

Legal Regulation Of Electronic Voting Techniques And Its Impact On The Effectiveness Of Parliamentary Elections The United Arab Emirates (Comparative Study)

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Preface

Many countries have witnessed a remarkable development in the use of modern technology means to initiate the manifestations of democracy and the selection of parliaments. The importance of electronic means in supporting the electoral process and providing a sound environment that ensures the effectiveness of applying the various political elections procedures using electronic voting techniques is crystallized.

Research Importance:

The research focuses on the legal concept of electronic voting, which includes all procedures in which electronic means and computer technology are used to record and count electoral votes and announce election results with impartiality and objectivity.

The research also deals with all legal aspects and guarantees that provide information security and confidentiality during electronic voting, so that voters can trust in the integrity of political election procedures and in turn reflect the strength and integrity of the performance of the electronic government.

Research Goals:

Explanation of electronic voting systems and their legislative regulation and exposure to the extent of their effectiveness in various Arab and Western countries, whose methods varied in the introduction of various electronic technologies

Research problem:

Despite the competition of countries in the use of modern technology and adapting them in proportion to the conduct of political elections procedures, especially during the Corona pandemic and the crises it caused with it, it requires finding modern solutions to eliminate the challenges of this crisis so that the government guarantees increased precautionary and preventive measures and the application of social distancing measures.

However, at the same time, various governments are seeking to support the electoral system and increase the percentage of voting by giving all the different sects of society opportunities to participate in developing their electronic culture and exercising their political rights.

The real problem with the use of these means appears with regard to the challenges of electronic culture for most voters, as well as the problems of cybersecurity and information protection, in which electronic systems may be exposed to attempts to hack data and fraud with incorrect electoral results that affect the transparency and confidentiality of voting during the electoral process.

Research questions:

- What is the relationship between e-government and e-voting, and how can they be employed in exercising the political rights of voters?

What is the legal regulation of electronic voting systems in Arab and Western countries, and what are its warnings?

Methodology:

The first Section: The concept of electronic voting and

its role in regulating the exercise of political rights.

The second Section: The legal regulation of electronic voting in the UAE and other Arab and Western systems.

The third Section: The electronic voting system between effectiveness and security.

The first Section

The concept of electronic voting and its role in regulating the exercise of political rights

Preamble and Division:

Many countries have turned to the importance of technological transformation and holding elections through electronic voting, considering the digital transformation policies that many departments within the country seek to keep pace with the foundations of e-government.

In this Section, we will address two issues:

The first requirement: the concept of electronic voting and its various forms.

The second requirement: the role of electronic voting in regulating the exercise of political rights.

The first requirement

Electronic voting concept and its various pictures

Voting is a democratic method used by a group of individuals, to make a specific decision that expresses their views, after exhausting political and legal discussions, which often take place in parliamentary assemblies or political elections.

And that is when the state lays the foundations of the democratic system, which allows the electorate to cast their votes towards candidates to occupy senior positions in the state or to vote on decisions of a constitutional or political nature.

In light of the technological development, the electronic voting technology has emerged, which is a means of obtaining the votes of voters electronically, as it is a modern system that relies on technologies related to the Internet and is used to exercise the political rights of citizens in all its varieties of constitutional entitlements.

This system is also concerned with storing results in computer systems according to certain security and technical standards to ensure the achievement of the highest levels of transparency, accuracy, and security, which ensures the integrity of the electoral process.

The importance of electronic voting in elections is highlighted in the effective contribution to the process of transition to e-government applications and the development of future plans to strengthen democratic governance, which is achieved by facilitating the electorate in choosing the people's representatives.

Hence, electronic voting is carried out through electronic data processing systems that include monitoring the input and output of data and processing it electronically during the voting procedures after identifying the identity of the voting persons.

Various electronic voting systems:

1. Punch Card Voting Method:

With this method, voters make holes in the cards using punching tools they been provided by it, to indicate their choice of candidates, and the voter may feed the card directly to the vote tabulation device calculated at the polling place, or put a card in the ballot box, which is later transferred to the Tab central location.

The advantages of using this method are:

- The possibility of counting votes and cards manually, thus avoiding malfunctions that may occur in the electronic electoral process.

By using this method, the voters' ignorance of technology is avoided. As for the disadvantages of this method:

- The improper hole in the electronic card is a reason for spoiling the vote.
- It is possible that a malfunction may occur in the machine used for counting the punch cards, which will lead to damage to the cards and thus spoiling the vote.

