

Committee: Special Political and Decolonization Committee (GA4)

Issue: Addressing the digitalization of elections

Student Officer: Iasonas Kargiotis

Position: Co-Chair

PERSONAL INTRODUCTION

Dear delegates,

My name is Iasonas Kargiotis, and I am deeply honored and excited to have been given the opportunity to serve as the Co-Chair in the Special Political and Decolonization Committee of this year's DST MUN conference.

First of all, I wish to congratulate all of you for participating in this conference. From past experiences, I am convinced that such a conference is helpful in many ways; on the one hand, you get the chance to broaden your horizons and practice your English skills, and on the other, you get to know new people and have fun.

Our topic is a critical one, as it has been coming under discussion for many years. Nowadays, however, the discussion seems to be at its peak, as the digitalization of elections can play a vital role in our lives in the following years. Thus I expect that we get this chance and make the debate interesting and fruitful.

This study guide should introduce you to the topic. I encourage you to read it carefully, check the bibliography down below to examine some of the sources yourself, and to conduct your personal research on the topic for a more detailed notion, that will ensure you are comfortable with the issue to the needed extent.

Being a part of the MUN Club and participating in conferences, it has always brought me joy and excitement. I am looking forward to the 4th DSTMUN and meeting you all. I hope that you share the same excitement as me! We will hopefully have an amazing time!

My email address is iasonaskargiotis@gmail.com. You are more than welcome to ask me about our topic, this study guide, your country's policy or the rules of procedures of the conference.

Good luck conducting your research and I am looking forward to meeting you all!

Sincerely,

Iasonas Kargiotis

TOPIC INTRODUCTION

The digitalization of our society has also started to affect electoral procedures. Online databases can improve and facilitate elections in some less developed countries (LDCs), as well as around the globe. In LDCs many people may not possess the necessary and reliable identity documents, thus technology can help identify voters. Moreover, fraud can be prevented through such procedures, making the results of elections unbiased.

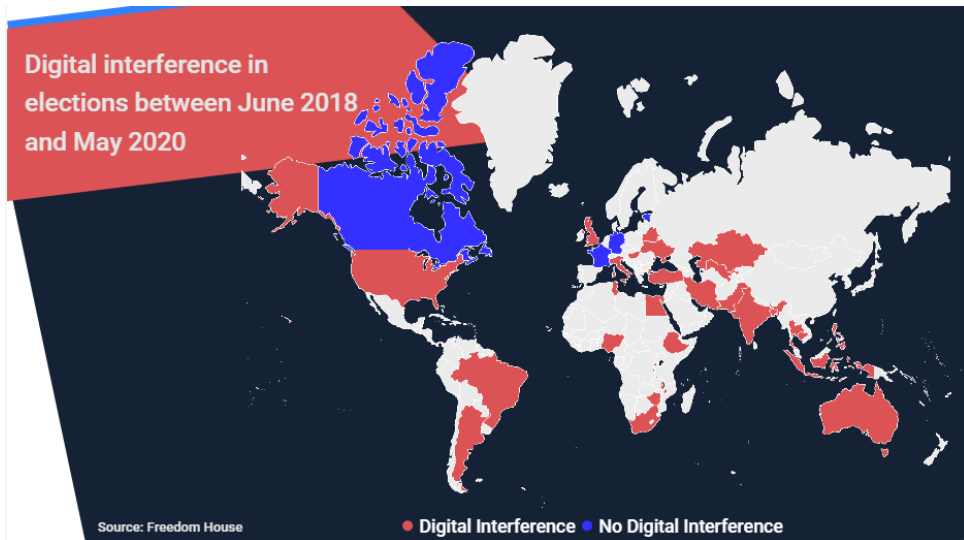


Figure 1: Map showing the digital interference in elections

However, this issue is still controversial. On the one hand, electronic machines can count the votes faster and more precisely. Elections have already been digitalized in many countries all over the world, namely the United States of America, Estonia, the United Kingdom, India, and Germany among others. Nevertheless, the fact that the digital processes are insubstantial makes detecting interference more difficult; therefore, most of the European countries tend to stick to the already known methods of election, such as balloting and recorded voting.

