ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 03,2025

Journal: https://www.academicpublishers.org/journals/index.php/ijai

LEGAL STATUS OF ELECTRONIC SIGNATURES AND DOCUMENTS: PRACTICE IN CIVIL LAW

Javokhir Eshonkulov
javoxireshonqulov0724@gmail.com
Lecturer of Cyber Law Department,
Tashkent State University of law,Uzbekistan
Orcid: 0000-0002-9964-9031

Iqboloy Ummatova
2nd year student of Tashkent State University of Law
The faculty of international law and comparative legislation
iqboloyummatova27@gmail.com

Annotation: Within the framework of this article, the author has covered the concept of electronic signature and its types and aspects different from electronic digital signature. The article also analyzes the favorable and problematic aspects of electronic signature and the legal status of documents signed electronically in Uzbekistan. Within the framework of the topic, proposals and conclusions are presented.

Keywords: Electronic signature, electronic digital signature, electronic document, electronic operations, technical infrastructure.

The 21st century is rightfully called the age of technology. Throughout this century, information technologies have been continuously advancing. Examples of this include the development of artificial intelligence, the transition of public services to electronic formats, AI, robotics, and others. The shift of documents to electronic formats, in turn, necessitated the transition of signatures to electronic forms as well. As a result, the concept of the electronic signature emerged. The use of signatures has been a crucial part of human history, serving various purposes such as business operations, financial management, education, and daily activities. However, with the emergence of advanced technologies and new platforms, digital signatures have revolutionized traditional paper-based processes. Currently, electronic signatures are essential for business operations and daily activities due to their convenience and security. **An electronic signature** is an electronic indication of a person's intent to agree to the content of a document or data set related to the signature. Similar to a handwritten signature in the offline world, an electronic signature is a legal concept that reflects the signer's intent to agree to the terms of the signed document. The electronic signature consists of data that is logically linked with other information and is used by the signer to sign the relevant data. This type of signature, if created in accordance with specific regulatory requirements (e.g., eIDAS in the European Union, NIST-DSS in the United States, or ZertES in Switzerland), has the same legal force as a handwritten signature. The misconception that digital signatures are a completely new concept is widespread. The reality is that digital signatures have existed for decades, but only in recent years have they become more widely adopted. The first electronic signature was created in the West. Following this, the United States was one of the pioneers in this field, establishing

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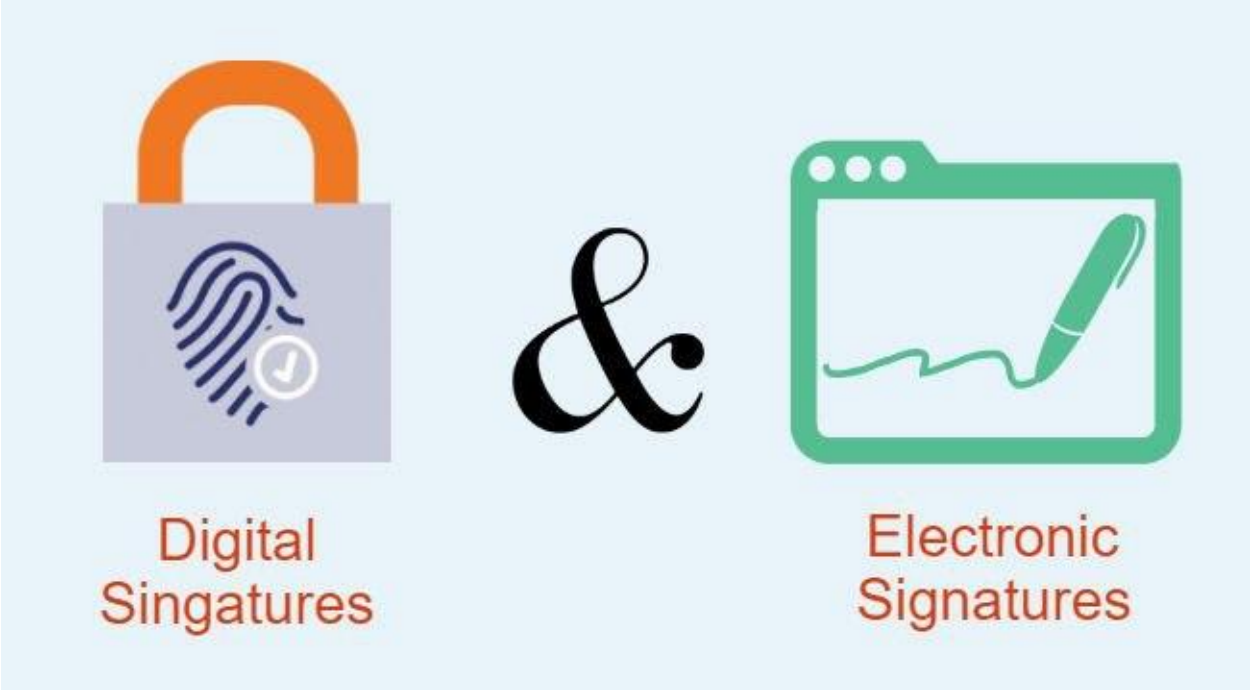
standards for electronic signatures with the "Electronic Signatures in Global and National Commerce Act" (ESIGN Act) in 1999.