2. The method of counting and voting by scanning:

Where the scanning devices capture a clear image and convert it into data that can be read by a computer, and this image appears in the form of signs such as triangles or circles to indicate the voter's choice, and may be in the form of letters such as handwriting, and the electronic

scanning technology stores it in the form of readable data.

This technology can also be used in the pre-voting stage to verify identity, such as images of fingerprints or facial features, and convert them into digital images and store them on smart cards.

The advantages of this method appear in the results stage by accelerating the process of announcing the results in countries that adopt the method of manual voting.

3- Direct electronic registration method:

Where optical electronic equipment is used that the voter operates, whether by touching the screen, pressing the button, or using a light pen on an electronic screen after the device is recognized by a standard biometric scanner.

These devices use more than one vital feature to verify the identity, so they use the combined features such as the network fingerprint in addition to the fingerprint, or the secret number of the smart card.

One of the advantages of this method is to dispense with the ballot papers, since the voting data is stored in the computer on a hard disk, a portable disk, a compact disc, or a smart card, for backup and verification purposes.

Types of direct electronic voting:

Voting through devices located at the polling sites:

As in Belgium since 1991, voting data is copied to a smart card issued to the voter and puts it in the ballot box and can be used as a backup in the event of a hard drive failure.

This method ensures speed in verifying identity, storing votes, sorting, and counting, and announcing the results. It also works to transfer votes to the central voting districts with ease.

The polling center can be provided with computers that issue cards or receipts in two copies to the voter after the voter has finished voting, one of which is kept by the voter and the other remains with the electoral district. It is used to re-verify the correctness of the electoral results in the event of electoral appeals or a malfunction or malfunction of the electronic devices.

Remote electronic voting:

And it is via the Internet from anywhere in the world, and using this technology, the secret number (code) is sent to the voter by mail or using a smart identity card that contains an electronic chip containing all the voter's data, and voting is done via the Internet or mobile phones. I have taken in this way Switzerland and Belgium by creating a database and broadcasting it through the World Wide Web and called the electronic portal.

The public network for direct electronic voting:

It is through the use of a direct electronic voting machine, which is based on the use of a public communication network for electronic data, and the voting data, if it occurs, is transmitted to the central website at the end of the electoral process.

This system is characterized by ease of procedures and allows voting from anywhere using the Internet or telephone or from any geographical location inside or outside the country as long as there is a computer that has the ability to send data to the voting website.

Voting through modern communication devices and smart phones:

This is done through the voter's contact with the telephone voting registration center, which in turn records the voice and call data and keeps the audio recording to prove the vote with the election-based authority, and through the voter's use of a secret number or metadata specified by the electoral body.

This system is also distinguished by the fact that when there is a dispute and a dispute over the elections, the voice signature is used to identify the person of the voter who cast his vote electronically.

Mechanical counting systems (voters counting):

According to the old traditional methods, the votes are counted manually through paper cards by state employees, but with the development of technology, the means of counting varied as follows:

I. Automated mechanical counting:

Where he uses colored and numbered plastic cards representing each color and the number of the person of each candidate, and then the voter puts the card in the color of his choice in the machine, which in turn sorts the

plastic cards, counts and arranges them according to their colors and numbers, and Germany has applied this technique, which is valid only with a few Candidates or lists in local elections. Because the color code used limits the number of colors used.

2 - Electronic counting system in electoral districts:

Through it, data inputs are received as soon as the voter votes and the data is processed and shown on screens or in a printed form during election days or at the end of the voting period using electronic data storage systems and means and then sent through public communications networks to a central headquarters in the country under the supervision of the authority based on the election.

3- Central electronic vote counting system:

It is a system that receives voting data as soon as the voter votes through the electoral districts and monitors, organizes and stores it as soon as it reaches it via electronic communication networks

This system is based on the production of electronic outputs showing the general outcome of the electoral process at the central level.

- Tools for auditing the integrity of elections via electronic voting: First - Paper Check:

It is called the paper-based audit system in the course of the electoral process, and it is also followed by the paper-based voting system, and it aims to protect the electronic voting system from the dangers of fraud or malfunction by finding a manual method stemming from the electronic system that allows for re-counting of votes.