On the other hand, people are concerned, whether voting through the internet is safe, as technology nowadays does not provide online voting systems with security against hackers; the numbers of cyber-attacks might increase. However, the fact that

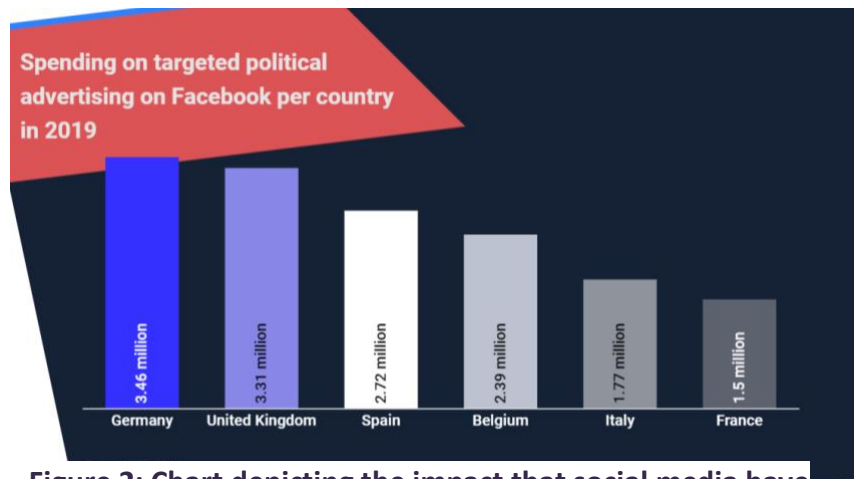


Figure 2: Chart depicting the impact that social media have on elections

people can have the right to vote from their home can actually decrease the number of abstaining voters, who find elections tedious.

DEFINITION OF KEY TERMS

Election

“An election is a process in which people vote to choose a person or group of people to hold an official position.”¹

Cyber-development

“Cyber-development is a set of tools, methodologies and practices that leverage Information and Communications Technology (ICT) to catalyze and accelerate social, political and economic development, with an emphasis on making the transition to knowledge-based economies”²

Block chain

“Block chain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system. It is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the block chain.”³

Ballot-box stuffing

“The act of illegally submitting more than one vote in a ballot in which only one vote is permitted.”⁴

Calculus of voting

Calculus of voting is any mathematical model that can predict a voting behavior by the voters; for example the participation rates. It represents an assumed decision-making process.

¹“Election Definition And Meaning | Collins English Dictionary”. Collinsdictionary.Com, 2021, <https://www.collinsdictionary.com/dictionary/english/election>.

² Carayannis, Elias et al. "Cyber-Development, Cyber-Democracy And Cyber-Defense - Challenges, Opportunities And Implications For Theory, Policy And Practice | Elias G. Carayannis | Springer". Springer.Com, 2021, <https://www.springer.com/gp/book/9781493910274>.

³ "Blockchain Explained: What Is Blockchain? | Euromoney Learning". Euromoney.Com, 2021, <https://www.euromoney.com/learning/blockchain-explained/what-is-blockchain>.

⁴ "Ballot-Box Stuffing Definition And Meaning | Collins English Dictionary". Collinsdictionary.Com, 2021, <https://www.collinsdictionary.com/dictionary/english/ballot-box-stuffing>.

Digitalization

Digitalization is the use of digital technology to alter a business model and provide value-producing opportunities. It is impacting the whole globe, as almost everything has been digitalized; from economy, science and education to health, sustainability, lifestyles and elections.

Iris scanning

“The automatic identification of living individuals by using their physiological and behavioral characteristics”⁵

BACKGROUND INFORMATION

Benefits of digital technology in elections

Digital technology can play a vital role when it comes to voter registration, as it can make the procedures more accurate. Thus, all eligible persons will be enabled to exercise their right to vote and fraud could be eliminated. Moreover, digital technology eases the process of creating registers. Most EU countries tend to receive data from population registers to generate an electoral roll. Nevertheless, technology can also have a vital role here; for example, voters register in Australia via an online form, thus speeding the procedures of elections. Furthermore, the difficulty of constantly updating and checking paper-based electoral rolls increases the risk of including deceased people or multiple records of the same person, creating opportunities for electoral fraud. Some Less Economic Developed Countries (LEDC's) lack reliable methods of identifying the voters; for instance, the Democratic Republic of Congo registered more than 700.000 voters more than once in the 2011 elections. A digital voting system would have been able to manage such a situation, making the electoral results unbiased.

