml-arb-a.pdf>

<sup>2</sup> The European Directive of 13 December 1999, published on the website [www.europa.eu.int/Directives](http://www.europa.eu.int/Directives), 2015.

<sup>3</sup> Article (1) of the Jordanian Electronic Transactions No. 85 of 2001.

<sup>4</sup> Al-Rabadi, Issa Ghassan, Rules for Electronic Signature, Dar Al-Thaqafa for Publishing and Distribution, Jordan, 2001, p. 47 et seq.

<sup>5</sup> Al Gimeei, Hassan Abdel Basset, Proof of Legal Conduct Conducted Through the Internet, Dar Al-Nahda Al-Arabiya, Cairo, 2000, p. 35

<sup>6</sup> Law on Evidence Concerning the French Electronic Signature No. 230 of 2000, published on the website of the World Trade Organization on 2016 at [www.wto.org](http://www.wto.org).

<sup>7</sup> Article 1316, paragraph 4, French Act No. 399 amended and added to the law of electronic signature law for the year 2000.

<sup>8</sup> US Electronic Signature 2000 Act published on [www.bmck.com/ecommerce/fedlegis-t](http://www.bmck.com/ecommerce/fedlegis-t)

<sup>9</sup> US Consolidated Electronic Transactions Act 1999, published on the electronic website [www.law.upenn.edu/bull/ulc/ucita200.htm](http://www.law.upenn.edu/bull/ulc/ucita200.htm)

### **The second subject: Electronic Signature Images and Characteristics.**

The electronic signature has different images and characteristics distinct from the traditional signature, which must be clarified, in order to reach the goal and the desired goal.

#### **First requirement: Electronic signature images.**

The difference in technology used in the operation of the electronic signature system has resulted in the emergence of several images and forms of it, there is a technique depends on the system of numbers or letters or signs, and other depends on the physical properties and natural and behavioral people. The degree of legal trust and security varies according to each of these types, and the level of legal impact of an electronic signature based on the ability of the electronic signature system to achieve the two signature functions: identification of the person signed<sup>1</sup> and the extent of expressing satisfaction in complying with the content of the electronic editor, For the contract safety, and vary according to the signature images, whether the signature of the card and the smart card (card or credit card) or signature Biometric (physical and physical properties of the human), or signature electronic pen or digital signature we eat As follows<sup>2</sup>:

#### **First: Biometric Signature:**

This signature depends on the Nature and physical characteristics of people, and varies from person to person. These characteristics include the personal fingerprint, the human eye (fingerprint of the iris), the human hand, the voice fingerprint, the human face and other physical and behavioral characteristics of humans<sup>3</sup>. Is not very secure for the possibility of copying it by computer hackers by decrypting it, in addition to its high cost.

#### **Second: Signing the Scanner:**

This is done by copying the handwritten signature by scanning and then storing it in the computer, and then the image is transferred to the file or contract to which the signature is to be attached to give the authentic necessary, and in this way the signature of the person including the editor is transferred via the electronic network. This method is flexible and easy to use, through which it is simple and facilitates the conversion of traditional signature to electronic form through information processing systems.

But there is a problem in the form of electronic signature, which is how to prove the connection between the signature and the e-mail, because there is not yet a technical verification of the existence of this connection, since the consignee can keep copies of the copy of the signature that you received on one of the editors on an electronic broker, The author of which is the owner of the actual signature, which leads to the breach of the conditions of the recognition of the electronic signature of authentic<sup>4</sup>, since the continuity of the relationship between the signature and the data message represents the most important of these conditions, this way in general without the lowest degrees of protection and safety to be achieved in the signature For electronic.

#### **Third: Digital Signature.**

The digital signature means "data or information connected to another data system, or the formulation of a system in its encrypted form, which allows the consignee to prove its source and ensure the integrity of its content and secure it against any distortion or modification<sup>5</sup>." This is done by using secret statements, complex mathematical methods, (logarithms). And the transformation of the transaction from a message with a normal reading book and a concept of mathematical equation, or an unreadable, and digitized message not understood, unless decrypted by the entity that owns the decoding key, and the equivalents.

