

## **The essence, importance and necessity of digitalization of electoral processes**

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**Abstract** The digitalization of electoral processes represents the comprehensive introduction of information and communication technologies into the organization and conduct of elections, aimed at increasing transparency, efficiency, and public trust. In the context of global digital transformation, states are increasingly adopting electronic tools for voter registration, voting, vote counting, and the transmission of election results. The essence of electoral digitalization lies in the optimization of electoral procedures, the reduction of administrative costs, and the minimization of the human factor that may affect the objectivity of election outcomes. The importance of digitalization is driven by the need to ensure openness and accountability of electoral processes, to expand citizen participation, including that of persons with disabilities and voters residing abroad. The necessity of digitalizing electoral processes is also determined by growing public expectations regarding the quality of public governance, the development of e-government, and the need to prevent electoral fraud while ensuring cybersecurity and the protection of personal data. Overall, the digitalization of the electoral system serves as a key factor in the modernization of democratic institutions and the strengthening of political legitimacy.

**Keywords:** digitalization, electoral processes, electronic voting, electoral system, information and communication technologies, election transparency, cybersecurity, e-government.

When conducting research on the digitization of electoral processes, it is advisable to first of all distinguish two important objects, namely analysis, and then study them in an integral way - synthesis. The first of these objects is elections, and the second is digitization.

Elections are one of the most important political institutions in modern state governance. The history of its formation, essence, significance, political and legal foundations have always been the object of research by scholars in the field of social sciences<sup>1</sup>.

Academician A. Saidov notes: The concept and expression “suffrage” are used in two meanings. First, this right to suffrage is a system of legal norms regulating the formation of elected state bodies. The sources of suffrage are the Constitution, laws on elections to the highest and local representative bodies of the state.

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Secondly, suffrage is the right of citizens to participate in the formation of elected state bodies, that is, to be elected to them (passive suffrage) and to elect their composition (active suffrage)»<sup>2</sup>.

Electoral institution is one of the main tools of democracy, which ensures citizens' participation in state management and implementation of their rights.

According to various scientific views, the electoral institution performs the task of stabilizing the political system of the society, expressing the will of the people and guaranteeing the legitimacy of state bodies.

Scientists emphasize that the transparency and fairness of elections is one of the main conditions of democracy. Also, the importance of the electoral institution is shown in aligning the state administration to the will of the people, which ensures stability and justice in the society. The necessity of the electoral institution, in turn, is evident in meeting the need of citizens to exercise their political rights.

Electoral processes are the main component of a democratic society and play an important role in the realization of political rights of citizens. Classical and modern political-theoretical views are of particular importance in the theoretical analysis of the electoral institution.

Aristotle saw elections as a means of legitimizing government and considered them the basis of just governance<sup>3</sup>. Jean-Jacques Rousseau, on the other hand, interprets elections as a pillar of democracy, as a means of expressing the will of the people<sup>4</sup>.

The legal basis of the electoral institution is primarily related to constitutional law, electoral laws and the mechanism of their implementation. Carl Schmitt pays special attention to electoral law and its role in the system of state power, indicating that ensuring the accountability of power to the people through elections is an important task<sup>5</sup>.

At the same time, modern legal and political analyses see the electoral institution as a means of increasing legal stability, the legitimacy of state institutions, and the political activity of the people<sup>6</sup>.

The necessity and importance of the electoral institution are directly related to the basic principles of democracy. Elections ensure the legitimacy of state power, implement the principle of the people's ownership of power, and strengthen socio-political stability.

According to Robert Dahl, elections ensure the political participation of citizens and their ability to influence government<sup>7</sup>.

If we analyze the scientific concepts formed in this direction, it is possible to observe such ideas as elections - a form of human rights, an important constitutional and political right, the democratic form of organizing public administration of elections, a modern way of people's participation in public administration, and the mechanism of public influence on public administration<sup>8</sup>.

In our opinion, elections are an important mechanism for citizens' participation in public administration. Through elections, citizens participate in the formation of state bodies, choose their representatives, and elect high-ranking officials. The state

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and public administration determine the representatives who will act on their behalf and, through their representatives, realize their rights and aspirations.

If we conduct a scientific study of the issue of digitalization, the initial ideas are aimed at creating convenience, reducing the human factor in a certain process, and ensuring openness and transparency. If we approach this issue more broadly, we can observe the implementation of lofty ideas such as welfare, ensuring social justice, and implementing the rule of law as the main issues.