An official certificate is extracted that the voter obtains and keeps, through this electronic machine, and another paper certificate is extracted that is kept in the electoral district and cannot be tampered with. Therefore, when there are any disputes, the vote can be verified by looking at the original certificate of the voter and containing his data.

Second - Cross-track voting audit system: Voter Verified Audit Trail (VVAT):

It is a system that requires the presence of external devices

that do not need cards, and it is difficult to use these devices by voters.

There are modern techniques from it, where touch screens or direct electronic voting recording devices are connected to printers that issue paper receipts or printed certificates bearing watermarks or holographic marks, a copy of which is received by the voter and the other copy is kept with the authority supervising the elections.

The second requirement

The role of electronic voting in regulating the exercise of political rights

Political rights are a set of rights guaranteed by the constitution to a group of individuals as members of society and aim to achieve the public interest.

This is in order to be able to participate in the political life of the state in all its manifestations, including voting in elections, joining parties and trade unions, and participating in expressing opinions through referendums related to the constitution or any other political issue.

Hence, electronic voting as a modern model leads to its fruits in the ease of activating the individual's right to political participation within the scope of his society, without fear of discrimination and racism.

In this regard, the American Convention on Human Rights affirms the general duties of the state in Article 1 that "States parties to this Convention undertake to respect the rights and freedoms recognized in this Convention and to guarantee to all persons subject to their legal jurisdiction the free and full exercise of those rights and freedoms without discrimination on grounds of race, color, gender, language, religion, political or other opinions, national or social origin, economic status, birth or other social status."

As well as establishing the concept of citizenship by providing the state with various freedoms, the most important of which is equality between individuals in rights and duties, the exercise of political rights and participation in public life.

The Supreme Constitutional Court of Egypt emphasized the importance of the right to vote, saying, "The two rights to vote and to be elected are complementary rights. Parliamentary life does not exist without either of them, or popular sovereignty does not achieve its full

dimensions. Hence, these two rights were necessary to implement democracy in its constitutionally prescribed content, and to ensure that Parliamentary councils reveal the popular will and through it a true expression of it.

In view of the link between electronic voting and political rights, it is one of the rights that do not respond to a financial transaction, and it is also one of the political rights that may not be waived.

This opinion is based on the premise that elections in their entirety are a legal authority that was decided for the purpose of the public interest, and then the voter's authority to waive this right is repealed as it is an authority decided for the interest of the community, and the legislator may modify its content or conditions of use.

Likewise, the right to vote does not fall by statute of limitations, as discontinuing the exercise of the right to vote does not lead to its expiration, but the individual has the right to exercise it whenever his conditions are met.

Conditions for directing the right to electronic voting:

First: The right to electronic voting is related to the right of individuals who hold the nationality of the country, but not foreigners, to vote in general

Second: the age requirement:

It is required that the voter has reached the age of political eligibility, which is determined by the various countries within their laws or constitutions, especially regarding candidacy for parliamentary councils.

Third - Reason and Capacity for Political Participation:

It is the obvious thing that prevents anyone who suffers from mental illness such as madness, foolishness, or negligence from participating in political life.

Fourth - good manners:

Where most democratic systems require individuals to have good morals, integrity and honor, the general principles on which electronic voting is based during the conduct of the electoral process:

Since voting is an expression that includes all the different forms of voting, it is related to the meaning of the election in which the people delegate their representatives to exercise their sovereign powers as

one of the forms of democratic legitimacy.

Therefore, the correlation between democracy and election was essential in light of the concepts agreed upon in the constitutional law, which necessitate that the voter, in complete secrecy, cast his vote to choose the best candidates and representatives for him in Parliament.

First - Person who has the right to vote:

It means that the voter himself votes and proceeds with the process of giving his opinion, which is verified by the definition of the electronic voting system from the person's identity through the electronic reader system

Second - The principle of secrecy of voting:

This was confirmed by the Universal Declaration of Human Rights in 1948 in Article (21) of it: "Everyone has the right to participate in the management of the public affairs of his country, either directly or through freely chosen representatives, conducted periodically by universal and equal suffrage among the electors, by secret ballot or by a procedure equivalent in terms of guaranteeing freedom of voting."

Third - the principle of freedom to vote:

This is confirmed by the Universal Declaration of Human Rights that "everyone has the right to participate in the management of the public affairs of his country, either directly or through freely chosen representatives, with the exception of countries that establish the principle of compulsory election, which prescribes penalties for those who fail to vote and participate in the elections." the electoral process.