This method of electronic signature achieves the highest degree of trust and confidence for the editor. It ensures the precise identification of the parties and clearly and clearly demonstrates the author's will to act legally and accept its content, provided that all the conditions required by the law are met in the editors.

But there are disadvantages to this signature, the possibility of stealing this figure and knowledge of others, and act on it allegedly. With the advances and technical development, the increasing fraud and piracy, and some people trying to decipher the code to access the numbers of the electronic signature, and re - copied, and then re - use for illegal purposes<sup>6</sup>.

### **The Second Requirement: The Characteristics of The Electronic Signature.**

The electronic signature is characterized by a number of characteristics, the most important of which is that the electronic signature consists of special characteristics of the site that take the forms of numbers, letters, signs or symbols. The electronic signature also determines the site's character and distinguishes it from the others<sup>7</sup>. In addition, the signature indicates the satisfaction of the site on the electronic document. The electronic signature functions when the traditional signature is true and can be proven to its location<sup>8</sup> (the person who signs).

<sup>1</sup> Abu Hagea, Mohammed Ibrahim Electronic Commerce Contracts, Dar Al-Thaqafa & Publishing, Jordan, 2011, p. 130 et seq.

<sup>2</sup> Article 3/2 of the Jordanian Electronic Transactions Law No. 85 of 2001.

<sup>3</sup> Al-Obeidi, Osama Ghanem, Authentic Electronic Signature in Evidence, Arab Journal of Security Studies and Training, Volume 28, No. 56, 2012, p 155.

<sup>4</sup> Doudin, Bashar Mahmoud, The Legal Framework of the Internet, Dar Al-Thaqafa Publishing, 2010, p. 140.

<sup>5</sup> Dudin, Bashar Mahmoud, op. Cit., P. 144.

<sup>6</sup> Dudin, Bashar Mahmoud, ibid., P. 145.

<sup>7</sup> Qandil, Said El Sayed, Electronic Signature, New University House, Egypt, 2006, pp. 50-52.

<sup>8</sup> Barham, Nazal Salim, 2003, The Provisions of International Trade Contracts, Master Thesis, Amman Arab University, Jordan, p 277.

Since the electronic signature is connected to an electronic message, which is the information that is created, sent, delivered or stored by electronic means, the electronic signature achieves the safety, confidentiality and privacy of the person of the site<sup>1</sup>. Therefore, the characteristics of the electronic signature indicate the signature functions, which are the identification of the person of the site and the expression of his consent<sup>2</sup>.

## **Section II: Extent of Authenticity of Electronic Signature in Evidence:**

Most international and domestic legislation has regulated electronic signature and has worked to regulate its authenticity in transactions as a result of electronic and commercial developments. **Therefore, the conditions of the electronic signature must be defined in the first part, and then the extent to which the validity of the electronic signature should be applied in the international and local laws in the second section, in addition to the legal effects of the electronic signature in the third section.**

### **The First Subject: The Conditions of The Electronic Signature Until it Acquires The Authentic Evidence.**

In order for the electronic signature to acquire an argument in proof, certain conditions must be met:

#### **The First Condition: To Be Distinct And Connected to The Person of The Owner:**

The electronic signature must be linked to the electronic editor and distinguished to the owner of the signature itself, without any other, and its association with this person, as in the ordinary signature, which is considered a personal and distinctive mark for the owner, so that this signature can express in a clear and limited way from the owner of the owner, Which is defined by the Egyptian Electronic Signature Law No. 15 of 2004 in Article 1 / e: "The person who holds the signature creation data himself or whom he appoints or who represents him legally<sup>3</sup>." This condition leads to the direction of the person with his consent to the content of the editor and shall be a witness to his intention to abide by the contents of this contract which Sign it<sup>4</sup>.

It can be said that the electronic signature in all its forms, if properly created, is considered to be a special and distinctive mark in the same person, without exception.

#### **Condition2: to be sufficient to define the person of the owner**

The signature must be sufficient to identify the owner of the site or to define the identity of the site. This requirement is self-evident as in the traditional signature. In the electronic signature, Which indicates the identity of the user for the electronic signature. Each form of signature, whether stamped, signed or digitally signed, is for the person to whom the site belongs, in addition to that person who has chosen this form to express and identify it.

