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ELECTRONIC DOCUMENTS AS ELECTRONIC EVIDENCE

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The development of technology has led to the fact that a large part of the disputes has transcended national borders and acquired a cross-border character. This requires the study of electronic evidence, in particular electronic documents, as a qualitatively new legal phenomenon, which has its own independent regulation at national and supranational level. In order to understand the concept of "electronic document", a comparison will be made with the conventional, written document, indicating the similarities and differences between the two legal phenomena, as well as the peculiarities inherent only to electronic documents. The article explores the concept of the electronic evidence in conflict resolution through a mixed-methods approach combining systematic literature analysis and comparative case studies. The legal definition of an electronic document is analyzed. Author also concludes on the necessity of a rethinking of the theory of physical evidence in the context of electronic documents.

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1. INTRODUCTION

Often, civil and commercial relations develop in an electronic environment, and the only way to establish the content, as well as the emergence, amendment and termination of legal relations, is through electronic documents containing the electronic statements of both parties. This requires the study of electronic evidence, in particular electronic documents, as a qualitatively new legal phenomenon, which has its own independent regulation at the national and supranational levels.

In order to explain the concept of 'electronic document' as a new legal phenomenon, it is necessary to make a comparison between the classical understanding of a written document, such as a verbal statement presented in alphabetic characters on a tangible medium (most often paper), and an electronic document within the meaning of Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and on the Knowledge of the main characteristics of a written document is the basis on which those specific features of an electronic document that are inherent only to it and define it as a new legal phenomenon are derived.

The article explores the concept of electronic evidence in conflict resolution through a mixed-methods approach combining systematic literature analysis and comparative case studies.

2. THE CONCEPT OF A WRITTEN DOCUMENT AND ITS SPECIFIC CHARACTERISTICS

The word "document" is of Latin origin – from *documentum* – sample, testimony, evidence. Not every text has the character of a document; a document is only the text in which *a statement* is materialized. From the point of view of law, it does not matter what the statement is, because it can be legally significant, but also irrelevant to the law. It is necessary to assess what the facts relevant to the law are and whether they can be proven by the relevant document.

The theory of the document and its nature have been the subject of numerous scientific studies. In 1951. **Suzanne Briet** published her work "What is documentation?", in which she analyzed the

peculiarities of *documentation* and defined the document as "*evidence in support of a fact*" [2],[4],[6]. Her theory reveals the essential features of the document:

- the document can only be a physical object;
- that physical object may be treated as evidence;
- must contain verbal statements;
- the object must be perceived as a document [7], [8], [10].

In her research, *Suzanne Briet* derives the main features of the document, which correspond to the traditional understanding of the civil law theory of the concept of *document* – "*an object on which a statement is materialized by written or electronic signs*" [13], which is relevant to law. The given definition, albeit conditional, makes it possible to derive the main characteristics of the concept of "document" in the context of the classical understanding of a document:

- A document always *incorporates the will of a person*, which will is materialized on the document by means of verbal signs;
- Not every written statement is a legally relevant document. In order for a document to exist, a written act must contain *a legally relevant statement*, from which certain legal consequences arise;
- The statement of will, in addition to being legally relevant, must be objectified on some *material medium*. It can be either paper or other material on which the statement is objectified. In antiquity, documents were materialized on wood, stone or other, relatively durable medium;
- The document must be readable, i.e., its content must be perceived visually;
- A paper document may be handwritten or the text on it may be reproduced by technical means, but in all cases, the signatories for whom the document is legally significant must have *animus signandi*, i.e., the intention to sign the statement made with the knowledge that certain legal consequences will arise from this;

From the above, it can be concluded that the document can exist on different material carriers – usually and expectedly this is on sheets of paper, but it can be composed on leather or other textile material,

etc [1]. It is enough to materialize a statement significant from the point of view of law with verbal signs, and this materialization is to be permanent.

Last but not least, the document must contain *the names and signature of its publisher*. Usually, the author of the document is the person who signed it. It is not necessary for the signatory to be familiar with the content of the document; theory and practice *assume* that once the document is signed, the author is familiar with the text, it contains his statement [15], and agrees with it, and therefore has signed the statement he signed.

Once created, the written document, which contains the above-mentioned features, also gives us the essence of the concept of document used in civil and commercial relations, and especially in civil procedure and arbitration proceedings, in which electronic documents and electronic evidence are increasingly used [5].