The Second Section

Legal regulation of electronic voting in the UAE and other Arab and Western systems

Preamble and Division:

The government may not use electronic means of communication and information and communication technology related to the Internet to satisfy public needs without a legal basis establishing its work.

We will divide this Section into two requirements as follows:

The first requirement: the legal regulation of electronic voting in the UAE.

The second requirement: electronic voting applications in some Arab and Western countries.

The first requirement

Legal regulation of electronic voting In the United Arab Emirates

Article (68) of the Constitution of the United Arab Emirates decided that the Federal National Council shall be formed of 40 members and the number of Council seats shall be distributed among the member Emirates.

The constitution did not specify a specific method for selecting members of the National Council. According to Article (69) of the constitution, "it leaves to each emirate the method of determining the selection of the citizens who represent it in the Federal National Council." The nomination is carried out by each emirate according to the fulfillment of the conditions specified in the candidates in accordance with what was decided by Article (70) of the constitution

The constitutional amendments that took place on the Federal Constitution of the United Arab Emirates have affected the strengthening of the role of the Federal National Council as the parliament in the state.

Several decisions have followed that stress the idea of electing half of the members of the National Council through electoral lists selected from each emirate separately.

We differentiate between two stages:

The first stage: Before the issuance of the President of the State Decision No. (3) of 2006, where the membership of the Federal National Council was through appointment by the ruler of each emirate to all representatives of his emirate in the Council.

The second stage: after the issuance of the President of the State Decision No. (3) of 2006, whereby the selection of the representatives of each emirate became through a combination of the two methods of appointment and election together.

- Evolution of parliamentary elections procedures in the UAE:

A decision was issued to form the National Elections

Committee pursuant to the decision of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the State "may God protect him" No. 9 of 2018, and its first meeting was held on January 16, 2019 at the Presidential Palace in Abu Dhabi.

The National Elections Committee has all the necessary powers to supervise the electoral process. The competences of the committee are to draw the general framework of the electoral process and general supervision of the conduct of elections, in addition to contributing to awareness and education efforts related to elections and setting guidelines for the conduct of the electoral process.

It also determines the electoral centers in each emirate, in addition to adopting the organizational procedures for the formation of the legal framework for the elections, in addition to issuing the rules regulating the preparation and approval of lists of names of the electoral body.

The National Committee shall fully supervise the conduct of the electoral process and its implementation with integrity and transparency through the terms of reference set forth in Article (5) of UAE Presidential Decree No. (3) of 2006 and its amendments.

The authority competent to form the Electoral College:

In accordance with Article 2 / Paragraph B of the Presidential Decree No. (3) of 2006, amended "Members of the electoral college for each emirate are named by the ruler of the emirate," which is concerned with appointing the electoral college, and a person is only a member of the electoral college of the emirate to which he belongs, and that is the emirate from which his summary of his registration is issued.

The function of the Emirate's electoral bodies is to select half of the Emirate's representatives in the Federal National Council in accordance with the provisions of the Constitution.

Composition of the electorate:

Half of the members are elected by an electoral college that constitutes a minimum of three hundred multiples of the representatives of each emirate.

However, there is no maximum number of members of the Electoral College for each emirate; The estimation of the maximum number of members of the Electoral College for each emirate is up to the ruler of the emirate alone.

Voter rights according to the Federal National Council elections 2019:

- The right to run for elections to the Federal National Council if he fulfills the legally required conditions.
- The right to vote in the elections and choose whoever he wants from the candidates completely freely.
- The right not to be subjected to improper electoral propaganda
- The right not to influence his choices through in-kind or material gifts.
- The right to obtain assistance from the head of the polling center committee or one of its members to cast his vote properly if he is unable to vote himself.
- The right to appeal against a candidate if he has acceptable reasons.

The general principles of elections and the executive instructions for the Federal National Council elections 2019 also impose on the voter some duties, which are: -

- To be careful to vote; He shall urge other members of the Electoral College to vote in the forthcoming Federal National Council elections.
- To be careful to choose who represents him objectively and wisely, away from personal whims
- To arrive at the polling station within the time specified on the election day.