The identification of the person entering into the contract is necessary in the area of fulfilling the contractual obligations, to determine the eligibility of the signature holder, because the holder of the electronic signature must be fully qualified and proper to exercise this role.

#### **Condition 3: Signatory control of signature system.**

This requirement means that the owner of the electronic signature shall be a solo, so that no one shall be able to identify and disassemble his signature symbols, or to enter into it either in the use of such signature or when it is established. The Egyptian legislator expressed this explicitly and stressed that the person who signed the site alone should control the electronic mediator, who defined the electronic mediator at the beginning of the law as a tool, paper or electronic signature creation systems<sup>5</sup>.

#### **Condition 4: The electronic signature link to the editor is closely related.**

The protection of an electronic signature is not a purpose in itself, but also a protection for the editor signed on it itself, and includes the content of the editor to the site. In e-commerce contracts or other contracts, the status of the electronic signature on this contract means the direction of the site's intention to withdraw the effects of the contract and its commitment to it. Therefore, this requirement requires the existence of data related to the electronic signature, and such data must be integrated so that any A change in the data of the e-mail or the editor is considered a sign able, and therefore any modification to the signature on the electronic editor leads to the modification of the editor's complete data, and this makes the editor not valid for proof, because it leads to destabilization of data integrity and electronic signature Also<sup>6</sup>.

#### **Condition 5: The possibility of detecting any modification or change in the signature data.**

The electronic signature must be written and signed using systems and means that ensure the authenticity and integrity of the electronic signature, in order to ensure its integrity and lead to the detection of any modification or change in the data of the electronic editor signed electronically<sup>7</sup>.

It can be said that the electronic signature determines the personality of the site without other persons, so the system must keep this signature confidential to other persons, so as not to abuse the use of this signature by

<sup>1</sup> Abdul Hamid, Tharwat, electronic signature, New University House, Egypt, 2007, pp. 36-40.

<sup>2</sup> Obeidat, Lawrence Mohamed, proof of the electronic editor, Dar al-Thaqafa for publication and distribution, Jordan, 2009, p. 150.

<sup>3</sup> Article 1 / e of the Egyptian Electronic Signature Law No. (15) of 2004.

<sup>4</sup> Obeidat, Lawrence Mohamed, proof of the electronic editor, Dar al-Thaqafa Publishing, Jordan, 2009, p. 165.

<sup>5</sup> Egyptian Electronic Signature Law No. 15 of 2004.

<sup>6</sup> Al-Obeidi, Osama Ghanem, op. Cit., P. 166.

<sup>7</sup> Al-Obeidi, Osama Ghanem, op. Cit., P. 168.

others, because the signature in any way arranges the effects and legal obligations in Confront others, and each of them is bound by the content of what he signed.

### **The second Topic: The Extent To Which The Electronic Signature is Applied in International And Local Laws.**

We address the first requirement, the authentic electronic signature in international laws, and then we address in the second requirement, the authentic electronic signature in the laws and local.

First requirement: Authentic electronic signature in international laws.

#### **First: Authenticity of the electronic signature in the UNCITRAL Model Law on Electronic Commerce.**

The UNCITRAL Law recognized the validity of electronic signature in evidence, through article 6 paragraph 3, with its conditions being met<sup>1</sup>. However, the Model Law on Electronic Signature did not set limits that restrict or oblige a person in a specific way to establish the credibility of such a signature, nor did he place such restrictions on providing proof that any electronic evidence is unreliable and the conditions imposed on it make it more And Articles 8 and 9 of the Code of Conduct, which are binding on both the signatory and the certification service provider so that the electronic signature has legal and authoritative effect on the evidence.

#### **Second: Authenticity of The Electronic Signature in The European Directive:**

The European Directive on 13 December 1999 recognized the legal validity of electronic signature in electronic transactions and urged EU member States to comply. This provision is provided for in Article 5, paragraph 1, when fulfilling the necessary conditions. The Directive has distinguished between two types of electronic signature, the first type: enhanced electronic signature (trusted) issued through protected and secure mechanisms, and Member States have been obliged to give it full legal standing in court, such as a traditional signature<sup>2</sup>. The second type is the unsupported electronic signature. The European Directive imposes on Member States the obligation not to deny it as a means of proving it solely in electronic form or to attach a certificate confirming its validity by using signature security tools. Those who maintain an electronic signature that does not meet the requirements of an enhanced electronic signature may provide evidence of the ability and competence of the technology to establish the electronic signature.