3. THE CONCEPT OF AN ELECTRONIC DOCUMENT

With the adoption of Regulation (EU) No 910/2014, for the first time a legal definition of the term "electronic document" was given (Article 3, item 35 of Regulation (EU) No 910/2014), namely it is "***any content stored in electronic form, in particular text or sound, visual or audio-visual recording***". From the analysis of the text, we can derive the characteristics of an electronic document. In order for an electronic document to exist, it must ***incorporate a legally relevant statement or other electronic content such as a text, sound, visual or audio-visual recording***. Regulation (EU) No 910/2014 defines an electronic document in a broad sense, namely any content stored in electronic form, in particular in the form of text or sound, visual or audiovisual recordings. This list is not exhaustive, but for example, any content in electronic form, the creation of which is associated with legal consequences, should be considered as an electronic document. liberally, taking into account the dynamics and scientific and technological progress, giving an example of electronic documents. It does not matter whether it contains an electronic statement or not. It is sufficient that the electronic document is in digital form, that it is legally relevant and that certain legal consequences arise from it [3].

An extremely important application is the norm of Article 46 of Regulation (EU) No 910/2014, which provides that an electronic document has the same evidentiary value as an ordinary written

document. This is of particular importance, since according to Article 288 of the Treaty on the Functioning of the European Union, they are mandatory in their entirety and have direct applicability in the EU Member States.

4. FORM OF THE ELECTRONIC DOCUMENT

Usually, the idea of a document is associated with the physical materialization of verbal signs on a certain material, most often paper. The written document can be written by hand, but also by means of technology. With the help of a computer and specialized software, the text can be formatted on a word processing program and subsequently printed on a printer. Although there is a file saved as a copy of the computer, the created document does not yet have the character of an electronic document. It is a project that, once printed and signed, will have the characteristics of a classic written document. Unlike a document objectified on paper, an electronic document does not need to exist on paper. It is sufficient that it is created by means of publicly available software and stored in a way that allows subjects to perceive it visually.

An electronic document is information in digital form [6]. This information may include different text, audio recordings, graphics or even databases. As mentioned above, an electronic document may contain a legally relevant verbal statement that materializes the will of the author, as well as contain other non-verbal information (sketch, diagram, project, etc.), including on a cloud server. For the existence of an electronic document, it is not necessary that it is present as a physical object in reality.

There are certain similarities, but also significant differences between a written document and an electronic one.

A significant difference between an electronic document and a written document is the form in which they exist. A written document is a verbal statement objectified on a material medium. An electronic document is a verbal statement presented in digital form, recorded on optical, magnetic or other media.

Written documents as physical properties do not change and reflect the will as it is expressed. Document manipulation is usually visible and leaves traces on the document itself. These traces – alterations, additions, strikethroughs – are visible and are perceived visually when the document is

presented. Electronic documents and the statements contained therein can be manipulated. This change (editing or deliberate manipulation of digital information) may not be noticed, and in certain cases it is even impossible to establish that there is external interference with the electronic document [9].

A peculiarity is also found in the way the written and electronic document is perceived. The written document is perceived by the parties visually, "at first sight". Electronic documents are in digital form, which cannot be perceived directly by the addressees, but only after they have been transformed into a form receptive to the human senses using a generally accepted standard of transformation. Without a generally accepted standard for transformation, the information will remain in binary form – ones and zeros, respectively – and it will not be able to be perceived by the entities for which the electronic document has legal significance.

A written document usually exists in one original and can have many copies, i.e., we always have one original document and the corresponding copies of it. An electronic document, on the contrary, always exists in many originals, and practically every copy is an original, insofar as it cannot be distinguished from the original source. By using commands such as copy and paste, in practice, the electronic document does not create a copy; instead, it replicates all the information and creates an identical electronic document that does not differ from its original source.

5. ELECTRONIC SIGNATURES

As with the written document, so with the electronic one, the question of its authorship arises – who is the person who signed the document? The rights and obligations of the signed electronic document arise for its holder, i.e., the person in whose legal sphere the consequences of signing the electronic document will occur [8]. The signature is a sign of authorship of the document, but identifying the author of the electronic document poses a number of challenges. In principle, a handwritten signature is "biologically" related to its author, since it is affixed by a specific natural person and with the methods of graphological examination, it can be established with a high degree of probability who is the author of the signature.

On the subjective side, the signatory of the document should have an "animus signandi", i.e., he must have the desire to sign a certain document and the awareness that the signing will have the desired

consequences. However, the signature itself only presumes that the person agrees with the content of the document he signs, as well as that he aims to achieve the desired legal consequences.

From an objective point of view, the signature is characterized by the fact that it is handwritten, usually with letters or signs, representing a physical act of the person from whom it originates and creating an apparent certainty of its authorship. The function of the signature is not only to identify its author, but also to confirm their will for the occurrence of the desired consequences as a result of the signature under the relevant document.