To refrain from doing any actions that disturb the conduct of the electoral process

- To refrain from campaigning for any candidate inside the polling station.
- To carry with him the ID card issued by the Federal Authority for Identity and Citizenship when he goes to vote.
- To refrain from using anything that might affect the voting of other voters.
- To treat the members of the polling center committee with due respect, and to implement their instructions accurately.

Types of electronic voting in the UAE:

I- Electronic voting at polling stations:

In which the voter casts his vote through electronic devices available inside the official polling stations, and

work devices and software are subject to the control of election officials.

2- Remote electronic voting:

In it, the voter casts his vote through the cartoon website on the international information network from any place from which to enter this website on the day specified for the elections. This is done by filling out the identification form to prove identity using the password of each voter and then clicking on the word "vote."

Electronic coding of the vote counting and counting process:

- An electronic voting system has been adopted that relies on a special electronic encryption technology in the process of counting and counting votes. This encryption system requires the use of access cards to the electronic voting system by persons authorized to use them, to be able to carry out this process.

After the end of the voting process in the electoral centers, the process of calculating the votes electronically, after which the results of the voting process for the candidates of the Federal National Council will be announced.

Measures and procedures to protect cyber security in the UAE: Implementation of a federal electronic network: -

The network provides a multi-layered security environment that ensures the highest levels of security in the infrastructure based on Multi-Protocol Labeling (MPLS) and provides a secure connection to the Internet for all federal government agencies through a dual Internet service provider.

Establishment of the National Computer Emergency Response Center:

The center aims to strengthen the law to combat information technology crimes and help in the development of new laws on information security and build national expertise in the field of information security, emergency management and the investigation of evidence in computers.

The second requirement

Electronic voting applications in some Arab and Western countries

First - Arab systems:

1) Jordanian law: Where the constitution regulates the right to vote according to the text of Article (67) that “the House of Representatives shall consist of members selected by general, secret and direct elections in accordance with the electoral law,” and then according to the text of Article (5) of the House of Representatives Election Law No. 25 of 2012 And its amendments: “The commission supervising the elections, which is named according to this law the Independent Election Commission, publishes the lists and lists of candidates and determines the polling and counting centers on the website of the commission. Article (39/h) of the Commission has permitted the Commission to decide to conduct it by electronic means, provided that its terms and conditions are specified in accordance with executive instructions issued for this purpose.

- The Municipalities Law also permitted under Article 49 of the Commission's Board of Commissioners to decide to use the electronic link between the electoral centers in the municipal elections.

Some electronic media were partially used in the 2007 House of Representatives elections by adopting the voter's national number and making an electronic connection between computers in the electoral centers.

2) Iraqi law: adopted the combination of electronic voting and paper voting:

The Independent High Electoral Commission in Iraq prepares the voter register in each electoral district. The new Iraqi election law known as the Iraqi Parliament Elections Law No. 45 of 2013, which indicated in Article (43) of it, the possibility of using the electronic voting system.

- The Independent High Electoral Commission issued the biometric electronic registration system No. 12 of 2013, and the electronic card was used in the voting process based on the electronic registration system, to elect members of the House of Representatives that took place in 2014 as a mandatory identification card for all voters

Second - The position of some Western systems on electronic voting:

American Law: In 2002, the United States of America issued the Electronic Voting Law to avoid the errors that resulted from the presidential elections in 2000. The law left each state or province to choose the voting method it desires, despite the states' readiness to implement electronic voting.

- French Law: A decree was issued on October 17, 2003 allowing the use of voting computers according to approved models. The use of electronic voting at the polling place became possible in the elections in France through the decision issued by the government on 3/18/2004, which authorizes 33 municipalities to use Electronic voting machines.

Other countries' applications for the electronic voting system at the polling place:

Examples of countries that followed this system are:

1) Australia:

The Australian Capital Territory Electoral Commission submitted its recommendation to the government to allow electronic voting for the elections to the legislative assembly of the capital government. The 1992 Capital Government Elections Act was accordingly amended in December 2000 and electronic voting was permitted for the first time in the Australian Parliamentary elections in October 2000

2) Belgium:

The first experiments with the use of electronic voting machines in polling places took place in 1991. In 1994, the legal framework for electronic voting took effect and was widely used in the general and municipal elections in 1999, 2000 and 2003. In the regional and European elections in June 2004 and as in the previous elections in May 2003, electronic voting took place at voting stations through voting machines, which contain a screen, magnetic card reader and an optical pen.