The European Union bodies issued instructions on the European standardization of electronic signatures on 14 July 2003. Under these instructions, the Electronic Signature Committee was established to develop interpretations and recommendations on the standardization of electronic certification services, all within the framework of giving credibility to electronic signature.

The second requirement: Authentic electronic signature at the national level:

With reference to local legislation, whether Western or Jordanian, we find that international legislation has been accompanied by the recognition of the validity of electronic signature in evidence, but by different standards. We will show the extent to which the electronic signature is valid in various legislation as follows:

#### **First: Authenticity of the electronic signature in the French law:**

Article 4/2 of Law No. 230 of 2000 stipulates that trust in the means of establishing an electronic signature is assumed until the contrary is proven, if the signature is created in a manner that verifies the identity of the site and the integrity of the signed editor, Of Decree No. 272 of 2001 that trust in the means of establishing an electronic signature is presumed to be proven until the contrary, if the means establishes a secure electronic signature by means of a secure device for the creation of the signature and the signature is based on a certified certificate of ratification<sup>3</sup>. Article 1316/1 of the French Civil Code , Amended by Ordinance 2000-230 of 13 AD ARS 2000 on the development of the Evidence Law for Information Technology and Electronic Signature, states that "the electronic document shall have the same authoritative nature as the written document provided that it has the ability to determine the person who issued it." The French legislator introduced an amendment to article 1326 of the same law<sup>4</sup> and changed the word "handwritten signature" to "signature by the person", thereby eliminating any distinction between the written signature and the electronic signature. The signature can be issued by hand, By the person, including the written signature and electronic signature in all its forms, meaning that the French legislator has equated the electronic signature with the traditional signature in its authentic form.

#### **Second: Authenticity of electronic signature in American law:**

The United States Federal Electronic Signatory Act of June 30, 2000, with regard to the recognition of an electronic signature, states that "the legal effect of the signature should not be denied, nor is it denied or only valid, as in the form of an electronic signature." It is clear from the text of the above article that the US legislator has recognized the electronic signature, and granted legal authority in electronic transactions.

#### **Third: The Authenticity of the Electronic Signature in the Jordanian Law:**

Jordan has worked actively on the development of e-business and e-government, and has tried to strengthen this work through issuing the Electronic Signature Law No. (85) for the year 2001. The Jordanian Electronic

<sup>1</sup> UNCITRAL Model Law on Electronic Signature.

<sup>2</sup> Article 5/1 of the European Directive of 13 December 1999 concerning electronic signature.

<sup>3</sup> Al-Tohamy, Sameh Abdul-Wahed, Online Contracting, Legal Books House, Egypt, 2008, pp. 486-488.

<sup>4</sup> Article 1326 of the French Civil Code and amended in 2000; and the Electronic Signature Act No. 230 of 2000

Transactions Law confirms that the electronic signature is validated and attributed to the owner if there is a method of identification and to indicate his consent to the information contained in the electronic record that he signs, provided that such method is reliable to achieve that purpose in the light of the circumstances relating to the transaction, including the agreement of parties who have a prior legal relationship to the dispute.

The Jordanian legislator also played an important role in the seventh article of the Electronic Transactions Law, which approved an important principle, namely, that the electronic signature is considered to be a functional equivalent of the written signature in an equal sense. This provision would achieve the objectives of this law and also achieve the plan of recognition of electronic commerce, The validity of the electronic signature not on the person of the dealer, the most important need for people in the electronic commerce and the admissibility of their letters in the contract and proof<sup>1</sup>.

### **The Third Topic: The Legal Effect of The Electronic Signature in The Proof And Means of Protecting it.**

International and national legislations have tended to differentiate in terms of level and impact between two types of electronic signatures, namely simple or ordinary electronic signature, and reliable electronic signature (insured or enhanced).

A simple electronic signature meets the minimum requirements required to give electronic signatures a legal value, while an electronic signature, insured or trusted, achieves a higher level of credibility<sup>2</sup>.