The difference between an electronic signature and an electronic digital signature.

In many cases, people tend to think of an electronic signature and a digital signature as the same concept. However, they are distinct terms. **An electronic signature** is simply the electronic form of a traditional signature, but it does not involve any encryption or standards. It can be a symbol, image, or process attached to a message or document to recognize the individual and express consent. We use an electronic signature when we only need to confirm a document. The verification of an electronic signature is not carried out by trusted certification bodies or service providers, and therefore, it is usually not considered reliable. Using an electronic signature is much easier than using a digital signature, but it is less secure than a digital signature. “Electronic signature” means data in electronic form in, affixed to or logically associated with, a data message, which may be used to identify the signatory in relation to the data message and to indicate the signatory’s approval of the information contained in the data message.[1] Electronic signatures may not be legally recognized in all countries.

Image 1: difference of electronic digital signature and electronic signature.



An electronic digital signature is a signature created through specific alterations made to the information of an electronic document using the private key of the electronic digital signature, and it allows for the verification of the integrity of the information in the document using the public key of the electronic digital signature, as well as the identification of the holder of the

[1] UNCITRAL Model Law on Electronic Signatures with Guide to Enactment UNITED NATIONS New York, 2002

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electronic digital signature key.[2] When it is necessary to protect a document, we use a digital signature. The verification of an electronic digital signature is carried out by trusted government authorities or trusted service providers, which is why it is generally authorized. The electronic digital signature is preferable to the electronic signature, as it is more secure than the latter.

Levels of electronic signatures.

Nowadays, electronic signatures are well-established and are considered the most reliable method for digitally signing documents. There are **three levels** of electronic signatures: simple electronic signature, advanced electronic signature, and qualified electronic signature.

Simple Electronic Signature: An electronic signature is defined as "data in electronic form, which is attached to or logically associated with other electronic data and used by the signatory to sign." Thus, something as simple as typing your name at the end of an email can be considered a simple electronic signature. Simple electronic signatures are the initial form of electronic signatures. They may include scanned images of signatures or even handwritten names. A simple electronic signature involves basic electronic processes such as clicking a button to indicate consent or entering your name to express agreement. Due to their convenience and ease of use, simple electronic signatures are more suitable for internal communications, low-risk agreements, and informal transactions. However, they provide limited assurance regarding the identity and intent of the signatory, making them less appropriate for high-stakes contracts.

Advanced Electronic Signature: An electronic signature that additionally:

- Is uniquely linked and capable of identifying the signatory;
- Is created in such a way that the signatory retains control over it;
- Is linked to the document in a manner that any subsequent changes to the data can be detected.

Advanced electronic signatures offer a higher level of security compared to simple electronic signatures. They ensure that the signatory's identity is uniquely linked to the signature and that the signature is created using data under the signatory's control. Furthermore, they ensure that any subsequent changes to the signed data can be detected. They may also include additional layers of security, such as encryption, to protect the integrity of the signed document. This security ensures the authenticity of the document and makes it easy to detect any alterations made after the signature, thus preventing fraud. The most common technology that provides these features is the use of Public Key Infrastructure (PKI), which involves certificates and cryptographic keys.

Qualified Electronic Signature: An advanced electronic signature that additionally:

- Is created by a qualified signature creation device;
- Is based on a qualified certificate for electronic signatures.

[2] Law of the Republic of Uzbekistan, “On the electronic digital signature” 12.10.2022 г. № LRU-793

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Signature creation devices come in various forms, such as smart cards, SIM cards, and USB flash drives, to protect the data used for creating electronic signatures. "Remote signature creation devices" can be used in locations managed by the provider, even if the device is not physically possessed by the signatory. These remote qualified signature solutions offer an enhanced user experience while maintaining the legal certainty provided by qualified electronic signatures. Qualified electronic signatures represent the highest level of electronic signature security and legal recognition. They are created using a qualified electronic signature creation device that complies with specific technical and legal requirements. In many European countries, they are also issued by a trusted third-party certification authority that ensures the signatory's identity is verified and meets regulatory standards.