Nowadays, digitalization is becoming an objective necessity in all areas. The rapid development of science and technology also has a serious impact on this.

Most scientists working in the field of information technology distinguish the following three main stages of digitization:

The first is the formation, collection, accumulation, and systematization of a database of information related to a certain area of social life.

The second stage is the analysis of systematized data, conducting research based on modern scientific methods.

The third stage is the identification of new strategic directions for development based on the results of the research and the implementation of new ideas based on the conclusions drawn<sup>9</sup>.

Indeed, in the current information age, the most important area is working with databases. The accuracy and completeness of data, as well as the integration of various sectors, are very important factors in digitization.

The study of the concepts of elections and digitization through the combination of these concepts further increases the relevance of the issue. Because on the one hand, there is an important political process that directly affects the governance of the state and society, its future development, and on the other hand, a new area that serves human well-being, such as creating convenience for people, quickly determining the most correct direction, and achieving more results with less time, is emerging on the basis of modern technologies.

According to Russian researcher K. Drozhzhin, the need of the day is to apply the digitization process that is taking place in the life of the entire society to electoral processes<sup>10</sup>.

Digitalization of electoral processes (i.e., election management through digital technologies) is a field of activity aimed at organizing the process effectively, legally, openly, transparently and securely through the use of modern information and communication technologies at various stages of elections.

When expressing an opinion on the purpose and essence of digitalization of electoral processes, it is worth noting that by introducing information technologies into this very important political process, it is possible to create convenience for the subjects of the electoral process, ensure the openness, openness and transparency of the process, ensure the rule of law, and prevent excessive costs.

At the beginning of the process, first of all, the main and priority areas of digitalization are identified, special electronic programs and platforms are developed

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for them, new databases are created, some of them are integrated with existing networks, and the subjects of the electoral process are informed about this<sup>11</sup>.

The importance of digitization is reflected in the fact that it creates the basis for the process to be carried out more quickly, qualitatively, more completely, with less effort, and in an open and transparent manner.

Significant results have been achieved in the initial stages of digitizing the electoral process, as can be seen from the results of the elections held in 2024. In particular, the "E-election" information system was created to digitize the electoral process based on the state program for the implementation of the "Uzbekistan - 2030" strategy in the "Year of Youth and Business Support".

The "E-election" information system was developed to fully digitize relations between participants in the electoral process, reduce bureaucracy, unnecessary time and document flow in electoral procedures, prevent conflicts of interest, and ensure greater transparency of information on elections<sup>12</sup>.

"For the first time in Uzbekistan, elections to the Legislative Chamber of the Oliy Majlis were held on the basis of a mixed electoral system, that is, a majoritarian-proportional system, and modern information and communication technologies were introduced into the electoral process. In particular, the "E-election" information system, its advantages and capabilities, as well as the electronic voting device in the elections for the first time were tested."<sup>13</sup>.

The need for digitization of the electoral process can be further understood through the following factors:

Firstly, digitization is a process that is being implemented all over the world, as well as in all aspects of our country's life, an important direction of development. In this regard, the electoral process should not lag behind large-scale, systemic reforms.

Secondly, the electoral process is the largest process in the political sphere, directly affecting the interests of all segments of the population, the development of the state and society. This process should be one of the first to be digitized.

Thirdly, elections are a nationwide political event, with a large number of subjects participating in it and a large-scale process. Effective digitization of such a process will facilitate the work of a huge number of people, including members of election commissions, voters, political parties, observers and other subjects.

Fourthly, the rapid development of digital technologies. Information technologies are developing day by day, and unprecedented innovations are coming into being. The productive use of the capabilities of these new technologies in electoral processes is becoming a necessity.

During our scientific research, we conducted a social survey among more than 1,500 subjects of the electoral process and representatives of the population. Most of the participants highly appreciated the need for digitization of electoral processes. In particular, to the question "How do you assess the need for digitization of electoral processes in Uzbekistan?", 61% of respondents answered "it is very important, it creates convenience for subjects of the electoral process", 26% – "digitization is a requirement of the times, modern technologies should be widely applied to this

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process, as in all areas”, 6% – “some electoral processes should not be digitized, because it does not comply with the principle of “secret voting”, 3.3% – “it is preferable that the ballot be filled out manually, technology can give a hint”, 3.7% – “only a certain part of the elections should be digitized”.