### **The First Requirement: The Effects of A Simple or Ordinary Electronic Signature.**

The ordinary or simple signature of the UNCITRAL Model Law shall be defined as data in electronic form as a symbol, character, sign, voice, code, subject, connected or logically connected with a data message and used by or on behalf of a person for the purpose of identifying his character and the significance of his satisfaction. Article 2 of the European Directive defines it as "a statement in an electronic form that is attached or logically linked to other electronic data and uses an acceptable method of authentication."<sup>4</sup> As for the effects of a simple or ordinary electronic signature, Article 5 of the UNCITRAL Model Law determines that the information does not lose its legal effect, validity or enforceability For reasons lacking in being taken electronically, the meaning of this is that it gives some kind of authentic on this first level of electronic signature.

The European Directive also gave the same argument on this first level of electronic signature, where it decided that member states should ensure that the ordinary signature is not rejected simply because it did not include one of the conditions. Article 5 states that "Member States shall not refuse to sign the electronic evidence Before the court for the mere fact that the signature was presented in its electronic form, or was not submitted on the basis of a certified certificate of ratification, or was not submitted based on a certified certificate of certification requested by an accredited authority or was not established as a safe<sup>5</sup>.

### **Second Requirement: Effects of Reliable Electronic Signature (Insured).**

The Trusted Signature (the Insured) is defined in the UNCITRAL Model Law in Article II on Electronic Signatures of 2001 as data in electronic form in an electronic editor, added to or linked to it, used to identify the signature of the author, Who has signed the information contained in the editor.

An electronic signature can be said to be reliable when certain conditions are met: the electronic signature creation data is linked in the context in which the signed person is used without any other person, and the signature creation data are subject to the control of the site without any other person. Any change in the electronic signature being made in the occurrence of the signature is detectable, and the purpose of the requirement of a legal signature is to confirm the integrity of the information to which the signature relates, and any change in that information after the time of signature is discoverable. We will show the effects of electronic signature in international and domestic laws through the following points:

### **First: The effects of the reliable electronic signature (the insured) in accordance with the law of the Model:**

The law of UNCITRAL gave it the same legal authority as the law to sign in writing<sup>6</sup>, stating in article 6/1 that "where the law requires the signature of a person after that condition is fulfilled in respect of the data message if it uses an electronic signature as reliable as appropriate for the purpose established, For which the data message has been communicated in the light of all circumstances, including any relevant agreement. "A reliable and verified electronic signature all the conditions stipulated by the law have the same authoritative written signature.

### **Second: The effects of the reliable electronic signature (the insured) according to the European Directive.**

The EU Directive on Electronic Signing, which has its own conditions, gives the same legal effect as a written signature. Article 5/1 of the European Directive states that "Member States shall ensure that the electronic signature is advanced and is based on a certified certificate of ratification and has been established with a secure ,

<sup>1</sup> Article 7 of the Jordanian Electronic Transactions Law No. 85 of 2001.

<sup>2</sup> Al-Rabadi, Issa Ghassan, op. Cit., P. 109.

<sup>3</sup> Article 6 of the UNCITRAL Model Law on Electronic Signature for the year 2001.

<sup>4</sup> Article 2 of the European Directive on Electronic Signature of 13 December 1999.

<sup>5</sup> Al-Tuhami, Sameh Abdel-Wahid, op. Cit., Pp. 488-500.

<sup>6</sup> Article 6/1 of the UNCITRAL Model Law.

To enjoy the same legal effects as the written signature, and to be admissible in evidence before the courts<sup>1</sup>.

It can be said that the European Directive recognized the legal equivalence between the reliable electronic signature and the written signature referred to in the first paragraph and thus granted the same legal validity in the proof given to the written signature of the authorized electronic signature, and limited the principle of similarity in the electronic signature of the insured alone, because it responds to the conditions stipulated by it<sup>2</sup>.