On Election Day, election workers need to verify the voters against the electoral roll. This could become much easier through an accurate and up-to-date voter information in an online registry. Such a method is used in 19 countries around the world; for instance, voters log into an online platform, where they can verify their personal information to be ready to take part in elections. Moreover, the lack of important identity documents in many African countries is not only a problem at voter registration but also on Election Day itself. Several countries, such as Guinea, the DRC and Liberia are among several countries that have to face this issue. Thus, they provide the citizens who have registered with a special card, in order to be identified on Election Day; this card can also be used as an identity document (ID) in other

⁵ "Iris Scanning". Thefreedictionary.Com, 2021, <https://www.thefreedictionary.com/iris+scanning>.

administrative procedures. Other African countries, such as Kenya, Ghana and Nigeria also provide a special card, but they include the fingerprint of the cardholder that is scanned at the electoral poll to identify the voter, in order to prevent scams and electoral fraud. However, verifying the voters remains still an unresolved issue in many countries. Numerous methods have been applied over the years, yet, only the digital verification will be able to bring a closure in this problem.

Furthermore, the digitalization of elections will help the illiterate to vote correctly, as such voters tend to vote mistakenly because they are unable to read ballot papers or relevant instructions. For instance, in India many votes are discarded, because 31% of the adult population is illiterate; they make mistakes such as not marking the ballot paper in the right place or marking it more than once. In many elections the number of discarded votes was higher than the valid ones, questioning the soundness of the result. This issue could be addressed through a user-friendly electronic voting machine. The voter could vote by clicking on the party or candidate that he is wishing to vote for, hence making his vote valid. Additionally, a system can be created, where the voter fills in his paper ballot and scans it; this scanner should be programmed to only accept the valid votes. Moreover, electronic voting systems can prevent ballot box stuffing, thus electoral fraud will be eliminated, even if the machines fall into the wrong hands. The digitalization of elections can also increase the number of the voters, as disabled people who often lack the ability of voting, when it comes to the traditional methods, can also take part.

The digitalization of elections, also, enables faster voting counting. It will reduce the time a person would need to count paper-ballots and also prevent possible mistakes. Moreover, the processes of sending the votes from all polling stations to a central polling office could take days. Technology has boosted our lives by making them faster, thus such a method could also help the elections, as the results could come out quicker. Finally, the digitalization of elections also saves money, as people will not be recruited to count the votes.

Standards for digital technology in elections

The standards of electronic elections will not be much altered than the traditional ones. To begin with, voters should be reliably identified. Voting interfaces should be easy to understand and use for all voters. Moreover, the voter should be able to confirm the before casting it. The voting should remain anonymous and all aspects of the vote must be fully transparent. Lastly, electronic voting systems must be tested and verified by an independent person.

Problems and solutions for electoral technology

Almost every country in the world have applied technology to some aspects of the elections. Voter registers are created and managed electronically, as well as the results have been digitalized in nearly all countries. However, voting machines and other electronic voting systems have only been applied in Latin America and in the Middle and Far East. European countries do not completely trust this new method, thus they prefer to stick to the traditional paper-ballot voting procedure.

Although digital technology can reduce human errors it is not flawless. The voter verification process is not ready at the moment. Venezuela uses fingerprint checking, as well as photo ID cards to confirm the voter. Nevertheless, the system was not able to identify 11% of the voters. Pakistan has decided not to use fingerprint identification in the 2018 election, despite its success of preventing electoral fraud in previous years. Moreover, the most efficient biometric identification method is iris scanning, yet it is much more expensive and it has only been used once in Somaliland at the moment.