The above results also show how important the need for digitization of electoral processes is. Of course, this is consistent with the reality taking place all over the world. In addition, modern technologies are entering all spheres of social life.

According to M. Boboev, a scientist who conducted research on improving the legal mechanisms of digitization, “a few years ago, the world began the era of the fourth industrial revolution, called “Industry 4.0” and based on the emergence of artificial intelligence.”

In the context of the fourth revolution, we can say that the whole world is covered by digitization (the widespread introduction of digital technologies into various aspects of life: management, industry, economy, education, culture, services, etc.) and digitalization (the transition to a digital method of communication, writing and data transmission using digital devices). This, of course, cannot but be reflected in law<sup>14</sup>.

The aspects of digitizing the electoral process are increasingly reflected in the opinions of national and foreign scientists, politicians and experts. Scientists emphasize that digitizing elections is not just a technological solution or an update of the electoral process, but a fundamentally new legal perspective or approach. In particular, Christy McCornick, a member of the US Election Assistance Commission, during her visit to various regions of the republic to familiarize herself with the processes at polling stations, noted that electronic voting devices introduced into the electoral process not only solved many bureaucratic obstacles, but also served to simplify the work of the electoral body and played an important role in creating convenience for voters<sup>15</sup>.

This term does not include the use of digital electoral technology at all levels of electoral administration, such as online voting or electronic voter registration. A parallel definition of the word “process” is also used. The approach has shown the importance of using all electronic means at each stage of the preparation and conduct of the election. According to the analysis, various digital electoral processes that are implemented within a single, generally classified electoral process are distinguished<sup>16</sup>. The digital process is the development of the electoral capacity of a company capable of processing, which has the ability to vote. No differences and mechanisms have allowed voters and society to choose legislative powers that attract the attention of individuals. Similar discussions are taking place not only about the use of the latest electronic technologies, but also about the digitization of elections. The digital decision-making process itself serves as a tool. As a citizen, you can have the opportunity to choose in the existing electoral process, provided with digital tools<sup>17</sup>.



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In our opinion, the digital electoral process is understood as the use of comprehensive and secure technological systems to improve elections. Digital electoral processes involve the digitization of voter lists from the initial verification stage or from lists created in parallel with other stages of electronic voter registration. The use of various digital processes and modern approaches has proven itself in a number of international practices. Studying such practices will help shape digital electoral processes in the conditions of Uzbekistan. By providing modern, advanced and digital tools to replace traditional elections with modern electoral processes, both the government and citizens play an active role in implementing changes and innovative changes to the electoral process, which at the same time preserves the essence and significance of elections. Such methods can be effectively used to modernize electoral processes and democratize the electoral environment<sup>18</sup>.

By developing a variety of programs and platforms to inform citizens, and using animated and live materials on a variety of issues that may interest voters beyond election scholars or candidates, there is a potential to significantly increase people's participation and engagement, primarily due to the greater opportunity and speed with which political attitudes, actions, and activities can be discussed<sup>19</sup>.

Digitalized elections will be monitored and reported in real time using advanced computer and digital tools more efficiently and quickly. In this sense, digitalization will ensure greater citizen participation in elections. Real-time digital information about the electoral process can be a powerful tool to prevent any fraud attempts during the electoral process. And finally, it will further increase the transparency of the electoral process by providing constantly up-to-date information about the election and the sequence of the electoral process.

Introducing technology into electoral processes will reduce the risks associated with electoral fraud and manipulation<sup>20</sup>. This is primarily because digital voting systems can easily turn the election process into observable data. The more information you can obtain about all aspects of the election process, including who is responsible for the process at the polling station, the easier it is to reduce risks before and after the election. Who can vote, who is legally entitled to register and receive a ballot, and whether technology can help determine whether the numbers are completely disconnected from paper processes during the vote count are aspects of an election that can be supported. In the current political climate, this need is high among voters, especially as the process is expected to shift from a secret, closed-door process to one that is completely or largely machine-controlled<sup>21</sup>.

Fully integrating all electoral processes into digital systems would provide a simple way to generate and use the data needed to detect and combat fraud, while also increasing voter confidence. Resistance to reforms that seek to uncover historically opaque aspects of the electoral process is now less effective. High levels of transparency, a hallmark of democracy, strengthen the legitimacy of governance and the institutional foundations that underpin it. Any rules that come with electronic voting would facilitate full and detailed monitoring of internal systems, such as

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regional bodies and NGOs, that require information during the electoral process, as well as political parties and citizens' groups<sup>22</sup>.