Second- Countries' applications of the remote electronic voting system:

1) Canada:

From November 5-10, 2003, 12 Canadian municipalities in Ontario, Prescott Russell, Stormont Dundas, and Glencarry held the first fully electronic elections in North America, for municipal and school

bodies using either the Internet or the telephone without the ballot papers. These elections included the selection of the Governor, the Deputy Governor Assistant Deputy Governor, Boards of Counselors, and members of school boards.

2) Netherlands:

Electronic voting has been implemented in polling places in most Dutch provinces, and the Dutch government is also considering conducting and testing remote electronic voting. During the European elections in 2004, citizens who remained outside the country on election day and were clearly registered to use remote voting, could cast their votes via the Internet or the phone.

The Third Section

The electronic voting system between effectiveness and security

During this Section, we will address all attempts by the state to develop a unified set of acceptable and agreed standards to overcome the technical problems of electronic voting systems. It is noted that these standards are relative and differ from one country to another.

We divide this Section into two Requirements as follows:

- **The first requirement:** technical problems in electronic voting and its guarantees.
- **The second requirement:** the legal loopholes in electronic voting and its guarantees.

The first requirement

Technical problems in electronic voting and its guarantees

The advantages of modern technology in introducing the electronic voting system in the elections:

Modern technologies play their role in facilitating the management of traditional logistical operations associated with election procedures, especially with the conditions of the Corona pandemic, which imposed the repercussions of social distancing.

The countries that use technologies to support the

electronic voting system in the elections are countries that highlight their technological and scientific development through the use of modern fingerprint raising methods to verify the identity of the voter, such as biometric scanners for fingerprint, network or DNA fingerprint, as well as by reading the smart ID card that contains an electronic chip that includes the voter's data, or by using a secret code number obtained from the authority organizing the elections via e-mail .etc...

- Electronic voting techniques contribute to the participation of all sects of society during the elections without discrimination due to social conditions, as it is considered the most successful way to secure the participation of people with special needs and people with disabilities.

- Electronic voting techniques provide the speed of data processing through modern means of voting, counting, sorting, calculating results, and a lower margin for errors.

Despite the many advantages of electronic voting, this does not prevent the electoral process from being exposed to risks or challenges that it may face if it relies on the electronic voting system with the development of solutions to them, we summarize them as follows:

1. The possibility of the electronic system being exposed to electronic piracy operations. An example of the cases of electronic piracy is what happened to the electronic system of the Central Elections Committee of Russia, which came from Europe. Therefore, a security system must be established for the devices used in electronic voting to ensure the confidentiality of votes and not to breach their data.

2. Technical errors in the design of programs approved for electronic voting, which occurs when there is a failure in the presence of secure programs for encryption or protection against viruses or failure to apply procedures to backup information and data, which was discovered in Switzerland through the limited cache (DNS) of the system. The user, and this can be overcome by certifying the safety of the devices, by contracting with major companies in this field to issue a certificate from their side to certify the safety and security of the devices to ensure their quality.

3. Information transmission networks are not secured, which is the network through which transmission is exchanged between different devices during the electoral process. Therefore, it is necessary to provide devices for examination and operation experiments that contribute to detecting any intrusion

into the network through encryptions associated with communication lines through the use of algorithms Sports and other means to prevent network security breaches.

4. Failure to follow the precautionary measures to maintain the polling sites that contain the devices used in electronic voting, which places the responsibility of the supervising authority on finding an integrated system to secure the electoral sites from the danger of fires, electricity outages or other security risks

5. Electronic errors that may result during counting and vote counting as a result of fraud or duplication of votes, which led to the dispute over the results of the presidential elections in America in 2000 as a result of doubts about the number of votes obtained by both candidates George W. Bush and Al Gore in Florida, despite it was counted electronically, and manual counting was resorted to, and the dispute was resolved in favor of Bush. However, this defect can be avoided by providing electronic voting machines with printers. A printed paper is issued in two copies, one of which is given to the voter indicating his choice, while the other is kept by the competent election management committee.