Digital technology cannot provide an instant solution to electoral fraud when it comes to corrupted or careless authorities. However, the digitalization can also have a negative effect on elections, as it could facilitate electoral fraud in some cases. This is applied to electronic voting machines. Those against the digitalization of elections claim that with the traditional elections tampering can be detected by election observers due to the fact that they have unrestricted access to polling stations. In Russian Federation's 2011 parliamentary elections people were caught in camera stuffing ballot boxes to boost the votes of the ruling United Russia party. In contrast, electoral fraud can be much more difficult to be spotted when it comes to digitalized elections due to the invisibility inside a voting machine, especially when there is no back-up system recording the vote on paper. For this reason, opposition politicians tend to be suspicious when it comes to online voting. Moreover, electronic voting systems are more vulnerable to external attacks. For instance, it could be cyber-attacked by hackers, hence the internet should be fully secured and protected from cyber-attacks so that online voting could become an option. Furthermore, computer scientists have criticized the poor quality of such machines, as they are easily exposed to hackers. On the other side, they acknowledge the fact that the complexity of such programs makes elimination of all security flaws impossible, pointing out that the digitalization of elections will be hard to accomplish. The vulnerability of online voting raises concerns on the effectiveness and accuracy of the electoral results, thus most of the European countries stick to the traditional elections.

The voters are reasonably confident with traditional voting procedures. They can easily see if they marked correctly their ballot-paper and they know that their ballots are secure in the ballot box, which will be unlocked when the vote counting begins. In contrast, voting machines are like black boxes, as they cannot see their votes

and they do not know whether their vote has been correctly recorded or not. However, the ultimate goal for developers of new electronic voting technology is an end-to-end verifiable voting system. Electoral fraud would be eliminated by such a system, as they enable voters to confirm not only that their vote is casted as intended, but also correctly recorded and counted; such a system would be revolutionary, as neither the traditional paper-ballots nor electronic systems are capable of doing something like that. In theory, the simplest way to achieve such a goal is to publish the voter's name and his vote, but this would eradicate the vote secrecy.

The digitalization of elections has raised many concerns, whether it would be a method that people could trust. In many countries, electronic voting machines have failed to win trust, hence this method has been abandoned; such countries are the Netherlands, Germany, Ireland, as well as Paraguay among others. Losing parties blame the machines for tampering and wrong results. Whether these accusations are biased or not, can play a vital role in many voters' trust in voting machines, raising suspicions of fraud. For digital technology to win essential voter trust, sufficient security and transparent testing should be applied. Election monitors should have access to technical systems used at all stages of the procedures from voter registration to tabulation.

In order to digitalize the elections, multiple costs will be entailed, such as purchasing the right equipment, training staff, updating software to face all kind of cyber-attacks and secure equipment storage between elections. In countries with high labor costs such expenditure can be covered by personnel savings. However, in developing countries it will be eventually impossible to financially recover from such spending. Despite the costs, online voting can be a worthwhile investment for developing countries, as they will be able to receive more accurate electoral results.

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

United States of America

The United States of America have already digitalized elections; however, they have not started voting online yet. Voters mark their choices through a touch screen and they scan their paper-ballots to verify signatures on envelopes of absentee ballots; they have developed web servers to display tallies to the public as well. Despite not being able to vote online, there are computer systems, where voter registrations are maintained and display the electoral rolls to polling place workers.

Russian Federation

The Russian Federation has tested an electronic voting system ahead of the upcoming State Duma 2021 elections and they are waiting for the results of this checking. Nevertheless, they are not in favor of such a voting system, as they tend to believe that such a method is a black box. Moreover, the country has decided to apply electronic voting as soon as 2024, namely the next presidential election is supposed to take place, in spite of the dangers that might occur through this voting procedure. Even though the digitalization of elections is controversial, the Russians claim that online voting is the future.

Estonia

Estonia is the only country around the globe that has already used online voting in the national elections. The Estonian voting system allows the voters to vote from any internet-connected device around the world. Estonia has come up with a simple, elegant and secure solution. The voter logs onto the voting system using his ID card or mobile ID during an appointed pre-voting period. Before the voter’s preferences reach the National Electoral Commission for counting, the voter’s ID is erased, hence the voting secrecy is not eradicated. Furthermore, the country has also found a solution regarding bought or forced votes. They allow the users to log onto the platform and vote as many times as they want, erasing their previous vote.