In contrast to the handwritten signature, *the electronic signature* reveals some essential features. In this case, the natural person who uses an electronic signature with the intention of signing the electronic document. This person also has animus signandi, i.e., the subjective attitude that by signing the electronic document in the legal sphere of the author, certain rights and obligations will arise. But uses technological means that bind the electronic signature to the respective electronic statement, thus objectifying and materializing his subjective intention to sign it.

The generic definition of "electronic signature" is given in Article 3, item 10 of Regulation (EU) No. 910/2014¹, which defines it as "data in electronic form, which are added to other data in electronic form or are logically related to them, and which the holder of the electronic signature uses to sign". The Regulation explicitly regulates which entities have the quality of author of the signature – this is the natural person who creates the electronic signature through software and the available technical collateral. The regulation uses the term "signatory", which literally means "signatory" [14]. The signatory is the entity that uses the relevant data in electronic form to identify itself. The Regulation itself does not allow a legal entity to be a holder (signatory) of the electronic signature. According to the Regulation, legal entities do not have their own electronic signature. It is permissible to add to the signature of the individual information about an organization to which he belongs or has some connection. This, however, does not bind the legal person, and no rights and obligations arise for it.

Whenever a person signs a document, he does so with the knowledge that by putting their handwritten signature, this will result in certain legal consequences that affect their personal or property

¹ Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R0910>

legal sphere or the sphere of another person. In this sense, the subjects need to build a legal culture where the electronic signature is not just a technology, but through it, a number of changes can occur in the legal sphere of the persons who are "affected" by a legal relationship that has arisen and developed in an electronic environment.

A handwritten signature creates a sense of ceremony of the act of signing, but the qualified electronic signature has the same function. With regard to the electronic signature, however, its authenticity must also be examined in any case. Authenticity is a characteristic of an electronic document and is expressed in its 'reality', i.e., with a high degree of probability that the relevant electronic document can be attributed to its author.

An electronic signature can have the same legal value as a handwritten one; the peculiarity here is that, in a purely legal aspect, the document is created and arises in an electronic environment, and it may never be objectified on paper.

Another characteristic feature is that the handwritten signature, although written differently, always rests on a mechanism subordinated to the author's musculoskeletal habits. An electronic signature, unlike a handwritten one, is of three types - ordinary, advanced or qualified, and each type can be based on different and in most cases different technologies [12].

The difference between a qualified electronic signature and an ordinary and advanced electronic signature is that a qualified electronic signature is equated to a handwritten *ex lege*. While in the case of the ordinary and advanced electronic signature, it depends on the will of the parties – whether they will give them the equivalent of a handwritten signature, in the case of a qualified electronic signature, it does not depend on the will of the parties. The norm of Art. 25, item 2 of the Regulation creates a legal fiction – *the qualified electronic signature has the legal force and the effects of a handwritten signature*. This means that when the law requires a handwritten signature for the validity of a document, this requirement will be met if an electronic document is drawn up that is signed with a qualified electronic signature. It is important to note that while the Regulation allows the Member States to determine by their national law the legal force of the ordinary and advanced electronic signature, it has not provided such an opportunity for the qualified electronic signature [11]. *For it, the legal force of the handwritten signature has been established*, regardless of the regulation in national law.

6. CONCLUSION

The analysis made so far has given us an answer to what the legal concept of an electronic document and its features are, without which we would not be able to understand the concept and, accordingly, the perception of electronic documents as electronic evidence that is essential in the process of proof. Regardless of whether the process develops before a court or in arbitration proceedings, it is essential for both proceedings to prove those facts that are relevant to a legal dispute. Electronic evidence, and in particular electronic documents used by the parties, can be decisive in resolving a legal dispute. Moreover, the global pandemic had an unprecedented impact on justice systems, which were not ready to respond to the challenges of digital transformation processes. In these conditions, society had to find options for resolving disputes between the parties, and with particular sharpness placed in the field of dynamic commercial relations, which have shifted from the analogue to the electronic world and in which, mainly, electronic documents are used as a means of establishing the occurrence, amendment and termination of the relevant civil law relations. Electronic documents are playing an increasingly important role in the process of proving and the correct understanding of the concepts of electronic document and electronic signature is essential for the process of law enforcement..