Advantages and Challenges of Electronic Signature.

- **It can be used from anywhere**. Signatories, whether they are within the city or in another country, can use electronic signatures regardless of their location. This means that employees can work from anywhere, even remotely.
- **Time-saving.** The process of signing a document with an electronic signature is faster compared to traditional signing. This is because the document is sent electronically, and the signature is also applied in electronic form. Paper-based document operations fill your day with manual tasks such as drafting, printing, scanning, and mailing. It may take several days, or sometimes weeks, to sign and return them.
- **Cost reduction.** By transitioning to electronic signatures, companies can significantly reduce costs associated with paper, printing, mail shipments, and storage. Managing physical documents not only requires materials but also demands space and time for archiving and retrieval. Digital signatures eliminate these costs and the need for physical storage. Furthermore, with less manual processing, your company reduces administrative expenses and human errors, which further enhances overall operational efficiency.
- **Security.** Electronic signatures are based on PKI (Public Key Infrastructure) technology, which ensures that the signature becomes an integral part of the final document through encryption, making it impossible to alter or remove. When applying an electronic signature, signatories can authenticate themselves through electronic identifiers. Additionally, when someone creates an electronic signature, the time and IP address are recorded in the audit trail embedded in the document. The only legal evidence required in court is the electronically signed PDF.

There are several **issues** in the development of electronic signature technology:

- Low levels of digital literacy;
- Insufficient development of technical infrastructure;

The need for continuous updates to the legal framework. To address these challenges, it is essential to improve technological infrastructure, implement comprehensive training programs, and leverage international best practices. Additionally, the forgery of electronic signatures presents a significant issue, as the risk of falsifying an electronic signature is higher compared to digital signatures.

The legal status of documents signed with an electronic signature in Uzbekistan.

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According to the legislation of the Republic of Uzbekistan, electronic signatures do not have legal force, meaning that an electronic signature on an electronic document does not hold the same legal power as a handwritten signature on a paper document. To clarify, an electronic document is defined as information that is recorded in electronic form, certified by a digital signature, and contains other attributes that allow for its identification. In the legislation of Uzbekistan, legal force is granted to electronic digital signatures, not electronic signatures.

According to the laws of the Republic of Uzbekistan "**On the electronic digital signature" and "On the Electronic Document Circulation**" an electronic digital signature has the same legal force as a handwritten signature on a paper document. However, an electronic signature on an electronic document does not have the same legal force as a handwritten signature on a paper document.

In our country, it is advisable to grant the same legal force to the electronic signature on an electronic document as a handwritten signature on a paper document and to regulate this matter in our legislation. This is important because, over time, documents are being transferred to electronic form, and there is a growing need to certify them electronically. As paper documents gradually disappear from circulation, the necessity for individuals to sign documents by hand will diminish, and once a document is electronic, it will need to be signed in electronic form.

In many developed countries around the world, an electronic signature holds the same legal force as a handwritten signature. For example, since the 2000s, many people in the United States have been able to sign documents electronically. However, some individuals still prefer to use traditional handwritten signatures. In 2000, the U.S. federal government passed the Electronic Signatures in Global and National Commerce Act (ESIGN), which in tandem with the Uniform Electronic Transactions Act (UETA) confirms that electronic signatures constitute legally binding documents if all parties choose to sign digitally.

Conclusion and Recommendations.

Along with the digital signature, electronic signatures should also be granted legal force in the Republic of Uzbekistan through legislation. Over the years, documents are gradually being transferred to electronic form, which increases the demand for electronic signatures.

Predictions for the future of electronic signatures are based on current trends and advancements in technology. Experts predict that electronic signatures will become more prevalent in the coming years as the world becomes increasingly digital. One of the emerging trends in electronic signatures is the role of artificial intelligence. AI-powered e-signature solutions can provide more accurate and secure identification and authentication, making the signing process faster and more efficient.

Emergence of blockchain in electronic signatures is also another trend that has emerged in recent times. With blockchain, electronic signatures can be more secure and tamper-proof, providing a better level of security. Experts predict that enhanced security measures will be developed to prevent fraudulent activities. This will include the use of biometric authentication technologies

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such as fingerprint or facial recognition. This will further strengthen the security of electronic signatures, ensuring that they are more reliable than ever before.[3]

In conclusion, the future of electronic signatures looks bright. Experts predict more innovative solutions, greater flexibility, more advanced security mechanisms, and integration with other technologies. Businesses that embrace these trends will be better positioned to take advantage of the many benefits of electronic signatures.

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