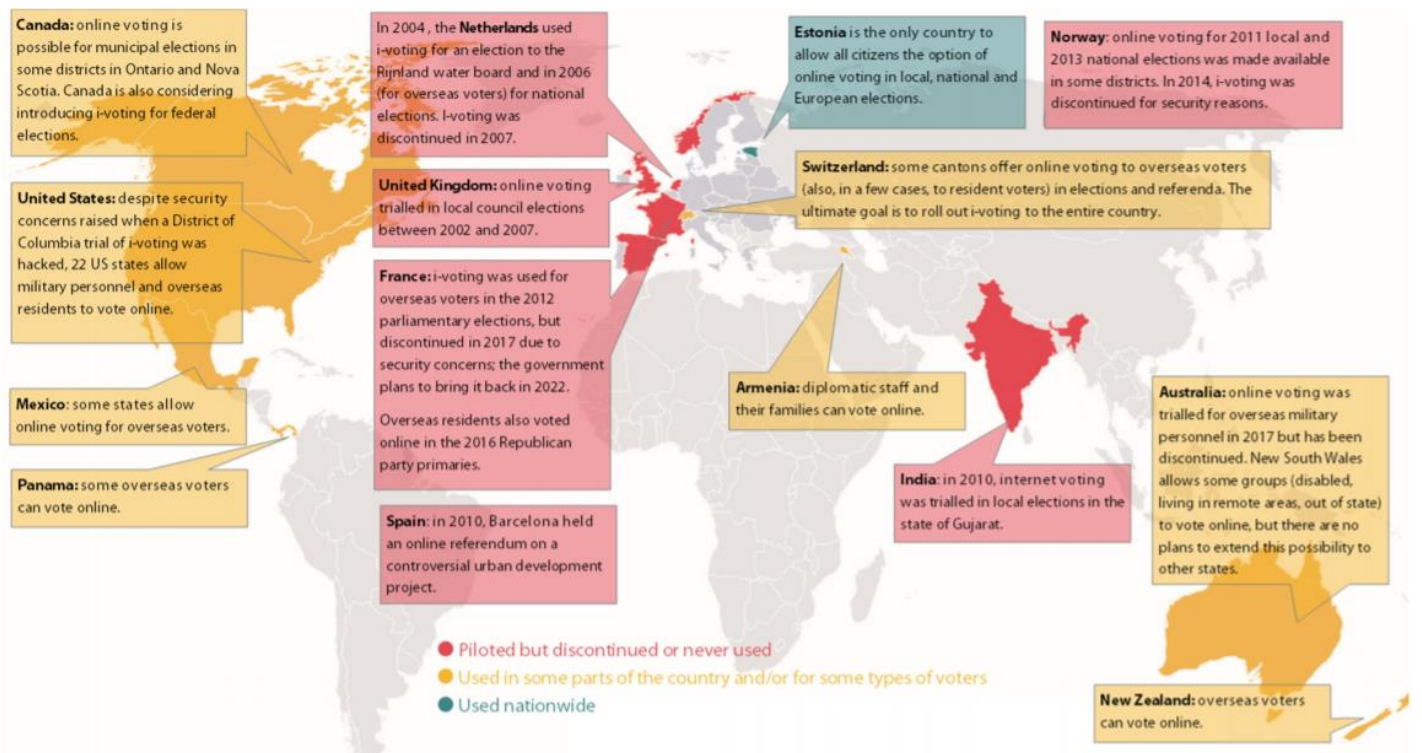


Figure 3: Countries where online voting is applied

France

France has started to integrate the digitalization of elections. They allow only the French citizens living abroad to vote either online or by sending a proxy for the consular elections. Some independent experts have fully analyzed the risks that may occur through these elections. However, the electoral commission has decided to maintain such an electoral procedure after reviewing audits and the results of the risk analysis.

Germany

The idea of holding parliamentary elections online has been under discussion for several years in Germany, however the conclusion is that it would be too risky at the moment. The country sticks to the traditional method, as they do not believe that technology has been evolved enough to hold the elections. However, the use of electronic voting machines is on the rise, the idea of voting at home from home seems impossible. Furthermore, it is unknown whether electoral fraud will be raised through the digitalization of elections, as no one will know what is happening in the machines.