REFERENCES

- [1]Bakhteev, D. V., Sosnovikova, A. M., & Kazenas, E. V. (2024) Overcoming Illegal Cross-border Transfer of Personal Data. *Journal of Digital Technologies and Law*, vol. 2, no. 4, pp. 943-972, 2024. <https://doi.org/10.21202/jdtl.2024.45>
- [2]Briet, S. (1951). What is Documentation?, available at <https://roday.pages.iu.edu/briet.htm>
- [3]Craig, E., & Sandeep J. (2004) E-mail Tracing, *Computers & Law*, vol. 15, pp. 4-15.
- [4]Ferreira, D. & Gromova, E. (2024). Digital Evidence in Disputes Involving States. *AJIL Unbound*, vol. 118, pp. 119-165. 10.1017/aju.2024.4.
- [5] Ferreira, D. & Gromova, E. (2023). Electronic evidence in arbitration proceedings: empirical analysis and recommendations. *Digital Evidence and Electronic Signature Law Review*, vol. 7, pp. 30-39. 10.14296/deeslr.v20i.5608.

- [6] Ferreira, D. B., Gromova E.A., & Titova E.V. (2024) The Principle of a Trial Within a Reasonable Time and JustTech: Benefits and Risks, *Human Rights Review*. Vol. 25, 1. pp. 47-56.
- [7] Ferreira, D.B., & Severo, L. Multiparty Mediation as Solution for Urban Conflicts: A Case Analysis from Brazil, *BRICS Law Journal*. Vol. 8(3), pp. 5-29. <https://doi.org/10.21684/2412-2343-2021-8-3-5-29>
- [8] Gromova, E., & Ferreira, D. B. (2024) On the Way to BRICS+ Digital Sovereignty: Opportunities and Challenges of a New Era, *BRICS Law Journal*, vol. 11, 3, pp. 54-69. DOI 10.21684/2412-2343-2024-11-3-54-69.
- [9] George, R.S., & Mason, S. (2017) 'The sources of electronic evidence', in Stephen Mason and Daniel Seng (eds.), *Electronic Evidence* (4th edn, University of London).
- [10] Hahn, T. B. & M. Buckland, eds. (1997). What is a 'document'?. *Journal of the American Society for Information Science*, vol. 48, no. 9, pp. 45-52.
- [11] Dimitrov, G. (2023) *Legal regime of digital transformation* (Varna: Cielo).
- [12] Lodder, Arno R., & Zeleznikow, J. (2010) *Enhanced Dispute Resolution Through the Use of Information Technology*. (Cambridge: Cambridge University Press).
<https://doi.org/10.1017/CBO9780511777554>
- [13] Stalev, Zh. (2012) *Bulgarian civil procedural law*. (Sofia: Ciela).
- [14] Susskind, R., & Susskind, D. (2015) *The Future of the Professions: How Technology Will Transform the Work of Human Experts*. (Oxford: Oxford University Press).
<https://doi.org/10.1093/oso/9780198713395.001.0001>
- [15] Varbanova, G. (2020). *The legal regime of electronic documents* (Varna: Dangrafik).

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DOCUMENTOS ELECTRÓNICOS COMO PRUEBA ELECTRÓNICA

RESUMEN

El desarrollo tecnológico ha llevado a que gran parte de las controversias trasciendan las fronteras nacionales y adquieran un carácter transfronterizo. Esto exige el estudio de la prueba electrónica, en particular de los documentos electrónicos, como un fenómeno jurídico cualitativamente nuevo, con su propia regulación independiente a nivel nacional y supranacional. Para comprender el concepto de "documento electrónico", se realizará una comparación con el documento escrito convencional, indicando las similitudes y diferencias entre ambos fenómenos jurídicos, así como las peculiaridades inherentes únicamente a los documentos electrónicos. El artículo explora el concepto de prueba electrónica en la resolución de conflictos mediante un enfoque de métodos mixtos que combina el análisis sistemático de la literatura y estudios de casos comparativos. Se analiza la definición legal de documento electrónico. El autor también concluye sobre la necesidad de replantear la teoría de la prueba física en el contexto de los documentos electrónicos.

Palabras clave: documento electrónico, firma electrónica, prueba electrónica, eIDAS

电子文件作为电子证据

摘要

技术的发展导致大量争议跨越国界,并具有跨境特征。这需要研究电子证据,尤其是电子文件,作为一种全新的法律现象,在国家和超国家层面拥有其独立的规制。为了理解“电子文件”的概念,本文将与传统的书面文件进行比较,指出这两种法律现象之间的异同,以及电子文件所固有的特性。本文采用系统文献分析和比较案例研究相结合的混合方法,探讨电子证据在冲突解决中的概念。分析了电子文件的法律定义。作者还总结了在电子文件背景下重新思考物证理论的必要性。

关键词: 电子文件、电子签名、电子证据、eIDAS