**Third: The effects of the reliable electronic signature (the insured) according to French law.**

The French law deals with the authoritative electronic signature, which meets the specific conditions, and gives it the presumption of confidence. In other words, it has the presumption of reverse proof. As long as the electronic signature has the conditions, its marriage can be proven to be reliable and therefore has full Article 230 of the Law No. 230 of 2000 stipulates that "trust in the means of establishing an electronic signature is assumed until proven otherwise, if the signature is created in a manner that verifies the identity of the site and the integrity of the editor signed", As provided for in article 2 N Decree 272 of 2001 that, "confidence in the creation of an electronic signature is presumed until proven otherwise, if the means establish electronic signature secure by a secure tool to create a signature, and the signature is built on the ratification certificate certified."<sup>3</sup>

It can be said that the French law did not explicitly provide for an authentic equality between a reliable electronic signature and a written signature, but it gave strong authoritative authority to the electronic signature, which is reliable and meets the legal requirements, and gave it the presumption of authenticity to prove the contrary. Shall not be required to prove confidence in this signature, and any person claiming otherwise the burden of proof shall be bound to prove that none of these conditions has been met.

It is also possible to say that an electronic signature, if received by an electronic editor, is fully authentic in proof, as long as the signature complies with the legal requirements set forth by the legislator, making it a complete proof of proof before the official authorities and the judiciary. In the case of the electronic editor of the written editor in terms of meeting the conditions, and the content of each of them opposed to the other, the discretionary power of the judge in the weighting of each other, as long as there is no legal text or agreement between the parties to the contract basically sets the rules of weighting between evidence in case of disagreement.

**Fourth: Effects of reliable electronic signature (insured) in accordance with US law.**

The Act has made the electronic signature of the written signature valid in terms of function, purpose and authority. This is what the US legislator did to amend the law in New York State in 2002 to article 4518 of the Civil Code of the state<sup>4</sup>, whereby it allowed the acceptance of documents derived from electronic records as proof of evidence, where this document reflects in real and true the electronic record.

**Fifth: The effects of the reliable electronic signature (the insured) according to the law in Jordanian law**

The Jordanian law stipulates that if the electronic signature is fully authenticated and meets all the requirements imposed by the law, it has the same legal effects as the written signature. This is provided for in Article 7/1 of the Jordanian Electronic Transactions Law:

"The electronic record, the electronic contract, the electronic message and the electronic signature are the product of the same legal effects resulting from the written documents and documents and the written signature under the provisions of the legislation in force in terms of binding the parties or their validity in the evidence."<sup>5</sup>

Article (35) provides for the penalty for establishing, publishing or modifying a certificate of authentication for the purpose of fraud. Article (36) provides for the penalty of modifying incorrect information. Article (37) provides for the punishment of providing an entity that practices the authentication of incorrect information. Article (38) provides for penalties for crimes committed through the use of electronic means. The Jordanian legislator tried to protect the electronic signature and tried to demonstrate his argument in evidence through the provisions of the Jordanian Electronic Transactions Law<sup>6</sup>.

We conclude by saying that the electronic signature in the Jordanian law is valid for proving transactions carried out by electronic means regardless of the nature of the transaction, whatever its value, whether it is one or two binding contracts, commercial or civil transactions, provided that the electronic signature is compatible with The provisions of the law, in terms of documentation and the existence of certificates of authentication, and matching the electronic signature with the identification code contained in the certificate of authentication, and other conditions required by law, so that the electronic signature is valid for proof.

## Conclusion

In this research, I discussed the subject of electronic signature and its proof in the international and local laws to show the interest of countries in this sensitive subject in our modern era. This study showed that most of the

<sup>1</sup> Article 5/1 of the European Directive on Electronic Signature.

<sup>2</sup> Kandil, Said al-Sayed, op. Cit., P. 54.

<sup>3</sup> Al-Tuhami, Sameh Abdel-Wahid, op. Cit., 487.

<sup>4</sup> New York State Civil Code of 2002.

<sup>5</sup> Article 7/1 of the Jordanian Transaction Law No. 85 of 2001.

<sup>6</sup> Jordanian Electronic Transactions Law No. 85 of 2001.

legislation is between the traditional signature and the electronic signature in terms of authenticity, The terms of the legal electronic signature, in addition to the implications thereof, with the aim of finding solutions to the problems facing electronic transactions and electronic signature.