There should be a robust, credible and validated regulatory framework that facilitates the integration of technological and digital tools into national electoral systems, while respecting internationally recognized human rights and the rule of law. The introduction of these systems will bring about a number of reforms in the nature and practice of electoral processes and their transparency. At the same time, the opportunities offered by innovative technologies offer some new tools for democratizing elections and improving electoral governance that cannot be ignored. Digitalizing electoral processes is the adoption of innovations to revitalize electoral processes in a way that is broadly consistent with democratic norms and values, which have recently been hampered by the impact of the pandemic<sup>23</sup>.

"Electrotechnology is the main concept of ensuring the security, integrity and reliability of the collection and processing of electoral data segments by providing hardware and software components. Such an approach is based on the basic requirements for providing the capabilities of the digital space presented as the first of the five main results"<sup>24</sup>. The introduction of such infrastructure elements will serve to create, develop and popularize electronic services in the electoral sphere.

At the same time, in other areas, in particular, in connection with the use of video streaming services, there is a great demand for cloud services, which will allow the use of this type of technology by creating a single center and organizing the voter registration process in a single format. Today, the issue of creating a multi-cloud system that can increase the security and anonymity of data transmission over the network is also relevant.

The digitization of such services is currently under pressure, as it eliminates traditional models. However, even the mention of possible changes in the methodology for conducting elections and calculating results causes resistance, non-recognition, and often denial. Today, such discussions are primarily aimed at creating an atmosphere of resistance, partisanship, and may not correspond to the materials and legal discussions provided for in the National Program, as well as electoral legislation<sup>25</sup>.

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The experience of the countries where the electoral process is conducted completely electronically shows that the elections conducted through the electronic system have many undeniable advantages<sup>27</sup>.

Currently, modern ICT is also widely used in the national election process. “The information system for managing the election process, a single electronic voter register, video surveillance of the election process, the official website of the Central Election Commission of the Republic of Uzbekistan with interactive services (for example, “Find yourself in the voter register”, “Determine and change the polling station”, etc.) and the special web portal “Elections - 2021”, e-mail, a special Telegram bot, instant messages on Facebook, Instagram, YouTube and Twitter, special mobile applications for quick use by members of election commissions are among them. Such extensive opportunities that are being created serve to increase the efficiency of the election process<sup>28</sup>.

We believe that it is necessary to systematically continue the reforms related to the digitalization of the electoral process in Uzbekistan and that they are based on in-depth scientific analysis.

If we also pay attention to the results of the sociological survey conducted as part of our scientific research, the initial indicators showed a large difference in the level of knowledge about the importance of the digitalization of the electoral process and its organizational and legal foundations.

In particular, to our first question, “Do you have an idea about the digitalization of the electoral process, its organizational and legal foundations?”, 56.1% of respondents answered “of course, I am well aware of this issue, its essence and importance”, 29.7% answered “partially, I know some aspects of the digitalization of elections”, 8.6% answered “I do not have information at all”, 2.9% answered “I know the organizational foundations, but I am not familiar with the legal foundations”, 2.7% answered “I know the legal foundations, but I am not fully familiar with the organizational foundations”.

The above results show that the level of public awareness of the reforms being carried out in our country regarding the digitalization of electoral processes is not very low, but they indicate that there is a need to further strengthen propaganda and explanatory work in this direction.

Based on the scientific analysis carried out in this paragraph, the following conclusions can be drawn:

Firstly, the digitalization of electoral processes is of great importance. Because as a result of digitalization, the transparency, accuracy and security of the electoral process will be significantly improved. This system will serve to accurately and reliably record each vote, automate vote counting and expand voter participation opportunities.



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Secondly, through the introduction of digital technologies, effective management of electoral resources, creating convenience for the subjects of the electoral process, further expanding citizen participation and forming an electoral system in line with international experience are becoming a pressing issue today. Therefore, continuing digitalization is one of the important steps to ensure fair and stable conduct of future elections in the country.

Thirdly, there is a need to comprehensively explain to the population the necessity, importance and essence of the digitization of electoral processes, its organizational and legal mechanisms, as well as the content of the reforms being carried out in this area. Based on this, it is necessary to effectively organize the work of entities responsible for this area in this direction. Fourthly, and most importantly, the digitization of electoral processes serves to ensure legality in the organization and conduct of elections. The more widely the area is digitized, the less crimes related to violations of electoral legislation will be committed.

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