The second requirement

Legal loopholes in electronic voting and their guarantees

Before initiating the implementation of the electronic voting system in any country, this requires a set of supporting legal controls to overcome the loopholes of this system, the following are valuable:

1. The existence of legal legislation that supports the decision to implement electronic voting in accordance with the laws of electoral practice in that country, and despite the presence of such legislation in many countries, we note the resistance to change by their governments and the failure to activate the application of legal texts. Examples of this are what was decided by Article (3) of the Egyptian Law No. 198 of 2017 regarding the National Elections Authority states that "the authority is exclusively responsible for managing referenda, presidential, parliamentary and local elections, organizing all related operations, and supervising them with complete independence and impartiality in the manner regulated by this law and it is not permissible to interfere in its work or competencies. Decide to use secure electronic means of communication,

voting and filing, in all or some of the stages of conducting referendums and elections in the manner it organizes, and it may seek the assistance of whomever it deems appropriate to be experienced and qualified to carry out its work in this regard, provided that they are independent and impartial.

2. Keeping abreast of the legislative process of technological development and creating special legislation to provide the necessary protection and combat information technology crimes in their modern forms, and tighten penalties for them, especially those related to penetration of government networks

3. Monitoring the electoral committees and ensuring their integrity in all procedures. This can only be done by approving judicial supervision over the work of the election committees, given the real constitutional guarantees available to the judiciary that guarantee their independence and distance from political conflicts.

4. The slow resolution of electoral challenges related to voting results, as the right to appeal is a guarantee and protection for the political rights of individuals to choose their candidate within the parliament. Therefore, it is necessary in all countries to consider this matter among the urgent issues to ensure the stability of legal positions.

5. Weak legal awareness of voter rights and duties in many countries, which makes voters subject to blackmail and pressure from various political forces, and the state is committed to protecting and educating voters through effective control over modern means of communication from the Internet.

6. Incompatibility of local administration legislation to accommodate changes in the technological infrastructure and keep pace with the introduction of electronic voting techniques and the provision of Internet communication networks and equipped polling centers.

7. Weak economic capabilities in the country and the failure to allocate a financial item within the general budget for the use of electronic means and their technologies, which requires injecting sums of money to create the infrastructure and provide electronic devices and electronic security means

8. Failure to audit contracts with major companies founding software and electronic voting techniques, especially regarding the maintenance of continuous devices and the introduction of all necessary software to protect them from the dangers of intrusion.

Conclusion

During this research, we dealt with the electronic voting system and its impact on the exercise of democracy through modern concepts that link electronic government to digital democracy and its impact in supporting the direct political rights of individuals.

- Results:

1. Most countries are currently moving towards using electronic voting and switching to digital government technologies to support the transition procedures towards electronic elections.
2. Many countries suffer from economic crises, especially with the Corona pandemic, so the weak economic capabilities may slow down the adoption of the electronic voting system in the electoral process
3. The use of electronic voting leads to the political participation of all popular sects, especially those with disabilities, the illiterate, and those residing abroad.
4. There is no integrated electronic system in terms of advantages, and the issue remains relative according to the capabilities of each country, and there is no objection to combining different technologies, which was supported by the United States by relying on the method of direct electronic voting in polling places and allowing the voter abroad and the military to vote completely through Internet from anywhere in the world.
5. The Emirati experience in the parliamentary elections for the National Council showed a remarkable maturity and development that demonstrated the technological political awareness of citizens using modern technologies for electronic voting.

Recommendations:

1. Some Arab countries need to review their legislative policies, make amendments to the legislative system, and clearly endorse the principles of electronic voting to support parliamentary elections.
2. Reviewing all legal contracts through which the electronic voting system is contracted and ensuring that devices are maintained and programmed in line with international standards for quality assurance.
3. Simplify the electorate in electronic voting techniques to overcome society's resistance to change, and take into account all groups of the elderly and people with disabilities... by providing clear technologies that facilitate the voting process, such as the adoption of smart touch screens that display the choices in front of the voter

with ease.

4. Finding all guarantees by which the election committees maintain the correctness of the census and counting and the accuracy of the final results, and this does not prevent the mixing of electronic means and providing them with special printers for participation receipts, copies of which are kept with the voters as well as the electoral body.
5. Creating the legislative system and the competent authorities to support the means of cybersecurity and protection from the dangers of security breaches at government websites and obtaining data and information in contravention of the secrecy of the vote. The main defect in the electronic voting system is the risk of manipulating the results electronically through a virus, which enables the "hacker" to control the number of votes cast and directed in favor of a particular candidate.
6. Follow special emergency systems at polling sites to prevent sudden breakdowns of these systems and deal with unexpected dangers.