India

The idea of online voting raises immediately concerns on hacking. However, India is in favor of digitalizing elections. They claim that electoral processes have been delayed as under the ongoing COVID-19 crisis, it is quite difficult to perform under all these restrictions. Thus, they want to innovate by introducing online voting in a LEDC. Moreover, they have already started to test the reliability and function of online voting, as they wish to be able to use it as soon as possible; therefore, they are developing block chain system.

The Kingdom of Norway

The Kingdom of Norway has tested an online voting system for both local elections in 2011 and parliamentary elections in 2013, however, they have not applied such a method in the 2019 elections, despite the positive feedback. Even though the Norwegian citizens cheered for the digitalization of elections, the politicians had no trust in this system, but in the traditional methods. Moreover, the interest of online voting has started to rise again, therefore such an idea is under consideration.

United Kingdom

The United Kingdom had to deal with several issues in the 2019 election, namely the Brexit, the climate change, the NHS and the immigration among others. Therefore, it was impossible to introduce a new voting method. However, this idea seems interesting for the UK and they are willing to invest in it. While some oppositions raise questions on the security of online voting, experts claim that through

the best identity infrastructure, all dangers could be prevented. Besides, people who live in England, Scotland or Wales do not need to bring any identification to vote. So, the current voting system is arguably not the most secure and digitalizing it has the potential of improving it.