### Results :

- The electronic signature has the power of traditional signature, and the Jordanian legislator granted him full authority if he meets the specified conditions.
- The Jordanian Electronic Transactions Law is a law that is developed and in line with international legal rules regarding electronic signature.
- The Jordanian Electronic Transactions Act allows addressing the problems that may result from the electronic signature.
- The Jordanian Electronic Transactions Act gave the electronic signature the same legal effect as the ordinary signature in terms of the obligation. It also gave the same effect with regard to its validity in the proof. The electronic signature was considered valid for proof as in the ordinary signature. It is permissible to discriminate against the electronic signature and not to disregard its legal effect, as stipulated in Article 7 of the Jordanian Evidence Law<sup>1</sup>.
- The most prominent obstacles and problems facing electronic transactions and electronic signatures, is the problem of securing the safety and security of transactions and electronic signatures.

### Recommendations:

The researcher recommends the following:

- The need to address the law of the issue of determining the place and time of electronic transactions and contracts.
- The need to identify the signatories of electronic signatures and editors, the preservation of data and personal information and protection of disclosure, and the tightening of legal liability in case of violation.
- The researcher recommends the need to unify the international and local laws of the electronic signature, and grant the legal right equal to the authoritative written signature
- The researcher recommends a very important point, which is to focus on training courses in the electronic transaction and signature system in various academic and educational institutions to spread technological aware

### References

1. The UNCITRAL Model Law on Electronic Signatures published on the website at 2016 <http://www.uncitral.org/stable/ml-arb-a.pdf>
2. The European Directive of 13 December 1999 published on the website [www.europa.eu.int/Directives](http://www.europa.eu.int/Directives)
3. Article (1) of the Jordanian Electronic Transactions No. 85 of 2001.
4. Al-Rabadi, Issa Ghassan, Rules for Electronic Signature, Dar Al-Thaqafa for Publishing and Distribution, Jordan, 2001, p. 47 et seq.
5. All, Hassan Abdel Basset, proving the legal actions that are concluded through the Internet, Dar al-Nahda al-Arabiya, Cairo, 2000, p. 35
6. The Law on Evidence Concerning the French Electronic Signature No. 230 of 2000, published on the website of the World Trade Organization on 2016 at [www.wto.org](http://www.wto.org).
- 7.) Article 1316, paragraph 4, French law No. 399 amended and added to the law of the law of electronic signature for the year 2000.
8. The United States Electronic Signature Act 2000, published on [www.bmck.com/ecommerce/fedlegis-t](http://www.bmck.com/ecommerce/fedlegis-t)
9. United States Uniform Electronic Transactions Act 1999, published on the electronic website [www.law.upenn.edu/bull/ulc/ucita200.htm](http://www.law.upenn.edu/bull/ulc/ucita200.htm)
- 10.) Abu Al-Hija, Mohammed Ibrahim Electronic Commerce Contracts, House of Culture and Publishing, Jordan, 2011, p. 130 and beyond.
11. Al-Obeidi, Osama Ghanem, Authentic Electronic Signature in Evidence, Arab Journal of Security Studies and Training, Vol. 28, No. 56, 2012, p.
- 12.) Doudin, Bashar Mahmoud, The Legal Framework of the Internet, Dar Al-Thaqafa Publishing, 2010, p. 140.
13. Kandil, Said El Sayed, Electronic Signature, New University House, Egypt, 2006, pp. 50-52.
14. Barham, Nazal Salim, 2003, The Provisions of International Trade Contracts, Master Thesis, Amman Arab University, Jordan, p.
- 15.) Abdel Hamid, Tharwat, electronic signature, New University House, Egypt, 2007, pp. 36-40.
- 16.) Obaidat, Lawrence Mohamed, proof of the electronic editor, House of Culture for publication and distribution, Jordan, 2009, p. 150.

<sup>1</sup> Jordanian Evidence Law No. 30 of 1952 and its amendments for the year 2017.

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17. Egyptian Electronic Signature Law No. 15 of 2004.
  - 18.) Al-Tohamy, Sameh Abdul-Wahed, Online Contracting, Legal Books House, Egypt, 2008, pp. 486-488.
  - 19.) Article 1326 of the French Civil Code and amended in 2000; Law on the Litigation Concerning the French Electronic Signature No. 230 of 2000
  - 20) American Civil Code of the State of New York, 2002.) Jordanian Electronic Transactions Law No. 85 of 2001.
  - 21) Jordanian Evidence Law No. 30 of 1952 and its amendments for the year 2017.