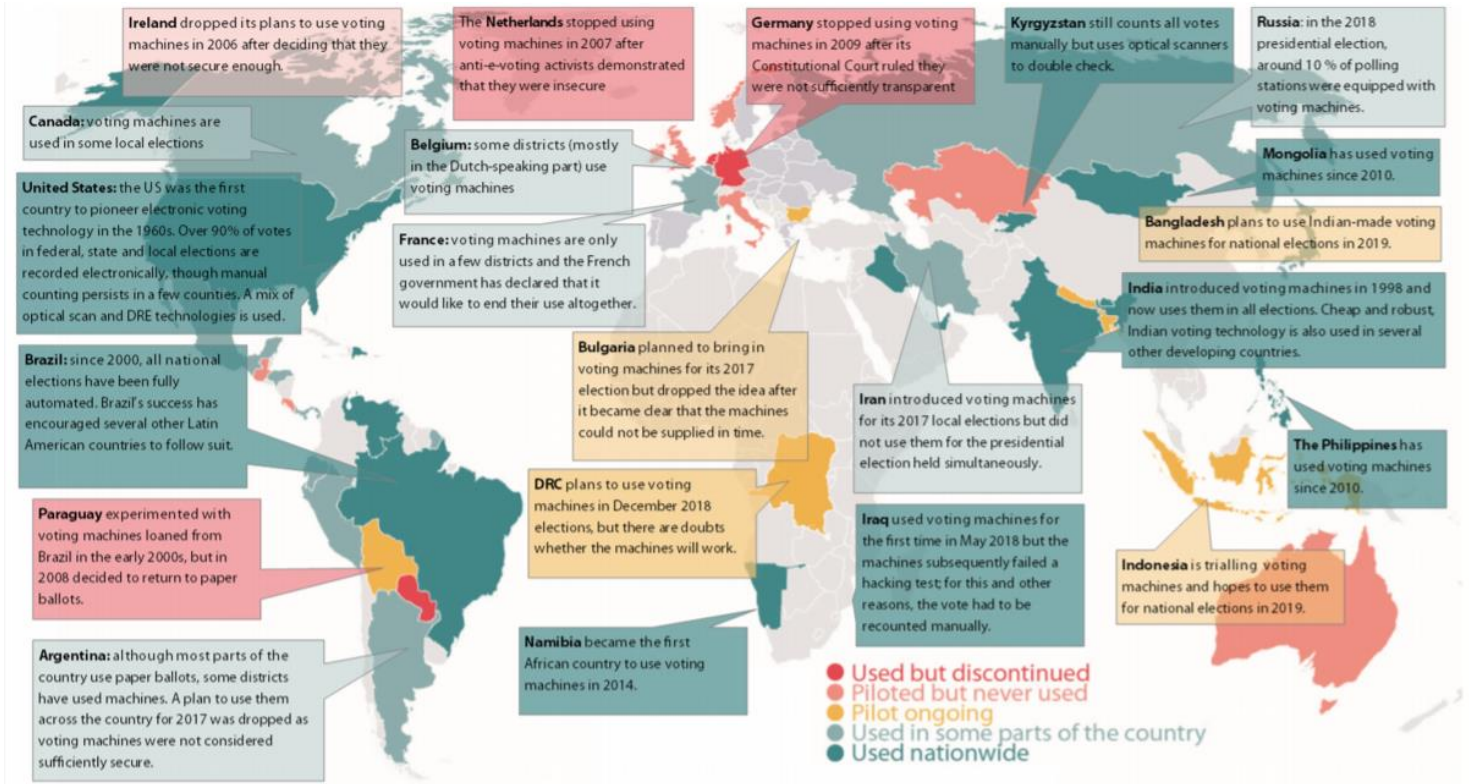


Figure 4: Map depicting where electronic voting is used

BLOCS EXPECTED

Bloc A

Countries that are in favor of altering the methods of elections by digitalizing the procedure. This alliance should suggest ways on how to promote the electronic elections.

Bloc B

Countries that are against the digitalization of elections. This alliance should suggest ways on how to improve the elections without digitalizing them.

TIMELINE OF EVENTS

Date	Description of event
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1962	Optical scan technology is used for the first time.
1966	International Covenant on Civil and Political Rights.
1994	Hackers tamper elections in Africa through the voting machines.
2003	User-friendly electronic machines are introduced.
2005	i-Voting is used for the first time.
2014	Concerns regarding the safety of i-voting.
2014	Namibia becomes the first African country to adopt electronic voting.
2015	EU introduces new resolutions to reform the EU electoral law.
2017	Iris scanning is used in Somaliland.
2017	E-democracy is under discussion, as EU realizes the potential of technology to enhance democracy.

RELEVANT RESOLUTIONS, TREATIES AND EVENTS

International Covenant on Civil and Political Rights

The International Covenant on Civil and Political Right has been adopted by the General Assembly of the United Nations on December 19th 1966. It is claimed that elections shall be held fair and every citizen should have the right to vote – the age limits on the voting participation will be defined by the constitution of each Member State. Moreover, the vote must be anonymous and no one should be bribed or mistreated for his vote.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

Standards for e-voting

The European Union has altered the standards for voting on June 14th 2017 so that online voting can become an option. First of all, the online system should be easy to understand and use, as everyone should be able to vote. Secondly, it should also be friendly towards people with disabilities to be able to cast

their vote independently. Furthermore, all official voting information should be presented in an equal way; hence, there should be no tampering or fraud. Moreover, the secrecy of voting should be respected, thus the voters shall remain anonymous. Finally, online voting system should be prepared in case of a cyber-attack; the system or the experts should be able to protect the votes and the voter's information, as well as to deal with this crisis.

POSSIBLE SOLUTIONS

"The digital revolution is impacting everything from economy, science and education to health, sustainability, governance and lifestyles."⁶ Hence, it is reasonable to start developing new methods to also digitalize the process of elections.

Firstly, the internet must become safer, so that it can hold the processes of elections. It should be fully protected from cyber-attacks, potential fraud and viruses so that no one can alter the potential electoral outcomes. Moreover, with a much safer internet the personal information of the voters will be protected, hence keeping the electoral secrecy.

Secondly, the online voting system should function reliably. All potential human errors, as well as any hardware or software technical issues with the voting systems can be avoided through thorough system testing, i-voting administrators training and organizational contingency measures.

Moreover, the public opinion can play a massive role, when it comes to online voting. Thus, the government shall enforce limits and ensure disclosure on this issue, so that online voting can be trusted in order to be applied.

Nevertheless, i-voting can be applied as an additional method to voting procedures, so that all eligible citizens can have the right to vote; voters will have the opportunity to choose whether they want to vote online or offline, so that everyone can have the opportunity to take part on elections.

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